

SITE PLAN
SCALE: 1" = 10'

REVISION INFORMATION	
AGENCY	CITY OF SHERWOOD
DATE	3/2/2021
SUBMITTAL	
SUBMITTAL	



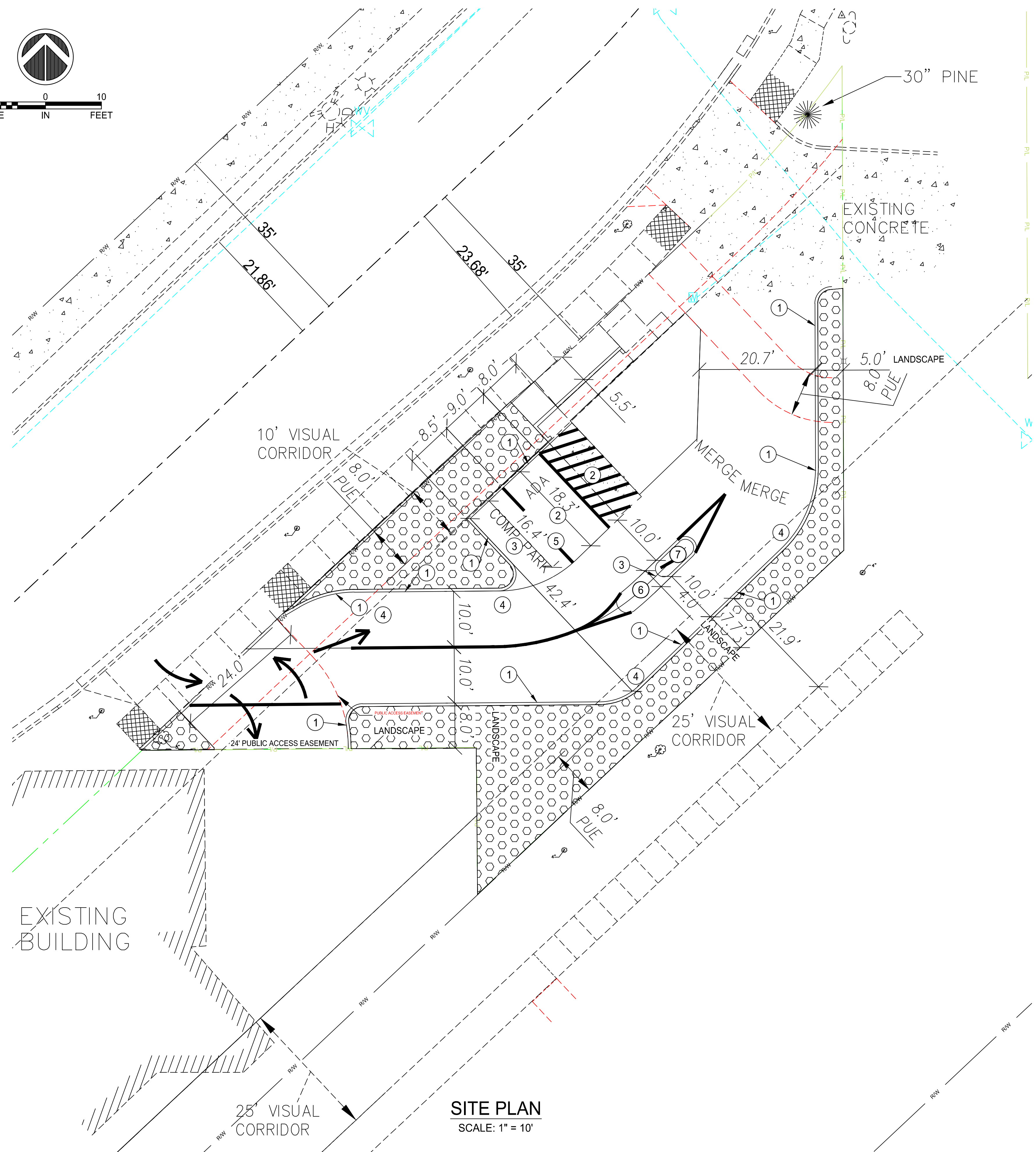
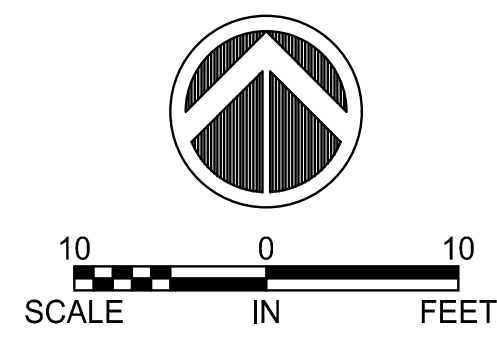
Roadway Engineering, Inc.
 SPECIALIZING IN CIVIL ENGINEERING
 2015 SW TILLAMOOK CT, TUALATIN, OR 97062
 PHONE: (503) 287-8433 FAX: (503) 486-5229
 Licensed in California, Oregon & Washington

**ZIGGY'S COFFEE STAND
 MODIFICATIONS TO DRIVE UP
 DIMENSION PLAN**

DATE:	3/2/2021
DESIGN:	SLF
DRAWN:	RFD
CHECK:	SLF
SCALE:	1" = 10' HORIZ

PRELIMINARY
R-1

C:_Roadway\Hubbard Coffee Stand\Baser File\COFFEE BASE with 8' planter on the south side 3-2-21.dwg, Mar 03, 2021 - 9:49am



CONSTRUCTION NOTES:

- ① CONSTRUCT NEW VERTICAL CURB
- ② CONSTRUCT 1 HANDICAP PARKING STALL WITH VAN ACCESSABILITY AT 2% MIN SLOPE.
- ③ CONSTRUCT 1 COMPACT PARKING STALL
- ④ INSTALL 3" ASPHALT CONCRETE OVER 8" CRUSHED ROCK. PAVE AT APPROX. 2% SLOPE TO NEW CURB UNLESS GRADING PLAN SHOWS A DIFFERENT SLOPE TO MAINTAIN.
- ⑤ CONSTRUCT PARKING PAD WITH 6" CONCRETE OVER 6" CRUSHED ROCK.
- ⑥ PAINT 4' ISLAND. SEE SHEET C-7
- ⑦ CONSTRUCT RAISED 4' ISLAND WITH VERTICAL CURBS.

REVISION INFORMATION	
DATE	3/2/2021
AGENCY	CITY OF SHERWOOD
SUBMITTAL	
SUBMITTAL	



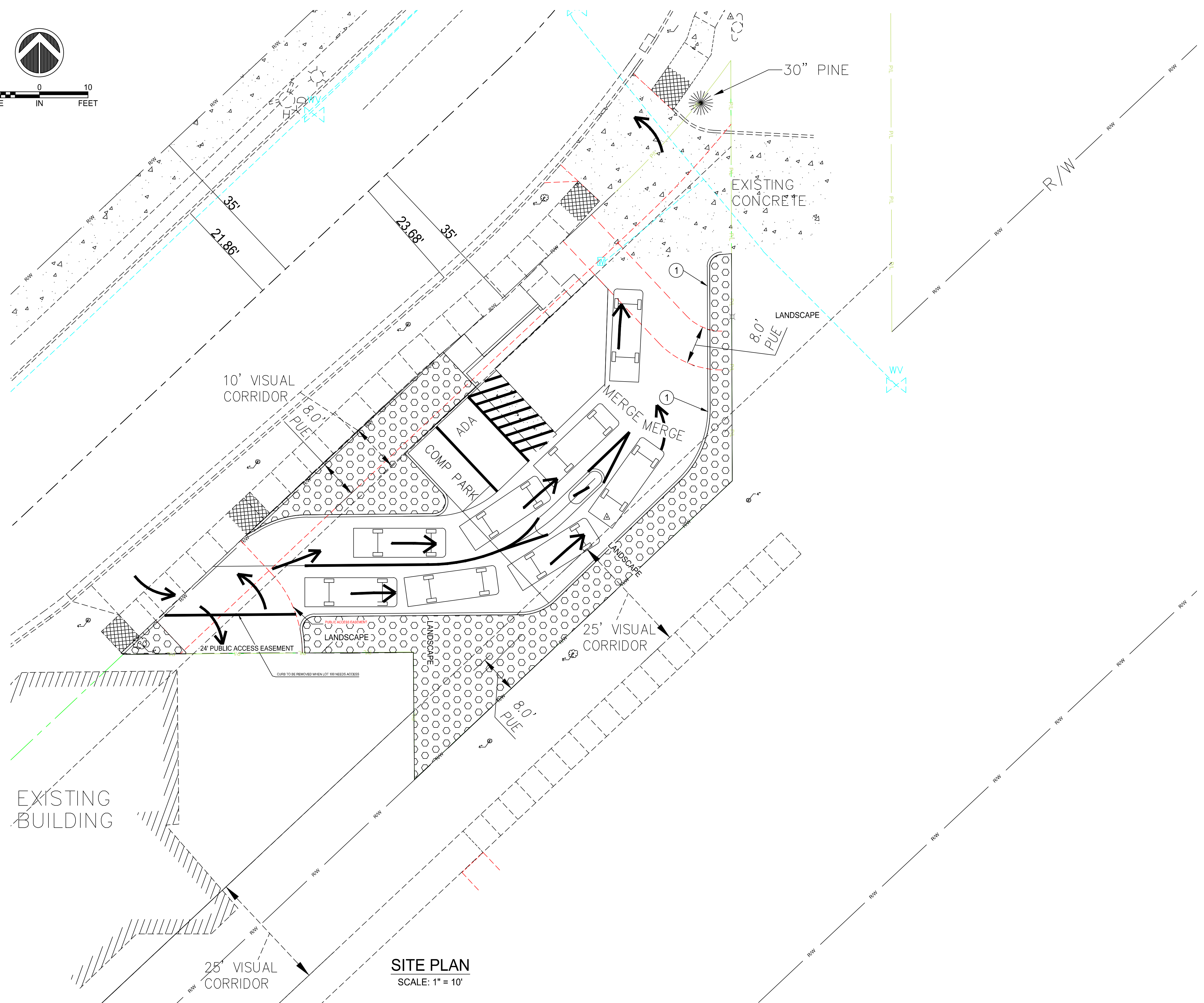
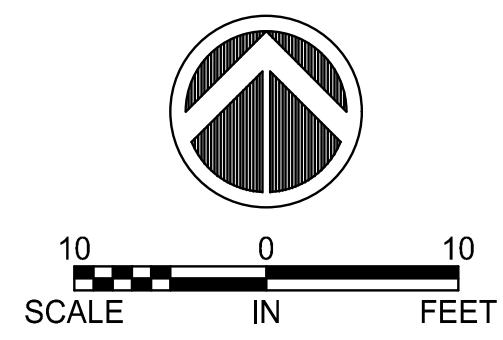
Roadway Engineering, Inc.
 SPECIALIZING IN CIVIL ENGINEERING
 2015 SW TILLAMOOK CT TUALATIN, OR 97062
 PHONE: (503) 287-8433 FAX: (503) 486-5229
 Licensed in California, Oregon & Washington

ZIGGY'S COFFEE STAND
 MODIFICATIONS TO DRIVE UP
 21003 SW BORCHERS ROAD
 CITY OF SHERWOOD, OREGON
 REVISED OVERALL SITE PLAN

DATE:	3/2/2021
DESIGN:	SLF
DRAWN:	RFD
CHECK:	SLF
SCALE:	1" = 10' HORIZ

PRELIMINARY
R-2

C:_Roadway\Hubbard Coffee Stand\Baser File\COFFEE BASE with 8' planter on the south side 3-2-21.dwg, Mar 03, 2021 - 9:49am



SITE PLAN
SCALE: 1" = 10'

REVISION INFORMATION	
AGENCY	CITY OF SHERWOOD
DATE	3/2/2021
SUBMITTAL	
SUBMITTAL	



Roadway Engineering, Inc.
SPECIALIZING IN CIVIL ENGINEERING
2015 SW TILLAMOOK CT, TUALATIN, OR 97062
PHONE: (503) 287-8433 FAX: (503) 486-5229
Licensed in California, Oregon & Washington

ZIGGY'S COFFEE STAND
MODIFICATIONS TO DRIVE UP

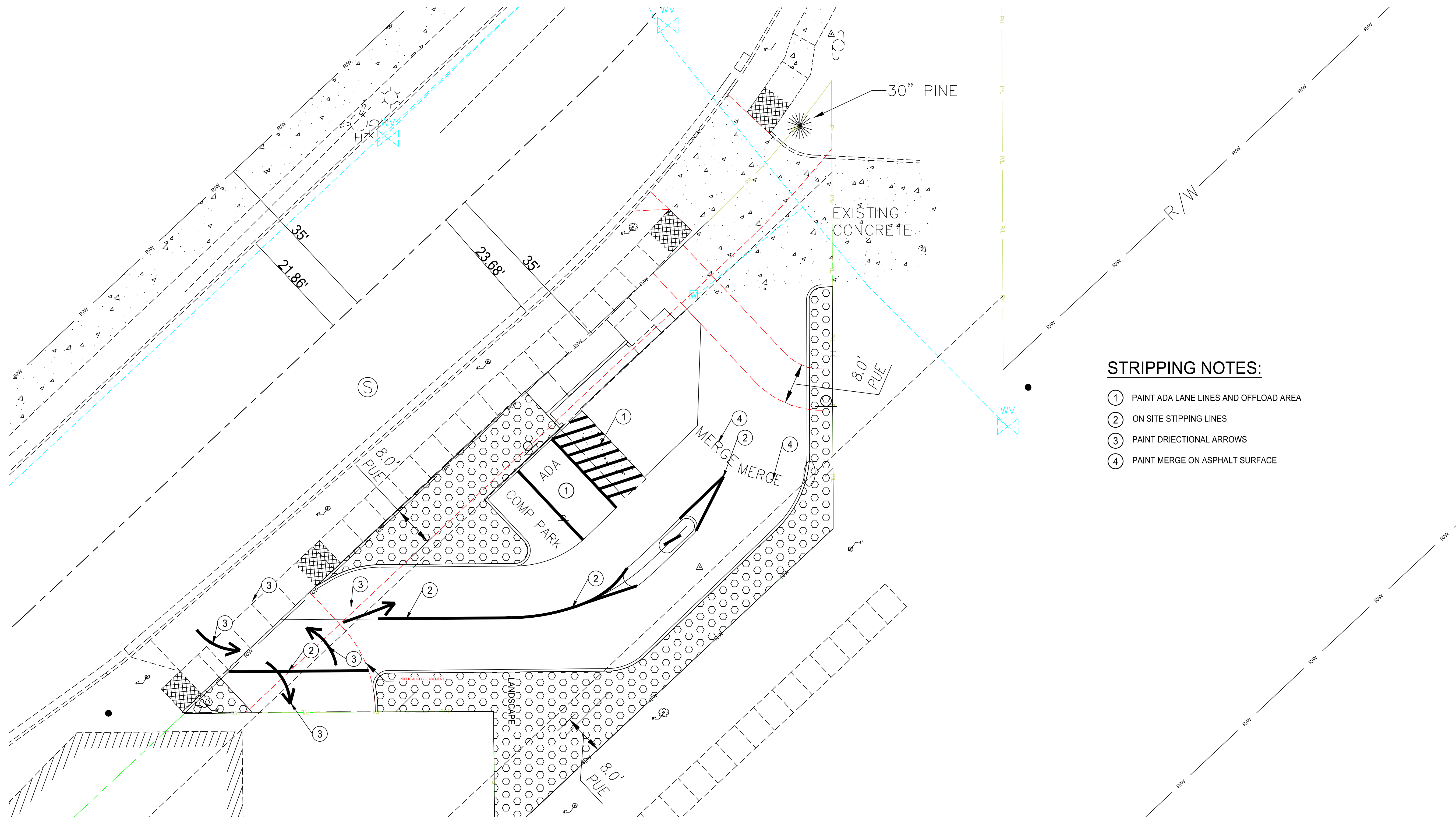
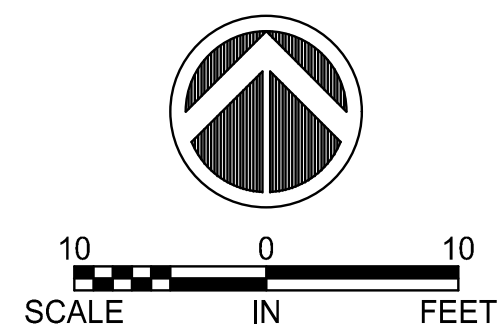
21003 SW BORCHERS ROAD
CITY OF SHERWOOD, OREGON
VEHICLE QUE PLAN

DATE:	3/2/2021
DESIGN:	SLF
DRAWN:	RFD
CHECK:	SLF
SCALE:	1" = 10' HORIZ

PRELIMINARY

R-3

C:_Roadway\Hubbard Coffee Stand\Baser File\COFFEE BASE with 8' planter on the south side 3-2-21.dwg, Mar 03, 2021 - 9:49am



STRIPPING NOTES:

- ① PAINT ADA LANE LINES AND OFFLOAD AREA
- ② ON SITE STRIPPING LINES
- ③ PAINT DIRECTIONAL ARROWS
- ④ PAINT MERGE ON ASPHALT SURFACE

STRIPPING PLAN
SCALE: 1" = 10'

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DATE	3/2/2021	CITY OF SHERWOOD
SUBMITTAL		
SUBMITTAL		



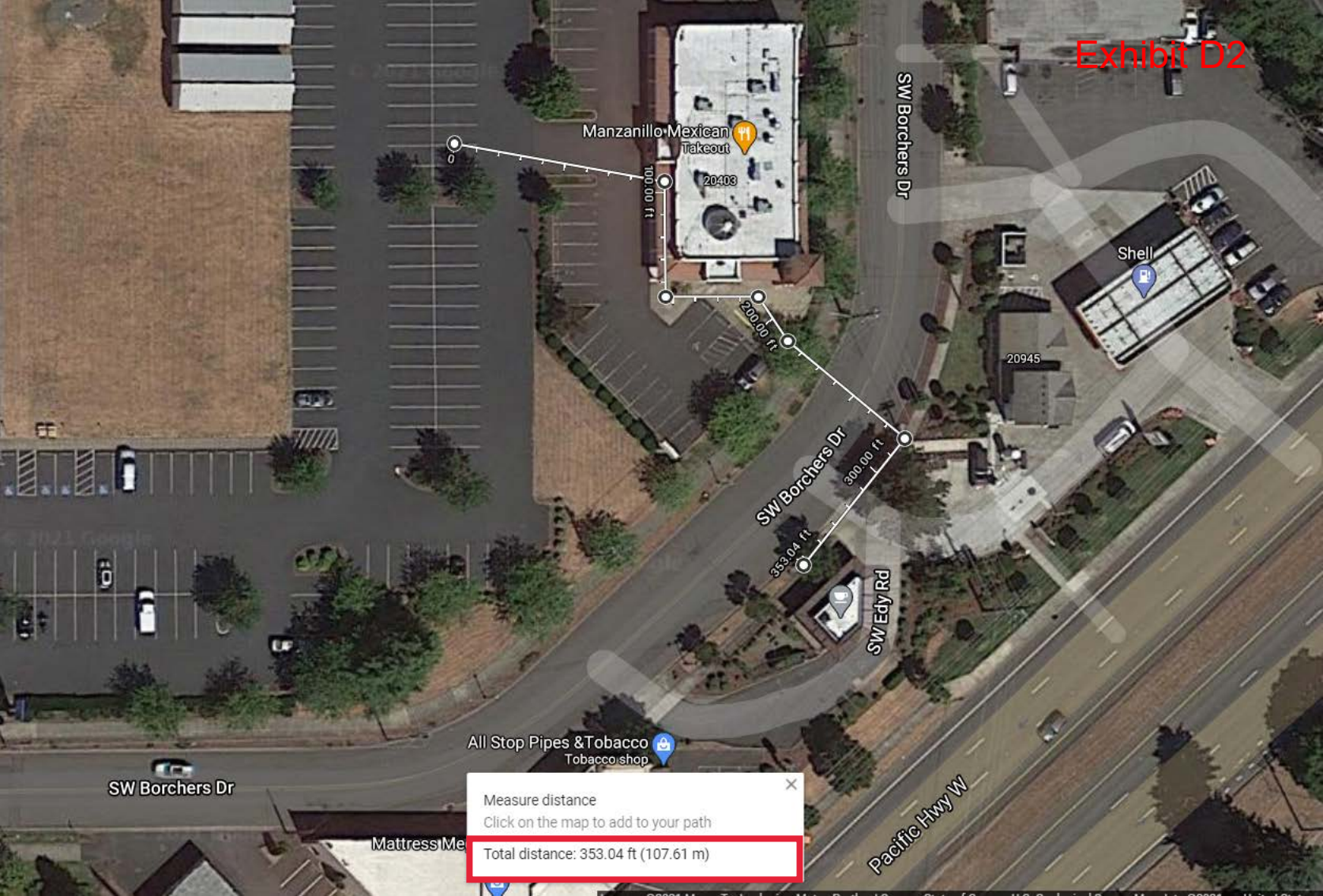
Roadway Engineering, Inc.
SPECIALIZING IN CIVIL ENGINEERING
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PHONE: (503) 287-8433 FAX: (503) 486-5229
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ZIGGY'S COFFEE STAND
MODIFICATIONS TO DRIVE UP
STRIPPING PLAN

DATE:	3/2/2021
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SCALE:	1" = 10' HORIZ

PRELIMINARY

R-4



Measure distance
Click on the map to add to your path
Total distance: 353.04 ft (107.61 m)

Manzanillo Mexican Takeout

20403

100.00 ft

200.00 ft

SW Borchers Dr

353.04 ft

SW Edy Rd

Shell

20945

All Stop Pipes & Tobacco
Tobacco shop

SW Borchers Dr

Mattress Me

Pacific Hwy W

Exhibit D3

Washington County, Oregon 2005-027801

03/16/2005 02:27:09 PM

D-E Cnt=1 Stn=6 J GREGORY

\$20.00 \$6.00 \$11.00 - Total = \$37.00



00741061200500278010040041

I, Jerry Hanson, Director of Assessment and Taxation and Ex-Officio County Clerk for Washington County, Oregon, do hereby certify that the within instrument of writing was received and recorded in the book of records of said county.

Jerry Hanson

Jerry R. Hanson, Director of Assessment and Taxation,
Ex-Officio County Clerk





20⁰⁰
6⁰⁰
11²³

PERMANENT EASEMENT

STATE OF OREGON, by and through its DEPARTMENT OF TRANSPORTATION, Grantor, for no actual monetary consideration does grant unto **ENSERV, LLC,** Grantee, its successors and assigns, a permanent easement for ingress and egress over the property described on **Exhibit "B" dated 2/2/2005** attached hereto and by this reference made a part hereof.

IT IS UNDERSTOOD that the easement herein granted does not convey any right or interest in the above-described property, except as stated herein, nor prevent Grantor from the use of said property; provided, however, that such use does not interfere with the rights herein granted.

Grantor covenants to and with Grantee, its successors and assigns, that Grantor is the owner of said property, and will warrant the easement rights herein granted from all lawful claims whatsoever.

Grantor agrees that the consideration recited herein is just compensation for the property or property rights conveyed, including any and all damages to Grantor's remaining property, if any, which may result from the acquisition or use of said property or property rights. However, the consideration does not include damages resulting from any use or activity by Grantee beyond or outside of those uses expressed herein, if any, or damages arising from any negligence.

RETURN TO AND TAX STATEMENT TO
OREGON DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY SECTION
355 CAPITOL STREET NE, ROOM 420
SALEM OR 97301-3871

Map and Tax Lot #:

Property Address:



In construing this document, where the context so requires, the singular includes the plural and all grammatical changes shall be made so that this document shall apply equally to corporations and to individuals.

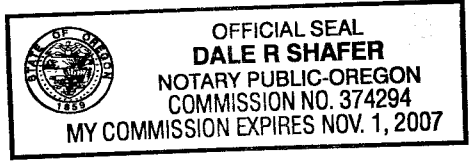
Dated this 11th day of March, 2005.

STATE OF OREGON, by and through its
DEPARTMENT OF TRANSPORTATION

By Deolinda G Jones
Deolinda G. Jones, Right of Way Manager

STATE OF OREGON, County of Marion

Dated March 11, 2005. Personally appeared Deolinda G. Jones, who being sworn, stated that she is the Right of Way Manager for the State of Oregon, Department of Transportation, and that this document was voluntarily signed on behalf of the State of Oregon by authority delegated to her. Before me:



Dale R Shafer
Notary Public for Oregon
My Commission expires 11/01/2007



EXHIBIT B - Page 1 of 1

File 19717B
Drawing 7B-15-19
2/2/2005

Permanent Easement For Ingress and Egress

A parcel of land lying in the SE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 30, Township 2 South, Range 1 West, W.M., Washington County, Oregon, said parcel being described as follows:

Beginning at the intersection of the Easterly line of the SE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 30, Township 2 South, Range 1 West, W.M., Washington County, Oregon and a line parallel with and 110.00 feet Northwesterly of the center line of the relocated Southbound lane of the Pacific Highway West; thence Southwesterly along said parallel line 78.00 feet; thence Easterly in a straight line to said Easterly line at a point 53.00 feet Southerly of the point of beginning; thence Northerly along said Easterly line to the point of beginning.

The center line of the relocated Southbound lane of the Pacific Highway West is described that deed to the State of Oregon, by and through its State Highway Commission, recorded October 16, 1954 in Book 361, Page 515, Deed Records of Washington County.

This parcel of land contains 1,512 square feet, more or less.



01206644200800038210040043

I, Richard Hobernicht, Director of Assessment and Taxation and Ex-Officio County Clerk for Washington County, Oregon, do hereby certify that the within instrument of writing was received and recorded in the book of records of said county.

Richard Hobernicht
Richard Hobernicht, Director of Assessment and Taxation, Ex-Officio County Clerk



After recording, return to:

City of Sherwood
Engineering Department
22560 SW Pine Street
Sherwood, OR 97140

PUBLIC ACCESS EASEMENT

KNOW ALL MEN BY THESE PRESENTS, that Timothy Hubbard, hereinafter referred to as "Grantor", for the consideration hereinafter stated, does forever grant unto the City of Sherwood, an Oregon municipal corporation, hereinafter referred to as "Grantee", the following permanent easement(s) in that certain real property situated in the City of Sherwood and described as follows:

See Attached Exhibit "A" (Legal Description) and Exhibit "B" (Location Map), incorporated by reference herein.

The true consideration for this conveyance is \$00.00. However, the actual consideration consists of other value given, which value constitutes the whole consideration.

This document is intended to establish a permanent easement on the property described, not to convey fee title or any interest in the underlying property except as expressly stated herein. The easement granted shall not prevent Grantor from the use of said property provided, however, that such use shall not be permitted to interfere with the rights herein granted. Grantor shall not be permitted to endanger the lateral support of any facilities constructed within the easement granted herein.

Grantor hereby covenants to and with Grantee that Grantor is the owner of said property, which is free from all encumbrances, except for easements, conditions and restrictions of record, and that Grantor will warrant and defend the easement rights herein granted from all claims whatsoever.

Grantee (and other public or private entities or persons Grantee deems in its sole discretion as appropriate) shall have the right to access the property as Grantee may deem necessary over and across the property described in Exhibits "A" and "B."

IN WITNESS WHEREOF, the above named Grantor has caused this instrument to be acknowledged as of the date indicated below.

DATED this 29th day of November, 2007

Timothy Hubbard

(Grantor Signature)

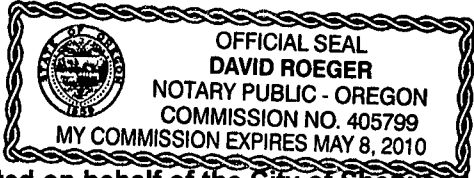
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NOTARY AND ACCEPTANCE SIGNATURES APPEAR ON THE FOLLOWING PAGE

STATE OF OREGON)
) ss.
County of Washington)

This instrument was acknowledged before me this 29th day of November, 2007, by

Timothy Hubbard



Notary Public [Signature]

Accepted on behalf of the City of Sherwood, Oregon:

By: [Signature]

Printed Name: ROSS SCHULTZ

Title: CITY MANAGER

Date: 1/15/08



CONSTRUCTION & MAPPING TEAM

EXHIBIT "A"

November 27, 2007

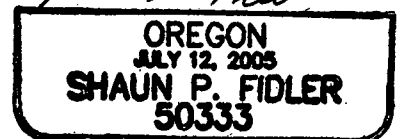
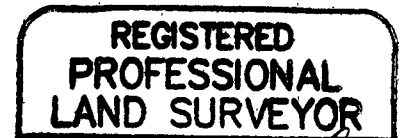
JOB NO. 500-027

LEGAL DESCRIPTION
FOR DEED DOCUMENT 2006-070088
FOR A PROPOSED PUBLIC
ACCESS EASEMENT
WASHINGTON COUNTY, OREGON

A TRACT OF LAND BEING A PORTION OF DEED DOCUMENT 2006-070088, WASHINGTON COUNTY RECORDS, SITUATED IN THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 2 SOUTH, RANGE 1 WEST, OF THE WILLAMETTE MERIDIAN, WASHINGTON COUNTY, OREGON AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A 2" BRASS CAP IN MONUMENT BOX AT THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF SECTION 30; THENCE NORTH 00°12'16" WEST 54.70 FEET ALONG THE EAST LINE OF SAID SECTION TO A POINT ON THE NORTHWESTERLY RIGHT-OF-WAY LINE OF SOUTHWEST PACIFIC HIGHWAY 99; THENCE ALONG THE NORTHWESTERLY RIGHT-OF-WAY LINE OF SOUTHWEST PACIFIC HIGHWAY 99 SOUTH 46°47'29" WEST 89.87 FEET TO A POINT; THENCE LEAVING SAID RIGHT-OF-WAY LINE NORTH 00°24'11" WEST 26.37 FEET TO A POINT; THENCE SOUTH 89°35'49" WEST 22.94 FEET TO THE POINT OF TRUE BEGINNING; THENCE SOUTH 89°35'49" WEST 24.00 FEET TO A POINT; THENCE NORTH 00°05'07" WEST 0.14 FEET TO A POINT; THENCE NORTH 43°12'50" WEST 8.55 FEET TO A POINT ON THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF SOUTHWEST BORCHERS DRIVE; THENCE ALONG SAID RIGHT-OF-WAY LINE NORTH 46°47'10" EAST 24.00 FEET TO A POINT; THENCE LEAVING SAID RIGHT-OF-WAY LINE SOUTH 43°12'50" EAST 8.55 FEET TO A POINT; THENCE ON A CURVE TO THE RIGHT HAVE A RADIUS OF 24.00 FEET, THROUGH A CENTRAL ANGLE OF 43°09'20", AN ARC LENGTH OF 18.08 FEET (CHORD BEARS SOUTH 21°38'09" EAST 17.65 FEET) TO THE POINT OF BEGINNING.

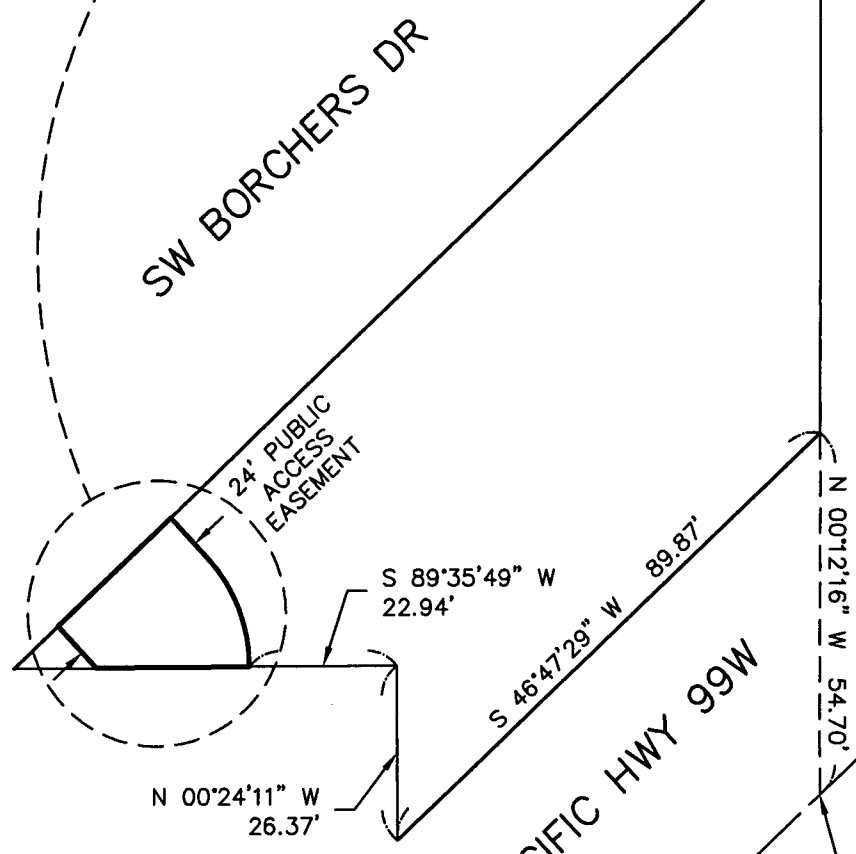
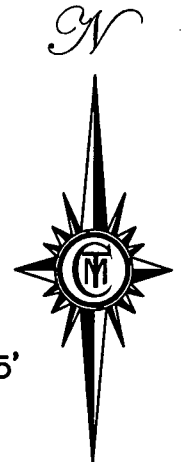
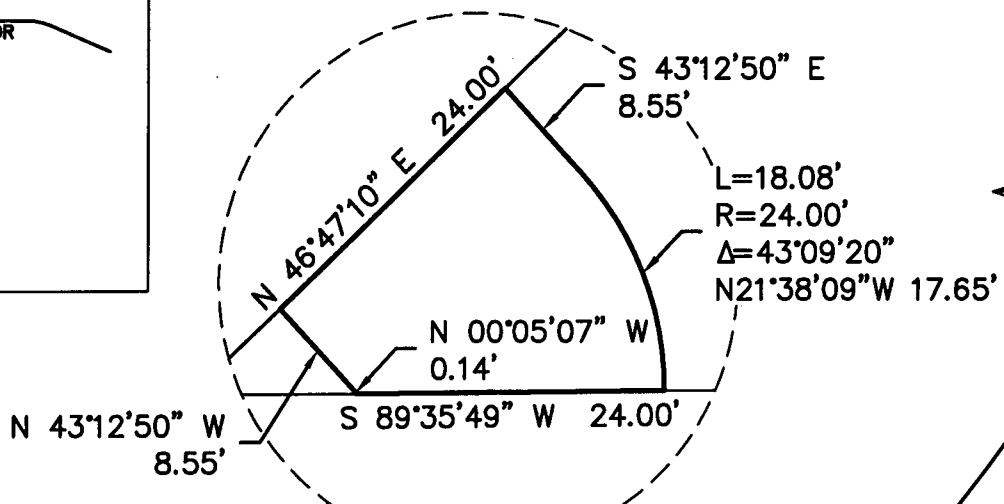
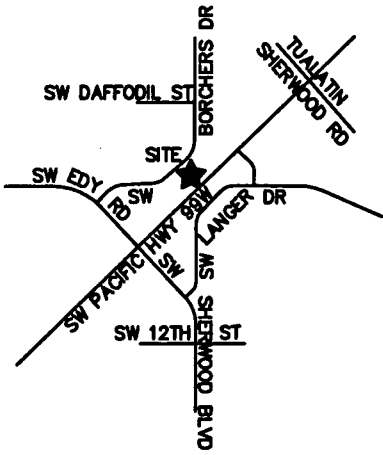
CONTAINING APPROXIMATELY 320 SQUARE FEET OR 0.01 ACRES ±.



RENEWAL DATE 12/31/2007

CONSTRUCTION & MAPPING TEAM
14910 SE Morning Way Suite 202 * Clackamas, OR 97015
Office (503) 558-9686 * Fax (503) 558-9293

Exhibit D4
 LOCATED IN THE NORTHEAST 1/4 OF SECTION 30,
 TOWNSHIP 2 SOUTH, RANGE 1 WEST, W.M.,
 CITY OF SHERWOOD, WASHINGTON COUNTY, OREGON



INITIAL POINT
 FD 2" BRASS DISK
 IN MONUMENT WELL
 INSCRIBED "1/4 30 | 29
 T2S, R1W, 1993"

REGISTERED
 PROFESSIONAL
 LAND SURVEYOR

 OREGON
 JULY 12, 2005
 SHAUN P. FIDLER
 50333

RENEWAL DATE DECEMBER 31, 2009

EXHIBIT 'B'

HUBBARD ESPRESSO STAND
TRAFFIC IMPACT STUDY

SHERWOOD, OREGON

RECEIVED
OCT 11 2006
BY *wa*
PLANNING DEPT

PREPARED BY
LANCASTER ENGINEERING

OCTOBER 2006



HUBBARD ESPRESSO

Traffic Impact Study

Sherwood, Oregon



Prepared By
CATRIONA SUMRAIN
MICHAEL ARD, P.E.

October, 2006



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Executive Summary 3

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Location Description 5

Trip Generation 9

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EXECUTIVE SUMMARY

1. A coffee stand is proposed for development in Sherwood, Oregon. The site is located on the southeast side of Borchers Drive between Edy Road and Roy Rogers Road. Access to the site will be through a driveway onto Borchers Drive. There will be no access to Highway 99W.
2. The site is expected to generate 16 primary trips during the morning peak hour, 4 primary trips during the evening peak hour, and 42 primary trips during an average weekday.
3. The traffic signal warrants were examined for the intersection of Edy Road and Borchers Drive to determine if a traffic signal is justified at the intersection. The warrants were not satisfied and will not likely be satisfied for the near future.
4. The intersection of Roy Rogers Road at Borchers Drive is functioning within acceptable standards and will continue to do so through development of the site.
5. The intersection of Edy Road at Borchers Drive is currently operating at acceptable levels during the morning peak hour, but at level of service F during the evening peak hour. Development of the site adds three seconds to the delay during the evening peak hour. The intersection has been improved for unsignalized operation and further improvement would require widening of Edy Road. Because there is no reasonable mitigation proportionate to the impact of the site and because the site traffic adds a minimal amount of delay, no mitigation is suggested.
6. An ODOT study of similar uses to the proposed coffee stand showed that the 95th-percentile queue did not exceed three vehicles at any studied location, or six vehicles for stands with two windows. The site plan for the proposed stand shows seven vehicles can be accommodated on the site with no spillover onto Borchers Drive. This should be sufficient storage for the site traffic. No additional storage is needed.



INTRODUCTION

A small parcel is proposed for development as a coffee/espresso stand. The site is located between Borchers Drive and Highway 99W, but will take access only to Borchers Drive.

The purpose of this study is to assess the traffic impact of the proposed development on the nearby street system and to recommend any required mitigative measures. The analysis will include level of service calculations, an evaluation of traffic signal warrants and queuing analysis of the site traffic.

Detailed information on traffic counts, trip generation calculations, and level of service calculations is included in the appendix to this report.



LOCATION DESCRIPTION

A small parcel located on the southeast side of Borchers Drive between the gas station and the feed store is proposed for development as an espresso stand. Access to the site will be through a driveway onto Borchers Drive.

The City of Sherwood requires a study of the intersections of Edy Road at Borchers Drive and Borchers Drive at Roy Rogers Road. A vicinity map showing the existing lane configurations at the study area intersections is given on page seven.

Borchers Drive is under the jurisdiction of the City of Sherwood and is classified by the City as a Major Collector. It is a two-lane facility, widening to three lanes at Edy Road and Roy Rogers Road. The posted speed is 25 mph. There are curbs and sidewalks on the northern and western sides of the road, but only intermittently on the southern or eastern sides, with the exception of the sections near Edy Road and Roy Rogers Road, which have curbs and sidewalks on both sides. There are curbs along the site frontage.

Edy Road in the vicinity of the site is under the jurisdiction of the City of Sherwood and is classified by the City as a Major Collector. It is generally a two-lane facility, although it widens to three lanes at Borchers Drive and four lanes at Highway 99W. The roadway has been improved with curbs and sidewalks in areas of recent development, but most sections do not have curbs or sidewalks. There are no bike lanes on either side, except along the section between Houston Drive and Highway 99W. The posted speed is 40 mph.

The intersection of Edy Road and Borchers Drive is a four-legged intersection with the fourth leg serving the Providence Medical Center. The intersection is controlled by STOP signs on the Borchers Drive and medical center access approaches. There are left-turn lanes and shared through/right-turn lanes on all street approaches. There are two approach lanes on the medical center driveway approach, but the lanes are not striped to specify turning movements.

Roy Rogers Road is under the jurisdiction of Washington County. It is classified by the City of Sherwood as a Major Arterial. It is a three-lane roadway within the City limits, although a two-lane road elsewhere. The road widens to four lanes at Highway 99W. There are curbs and sidewalks (some of the sidewalk sections are meandering) on both sides of the road

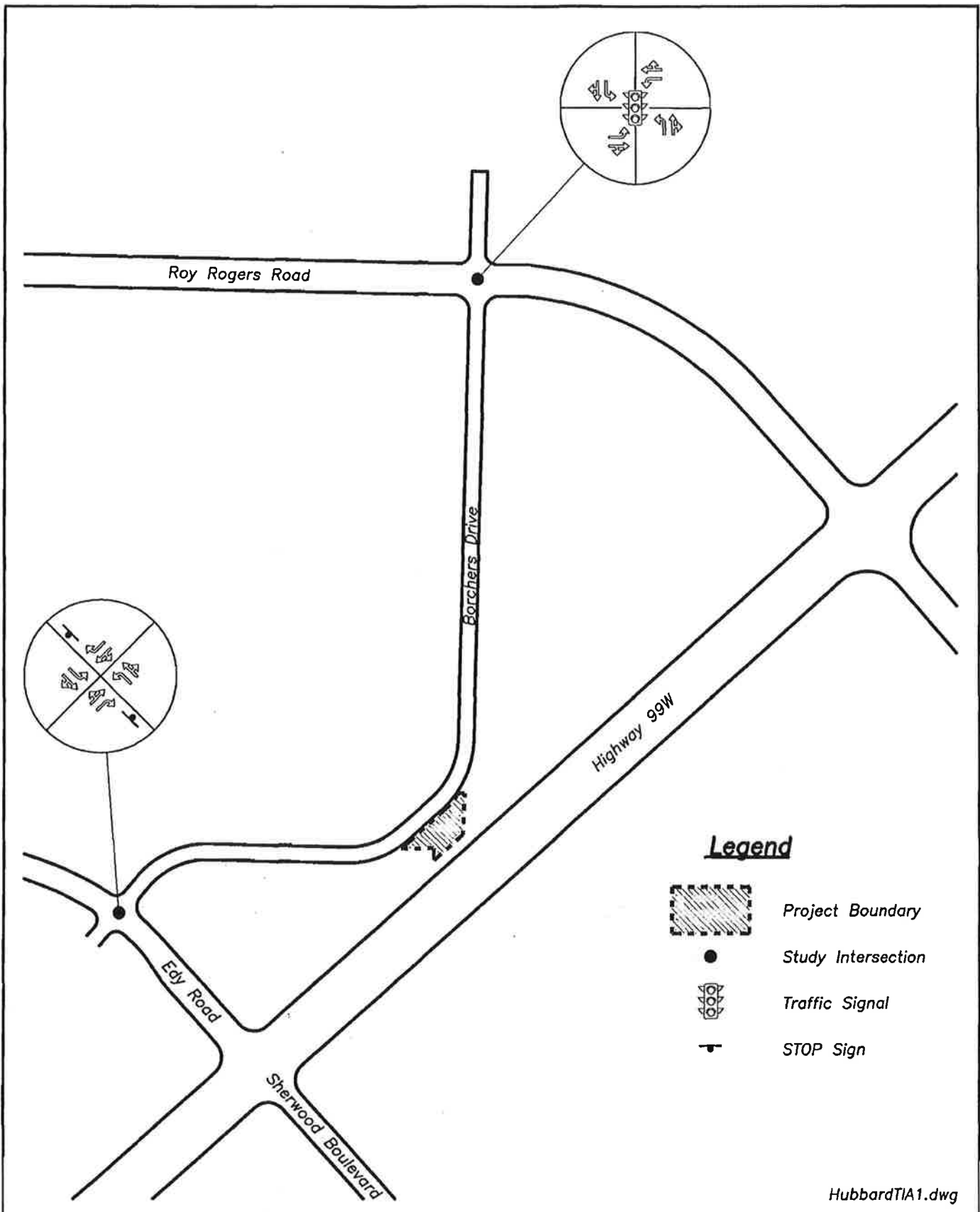


in the vicinity of the site. The posted speed is 35 mph. There are also bike lanes on both sides of the road within the City limits.

The intersection of Roy Rogers Road and Borchers Drive is a four-legged intersection that is controlled by a six-phase traffic signal. There are left-turn lanes with protected phasing on the Roy Rogers Road approaches. The north/south movements operate with concurrent phasing.

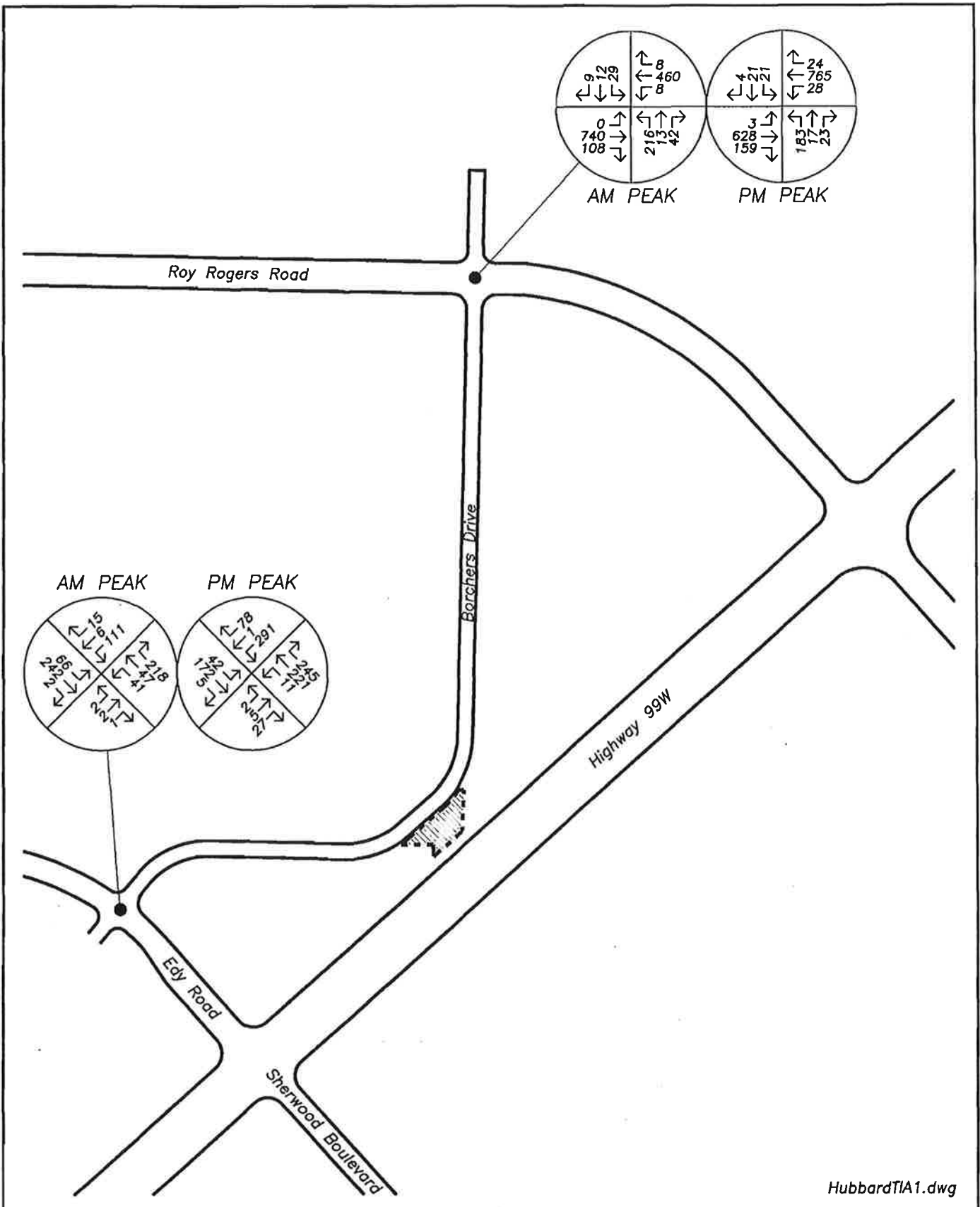
There is transit service within one-half of a mile of the site. Tri-Met Route 12, *Barbur Blvd*, travels between the Cities of Sherwood and Portland, with stops near the intersections of Highway 99W at Tualatin/Sherwood Road and Sherwood Boulevard at Langer Drive. Buses run with 30-minute headways from about 6:00 a.m. to about 11:30 p.m. Service is from about 6:30 a.m. to about 11:30 p.m. on Saturdays and Sundays. There are two express routes, Route 94, *Sherwood/Pacific Highway Express*, and Route 95, *Tigard/I-5 Express*. Both express routes run only during the peak hours with service to Portland during the morning and service to Sherwood during the evening peak hour. There is no express service on weekends.

Manual turning movement counts were made at the study intersections during August 2006 from 7:00 to 9:00 a.m. and 4:00 to 6:00 p.m. The peak hours typically occur from about 7:00 to 8:00 a.m. and from about 4:45 to 5:45 p.m. The volumes for the morning and evening peak hours are shown in Figure 2 on page eight.



VICINITY MAP
Existing Lane Configurations
& Traffic Control Devices





HubbardTIA1.dwg

Le

TRAFFIC VOLUMES
Existing Conditions
AM & PM Peak Hours



FIGURE
2
PAGE
8



TRIP GENERATION

The ITE land-use code 935, *Fast-Food Restaurant with Drive-Through Window and no Indoor Seating*, was established for portable coffee stands, according to Kittelson & Associates who prepared the trip generation report submitted to the Institute of Transportation Engineers.

The *Trip Generation Handbook* specifies the circumstances under which trip rates, trip equations, and local data should be used to determine the number of trips generated by a development. When there are only one or two data sets, the Handbook recommends collecting local data. The ITE trip rate for land-use code 935, *Fast-Food Restaurant with Drive-Through Window and no Indoor Seating*, has one data set. Following the ITE procedures, local data should be collected and used. Local data is available; however, the City of Sherwood has requested the use of the ITE rates rather than local data.

The trip generation calculations indicate that there will be an estimated total of 16 trips generated by the proposed espresso stand during the morning peak hour. Of these, 8 will be entering and 8 will be exiting the site. During the evening peak hour, there are a total of 4 trips expected, with 2 entering and 2 exiting the site. A total of 42 weekday trips are expected, with half entering and half exiting.

Because the site will be a retail use, some of the trips will be pass-by or diverted-linked trips. Pass-by trips are trips that leave an adjacent roadway to patronize a land use and then continue in their original direction of travel. A person driving on Borchers Drive stopping by the espresso stand on the way to work is an example of a pass-by trip. Diverted-linked trips are similar to pass-by trips, but leave a non-adjacent roadway to patronize the site. For example, someone driving on Edy Road or Roy Rogers Road who stopped by the site on the way to work is a diverted-linked trip.

Because the closest transit services are greater than one-half of a mile from the site, no reduction was made for transit use.

A summary of the trip generation calculations for the proposed development is shown in the following table. Detailed trip generation calculations are included in the appendix to this report.



TRIP GENERATION SUMMARY

	<u>Entering Trips</u>	<u>Exiting Trips</u>	<u>Total Trips</u>
<i>ITE Land-Use Code 935 (360 sq ft)</i>			
AM Peak Hour	47	47	94
PM Peak Hour	11	11	22
Weekday	252	252	556
<i>Pass-By and Diverted-Linked Trips @ 83%</i>			
AM Peak Hour	-39	-39	-78
PM Peak Hour	-9	-9	-18
Weekday	-231	-231	-462
<i>Total Primary Trips</i>			
AM Peak Hour	8	8	16
PM Peak Hour	2	2	4
Weekday	21	21	42

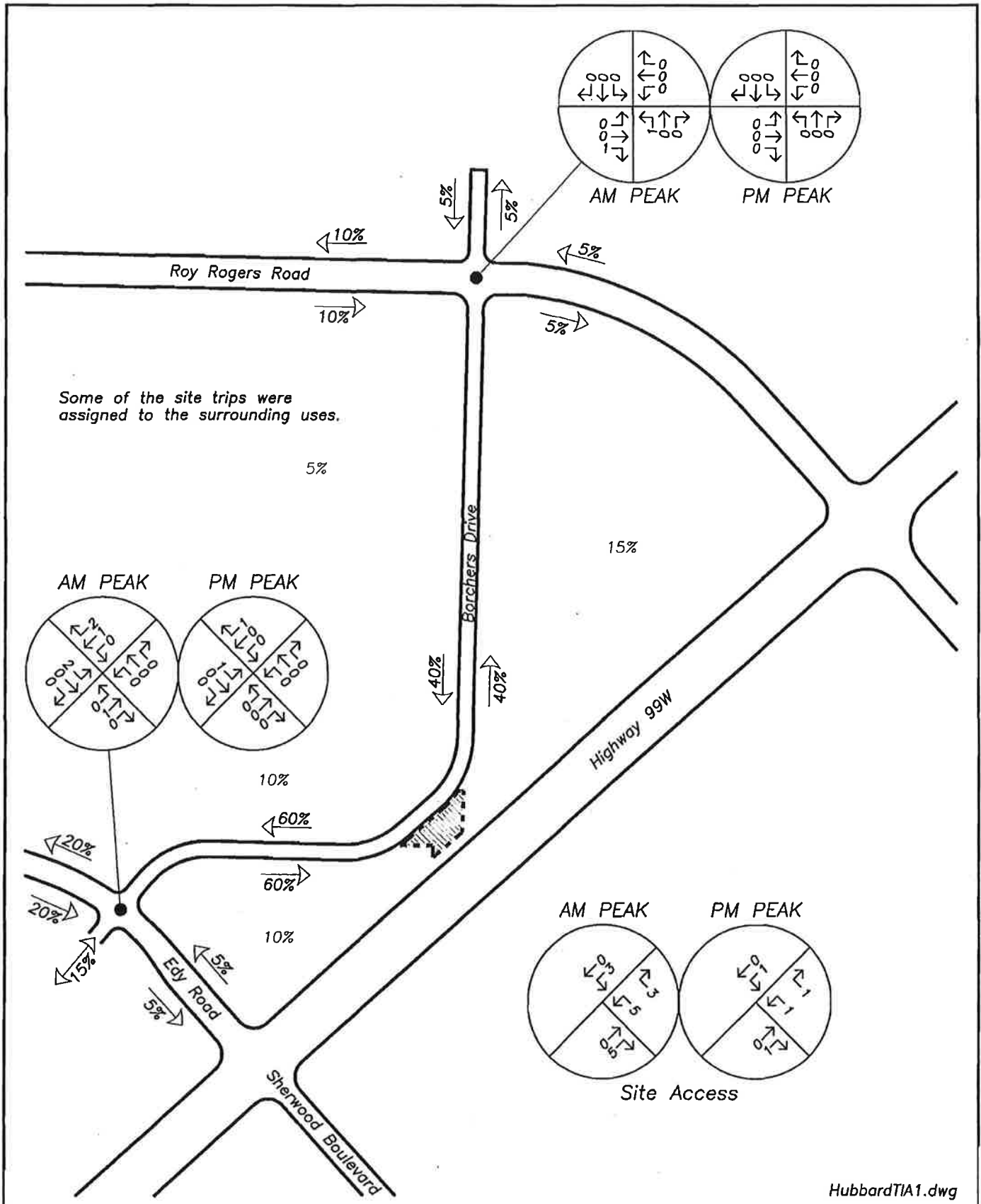


TRIP DISTRIBUTION

The directional distribution of the primary site trips was based on the locations and densities of the surrounding areas expected to be served by the site. These areas include both residential and commercial uses.

The distribution of the pass-by trips was based on the traffic volumes on Borchers Drive near the site. The diverted-linked trips were based on the traffic counts at both the Borchers Drive/Edy Road and Borchers Drive/Roy Rogers Road intersections.

Figure 3 on page 12 shows the distribution of the primary site trips from the proposed coffee stand development. Figures 4 and 5 on pages 13 and 14 show the distribution of the pass-by and diverted-linked trips, respectively. Figure 6 on page 15 shows the assignment of the total site trips to the roadway network during the morning and evening peak hours.



HubbardTIA1.dwg

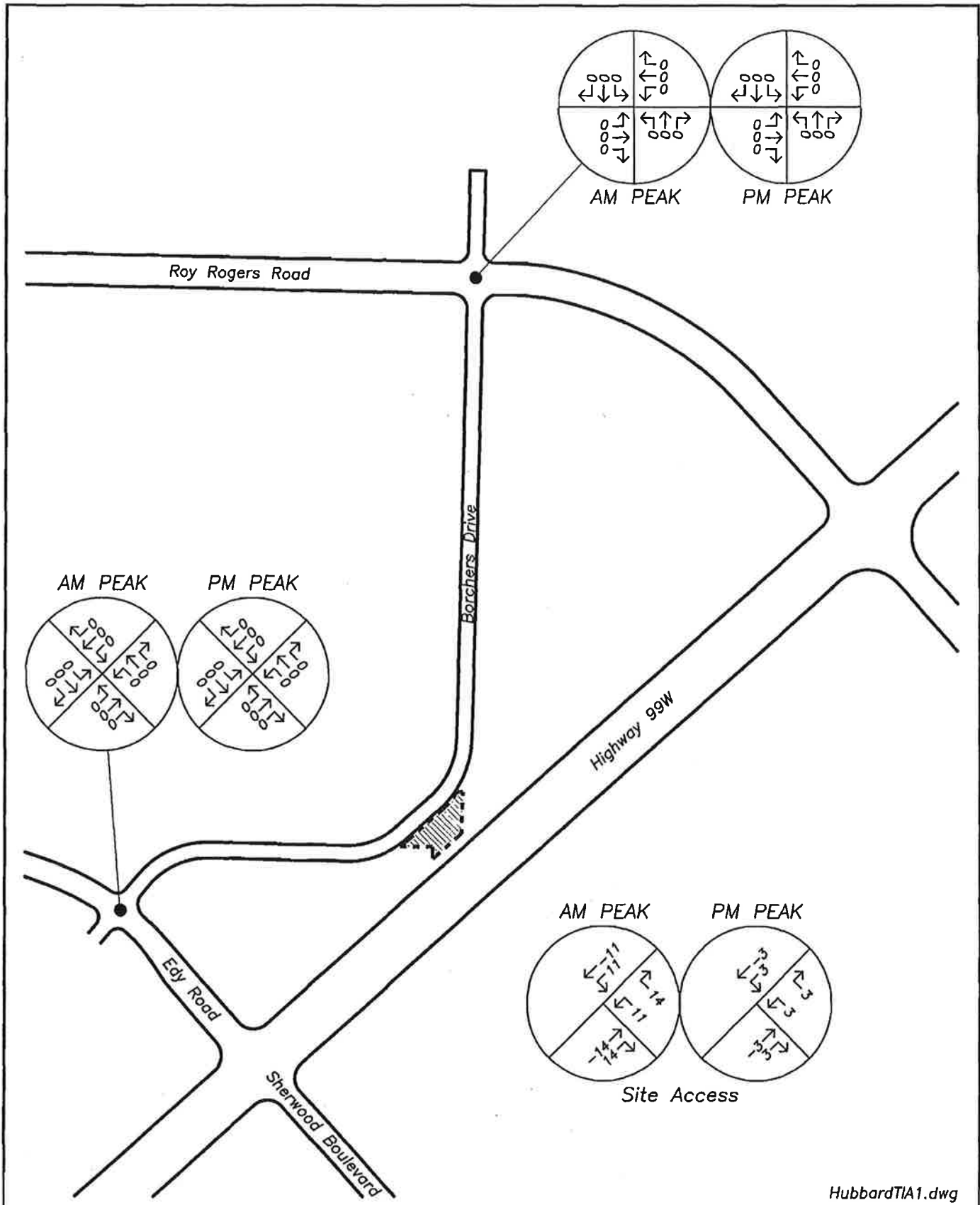


SITE TRIP DISTRIBUTION & ASSIGNMENT
 Inbound & Outbound Percentages and Primary Site Trips
 AM & PM Peak Hours



FIGURE
3

PAGE
12



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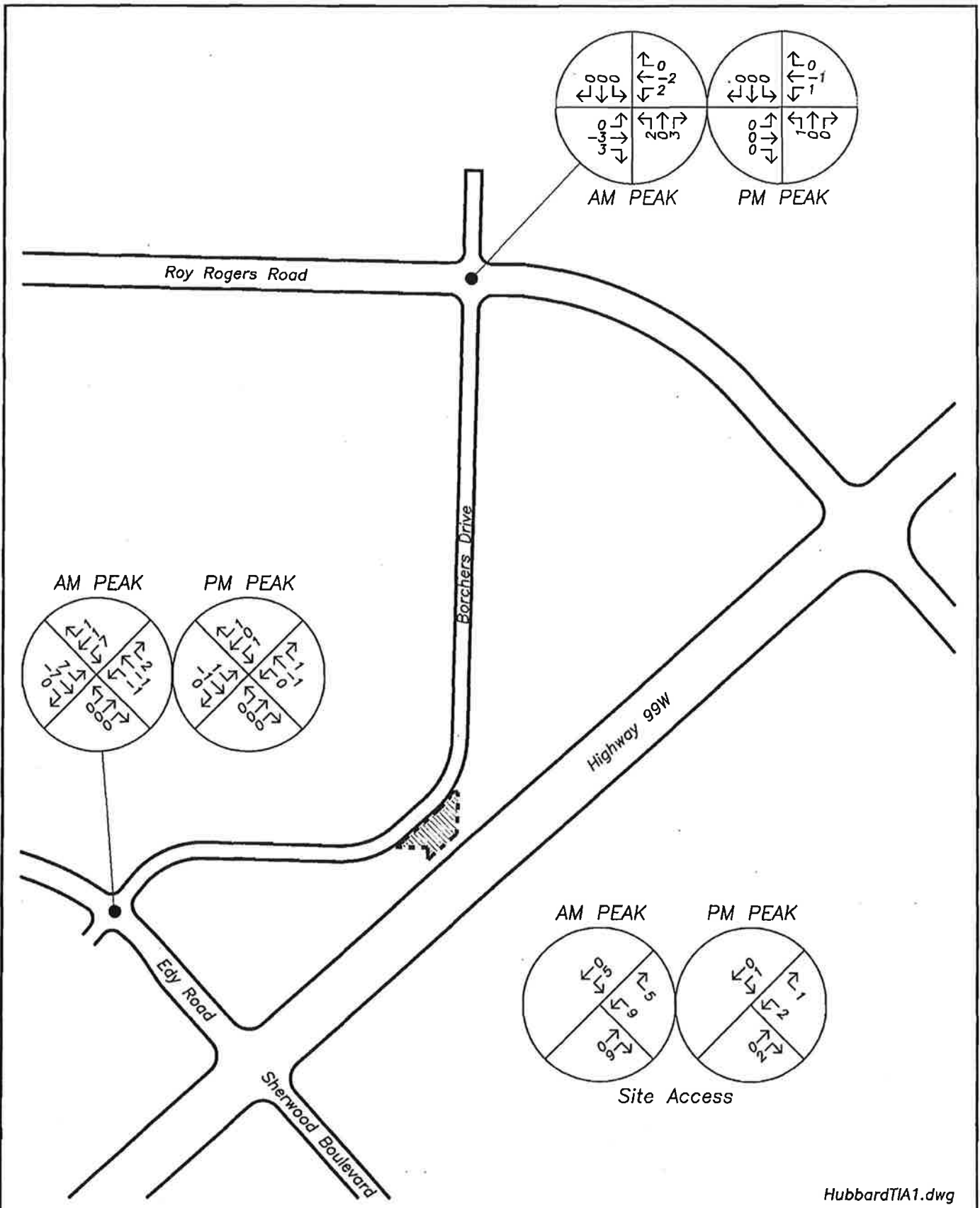
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SITE-GENERATED TRAFFIC
Pass-By Trips
AM & PM Peak Hours



FIGURE
4

PAGE
13



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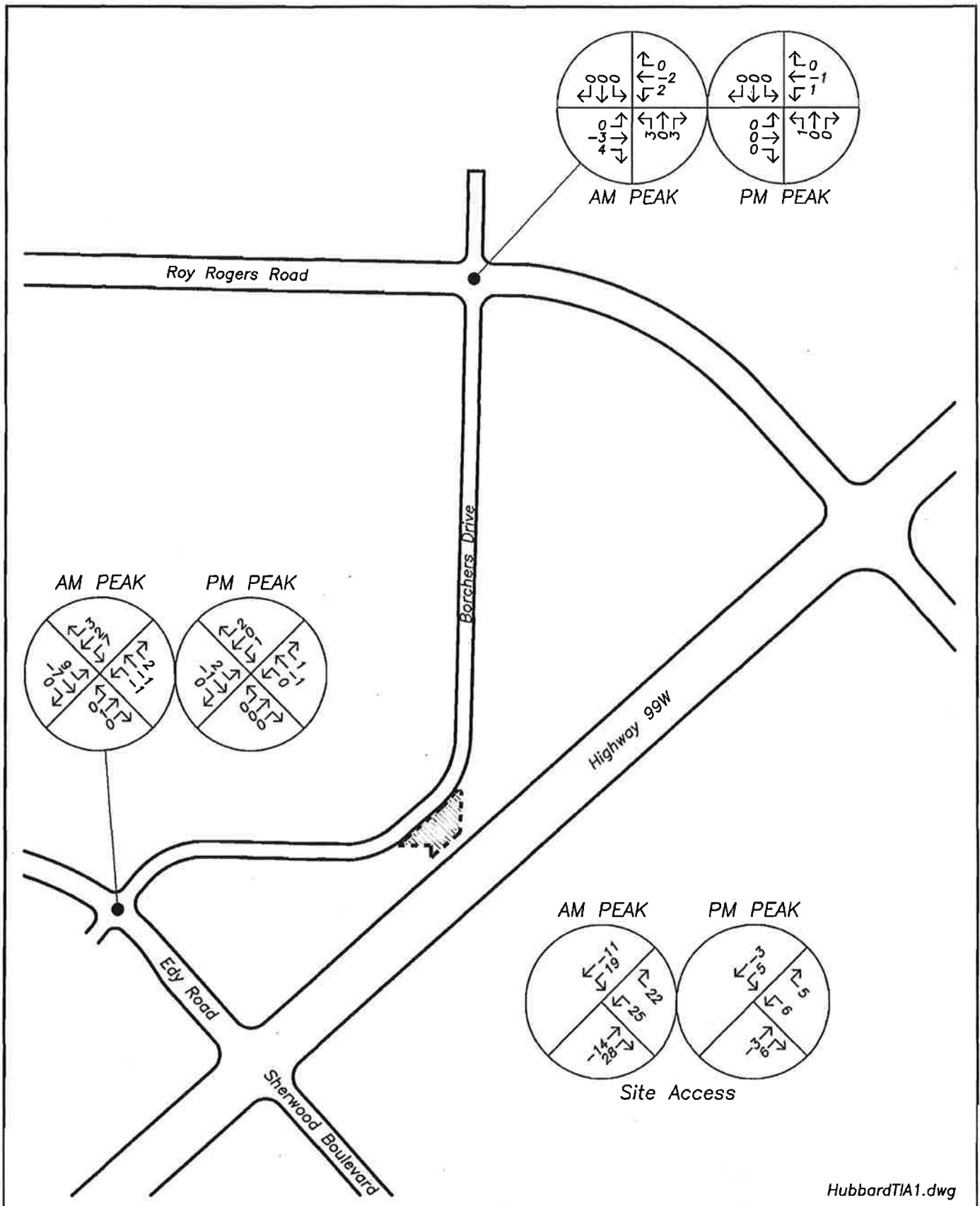


SITE-GENERATED TRAFFIC
Diverted-Linked Trips
AM & PM Peak Hours



FIGURE
5

PAGE
14



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SITE-GENERATED TRAFFIC
Proposed Development Plan
AM & PM Peak Hours



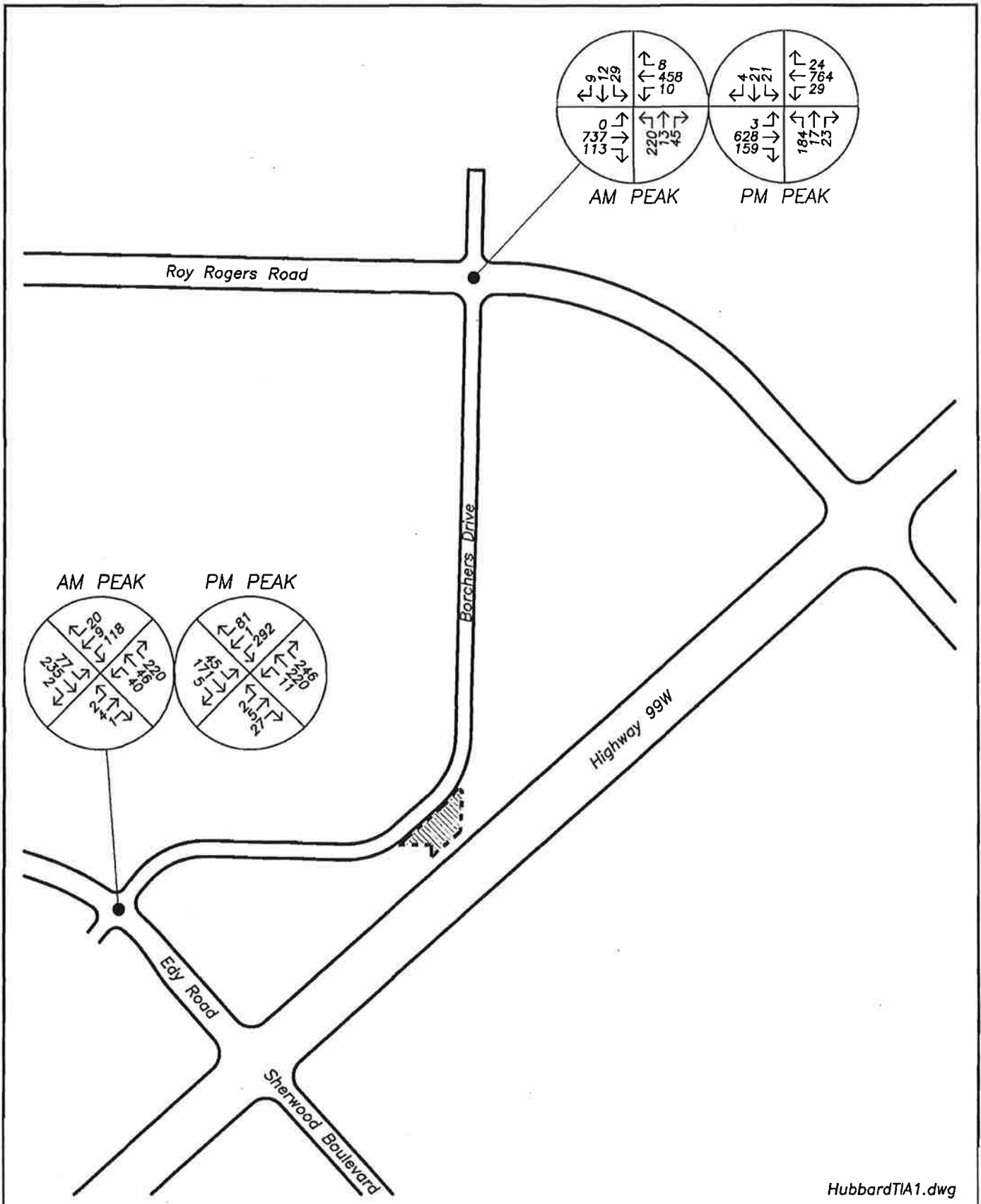
FIGURE
6
PAGE
15



OPERATIONAL ANALYSIS

Background Traffic

It is expected that the coffee stand could be operating within a year. Therefore, no background growth was applied to the traffic counts. Figure 7 showing the existing traffic with the site trips added is given on page 17.



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TRAFFIC VOLUMES
 Existing plus Site Trips Conditions
 AM & PM Peak Hours



FIGURE
7

PAGE
17



Capacity Analysis

To determine the level of service at the study intersections, a capacity analysis was conducted. The study intersections were analyzed using the signalized and unsignalized intersection analysis method in the *2000 HIGHWAY CAPACITY MANUAL (HCM2000)*, published by the Transportation Research Board. The level of service can range from A, which indicates very little or no delay, to level F, which indicates a high degree of congestion and delay.

The analysis was made for the existing, background, and background plus site conditions during the morning and evening peak hours.

The results of the capacity analysis showed that the unsignalized intersection of Borchers Drive and Edy Road is currently operating at level of service C during the morning peak hour and F during the evening peak hour. The level of service describes the delay experienced by the southbound traffic on Borchers Drive. The level of service does not change with the development of the coffee stand.

It should be noted that the proposed coffee stand adds three seconds to the delay for the left-turning movement on Borchers Drive at Edy Road. All other movements are unaffected by the site traffic. The intersection has been improved to reduce the minor-street delays as much as possible. Further geometric improvements would require widening of Edy Road. Such mitigation would be well beyond the proportionate impact of the proposed development. The traffic signal warrants were examined and found to be unsatisfied with the development. Therefore, there is no reasonable mitigation that can be proposed to mitigate the impact of the site. For this reason, and because the site has a minimal impact on the operation of Edy Road and Borchers Drive, no mitigation is proposed.

The signalized intersection of Borchers Drive and Roy Rogers Road is presently operating at level of service C during both peak hours. The operation remains C during both peaks with the addition of the site trips.

The results of the capacity analysis, along with the Levels of Service (LOS) and delay are shown in the following table. Tables showing the relationships between delay and level of service are included in the appendix to this report.



LEVEL OF SERVICE SUMMARY

	AM Peak Hour			PM Peak Hour		
	<u>LOS</u>	<u>Delay</u>	<u>V/C</u>	<u>LOS</u>	<u>Delay</u>	<u>V/C</u>
<i>Edy Road and Borchers Drive</i>						
Existing Conditions	C	21	0.34	F	71	0.94
Existing + Site Trips	C	22	0.37	F	74	0.95
<i>Roy Rogers Road and Borchers Drive</i>						
Existing Conditions	C	26	0.79	C	21	0.75
Existing + Site Trips	C	27	0.80	C	22	0.75

LOS = Level of Service

Delay = Average Delay per Vehicle in Seconds

V/C = Volume-to-Capacity ratio



SAFETY ANALYSIS

Traffic Signal Warrants

The Borchers Drive/Edy Road intersection was analyzed for traffic signal warrants under all scenarios. Both conditions of the *Eight-Hour Vehicular Volume* warrant from the *2000 Manual on Uniform Control Devices (MUTCD)*, published by the U.S. Department of Transportation, Federal Highway Administration, were evaluated at the intersection under the existing and existing plus site trips conditions for the morning and evening peak hours. The results of the traffic signal warrant analysis are shown in the following table.

The intersection did not satisfy the traffic signal warrants for either peak hour under existing or existing plus site trips conditions. A traffic signal is not justified.

Queuing Analysis

An analysis of the queuing at the Borchers Drive/Edy Road intersection was conducted for the existing and the existing plus site trips scenarios during the evening peak hour conditions. The queue lengths for the unsignalized intersection were based upon the ITE Journal article "Estimation of Maximum Queue Lengths at Unsignalized Intersections," from the November 2001 issue. John T. Gard prepared this methodology for the estimation of maximum queue lengths at unsignalized intersections.

The southbound queue length remains the same when the site trips are added to the existing traffic volumes. Development of the site will not affect the existing queues.

The queue worksheets for all of the analysis scenarios, showing the queue length for every approach at the study intersections, are included in the appendix to this report. The following table shows the queuing for at some of the critical study intersections for the background plus site trips conditions.



	QUEUING ANALYSIS	
	PM Peak Hour	
	<u>Queue</u>	<u>Storage</u>
<i>Edy Road at Borchers Drive</i>		
Existing Conditions	250	50
Existing + Site Trips	250	50

On-Site Circulation/Queuing

The ODOT study, *Trip Generation and Vehicle Queuing Study for "Portable Espresso Stand" Land Use*, discusses queue lengths generated by a portable espresso stand. While the use proposed for the site does not quite qualify as a "portable" stand, there are sufficient similarities that the conclusions of the ODOT study should be applicable to the proposed use.

The ODOT data concluded that the 95th percentile queue was three vehicles for each window. This indicates that 95-percent of the time, the queue was three vehicles or less at any one-window coffee stand or six vehicles at a two-window coffee stand. Assuming the trip generation for this site is similar, providing storage for six vehicles on-site should be sufficient. The traffic counts for the ODOT study also showed a maximum queue length of four vehicles.

The site plan shows a total of seven vehicles can be accommodated on the site without spillover onto Borchers Drive.

Bicycle and Pedestrian Facilities

There are bike lanes on Borchers Drive only at Edy Road. The width of Borchers Drive at the site frontage is 40 feet, which is sufficient for bike lanes if the road remains a two-lane section. City staff have indicated that Borchers Drive will eventually be widened to three lanes.

The center lane and the bike lanes cannot fit into the existing curb-to-curb width on Borchers Drive. Of the two potential improvements, it is recommended that bike lanes be installed along the road. There are few access points opposite each other and the road is low-speed, so a three-lane section is not critical.

There are sidewalks on the northern side of Borchers Drive, but not along the site frontage. Sidewalks are recommended along the frontage.



Conclusions

The site generates sufficiently few trips that the impact to the nearby intersections is minimal. However, the intersection of Edy Road and Borchers Drive is currently operating with unacceptably high delays during the evening peak hour. The site would add three seconds of delay to the critical movements.

A traffic signal was not justified at the Edy Road/Borchers Drive intersection. There is a left-turn lane on Borchers Drive at Edy Road, so no further mitigation can be found to reduce the delay beyond widening Edy Road. Since the impact of the site is minimal, road widening would be disproportionate to the site impact and inappropriate for mitigation. For this reason, no mitigation is suggested.

From: [HAWKINS Katharine W *Kate](#)
To: [Eric Rutledge](#)
Cc: [DANIELSON Marah B](#)
Subject: RE: Notice of Land Use Application - Opportunity for Comment (LU 2020-023 Ziggy's Coffee)
Date: Monday, February 22, 2021 4:05:35 PM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you are expecting this email and/or know the content is safe.

Thanks for confirming, Eric. In that case, ODOT does not have any comments or concerns at this time.

Best,

Kate (Wihtol) Hawkins

Associate Transportation Planner
ODOT Region 1
kate.w.hawkins@odot.state.or.us
(503) 731 – 3049
she • her • hers

From: Eric Rutledge <RutledgeE@SherwoodOregon.gov>
Sent: Monday, February 22, 2021 3:53 PM
To: HAWKINS Katharine W *Kate <Kate.W.HAWKINS@odot.state.or.us>
Subject: RE: Notice of Land Use Application - Opportunity for Comment (LU 2020-023 Ziggy's Coffee)

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Hi Katharine,

I did see the subject site has an Ingress / Egress easement with the gas station. The proposal does not modify any of the existing access points or easements for either site.

Thanks,

Eric Rutledge
City of Sherwood
Associate Planner
rutledgee@sherwoodoregon.gov
Desk 503.625.4242
Cell 971.979.2315

Covid-19 Update: The City's Planning Department is fully operational, however, with limited face to face contact. We are processing permits via email/phone where possible and by appointment when "in person" interaction is required. Please stay safe and healthy.

From: HAWKINS Katharine W *Kate <Kate.W.HAWKINS@odot.state.or.us>
Sent: Monday, February 22, 2021 10:25 AM
To: Eric Rutledge <RutledgeE@SherwoodOregon.gov>
Subject: RE: Notice of Land Use Application - Opportunity for Comment (LU 2020-023 Ziggy's Coffee)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you are expecting this email and/or know the content is safe.

Hi Eric,

I wanted to reach out regarding the Ziggy's Coffee land use application and apologize for missing last week's comment deadline. The application materials indicate that no access is proposed from 99W. My only potential concern is the drive thru lane connection to the gas station property to the north. Are you aware of whether there are crossover access easements recorded between the Ziggy's Coffee site and the gas station property to the north? I see in the staff report that "no changes are proposed to the easement location or agreement", which indicates ODOT probably does not have any concerns here. Let me know if there are any items needing ODOT's attention.

Thanks,

Kate (Wihtol) Hawkins

Associate Transportation Planner
ODOT Region 1
kate.w.hawkins@odot.state.or.us
(503) 731 – 3049
she • her • hers

From: Eric Rutledge <RutledgeE@SherwoodOregon.gov>
Sent: Monday, February 1, 2021 7:55 AM
To: Eric Rutledge <RutledgeE@SherwoodOregon.gov>
Cc: Eric Rutledge <RutledgeE@SherwoodOregon.gov>
Subject: Notice of Land Use Application - Opportunity for Comment (LU 2020-023 Ziggy's Coffee)

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Hi Agency Partners:

The City of Sherwood Planning Department is requesting agency comments on the following land use application:

- **Proposal:** The applicant is proposing a Class B Variance and Major Modification to an Approved Site Plan at 21003 SW Pacific Hwy. The subject site is 0.16 acres and is improved with a 417 SF drive-thru coffee stand (former Coffee Cottage) and associated site improvements. The development proposal will reconfigure the on-site vehicle circulation,

parking, and landscaping. The on-site stormwater detention pond will be removed and replaced with a cartridge system. A second on-site drive aisle will be added to increase capacity and reduce vehicle queue times. The existing four (4) parking stalls will be re-located on-site. Site access will continue to be provided from SW Borchers Drive. No building expansion is proposed at this time. A Class B Variance is requested to reduce the required width of the one-way drive aisle by 8%, the parking drive aisle by 8%, and the visual corridor along Pacific Hwy by 12.4% to accommodate the additional drive-thru lane. The variances are being requested due to small lot size and narrow configuration.

- **Location:** 21003 SW Pacific Hwy, Sherwood OR 97140
- **Comment Deadline:** Monday February 15, 2021 for consideration in the staff report
- **Hearing Date:** Virtual Hearing before the Sherwood Hearings officer on Wednesday February 24, 2021. Agencies impacted by the proposal are welcome to attend online, however, all testimony must be submitted in writing prior to the hearing. All hearings can be viewed at <https://www.youtube.com/user/CityofSherwood>
- **Applicable code criteria:** Sherwood Zoning & Community Development Code Chapter 16.22 – Commercial Land Use Districts; Chapter 16.58 - Clear Vision and Fence Standards; Chapter 16.72 - Procedures for Processing Development Permits; Chapter 16.84 – Variances; Chapter 16.90 - Site Planning; Chapter 16.92 – Landscaping; Chapter 16.94 - Off-Street Parking and Loading; Chapter 16.96 - On-Site Circulation; Chapter 16.114- Storm Water; Chapter 16.118 - Public and Private Utilities; Chapter 16.142 - Parks, Trees and Open Spaces
- **Application materials:** <https://www.sherwoodoregon.gov/planning/project/ziggys-coffee>

Eric Rutledge
City of Sherwood
Associate Planner
rutledgee@sherwoodoregon.gov
Desk 503.625.4242
Cell 971.979.2315



Covid-19 Update: The City's Planning Department is fully operational, however, with limited face to face contact. We are holding virtual meetings and processing permits electronically as much as possible. Please contact staff to discuss application and plan submittal options.

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Engineering Land Use Application Comments

To: Eric Rutledge, Planning Associate

From: Craig Christensen, P.E., Engineering Department

Project: Ziggy's Coffee (LU 20-023)

Date: February 17, 2020

Engineering staff has reviewed the information provided for the above cited project. Final construction plans will need to meet the standards established by the City of Sherwood Engineering Department and Public Works Department, Clean Water Services (CWS) and Tualatin Valley Fire & Rescue in addition to requirements established by other jurisdictional agencies providing land use comments. City of Sherwood Engineering Department comments are as follows:

Sanitary Sewer

Currently an 8-inch diameter public sanitary sewer exists within SW Borchers Drive along a portion of the subject property frontage. The existing building within the subject development is currently connected to the public sanitary sewer within SW Borchers Drive. The surrounding properties all currently have public sanitary sewer service. Therefore no extension of the public sanitary sewer is required. No changes to the on-site sanitary sewer are anticipated for this project.

CONDITION: Prior to Approval of the Engineering Public Improvement Plans, the applicant shall demonstrate an appropriately sized grease interceptor/removal device exists as part of the site plumbing, or design to provide an appropriately sized grease interceptor/removal device.

Water

Currently a 10-inch diameter public water main exists within SW Borchers Drive along the subject property frontage. There is also a 12-inch diameter public water main within the northeastern portion of the subject property that crosses beneath Highway 99W interconnecting the water main within SW Borchers Drive to the water main within SW Langer Drive. There is currently no public water line within Highway 99W along the subject property frontage. The existing building within the subject development is currently connected to the public water. No changes to the on-site water are anticipated for this project. Since conditioning installation of a public water line within Highway 99W would not be proportional to the project's impact to the water system, no extension of the public water main along the subject property frontage of Highway 99 is required.

Project: Ziggy's Coffee (LU 2020-023)
Date: February 17, 2020
Page: 2 of 4

CONDITION: Prior to Approval of the Engineering Public Improvement Plans, if any water fixtures are to be added, water flows calculations (domestic, irrigation and fire) shall be provided by the developer.

CONDITION: Prior to Approval of the Engineering Public Improvement Plans, the proposed development shall design for the installation of a Backflow Assembly meeting Sherwood Engineering Department standards.

CONDITION: Prior to Final Acceptance of the Constructed Public Improvements, any public water facilities located on private property shall have a recorded public water line easement encompassing the related public water infrastructure meeting Sherwood Engineering standards.

Storm Sewer

Currently a 12-inch diameter public storm sewer exists within SW Borchers Drive along the subject property frontage. There is also a 12-inch diameter public storm sewer within Highway 99W. Currently the subject property is connected to the public storm sewer within SW Borchers Drive. The surrounding properties all currently have public sanitary sewer service. No extension of the public storm sewer is required.

Currently the subject property has a water quality/detention pond. As part of the development of the subject property the developer proposes to remove the existing facility and replace it with a proprietary system. The new water quality treatment system shall provide treatment for all existing, modified and new impervious area within the subject property. The detention will not need to be replaced as there is no known downstream deficiency and the runoff from the sight is not significant enough to warrant on-site detention due to the small size of the subject property. However, if the subject development creates/modifies impervious area in the amount of 1,000 square feet or greater, then the subject development will either need to provide for hydro-modification or a payment-in-lieu thereof.

CONDITION: Prior to Approval of the Engineering Public Improvement Plans, the proposed development shall design to provide storm water quality treatment in compliance with Clean Water Services' standards.

CONDITION: Prior to Approval of the Engineering Public Improvement Plans, if the amount of new/modified impervious area is 1,000 square feet or greater, then the proposed development shall design to provide storm water hydro-modification in compliance with Clean Water Services' standards or a payment-in-lieu thereof.

CONDITION: Prior to Acceptance of Public Improvements, private water quality/hydro-modification facilities shall have a recorded Private Storm Water Facility Access and Maintenance Covenant. An Operation and Maintenance Plan for all private water quality/hydro-modification facilities is also required to be submitted to the Sherwood Engineering Department.

Project: Ziggy's Coffee (LU 2020-023)
Date: February 17, 2020
Page: 3 of 4

CONDITION: Prior to Issuance of a Plumbing Permit, the proposed development shall design for private storm water runoff within the subject property to be collected and conveyed in accordance with the current Oregon Plumbing Specialty Code.

Transportation

The subject property has frontage on Highway 99W (principal arterial) to the southeast and SW Borchers Drive (collector street) to the northwest. Both Highway 99W and SW Borchers Drive are developed street sections with sidewalk along the frontage of the subject property. The street width of SW Borchers Drive is approximately 40 feet from curb to curb along the subject property frontage. This exceeds city standards for a 2-lane collector with no parking which has an overall width of 34 feet (two 11-foot wide lanes with two 6-foot wide bike lanes), however it is less than what is necessary for a 2-lane collector with parking which requires an overall width of 50 feet. Currently SW Borchers Drive is not signed for no parking. This area of SW Borchers Drive does not appear to have a need for onstreet parking as aerial photos don't show vehicles parking on-street. Since on-street parking is not needed in this area and since the width of the street is adequate for a collector status street with no on-street parking, no street frontage improvements are required. The developer will need to install no-parking signs along the frontage of the subject property on both sides of the street so that the street width is in compliance with city standards.

The subject property currently has 2 existing driveways onto SW Borchers Drive. The subject development is proposing to modify the existing drive-through to allow for a one-way dual drive-through. Vehicles will enter the subject property via the southern driveway and exit back out to SW Borchers Drive via the northern driveway.

CONDITION: Prior to Approval of the Engineering Public Improvement Plans, the developer shall design for the installation of "No Parking" signs meeting the approval of the Sherwood Engineering Department.

Grading and Erosion Control:

City policy requires that prior to grading, a permit is obtained from the Building Department for all grading on the private portion of the site.

The Engineering Department requires a grading permit for all areas graded as part of the public improvements. The Engineering permit for grading of the public improvements is reviewed, approved and released as part of the public improvement plans.

An erosion control plan and permit are required from the Sherwood Engineering Department for all public and private improvements. The erosion control permit is reviewed, approved and released as part of the public improvement plans.

The proposed disturbance area for the subject development is less than 1 acre in area therefore a DEQ NPDES permit is not required for this project.

Project: Ziggy's Coffee (LU 2020-023)
Date: February 17, 2020
Page: 4 of 4

CONDITION: Prior to Grading Permit, the subject development shall obtain approval of a site erosion control plan from the Sherwood Engineering Department.

Other Engineering Issues:

A Clean Water Services Service Provider Letter has already been obtained for the proposed development.

CONDITION: Prior to Approval of the Engineering Public Improvement Plans, a Storm Water Connection Permit Authorization shall be obtained.

CONDITION: Prior to Approval of the Engineering Public Improvement Plans or Issuance of Building Permits, an Engineering Compliance Agreement shall be obtained from the Sherwood Engineering Department.

CONDITION: Prior to Occupancy, the subject development shall receive Final Acceptance of Public Improvements.

PUE exists along SW Borchers Drive and Highway 99W along the subject property frontage. Therefore no PUE dedication is required.

Sherwood Broadband exists aerially around/over the subject property. There are no broadband conduits along the subject property frontage of SW Murdock Road or Highway 99W. Due to no building construction being performed on the subject property, installation of Sherwood Broadband vaults and conduit is not required except as necessary to bring service to the building if desired.

If Sherwood Broadband is desired for the subject development, then it should be coordinated with the City of Sherwood.

END OF COMMENTS.



February 26, 2007

Paul Seilo
SFA Design Group
9020 SW Washington Square Dr., Suite 350
Portland, OR 97223



Dear Mr. Seilo,

This letter is written to describe the existing and anticipated future operation of the two site access driveways that will serve the proposed drive-through coffee shop on Borchers Drive in Sherwood. The site plan has recently been revised to provide storage for the required number of vehicles without interfering with existing traffic utilizing the driveways.

The two existing access locations currently serve adjacent developments. The west driveway serves the feed store located to the west side of the proposed development, and the east driveway serves the gas station located to the east of the proposed development.

Both existing driveways operate with relatively low traffic volumes and minimal delays. Queue lengths typically consist of a single exiting vehicle waiting to enter Borchers Drive. Vehicles occasionally use both existing driveways for egress from the existing businesses to Borchers Drive. Consequently, operation of the coffee shop access driveways was evaluated assuming that there may be a vehicle queued in the driveway throat.

The west site access will serve as the entrance for one-way circulation on the coffee shop site. The driveway throat, however, will serve two-way traffic since feed store customers will still be able to exit from this location. Since six spaces of vehicle storage are provided on the coffee shop site outside the driveway throat, site traffic from the proposed development is not expected to obstruct feed store traffic entering or exiting from the driveway.

Vehicles waiting to enter Borchers Road when leaving the feed store site may occasionally block access to the left lane of the coffee shop drive-through. These blockages will generally be brief (10 to 15 seconds), and are not expected to have a significant affect on operation of the coffee shop since the right lane will remain accessible.

The east site access will serve as the exit for the one-way circulation on the coffee shop site. Site traffic is not expected to have a significant impact on the existing traffic utilizing this



Paul Seilo
February 26, 2005
Page 2 of 2

access, since the driveway throat can only accommodate a single vehicle exiting from the coffee shop site. Vehicles exiting from the gas station facilities may be subject to additional delay while waiting for the queued vehicle to turn onto Borchers Drive, however these delays are brief (10 to 15 seconds) and will not significantly impact the existing traffic using this driveway.

Vehicles entering and exiting the existing gas station facilities may also briefly block site traffic exiting the proposed coffee shop drive-through, however these brief blockages will not significantly impact operation of the drive-through.

No significant adverse operational impacts or safety concerns are expected in association with the proposed drive-through coffee shop site plan. No safety or operational mitigations are recommended.

If you have any questions regarding this matter, please feel free to call me at any time.

Respectfully,

A handwritten signature in blue ink, appearing to read 'Michael Ard', written in a cursive style.

Michael Ard, P.E.
Transportation Engineer
Lancaster Engineering