

88th Street NE Access Management Plan

CITY OF MARYSVILLE

February 1998

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88th Street Access Management Plan

This plan outlines the proposed 88th Street Access Management Plan based on a review of the existing roadway conditions and land use, proposed developments and access plans, current intersection channelization, and impacts at the rail crossing for the 88th Street Corridor from I-5 to State Avenue. Fundamental engineering practice and the recommended access standards developed for the Marysville Access Management Plan were applied to the proposed and potential developments adjacent to the arterial corridor to develop the 88th Street Access Management Plan recommendations.

The City of Marysville Comprehensive Plan has been amended to include the recommendations outlined by this document. According to Eric Thompson, Marysville Senior Planner, the following text has been amended to the Comprehensive Plan:

“Community Commercial along 88th Street NE is contingent upon approval of an access management plan by the City. The access management plan shall include provisions for joint access development along all properties between State Avenue and 36th Avenue NE, and shall not affect the long range capacity, level of service, and safety of motorists using 88th Street NE. This plan shall be approved through the public review process, and shall be considered an integral part of the Comprehensive Plan for this planning subarea.”

EXISTING CONDITIONS:

The subject section of 88th Street is currently a five-lane east-west collector arterial with two lanes in each direction and a two-way center left turn lane with a posted speed limit of 35 mph. Existing traffic count data provided by WSDOT and Gibson Traffic Consultants shows that 88th Street west of State Avenue carries approximately 16,191 ADT with approximately 8,100 ADT per direction. The counts also show a p.m. peak hour volume of approximately 1,300 vehicles per hour (vph) with 819 vph and 500 vph traveling in the eastbound and westbound directions, respectively. At the intersection of 88th Street and State Avenue the eastbound PM peak hour vehicle volumes were counted as 262 vehicles turning left, 368 vehicles continuing through, and 189 vehicles turning right.

The above vehicle volumes were used to develop a queuing analysis for the intersection of 88th Street and State Avenue. The analysis determined that the left turn would queue approximately 300 feet from the railroad crossing stop bar during the peak hour per signal cycle. The through movement will queue 350 feet and right turn movement will be 150 feet. The stop bar to the bridge is approximately 340 feet. (See Appendix A Queuing Analysis Plan).

Utilizing the level of service (LOS) guidelines outlined in Snohomish County Public Works' *Procedure 4210 for Making LOS Determinations for Use in Concurrency Determinations* (see

Appendix B), the current service grade for the subject section of 88th Street is LOS C. The range for LOS C under these County guidelines for arterial sections is 1,021 to 1,430 vph for a five-lane minor or collector arterial with standard lane widths. The City of Marysville has adopted LOS D as their standard level of service grade for arterials.

The City Comprehensive Plan indicates that 88th Street will be upgraded to a minor collector with projected traffic volumes of 4,750 vph west of State Avenue in the Year 2010. This projected future volume would deteriorate the service grade from its current LOS C to LOS F based on the County LOS guidelines. To remain within the adopted level of service grade (LOS D) under the City Comprehensive Plan, 88th Street could increase its peak hour volume to a maximum of 1,780 vph before it deteriorates to LOS E with a maximum volume of 2,170 vph under County guidelines.

The proposed development from adjacent properties located between 36th Avenue and State Avenue would contribute approximately 400 new p.m. peak hour trips according to the 88th Street Access Analysis conducted in May 1996 by the Transpo Group. The addition of this traffic to 88th Street would increase the total volume to approximately 1,700 vph thus deteriorating the arterial to LOS D but still within the adopted City LOS standard.

Any additional traffic from future development on 88th Street or in the surrounding vicinity that may utilize 88th Street is likely to deteriorate the roadway service grade to LOS E. Although LOS E is beyond the standard service grade for arterials within Marysville, it is not unacceptable in terms of normal traffic flow operations (e.g., 4th Street is accepted to be LOS F). The Comprehensive Plan identifies the State Avenue/88th Street intersection to operate at LOS F in 2010; however, the costs for mitigation improvements due to right-of-way would not be feasible thereby making a higher LOS grade acceptable.

ARTERIAL TRAFFIC FLOW RECOMMENDATIONS

The review of the existing and future traffic conditions on 88th Street indicate that the traffic generated by properties proposed for development with frontage on 88th Street can be accommodated by the existing capacity of the arterial. The level of service analysis conducted for the 88th Street arterial section indicates that the current service grade of LOS C will deteriorate to LOS D with the proposed development from both sides of 88th Street west of Quilceda Creek. Based on Snohomish County traffic volume and LOS guidelines, 80 additional new p.m. peak hour trips could be added to the arterial before the service grade deteriorates to LOS E standards or 470 additional new p.m. peak hour trips could be added before reaching LOS F standards.

Although the City of Marysville has adopted LOS F conditions for the 4th Street Corridor adjacent to I-5, the recommendation for the 88th Street Corridor is to allow development to occur until LOS E standards are maximized. A future evaluation of the traffic conditions should then be conducted to determine if potential infrastructure improvements beyond the 88th Street Corridor can be implemented which may improve the State Avenue/88th Street intersection

operations. This study should be conducted before allowing further development to occur which would deteriorate the arterial service grade to LOS F standards.

The City will ultimately need to decide what level of additional development on 88th Street should be approved to preserve capacity with the understanding that traffic growth on 88th Street due to development in the region will occur regardless of development restrictions on 88th Street.

PROPOSED DEVELOPMENT ACCESS REVIEW

The section of 88th Street from I-5 to 125 feet east of the 36th Avenue NE centerline is within WSDOT's limited access corridor, therefore, properties adjacent to 88th Street within this section would be required to obtain access to 36th Avenue.

The properties with frontage adjacent to 88th Street from the end of the limited access to State Avenue are under the ownership of nine property owners according to City records. All properties are currently zoned RS-9600 (single family residential) and designated as Community Commercial according to the Comprehensive Plan.

The property owners on the north side (from West to East) are identified as Emory with two contiguous parcels, City of Marysville, Stover, Daughenbaugh, and Orourke. The property owners on the south side are identified as Contoravdis with two contiguous parcels, Lavigne with three contiguous parcels, City of Marysville, and Jansha Tanning Company. The railroad easement at the east end of 88th Street prior to State Avenue is owned by Burlington Northern Railroad (BNRR).

A review of the current proposed developments requesting direct access to 88th Avenue was conducted in accordance with the recommended standards outlined in the City's Access Management Plan. The identified developments include a retail center for the Emory properties, Pilchuck Rentals redevelopment for the Daughenbaugh and Orourke properties, Chevron Food Mart for the Contoravdis properties, and retail/commercial development for the Lavigne properties. All proposed development access driveways are shown in Appendix.

Our review of the proposed access locations based on the Transpo 88th Street Access Study indicates that the Emory Property retail center is requesting two direct access locations on 88th Street and two full access onto 36th Avenue. The proposed West access is located 190 feet east of the 36th Avenue R/W and would be right turn in/right turn out. The proposed East driveway is located 100 feet east of the right turn in/ right turn out and would be a full access.

The review of site access proposed for the Pilchuck Rentals project as shown on the site plan prepared by Kirtley Cole Design Inc. indicates one access locations to 88th Street. The driveway is proposed to be full access. The access is located approximately 186 feet west of the Burlington Northern Santa Fe railroad crossing stop bar. In addition, this area has an existing driveway 6 feet west of the stop bar. This driveway serves several residential houses to the north of 88th Street.

The review of the site access for the Chevron Food Mart as shown in the site plan prepared by Barghausen Engineers, Inc. indicates two access locations are proposed for the site, one each on 88th Street and 36th Avenue. The access driveway on 88th Street is proposed to be right turn in/right turn out and the 36th Avenue access driveway is proposed to be full access. The proposed 88th Street access is located approximately 80 feet east of the existing 36th Avenue R/W. The 36th Avenue access is located approximately 105 feet south of the 88th Street R/W.

The review of the site access for the BP retail/commercial development as shown in the site plan prepared by Brunner Brothers, Inc. indicates two full access locations are proposed for the site, one each on 88th Street and 36th Avenue. The proposed 88th Street access is located approximately 155 feet east of the near edge of the proposed Chevron 88th Street driveway or 275 feet east of near edge 36th Street right-of-way. The 36th Avenue access is located 87 feet south of the near edge of the proposed Chevron 36th Avenue driveway or 232 feet south of near edge 88th Street right-of-way.

DEVELOPMENT ACCESS RECOMMENDATIONS

The review of the proposed access locations for development on 88th Street as described above results in the following recommendations for access location. The recommendations are based on the proposed driveway spacing standards developed for the Marysville Access Management Plan and standard engineering practice.

West side of Quilceda Creek:

The review of the proposed Retail Center (Emory properties) access locations on the north side of 88th Street indicate that the spacing between the proposed access driveways does not meet the 120 foot spacing standards required in the Marysville Access Management Plan. The West driveway is recommended to remain restricted to right turn in/right turn out only and the East driveway to remain a full access driveway (see Appendix D). The western edge of the right turn in / right turn out driveway shall be located between 150 to 180 feet east of the 36th Avenue R/W. The eastern edge of the full access shall be 125 feet west of the beginning of channelization taper approximately engineer's station 35+20 providing a minimum driveway spacing of 120 feet. Any proposed secondary access driveways to 36th Avenue should also comply with the City Access Management Plan standards. Access to the Snohomish County Lift Station east of the Emory property should be provided from an easement along the east property line to avoid construction of an additional access driveway onto 88th Street.

The review of the proposed access driveway for the Chevron Food Mart indicates that the access is non-conforming and should be denied. Due to the proposed land use for this parcel (convenience store/gas station) a minimum of two access locations are required for truck circulation. Therefore, approval of an access to 88th Street with a second access allowed on 36th Avenue would provide the minimum access needed. However, since the property frontage is limited, the recommendation is for a shared right turn in/right turn out access with the BP Retail/Commercial development to the east. The access to 88th Street shall be centered between

the two properties approximately 130 feet east of the existing right of way line. The access management plan requires that right turn in/ right turn out access on the departure side of a traffic signal shall be 200 feet. Therefore, the proposed access point would be a deviation from the Marysville Access Management Plan. If the property to the west develops before the property to the east the driveway may not be able to be constructed at the ultimate location or configuration. However, when the eastern property develops, the access should be moved to the ultimate location and configuration. The property owner's engineer, Barghausen Consulting Engineers, Inc. wrote a letter expressing concern about the access being constructed and then potentially needing to be relocated to the ultimate location (see Appendix E). It should be noted that a portion of the subject property had access rights purchased during the road construction project (hatched area on the plan). During the Planning Commission workshops, the Chevron and BP representatives indicated at the meeting that they required separate access points as their businesses compete with each other and were unwilling to cooperate in a shared access. Therefore, if the access is not shared, the driveway could be shifted to the west abutting the no access area. The access width would be approximately 28 feet wide and would be restricted to right turn in/ right turn out.

The review of the BP Retail/Commercial development access to 88th Street shall align with the proposed Emory Property Retail Center full access location on the north side of 88th Street. The access location for the BP Retail/Commercial development is 183 feet east of the ultimate Chevron Food Mart shared access driveway. Any access driveways to 36th Avenue should satisfy the City Access Management Plan spacing requirements.

East side of Quilceda Creek:

To the east of Quilceda Creek adjacent to State Avenue is the Burlington Northern Santa Fe railroad. All driveway locations shall be measured from the stop bar west of the railroad tracks (see Appendix D).

The review of the access locations proposed for the Pilchuck Rentals redevelopment project (Daughenbaugh/Orourke properties) indicate that the access is non-conforming and should be denied under the spacing standards outlined in the Access Management Plan. The driveway is located 186 feet west of the stop bar. Due to steep slopes, retaining walls, and wetlands, relocating the driveway to the west to meet Access Management Plan standards does not seem feasible. The driveway does not meet the 250 feet full access spacing or the 200-foot right in/ right out spacing from a signalized intersection. City staff recommends that a deviation be granted restricting the access to right turn in/ right turn out.

The Jansha Tanning Company has two full access driveways to 88th Street. The eastern driveway is approximately 20 feet from the railroad stop bar. Staff recommends that this access be eliminated and restricted to the western driveway. The western driveway is approximately 205 feet west of the railroad stop bar. The spacing for this driveway does not meet the Access Management Plan standards for full access and should be restricted to right turn in/ right turn out.

VARIANCE

All variance requests from this plan shall be submitted to the City Engineer in writing. The City Engineer shall notify all residents and businesses on 88th Street NE between I-5 and State Avenue, all residents that use 36th Drive NE as their sole access to 88th Street NE, all residents that use 40th Drive NE, and all parties of record at the February 10, 1998 Planning Commission Hearing of this plan of the variance request. The City Engineer shall provide a 15-day comment period before making a final decision. All comments on the variance shall be provided in writing. The City Engineer shall review the request per the criteria set forth in the Marysville Access Management Plan and the written comments and make a final written decision. Administrative interpretations and administrative approvals may be appealed by applicants or aggrieved adjacent property owners to the Hearing Examiner. Appeal shall be filed within 14 days of the issuance of the decision. The appeal process is identified in Chapter 15.11 of the Marysville Municipal Code.

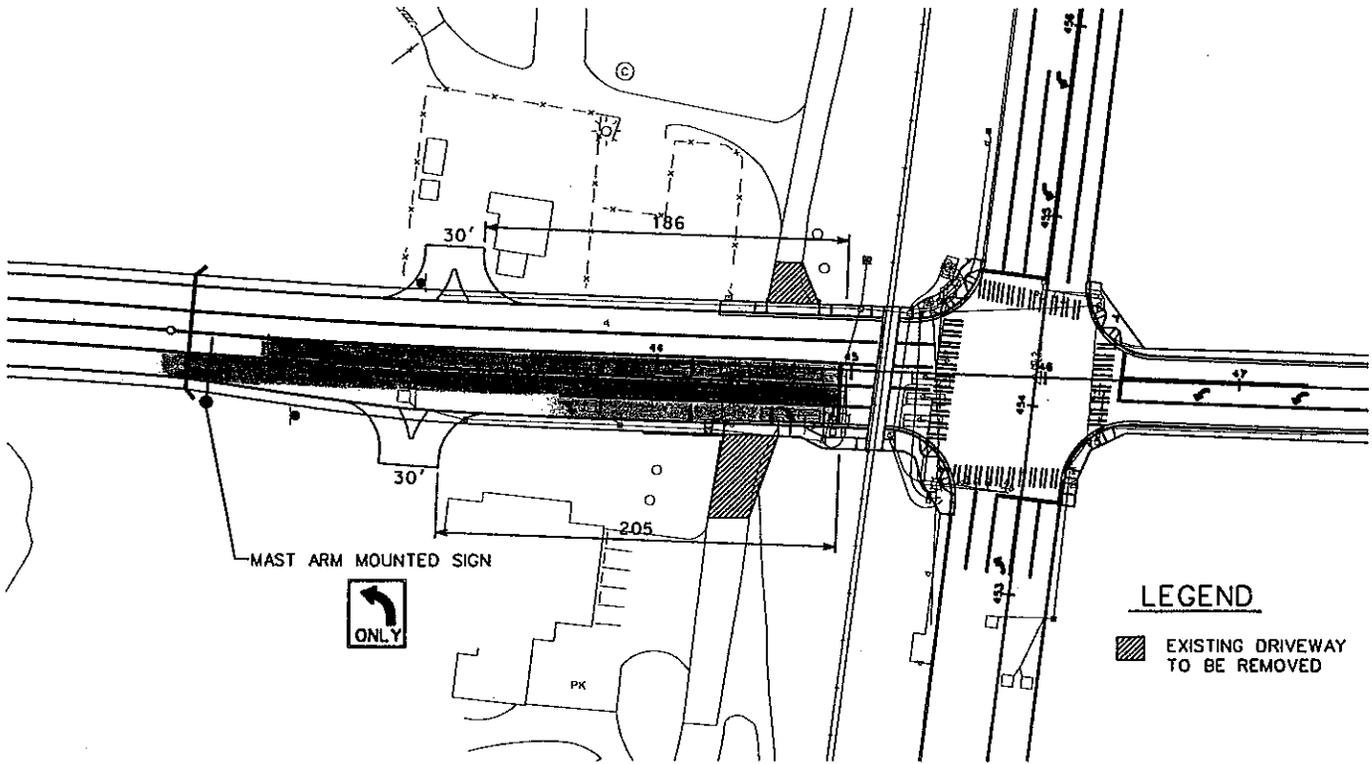
CONCLUSION

The following language shall be a condition of all land use applications or permits granted on the 88th Street corridor:

“When the Average Weekday Daily Traffic Volumes on the 88th Street NE corridor between I-5 and State Avenue exceeds 24,000 vehicles, the Public Works Department will review restricting left turn movements on the 88th Street NE corridor for safety improvements and/or to retain existing capacity. If it is determined that restricting left turns onto the corridor would result in safety improvements and/or will retain the existing capacity, the City Council may restrict the turning movement.”

The development of the 88th Street Corridor access plan recommendations was based on the Marysville Access Management Plan standards. The proposed 88th Street access plan recommendations provides the City of Marysville with an alternative solution for access to the arterial which would allow for future development and safe and efficient traffic flow. By reducing the number of driveways all forms of transportation will benefit. Many national studies have shown that limiting the number of driveways, pedestrian and bicycle safety is improved by reducing the number of potential conflicts. Improved pedestrian access may lead to increase transit ridership. In addition, with the required development streetscape design for the corridor and the reduced number of driveways, the aesthetics of the corridor will be improved. The 88th Street NE Access Management Plan will provide the City with a workable foundation and basis for the review and approval of site access for currently proposed and future development within the 88th Street Corridor.

Appendix A



PERTEET ENGINEERING
 INCORPORATED

Civil and Transportation Consultants
 2828 Colby Avenue • Suite 410 • Everett, WA 98201 • (206) 252-7233

88TH Street Queuing

- Left turn only
- Through only
- Right turn only

Appendix B

PROCEDURE

PAGE 1 OF 5
SEE ALSO: POL-4210, POL-4213,
PRO-4213, POL-4200, and PRO-4200
APPROVED BY: [Signature]
EFFECTIVE: 7/13/95
REVISED: 7-18-96

PRO - 4210 MAKING LEVEL-OF-SERVICE DETERMINATIONS FOR USE IN CONCURRENCY DETERMINATIONS

This procedure will be used for establishing level-of-service (LOS) on County road arterial units for the purpose of making concurrency determinations in accordance with Title 26B SCC for developments determined to be complete on or after the effective date of Amended Ordinance No. 95-039 (7/13/95).

This technical procedure is adopted pursuant to the delegation of authority in SCC Title 26B.52.130.

I. Making level-of-service determinations based on current conditions.

<u>Action By:</u>	<u>Action</u>
Program Planning Section	1. Identifies arterial units and transmits to Traffic Operations Section.
	2. Determines whether each arterial unit is "urban" or "rural."
Traffic Operations Section	3. Determines LOS through screening for all arterial units by obtaining current traffic count information and comparing to attached level-of-service screening tables (Attachments A and B). (Note: Tables represent information prepared by the Snohomish County Department of Public Works. See also Technical Papers 2-14-96A, 2-14-96B, and 4-18-96A.)

TABLE SET 4: Maximum Service Volume (vph)
 (Two-way Vehicles per Hour)
 (>2.50 Signalized intersections per mile)

PRINCIPAL ARTERIAL
 (Standard Lane Widths)

Through Approach Width and Number of Lanes

Table 4-A	12 ft	12 ft	24 ft	24 ft	37 ft	37 ft
LOS	2-lane	3-lane	4-lane	5-lane	6-lane	7-lane
A	460	540	760	950	1,260	1,580
B	580	690	960	1,200	1,600	2,000
C	820	960	1,350	1,690	2,250	2,810
D	1,020	1,200	1,680	2,100	2,800	3,490
E	1,240	1,460	2,050	2,560	3,410	4,260

MINOR AND COLLECTOR ARTERIALS
 (Standard Lane Widths)

Through Approach Width and Number of Lanes

Table 4-B	12 ft	12 ft	23 ft	23 ft	34 ft	34 ft
LOS	2-lane	3-lane	4-lane	5-lane	6-lane	7-lane
A	430	510	640	800	n/a	n/a
B	550	640	820	1,020	n/a	n/a
C	770	900	1,150	1,430	n/a	n/a
D	960	1,120	1,430	1,780	n/a	n/a
E	1,170	1,370	1,740	2,170	n/a	n/a



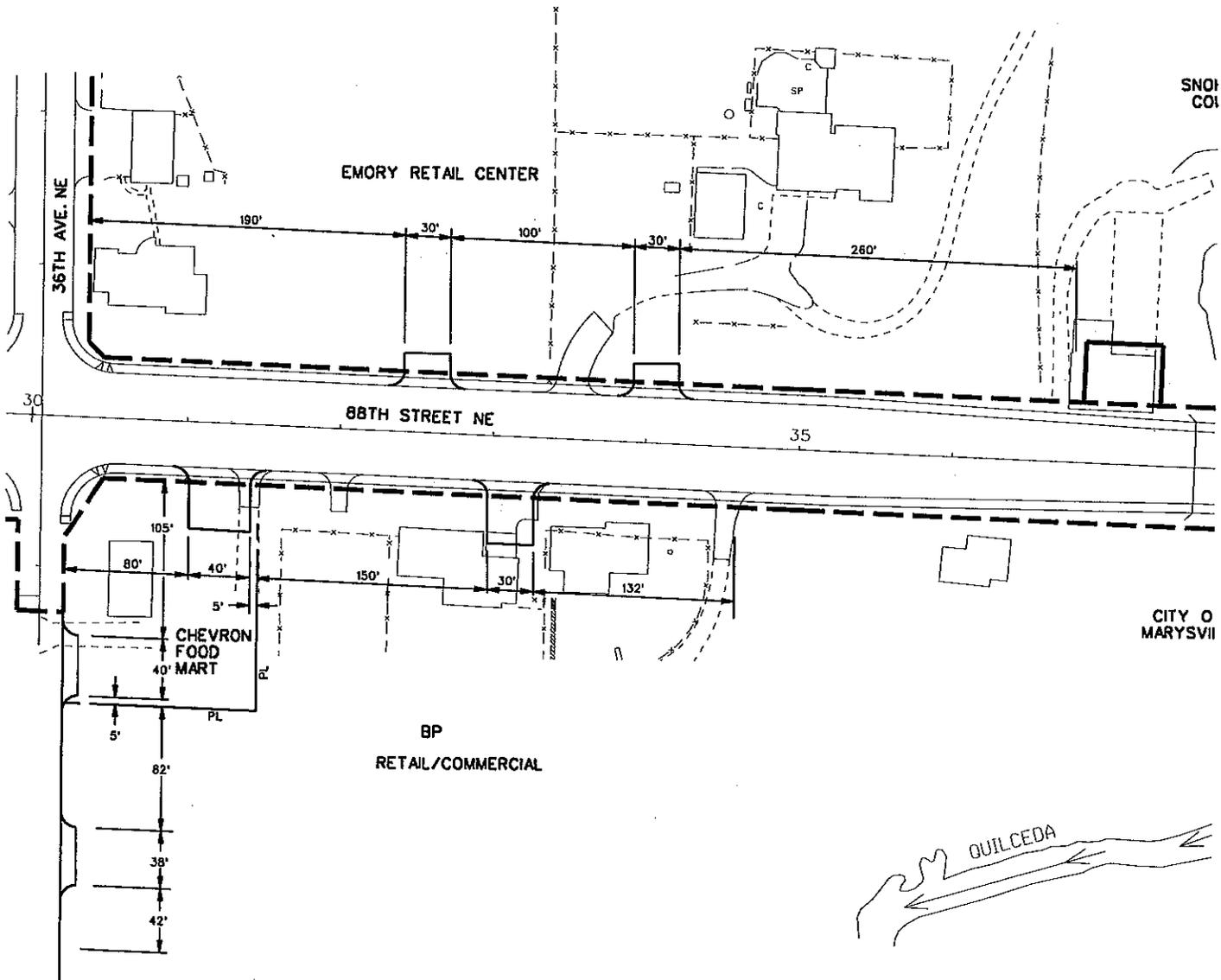
PRINCIPAL, MINOR AND COLLECTOR ARTERIALS
 (Nonstandard Lane Widths)

Through Approach Width and Number of Lanes *

Table 4-C	≤11 ft	≤11 ft	≤22 ft	≤22 ft	31 ft	31 ft	36 ft	36 ft
LOS	2-lane	3-lane	4-lane	5-lane	6-lane	7-lane	6-lane	7-lane
A	340	430	560	700	840	1,050	1,010	1,260
B	440	550	710	880	1,070	1,330	1,280	1,600
C	610	770	1,000	1,240	1,500	1,870	1,800	2,240
D	760	950	1,240	1,540	1,860	2,330	2,230	2,790
E	930	1,160	1,510	1,880	2,270	2,840	2,720	3,400

* Interpolation is only appropriate for service volumes between 31 and 36 feet.

Appendix C



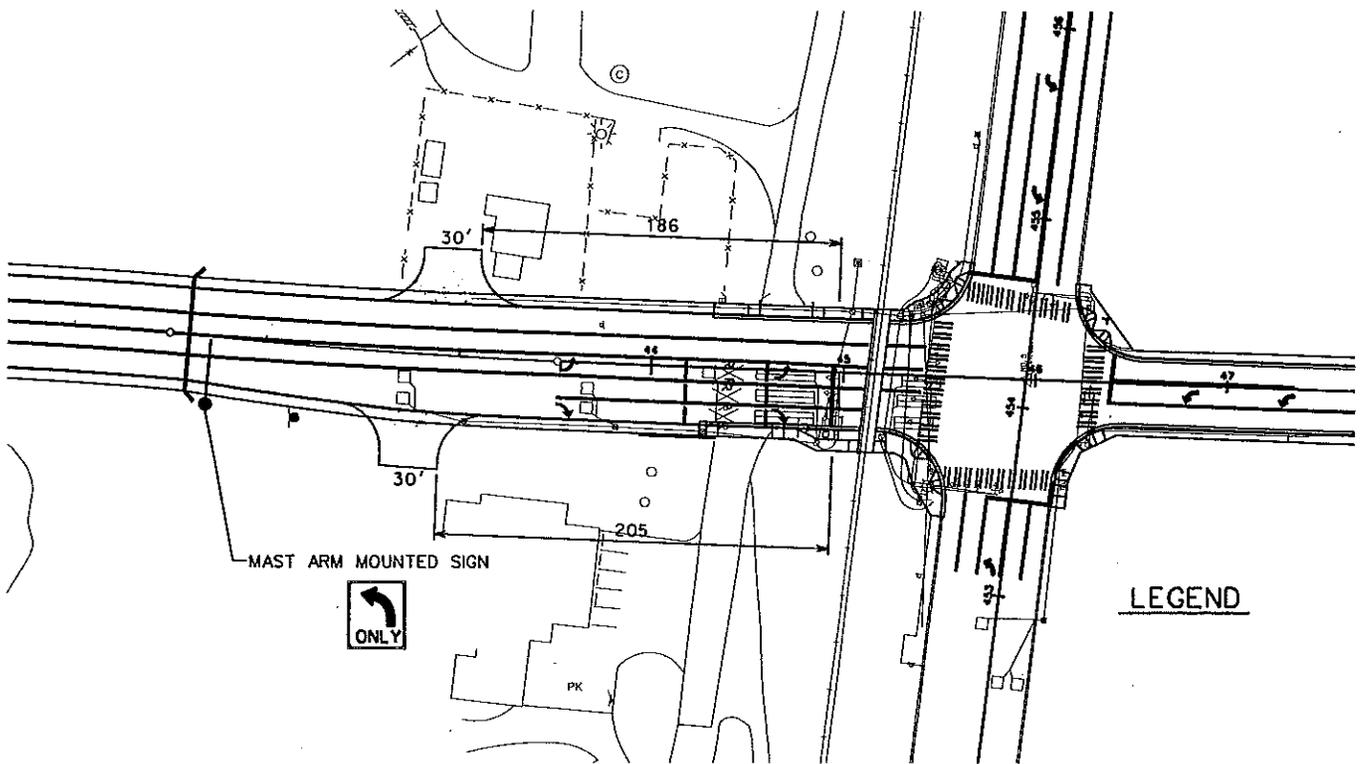
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88TH Street
Proposed Development Access Location



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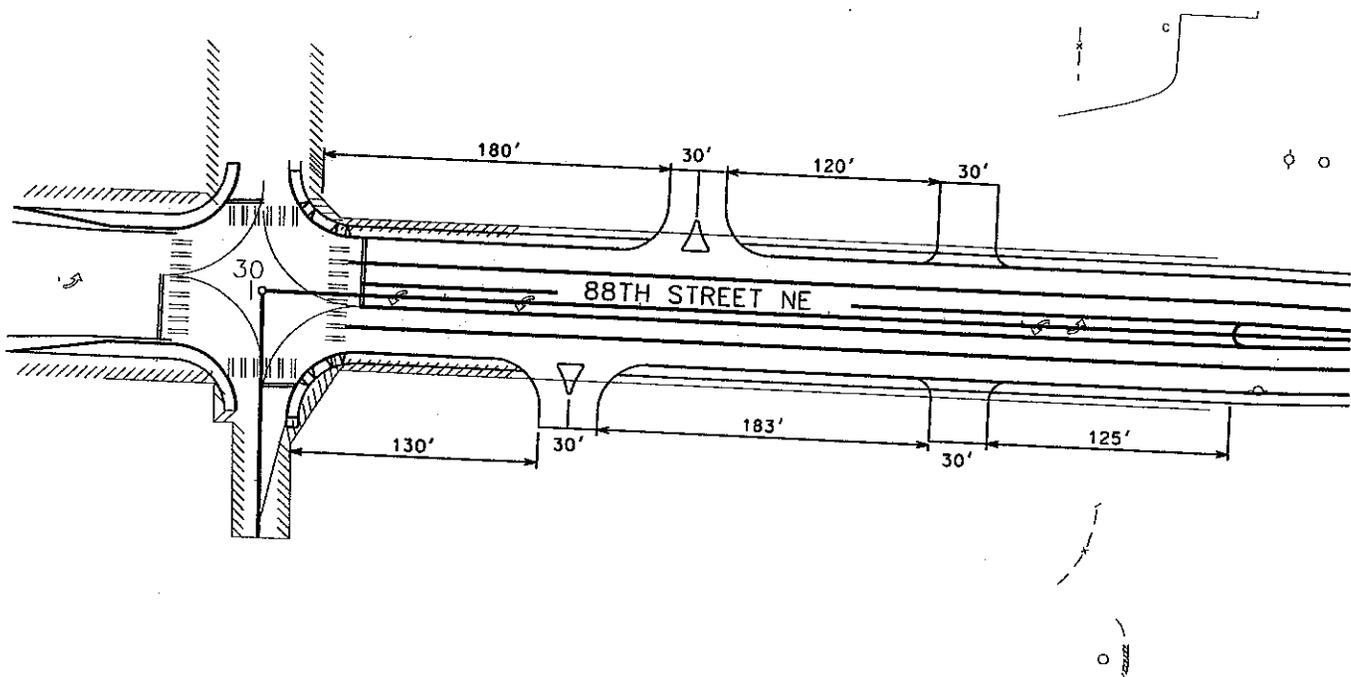
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88TH Street
Proposed development Access Location

Appendix D

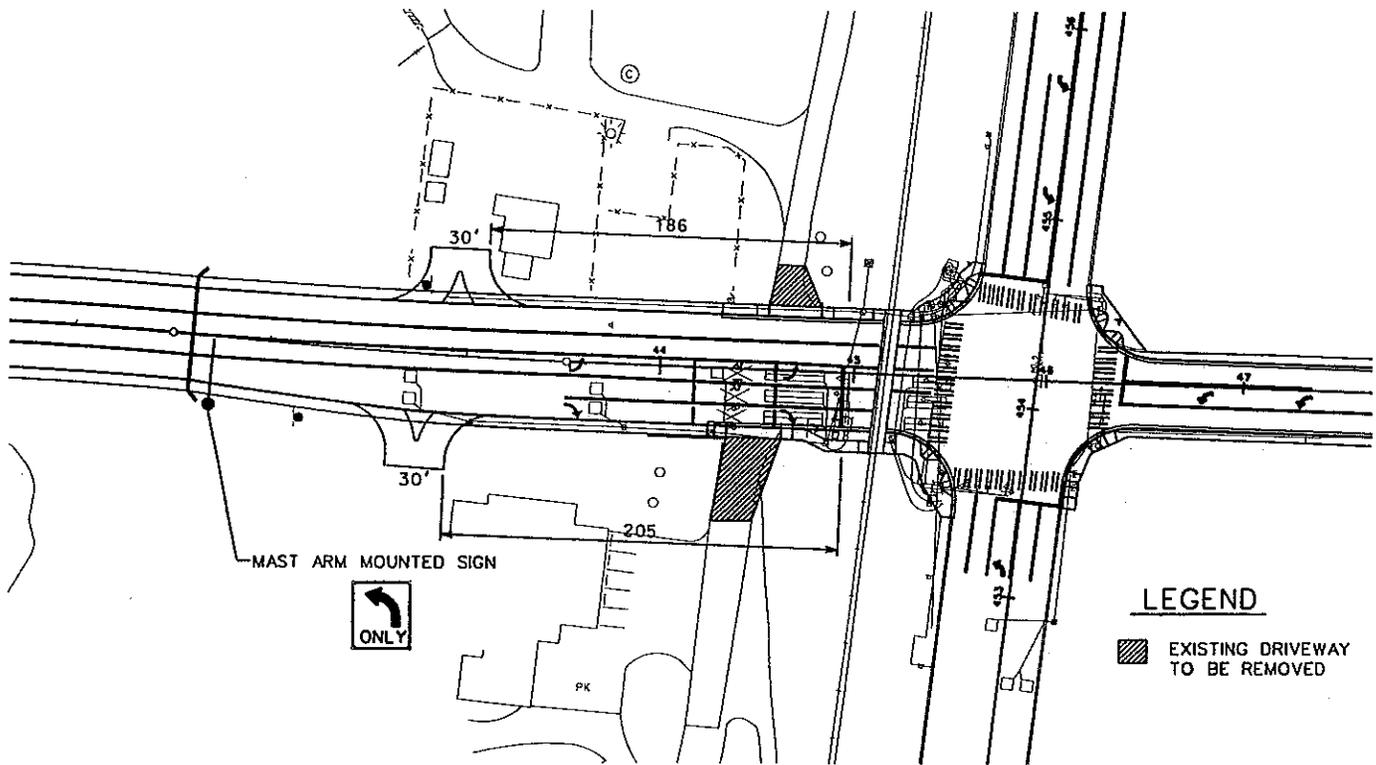


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88TH Street Driveways



PERTEET ENGINEERING

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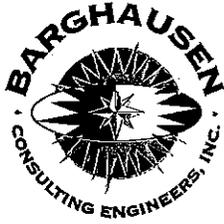
Civil and Transportation Consultants

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88TH Street Driveways

Appendix E





December 15, 1997
Facsimile: (360) 651-5099

RECEIVED

DEC 17 1997

City of Marysville
Public Works

Mr. Owen Carter, City Engineer
City of Marysville
80 Columbia Avenue
Marysville, WA 98270

RE: 88th Street Access Management Plan Recommendations for Chevron Food Mart/Gasoline Station
SEC - 88th Street N.E. and 36th Avenue N.E., Marysville, Washington
Our Job No. 5783

Dear Mr. Carter:

I have recently reviewed the 88th Street Access Management Plan recommendations and discussed them with Sherman Goong of Perteet Engineering, Inc., on behalf of the applicant, Lakha Investment Co., L.L.C. I would like to have this letter be made available to the Planning Commission during their next review of the 88th Street Access Management Plan.

Mr. Lakha is proposing to construct a Chevron gas station/food mart at the southeast corner of 88th Street N.E. and 36th Avenue N.E. His project is currently undergoing a rezone at the City. Perteet Engineering, Inc., has included specific access recommendations for this particular project and for other proposed projects in the near vicinity. Specifically, recommendations for access have been made for the Chevron site in conjunction with the Lavigne property (BP station/bank site located east and southeast of the Chevron site).

Perteet Engineering, Inc., has recommended that the Chevron access onto 88th Street be shared with the Lavigne property to the east (BP). The driveway will be restricted to right-in/right-out. The report mentions that even a shared access will not meet the plan's spacing requirements, and would be non-conforming. (Creating a shared access equally divided between both parcels means only approximately 11 feet of difference in driveway placement.)

In the best interest of all parties, I would like to propose that the City allow Chevron to construct the access, as currently proposed, as 28.50 feet wide to be located at the most easterly property line, with the added condition of restricted right-in/right-out turning movements. Furthermore, it would be agreed upon as a condition of project approval, for Chevron to grant an easement to the Lavigne property, allowing access for future development. At the time of development, the City could then require the Lavigne property to widen the existing shared access easterly by 6.50 feet, thus creating a 35-foot driveway, and also require them to grant an access easement to Chevron.

This accomplishes a win/win situation for all parties. The City, at a minimum, will have a shared access, and all the requirements for access management would be implemented in a more appropriate and sensitive

Mr. Owen Carter, City Engineer
City of Marysville

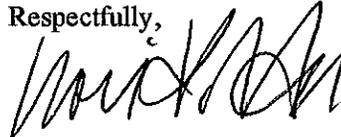
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December 15, 1997

manner regarding the individual time frames of each applicant. Most importantly, neither applicant would be forced to develop simultaneously, and either applicant could choose whether or not to utilize or continue to utilize their shared access arrangement throughout the coming years.

Please keep me informed of any changes or re-drafts of the Access Management Plan, and if you have any questions regarding this letter, please contact me at this office. Thank you for your time and consideration.

Respectfully,



Lori K. Hoover
Project Planner

LKH/sm/kn
5783C.013

cc: Mr. Andy Lakha, Lakha Investment Co., L.L.C.
Mr. Randy Welch, Emerald City Construction
Mr. Eric J. Thompson, City of Marysville
Mr. Jay S. Grubb, Barghausen Consulting Engineers, Inc.
Mr. Bruce K. Creager, Barghausen Consulting Engineers, Inc.