



Oregon

Theodore R. Kulongoski, Governor

Department of Land Conservation and Development

635 Capitol Street, Suite 150

Salem, OR 97301-2540

(503) 373-0050

Fax (503) 378-5518

www.lcd.state.or.us

NOTICE OF ADOPTED AMENDMENT

March 13, 2008



TO: Subscribers to Notice of Adopted Plan or Land Use Regulation Amendments

FROM: Mara Ulloa, Plan Amendment Program Specialist

SUBJECT: City of Medford Plan Amendment
DLCD File Number 012-07

The Department of Land Conservation and Development (DLCD) received the attached notice of adoption. Copies of the adopted plan amendment are available for review at DLCD offices in Salem, the applicable field office, and at the local government office.

Appeal Procedures*

DLCD ACKNOWLEDGMENT or DEADLINE TO APPEAL: March 26, 2008

This amendment was submitted to DLCD for review prior to adoption with less than the required 45-day notice. Pursuant to ORS 197.830 (2)(b) only persons who participated in the local government proceedings leading to adoption of the amendment are eligible to appeal this decision to the Land Use Board of Appeals (LUBA).

If you wish to appeal, you must file a notice of intent to appeal with the Land Use Board of Appeals (LUBA) no later than 21 days from the date the decision was mailed to you by the local government. If you have questions, check with the local government to determine the appeal deadline. Copies of the notice of intent to appeal must be served upon the local government and others who received written notice of the final decision from the local government. The notice of intent to appeal must be served and filed in the form and manner prescribed by LUBA, (OAR Chapter 661, Division 10). Please call LUBA at 503-373-1265, if you have questions about appeal procedures.

***NOTE: THE APPEAL DEADLINE IS BASED UPON THE DATE THE DECISION WAS MAILED BY LOCAL GOVERNMENT. A DECISION MAY HAVE BEEN MAILED TO YOU ON A DIFFERENT DATE THAN IT WAS MAILED TO DLCD. AS A RESULT YOUR APPEAL DEADLINE MAY BE EARLIER THAN THE DATE SPECIFIED ABOVE.**

Cc: Gloria Gardiner, DLCD Urban Planning Specialist
John Renz, DLCD Regional Representative
Cheryl Adams, City Of Medford

<paa> ya

DLCD

Notice of Adoption

In person electronic mailed



THIS FORM **MUST BE MAILED** TO DLCD
WITHIN 5 WORKING DAYS AFTER THE FINAL DECISION
 PER ORS 197.610, OAR CHAPTER 660 - DIVISION 18

Jurisdiction: **City of Medford**

Local file number: **ZC-07-207**

Date of Adoption: **2/28/2008**

Date Mailed: **3/4/2008**

Was a Notice of Proposed Amendment (Form 1) mailed to DLCD? **Yes** Date: 9/12/2007

Comprehensive Plan Text Amendment

Comprehensive Plan Map Amendment

Land Use Regulation Amendment

Zoning Map Amendment

New Land Use Regulation

Other:

Summarize the adopted amendment. Do not use technical terms. Do not write "See Attached".

ORDER granting approval of a request for a change of zone to an approximate 40.6-acre site from County RR-5 (Rural Residential – 5 acre minimum lot size) to City SFR-6 (Single-Family Residential – 6 units per acre); located on the west side of Columbus Avenue, south of Cunningham Avenue, north of Diamond Street, and east of Warren Way. 372W36C Tax Lots 1400, 1401, 1402, 1502 and 1600, 372W36CC Tax Lot 2300.

Does the Adoption differ from proposal? No, no explanation is necessary

Plan Map Changed from:

to:

Zone Map Changed from: **RR-5**

to: **SFR-6**

Location: **1409 Cunningham Avenue, 1300 Diamond Street**

Acres Involved: **41**

Specify Density: Previous: **1 unit per 5 acres**

New: **6 units per acre**

Applicable statewide planning goals:

| | | | | | | | | | | | | | | | | | | |
|-------------------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Was an Exception Adopted? YES NO

Did DLCD receive a Notice of Proposed Amendment...

45-days prior to first evidentiary hearing?

Yes No

If no, do the statewide planning goals apply?

Yes No

If no, did Emergency Circumstances require immediate adoption?

Yes No

DLCD # 012-07 (16386)

DLCD file No. _____

Please list all affected State or Federal Agencies, Local Governments or Special Districts:

Local Contact: **Cheryl Adams**

Phone: (541) 774-2398 Extension:

Address: **200 S. Ivy Street**

Fax Number: **541-618-1708**

City: **Medford**

Zip: **97501-**

E-mail Address:

cheryl.adams@cityofmedford.org

ADOPTION SUBMITTAL REQUIREMENTS

This form **must be mailed** to DLCD **within 5 working days after the final decision**
per ORS 197.610, OAR Chapter 660 - Division 18.

1. Send this Form and TWO Complete Copies (documents and maps) of the Adopted Amendment to:

ATTENTION: PLAN AMENDMENT SPECIALIST
DEPARTMENT OF LAND CONSERVATION AND DEVELOPMENT
635 CAPITOL STREET NE, SUITE 150
SALEM, OREGON 97301-2540
2. Electronic Submittals: At least **one** hard copy must be sent by mail or in person, but you may also submit an electronic copy, by either email or FTP. You may connect to this address to FTP proposals and adoptions: **webserver.lcd.state.or.us**. To obtain our Username and password for FTP, call Mara Ulloa at 503-373-0050 extension 238, or by emailing **mara.ulloa@state.or.us**.
3. Please Note: Adopted materials must be sent to DLCD not later than **FIVE (5) working days** following the date of the final decision on the amendment.
4. Submittal of this Notice of Adoption must include the text of the amendment plus adopted findings and supplementary information.
5. The deadline to appeal will not be extended if you submit this notice of adoption within five working days of the final decision. Appeals to LUBA may be filed within **TWENTY-ONE (21) days** of the date, the Notice of Adoption is sent to DLCD.
6. In addition to sending the Notice of Adoption to DLCD, you must notify persons who participated in the local hearing and requested notice of the final decision.
7. **Need More Copies?** You can now access these forms online at **http://www.lcd.state.or.us/**. Please print on **8-1/2x11 green paper only**. You may also call the DLCD Office at (503) 373-0050; or Fax your request to: (503) 378-5518; or Email your request to **mara.ulloa@state.or.us** - ATTENTION: PLAN AMENDMENT SPECIALIST.



CITY OF MEDFORD

PLANNING DEPARTMENT

March 4, 2008

Medford School District 549C
Mark Button
500 Monroe Street
Medford OR 97501

RE: FILE NO.: ZC-07-207

The Medford Planning Commission at its regular meeting of February 28, 2008, approved the Final Order containing Findings of Fact relating to the approval of the following request: Changing the zoning from County RR-5 (Rural Residential – 5 acre minimum lot size) to SFR-6 (Single-Family Residential – 6 units per acre) zoning on an approximate 40.6-acre site located on the west side of Columbus Avenue, south of Cunningham Avenue, north of Diamond Street, and east of Warren Way.

This request was granted as per the Planning Commission Report dated February 14, 2008.

The final date for filing an appeal is 21 days from the date of the decision. The written appeal and filing fee must be received by the City Recorder no later than 5:00 p.m. on March 20, 2008. Appeals must be filed in the form prescribed, and will be decided based upon Medford Code Sections 10.051-10.056 (copies available).

Bianca Petrou

Bianca Petrou, AICP
Acting Planning Director

kg

Enclosure: Staff Report/Final Order/Legal Description

cc: Maize and Associates, PO Box 628, Medford, Or 97501
Affected Agency
Interested Parties

Lausmann Annex ☼ 200 South Ivy Street ☼ Medford OR 97501

phone (541) 774-2380 ☼ fax (541) 774-2564

www.ci.medford.or.us

BEFORE THE MEDFORD PLANNING COMMISSION

STATE OF OREGON, CITY OF MEDFORD

IN THE MATTER OF PLANNING COMMISSION FILE)
ZC-07-207 APPLICATION FOR A ZONE CHANGE SUBMITTED) **ORDER**
BY MEDFORD SCHOOL DISTRICT 549C)

ORDER granting approval of a request for changing the zoning from County RR-5 (Rural Residential – 5 acre minimum lot size) to SFR-6 (Single-Family Residential – 6 units per acre) zoning on an approximate 40.6-acre site located on the west side of Columbus Avenue, south of Cunningham Avenue, north of Diamond Street, and east of Warren Way.

WHEREAS, the City Planning Commission in the public interest has given consideration to changing the zoning of real property described below from County RR-5 (Rural Residential – 5 acre minimum lot size) to SFR-6 (Single-Family Residential – 6 units per acre) zoning on an approximate 40.6-acre site located on the west side of Columbus Avenue, south of Cunningham Avenue, north of Diamond Street, and east of Warren Way; and

WHEREAS, the City Planning Commission has given notice of, and held, a public hearing, and after considering all the evidence presented hereby adopts the Planning Commission Report dated February 14, 2008, Applicant's Findings – Exhibit "A," and Legal Description – Exhibit "B" attached hereto and hereby incorporated by reference; now, therefore,

BE IT RESOLVED BY THE PLANNING COMMISSION OF THE CITY OF MEDFORD, OREGON, that:

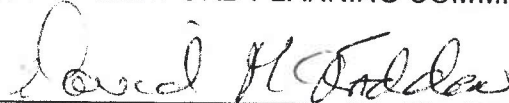
The zoning of the following described areas within the City of Medford, Oregon:

37 2W 36C Tax Lots 1400 (portion), 1401, 1402 (portion), 1502 and 1600
37 2W 36CC Tax Lot 2300

is hereby changed from County RR-5 (Rural Residential – 5 acre minimum lot size) to SFR-6 (Single-Family Residential – 6 units per acre) zoning district.

Accepted and approved this 28th day of February, 2008.

CITY OF MEDFORD PLANNING COMMISSION



Planning Commission Chair

ATTEST:


Planning Department Representative



CITY OF MEDFORD

PLANNING DEPARTMENT

PLANNING COMMISSION REPORT

Date: February 14, 2008

Subject: South Medford High School Zone Change (ZC-07-207)
Medford School District 549C, Applicant (Maize & Associates, Agent)

BACKGROUND

Proposal

Consideration of a zone change from County RR-5 (Rural Residential – 5 acre minimum lot size) to SFR-6 (Single-Family Residential – 6 units per acre) zoning on four parcels and portions of two parcels totaling approximately 40.6-acre site located on the west side of Columbus Avenue, south of Cunningham Avenue, north of Diamond Street, and east of Warren Way. 372W36C Tax Lots 1400 (portion), 1401, 1402 (portion), 1502, and 1600, and 372W36CC Tax Lot 2300.

Subject Site Zoning, GLUP Designation and Existing Uses

Zoning District: County RR-5 (Rural Residential – 5 acre minimum lot size)
GLUP Map Designation: PS (Parks and Schools)
Current Use: Vacant

Surrounding Property Zoning and Uses

North: Zone SFR-6
Use Residential

South: Zone SFR-4, SFR-6 and RR-5
Use Residential

East: Zone SFR-6, SFR-10, SR-2.5, and RR-5
Use Residential

West: Zone SFR-6
Use Residential

Related Projects

CUP-07-214 – on hold pending completion of Traffic Impact Analysis

Applicable Criteria

Medford Land Development Code Section 10.227 (Exhibit "B")

South Medford High School Zone Change (ZC-07-207); February 14, 2008

ISSUES/ANALYSIS

Staff has reviewed the proposed zone change and has found that it meets the approval criteria listed in the *Medford Land Development Code* Section 10.227. The site meets the locational criteria as it abuts SFR-6 zoning to the north, west, and portions of the properties abutting to the east and south. There are adequate infrastructure facilities available to serve the site, with the exception of storm drain as discussed below. A traffic study was required.

Storm Drainage

This site lies within the Crooked Creek Drainage Basin. The City's current Drainage Master Plan indicates improvements are required in the downstream storm drainage system to meet current design standards for this basin (Exhibit "M-1"). A condition is included requiring the applicant to perform a drainage study prior to issuance of a development permit or building permit.

Traffic Impact Analysis

The Engineering Division has reviewed the request for a zone change, and has determined that the proposed zone change from County RR-5 to City SFR-6 on 40.6 acres (42.94 gross acres) has the potential to develop 257 SFR dwelling units or generate 2,465 average daily trips (ADT). The net increase in traffic to the transportation system is 2,465 ADT. Based on this and Section 10.461, a traffic impact analysis (TIA) was required (Exhibit "M-1").

The TIA was prepared by JRH and submitted to Public Works on January 14, 2008 (Exhibit "H"). Engineering's first comment to the TIA was mailed to JRH on January 18, 2008 (Exhibit "I"). A response from JRH was submitted to Public Works February 1, 2008 (Exhibit "J"). The Engineering Division has reviewed the TIA and recommends approval with conditions to mitigate impacts to intersections. A condition is included requiring the applicant to comply with the Memo from Public Works dated February 7, 2008 (Exhibit "M-1").

The Oregon Department of Transportation (ODOT) has reviewed the submitted TIA and supports the approval of the zone change. The zone change does not have a "significant affect" to the function, capacity or performance standards of state transportation facilities, and is consistent with the Transportation Planning Rule (Exhibit "L"). ODOT recommends that assessment of significant affect per the Transportation Planning Rule be deferred to the time of CUP application review so that the sum total of traffic trips and peak hour trips from the zone change and the CUP can be assessed. A condition is included requiring the applicant to comply with the letter from ODOT (Exhibit "L").

Rogue Valley Transportation District

Rogue Valley Transportation District (RVTD) has reviewed this zone change and requests that the school district provide a comprehensive pedestrian and bicycle circulation plan with Transportation Demand Management strategies (Exhibit "Q"). Staff

South Medford High School Zone Change (ZC-07-207); February 14, 2008

Please include reference to the file number of this proposed development in all subsequent submittals to City of Medford departments.



CITY OF MEDFORD

PLANNING DEPARTMENT

ZC-07-207

EXHIBIT "A-1"

Conditions of Approval

February 14, 2008

1. The applicant shall:

- a. Comply with the letter from ODOT dated February 5, 2008 (Exhibit "L");
- b. Comply with the memo from Engineering Division dated February 7, 2008 (Exhibit "M-1");
- c. Comply with the letter from Rogue Valley Sewer Service dated September 20, 2007 (Exhibit "N");
- d. Comply with the Staff Memo from Medford Water Commission dated February 4, 2008 (Exhibit "O");
- e. Comply with the letter from Jackson County Roads dated September 24, 2007 (Exhibit "R");



CITY OF MEDFORD

PLANNING DEPARTMENT

EXHIBIT B
ZC-07-207

ZONE CHANGE CRITERIA

Medford Land Development Code Section 10.227

The zone change criteria that are not relevant to this particular application are hereby omitted from the following citation. Section 10.227 of the Land Development Code states the following:

"The approving authority (Planning Commission) shall approve a quasi-judicial zone change if it finds that the zone change complies with subsections (1) and (2) below:

(1) *The proposed zone is consistent with the Oregon Transportation Planning Rule (OAR 660) and the General Land Use Plan Map designation. (When the City of Medford's Transportation System Plan (TSP) is adopted, a demonstration of consistency with the acknowledged TSP will assure compliance with the Oregon Transportation Planning Rule.) Where applicable, the proposed zone shall also be consistent with the additional locational standards of the below sections (1)(a), and (1)(b), (1)(c), or (1)(d). Where a special area plan requires a specific zone, any conflicting or additional requirements of the plan shall take precedence over the locational criteria below.*

(b) *For zone changes to SFR-6 or SFR-10 where the permitted density is proposed to increase, one of the following conditions must exist: (i) At least one parcel that abuts the subject property is zoned the same as the proposed zone; either SFR-6 or SFR-10 respectively; or (ii) The area to be rezoned is five (5) acres or larger; or (iii) The subject property, and any abutting parcel(s) that is(are) in the same General Land Use Plan Map designation and is(are) vacant, when combined, total at least five (5) acres.*

(2) *It shall be demonstrated that Category A urban services and facilities are available or can and will be provided, as described below, to adequately serve the subject property with the permitted uses allowed under the proposed zoning, except as provided in subsection (c) below. The minimum standards for Category A services and facilities are contained in the MLDC and Goal 3, Policy 1 of the Comprehensive Plan "Public Facilities Element."*

(a) *Storm drainage, sanitary sewer, and water facilities must already be adequate in condition, capacity, and location to serve the property or be extended or otherwise improved to adequately serve the property at the time of issuance of a building permit for vertical construction.*

B
ZC-07-207

South Medford High School Zone Change Approval Criteria; February 6, 2008

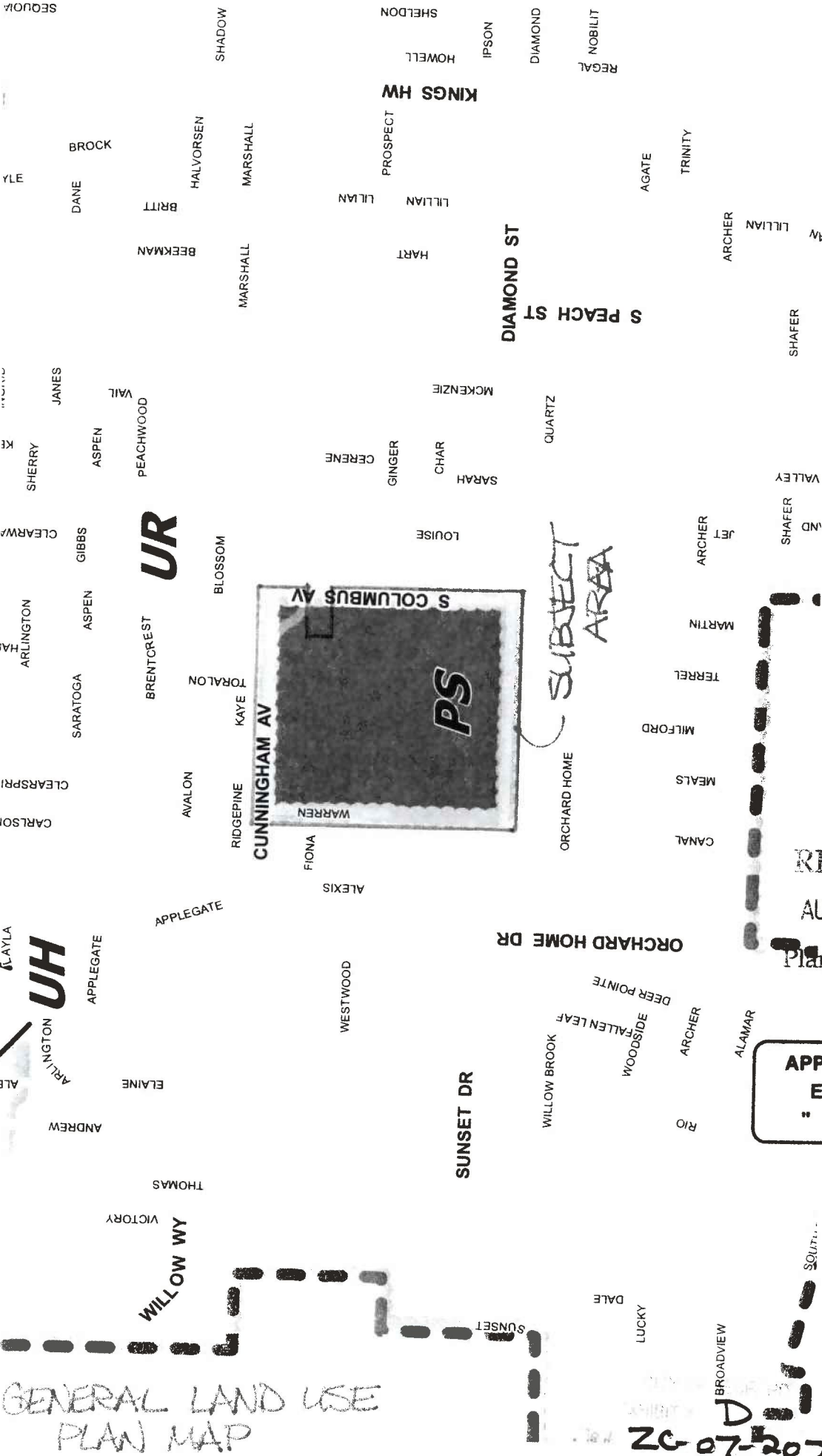
(b) *Adequate streets and street capacity must be provided in one of the following ways:*

(i) *Streets which serve the subject property, as defined in Section 10.461(2), presently exist and have adequate capacity;*

(c) *In determining the adequacy of Category A facilities, the approving authority (Planning Commission) may evaluate potential impacts based upon the imposition of special development conditions attached to the zone change request.*



C-1
ZC-07-207



GENERAL LAND USE
PLAN MAP

SUBJECT
AREA

RECEIVED
AUG 24 2007
Planning Dept.

APPLICANT'S
EXHIBIT
" 6 "

PS = Parks & Schools

20-07-207

JACKSON COUNTY ASSESSOR'S MAP

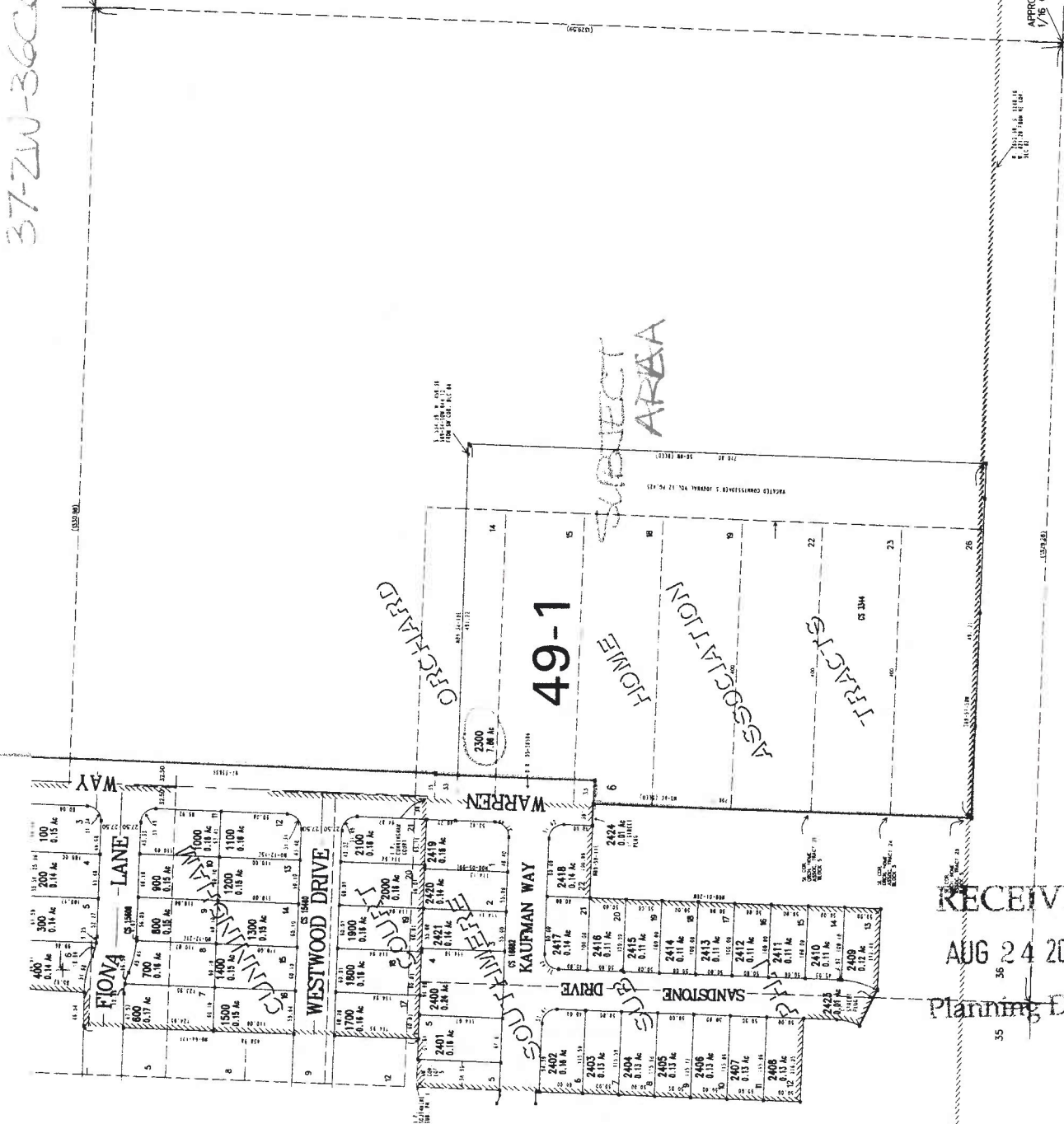
SEE MAP 37 2M 38C

CANCELLED TAX
LOT NUMBERS
500
400
300
200
100
SEE MAP 37 2M 38C

37-ZW-36CC

APPROX.
1/8" COR.

APPROX.
1/8" COR.



RECEIVED

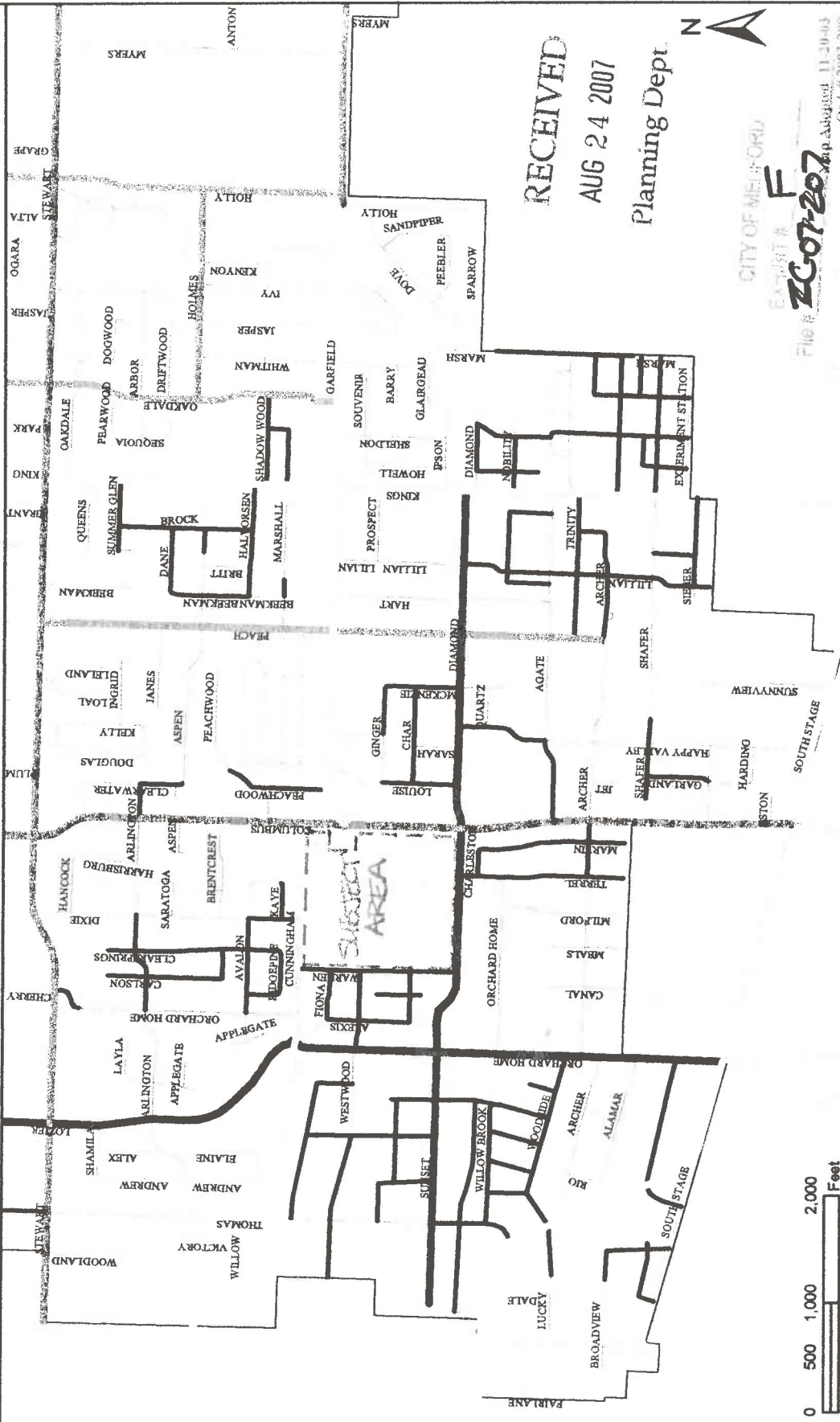
AUG 24 2007

Planning Dept.

APPLICANT'S
EXHIBIT
" 5 "

E-212
20-07-207

Adopted Southwest Medford Circulation Plan



RECEIVED
AUG 24 2007
Planning Dept.

CITY OF MEDFORD

EXHIBIT # F
TC-07-207

File # 11-29-03
Ord. # 2003-299
Map Printed: 1-29-04

The Geographic Information System (GIS) data made available on this map are developed and maintained by the City of Medford and Jackson County. GIS data are not the official representation of any of the information included. This map and data are made available to the public for informational purposes only. THERE MAY BE ERRORS IN THE MAPS OR DATA. THE MAPS OR DATA MAY NOT BE SUITABLE FOR YOUR PARTICULAR USE. THIS INFORMATION IS PROVIDED 'AS IS' OR 'WITH ALL FAULTS'. THE USER ASSUMES THE ENTIRE RISK AND LIABILITY FOR ANY AND ALL DAMAGES, INCLUDING REASONABLE ATTORNEY'S FEES AND COSTS OF ANY NECESSARY CORRECTIONS OR SERVICES.



UGB
Adopted Circulation Plan Area



Street Classifications

- Major Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Residential
- Other Streets



APPLICANT'S EXHIBIT
9

REVISED
FINDINGS OF FACT AND CONCLUSIONS OF LAW
BEFORE THE MEDFORD PLANNING COMMISSION

IN THE MATTER OF AN APPLICATION FOR APPROVAL OF A CHANGE OF ZONE FROM COUNTY RR-5 (RURAL RESIDENTIAL – 5 ACRE MINIMUM LOT SIZE), TO CITY SFR-6 (SINGLE-FAMILY RESIDENTIAL – 6 UNITS PER GROSS ACRE) ZONING DISTRICT

**APPLICANT'S
EXHIBIT 1**

APPLICATION: Request for a change of zone from County RR-5 (Rural Residential – 5-acre minimum lot size) to City of Medford SFR-6 (Single-Family Residential – 6 units per gross acre) zoning district on an approximate 40.6-acre site located west of South Columbus Avenue, south of Cunningham Avenue, north of Diamond Street, and east of Warren Way.

**APPLICANT/
OWNER:** Medford School District 549C
500 Monroe Street
Medford, OR 97501

RECEIVED

JAN 15 2008

PLANNING DEPT.

AGENT: Maize & Associates, Inc.
P.O. Box 628
Medford, OR 97501
(541) 776-4142

A. BACKGROUND INFORMATION

The subject property is identified on Jackson County Tax Assessor's Map 37-2W-36C as Tax Lots, 1401, 1502, 1600, and portions of 1400 and 1402, and Tax Lot 2300 on Map 37-2W-36CC, as depicted on Exhibit "8". Several years ago, the zoning of a 1.69-acre portion over portions of Tax Lots 1400 and 1402 was changed from RR-5 to SFR-6 (File ZC-98-136) in anticipation of future development. A discussion with Medford Planning staff member, Chris Olivier, has indicated that the Zoning Map showing the location of the SFR-6 area is inaccurate, and will be corrected.

The subject property is currently vacant.

G
ZC-07-207

B. SCOPE AND PURPOSE OF THE APPLICATION

The applicant, Medford School District 549C, proposes to rezone the land in accordance with the Land Development Code and the Medford Comprehensive Plan, in conjunction with a separate application for a Conditional Use Permit (CUP) to construct and operate a public high school. That CUP application will analyze those impacts associated with the proposed high school. The submitted Revised Findings of Fact and Conclusions of Law support the zone change from its present Jackson County Rural Residential – 5-acre minimum lot size zoning district, to City of Medford Single-Family Residential – 6 units per gross area zoning district.

C. APPLICANT'S SUBMITTALS

- Exhibit 1 Revised Findings of Fact and Conclusions of Law dated January 15, 2008;
- Exhibit 2 Traffic Impact Analysis, dated January 11, 2008, by JRH Transportation Engineering;
- Exhibit 3 Zone Change Application Form;
- Exhibit 4 Legal Description of Subject Area;
- Exhibit 5 Assessor's Map showing Subject Area;
- Exhibit 6 General Land Use Plan Map showing Subject Area;
- Exhibit 7 City of Medford Zoning Map ;
- Exhibit 8 Vicinity Map showing Subject Area;
- Exhibit 9 Southwest Medford Street Circulation Plan showing Subject Area;
- Exhibit 10 Owner's Consent Form;
- Exhibit 11 Posting of Public Hearing Sign Consent Form;

D. RELEVANT APPROVAL CRITERIA

Section 10.227 of the Land Development Code states that the Planning Commission shall approve a quasi-judicial zone change if it finds that the zone change complies with subsections (1) and (2) of that section. The Oregon Transportation Planning Rule (OAR 660-012-0060) also contains criteria, which apply to approval of a zone change application. Both sets of criteria are listed below. Provisions, which do not apply, have been omitted.

MEDFORD LAND DEVELOPMENT CODE

ZONE CHANGE CRITERIA – SECTION 10.227

1. *The proposed zone is consistent with the Oregon Transportation Planning Rule (OAR 660) and the General Land Use Plan Map designation. (When the City of Medford's Transportation System Plan (TSP) is adopted, a demonstration of consistency with the acknowledged TSP will assure compliance with the Oregon Transportation Planning Rule.) Where applicable, the proposed zone shall also be consistent with the additional locational standards of the below sections (1)(a), (1)(b), (1)(c), or*

- (1)(d). Where a special area plan requires a specific zone, any conflicting or additional requirements of the plan shall take precedence over the locational criteria below.*
- b. For zone changes to SFR-6 or SFR-10 where the permitted density is proposed to increase, one of the following conditions must exist:*
- (i) At least one parcel that abuts the subject property is zoned the same as the proposed zone, either SFR-6 or SFR-10 respectively; or*
 - (ii) The area to be rezoned is five (5) acres or larger; or*
 - (iii) The subject property, and any abutting parcel(s) that is(are) in the same General Land Use Plan Map designation and is(are) vacant, when combined, total at least five (5) acres.*
- 2. It shall be demonstrated that Category A urban services and facilities are available or can and will be provided, as described below, to adequately serve the subject property with the permitted uses allowed under the proposed zoning, except as provided in subsection (c) below. The minimum standards for Category A services and facilities are contained in the MLDC and Goal 3, Policy 1 of the Comprehensive Plan "Public Facilities Element."*
- a. Storm drainage, sanitary sewer, and water facilities must already be adequate in condition, capacity, and location to serve the property or be extended or otherwise improved to adequately serve the property at the time of issuance of a building permit for vertical construction.*
 - b. Adequate streets and street capacity must be provided in one of the following ways:*
 - i. Streets which serve the subject property, as defined in Section 10.461(2), presently exist and have adequate capacity; or*
 - ii. Existing and new streets that will serve the subject property will be improved and/or constructed, sufficient to meet the required condition and capacity, at the time building permits for vertical construction are issued; or*
 - iii. If it is determined that a street must be constructed or improved in order to provide adequate capacity for more than one proposed or anticipated development, the Planning Commission may find the street to be adequate when the improvements needed to make the street adequate are fully funded. A street project is deemed to be fully funded when one of the following occurs:*
 - a. the project is in the City's adopted capital improvement plan budget, or is a programmed project in the first two years of the State's current STIP (State Transportation Improvement Plan), or any other public agencies adopted capital improvement plan budget; or*

- b. *when an applicant funds the improvement through a reimbursement district pursuant to the MLDC. The cost of the improvements will be either the actual cost of construction, if constructed by the applicant, or the estimated cost. The "estimated cost" shall be 125% of a professional engineer's estimated cost that has been approved by the City, including the cost of any right-of-way acquisition. The method described in this paragraph shall not be used if the Public Works Department determines, for reasons of public safety, that the improvement must be constructed prior to issuance of building permits. (iv) When a street must be improved under (b)(ii) or (b)(iii) above, the specific street improvement(s) needed to make the street adequate must be identified, and it must be demonstrated by the applicant that the improvement(s) will make the street adequate in condition and capacity.*

- c. *In determining the adequacy of Category A facilities, the approving authority (Planning Commission) may evaluate potential impacts based upon the imposition of special development conditions attached to the zone change request. Special development conditions shall be established by deed restriction or covenant, which must be recorded with proof of recordation returned to the Planning Department, and may include, but are not limited to the following:*
 - i. *Restriction of uses by type or intensity; however, in cases where such a restriction is proposed, the Planning Commission must find that the resulting development pattern will not preclude future development, or intensification of development, on the subject property or adjacent parcels. In no case shall residential densities be approved which do not meet minimum density standards,*
 - ii. *Mixed-use, pedestrian-friendly design which qualifies for the trip reduction percentage allowed by the Transportation Planning Rule, (iii) Transportation Demand Management (TDM) measures which can be reasonably quantified, monitored, and enforced, such as mandatory car/van pools.*

OREGON ADMINISTRATIVE RULES

OREGON TRANSPORTATION PLANNING RULE - SECTION 660-012-0060

- 1. *Where an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation would significantly affect an existing or planned transportation facility, the local government shall put in place measures as provided in section (2) of this rule to assure that allowed land uses are consistent with the identified function, capacity, and performance standards (e.g. level of service, volume to capacity ratio, etc.) of the facility. A plan or land use regulation amendment significantly affects a transportation facility if it would.*
 - a. *Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan),*

- b. *Change standards implementing a functional classification system; or*
 - c. *As measured at the end of the planning period identified in the adopted transportation system plan:*
 - (A) *Allow land uses or levels of development that would result in types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;*
 - (B) *Reduce the performance of an existing or planned transportation facility below the minimum acceptable performance standard identified in the TSP or comprehensive plan; or*
 - (C) *Worsen the performance of an existing or planned transportation facility that is otherwise projected to perform below the minimum acceptable performance standard identified in the TSP or comprehensive plan.*
2. *Where a local government determines that there would be a significant effect, compliance with section (1) shall be accomplished through one or a combination of the following:*
- a. *Adopting measures that demonstrate allowed land uses are consistent with the planned function, capacity, and performance standards of the transportation facility.*
 - b. *Amending the TSP or comprehensive plan to provide transportation facilities, improvements or services adequate to support the proposed land uses consistent with the requirements of this division; such amendments shall include a funding plan or mechanism consistent with section (4) or include an amendment to the transportation finance plan so that the facility, improvement, or service will be provided by the end of the planning period.*
 - c. *Altering land use designations, densities, or design requirements to reduce demand for automobile travel and meet travel needs through other modes.*
 - d. *Amending the TSP to modify the planned function, capacity or performance standards of the transportation facility.*
 - e. *Providing other measures as a condition of development or through a development agreement or similar funding method, including transportation system management measures, demand management or minor transportation improvements. Local governments shall as part of the amendment specify when measures or improvements provided pursuant to this subsection will be provided.*
3. *Notwithstanding sections (1) and (2) of this rule, a local government may approve an amendment that would significantly affect an existing transportation facility without assuring that the allowed land uses are consistent with the function, capacity and performance standards of the facility where:*

- a. *The facility is already performing below the minimum acceptable performance standard identified in the TSP or comprehensive plan on the date the amendment application is submitted;*
 - b. *In the absence of the amendment, planned transportation facilities, improvements and services as set forth in section (4) of this rule would not be adequate to achieve consistency with the identified function, capacity or performance standard for that facility by the end of the planning period identified in the adopted TSP;*
 - c. *Development resulting from the amendment will, at a minimum, mitigate the impacts of the amendment in a manner that avoids further degradation to the performance of the facility by the time of the development through one or a combination of transportation improvements or measures;*
 - d. *The amendment does not involve property located in an interchange area as defined in paragraph (4)(d)(C); and*
 - e. *For affected state highways, ODOT provides a written statement that the proposed funding and timing for the identified mitigation improvements or measures are, at a minimum, sufficient to avoid further degradation to the performance of the affected state highway. However, if a local government provides the appropriate ODOT regional office with written notice of a proposed amendment in a manner that provides ODOT reasonable opportunity to submit a written statement into the record of the local government proceeding, and ODOT does not provide a written statement, then the local government may proceed with applying subsections (a) through (d) of this section.*
4. *Determinations under sections (1)-(3) of this rule shall be coordinated with affected transportation facility and service providers and other affected local governments.*
- a. *In determining whether an amendment has a significant effect on an existing or planned transportation facility under subsection (1)(c) of this rule, local governments shall rely on existing transportation facilities and services and on the planned transportation facilities, improvements and services set forth in subsections (b) and (c) below.*
 - b. *Outside of interstate interchange areas, the following are considered planned facilities, improvements and services:*
 - (A) *Transportation facilities, improvements or services that are funded for construction or implementation in the Statewide Transportation Improvement Program or a locally or regionally adopted transportation improvement program or capital improvement plan or program of a transportation service provider.*
 - (B) *Transportation facilities, improvements or services that are authorized in a local transportation system plan and for which a funding plan or mechanism is in place or approved. These include, but are not limited to, transportation facilities, improvements or services for which transportation systems*

- development charge revenues are being collected; a local improvement district or reimbursement district has been established or will be established prior to development; a development agreement has been adopted; or conditions of approval to fund the improvement have been adopted.*
- (C) *Transportation facilities, improvements or services in a metropolitan planning organization (MPO) area that are part of the area's federally-approved, financially constrained regional transportation system plan.*
- (D) *Improvements to state highways that are included as planned improvements in a regional or local transportation system plan or comprehensive plan when ODOT provides a written statement that the improvements are reasonably likely to be provided by the end of the planning period.*
- (E) *Improvements to regional and local roads, streets or other transportation facilities or services that are included as planned improvements in a regional or local transportation system plan or comprehensive plan when the local government(s) or transportation service provider(s) responsible for the facility, improvement or service provides a written statement that the facility, improvement or service is reasonably likely to be provided by the end of the planning period.*
- c. *Within interstate interchange areas, the improvements included in (b)(A)-(C) are considered planned facilities, improvements and services, except where:*
- (A) *ODOT provides a written statement that the proposed funding and timing of mitigation measures are sufficient to avoid a significant adverse impact on the Interstate Highway system, then local governments may also rely on the improvements identified in paragraphs (b)(D) and (E) of this section; or*
- (B) *There is an adopted interchange area management plan, then local governments may also rely on the improvements identified in that plan and which are also identified in paragraphs (b)(D) and (E) of this section.*
- d. *As used in this section and section (3):*
- (A) *Planned interchange means new interchanges and relocation of existing interchanges that are authorized in an adopted transportation system plan or comprehensive plan,*
- (B) *Interstate highway means Interstates 5, 82, 84, 105, 205 and 405, and*
- (C) *Interstate interchange area means:*
- (i) *Property within one-half mile of an existing or planned interchange on an Interstate Highway as measured from the center point of the interchange, or*
- (ii) *The interchange area as defined in the Interchange Area Management Plan adopted as an amendment to the Oregon Highway Plan.*

- e. *For purposes of this section, a written statement provided pursuant to paragraphs (b)(D), (b)(E) or (c)(A) provided by ODOT, a local government or transportation facility provider, as appropriate, shall be conclusive in determining whether a transportation facility, improvement or service is a planned transportation facility, improvement or service. In the absence of a written statement, a local government can only rely upon planned transportation facilities, improvements and services identified in paragraphs (b)(A)-(C) to determine whether there is a significant effect that requires application of the remedies in section (2).*

E. FINDINGS OF FACT

The Planning Commission has considered the following facts that are pertinent to the application request:

1. Property Description – The subject property is identified on Jackson County Tax Assessor’s Map 37-2W-36C as Tax Lots 1400 (portion), 1401, 1402 (portion), 1502, and 1600, and Tax Lot 2300 on Map 37-2W-36CC.
2. General Land Use Plan Map – The General Land Use Plan Map (Exhibit “6”) shows the subject property with a PS – Parks and Schools land use designation. The General Land Use Plan Element of the Comprehensive Plans indicates that this “designation depicts existing and proposed public parks and schools. There is no specific zoning district associated with this designation.” The City of Medford has consistently applied a SFR zone to its parks and schools, as evidenced by the fact that all public schools within the City are zoned SFR-4, SFR-6, or SFR-10, with the exception of Oak Grove Elementary School, which still retains its County zoning.
3. Locational Requirements – According to the City of Medford Zoning Map (Exhibit “7”), the Planning Commission has approved applications for zone changes to SFR-6 on the properties abutting to the north, west, and portions of the properties abutting to the east and south.

According to the Jackson County Assessor’s records, the acreage of the subject site proposed to be rezoned is approximately 40.6 acres.

4. Topography – The subject property is relatively flat with a slope of less than 5 degrees.
5. Category “A” Public Facilities – The *Public Facilities Element* of Medford’s Comprehensive Plan lists two categories of Public Facilities. The four Category “A” facilities, the key minimum physical facilities necessary for urban development, are listed as:
 - Water Service
 - Sanitary Sewer and Treatment

- Storm Drainage
- Transportation Facilities

With respect to each of the above Category “A” public facilities, the Planning Commission considers the following facts:

- A. Water Service – The subject property can currently be served by the following water lines that abut the subject site:
- a 30-inch water main located in Cunningham Lane;
 - a 24-inch water main in South Columbus Avenue;
 - an 8-inch main in Diamond Street;
 - an 8-inch water main in Warren Way.

The subject site is served by two separate pressure zones – one involving higher pressure; the other at lower pressure.

According to the Medford Water Commission, water supply to the City of Medford comes from two sources: Big Butte Springs and the Rogue River. The current (2006) combined capacity is approximately 71 million gallons per day (mgd), with current total water rights of 91 mgd.

Storage in the water system consists of several reservoirs totaling approximately 36.5 mg. As development in the higher elevations in the eastern portion of Medford continues, more storage is being added. Developers would be required to provide storage in pressure zone #6 and above to meet Medford Water Commission standards when the development is constructed.

According to the Medford Water Commission’s Statistical Report for 2006, the Medford Water Commission water system supplied a population of ± 123,000.

Based on current peak per capita water use rates, it is estimated that water rights held by the Medford Water Commission, and existing treatment plant design capacity can support a population of approximately 185,000 people. Water rights held by cities served by the Medford Water Commission will support additional population, the number which is currently under evaluation.

The Medford Water Commission staff states that water service is adequate and available to serve the subject site.

- B. Sanitary Sewer and Treatment – The subject property can currently be served by the Rogue Valley Sewer Services, which has 8-inch sanitary sewer lines located in South Columbus Avenue, Cunningham Avenue, and Warren Way.

The City of Medford, along with several other regional municipalities, discharges its wastewater into the Rogue Valley Sewer Service (RVS) operated interceptor system, which transports the wastewater for treatment to the City of Medford operated Regional Water Reclamation Facility (RWRF), located adjacent to the Rogue River outside of Medford's Urban Growth Boundary.

The RWRF average daily dry weather (summer) influent flow for 2004 was 15.7 million gallons per day (mgd), while the yearly flow average for the last 3 years is 18.4 mgd. The 2000 RWRF Facilities Plan projected that the ultimate population to be served by the regional plant is estimated to be 190,000.

The Rogue Valley Sewer Service and the Public Works Department have determined that the sanitary sewer system is adequate in condition and capacity to accommodate the densities in the proposed zone change.

- C. Storm Drainage – The subject site is located in the Crooked Creek drainage basin and is currently served by roadside ditches along three sides of the property. Warren Way, fronting on a portion of the west side of the property has an 18-inch storm drain line flowing north into a 24-inch line at Westwood Drive, and then into the roadside ditch system. All storm drainage improvements are required to be consistent with the Medford Storm Drainage Master Plan.

According to the City of Medford Engineering Division, the current Medford Storm Drainage Master Plan indicates improvements are required in the downstream storm drainage system to meet current design standards for this basin. Therefore, prior to the issuance of a development permit or a building permit, plans will need to be approved by the City assuring that there will be a controlled storm water release of no more than 0.25 cubic feet per second per acres of development for the 10-year storm event.

The Engineering Department states that with the prescribed storm water detention, the subject property can be adequately served by the City's storm water drainage system.

D. Transportation Facilities – The subject property has frontage on the following public streets, with their corresponding street designations from Medford’s Medford Street Functional Classification Plan:

- Columbus Avenue - a Major Arterial Street.
- Cunningham Avenue – a Minor Arterial Street.
- Diamond Street – a Major Collector Street.
- Warren Way – no designation. Currently operates as a minor residential street.

The acreage of the subject site is 40.58 acres. In order to analyze the potential traffic impacts of the proposed zone change, the City of Medford utilizes the gross density of the parcel, which is calculated to be 43.62 acres including the abutting right-of-way. Based upon the proposed SFR-6 zoning which will allow a maximum of 6 dwelling units per gross acre, the subject site proposed to be rezoned will allow a maximum of 262 dwelling units.

Based on the latest vehicular trip generation figures from *Trip Generation* (Institute of Transportation Engineers, 7th Edition), the anticipated vehicular generation as a result of the proposed zone change is 2522 Average Daily Trips (ADT) and 255 trips in the PM peak hour.

Section 10.461(3) of the Land Development Code requires a Traffic Impact Analysis (TIA) when a zone change application shows the potential to generate more than 250 net ADT’s, or if the Public Works Department has concerns due to operations or accident history. Because the proposed zone change will generate an increase of trips that exceeds 250 ADT, a Traffic Impact Analysis was performed by JRH Transportation Engineering and submitted as Exhibit “2” of this application.

According to the Traffic Impact Analysis, “... the intersection of Garfield Street at Kings Highway operates at Level of Service (LOS) F for the current PM peak hour traffic conditions and will continue to operate at LOS F through the year 2010 analysis. The intersection is currently stop-controlled for the eastbound and westbound approaches. The proposed mitigation for this intersection is to implement a four-way stopped control. With a four-way stop control, the critical movement will operate at LOS D, meeting the minimum mobility standards for the City of Medford, and therefore a Level of Service that is approvable under the proposed zoning.

No additional mitigation is required to accommodate the proposed zone change.”

F. CONCLUSIONS OF LAW

The Planning Commission makes the following conclusions of law in regard to the relevant criteria:

Medford Land Development Code – Section 10.227 Zone Change Criteria

“The approving authority (Planning Commission) shall approve a quasi-judicial zone change if it finds that the zone change complies with subsections (1) and (2) below:”

1. *“The proposed zone is consistent with the Oregon Transportation Planning Rule (OAR 660) and the General Land Use Plan Map designation. (When the City of Medford’s Transportation System Plan (TSP) is adopted, a demonstration of consistency with the acknowledged TSP will assure compliance with the Oregon Transportation Planning Rule.) Where applicable, the proposed zone shall also be consistent with the additional locational standards of the below sections (1)(a), (1)(b), (1)(c), or (1)(d). Where a special area plan requires a specific zone, any conflicting or additional requirements of the plan shall take precedence over the locational criteria below.”*

CRITERION NO. 1

Consistency with the Oregon Transportation Planning Rule (OAR 660)

Chapter 660-012-0060 of the Oregon Administrative Rules function as relevant decisional criteria for Subsection (1) of the criteria in Section 10.227 of the Medford Land Development Code.

Transportation Planning – Plan and Land Use Regulation Amendments Section 660-012-0060

1. *Where an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation would significantly affect an existing or planned transportation facility, the local government shall put in place measures as provided in section (2) of this rule to assure that allowed land uses are consistent with the identified function, capacity, and performance standards (e.g. level of service, volume to capacity ratio, etc.) of the facility. A plan or land use regulation amendment significantly affects a transportation facility if it would:*
 - a. *Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan),*
 - b. *Change standards implementing a functional classification system; or*
 - c. *As measured at the end of the planning period identified in the adopted transportation system plan.*

- (A) *Allow land uses or levels of development that would result in types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;*
- (B) *Reduce the performance of an existing or planned transportation facility below the minimum acceptable performance standard identified in the TSP or comprehensive plan; or*
- (C) *Worsen the performance of an existing or planned transportation facility that is otherwise projected to perform below the minimum acceptable performance standard identified in the TSP or comprehensive plan.*

Conclusion of Law Regarding the Oregon Transportation Planning Rule (OAR 660)

The Planning Commission concludes that with a four-way stopped control at the intersection of Garfield Street and Kings Highway, there will not be a significant affect on an existing or planned transportation facility and therefore, the application is consistent with the Oregon Transportation Planning Rule.

CRITERION NO. 2

Consistency with the General Land Use Plan Map

Conclusion of Law Regarding the General Land Use Plan Map

The Planning Commission concludes that the application is consistent with the General Land Use Plan Map since it shows the subject property within the Parks and Schools land use designation, which does not prelude the SFR-6 zoning district.

CRITERION NO. 3

Consistency with the Locational Standards

- b. *For zone changes to SFR-6 or SFR-10 where the permitted density is proposed to increase, one of the following conditions must exist:*
 - (i) *At least one parcel that abuts the subject property is zoned the same as the proposed zone, either SFR-6 or SFR-10 respectively; or*
 - (ii) *The area to be rezoned is five (5) acres or larger; or*
 - (iii) *The subject property, and any abutting parcel(s) that is(are) in the same General Land Use Plan Map designation and is(are) vacant, when combined, total at least five (5) acres.*

Conclusion of Law Regarding the Locational Standards

As lands which abut the subject parcel to the north, south, east, and west are zoned SFR-6 – the same as the proposed zone, the proposed zone change to SFR-6 on the subject property is consistent with Subsection b(i).

As the area of the subject property to be rezoned exceeds five (5) acres in size, the proposed zone change to SFR-6 is consistent with Subsection b(ii).

CRITERION NO. 4

Availability of Category “A” Urban Services and Facilities

2. *It shall be demonstrated that Category A urban services and facilities are available or can and will be provided, as described below, to adequately serve the subject property with the permitted uses allowed under the proposed zoning, except as provided in subsection (c) below. The minimum standards for Category A services and facilities are contained in the MLDC and Goal 3, Policy 1 of the Comprehensive Plan “Public Facilities Element.”*
 - a. *Storm drainage, sanitary sewer, and water facilities must already be adequate in condition, capacity, and location to serve the property or be extended or otherwise improved to adequately serve the property at the time of issuance of a building permit for vertical construction.*
 - b. *Adequate streets and street capacity must be provided in one of the following ways:*
 - i. *Streets which serve the subject property, as defined in Section 10.461(2), presently exist and have adequate capacity, or*
 - ii. *Existing and new streets that will serve the subject property will be improved and/or constructed, sufficient to meet the required condition and capacity, at the time building permits for vertical construction are issued; or*
 - iii. *If it is determined that a street must be constructed or improved in order to provide adequate capacity for more than one proposed or anticipated development, the Planning Commission may find the street to be adequate when the improvements needed to make the street adequate are fully funded. A street project is deemed to be fully funded when one of the following occurs:*
 - a. *the project is in the City's adopted capital improvement plan budget, or is a programmed project in the first two years of the State's current STIP (State Transportation Improvement Plan), or any other public agencies adopted capital improvement plan budget; or*

- b. *when an applicant funds the improvement through a reimbursement district pursuant to the MLDC. The cost of the improvements will be either the actual cost of construction, if constructed by the applicant, or the estimated cost. The "estimated cost" shall be 125% of a professional engineer's estimated cost that has been approved by the City, including the cost of any right-of-way acquisition. The method described in this paragraph shall not be used if the Public Works Department determines, for reasons of public safety, that the improvement must be constructed prior to issuance of building permits. (iv) When a street must be improved under (b)(ii) or (b)(iii) above, the specific street improvement(s) needed to make the street adequate must be identified, and it must be demonstrated by the applicant that the improvement(s) will make the street adequate in condition and capacity.*

- c. *In determining the adequacy of Category A facilities, the approving authority (Planning Commission) may evaluate potential impacts based upon the imposition of special development conditions attached to the zone change request. Special development conditions shall be established by deed restriction or covenant, which must be recorded with proof of recordation returned to the Planning Department, and may include, but are not limited to the following:*
 - i. *Restriction of uses by type or intensity; however, in cases where such a restriction is proposed, the Planning Commission must find that the resulting development pattern will not preclude future development, or intensification of development, on the subject property or adjacent parcels. In no case shall residential densities be approved which do not meet minimum density standards,*

 - ii. *Mixed-use, pedestrian-friendly design which qualifies for the trip reduction percentage allowed by the Transportation Planning Rule, (iii) Transportation Demand Management (TDM) measures which can be reasonably quantified, monitored, and enforced, such as mandatory car/van pools.*

Conclusion of Law Regarding the Availability of Category "A" Urban Services and Facilities

The Planning Commission makes the following conclusions regarding the four Category "A" urban services and facilities:

- Water Service – Based upon the Findings of Fact in section “E” above, the Planning Commission concludes that the water system which will serve the subject property is adequately sufficient and available to provide water service to the subject property with development that is permitted under the proposed SFR-6 zoning.
- Sanitary Sewer and Treatment - Based upon the Findings of Fact in section “E” above, the Planning Commission concludes that the sanitary sewer system and treatment facilities which will serve the subject property is adequately sufficient and available to provide sanitary sewer service to the subject property with development that is permitted under the proposed SFR-6 zoning.
- Storm Drainage - Based upon the Findings of Fact in section “E” above, the Planning Commission concludes that the storm drainage system which will serve the subject property is adequately sufficient and available to provide storm drainage to the subject property with development that is permitted under the proposed SFR-6 zoning, provided that storm water detention is incorporated into the future development plans in accordance with City of Medford standards.
- Transportation Facilities - Based upon the Findings of Fact in section “E” above, the Planning Commission concludes that the transportation facilities which will serve the subject property are adequately sufficient and available to provide transportation service to the subject property with development that is permitted under the proposed SFR-6 zoning, provided that the intersection of Garfield Street and Kings Highway is implemented with a four-way stop control, as stipulated.

G. ULTIMATE CONCLUSION

Based upon the above Findings of Fact and Conclusions of Law, the Planning Commission concludes that the application for a change of zone from County RR-5 to City SFR-6 is consistent with the relevant decisional criteria found in Section 10.227 of Medford’s Land Development Code and the Oregon Transportation Planning Rule (Section 660-012-0060 of the Oregon Administrative Rules)

H. STIPULATIONS

In accordance with, and in order to insure that adequate transportation facilities serving the subject property are available, the applicant agrees to implement a four-way stop control at the Garfield Street and Kings Highway intersection prior to trip generation from the subject site that necessitates such an improvement.

Respectively Submitted,

Maize & Associates, Inc.

A handwritten signature in black ink, appearing to read 'Jim Maize', is written over a solid horizontal line.

Jim Maize
Agent for Applicant,
Medford School District 549C

Dated: January 15, 2008



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SOUTH
MEDFORD



ZONE
CHANGE

JANUARY 11, 2008

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TRAFFIC IMPACT ANALYSIS

SOUTH MEDFORD ZONE
CHANGE

MEDFORD, OREGON



RENEWAL 06/30/09

PROJECT MANAGER: KELLY SANDOW FIT
PROJECT PRINCIPAL: BRIAN GENOVESE PE, PLOE

PROJECT NO: 07021

JANUARY 11, 2008

JRH TRANSPORTATION ENGINEERING
1765 VILLAGE PLAZA LOOP, SUITE 200, EUGENE, OREGON 97401-5108 TEL: 325-6999 JRH@JRHTEA.COM



EXECUTIVE SUMMARY

BACKGROUND

This report outlines the transportation impact analysis performed for intersections and roadway networks impacted by the proposed zone change requested by the Medford School District. The 43.62 acre property is located at tax lots 1400, 1401, 1402, 1502, and 1600 of Township 37 Range 2W Section 36C; and tax lot 2300 of Township 37 Range 2W Section 36CC in Medford, Oregon. The subject property is located west of Columbus Avenue and bounded by Cunningham Avenue to the north and Diamond Avenue to the east. The Medford School District is proposing a rezone of the property from County RR-5 to City SFR-6. The proposed zone change is supported under the City of Medford's Comprehensive Plan; therefore, a Comprehensive Plan Amendment is not required.

DEVELOPMENT TRAFFIC AND STUDY AREA

The maximum building potential of the property under the proposed zone change is 262 single-family residential units. As the project is not being proposed as a PUD, the City of Medford does not require a site plan for a zone change application. To provide a conservative analysis, the analysis will be performed with the development taking access via one driveway onto Cunningham Avenue and one driveway onto Diamond Street. This approach will provide a worst case scenario of development traffic at the intersections of Cunningham Avenue at Columbus Avenue at Diamond Street at Columbus Avenue.

Vehicle trips generated by the development were determined using the ITE Trip Generation Manual, 7th Edition. The proposed zone change is anticipated to generate 255 trips in the PM peak hour.

The project is anticipated to be completed by the year 2010. For this analysis intersections were analyzed for the existing year, year 2007, and the year of completion, year 2010, with and without the proposed development in place.

RESULTS

An operational analysis was performed for the study area intersections for the year 2007 existing conditions, the year 2010 with and without the development traffic. With the proposed mitigation, all studied intersections are projected to meet the adopted mobility standard for the years 2007 and 2010 with and without the addition of development traffic.



The results of the performance analysis indicates that the intersection of Garfield Street at Kings Highway operates at LOS F for the current PM peak hour traffic conditions and will continue to operate at LOS F through the year 2010 analysis. The intersection is currently stop-controlled for the eastbound and westbound approaches. The proposed mitigation for this intersection is to implement a four-way stopped control. With a four-way stop control, the critical movement will operate at LOS D, meeting the minimum mobility standards for the City of Medford.

No additional mitigation is required to accommodate the proposed zone change.



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CITY OF MEDFORD

PUBLIC WORKS DEPARTMENT
ENGINEERING & DEVELOPMENT DIVISION

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MEDFORD, OREGON 97501
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January 18, 2008

Brian K. Genovese
JRH Transportation Engineering
4765 Village Plaza Loop, Suite 201
Eugene, Oregon 97401

Public Works has reviewed the South Medford High School Zone Change Traffic Impact Study (TIS) submitted by JRH Transportation Engineering. We have the following comments:

1. In Table 3; "Future Year Peak Hour Factor", peak hour factors assigned to several intersections are higher than 0.90 and are not justified by the current counts per M.M.C. 10.461. Please correct the future peak hour factors and/or give an acceptable explanation for the use of the values shown.
2. Synchro Files; The intersection of W. Main & Columbus is coded for permissive signal control for the north and southbound left turns. The Consultant is advised that the north and southbound approaches are split phased at this intersection and must be coded accordingly.
3. Figure 3; "Year 2007 Existing PM.....(adjusted)", Node 13; Eastbound left and right turn volumes at Stewart & 99 are lower than the count volumes they are based on. Please check the figure and correct volumes.

Please address these issues and submit a report for our consideration.

If you have questions regarding these comments please contact me at 774-2121.

Sincerely:

Peter T. Mackprang
Associate Traffic Engineer

CC: File

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JRHFebruary 1, 2007~~3~~

Peter Mackprang
Associate Traffic Engineer
City of Medford
411 West 8th Street
Medford, OR 97501

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RE: South Medford Zone Change Traffic Impact Analysis
Response to City of Medford's Comments

Dear Peter:

This letter addresses comments received from the City of Medford as part of the review of the South Medford Zone Change Traffic Impact Analysis (TIA), dated January 11, 2008. This letter outlines the comments made by the City of Medford and the response by JRH Transportation Engineering.

City of Medford's Comment 1:

In Table 3; "Future Year Peak Hour Factor", peak hour factors assigned to several intersections are higher than 0.90 and are not justified by current counts per M.M.C. 10.461. Please correct the future peak hour factors and/or give an acceptable explanation for the use of the values shown.

Response:

For the future years, the intersection peak hour factor calculated from the count data is used in the intersection analysis for the City of Medford intersections. The City of Medford intersections, which have been identified as having the greatest impact from the new SMI as identified in Section 4.5 of the TIA, were analyzed with a peak hour factor of 0.90, which is the City's maximum peak hour factor allowed for new intersections. As these intersections will be modified and/or the travel patterns will greatly change, there is no reliable source of data that will justify the use of higher peak hour factors. In addition, intersections added as part of the TSP projects or as an entrance into the proposed development were analyzed with a 0.90 peak hour factor.

As illustrated in Table 3 of the TIA, the following intersections have a peak hour factor greater than 0.90 applied to the future year analysis:

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Table 3: Future Year Peak Hour Factors

| Intersection | Jurisdiction | Future Year Intersection Peak Hour Factor |
|---|-----------------|---|
| 01 Columbus Avenue at Jackson Street | City of Medford | 0.94 |
| 02 Columbus Avenue at 4 th Street | City of Medford | 0.95 |
| 03 Columbus Avenue at Main Street | City of Medford | 0.94 |
| 04 Columbus Avenue at 8 th Street | City of Medford | 0.93 |
| 05 Columbus Avenue at 10 th Street | City of Medford | 0.96 |
| 06 Columbus Avenue at Dakota Street | City of Medford | 0.93 |
| 07 Stewart Avenue at Lozier Lane | City of Medford | 0.95 |
| 08 Stewart Avenue at Columbus Avenue | City of Medford | 0.90 |
| 09 Stewart Avenue at Peach Street | City of Medford | 0.91 |
| 10 Stewart Avenue at Kings Highway | City of Medford | 0.96 |
| 11 Stewart Avenue at Oakdale Avenue | City of Medford | 0.90 |
| 12 Stewart Avenue at Holly Street | City of Medford | 0.92 |
| 13 Stewart Avenue at Riverside Avenue | City of Medford | 0.95 |
| 14 Cunningham Avenue at Orchard Homes Drive | City of Medford | 0.96 |
| 15 Cunningham Avenue at Dixie Lane | City of Medford | 0.75 Without Development 0.90 With Development |
| 16 Cunningham Avenue at Columbus Avenue | City of Medford | 0.90 With Re-alignment |
| 18 Garfield Street at Peach Street | City of Medford | 0.95 |
| 19 Garfield Street at Kings Highway | City of Medford | 0.95 |
| 20 Columbus Avenue at Diamond Street | City of Medford | 0.90 |
| 21 Columbus Avenue at South Stage Road | City of Medford | 0.95 |

MLDC 10.461(e) states that Peak Hour factors over 0.90 shall not be used unless justified by specific counts at that location.

The peak hour factors for these intersections were calculated using the existing count data. The existing intersection peak hour factor was then applied to the future year analysis. When traffic growth on roadways and intersections is anticipated and the intersections become more congested in the future years, data supports the assumption that the peak hour factor would increase as traffic becomes more congested. As a conservative analysis, the existing intersection peak hour factors were used for the future year analysis. Appendix I contains the existing count volumes and peak hour factor calculations.

City of Medford's Comment 2:

Synchro Files; The intersection of W. Main at Columbus is coded for permissive signal control for the north and southbound left turns. The Consultant is advised that the north and southbound approaches are split phased at this intersection and must be coded accordingly.

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Response:

JRH made adjustments to the signal timing at the intersection of W. Main Street at Columbus Avenue to account for the split phasing at the northbound and southbound approaches.

Table 1 contains the results of the intersection analysis with the timing adjustments. The Synchro reports are included in Appendix II.

Table 2 Revised W. Main Street at Columbus Avenue Intersection Performance

| Location | Mobility Standard | Year 2010 Without Development LOS | Year 2010 With Development LOS |
|----------------------------|-------------------|-----------------------------------|--------------------------------|
| 03 Main Street at Columbus | LOS D | D | D |

City of Medford's Comment 3:

Figure 3; "Year 2007 Existing PM.....(adjusted)", Node 13; Eastbound left and right turn volumes at Stewart at Highway 99 are lower than the count volumes they are based on. Please check the figure and correct the volumes.

Response:

After discussing the issue of the count data with the City of Medford, it was determined that the City intended the comment to read that the Westbound approach volumes are lower than the count data. The traffic volumes for intersection 13, as illustrated in Figure 3, are taken directly from the approved Stewart Meadows TIA. The year 2007 traffic volumes for this intersection are based on a 2005 traffic count. The traffic count was "grown" to represent the year 2007 traffic volumes by utilizing the EMME2 models provided by RVCOG and the post-processing of the count using the approved JRH Moves software. The traffic volumes were then balanced along Stewart Avenue and Highway 99. The result of the approved methodology for the volume processing is what is shown in Figure 3 at intersection 13.

If you have any additional questions or comments, please feel free to contact me.

Sincerely,

Kelly Sandow

Kelly Sandow



Expires: 6-30-09

APPENDIX I
COUNT DATA AND
PHF CALCULATIONS

| Hour | Southbound | | | Westbound | | | Northbound | | | Eastbound | | | Hour | | |
|---------------------|------------|--------|--------|-----------|--------|--------|------------|--------|--------|-----------|--------|--------|--------|--------|-------|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| 15:30 to 15:45 | 46 | 43 | 12 | 101 | 96 | 42 | 161 | 52 | 28 | 101 | 98 | 13 | 122 | 485 | 2008 |
| 15:45 to 16:00 | 40 | 48 | 18 | 106 | 125 | 49 | 210 | 14 | 56 | 20 | 90 | 11 | 126 | 532 | 2008 |
| 16:00 to 16:15 | 37 | 51 | 17 | 105 | 137 | 49 | 224 | 17 | 47 | 21 | 85 | 14 | 120 | 534 | 1845 |
| 16:15 to 16:30 | 45 | 35 | 13 | 113 | 30 | 97 | 164 | 23 | 36 | 12 | 71 | 23 | 107 | 455 | 1981 |
| 16:30 to 16:45 | 37 | 63 | 20 | 120 | 40 | 111 | 37 | 178 | 14 | 79 | 9 | 84 | 17 | 487 | 2007 |
| 16:45 to 17:00 | 31 | 45 | 21 | 97 | 25 | 102 | 169 | 22 | 103 | 17 | 84 | 19 | 100 | 469 | 2022 |
| 17:00 to 17:15 | 49 | 62 | 25 | 136 | 39 | 147 | 36 | 222 | 11 | 48 | 22 | 81 | 17 | 570 | 2013 |
| 17:15 to 17:30 | 35 | 65 | 29 | 129 | 36 | 95 | 29 | 160 | 15 | 39 | 17 | 85 | 17 | 481 | |
| 17:30 to 17:45 | 38 | 63 | 22 | 123 | 27 | 106 | 43 | 176 | 12 | 74 | 29 | 120 | 120 | 502 | |
| 17:45 to 18:00 | 32 | 48 | 14 | 94 | 34 | 113 | 29 | 176 | 12 | 85 | 11 | 80 | 14 | 460 | |
| Peak Volume | 152 | 235 | 95 | 482 | 140 | 455 | 134 | 729 | 72 | 336 | 80 | 331 | 68 | 480 | 2007 |
| Peak Hour Factor | 0.78 | 0.90 | 0.82 | 0.89 | 0.88 | 0.77 | 0.80 | 0.82 | 0.83 | 0.88 | 0.84 | 0.91 | 0.88 | 0.88 | |
| Seasonal Adjustment | 1.0206 | 1.0208 | 1.0208 | 1.0208 | 1.0208 | 1.0208 | 1.0208 | 1.0208 | 1.0208 | 1.0208 | 1.0208 | 1.0208 | 1.0208 | 1.0208 | |
| Peak Season | 155 | 240 | 97 | 143 | 464 | 137 | 73 | 191 | 79 | 81 | 338 | 70 | 2049 | | |
| existing + pipeline | 4 | 0 | 7 | 4 | 26 | 4 | 7 | 0 | 2 | 4 | 14 | 4 | 78 | | |
| existing + pipeline | 159 | 240 | 104 | 147 | 492 | 141 | 80 | 191 | 81 | 65 | 352 | 74 | 2127 | | |

| Hour | Southbound | | | Westbound | | | Northbound | | | Eastbound | | | Hour | | |
|---------------------|------------|--------|--------|-----------|--------|--------|------------|--------|--------|-----------|--------|--------|--------|--------|--------|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| 15:30 to 15:45 | 14 | 97 | 32 | 143 | 11 | 84 | 15 | 110 | 33 | 113 | 2 | 148 | 38 | 58 | 34 |
| 15:45 to 16:00 | 13 | 83 | 43 | 149 | 20 | 95 | 18 | 133 | 48 | 83 | 4 | 135 | 32 | 63 | 40 |
| 16:00 to 16:15 | 10 | 111 | 38 | 159 | 19 | 97 | 16 | 126 | 42 | 87 | 1 | 130 | 35 | 55 | 29 |
| 16:15 to 16:30 | 18 | 96 | 37 | 151 | 14 | 115 | 27 | 156 | 30 | 75 | 1 | 104 | 41 | 68 | 38 |
| 16:30 to 16:45 | 18 | 125 | 39 | 182 | 14 | 113 | 22 | 149 | 46 | 75 | 4 | 125 | 37 | 73 | 29 |
| 16:45 to 17:00 | 13 | 84 | 38 | 135 | 13 | 107 | 20 | 140 | 43 | 79 | 3 | 125 | 34 | 84 | 35 |
| 17:00 to 17:15 | 10 | 127 | 39 | 176 | 28 | 138 | 30 | 166 | 44 | 86 | 3 | 135 | 37 | 55 | 38 |
| 17:15 to 17:30 | 10 | 132 | 52 | 194 | 24 | 107 | 20 | 151 | 39 | 76 | 2 | 119 | 48 | 72 | 24 |
| 17:30 to 17:45 | 11 | 91 | 44 | 146 | 18 | 75 | 19 | 112 | 26 | 74 | 0 | 100 | 43 | 46 | 27 |
| 17:45 to 18:00 | 9 | 78 | 48 | 135 | 12 | 85 | 12 | 107 | 40 | 85 | 1 | 126 | 42 | 46 | 28 |
| Peak Volume | 51 | 465 | 168 | 687 | 79 | 465 | 92 | 656 | 172 | 320 | 12 | 604 | 156 | 284 | 126 |
| Peak Hour Factor | 0.71 | 0.89 | 0.81 | 0.89 | 0.71 | 0.84 | 0.77 | 0.81 | 0.83 | 0.91 | 0.73 | 0.83 | 0.81 | 0.85 | 0.83 |
| Seasonal Adjustment | 1.0530 | 1.0530 | 1.0530 | 1.0530 | 1.0530 | 1.0530 | 1.0530 | 1.0530 | 1.0530 | 1.0530 | 1.0530 | 1.0530 | 1.0530 | 1.0530 | 1.0530 |
| Peak Season | 54 | 493 | 177 | 83 | 490 | 97 | 181 | 337 | 13 | 184 | 298 | 133 | 2520 | | |

| Hour | Southbound | | | Westbound | | | Northbound | | | Eastbound | | | Hour | | |
|---------------------|------------|--------|--------|-----------|--------|--------|------------|--------|--------|-----------|--------|--------|--------|--------|--------|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| 15:30 to 15:45 | 5 | 58 | 2 | 65 | 1 | 0 | 2 | 3 | 0 | 53 | 1 | 0 | 1 | 2 | 123 |
| 15:45 to 16:00 | 8 | 81 | 1 | 70 | 6 | 0 | 2 | 8 | 1 | 52 | 2 | 0 | 2 | 135 | 508 |
| 16:00 to 16:15 | 4 | 48 | 2 | 54 | 1 | 3 | 4 | 8 | 3 | 56 | 1 | 0 | 0 | 129 | 500 |
| 16:15 to 16:30 | 3 | 59 | 9 | 71 | 1 | 0 | 2 | 3 | 0 | 47 | 3 | 0 | 3 | 124 | 508 |
| 16:30 to 16:45 | 3 | 50 | 6 | 59 | 0 | 2 | 2 | 9 | 0 | 45 | 4 | 2 | 0 | 120 | 531 |
| 16:45 to 17:00 | 3 | 56 | 4 | 63 | 0 | 1 | 7 | 8 | 0 | 50 | 1 | 4 | 0 | 127 | 543 |
| 17:00 to 17:15 | 8 | 64 | 6 | 78 | 1 | 0 | 1 | 2 | 0 | 51 | 1 | 5 | 0 | 137 | |
| 17:15 to 17:30 | 7 | 62 | 11 | 80 | 0 | 1 | 4 | 5 | 0 | 58 | 3 | 0 | 0 | 147 | |
| 17:30 to 17:45 | 3 | 54 | 10 | 67 | 0 | 1 | 2 | 3 | 0 | 44 | 5 | 0 | 1 | 120 | |
| 17:45 to 18:00 | 10 | 88 | 9 | 87 | 1 | 1 | 3 | 5 | 2 | 35 | 2 | 39 | 7 | 8 | 139 |
| Peak Volume | 21 | 232 | 27 | 280 | 1 | 4 | 19 | 24 | 4 | 208 | 18 | 2 | 1 | 19 | 531 |
| Peak Hour Factor | 0.66 | 0.91 | 0.61 | 0.86 | 0.25 | 0.50 | 0.68 | 0.67 | 0.88 | 1.00 | 0.88 | 0.25 | 0.25 | 0.79 | 0.80 |
| Seasonal Adjustment | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Peak Season | 21 | 232 | 27 | 280 | 1 | 4 | 19 | 24 | 4 | 204 | 4 | 18 | 2 | 1 | 531 |

Intersection

Columbus and Archer

7/11/2007

Count taken

| Hour | Southbound | | | Westbound | | | Northbound | | | Eastbound | | | 15-min sum | Hour Volume | Hour |
|---------------------|------------|--------|--------|-----------|--------|--------|------------|--------|--------|-----------|--------|--------|------------|-------------|----------------|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | | | |
| 15:30 to 16:45 | 2 | 41 | 7 | 1 | 50 | 1 | 1 | 45 | 0 | 46 | 2 | 0 | 106 | 514 | 15:30 to 16:30 |
| 16:45 to 18:00 | 5 | 55 | 5 | 0 | 1 | 3 | 4 | 50 | 1 | 52 | 5 | 0 | 128 | 533 | 16:45 to 17:45 |
| 18:00 to 18:15 | 11 | 62 | 12 | 0 | 1 | 2 | 4 | 48 | 0 | 51 | 1 | 0 | 144 | 537 | 18:00 to 17:00 |
| 18:15 to 18:30 | 4 | 51 | 8 | 0 | 63 | 1 | 2 | 53 | 0 | 58 | 3 | 0 | 136 | 488 | 18:15 to 17:15 |
| 18:30 to 18:45 | 3 | 53 | 11 | 0 | 67 | 0 | 6 | 41 | 1 | 43 | 0 | 1 | 125 | 468 | 18:30 to 17:30 |
| 18:45 to 19:00 | 3 | 59 | 9 | 1 | 71 | 1 | 2 | 46 | 1 | 49 | 2 | 2 | 132 | 461 | 18:45 to 17:45 |
| 19:00 to 17:15 | 2 | 45 | 10 | 1 | 57 | 1 | 0 | 31 | 0 | 36 | 0 | 0 | 95 | 439 | 17:00 to 18:00 |
| 17:30 to 17:45 | 4 | 57 | 8 | 0 | 69 | 0 | 0 | 39 | 1 | 41 | 1 | 0 | 116 | | |
| 17:45 to 18:00 | 1 | 50 | 9 | 1 | 60 | 1 | 2 | 44 | 0 | 47 | 4 | 2 | 118 | | |
| Peak Volume | 10 | 47 | 8 | 0 | 65 | 0 | 2 | 37 | 0 | 38 | 2 | 0 | 110 | | |
| Peak Hour Factor | 12 | 208 | 38 | 3 | 5 | 9 | 17 | 12 | 171 | 3 | 186 | 5 | 3 | 27 | 488 |
| Seasonal Adjustment | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Peak Season | 12 | 208 | 38 | 3 | 5 | 9 | 17 | 12 | 171 | 3 | 186 | 5 | 3 | 27 | 488 |

Intersection

South Stage and Columbus

7/26/2007

Count taken

| Hour | Southbound | | | Westbound | | | Northbound | | | Eastbound | | | 15-min sum | Hour Volume | Hour |
|---------------------|------------|--------|--------|-----------|--------|--------|------------|--------|--------|-----------|--------|--------|------------|-------------|----------------|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | | | |
| 15:30 to 16:45 | 12 | 23 | 13 | 8 | 34 | 38 | 81 | 1 | 9 | 16 | 24 | 3 | 198 | 752 | 15:30 to 16:30 |
| 16:45 to 18:00 | 15 | 21 | 16 | 8 | 34 | 39 | 81 | 2 | 13 | 20 | 16 | 2 | 208 | 804 | 16:45 to 17:45 |
| 18:00 to 18:15 | 10 | 16 | 15 | 6 | 45 | 24 | 75 | 5 | 16 | 26 | 10 | 29 | 184 | 774 | 18:00 to 17:00 |
| 18:15 to 18:30 | 20 | 17 | 11 | 48 | 46 | 39 | 96 | 3 | 6 | 14 | 8 | 25 | 201 | 799 | 18:15 to 17:15 |
| 18:30 to 18:45 | 17 | 18 | 9 | 44 | 43 | 30 | 87 | 3 | 20 | 27 | 11 | 39 | 211 | 784 | 18:30 to 17:30 |
| 18:45 to 19:00 | 15 | 12 | 20 | 47 | 48 | 14 | 69 | 2 | 15 | 20 | 10 | 31 | 178 | 762 | 18:45 to 17:45 |
| 19:00 to 17:15 | 24 | 14 | 14 | 52 | 51 | 26 | 91 | 1 | 16 | 24 | 12 | 28 | 209 | 759 | 17:00 to 18:00 |
| 17:30 to 17:45 | 16 | 15 | 14 | 45 | 46 | 42 | 97 | 0 | 8 | 11 | 13 | 27 | 196 | | |
| 17:45 to 18:00 | 24 | 15 | 17 | 56 | 48 | 34 | 90 | 1 | 11 | 13 | 10 | 30 | 209 | | |
| Peak Volume | 76 | 81 | 54 | 46 | 190 | 109 | 345 | 9 | 57 | 85 | 41 | 128 | 9 | 178 | 789 |
| Peak Hour Factor | 0.79 | 0.85 | 0.68 | 0.82 | 0.93 | 0.70 | 0.88 | 0.75 | 0.71 | 0.68 | 0.85 | 0.82 | 0.56 | 0.84 | 0.95 |
| Seasonal Adjustment | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Peak Season | 76 | 81 | 54 | 46 | 190 | 109 | 345 | 9 | 57 | 85 | 41 | 128 | 9 | 178 | 789 |

Intersection

Cunningham and Columbus

7/26/2005

Count taken

| Hour | Southbound | | | Westbound | | | Northbound | | | Eastbound | | | 15-min sum | Hour Volume | Hour |
|---------------------|------------|--------|--------|-----------|--------|--------|------------|--------|--------|-----------|--------|--------|------------|-------------|----------------|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | | | |
| 16:00 to 18:15 | 0 | 60 | 2 | 0 | 0 | 0 | 0 | 5 | 59 | 0 | 64 | 2 | 128 | 578 | 16:00 to 17:00 |
| 18:15 to 18:30 | 0 | 35 | 4 | 0 | 0 | 0 | 0 | 7 | 52 | 0 | 59 | 4 | 120 | 601 | 18:15 to 17:15 |
| 18:30 to 18:45 | 0 | 60 | 4 | 0 | 0 | 0 | 0 | 7 | 65 | 0 | 72 | 2 | 143 | 631 | 18:30 to 17:30 |
| 18:45 to 19:00 | 0 | 65 | 12 | 0 | 0 | 0 | 0 | 6 | 52 | 0 | 58 | 5 | 176 | 648 | 18:45 to 17:45 |
| 19:00 to 17:15 | 0 | 70 | 8 | 0 | 0 | 0 | 0 | 9 | 58 | 0 | 67 | 6 | 152 | 623 | 17:00 to 18:00 |
| 17:30 to 17:45 | 0 | 74 | 10 | 0 | 0 | 0 | 0 | 10 | 60 | 0 | 70 | 5 | 160 | | |
| 17:45 to 18:00 | 0 | 72 | 7 | 0 | 0 | 0 | 0 | 7 | 65 | 0 | 72 | 2 | 160 | | |
| Peak Volume | 0 | 75 | 7 | 0 | 0 | 0 | 0 | 6 | 55 | 0 | 61 | 4 | 151 | | |
| Peak Hour Factor | 0 | 311 | 37 | 0 | 0 | 0 | 0 | 32 | 235 | 0 | 267 | 18 | 33 | 648 | |
| Seasonal Adjustment | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | |
| Peak Season | 0 | 311 | 37 | 0 | 0 | 0 | 0 | 32 | 235 | 0 | 267 | 18 | 33 | 648 | |
| existing + pipeline | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 5 | 13 | 0 | 0 | 0 | 3 | 32 | |
| | 0 | 322 | 37 | 0 | 0 | 0 | 0 | 37 | 248 | 0 | 18 | 0 | 18 | 680 | |

Stewart and Meyers

5/19/2005

Count taken

| Hour | Southbound | | | Approach | | | Westbound | | | Approach | | | Northbound | | | Eastbound | | | 15-min sum | Hour |
|---------------------|------------|--------|--------|----------|--------|--------|-----------|--------|--------|----------|--------|--------|------------|--------|--------|-----------|--------|--------|------------|------|
| | Left | Thru | Right | Total | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Volume | | | |
| 16:00 to 16:15 | 0 | 0 | 0 | 0 | 10 | 178 | 0 | 168 | 3 | 6 | 0 | 0 | 0 | 0 | 169 | 5 | 178 | 1506 | | |
| 16:15 to 16:30 | 0 | 0 | 0 | 0 | 8 | 156 | 0 | 164 | 3 | 13 | 0 | 0 | 0 | 0 | 144 | 1 | 145 | 1599 | | |
| 16:30 to 16:45 | 0 | 0 | 0 | 0 | 11 | 213 | 0 | 224 | 6 | 18 | 0 | 0 | 0 | 0 | 141 | 4 | 145 | 1702 | | |
| 16:45 to 17:00 | 0 | 0 | 0 | 0 | 12 | 227 | 0 | 239 | 3 | 13 | 0 | 0 | 0 | 0 | 171 | 2 | 173 | 1579 | | |
| 17:00 to 17:15 | 0 | 0 | 0 | 0 | 9 | 246 | 0 | 255 | 4 | 12 | 0 | 0 | 0 | 0 | 177 | 1 | 178 | 1504 | | |
| 17:15 to 17:30 | 0 | 0 | 0 | 0 | 20 | 216 | 0 | 236 | 7 | 16 | 0 | 0 | 0 | 0 | 188 | 5 | 193 | 1504 | | |
| 17:30 to 17:45 | 0 | 0 | 0 | 0 | 15 | 143 | 0 | 158 | 4 | 9 | 0 | 0 | 0 | 0 | 94 | 3 | 97 | 264 | | |
| 17:45 to 18:00 | 0 | 0 | 0 | 0 | 5 | 168 | 0 | 173 | 2 | 8 | 0 | 0 | 0 | 0 | 164 | 5 | 169 | 350 | | |
| Peak Volume | 0 | 0 | 0 | 0 | 52 | 902 | 0 | 954 | 20 | 39 | 0 | 0 | 0 | 0 | 877 | 12 | 889 | 1702 | | |
| Peak Hour Factor | #DIV/0! | | | #DIV/0! | 0.65 | 0.92 | #DIV/0! | 0.94 | 0.71 | #DIV/0! | 0.81 | 0.82 | #DIV/0! | 0.90 | 0.80 | 0.88 | 0.96 | | | |
| Seasonal/Adjustment | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | | |
| Peak Season | 0 | 0 | 0 | 0 | 52 | 902 | 0 | 954 | 20 | 39 | 0 | 0 | 0 | 0 | 877 | 12 | 889 | 1702 | | |

Columbus and Garfield

4/14/2005

Count taken

| Hour | Southbound | | | Approach | | | Westbound | | | Approach | | | Northbound | | | Eastbound | | | 15-min sum | Hour |
|---------------------|------------|--------|--------|----------|--------|--------|-----------|--------|--------|----------|--------|--------|------------|--------|---------|-----------|--------|--------|------------|------|
| | Left | Thru | Right | Total | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Volume | | | |
| 16:00 to 16:15 | 8 | 81 | 0 | 89 | 1 | 0 | 0 | 1 | 0 | 65 | 2 | 87 | 0 | 0 | 0 | 0 | 145 | 804 | | |
| 16:15 to 16:30 | 8 | 63 | 0 | 71 | 2 | 0 | 0 | 2 | 0 | 67 | 3 | 70 | 0 | 0 | 0 | 0 | 147 | 830 | | |
| 16:30 to 16:45 | 10 | 64 | 0 | 74 | 0 | 0 | 0 | 0 | 0 | 86 | 4 | 90 | 0 | 0 | 0 | 0 | 153 | 858 | | |
| 16:45 to 17:00 | 4 | 81 | 0 | 85 | 1 | 0 | 0 | 1 | 0 | 89 | 2 | 91 | 0 | 0 | 0 | 0 | 159 | 876 | | |
| 17:00 to 17:15 | 10 | 90 | 0 | 100 | 2 | 0 | 0 | 2 | 0 | 57 | 1 | 58 | 0 | 0 | 0 | 0 | 171 | 870 | | |
| 17:15 to 17:30 | 11 | 98 | 0 | 109 | 2 | 0 | 0 | 2 | 0 | 54 | 2 | 56 | 0 | 0 | 0 | 0 | 171 | 870 | | |
| 17:30 to 17:45 | 10 | 91 | 0 | 101 | 5 | 0 | 0 | 5 | 0 | 53 | 1 | 54 | 0 | 0 | 0 | 0 | 171 | 870 | | |
| 17:45 to 18:00 | 16 | 81 | 0 | 97 | 2 | 0 | 0 | 2 | 0 | 69 | 0 | 69 | 0 | 0 | 0 | 0 | 171 | 870 | | |
| Peak Volume | 35 | 360 | 0 | 395 | 10 | 0 | 0 | 10 | 0 | 233 | 6 | 239 | 0 | 0 | 0 | 0 | 153 | 876 | | |
| Peak Hour Factor | #DIV/0! | | | #DIV/0! | 0.50 | 0.73 | #DIV/0! | 0.66 | 0.84 | #DIV/0! | 0.75 | 0.84 | #DIV/0! | 0.84 | #DIV/0! | 0.87 | 0.87 | | | |
| Seasonal/Adjustment | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | | |
| Peak Season | 36 | 366 | 0 | 396 | 10 | 0 | 0 | 10 | 0 | 237 | 6 | 243 | 0 | 0 | 0 | 0 | 158 | 887 | | |
| existing + pipeline | 36 | 366 | 0 | 396 | 14 | 0 | 0 | 14 | 0 | 237 | 9 | 246 | 0 | 0 | 0 | 0 | 158 | 711 | | |

Columbus and 10th

11/29/2007

Count taken

| Hour | Southbound | | | Approach | | | Westbound | | | Approach | | | Northbound | | | Eastbound | | | 15-min sum | Hour |
|---------------------|------------|--------|--------|----------|--------|--------|-----------|--------|--------|----------|--------|--------|------------|--------|---------|-----------|--------|--------|------------|------|
| | Left | Thru | Right | Total | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Volume | | | |
| 15:30 to 15:45 | 11 | 123 | 0 | 134 | 6 | 0 | 0 | 6 | 0 | 124 | 4 | 128 | 0 | 0 | 0 | 0 | 285 | 1773 | | |
| 15:45 to 16:00 | 13 | 118 | 0 | 131 | 8 | 0 | 0 | 8 | 0 | 124 | 7 | 131 | 0 | 0 | 0 | 0 | 285 | 1780 | | |
| 16:00 to 16:15 | 13 | 132 | 0 | 145 | 10 | 0 | 0 | 10 | 0 | 108 | 6 | 114 | 0 | 0 | 0 | 0 | 289 | 1780 | | |
| 16:15 to 16:30 | 11 | 140 | 0 | 151 | 7 | 0 | 0 | 7 | 0 | 136 | 4 | 140 | 0 | 0 | 0 | 0 | 314 | 1789 | | |
| 16:30 to 16:45 | 15 | 129 | 0 | 144 | 5 | 0 | 0 | 5 | 0 | 119 | 7 | 126 | 0 | 0 | 0 | 0 | 292 | 1789 | | |
| 16:45 to 17:00 | 13 | 151 | 0 | 164 | 3 | 0 | 0 | 3 | 0 | 104 | 2 | 106 | 0 | 0 | 0 | 0 | 306 | 1784 | | |
| 17:00 to 17:15 | 13 | 168 | 0 | 181 | 5 | 0 | 0 | 5 | 0 | 99 | 4 | 103 | 0 | 0 | 0 | 0 | 320 | 1784 | | |
| 17:15 to 17:30 | 15 | 153 | 0 | 168 | 4 | 0 | 0 | 4 | 0 | 79 | 2 | 81 | 0 | 0 | 0 | 0 | 271 | 1784 | | |
| 17:30 to 17:45 | 10 | 137 | 0 | 147 | 4 | 0 | 0 | 4 | 0 | 101 | 1 | 102 | 0 | 0 | 0 | 0 | 267 | 1784 | | |
| 17:45 to 18:00 | 6 | 133 | 0 | 144 | 3 | 0 | 0 | 3 | 0 | 97 | 6 | 103 | 0 | 0 | 0 | 0 | 261 | 1784 | | |
| Peak Volume | 57 | 588 | 0 | 640 | 20 | 0 | 0 | 20 | 0 | 856 | 17 | 873 | 0 | 0 | 0 | 0 | 1232 | | | |
| Peak Hour Factor | #DIV/0! | | | #DIV/0! | 0.88 | 0.71 | 0.25 | 0.81 | 0.84 | #DIV/0! | 0.61 | 0.85 | #DIV/0! | 0.84 | #DIV/0! | 0.88 | 0.88 | | | |
| Seasonal/Adjustment | 1.1027 | 1.1027 | 1.1027 | 1.1027 | 1.1027 | 1.1027 | 1.1027 | 1.1027 | 1.1027 | 1.1027 | 1.1027 | 1.1027 | 1.1027 | 1.1027 | 1.1027 | 1.1027 | 1.1027 | 1.1027 | | |
| Peak Season | 57 | 648 | 0 | 695 | 22 | 1 | 1 | 23 | 1 | 106 | 19 | 122 | 0 | 0 | 0 | 0 | 1359 | | | |

Count taken 11/27/2007

Stewart and Orchard

| Hour | Southbound | | | Approach | | | Westbound | | | Approach | | | Northbound | | | Approach | | | 15-min sum | Hour Volume | Hour |
|---------------------|------------|---------|---------|----------|---------|---------|-----------|--------|--------|----------|--------|---------|------------|--------|---------|----------|--------|--------|------------|-------------|----------------|
| | Left | Thru | Right | Total | Right | Thru | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | |
| 15:30 to 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 95 | 0 | 105 | 0 | 0 | 0 | 0 | 0 | 104 | 23 | 127 | 253 | 1142 | 15:30 to 16:30 |
| 15:45 to 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 111 | 0 | 128 | 0 | 0 | 0 | 0 | 0 | 120 | 20 | 140 | 269 | 1180 | 15:45 to 16:45 |
| 16:00 to 16:15 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 151 | 0 | 170 | 0 | 0 | 0 | 0 | 0 | 91 | 17 | 108 | 306 | 1173 | 16:00 to 17:00 |
| 16:15 to 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 118 | 0 | 140 | 0 | 0 | 0 | 0 | 0 | 99 | 19 | 118 | 284 | 1163 | 16:15 to 17:15 |
| 16:30 to 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 134 | 0 | 154 | 0 | 0 | 0 | 0 | 0 | 99 | 19 | 118 | 291 | 1138 | 16:30 to 17:30 |
| 16:45 to 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 138 | 0 | 163 | 0 | 0 | 0 | 0 | 0 | 100 | 18 | 118 | 282 | 1086 | 16:45 to 17:45 |
| 17:00 to 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 138 | 0 | 162 | 0 | 0 | 0 | 0 | 0 | 100 | 18 | 118 | 286 | 1086 | 16:45 to 17:45 |
| 17:15 to 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 120 | 0 | 140 | 0 | 0 | 0 | 0 | 0 | 90 | 19 | 108 | 269 | 1017 | 17:00 to 18:00 |
| 17:30 to 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 92 | 0 | 108 | 0 | 0 | 0 | 0 | 0 | 89 | 17 | 106 | 239 | 1017 | 17:00 to 18:00 |
| 17:45 to 18:00 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 93 | 0 | 106 | 0 | 0 | 0 | 0 | 0 | 72 | 15 | 87 | 213 | 1017 | 17:00 to 18:00 |
| Peak Volume | 0 | 0 | 0 | 0 | 0 | 0 | 89 | 530 | 0 | 619 | 0 | 0 | 0 | 0 | 0 | 365 | 77 | 442 | 1138 | | |
| Peak Hour Factor | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | 0.89 | 0.96 | 0.95 | 0.95 | 0.75 | #DIV/0! | 0.84 | 0.88 | #DIV/0! | 0.91 | 0.92 | 0.94 | 0.96 | | |
| Seasonal/Adjustment | 1.1036 | 1.1036 | 1.1036 | 1.1036 | 1.1036 | 1.1036 | 1.1036 | 1.1036 | 1.1036 | 1.1036 | 1.1036 | 1.1036 | 1.1036 | 1.1036 | 1.1036 | 1.1036 | 1.1036 | 1.1036 | 1.1036 | | |
| Peak Season | 0 | 0 | 0 | 0 | 0 | 0 | 98 | 585 | 0 | 683 | 0 | 0 | 0 | 0 | 0 | 403 | 85 | 585 | 1256 | | |
| pipeline | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 9 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 4 | 9 | 4 | 13 | | |
| existing + pipeline | 0 | 0 | 0 | 0 | 0 | 0 | 112 | 594 | 0 | 706 | 0 | 0 | 0 | 0 | 0 | 407 | 94 | 609 | 1305 | | |

Count taken 4/14/2005

Garfield at Peach

| Hour | Southbound | | | Approach | | | Westbound | | | Approach | | | Northbound | | | Approach | | | 15-min sum | Hour Volume | Hour |
|---------------------|------------|--------|--------|----------|--------|--------|-----------|--------|--------|----------|--------|--------|------------|--------|--------|----------|--------|--------|------------|----------------|------|
| | Left | Thru | Right | Total | Right | Thru | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | |
| 16:00 to 16:15 | 1 | 8 | 2 | 11 | 3 | 3 | 3 | 3 | 4 | 10 | 0 | 0 | 0 | 0 | 4 | 3 | 0 | 7 | 183 | 16:00 to 17:00 | |
| 16:15 to 16:30 | 2 | 10 | 1 | 13 | 3 | 11 | 5 | 18 | 1 | 21 | 0 | 0 | 0 | 0 | 6 | 3 | 2 | 12 | 193 | 16:15 to 17:15 | |
| 16:30 to 16:45 | 3 | 17 | 2 | 22 | 1 | 16 | 3 | 20 | 1 | 24 | 0 | 0 | 0 | 0 | 8 | 5 | 3 | 14 | 185 | 16:30 to 17:30 | |
| 16:45 to 17:00 | 1 | 12 | 3 | 16 | 5 | 3 | 2 | 10 | 1 | 14 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 6 | 178 | 16:45 to 17:45 | |
| 17:00 to 17:15 | 2 | 8 | 4 | 14 | 0 | 10 | 5 | 15 | 0 | 15 | 0 | 0 | 0 | 0 | 3 | 5 | 0 | 8 | 175 | 17:00 to 18:00 | |
| 17:15 to 17:30 | 2 | 14 | 5 | 21 | 0 | 6 | 4 | 10 | 0 | 14 | 0 | 0 | 0 | 0 | 2 | 6 | 0 | 8 | 175 | 17:00 to 18:00 | |
| 17:30 to 17:45 | 3 | 11 | 5 | 19 | 0 | 10 | 3 | 13 | 0 | 13 | 0 | 0 | 0 | 0 | 1 | 6 | 0 | 7 | 175 | 17:00 to 18:00 | |
| 17:45 to 18:00 | 3 | 12 | 2 | 17 | 1 | 5 | 3 | 9 | 1 | 13 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 4 | 178 | 17:00 to 18:00 | |
| Peak Volume | 8 | 45 | 17 | 70 | 5 | 29 | 14 | 48 | 3 | 31 | 0 | 0 | 0 | 0 | 8 | 21 | 2 | 29 | 178 | | |
| Peak Hour Factor | 0.67 | 0.80 | 0.85 | 0.83 | 0.25 | 0.73 | 0.70 | 0.80 | 0.80 | 0.80 | 0.38 | 0.69 | 0.33 | 0.70 | 0.50 | 0.33 | 0.50 | 0.91 | 0.85 | | |
| Seasonal/Adjustment | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | 1.0158 | | |
| Peak Season | 8 | 46 | 17 | 71 | 5 | 29 | 14 | 49 | 3 | 32 | 0 | 0 | 0 | 0 | 6 | 21 | 2 | 33 | 181 | | |
| pipeline | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | | |
| existing + pipeline | 10 | 46 | 17 | 73 | 5 | 32 | 16 | 51 | 3 | 32 | 0 | 0 | 0 | 0 | 6 | 21 | 2 | 33 | 188 | | |

Count taken 8/15/2007

Columbus at McAndrews

| Hour | Southbound | | | Approach | | | Westbound | | | Approach | | | Northbound | | | Approach | | | 15-min sum | Hour Volume | Hour |
|---------------------|------------|--------|--------|----------|--------|--------|-----------|--------|--------|----------|--------|--------|------------|--------|--------|----------|--------|--------|------------|-------------|----------------|
| | Left | Thru | Right | Total | Right | Thru | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | | | |
| 15:30 to 15:45 | 6 | 10 | 0 | 16 | 18 | 70 | 9 | 213 | 0 | 213 | 4 | 4 | 103 | 111 | 0 | 70 | 3 | 73 | 415 | 1339 | 15:30 to 16:30 |
| 15:45 to 16:00 | 5 | 6 | 0 | 11 | 11 | 47 | 3 | 185 | 2 | 187 | 2 | 5 | 107 | 114 | 0 | 56 | 3 | 59 | 349 | 1270 | 15:45 to 16:45 |
| 16:00 to 16:15 | 5 | 3 | 1 | 9 | 9 | 64 | 2 | 146 | 0 | 146 | 0 | 6 | 80 | 86 | 0 | 43 | 0 | 43 | 286 | 1253 | 16:00 to 17:00 |
| 16:15 to 16:30 | 2 | 4 | 0 | 6 | 6 | 58 | 3 | 159 | 1 | 160 | 1 | 5 | 75 | 81 | 1 | 42 | 0 | 43 | 289 | 1374 | 16:15 to 17:15 |
| 16:30 to 16:45 | 12 | 9 | 2 | 23 | 112 | 85 | 0 | 197 | 0 | 197 | 0 | 1 | 95 | 96 | 0 | 50 | 0 | 50 | 346 | 1385 | 16:30 to 17:30 |
| 16:45 to 17:00 | 6 | 0 | 0 | 6 | 6 | 72 | 9 | 173 | 0 | 173 | 0 | 3 | 110 | 113 | 0 | 38 | 2 | 40 | 352 | 1403 | 16:45 to 17:45 |
| 17:00 to 17:15 | 8 | 1 | 1 | 10 | 10 | 78 | 0 | 194 | 3 | 197 | 3 | 3 | 87 | 93 | 0 | 58 | 2 | 60 | 357 | 1399 | 17:00 to 18:00 |
| 17:15 to 17:30 | 2 | 4 | 1 | 7 | 7 | 85 | 1 | 200 | 2 | 202 | 4 | 4 | 93 | 99 | 0 | 44 | 0 | 44 | 350 | 1403 | 17:00 to 18:00 |
| 17:30 to 17:45 | 2 | 1 | 1 | 4 | 4 | 85 | 2 | 188 | 2 | 190 | 2 | 3 | 107 | 112 | 0 | 60 | 0 | 60 | 364 | 1403 | 17:00 to 18:00 |
| 17:45 to 18:00 | 1 | 2 | 0 | 3 | 3 | 53 | 9 | 162 | 1 | 163 | 7 | 13 | 97 | 111 | 2 | 49 | 1 | 52 | 323 | 1403 | 17:00 to 18:00 |
| Peak Volume | 18 | 6 | 3 | 27 | 425 | 318 | 12 | 755 | 7 | 762 | 7 | 13 | 397 | 417 | 0 | 200 | 4 | 204 | 1403 | | |
| Peak Hour Factor | 0.56 | 0.33 | 0.75 | 0.68 | 0.68 | 0.94 | 0.33 | 0.94 | 0.94 | 0.94 | 0.58 | 0.81 | 0.80 | 0.92 | 0.83 | 0.80 | 0.85 | 0.85 | 0.86 | | |
| Seasonal/Adjustment | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | | |
| Peak Season | 18 | 6 | 3 | 27 | 425 | 318 | 12 | 755 | 7 | 762 | 7 | 13 | 397 | 417 | 0 | 200 | 4 | 204 | 1403 | | |

Garfield at Kings

Count taken

10/19/2005

| Hour | Southbound | | | Westbound | | | Northbound | | | Eastbound | | | 15-min sum | Hour Volume | Hour |
|---------------------|------------|--------|--------|-----------|--------|--------|------------|--------|--------|-----------|--------|--------|------------|-------------|----------------|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | | | |
| 16:00 to 16:15 | 7 | 42 | 5 | 11 | 7 | 7 | 0 | 32 | 2 | 2 | 6 | 0 | 143 | 808 | 16:00 to 17:00 |
| 16:15 to 16:30 | 11 | 48 | 5 | 12 | 11 | 17 | 0 | 41 | 3 | 4 | 2 | 0 | 159 | 619 | 16:15 to 17:15 |
| 16:30 to 16:45 | 11 | 39 | 7 | 14 | 21 | 17 | 0 | 32 | 3 | 3 | 2 | 0 | 159 | 607 | 16:30 to 17:30 |
| 16:45 to 17:00 | 12 | 46 | 4 | 62 | 13 | 11 | 12 | 36 | 1 | 31 | 4 | 0 | 147 | 600 | 16:45 to 17:45 |
| 17:00 to 17:15 | 9 | 53 | 3 | 65 | 18 | 8 | 16 | 42 | 1 | 31 | 4 | 0 | 154 | 607 | 17:00 to 18:00 |
| 17:15 to 17:30 | 4 | 41 | 9 | 54 | 16 | 5 | 16 | 37 | 2 | 40 | 5 | 0 | 147 | 607 | 17:15 to 18:15 |
| 17:30 to 17:45 | 6 | 50 | 6 | 62 | 11 | 7 | 17 | 35 | 2 | 40 | 5 | 0 | 147 | 607 | 17:30 to 18:30 |
| 17:45 to 18:00 | 8 | 51 | 4 | 63 | 13 | 11 | 11 | 35 | 0 | 31 | 12 | 2 | 154 | 607 | 17:45 to 18:45 |
| Peak Volume | 36 | 179 | 23 | 283 | 61 | 45 | 61 | 167 | 7 | 135 | 33 | 27 | 807 | 607 | |
| Peak Hour Factor | 0.75 | 0.84 | 0.84 | 0.92 | 0.85 | 0.54 | 0.80 | 0.80 | 0.58 | 0.84 | 0.83 | 0.45 | 0.67 | 0.85 | |
| Seasonal/Adjustment | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | |
| Peak Season | 36 | 179 | 23 | 61 | 45 | 61 | 135 | 33 | 7 | 135 | 33 | 3 | 607 | 607 | |
| Pipeline Trips | 2 | 53 | 9 | 25 | 17 | 2 | 32 | 9 | 3 | 8 | 1 | 12 | 162 | 162 | |
| Existing+pipeline | 38 | 232 | 32 | 86 | 62 | 63 | 167 | 42 | 8 | 167 | 42 | 3 | 768 | 768 | |

Jackson at Columbus

Count taken

12/13/2007

| Hour | Southbound | | | Westbound | | | Northbound | | | Eastbound | | | 15-min sum | Hour Volume | Hour |
|---------------------|------------|--------|--------|-----------|--------|--------|------------|--------|--------|-----------|--------|--------|------------|-------------|----------------|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | | | |
| 15:30 to 15:45 | 4 | 118 | 1 | 123 | 18 | 20 | 8 | 46 | 9 | 108 | 11 | 128 | 325 | 1201 | 15:30 to 16:30 |
| 15:45 to 16:00 | 1 | 102 | 0 | 103 | 21 | 19 | 3 | 43 | 4 | 84 | 12 | 12 | 28 | 1234 | 15:45 to 16:45 |
| 16:00 to 16:15 | 1 | 112 | 0 | 113 | 19 | 21 | 1 | 41 | 9 | 95 | 13 | 117 | 28 | 1279 | 16:00 to 17:00 |
| 16:15 to 16:30 | 1 | 113 | 0 | 115 | 28 | 14 | 1 | 43 | 11 | 80 | 20 | 121 | 305 | 1339 | 16:15 to 17:15 |
| 16:30 to 16:45 | 2 | 143 | 0 | 145 | 28 | 21 | 2 | 51 | 7 | 103 | 20 | 130 | 358 | 1314 | 16:30 to 17:30 |
| 16:45 to 17:00 | 1 | 130 | 1 | 132 | 18 | 25 | 3 | 44 | 12 | 84 | 18 | 114 | 29 | 1240 | 16:45 to 17:45 |
| 17:00 to 17:15 | 1 | 132 | 2 | 135 | 24 | 28 | 1 | 53 | 17 | 105 | 11 | 133 | 357 | 1202 | 17:00 to 18:00 |
| 17:15 to 17:30 | 0 | 98 | 0 | 98 | 22 | 21 | 0 | 43 | 7 | 88 | 11 | 106 | 25 | 280 | 17:15 to 18:15 |
| 17:30 to 17:45 | 1 | 93 | 2 | 96 | 19 | 17 | 3 | 39 | 12 | 97 | 15 | 124 | 10 | 284 | 17:30 to 18:30 |
| 17:45 to 18:00 | 2 | 90 | 3 | 95 | 20 | 23 | 5 | 48 | 17 | 73 | 15 | 105 | 15 | 33 | 281 |
| Peak Volume | 5 | 518 | 4 | 527 | 96 | 88 | 7 | 181 | 47 | 382 | 63 | 488 | 1339 | 1339 | |
| Peak Hour Factor | 0.63 | 0.81 | 0.50 | 0.81 | 0.86 | 0.79 | 0.58 | 0.80 | 0.69 | 0.81 | 0.86 | 0.84 | 0.85 | 0.84 | |
| Seasonal/Adjustment | 1.1107 | 1.1107 | 1.1107 | 1.1107 | 1.1107 | 1.1107 | 1.1107 | 1.1107 | 1.1107 | 1.1107 | 1.1107 | 1.1107 | 1.1107 | 1.1107 | |
| Peak Season | 6 | 575 | 4 | 107 | 98 | 8 | 52 | 424 | 4 | 424 | 77 | 60 | 1487 | 1487 | |

Columbus at 4th

Count taken

8/17/2005

| Hour | Southbound | | | Westbound | | | Northbound | | | Eastbound | | | 15-min sum | Hour Volume | Hour |
|---------------------|------------|--------|--------|-----------|--------|--------|------------|--------|--------|-----------|--------|--------|------------|-------------|----------------|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | | | |
| 15:30 to 15:45 | 13 | 132 | 0 | 145 | 12 | 0 | 6 | 18 | 0 | 113 | 26 | 139 | 302 | 1783 | 15:30 to 16:30 |
| 15:45 to 16:00 | 5 | 124 | 0 | 129 | 12 | 0 | 5 | 17 | 0 | 118 | 19 | 137 | 0 | 283 | 15:45 to 16:45 |
| 16:00 to 16:15 | 5 | 141 | 0 | 146 | 16 | 0 | 9 | 25 | 0 | 116 | 21 | 137 | 0 | 308 | 16:00 to 17:00 |
| 16:15 to 16:30 | 4 | 149 | 0 | 153 | 20 | 0 | 7 | 27 | 0 | 101 | 9 | 110 | 0 | 280 | 16:15 to 17:15 |
| 16:30 to 16:45 | 6 | 155 | 0 | 161 | 12 | 0 | 10 | 22 | 0 | 108 | 13 | 121 | 0 | 304 | 16:30 to 17:30 |
| 16:45 to 17:00 | 1 | 157 | 0 | 158 | 11 | 0 | 6 | 17 | 0 | 124 | 17 | 141 | 0 | 315 | 16:45 to 17:45 |
| 17:00 to 17:15 | 6 | 167 | 0 | 173 | 23 | 0 | 7 | 30 | 0 | 119 | 15 | 134 | 0 | 329 | 17:00 to 18:00 |
| 17:15 to 17:30 | 4 | 155 | 0 | 159 | 18 | 0 | 6 | 24 | 0 | 127 | 19 | 146 | 0 | 280 | 17:15 to 18:15 |
| 17:30 to 17:45 | 3 | 130 | 0 | 133 | 21 | 0 | 5 | 26 | 0 | 107 | 14 | 121 | 0 | 245 | 17:30 to 18:30 |
| 17:45 to 18:00 | 5 | 113 | 0 | 118 | 17 | 0 | 4 | 21 | 0 | 87 | 19 | 106 | 0 | 215 | 17:45 to 18:45 |
| Peak Volume | 17 | 634 | 0 | 651 | 64 | 0 | 29 | 93 | 0 | 478 | 64 | 542 | 0 | 1286 | |
| Peak Hour Factor | 0.71 | 0.95 | 0.84 | 0.70 | 0.70 | 0.73 | 0.78 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.85 | |
| Seasonal/Adjustment | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | |
| Peak Season | 17 | 634 | 0 | 64 | 0 | 29 | 64 | 478 | 64 | 478 | 64 | 1286 | 0 | 1286 | |

Intersection Dixie at Cunningham

Count taken 12/12/2007

| Hour | Southbound | | | Approach | | | Westbound | | | Approach | | | Northbound | | | Eastbound | | | Hour | | |
|---------------------|------------|---------|--------|----------|---------|--------|-----------|--------|---------|----------|---------|--------|------------|--------|---------|-----------|--------|--------|--------|--------|--------|
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | | Right | Volume |
| 15:30 to 15:45 | 0 | 0 | 2 | 2 | 0 | 11 | 4 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 15 | 119 |
| 15:45 to 16:00 | 3 | 0 | 3 | 6 | 0 | 9 | 5 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 13 | 0 | 13 | 121 |
| 16:00 to 16:15 | 0 | 0 | 2 | 2 | 0 | 14 | 2 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 10 | 109 |
| 16:15 to 16:30 | 3 | 0 | 2 | 5 | 0 | 8 | 4 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 0 | 7 | 24 |
| 16:30 to 16:45 | 2 | 0 | 0 | 2 | 0 | 13 | 5 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 14 | 122 |
| 16:45 to 17:00 | 2 | 0 | 1 | 3 | 0 | 12 | 1 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 16 | 123 |
| 17:00 to 17:15 | 2 | 0 | 4 | 6 | 0 | 15 | 4 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 10 | 0 | 12 | 120 |
| 17:15 to 17:30 | 0 | 0 | 1 | 1 | 0 | 10 | 2 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 10 | 0 | 12 | 121 |
| 17:30 to 17:45 | 1 | 0 | 0 | 1 | 0 | 14 | 3 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 11 | 0 | 12 | 31 |
| 17:45 to 18:00 | 1 | 0 | 0 | 1 | 0 | 10 | 3 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 9 | 0 | 10 | 24 |
| Peak Volume | 6 | 0 | 6 | 12 | 0 | 50 | 12 | 62 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 47 | 0 | 49 | 123 |
| Peak Hour Factor | 0.75 | #DIV/0! | 0.38 | 0.50 | #DIV/0! | 0.83 | 0.80 | 0.82 | #DIV/0! | #DIV/0! | #DIV/0! | 0.75 | #DIV/0! | 0.25 | #DIV/0! | 0.77 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| Seasonal Adjustment | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 |
| Peak Season | 7 | 0 | 7 | 13 | 0 | 56 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 52 | 0 | 52 | 137 |

Intersection Stewart at Dixie

Count taken 12/12/2007

| Hour | Southbound | | | Approach | | | Westbound | | | Approach | | | Northbound | | | Eastbound | | | Hour | |
|---------------------|------------|--------|--------|----------|--------|--------|-----------|--------|---------|----------|--------|--------|------------|--------|--------|-----------|--------|--------|--------|--------|
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | | Right |
| 15:30 to 15:45 | 0 | 0 | 0 | 0 | 7 | 119 | 0 | 126 | 0 | 0 | 6 | 6 | 0 | 117 | 2 | 119 | 2 | 117 | 2 | 1083 |
| 15:45 to 16:00 | 0 | 0 | 0 | 0 | 10 | 129 | 0 | 139 | 1 | 0 | 7 | 8 | 0 | 106 | 3 | 109 | 256 | 1100 | 1545 | 1100 |
| 16:00 to 16:15 | 0 | 0 | 0 | 0 | 9 | 148 | 0 | 157 | 1 | 0 | 5 | 6 | 0 | 119 | 137 | 120 | 283 | 1110 | 1600 | 1110 |
| 16:15 to 16:30 | 0 | 0 | 0 | 0 | 14 | 159 | 0 | 173 | 0 | 0 | 5 | 5 | 0 | 114 | 1 | 115 | 283 | 1077 | 1615 | 1077 |
| 16:30 to 16:45 | 0 | 0 | 0 | 0 | 11 | 154 | 0 | 165 | 3 | 0 | 4 | 7 | 0 | 94 | 2 | 96 | 288 | 1099 | 1630 | 1099 |
| 16:45 to 17:00 | 0 | 0 | 0 | 0 | 10 | 138 | 0 | 148 | 0 | 0 | 7 | 7 | 0 | 110 | 3 | 113 | 266 | 1059 | 1645 | 1059 |
| 17:00 to 17:15 | 0 | 0 | 0 | 0 | 14 | 145 | 0 | 159 | 1 | 0 | 4 | 5 | 0 | 84 | 3 | 87 | 250 | 1100 | 1630 | 1100 |
| 17:15 to 17:30 | 0 | 0 | 0 | 0 | 13 | 155 | 0 | 168 | 1 | 0 | 9 | 10 | 0 | 126 | 5 | 131 | 309 | 102 | 102 | 102 |
| 17:30 to 17:45 | 0 | 0 | 0 | 0 | 10 | 153 | 0 | 163 | 1 | 0 | 7 | 8 | 0 | 100 | 1 | 103 | 274 | 103 | 103 | 274 |
| 17:45 to 18:00 | 0 | 0 | 0 | 0 | 7 | 112 | 0 | 119 | 2 | 0 | 2 | 4 | 0 | 100 | 3 | 103 | 256 | 1110 | 1600 | 1110 |
| Peak Volume | 0 | 0 | 0 | 0 | 44 | 587 | 0 | 641 | 4 | 0 | 21 | 25 | 0 | 437 | 7 | 444 | 1110 | 0.85 | 0.85 | 0.85 |
| Peak Hour Factor | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 0.75 | 0.84 | 0.83 | 0.83 | #DIV/0! | 0.75 | 0.75 | 0.88 | #DIV/0! | 0.82 | 0.58 | 0.93 | 0.85 | 0.85 | 0.85 | 0.85 |
| Seasonal Adjustment | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 | 1.1103 |
| Peak Season | 0 | 0 | 0 | 0 | 49 | 663 | 0 | 4 | 4 | 0 | 23 | 0 | 0 | 485 | 8 | 0 | 1232 | 0 | 0 | 0 |

Intersection Stewart at commercial center

Count taken 12/13/2007

| Hour | Southbound | | | Approach | | | Westbound | | | Approach | | | Northbound | | | Eastbound | | | Hour | |
|---------------------|------------|---------|--------|----------|--------|--------|-----------|--------|--------|----------|--------|--------|------------|--------|--------|-----------|--------|--------|--------|--------|
| | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | Right | Total | Left | Thru | | Right |
| 16:00 to 16:15 | 6 | 0 | 3 | 9 | 6 | 254 | 2 | 262 | 13 | 0 | 13 | 26 | 1 | 176 | 19 | 196 | 1747 | 1600 | 1600 | 1747 |
| 16:15 to 16:30 | 7 | 0 | 4 | 11 | 5 | 204 | 3 | 212 | 12 | 0 | 12 | 24 | 3 | 140 | 14 | 157 | 398 | 1615 | 1615 | 398 |
| 16:30 to 16:45 | 4 | 0 | 3 | 7 | 6 | 233 | 2 | 241 | 11 | 0 | 10 | 21 | 3 | 149 | 15 | 167 | 436 | 1630 | 1630 | 436 |
| 16:45 to 17:00 | 5 | 0 | 2 | 7 | 7 | 203 | 1 | 211 | 15 | 0 | 7 | 22 | 2 | 158 | 20 | 180 | 420 | 1758 | 1758 | 420 |
| 17:00 to 17:15 | 1 | 0 | 2 | 3 | 10 | 218 | 6 | 234 | 14 | 0 | 15 | 29 | 5 | 152 | 15 | 172 | 438 | 1730 | 1730 | 438 |
| 17:15 to 17:30 | 3 | 0 | 1 | 4 | 7 | 262 | 1 | 270 | 11 | 0 | 20 | 31 | 3 | 157 | 13 | 173 | 478 | 1725 | 1725 | 478 |
| 17:30 to 17:45 | 5 | 0 | 3 | 8 | 4 | 231 | 3 | 238 | 11 | 0 | 12 | 23 | 2 | 138 | 13 | 153 | 422 | 1700 | 1700 | 422 |
| 17:45 to 18:00 | 6 | 0 | 3 | 9 | 2 | 177 | 1 | 180 | 11 | 0 | 12 | 23 | 8 | 150 | 17 | 175 | 387 | 1772 | 1772 | 387 |
| Peak Volume | 13 | 0 | 8 | 21 | 30 | 916 | 10 | 986 | 51 | 0 | 52 | 103 | 13 | 616 | 63 | 692 | 1772 | 0.85 | 0.85 | 0.85 |
| Peak Hour Factor | 0.85 | #DIV/0! | 0.87 | 0.75 | 0.75 | 0.87 | 0.42 | 0.89 | 0.85 | #DIV/0! | 0.65 | 0.83 | 0.65 | 0.97 | 0.79 | 0.96 | 0.83 | 0.83 | 0.83 | 0.83 |
| Seasonal Adjustment | 1.1107 | 1.1107 | 1.1107 | 1.1107 | 1.0000 | 1.0000 | 1.0000 | 1.1107 | 1.1107 | 1.1107 | 1.1107 | 1.1107 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Peak Season | 14 | 0 | 9 | 30 | 30 | 916 | 10 | 58 | 57 | 0 | 58 | 13 | 616 | 63 | 0 | 1786 | 0 | 0 | 0 | 0 |

APPENDIX II
SYNCHRO OUTPUTS
REVISED
MAIN STREET AT
COLUMBUS AVENUE

Lanes, Volumes, Timings
 3: Main Street & Columbus Avenue

2/1/2008

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|
| Lane Configurations | | | | | | | | | | | | |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (ft) | 150 | | 0 | 125 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 0 | | 0 | 0 | | 0 |
| Total Lost Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Leading Detector (ft) | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 | 5 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.954 | | | 0.976 | | | 0.996 | | | 0.962 | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.983 | | | 0.996 | |
| Satd. Flow (prot) | 1676 | 3199 | 0 | 1676 | 3272 | 0 | 0 | 3283 | 0 | 0 | 3213 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.983 | | | 0.996 | |
| Satd. Flow (perm) | 1676 | 3199 | 0 | 1676 | 3272 | 0 | 0 | 3283 | 0 | 0 | 3213 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 55 | | | 17 | | | 2 | | | 37 | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 1264 | | | 2006 | | | 445 | | | 839 | |
| Travel Time (s) | | 28.7 | | | 45.6 | | | 10.1 | | | 19.1 | |
| Volume (vph) | 177 | 321 | 142 | 86 | 531 | 103 | 191 | 354 | 13 | 57 | 506 | 193 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 188 | 341 | 151 | 91 | 565 | 110 | 203 | 377 | 14 | 61 | 538 | 205 |
| Lane Group Flow (vph) | 188 | 492 | 0 | 91 | 675 | 0 | 0 | 594 | 0 | 0 | 804 | 0 |
| Turn Type | Prot | | | Prot | | | Split | | | Split | | |
| Protected Phases | 3 | 8 | | 7 | 4 | | 6 | 6 | | 2 | 2 | |
| Permitted Phases | | | | | | | | | | | | |
| Detector Phases | 3 | 8 | | 7 | 4 | | 6 | 6 | | 2 | 2 | |
| Minimum Initial (s) | 3.0 | 8.0 | | 3.0 | 8.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 6.0 | 23.0 | | 6.0 | 24.0 | | 26.5 | 26.5 | | 25.5 | 25.5 | |
| Total Split (s) | 22.0 | 39.0 | 0.0 | 17.0 | 34.0 | 0.0 | 31.0 | 31.0 | 0.0 | 40.0 | 40.0 | 0.0 |
| Total Split (%) | 17.3% | 30.7% | 0.0% | 13.4% | 26.8% | 0.0% | 24.4% | 24.4% | 0.0% | 31.5% | 31.5% | 0.0% |
| Maximum Green (s) | 19.0 | 35.0 | | 14.0 | 30.0 | | 27.5 | 27.5 | | 36.5 | 36.5 | |
| Yellow Time (s) | 3.0 | 4.0 | | 3.0 | 4.0 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Vehicle Extension (s) | 1.5 | 4.0 | | 1.5 | 4.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Minimum Gap (s) | 1.5 | 3.0 | | 1.2 | 3.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Time Before Reduce (s) | 0.0 | 3.0 | | 0.0 | 3.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Recall Mode | None | None | | None | None | | None | None | | None | None | |
| Walk Time (s) | | 7.0 | | | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | | 12.0 | | | 13.0 | | 16.0 | 16.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | | 5 | 5 | | 5 | 5 | |
| Act Effct Green (s) | 13.8 | 33.6 | | 8.3 | 25.6 | | | 22.0 | | | 28.6 | |
| Actuated g/C Ratio | 0.13 | 0.31 | | 0.08 | 0.24 | | | 0.21 | | | 0.27 | |
| v/c Ratio | 0.87 | 0.47 | | 0.71 | 0.85 | | | 0.88 | | | 0.91 | |
| Control Delay | 84.7 | 31.3 | | 82.4 | 51.5 | | | 58.8 | | | 53.1 | |

Lanes, Volumes, Timings

3: Main Street & Columbus Avenue

2/1/2008

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------|------|------|-----|------|------|-----|-----|------|-----|-----|------|-----|
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | 84.7 | 31.3 | | 82.4 | 51.5 | | | 58.8 | | | 53.1 | |
| LOS | F | C | | F | D | | | E | | | D | |
| Approach Delay | | 46.1 | | | 55.2 | | | 58.8 | | | 53.1 | |
| Approach LOS | | D | | | E | | | E | | | D | |

Intersection Summary

Area Type: Other

Cycle Length: 127

Actuated Cycle Length: 107.3

Natural Cycle: 85

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 53.1

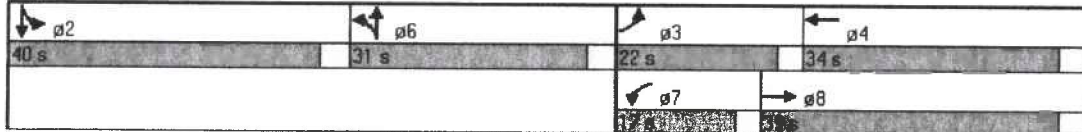
Intersection LOS: D

Intersection Capacity Utilization 82.3%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 3: Main Street & Columbus Avenue



HCM Signalized Intersection Capacity Analysis

3: Main Street & Columbus Avenue

2/1/2008

| Movement | | | | | | | | | | | | |
|------------------------|-------|------|------|------|-------|------|-------|-------|------|-------|-------|------|
| | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | | | | | | | | | |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Total Lost time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | | 4.0 | | | 4.0 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | | 0.95 | | | 0.95 | |
| Frt | 1.00 | 0.95 | | 1.00 | 0.98 | | | 1.00 | | | 0.96 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.98 | | | 1.00 | |
| Satd. Flow (prot) | 1676 | 3199 | | 1676 | 3271 | | | 3285 | | | 3213 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.98 | | | 1.00 | |
| Satd. Flow (perm) | 1676 | 3199 | | 1676 | 3271 | | | 3285 | | | 3213 | |
| Volume (vph) | 177 | 321 | 142 | 86 | 531 | 103 | 191 | 354 | 13 | 57 | 506 | 193 |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 188 | 341 | 151 | 91 | 565 | 110 | 203 | 377 | 14 | 61 | 538 | 205 |
| RTOR Reduction (vph) | 0 | 38 | 0 | 0 | 13 | 0 | 0 | 2 | 0 | 0 | 27 | 0 |
| Lane Group Flow (vph) | 188 | 454 | 0 | 91 | 662 | 0 | 0 | 592 | 0 | 0 | 777 | 0 |
| Turn Type | Prot | | | Prot | | | Split | | | Split | | |
| Protected Phases | 3 | 8 | | 7 | 4 | | 6 | 6 | | 2 | 2 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | 14.9 | 33.6 | | 8.0 | 26.7 | | | 22.5 | | | 29.1 | |
| Effective Green, g (s) | 13.9 | 33.6 | | 7.0 | 26.7 | | | 22.0 | | | 28.6 | |
| Actuated g/C Ratio | 0.13 | 0.31 | | 0.07 | 0.25 | | | 0.21 | | | 0.27 | |
| Clearance Time (s) | 3.0 | 4.0 | | 3.0 | 4.0 | | | 3.5 | | | 3.5 | |
| Vehicle Extension (s) | 1.5 | 4.0 | | 1.5 | 4.0 | | | 2.0 | | | 2.0 | |
| Lane Grp Cap (vph) | 217 | 1003 | | 109 | 815 | | | 674 | | | 857 | |
| v/s Ratio Prot | c0.11 | 0.14 | | 0.05 | c0.20 | | | c0.18 | | | c0.24 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | 0.87 | 0.45 | | 0.83 | 0.81 | | | 0.88 | | | 0.91 | |
| Uniform Delay, d1 | 45.7 | 29.4 | | 49.5 | 37.9 | | | 41.3 | | | 38.0 | |
| Progression Factor | 1.00 | 1.00 | | 1.00 | 1.00 | | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 27.6 | 0.4 | | 38.3 | 6.5 | | | 12.1 | | | 12.8 | |
| Delay (s) | 73.3 | 29.9 | | 87.8 | 44.4 | | | 53.5 | | | 50.8 | |
| Level of Service | E | C | | F | D | | | D | | | D | |
| Approach Delay (s) | | 41.9 | | | 49.6 | | | 53.5 | | | 50.8 | |
| Approach LOS | | D | | | D | | | D | | | D | |




















Intersection Summary

| | | | |
|-----------------------------------|-------|----------------------|------|
| HCM Average Control Delay | 48.9 | HCM Level of Service | D |
| HCM Volume to Capacity ratio | 0.87 | | |
| Actuated Cycle Length (s) | 107.2 | Sum of lost time (s) | 16.0 |
| Intersection Capacity Utilization | 82.3% | ICU Level of Service | E |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

Lanes, Volumes, Timings
3: Main Street & Columbus Avenue













2/1/2008

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  |  |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (ft) | 150 | | 0 | 125 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 0 | | 0 | 0 | | 0 |
| Total Lost Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Leading Detector (ft) | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 | 5 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 0.95 | *1.00 | 0.95 | 0.95 | 0.95 | 0.95 |
| Frt | | 0.952 | | | 0.976 | | | 0.996 | | | 0.963 | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.983 | | | 0.996 | |
| Satd. Flow (prot) | 1676 | 3192 | 0 | 1676 | 3272 | 0 | 0 | 3456 | 0 | 0 | 3216 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.983 | | | 0.996 | |
| Satd. Flow (perm) | 1676 | 3192 | 0 | 1676 | 3272 | 0 | 0 | 3456 | 0 | 0 | 3216 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 59 | | | 17 | | | 2 | | | 35 | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 1264 | | | 2006 | | | 445 | | | 839 | |
| Travel Time (s) | | 28.7 | | | 45.6 | | | 10.1 | | | 19.1 | |
| Volume (vph) | 177 | 321 | 149 | 90 | 531 | 103 | 195 | 362 | 14 | 57 | 531 | 193 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 188 | 341 | 159 | 96 | 565 | 110 | 207 | 385 | 15 | 61 | 565 | 205 |
| Lane Group Flow (vph) | 188 | 500 | 0 | 96 | 675 | 0 | 0 | 607 | 0 | 0 | 831 | 0 |
| Turn Type | Prot | | | Prot | | | Split | | | Split | | |
| Protected Phases | 3 | 8 | | 7 | 4 | | 6 | 6 | | 2 | 2 | |
| Permitted Phases | | | | | | | | | | | | |
| Detector Phases | 3 | 8 | | 7 | 4 | | 6 | 6 | | 2 | 2 | |
| Minimum Initial (s) | 3.0 | 8.0 | | 3.0 | 8.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 6.0 | 23.0 | | 6.0 | 24.0 | | 26.5 | 26.5 | | 25.5 | 25.5 | |
| Total Split (s) | 22.0 | 38.0 | 0.0 | 18.0 | 34.0 | 0.0 | 30.1 | 30.1 | 0.0 | 40.9 | 40.9 | 0.0 |
| Total Split (%) | 17.3% | 29.9% | 0.0% | 14.2% | 26.8% | 0.0% | 23.7% | 23.7% | 0.0% | 32.2% | 32.2% | 0.0% |
| Maximum Green (s) | 19.0 | 34.0 | | 15.0 | 30.0 | | 26.6 | 26.6 | | 37.4 | 37.4 | |
| Yellow Time (s) | 3.0 | 4.0 | | 3.0 | 4.0 | | 3.5 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Vehicle Extension (s) | 1.5 | 4.0 | | 1.5 | 4.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Minimum Gap (s) | 1.5 | 3.0 | | 1.2 | 3.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Time Before Reduce (s) | 0.0 | 3.0 | | 0.0 | 3.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Recall Mode | None | None | | None | None | | None | None | | None | None | |
| Walk Time (s) | | 7.0 | | | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Flash Dont Walk (s) | | 12.0 | | | 13.0 | | 16.0 | 16.0 | | 15.0 | 15.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | | 5 | 5 | | 5 | 5 | |
| Act Effct Green (s) | 13.9 | 33.4 | | 8.7 | 25.7 | | | 21.5 | | | 29.6 | |
| Actuated g/C Ratio | 0.13 | 0.31 | | 0.08 | 0.24 | | | 0.20 | | | 0.27 | |
| v/c Ratio | 0.87 | 0.49 | | 0.72 | 0.85 | | | 0.88 | | | 0.92 | |
| Control Delay | 84.8 | 31.7 | | 82.2 | 51.8 | | | 58.9 | | | 53.4 | |

Lanes, Volumes, Timings

3: Main Street & Columbus Avenue

2/1/2008

| Lane Group |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | 84.8 | 31.7 | | 82.2 | 51.8 | | | 58.9 | | | 53.4 | |
| LOS | F | C | | F | D | | | E | | | D | |
| Approach Delay | | 46.2 | | | 55.6 | | | 58.9 | | | 53.4 | |
| Approach LOS | | D | | | E | | | E | | | D | |

Intersection Summary

Area Type: Other

Cycle Length: 127

Actuated Cycle Length: 108

Natural Cycle: 85

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 53.4

Intersection LOS: D







Intersection Capacity Utilization 83.4%

ICU Level of Service E

Analysis Period (min) 15

* User Entered Value

Splits and Phases: 3: Main Street & Columbus Avenue

| | | | |
|--|--|--|---|
|  ø2 |  ø6 |  ø3 |  ø4 |
| 40.9 s | 30.1 s | 22 s | 34 s |
| | |  ø7 |  ø8 |
| | | 18 s | 38 s |

HCM Signalized Intersection Capacity Analysis

3: Main Street & Columbus Avenue

2/1/2008

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|-------|------|------|------|-------|------|-------|-------|------|-------|-------|------|
| Lane Configurations | | | | | | | | | | | | |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Total Lost time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | | 4.0 | | | 4.0 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | | *1.00 | | | 0.95 | |
| Frt | 1.00 | 0.95 | | 1.00 | 0.98 | | | 1.00 | | | 0.96 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.98 | | | 1.00 | |
| Satd. Flow (prot) | 1676 | 3193 | | 1676 | 3271 | | | 3457 | | | 3217 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.98 | | | 1.00 | |
| Satd. Flow (perm) | 1676 | 3193 | | 1676 | 3271 | | | 3457 | | | 3217 | |
| Volume (vph) | 177 | 321 | 149 | 90 | 531 | 103 | 195 | 362 | 14 | 57 | 531 | 193 |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 188 | 341 | 159 | 96 | 565 | 110 | 207 | 385 | 15 | 61 | 565 | 205 |
| RTOR Reduction (vph) | 0 | 41 | 0 | 0 | 13 | 0 | 0 | 2 | 0 | 0 | 25 | 0 |
| Lane Group Flow (vph) | 188 | 459 | 0 | 96 | 662 | 0 | 0 | 605 | 0 | 0 | 806 | 0 |
| Turn Type | Prot | | | Prot | | | Split | | | Split | | |
| Protected Phases | 3 | 8 | | 7 | 4 | | 6 | 6 | | 2 | 2 | |
| Permitted Phases | | | | | | | | | | | | |
| Actuated Green, G (s) | 15.0 | 33.4 | | 8.4 | 26.8 | | | 22.1 | | | 30.1 | |
| Effective Green, g (s) | 14.0 | 33.4 | | 7.4 | 26.8 | | | 21.6 | | | 29.6 | |
| Actuated g/C Ratio | 0.13 | 0.31 | | 0.07 | 0.25 | | | 0.20 | | | 0.27 | |
| Clearance Time (s) | 3.0 | 4.0 | | 3.0 | 4.0 | | | 3.5 | | | 3.5 | |
| Vehicle Extension (s) | 1.5 | 4.0 | | 1.5 | 4.0 | | | 2.0 | | | 2.0 | |
| Lane Grp Cap (vph) | 217 | 987 | | 115 | 812 | | | 691 | | | 882 | |
| v/s Ratio Prot | c0.11 | 0.14 | | 0.06 | c0.20 | | | c0.18 | | | c0.25 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | 0.87 | 0.47 | | 0.83 | 0.82 | | | 0.88 | | | 0.91 | |
| Uniform Delay, d1 | 46.1 | 30.1 | | 49.7 | 38.3 | | | 41.9 | | | 38.0 | |
| Progression Factor | 1.00 | 1.00 | | 1.00 | 1.00 | | | 1.00 | | | 1.00 | |
| Incremental Delay, d2 | 27.6 | 0.5 | | 36.7 | 6.7 | | | 11.7 | | | 13.4 | |
| Delay (s) | 73.7 | 30.6 | | 86.4 | 44.9 | | | 53.6 | | | 51.4 | |
| Level of Service | E | C | | F | D | | | D | | | D | |
| Approach Delay (s) | | 42.3 | | | 50.1 | | | 53.6 | | | 51.4 | |
| Approach LOS | | D | | | D | | | D | | | D | |

Intersection Summary

| | | | |
|-----------------------------------|-------|----------------------|------|
| HCM Average Control Delay | 49.4 | HCM Level of Service | D |
| HCM Volume to Capacity ratio | 0.87 | | |
| Actuated Cycle Length (s) | 108.0 | Sum of lost time (s) | 16.0 |
| Intersection Capacity Utilization | 83.4% | ICU Level of Service | E |
| Analysis Period (min) | 15 | | |

c Critical Lane Group



Oregon

Theodore R. Kulongoski, Governor

Department of Transportation

RECEIVED

FEB 07 2008

PLANNING DEPT.

Region 3 Planning

100 Antelope Road
White City, OR 97503
Phone 541-774-6399
Fax 541-774-6349

February 5, 2007

**Commissioner David McFadden, Chairperson
City of Medford Planning Commission**

Lausmann Annex
200 South Ivy Street
Medford, OR 97501

**Re: Proposed South Medford High School Zone Change: County RR-5 to City SFR-6
(city file no. ZC-07-207)**

Dear Chairman McFadden & Fellow Planning Commissioners:

The Oregon Department of Transportation (ODOT) appreciates the opportunity to review and comment on the Medford School District 549C proposal for a zone change from County RR-5 (Rural Residential – 5 acre minimum lot size) to City SFR-6 (Single-Family Residential – 6 units per acre) on approximately 40.58 acres located west of Columbus Avenue, south of Cunningham Avenue and north of Diamond Avenue, in Medford, OR. The subject property is described as: Map 37-2W-36C, Tax Lots 1400 (partial), 1401, 1402 (partial), 1502 and 1600; and, Map 37-2W-36CC, Tax Lot 2300. The city's General Land Use Plan Map indicates the subject property is designated PS – Parks and Schools. Future development of a school on the property is consistent with the PS plan map and proposed SFR-6 zoning designations. We offer the following comments based on our review of the applicant's traffic study conducted by JRH Transportation Engineering (dated January 11, 2008). Please enter this letter into the project record.

ODOT SUPPORT FOR PROPOSED ZONE CHANGE, WITH CONDITION

We support the Medford Planning Commission's approval of the school district's proposed land use amendment, with the condition outlined herein. The zone change allowing future development of SFR-6 land uses does not have a "significant affect" to the function, capacity or performance standards of state transportation facilities, and is consistent with the Transportation Planning Rule (TPR, OAR 660-012-0060). However, the SFR-6 zone conditionally allows future development of a new high school use on the subject property. As the current land use amendment is related to the anticipated future Medford School District's Conditional Use Permit (CUP) application to site a new high school of approximately 2000 students, we recommend the following condition of approval, effectively deferring¹ the Transportation Planning Rule

¹ See *Staus v. City of Corvallis*, 48 Or LUBA 254 (2004); *Citizens for Protection of Neighborhoods v. City of Salem*, 47 Or LUBA 111 (2004); *Concerned Citizens v. Malheur County*, 47 Or LUBA 208 (2004); and, *Wal-Mart Stores, Inc. v. City of Medford*, 49 Or LUBA 52 (2005).

significant affect assessment applicable to state highways, to the time of CUP application review. We recommend the following condition of approval be applied in the city's decision:

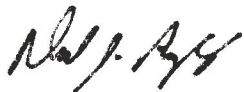
- ❖ The applicant shall provide as part of any future conditional use permit (CUP) application to site a high school on the subject property, an adequate traffic analysis consistent with the Transportation Planning Rule (TPR), which shows the total trip generation and AM (morning) & PM (afternoon) peak hour trips, distributed and assigned to the transportation system. The traffic analysis shall assess "significant affects" and identify adequate facility mitigation (improvements) for state transportation facilities as determined by City Public Works in coordination with ODOT.

It is our interest to assess the sum total and peak hour trip effects to state facilities from the zone change and future CUP application, in the final determination of TPR significant affect. The applicant's traffic analysis does not address traffic impacts for the SFR-6 conditional uses, as part of the current land use amendment request. The applicant's Findings of Fact and Conclusions of Law indicate "the anticipated vehicular generation as a result of the proposed zone change is 2522 Average Daily Trips (ADT) and 255 trips in the PM peak hour." We request the addition of the future CUP application's ADT and peak hour trips (AM & PM) to the current zone change application's analysis, in the final determination of TPR significant affect. For a high school use, we understand AM Peak Hour Trips are the most significantly impacting time of day, as morning arrival peak traffic volumes are highest.

The ODOT appreciates the project coordination to date with the Medford School District, Maize and Associates, JRH Transportation Engineering, and the city of Medford staff. We look forward to continued coordination as a partnering stakeholder in the CUP application process and decision.

We request this letter be included in the South Medford High School Zone Change public hearing record. Please send me a copy of the city's final decision on the proposed land use amendment. Please contact me at (541) 774-6399, if you have questions regarding this letter and its recommendation. Thank you.

Respectfully,



David J. Pyles
Development Review Planner III

Cc: Jim Maize, Maize & Associates (consultant to applicant)
Praline McCormack, Medford Planning
Alex Georgevitch, Medford Traffic Manager
ODOT Region 3

CITY OF MEDFORD
INTER - OFFICE MEMORANDUM

TO: Planning Department

FROM: Engineering Division

SUBJECT: Zone Change Request, File No. ZC-07-207

DATE: February 7, 2008

RECEIVED
FEB 07 2008
PLANNING DEPT

1. Sanitary Services:

A. Currently serviced by: This site lies within the Rogue Valley Sewer Service area. Contact Rogue Valley Sewer Service for sanitary sewer issues.

2. Streets:

A. Current condition of nearest street:

Columbus Avenue, is designated a Major Arterial Street, it is paved but without curb and gutter along the frontage of this site.

Cunningham Avenue, is designated a Minor Arterial Street, it is paved but without curb and gutter along the frontage of this site.

Diamond Street, is designated a Major Collector Street, it is paved with curb and gutter along a portion of the frontage of this site, the remaining portion is not dedicated and is unimproved.

Warren Way, is designated a Standard Residential Street, it is paved with curb and gutter along a portion of the frontage of this site, the remaining portion is not dedicated and is unimproved.

B: Who has maintenance responsibilities:

Columbus Avenue and Cunningham Avenue are currently maintained by Jackson County. Diamond Street and Warren Way are maintained by the City of Medford.

C: Transportation analysis for the surrounding street system and are stated below:

Land Development Code Section 10.461 gives the City the authority to require a traffic impact report to determine development impacts on the surrounding street system. The

proposed zone change from County RR-5 (Rural Residential – 1 dwelling unit per 5 acres) to SFR-6 (Single-Family Residential – 6 units per acre) on 40.6 acres (43.62 gross acres) has the potential to develop 261 SFR dwelling units or generate 2497 average daily trips (ADT). The net increase in traffic to the transportation system is 2411 ADT. Based on this and the MLDC section 10.461, a traffic impact analysis (TIA) will be required.

A Traffic Impact Analysis (TIA) for South Medford High Zone Change was prepared by JRH Transportation Engineering and submitted to Public Works on January 14, 2008 for review. After Public Works review, a comment letter regarding the TIA was sent to JRH Transportation Engineering on January 18, 2008.

The study analyzed Year 2007 and Year 2010 scenarios, with and without the proposed development in place. The study shows that the intersection of Garfield Street and Kings Highway will operate below LOS D, which is the minimum mobility standard for City of Medford, under Year 2007 and Year 2010 scenarios. The proposed mitigation for this intersection is to implement a four-way stopped control.

Based on the traffic impact analysis, Public Works recommends the approval with following conditions:

- The intersection of Garfield Street and Kings Highway shall be improved to 4-way stopped control prior to the proposed development.

At the time of site development the City of Medford, in conjunction with Jackson County, will recommend any necessary improvements and/or dedications along the portion of this project's frontage on Columbus Avenue and Cunningham Avenue,.

At the time of site development the City of Medford will recommend any necessary improvements and/or dedications along the portion of this project's frontage on Diamond Street and Warren Way.

3. Drainage:

This site lies within the Crooked Creek Drainage Basin. The City's current Drainage Master Plan indicates improvements are required in the downstream storm drainage system to meet current design standards for this basin. As a zone change is not allowable without adequate storm drain facilities, the following criteria must be met prior to issuance of a development permit or a building permit:

- a) An engineer registered in the State of Oregon shall prepare a report which includes testing, plans and calculations necessary to demonstrate a controlled storm water release of no more than 0.25 C.F.S. per acre of development for the 10-year storm. The report shall be submitted to the City of Medford Engineering Division for review and approval.



ROGUE VALLEY SEWER SERVICES

Location: 138 West Vilas Road, Central Point, OR - Mailing Address: P.O. Box 3130, Central Point, OR 97502-0005
Tel: (541) 664-6300, Fax (541) 664-7171 - www.RVSS.us

September 20, 2007

City of Medford Planning Department
411 West 8th Street
Medford, Oregon 97501

RECEIVED
OCT 03 2007
PLANNING DEPT.

Re: CUP-07-214/zc-07-207 South Medford High School (372w36c - 1400, 1401, 1402, 1502, 1600; 372w36cc - 2300)

ATTN: Praline,

There is an 8 inch sewer main located on the subject property adjacent to the Columbus Avenue right-of-way from Garfield to Diamond Street. There is also an 8 inch sewer main on Cunningham Avenue from Dixie to Warren Way, and on Warren Way from Cunningham to Kaufman Way.

Sewer service to the proposed development can be attained by making connections to any of these existing main lines. Multiple connections will be allowed if needed. The permit for any new connections will be issued by Rogue Valley Sewer Services upon payment of related development fees.

Sincerely,


Carl Tappert P.E.
District Engineer

N
20-07-207



BOARD OF WATER COMMISSIONERS
Staff Memo

RECEIVED
FEB 04 2008

PLANNING DEPT.

TO: Planning Department, City of Medford
FROM: Rodney Grehn P.E., Water Commission Staff Engineer
SUBJECT: ZC-07-207
PROJECT: Consideration of a zone change from County RR-5 (Rural Residential – 5 acre minimum lot size) to SFR-6 (Single-Family Residential – 6 units per acre) zoning on an approximate 40.6-acre site; located on the west side of Columbus Avenue, south of Cunningham Avenue, north of Diamond Street, and east of Warren Way, within an SFR-6 (Single-Family Residential – 6 units per acre) zoning district; Medford School district 549C, Applicant (Maize & Associates, Inc., Agent). Praline McCormack, Planner

PARCEL ID: 372W36C TL's 1400, 1401, 1402, 1502, and 1600; and 37 2W36CC TL 2300

DATE: February 4, 2008

I have reviewed the above plan authorization application as requested. Conditions for approval and comments are as follows:

COMMENTS

1. The water facility planning/design/construction process will be done in accordance with the Medford Water Commission (MWC) "Regulations Governing Water Service" and "Standards For Water Facilities/Fire Protection Systems/Backflow Prevention Devices."
2. All parcels/lots of proposed property divisions will be required to have metered water service prior to recordation of final map, unless otherwise arranged with MWC.
3. The MWC system does have adequate capacity to serve this property.
4. Off-site water line installation is not required.
5. On-site water facility construction is required, and will be conditioned at time of future land development review.
6. MWC-metered water service does not exist to this property.
7. Access to MWC water lines is available. A 30" waterline is located in Cunningham Drive (Gravity Pressure Zone), a 24" waterline is located in South Columbus Avenue (Gravity Pressure Zone), an 8" waterline is located in Warren Way (Southwest Pressure Zone), and a 8" waterline is located in the existing improved portion of Diamond Street (Southwest Pressure Zone).

0
ZC-07-207



Medford Fire/Rescue

200 S. Ivy Street, Room #257
Medford, OR 97501
Phone: 774-2300; Fax: 541-774-2514;
E-mail www.fire@ci.medford.or.us

RECEIVED

FEB 04 2008

LAND DEVELOPMENT REPORT - REVISED PLANNING DEPT.

To: Praline McCormack

From: Kleinberg, Greg

Report Prepared: 02/04/2008

Applicant: Medford School district 549C, Applicant (Maize & Associates, Inc., Agent)

File #: ZC - 07 - 207

Associated File #'s: CUP - 07 - 214

Site Name/Description: New South Medford High School

Consideration of a zone change from County RR-5 (Rural Residential - 5 acre CUP-07-214 minimum lot size) to SFR-6 (Single-Family Residential - 6 units per acre) zoning on an approximate 40.6-acre site; and a conditional use permit for the construction and operation of a high school on approximately 42 acres; located on the west side of Columbus Avenue, south of Cunningham Avenue, north of Diamond Street, and east of Warren Way, within an SFR-6 (Single-Family Residential - 6 units per acre) zoning district; Medford School district 549C, Applicant (Maize & Associates, Inc., Agent). Praline McCormack, Planner

| DESCRIPTION OF CORRECTIONS | | REFERENCE | |
|----------------------------|--|-----------|--|
|----------------------------|--|-----------|--|

| Required | ADDITIONAL REQUIREMENTS/COMMENTS | MEDFORD | OTHER |
|----------|----------------------------------|---------|-------|
|----------|----------------------------------|---------|-------|

No requirements for the zone change. Previous requirements apply to development.

| | | | |
|---|--|--|--|
| Development shall comply with access and water supply requirements in accordance with the Fire Code in affect at the time of development submittal. Fire apparatus access roads are required to be installed and made servicable prior to the time of construction. Water supply for fire protection is required to be installed and made serviceable prior to the time of vertical combustible construction. <u>Specific fire protection systems may be required in accordance with the Oregon Fire Code.</u> This plan review shall not prevent the correction of errors or violations that are found to exist during construction. This plan review is based on the information provided only. Design and installation shall meet the Oregon requirements of the IBC, IFC, IMC and NFPA standards. | | | |
|---|--|--|--|

P
ZC-07-207



Rogue Valley Transportation District

From the Desk of Paige Townsend, Senior Planner

3200 Crater Lake Avenue • Medford, Oregon 97504-9075

Phone (541) 608-2429 • Fax (541) 773-2877

Visit our website at: www.rvtd.org

RECEIVED

FEB 04 2008

TO: Praline McCormack
FROM: Paige Townsend
DATE: February 4, 2008
RE: ZC-07-207

PLANNING DEPT.

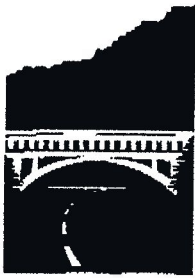
After careful review of ZC-07-207 RVTD would like to submit the following comments:

RVTD intends to serve the new South Medford High School campus and surrounding area in the future, when it is feasible. The route would most likely navigate Cunningham Ave. and Columbus Ave. and serve the greater southwest Medford neighborhood. We would like to notify the school district at this stage to consider not only bus facilities but also Transportation Demand Management strategies as part of their plans. We would like to meet with those who are interested to discuss some of these strategies further and how they will be using Laidlaw for their primary transportation needs.

The parcel for the new High school is within a residential area with low traffic volumes. This zone change will spur the development of a high traffic-generator and we request the City make conditions of approval based on the School District's ability to minimize automobile traffic and pedestrian/cyclist injury. We recommend that SMHS adopt Transportation Demand Management strategies to encourage students and employees to use alternatives to the single-occupant automobile. Detailed site improvements were previously submitted for the CUP application for your reference.

We request the Medford School District to provide a comprehensive pedestrian and bicycling circulation plan as part of the conditions for approval for the zoning change. The circulation plan should address the primary routes for accessing the site as a pedestrian or cyclist throughout the school zone, or what is assumed as the entire south Medford area and adjoining portions of County. The plan should include current pedestrian and cycling facilities, designation of primary 'safe routes' and acknowledgement of where gaps exist so as to plan for a completed network of facilities. If fatal flaws are discovered, such as areas with high risk that are not planned for improvement, the applicant should prepare a strategy for dealing with these areas to mitigate risk or injury. RVTD's TDM Planner can assist the applicant with this circulation plan. Thank you for this opportunity to comment.

Q
ZC-07-207



JACKSON COUNTY

Roads

Roads

 Dale Petrasek, PE
 County Engineer

 200 Antelope Road
 White City, OR 97503
 Phone: 541-774-6202
 Fax: 541-774-6295
 petradw@jacksoncounty.org
 www.jacksoncounty.org

RECEIVED

OCT 02 2007

PLANNING DEPT.

September 24, 2007

 Praline McCormack
 Planning Department
 City of Medford
 200 South Ivy Street, Lausmann Annex, Room 240
 Medford, OR 97501

 RE: Development off Columbus Avenue - a county-maintained road.
 Planning File: ZC-07-207/CUP-07-214; High School.

Dear Praline:

Thank you for the opportunity to comment on the request for a zone change from County RR-5 (Rural Residential - 5 acre minimum lot size) to SFR-6 (Single-Family Residential - 6 units per acre) zoning on an approximately 40.6 acre site; and a conditional use permit for the construction & operation of a high school on approximately 42 acres; located on the west side of Columbus Avenue, south of Cunningham Avenue, north of Diamond Street and east of Warren Way, within a SFR - 6 (Single-Family Residential - 6 units per acre) zoning district. Roads has the following comments:

1. Any new or improved road approaches off Columbus Avenue and Cunningham Avenue shall be permitted and inspected by the City of Medford.
2. The applicant shall submit construction drawings to Jackson County Roads and obtain county permits if required.
3. If frontage improvements are required, they shall be permitted and inspected by the City of Medford.
4. Cunningham Avenue is under County jurisdiction. To vacate any right-of-way you need to contact Jackson County Roads.

If you have any questions or need further information feel free to call me at 774-6202.

Sincerely,

 Dale Petrasek, PE
 County Engineer

 R
 ZC-07-207

ZONE CHANGE LEGAL DESCRIPTION

Order No. 48g0486784

Exhibit "A"

RECEIVED

AUG 24 2007

Planning Dept

TRACT A: Beginning at the southeast corner of that tract described in Volume 239, page 446, Deed Records, marked by a 4" brass capped monument which bears South 534.39 feet and West 459.36 feet from the southwest corner of Donation Land Claim No. 84 in Township 37 South, Range 2 West, of the Willamette Meridian in Jackson County, Oregon; thence, along the south line of said tract, South 89°34'10" West (record West) 844.12 feet to the southeast corner of Parcel No. 3 described in No. 80-13642, Official Records; thence North 00°07'00" East, along the east line of said tract, 730.21 feet to a 3/4"x18" iron pipe at the northeast corner thereof; thence, along the north line of that tract described in Volume 239, page 446, Deed Records, North 89°34'10" East (record East) 842.73 feet, more or less, to a 4" brass capped monument at the northeast corner thereof; thence South 00°00'30" West 730.19 feet (record South 00°08' West 730.3 feet), along the east line thereof, to the Point of Beginning. EXCEPTING THEREFROM that portion conveyed to Jackson County, Oregon for road purposes by deed recorded in Volume 580, page 51, Deed Records. ALSO EXCEPTING THEREFROM the following: Commencing at a 3/4" iron pin marking the intersection of South Columbus Avenue and Cunningham Avenue, said pin being North 221.08 feet and West 439.45 feet from the southwest corner of Donation Land Claim No. 84 in Township 37 South, Range 2 West, of the Willamette Meridian in Jackson County, Oregon; thence South 00°08'00" West 30.0 feet; thence South 89°59'20" West 30.0 feet to a point on the west line of said South Columbus Avenue for the True Point of Beginning; thence South 00°08'00" West, along said west line, 325.56 feet; thence West, parallel with the south line of Cunningham Avenue 802.80 feet; thence North 00°08'00" East, parallel with the west line of said South Columbus Avenue, 325.56 feet to the south line of Cunningham Avenue; thence East, along said south line, 802.80 feet to the True Point of Beginning.

(Code 49-03, Account #1-044159-3, Map #372W36C, Tax Lot #1400)

TRACT B: Commencing at a 3/4" iron pin marking the intersection of South Columbus Avenue and Cunningham Avenue, said pin being North 221.08 feet and West 439.45 feet from the southwest corner of Donation Land Claim No. 84 in Township 37 South, Range 2 West, of the Willamette Meridian in Jackson County, Oregon; thence South 00°08'00" West 30.0 feet; thence South 89°59'20" West 30.0 feet to a point on the west line of said South Columbus Avenue for the True Point of Beginning; thence South 00°08'00" West, along said west line, 325.56 feet; thence West, parallel with the south line of Cunningham Avenue 802.80 feet; thence North 00°08'00" East, parallel with the west line of said South Columbus Avenue, 325.56 feet to the south line of Cunningham Avenue; thence East, along said south line, 802.80 feet to the True Point of Beginning.

(Code 49-03, Account #1-044160-9, Map #372W36C, Tax Lot #1401)
(Code 49-03, Account #1-044161-7, Map #372W36C, Tax Lot #1402)

TRACT C: Beginning at the ^{WEST}southeast corner of Lot Twenty-five (25) in Block Six (6) of ORCHARD HOME ASSOCIATION TRACT in Jackson County, Oregon, according to the official plat thereof, now of record; thence North 00°08'00" East, along the east line of said lot, a distance of 708.11 feet to the southwest corner of that tract described in Volume 290, page 400, Deed Records; thence North 89°34'10" East, along the south line of said tract, and its easterly projection, 491.22 feet; thence South 00°09'00" West, parallel with the west line of Block Six (6), a distance of 710.80 feet to a point on the south line of that tract described in Volume 366, page 33, Deed Records; thence West, along said south line, 491.21 feet to the Point of Beginning. EXCEPTING THEREFROM that portion conveyed to the City of Medford, by deed recorded June 28, 2005, and as No. 2005-038586, Official Records of Jackson County, Oregon.

(Code 49-03, Account #1-044163-3, Map #372W36CC, Tax Lot #2300)

TRACT D: Beginning at the ^{WEST}southeast corner of Lot Twenty-five (25) in Block Six (6) of ORCHARD HOME ASSOCIATION TRACT in Jackson County, Oregon, according to the official plat thereof, now of record; thence East, along the south line of that tract described in Volume 366, page 33, Deed Records, 491.21 feet to the True Point of Beginning; thence North 00°08'00" East, parallel with the west line of Block Six (6), a distance of 710.80 feet to a point on the north line of that tract described in Volume 366, page 33,

APPLICANT'S EXHIBIT
" 4 "

ZC-07-207

Deed Records; thence East, along said north line, 828.78 feet, more or less, to a point on the west line of South Columbus Avenue; thence South 00°08'00" West, along said west line, 715.28 feet to a point on the south line of that tract described in Volume 366, page 33, Deed Records; thence West, along said south line, 828.79 feet, more or less, to the True Point of Beginning. EXCEPTING THEREFROM that portion conveyed to the City of Medford, by deed recorded September 10, 2002 and as No. 02-47711, Official Records of Jackson County, Oregon.

(Code 49-03, Account #1-044164-1, Map #372W36C, Tax Lot #1502)

TRACT E: Beginning at a 4" brass capped monument which bears South 534.39 feet and West 459.36 feet from the southwest corner of Donation Land Claim No. 84 in Township 37 South, Range 2 West, of the Willamette Meridian in Jackson County, Oregon, being the southeast corner of that tract described in Volume 239, page 446, Deed Records; thence South 89°34'10" West (record West), along the south line of said tract, 844.12 feet to the True Point of Beginning; thence South 89°34'10" West, along said south line, 477.20 feet to the southwest corner of said tract; thence North 00°07'00" East, along the west line of said tract, 730.22 feet to the northwest corner thereof; thence North 89°34'10" East, along the north line of said tract, 477.20 feet; thence South 00°07'00" West 730.21 feet to the True Point of Beginning. ALSO, all that portion of the vacated Cunningham Lane adjacent to said property and inuring thereunto by law, vacated by Ordinance of Jackson County, and recorded December 8, 1904 in Volume 12, page 425, Commissioners' Journal. EXCEPTING THEREFROM that portion conveyed to the City of Medford, by deed recorded June 28, 2005, and as No. 2005-038586, Official Records of Jackson County, Oregon.

(Code 49-03, Account #1-044165-8, Map #372W36C, Tax Lot #1600)

less and excepting,

Commencing at a 3/4" iron pin marking the intersection of South Columbus Avenue and Cunningham Lane, said iron pin being 221.01 feet North and 439.55 feet West from the Southwest corner of Donation Land Claim (DLC) No. 84, Township 37 South, Range 2 West, Willamette Meridian, Jackson County, Oregon; thence South 00°08' West, 30.00 feet; thence South 89°59'24" West, 30.00 feet to a point on the West line of said Columbus Avenue; thence along said west line, South 00°08' West, 235.61 feet to a point of intersection with the westerly extension of the South right of way line of Garfield Avenue (said right of way line being 45.00 feet from the existing street centerline), also being the True Point of Beginning; thence South 89°59'24" West, parallel the South right of way line of Cunningham Lane, a distance of 272.00 feet; thence South 00°08'00" West, parallel with the west right of way line of South Columbus Avenue, a distance of 270.00 feet; thence North 89°59'24" East, 272.00 feet to said west right of way line; then along said line North 00°08'00" East, 270.00 feet to the Point of Beginning.

Containing 1.69 acres more or less.

7007 0710 0001 0567 1435



ORD
PARTMENT
7 STREET
97501

018426507632
\$07.479
03/05/2008
Mailed from 97501
US POSTAGE



Hasler

RETURN RECEIPT
REQUESTED

ATTN: Plan Amendment Specialist
Dept. of Land Conser. & Develop.
635 Capitol St. NE, Ste. 150
Salem, Or 97301-2540