

October-07

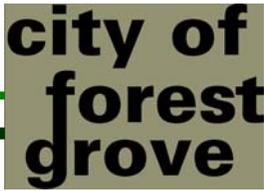
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	Planning Comm 7pm (Cancelled) CITY COUNCIL WORK SESSION - TBA	Fire Bd 8pm				COUNCIL WS 8am-10am Coffee Hour
	CITY COUNCIL 6:00 PM - WORK SESS (City Atty Ints) 7:00 PM - REGULAR MEETING COMMUNITY AUDITORIUM	CCI 4pm		Grand Opening Library 5-7pm	JWC 12pm	Public Services Open House Fire Dept 10am-2pm
	Planning Comm 7pm CITY COUNCIL WORK SESSION - TBA	Library 7pm	P&R 7am PSAC 7:30am CFC 5:15pm	PAC 5pm	Ballots mailed for Nov Election	
<i>Thompson out</i>						
	CITY COUNCIL 6:30 PM - REGULAR MEETING 7:30 PM - JT WORK SESS (with Sch Dist) COMMUNITY AUDITORIUM	HLB 7pm			<i>Nyuzen Student Visit</i>	
<i>Nyuzen Student Visit</i>						

November-07

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						COUNCIL WS 8am-10am Coffee Hour
				<i>Nyuzen Students Depart</i>		
Daylight Savings End	Planning Comm 7pm CITY COUNCIL WORK SESSION - TBA	General Election Day Fire Bd 7pm		PAC 5pm Fernhill Wetlands 7pm		
	CITY OFFICES CLOSED HOLIDAY	CITY COUNCIL 6:00 PM - WORK SESS (Water) 7:00 PM - REGULAR MEETING COMMUNITY AUDITORIUM CCI 4pm	Water Providers EC 5:30pm			
	Planning Comm 7pm PERIODIC REVIEW EVALUATION HEARING JT WORK SESS W/PLANNING COMM 7:00 PM - COMMUNITY AUDITORIUM	Library 7pm	P&R 7am PSAC 7:30am CFC 5:15pm	CITY OFFICES CLOSED HOLIDAY		
	CITY COUNCIL 7:00 PM - REGULAR MEETING COMMUNITY AUDITORIUM	HLB 7pm				

December-07

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						COUNCIL WS 8am-10am Coffee Hour
	Planning Comm 7pm CITY COUNCIL WORK SESSION - TBA	Fire Bd 7pm	Water Providers CB 7:00pm			
	CITY COUNCIL 7:00 PM - REGULAR MEETING COMMUNITY AUDITORIUM	CCI 4pm		PAC 5pm Fernhill Wetlands 7pm		
	Planning Comm 7pm CITY COUNCIL WORK SESSION - TBA	Library 7pm	P&R 7am PSAC 7:30am CFC 5:15pm			
	NO CITY COUNCIL REGULAR MEETING	CITY OFFICES CLOSED HOLIDAY				



FOREST GROVE CITY COUNCIL

Monday, October 8, 2007

6:00 PM – Work Session (City Attorney Interviews)
7:00 PM – Regular Meeting

Community Auditorium
1915 Main Street
Forest Grove, OR 97116

Forest Grove City Council Meetings are broadcast by Tualatin Valley Community Television (TVCTV) Government Access Programming. To obtain the monthly programming schedule, please contact TVCTV at 503.629.8534 or call the City Recorder at 503.992.3235.

Thomas L. Johnston
Victoria J. Lowe
Camille Miller

Richard G. Kidd, Mayor

Ronald C. Thompson
Peter B. Truax
Elena Uhing

All meetings of the City Council are open to the public and all persons are permitted to attend any meeting except as otherwise provided by ORS 192. The public may address the Council as follows:

→ **Public Hearings** – Public hearings are held on each matter required by state law or City policy. Anyone wishing to testify should sign in for any Public Hearing prior to the meeting. The presiding officer will review the complete hearing instructions prior to testimony. The presiding officer will call the individual or group by the name given on the sign in form. When addressing the Council, please use the witness table (center front of the room). Each person should speak clearly into the microphone and must state his or her name and give an address for the record. All testimony is electronically recorded. In the interest of time, Public Hearing testimony is limited to three minutes unless the presiding officer grants an extension. Written or oral testimony is heard prior to any Council action.

→ **Citizen Communications** – Anyone wishing to address the Council on an issue not on the agenda should sign in for Citizen Communications prior to the meeting. The presiding officer will call the individual or group by the name given on the sign in form. When addressing the Council, please use the witness table (center front of the room). Each person should speak clearly into the microphone and must state his or her name and give an address for the record. All testimony is electronically recorded. In the interest of time, Citizen Communications is limited to two minutes unless the presiding officer grants an extension.

The public may not address items on the agenda unless the item is a public hearing. Routinely, members of the public speak during Citizen Communications and Public Hearings. If you have questions about the agenda or have an issue that you would like to address to the Council, please contact the City Recorder at 503-992-3235.

City Council meetings are handicap accessible. Assistive Listening Devices (ALD) or qualified sign language interpreters are available for persons with impaired hearing or speech. For any special accommodations, please contact the City Recorder at 503-992-3235, at least 48 hours prior to the meeting.

AGENDA

6:00

WORK SESSION: CITY ATTORNEY INTERVIEWS

The City Council will convene in the Community Auditorium to conduct the above work session. The public is invited to attend and observe the work session; however, no public comment will be taken. The Council will take no formal action during the work session.

7:00

1. REGULAR MEETING: Roll Call and Pledge of Allegiance

2. CITIZEN COMMUNICATIONS: Anyone wishing to speak to Council on an item not on the agenda may be heard at this time. *Please sign-in before the meeting on the Citizen Communications form posted in the foyer.* In the interest of time, please limit comments to two minutes. Thank you.

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3. CONSENT AGENDA: See Page 3
4. ADDITIONS/DELETIONS:
- Stephanie Beall 7:10 5. PRESENTATION: OREGON DEPARTMENT OF FORESTRY
Community Forestry Commission Chair 2007 TREE CITY USA
- Kerstin Cathcart 7:20 6. RESOLUTION NO. 2007-57 DESIGNATING THE OREGON
Senior Planner WHITE OAK AS THE OFFICIAL CITY TREE OF THE CITY OF
FOREST GROVE
- Paul Downey 7:30 7. RESOLUTION NO. 2007-58 APPROVING THE
Administrative Services Director INTERGOVERNMENTAL AGREEMENT BETWEEN THE CITY OF
FOREST GROVE AND FOREST GROVE SCHOOL DISTRICT TO
COLLECT AND REMIT A CONSTRUCTION EXCISE TAX
- Tom Gamble 7:45 8. PUBLIC HEARING AND RESOLUTION NO. 2007-59 ADOPTING
Parks and Recreation Director THE 2007 CITY OF FOREST GROVE COMMUNITY TRAILS
MASTER PLAN
- Rob DuValle 8:15 9. SECOND READING OF RESOLUTION NO. 2007-52
Human Resources Manager AUTHORIZING THE EXECUTION OF A LABOR AGREEMENT
BETWEEN THE CITY OF FOREST GROVE AND THE
INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS
(IBEW), LOCAL 125, TO BE EFFECTIVE JULY 1, 2007, AND
EXPIRING JUNE 30, 2010
- Jon Holan 8:20 10. PUBLIC HEARING AND FIRST READING OF ORDINANCE NO.
Community Development Director 2007-16 ANNEXING CERTAIN TRACTS OF LAND INTO THE
CITY LIMITS OF FOREST GROVE AND WITHDRAWING THE
TRACTS FROM WASHINGTON COUNTY ENHANCED LAW
ENFORCEMENT DISTRICT, WASHINGTON COUNTY URBAN
ROADS MAINTENANCE DISTRICT, AND THE FOREST GROVE
RURAL FIRE PROTECTION DISTRICT. THE TERRITORY TO BE
ANNEXED CONSISTS OF A 0.90 ACRE PARCEL, LOCATED AT
2385 NW WILLAMINA AVENUE. WASHINGTON COUNTY TAX
LOT NO. 1N 3 31BD 700. PETITIONERS: BRYON AND
SHOANA MCKELVEY, PROPERTY OWNERS. APPLICANT:
Kerstin Cathcart
Senior Planner MATT WELLNER. FILE NO. ANX-07-01

Jon Holan
Community Development
Director

- 8:40 11. PUBLIC HEARING AND FIRST READING OF ORDINANCE NO. 2007-17 AMENDING THE FOREST GROVE ZONING MAP TO DESIGNATE A 19.55 ACRE SITE IN SIZE, 10.13 ACRES WITHIN THE URBAN GROWTH BOUNDARY AND 9.42 ACRES OUTSIDE THE URBAN GROWTH BOUNDARY, AS GALES CREEK TERRACE PLANNED RESIDENTIAL DEVELOPMENT (PRD), AN 87-LOT SUBDIVISION IN TWO PHASES, LOCATED SOUTH OF 19TH AVENUE AND WEST OF D STREET (1548 19TH AVENUE), WASHINGTON COUNTY TAX LOT NOS. 1S4 1-400 AND 1S4 1AA-7200. APPLICANT: GALES CREEK TERRACE, LLC. PROPERTY OWNERS: RONALD AND WANDA RAU. FILE NO. PRD-06-04

Michael Sykes
City Manager

- 9:30 12. CITY MANAGER'S REPORT:
- 9:40 13. COUNCIL COMMUNICATIONS:
- 9:50 14. ADJOURNMENT

3. CONSENT AGENDA: Items under the Consent Agenda are considered routine and will be adopted with a single motion, without separate discussion. Council members who wish to remove an item from the Consent Agenda may do so prior to the motion to approve the item(s). Any item(s) removed from the Consent Agenda will be discussed and acted upon following the approval of the Consent Agenda item(s).
- A. Approve City Council Work Session (Goal 5 Amendments) Meeting Minutes of September 17, 2007.
 - B. Approve City Council Executive Session (Labor Negotiations) Meeting Minutes of September 24, 2007.
 - C. Approve City Council Work Session (Transportation Issues) Meeting Minutes of September 24, 2007.
 - D. Approve City Council Regular Meeting Minutes of September 24, 2007.
 - E. Accept Historic Landmarks Board Meeting Minutes of July 24, 2007.
 - F. Accept Library Commission Meeting Minutes of May 15, June 19, and August 27, 2007.
 - G. Accept Public Arts Commission May 10, June 14, and July 12, 2007.
 - H. Accept Public Safety Advisory Commission Meeting Minutes of September 12, 2007.
 - I. Accept Resignation on Public Arts Commission (John Anderberg, At-Large, Term Expiring December 31, 2007).
 - J. Community Development Department Monthly Building Activity Informational Report for September 2007.
 - K. RESOLUTION NO. 2007-56 MAKING APPOINTMENTS TO ECONOMIC DEVELOPMENT COMMISSION.

3A

**FOREST GROVE CITY COUNCIL SPECIAL WORK SESSION
(GOAL 5 AMENDMENTS)
SEPTEMBER 17, 2007 – 4:00 P.M.
COMMUNITY AUDITORIUM
PAGE 1**

Minutes are unofficial until approved by the Council.

1. ROLL CALL

Mayor Richard Kidd called the special Work Session to order at 4:15 p.m. **ROLL CALL: COUNCIL PRESENT:** Thomas Johnston, Camille Miller, Ronald Thompson, Elena Uhing, and Mayor Kidd. **COUNCIL ABSENT:** Victoria Lowe and Peter Truax, excused. **STAFF PRESENT:** Jon Holan, Community Development Director, and Anna Ruggles, City Recorder.

2. GOAL 5 AMENDMENTS:

Holan facilitated the work session, noting the purpose of the work session was to review the proposed Goal 5 text amendments before the Public Hearing scheduled for September 24, 2007. Holan reported as part of Metro's Nature in Neighborhoods Program (Goal 5) to preserve and enhance riparian and upland habitat, the City needs to amend its Comprehensive Plan and implement Zoning and Land Division ordinances to comply with the Functional Plan requirements. Holan explained the proposed program is a combination of Metro and Tualatin Basin approaches, noting Metro's approach involves adoption of specific requirements to preserve and enhance habitat by avoiding the natural resource area as part of the development, minimizing encroachment into the natural resource area and mitigating where intrusion is allowed. The Tualatin Basin approach uses the current Clean Water Services (CWS) Design and Construction standards to define vegetative corridors and sensitive areas. CWS standards prohibit any development in vegetative corridors and sensitive areas. In addition, the City must remove barriers to use low-impact development in habitat areas. Holan noted the proposed amendments also address certain floodplain issues. Holan reviewed each proposed text amendment section as referenced in proposed Ordinance No. 2007-15, Attachment 1, Items 1-25, noting the City is proposing to implement and exceed the Tualatin Basin Goal 5 Program consistent with Metro Title 13 requirements through a strategy of preserving, minimizing, and mitigating intrusions into Class I and Class II Riparian Wildlife Habitat and Class A and B Upland Habitat as identified by Metro and referenced in the Comprehensive Plan. Holan referenced maps, Attachment 2, showing the Regionally Significant Fish and Wildlife Class I and Class II and Class A and B Habitat Inventory Map for Northwest Forest Grove and the 100-Year Floodplain Map.

Council Discussion:

Mayor Kidd opened the floor and roundtable discussion ensued pertaining to the proposed text amendments to the Comprehensive Plan, Municipal Code, and Zoning and Land Division ordinances to comply with Metro's Nature in

**FOREST GROVE CITY COUNCIL SPECIAL WORK SESSION
(GOAL 5 AMENDMENTS)
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Neighborhood Program Functional Plan requirements (Goal 5). Holan addressed questions pertaining to defining natural resource areas, street widths, net density, native vegetation, tree protection, disturbance area limitations, mitigation plan, and habitat-friendly development. In conclusion, Council collectively agreed to ask staff to create a referral process to the Planning Commission on certain projects within a natural resource area. In addition, Council stressed the importance of needing to adopt the new Development Code to coincide with the proposed amendments.

Council took no formal action nor made any formal decisions during the work session.

3. ADJOURNMENT

Mayor Kidd adjourned the work session at 6:05 p.m.

Respectfully submitted,

Anna D. Ruggles, CMC, City Recorder

**FOREST GROVE CITY COUNCIL EXECUTIVE SESSION
ORS 192.660(2)(D) LABOR NEGOTIATIONS
SEPTEMBER 24, 2007 – 5:45 P.M.
COMMUNITY AUDITORIUM
PAGE 1**

Minutes are unofficial until approved by Council.

1. ROLL CALL:

Mayor Richard Kidd called the Executive Session to order at 5:53 p.m. **ROLL CALL: COUNCIL PRESENT:** Thomas Johnston, Camille Miller, Ronald Thompson, Peter Truax, Elena Uhing, and Mayor Kidd. **COUNCIL ABSENT:** Victoria Lowe, excused. **STAFF PRESENT:** Michael Sykes, City Manager; Paul Downey, Administrative Services Director; Rob DuValle, Human Resources Manager; and Anna Ruggles, City Recorder.

2. EXECUTIVE SESSION:

The City Council met in Executive Session in accordance with:

ORS 192.660(2)(d) to conduct deliberations with the persons designated by the governing body to carry on labor negotiations.

3. ADJOURNMENT

Mayor Kidd adjourned the Executive Session at 6:05 p.m.

Respectfully submitted,

Anna D. Ruggles, CMC, City Recorder



**FOREST GROVE CITY COUNCIL WORK SESSION
(TRANSPORTATION ISSUES)
SEPTEMBER 24, 2007 – 6:00 P.M.
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Minutes are unofficial until approved by the Council.

1. ROLL CALL

Mayor Richard Kidd called the Work Session to order at 6:10 p.m. **ROLL CALL:**
COUNCIL PRESENT: Thomas Johnston, Camille Miller, Peter Truax, Ronald Thompson, Elena Uhing, and Mayor Kidd. **COUNCIL ABSENT:** Victoria Lowe, excused. **STAFF PRESENT:** Michael Sykes, City Manager; Paul Downey, Administrative Services Director; Rob Foster, Public Works Director; Jon Holan, Community Development Director, Derek Robbins, Civil Engineer; and Anna Ruggles, City Recorder.

2. TRANSPORTATION ISSUES:

Foster facilitated the work session, noting the purpose of the work session was to provide an update on the Regional Transportation Plan (RTP); Washington County Coordinating Committee (WCCC) Master Streets and Transportation Improvement Program (MSTIP); Traffic Impact Fee (TIF); and the City's Transportation System Plan (TSP) Update. Foster introduced Robbins who presented a PowerPoint presentation outlining Metro's 2035 RTP and RTP Schedule and Forest Grove's RTP Project List, listing the following projects:

- 1) West County Rail
- 2) Thatcher/Gales Creek
- 3) 23rd/24th
- 4) E/Pacific/19th
- 5) Hwy 8 and 47
- 6) Heather Industrial Connection
- 7) Hwy 8/Pacific/19th
- 8) West Urban Growth Boundary Trail
- 9) Thatcher/Willamina/B Street Bicycle and Pedestrian
- 10) David Hill Road Bicycle and Pedestrian

In addition, Robbins provided an outline of the WCCC MSTIP 4 Development Schedule, noting the County is proposing a new measure (MSTIP 4) to be placed on the November, 2008, ballot. Robbins reported WCCC and Board of Commissioners have expressed interest in revising/developing a TIF and/or System Development Charge (SDC) program on a timeline concurrent with the MSTIP 4 Development; however, no specific deadline has been defined. Robbins advised Council that staff is looking for support to proceed with the MSTIP 4 and keeping the TIF as is with minor modifications, including an increase, noting staff does not foresee a need at this time to develop a local SDC.

Lastly, Robbins provided an outline of the City's TSP Update Schedule, noting the

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TSP Update will help provide necessary findings to support other ongoing efforts within the City including:

- Conducting the transportation analysis needed to support the update to the Comprehensive Plan related to proposed changes in zoning in the downtown area and other areas as a result of the proposed adoption of the new Development Code.
- Define long-range corridor access plan and local circulation concepts along Highway 47 within the City limits.
- Provide input to on-going updates to the RTP, with specific recommendations about regional transportation improvements to be considered within the City limits.

Robbins reported staff is currently in the process of developing a Project Advisory Committee (PAC) for the City's TSP Update and is seeking appointee suggestions from Council.

Council Discussion:

Mayor Kidd opened the floor and roundtable discussion ensued pertaining to the RTP, WCCC MSTIP; TIF, and the City's TSP Update, with discussion focusing on the RTP priority list. Sykes provided additional comments on MSTIP and TIF, noting David Hill Road is a high priority for Forest Grove. Truax indicated that David Hill Road is absolutely necessary for Forest Grove and pointed out that Holiday Street/24th Avenue is less of a necessity because it would serve Wal-Mart and not Forest Grove. In response to Johnston's inquiry pertaining to Purdin/Verboort Roads, Robbins indicated the County currently has no plans for these roadways. In addition, Johnston recommended appointing Tom Beck, Planning Commission Chair, to the City's TSP Update PAC. In conclusion, Mayor Kidd recognized Kathryn Harrington, Metro Councilor District 4, who was present in the audience.

Council took no formal action nor made any formal decisions during the work session.

3. ADJOURNMENT

Mayor Kidd adjourned the work session at 6:59 p.m.

Respectfully submitted,

Anna D. Ruggles, CMC, City Recorder

**FOREST GROVE CITY COUNCIL REGULAR MEETING
SEPTEMBER 24, 2007 – 7:00 P.M.
COMMUNITY AUDITORIUM
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Minutes are unofficial until approved by Council.

1. ROLL CALL:

Mayor Richard Kidd called the regular City Council meeting to order at 7:06 p.m. and led the Pledge of Allegiance. **ROLL CALL: COUNCIL PRESENT:** Thomas Johnston, Camille Miller, Peter Truax, Ronald Thompson, Elena Uhing, and Mayor Kidd. **COUNCIL ABSENT:** Victoria Lowe, excused. **STAFF PRESENT:** Michael Sykes, City Manager; Cindy Phillips, representing Andy Jordan, City Attorney; Rob Foster, Public Works Director; Jon Holan, Community Development Director; Rob DuValle, Human Resources Manager; Nick Kelsay, Project Engineer; Jeff King, Economic Development Coordinator; and Anna Ruggles, City Recorder.

2. CITIZEN COMMUNICATIONS:

Rose Buchanan, Forest Grove, addressed Council and requested implementing a City Code, similar to Portland's Code, to allow a person within the City to keep three or fewer chickens, no roosters, without a permit.

Hal Ballard, Beaverton, representing Bicycle Transportation Alliance and Washington County Bicycle Transportation Coalition, presented a flyer promoting "Share the Road", a message to raise motorists' awareness about the increased use of Washington County roadways by bicyclists. Ballard reported the campaign efforts include a life-size cutout of people with their bikes reminding motorists that the bicyclists they are passing on the roadway could be a relative, friend, coworker, or neighbor and gives a message to the motorist to be careful because the bicyclist could be someone they know.

3. CONSENT AGENDA: Items under the Consent Agenda are considered routine and will be adopted with a single motion, without separate discussion. Council members who wish to remove an item from the Consent Agenda may do so prior to the motion to approve the item(s). Any item(s) removed from the Consent Agenda will be discussed and acted upon following the approval of the Consent Agenda item(s).

A. ITEM REMOVED, REFER BELOW.

**B. Approve City Council Work Session (Periodic Review Process)
Meeting Minutes of September 10, 2007.**

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- C. Approve City Council Work Session (Municipal Court Update) Meeting Minutes of September 10, 2007.
- D. Accept Planning Commission Meeting Minutes of July 2, July 16, July 30, and August 6, 2007.
- E. Community Development Department Monthly Building Activity Informational Report for August 2007.

MOTION: Councilor Uhing moved, seconded by Councilor Miller, to approve the Consent Agenda as amended. **ABSENT:** Councilor Lowe. **MOTION CARRIED 6-0 by voice vote.**

3. A. APPROVE CITY COUNCIL REGULAR MEETING MINUTES OF SEPTEMBER 10, 2007

Johnston removed the above item from the Consent Agenda to request an administrative amendment to the minutes to indicate he arrived at 7:50 p.m.

Hearing no further discussion from the Council, Mayor Kidd asked for a motion and vote to approve Consent Agenda Item 3. A. as amended.

MOTION: Councilor Uhing moved, seconded by Councilor Miller, to approve Consent Agenda Item 3. A. as amended. **ABSENT:** Councilor Lowe. **MOTION CARRIED 6-0 by voice vote.**

4. ADDITIONS/DELETIONS: None.

5. PRESENTATION:

Kathryn Harrington, Metro Councilor District 4, presented a PowerPoint presentation outlining her Quarterly District 4 Report, Natural Areas Bond Measure, and other regional topics. Harrington presented a copy of the "Road Map for Making the Greatest Place, 2007-2011" and "The 2040 Match of the Century: Corridors vs. Centers". In addition, Harrington addressed questions pertaining to Metro's recycling program, operations of the Oregon Convention Center, and provided an update on the Metro's plan for new Convention Center hotel.

6. FIRST READING OF RESOLUTION NO. 2007-52 AUTHORIZING THE EXECUTION OF A LABOR AGREEMENT BETWEEN THE CITY OF FOREST GROVE AND THE INTERNATIONAL BROTHERHOOD OF ELECTRICAL

**FOREST GROVE CITY COUNCIL REGULAR MEETING
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**WORKERS (IBEW), LOCAL 125, TO BE EFFECTIVE JULY 1, 2007, AND
EXPIRING JUNE 30, 2010**

DuValle presented the above-proposed resolution requesting authorization to execute the labor agreement between the City and the International Brotherhood of Electrical Workers (IBEW), Local 125, effective July 1, 2006, through June 30, 2010. DuValle reported staff met with IBEW and negotiated a new labor agreement, noting modifications to the agreement include a cost of living adjustment of three and half percent per year, establishing a Journeyman Tree Trimmer wage, and other language modifications.

Before proceeding with Council discussion, Mayor Kidd asked for a motion to adopt Resolution No. 2007-52.

Phillips read Resolution No. 2007-52 by title for first reading.

MOTION: Councilor Truax moved, seconded by Councilor Johnston, to adopt Resolution No. 2007-52 Authorizing the Execution of a Labor Agreement between the City of Forest Grove and the International Brotherhood of Electrical Workers (IBEW), Local 125, to be Effective July 1, 2007, and Expiring June 30, 2010.

The second reading of Resolution No. 2007-52 by title and vote will occur at the meeting of October 8, 2007.

**7. RESOLUTION NO. 2007-53 AUTHORIZING THE SUBMISSION OF
APPLICATIONS FOR COMMUNITY DEVELOPMENT BLOCK GRANT FUNDING
FOR THE 2008-2009 PROGRAM PERIOD AND PRIORITIZING THE COMMUNITY
DEVELOPMENT BLOCK GRANT PROJECTS**

King presented the above-proposed resolution requesting authorization to submit two Community Development Block Grant (CDBG) applications for 2008-2009 program funding. The applications were ranked by priority based on public facilities, infrastructure improvements, and public services. Staff prioritized the projects as follows: 1) Bard Park playground equipment, and 2) A Street sidewalk and street improvements. Total estimated cost is \$377,000, including City match of \$162,000. King noted the City is prepared to contribute funding as specified in the grant application for any awarded grants.

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Before proceeding with Council discussion, Mayor Kidd asked for a motion to adopt Resolution No. 2007-53.

Phillips read Resolution No. 2007-53 by title.

MOTION: Councilor Johnston moved, seconded by Councilor Uhing, to adopt Resolution No. 2007-53 Authorizing the Submission of Applications for Community Development Block Grant Funding for the 2008-2009 Program Period and Prioritizing the Community Development Block Grant Projects.

Council Discussion:

In response to Johnston's inquiry pertaining to the City funding the projects, King confirmed Parks System Development Charges and Street Funds would pay for the City's share. In response to Johnston's inquiry about the street project qualifying for "Safe Routes to School Program", King advised the project may qualify but the program has no funding available.

In response to Miller's inquiry pertaining to the street project chosen, King replied the City received a petition from citizens requesting improvements and the street creates a hazard for students who walk to school. King indicated the project qualifies for CDBG funding because the project is located in a qualifying census tract, which will require conducting a door-to-door income survey as part of the application process.

Sykes noted it is becoming more difficult to find qualifying projects that meet the 51 percent low-moderate income eligibility.

Mayor Kidd noted the CDBG program has moved from a three-year to a one-year funding cycle.

Hearing no further discussion from the Council, Mayor Kidd asked for a vote on the above motion.

VOTE: AYES: Councilors Johnston, Miller, Thompson, Truax, Uhing, and Mayor Kidd. NOES: None. ABSENT: Councilor Lowe. MOTION CARRIED 6-0 by voice vote.

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8. RESOLUTION NO. 2007-54 APPROPRIATING CERTAIN REAL PROPERTY FOR TOWN CENTER IMPROVEMENTS

Foster introduced Kelsay who presented the above-proposed resolution granting the City temporary easement from property owners adjacent to the Town Center Pedestrian Improvements Project to allow work in the right-of-ways phase of the project.

Before proceeding with Council discussion, Mayor Kidd asked for a motion to adopt Resolution No. 2007-54.

Phillips read Resolution No. 2007-54 by title.

MOTION: Councilor Miller moved, seconded by Councilor Uhing, to adopt Resolution No. 2007-54 Appropriating Certain Real Property for Town Center Improvements.

Council Discussion:

Hearing no discussion from the Council, Mayor Kidd asked for a vote on the above motion.

VOTE: AYES: Councilors Johnston, Miller, Thompson, Truax, Uhing, and Mayor Kidd. NOES: None. ABSENT: Councilor Lowe. MOTION CARRIED 6-0 by voice vote.

9. RESOLUTION NO. 2007-55 AUTHORIZING CLEAN WATER SERVICES TO NEGOTIATE TITLE TRANSFER ON BEHALF OF CITY OF FOREST GROVE

Foster presented the above-proposed resolution authorizing Clean Water Services (CWS) to negotiate the Title Transfer Investigation - Memorandum of Agreement with the Bureau of Reclamation on behalf of the City. Foster reported the Joint Water Commission selected CWS to be the agency to work with the Bureau on the Title Transfer Investigation, noting CWS has provided management services on behalf of the Tualatin Basin Water Supply Partners since 2001. Foster noted the Title Transfer Investigation does not bind the City to complete the transfer at this time and no additional cost is anticipated.

Before proceeding with Council discussion, Mayor Kidd asked for a motion to adopt Resolution No. 2007-55.

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Phillips read Resolution No. 2007-55 by title.

MOTION: Councilor Truax moved, seconded by Councilor Johnston, to adopt Resolution No. 2007-55 Authorizing Clean Water Services to Negotiate Title Transfer on Behalf of City of Forest Grove.

Council Discussion:

In response to Truax's concern pertaining to Resolution No. 2007-55 header title not indicating a Title Transfer "Investigation", Foster confirmed Section 1 clarifies that CWS is to represent the City in the "Title Transfer Investigation".

Hearing no discussion from the Council, Mayor Kidd asked for a vote on the above motion.

VOTE: AYES: Councilors Johnston, Miller, Thompson, Truax, Uhing, and Mayor Kidd. NOES: None. ABSENT: Councilor Lowe. MOTION CARRIED 6-0 by voice vote.

10. **CONTINUE PUBLIC HEARING OF ORDINANCE NO. 2007-11 AMENDING THE FOREST GROVE ZONING MAP TO DESIGNATE FOUR PARCELS AS THE SMITH'S ORCHARD PLANNED RESIDENTIAL DEVELOPMENT, A 13-LOT SUBDIVISION. LOCATED AT 2332 B STREET, 2307, 2311, AND 2333 GALES WAY. (WASHINGTON COUNTY TAX LOT NOS. 1N4 36DA-300, 800, 1000, AND 1001). APPLICANT: DAVE TURNBULL. PROPERTY OWNERS: DAVE TURNBULL AND EDMUND AND BURTON GRAVELLE. FILE NO. PRD-06-05**

The first reading of Ordinance No. 2007-11 by title and motion to adopt occurred at the meeting of August 6, 2007, and second reading of Ordinance No. 2007-11 by title occurred at the meeting of August 20, 2007.

Public Hearing Continued:

Mayor Kidd continued the Public Hearing from the meeting of September 24, 2007.

Staff Report:

Holan clarified the Conditions of Approval for Council consideration is for 11 units, as recommended by the Planning Commission, and not 13 units, as proposed by the applicant. Holan noted if Council determines to allow 13

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unit, as requested by the applicant, the Council would need to adopt an amendment to the Conditions of Approval.

Applicant Testimony:

Matt Newman, NW Engineers, LLC, 19075 NW Tanasbourne Drive, Hillsboro, representing the applicant, and Mike Robinson, Perkins Cole, LLP, 1120 NW Couch Street, Tenth Floor, Portland, OR, representing the applicant, presented a proposed plat showing a total of 11 new units and 2 existing units, noting the proposed plat has been revised in accordance with City Council direction at the August 20, 2007, Public Hearing to include a 5' pedestrian pathway connecting to B Street and indicating the location of the proposed fire hydrant (located between Lots 8 and 10). They noted they had eliminated the pedestrian access at the request of the Planning Commission to prevent cut-through traffic to and from the nearby school. They also showed an alternative 15-lot plat to indicate how the property could be developed without the need of a Planned Residential Development. In addition, they provided a summary of the site's conditions and evolution of the development from the original 16-lot proposal to the 13-lot proposed configuration, pointing out an 11-lot plat does not create any more open space than the proposed 13-lot plat. In conclusion, they requested approval of the 13-lot plat, asserting they have demonstrated compliance with the required findings of the Forest Grove Zoning Ordinance.

Proponents:

No one signed in to testify and no written comments were received.

Opponents:

Mark McDowall, 1723 23rd Avenue, testified in opposition; requested to allow 11 units as recommended by the Planning Commission; questioned the orientation of Lot 3; and requested taking into consideration the people who reside in the area and characteristics of existing homes.

Josh Rohrbach, 2318 Gales Way, testified in opposition; pointed out his home on the map; stated the less number of lots the better; and requested preserving the larger existing trees.

Melissa Moore, 2326 B Street, testified in opposition; stated her recollection of the Planning Commission's decision to allow 11-lots; stated she would like to see a different design with better orientation of the units, access points,

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and preserving the larger existing trees; and stated she opposed of the pedestrian pathway.

Roy Adams, 2326 B Street, testified in opposition; referenced a petition signed by 73 neighbors indicating approval of 11 units; presented his own design plat to improve orientation of the units; and requested taking into consideration the quality of life of the people who reside in the area.

Wayne and Jean Dietzman, PO Box 561, Gaston, testified in opposition; pointed out their home on the map; questioned recreational vehicle parking; type of fence abutting their property; park maintenance responsibility; lower density; and Ms. Dietzman stated she opposed of the pedestrian pathway.

Rebuttal:

Matt Newman, NW Engineers, LLC, 19075 NW Tanasbourne Drive, Hillsboro, representing the applicant, and Mike Robinson, Perkins Cole, LLP, 1120 NW Couch Street, Tenth Floor, Portland, OR, representing the applicant, reiterated earlier testimony pertaining to their request to approve a 13-lot plat, asserting they have demonstrated compliance with the requirements for a PRD. In addition, they addressed density requirements, recreational vehicle parking, orientation of the lots, preserving larger trees, and type of fencing, stating that Council could impose Conditions, as they deemed necessary, to address additional requirements.

Council Discussion:

In response to Truax's inquiry pertaining to the Planning Commission's Finding (Exhibit A) to reduce the plat from 13-lots to 11-lots, Robinson asserted the Planning Commission's finding was based on compatibility and not a valid criterion. Truax concurred the Planning Commission's Finding for an 11-lot plat was not sustained by criterion.

In response to Mayor Kidd's inquiry pertaining to providing additional parking, Robinson advised they could improve Smith Court to a 32' street with parking on both sides.

Johnston opposed widening Smith Court due to parking on both sides would reduce the clearance of travel. Johnston suggested adding a Condition to identify which units would need to be equipped with a fire suppression

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system and adding a Condition to the Homeowners' Association Covenants, Conditions, and Restrictions prohibiting recreational vehicle parking. In addition, Johnston opposed a pedestrian pathway near a school because the pathway would tempt students to use the pathway as a shortcut or as a location to congregate.

Miller commented that Metro sets the density requirements and reiterated her concern that Homeowners' Association Covenants, Conditions, and Restrictions do not provide enforcement provisions.

Thompson concurred the Finding for an 11-lot plat was not sustained by criterion and concurred a pedestrian pathway would create additional pedestrian traffic but a pathway would also increase property values and benefit the community. In addition, Thompson suggested adding a Condition to address pedestrian pathway lighting, fencing, identifying and preserving existing trees, and adding a Condition to the Homeowners' Association Covenants, Conditions, and Restrictions prohibiting recreational vehicle parking.

Uhing concurred the Finding for an 11-lot plat was not sustained by criterion and concurred having a pedestrian pathway is ideal but the community consensus opposes a pedestrian pathway.

Mayor Kidd concurred with Johnston pertaining to widening Smith Court and pointed out the importance of having a pedestrian pathway is to provide connective within a community.

Hearing no further discussion from the Council, Mayor Kidd asked for a motion to amend Ordinance No. 2007-11, Smith's Orchard Planned Residential Development, as follows:

- Amend Condition 4, Final Plat, to allow no more than 11 new lots and 2 existing lots (13-lot plat);
- Allow applicant to submit to the Community Development Director for approval a revised plat to allow Lots 3, 4 and 13 to be relocated to provide adequate access;
- Add a new Condition requiring applicant to submit to the Community Development Director for approval a pedestrian pathway design, including pedestrian lighting;

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- Add a new Condition requiring the applicant to notify and invite neighbors to the pre-construction meeting;
- Amend Condition 10, Homeowners' Association Covenants, Conditions, and Restrictions, to prohibit recreational vehicle within the development and establish a park maintenance fund;
- Amend Condition 37, Fire Suppression System, to include, but not limited to, Lot 2, 3, 6, 12 and 13; and
- Amend Condition 54, Trees, to identify and preserve three Walnut trees.

MOTION TO AMEND: Councilor Thompson moved, seconded by Councilor Uhing, to amend Ordinance No. 2007-11, Smith's Orchard Planned Residential Development, Amend Condition 4, Final Plat, to allow no more than 11 new lots and 2 existing lots (13-lot plat); Allow applicant to submit to the Community Development Director for approval a revised design to improve access for Lots 3, 4 and 13; Add a new Condition requiring applicant to submit to the Community Development Director for approval a pedestrian pathway design, including pedestrian lighting; Add a new Condition requiring the applicant to notify and invite neighbors to the pre-construction meeting; Amend Condition 10, Homeowners' Association Covenants, Conditions, and Restrictions, to prohibit recreational vehicle parking and establish a park maintenance fund; Amend Condition 37, Fire Suppression System, to include, but not limited to, Lot 2, 3, 6, 12 and 13; and Amend Condition 54, Trees, to identify and preserve three Walnut trees.

Council Discussion:

Johnston reiterated concern that a pedestrian pathway near a school would tempt students to use the pathway as a shortcut or as a location to congregate.

Hearing no further discussion from the Council, Mayor Kidd asked for a roll call vote on the above motion to amend Ordinance No. 2007-11.

ROLL CALL VOTE: AYES: Councilors Miller, Thompson, Uhing, and Mayor Kidd. NOES: Councilor Johnston and Truax. ABSENT: Councilor Lowe.
MOTION CARRIED 4-2.

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Council Discussion:

Hearing no further discussion from the Council, Mayor Kidd asked for a roll call vote to adopt Ordinance No. 2007-11 as amended.

ROLL CALL VOTE: AYES: Councilors Johnston, Miller, Thompson, Truax, Uhing, and Mayor Kidd. NOES: None. ABSENT: Councilor Lowe. MOTION CARRIED 6-0.

11. **CONTINUE PUBLIC HEARING AND SECOND READING OF ORDINANCE NO. 2007-12 AMENDING THE FOREST GROVE COMPREHENSIVE PLAN MAP TO RE-DESIGNATE A 8.13 ACRE PORTION OF A 12.27 ACRE PARCEL FROM SEMI-PUBLIC/INSTITUTIONAL - COLLEGE DESIGNATION TO HIGH-DENSITY RESIDENTIAL. LOCATED AT 2311 CEDAR STREET, CANNERY FIELD. (WASHINGTON COUNTY TAX LOT NO. 1N3-31CA-3500). OWNER/APPLICANT: PACIFIC UNIVERSITY. FILE NO. CPA-07-03**

The first reading of Ordinance No. 2007-12 by title and motion to adopt occurred at the meeting of September 10, 2007.

Staff Report:

Holan referenced a letter dated September 20, 2007, submitted by Josh Reynolds, Executive Vice President, Gray and Company (refer to written testimony).

Public Hearing Continued:

Mayor Kidd continued the Public Hearing from the meeting of September 10, 2007.

Written Testimony:

Josh Reynolds, Executive Vice President, Gray and Company, 2331 23rd Avenue, submitted a letter dated September 20, 2007, citing that a General Industrial site that has historically engaged in food processing simply cannot avoid affecting the livability of immediate adjacent residencies. Gray and Company requested addressing core issues pertaining to its location and restricting its ability to conduct business. Gray and Company suggested the following compromises in regards to the development of Cannery Field to include:

- A substantial buffer between Gray and Company's property and the southern end of Cannery Field, over and above the

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- General Landscape Standards, and ideally a public road.
- Preventing the development of single-family homes on any parcels along this same buffer. If housing is developed on these parcels (as opposed to a green space), it is Gray and Company's view that multi-family rental housing is far less likely to result in nuisance suits, given the turnover of rental tenants and the absence of owners who believe Gray and Company's operations impede upon their lifestyles or home equity.
- Adequate disclosure by the developer to prospective buyers of Gray and Company's rights to continue operating in its current manner.

Proponents:

No one signed in to testify and no written comments were received.

Opponents:

Robert Cox, 2409 Cedar Street, testified in opposition and stated he preferred lower density, requiring adequate storm drainage, and minimizing lighting effects.

Council Discussion:

In response to Truax's inquiry pertaining to Gray and Company's letter, Holan advised that a representative from Gray and Company testified to the Planning Commission citing similar concerns.

Hearing no further discussion from the Council, Mayor Kidd asked for a roll call vote on the motion made at the meeting of September 10, 2007.

Phillips read Ordinance No. 2007-12 by title for second reading.

ROLL CALL VOTE: AYES: Councilors Johnston, Miller, Thompson, Truax, Uhing, and Mayor Kidd. NOES: None. ABSENT: Councilor Lowe. MOTION CARRIED 6-0.

12. **SECOND READING OF ORDINANCE NO. 2007-13 AND ORDINANCE NO. 2007-14, LOCATED AT 1548 19TH AVENUE (WASHINGTON COUNTY TAX LOT NOS. 154-1-400 AND 154 1AA-7200). APPLICANT: GALES CREEK TERRACE, LLC. PROPERTY OWNERS: RONALD AND WANDA RAU. FILE NO. CPA-06-01 AND**

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ZC-07-01:

The first reading of Ordinance No. 2007-13 and Ordinance No. 2007-14 by title and motion to adopt occurred at the meeting of September 10, 2007.

Staff Report:

Holan had nothing further to report.

Public Hearing Closed:

Mayor Kidd closed the Public Hearing for both ordinances at the meeting of September 10, 2007.

Council Discussion:

Hearing no further discussion from the Council, Mayor Kidd asked for a roll call vote on the motions made at the meeting of September 10, 2007.

12. A. **ORDINANCE NO. 2007-13 AMENDING THE FOREST GROVE COMPREHENSIVE PLAN MAP TO RE-DESIGNATE AND RE-ZONE A 4.2 ACRE PORTION OF A 19.55 ACRE PARCEL FROM EXCLUSIVE FARM USE (EFU) TO LOW DENSITY RESIDENTIAL - MEDIUM DENSITY RESIDENTIAL (LDR-B). LOCATED AT 1548 19TH AVENUE (WASHINGTON COUNTY TAX LOT NOS. 1S4-1-400 AND 1S4 1AA-7200). APPLICANT: GALES CREEK TERRACE, LLC. PROPERTY OWNERS: RONALD AND WANDA RAU. FILE NO. CPA-06-01**

Phillips read Ordinance No. 2007-13 by title for second reading.

ROLL CALL VOTE: AYES: Councilors Johnston, Miller, Thompson, Truax, Uhing, and Mayor Kidd. NOES: None. ABSENT: Councilor Lowe. MOTION CARRIED 6-0.

12. B. **ORDINANCE NO. 2007-14 AMENDING THE FOREST GROVE ZONING MAP TO RE-ZONE A 4.2 ACRE PORTION OF A 19.55 ACRE PARCEL FROM EXCLUSIVE FARM USE (EFU) TO SINGLE FAMILY RESIDENTIAL (R-5). LOCATED AT 1548 19TH AVENUE (WASHINGTON COUNTY TAX LOT NOS. 1S4-1-400 AND 1S4 1AA-7200). APPLICANT: GALES CREEK TERRACE, LLC. PROPERTY OWNERS: RONALD AND WANDA RAU. FILE NO. ZC-07-01**

Phillips read Ordinance No. 2007-14 by title for second reading.

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ROLL CALL VOTE: AYES: Councilors Johnston, Miller, Thompson, Truax, Uhing, and Mayor Kidd. NOES: None. ABSENT: Councilor Lowe. MOTION CARRIED 6-0.

13. **PUBLIC HEARING AND FIRST READING OF ORDINANCE NO. 2007-15 ADOPTING TEXT AMENDMENTS TO THE COMPREHENSIVE PLAN, MUNICIPAL CODE, AND ZONE AND LAND DIVISION ORDINANCES TO COMPLY WITH METRO'S NATURE IN NEIGHBORHOOD FUNCTIONAL PLAN REQUIREMENTS (OTHERWISE REFERRED TO AS GOAL 5). FILE NO. CPA-06-03, FILE NO. ZA-06-03; AND FILE NO. LDO-06-02**

Staff Report:

Holan requested Council consider continuing the above matter until the meeting of November 13, 2007, due to the hour.

Public Hearing:

At the consensus of Council, Mayor Kidd continued the Public Hearing to the meeting of November 13, 2007, at which time, Mayor Kidd advised public testimony would be accepted.

14. **CITY MANAGER'S REPORT:**

Sykes reported on upcoming events as noted in the Council calendar and reported on other various upcoming local meetings and events. Sykes presented various handouts pertaining to a letter received from the U.S. Department of Justice responding to Mr. Buchholz's concern pertaining to the Forest Grove Post Office not complying with the American Disability Act requirements; a letter received from the Forest Grove Market Center Office citing parking issues in the downtown area; a letter received from Senator Gordon Smith looking forward to meeting with elected officials at the upcoming League of Oregon Cities Conference; and several news article pertaining to Washington County refusing urban planning and Forest Grove's business district.

15. **COUNCIL COMMUNICATIONS:**

Johnston provided an update on the levy campaign, noting Woodfold-Marco Manufacturing is lending a building and signs promoting the levy will be displayed before the ballots are mailed on October 19, 2007.

Miller reported on the Committee for Citizen Involvement Periodic Review

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process, the Sisters Cities upcoming Sushi Class, and other various upcoming community events.

Thompson reported on a grant Ride Connection received.

Truax reported on the dedication celebration of the completion of the first portion of the facilities at Lincoln Park and Library grand opening and fundraiser, noting both events were a great success.

Uhing had nothing to report.

Mayor Kidd reported on various Metro and Washington County meetings and tours he attended and upcoming meetings and events he was planning to attend. Mayor Kidd reported on various community events, noting the Mayor's Ball and Sidewalk Chalk Art Fest were well-attended and successful events. In addition, Mayor Kidd reported on the upcoming League of Oregon Cities Conference, noting the City is hosting a meet-and-greet highlighting various businesses in Forest Grove. In conclusion, Mayor Kidd recognized Teri Koerner, Forest Grove Chamber of Commerce Director, who was present in the audience.

16. ADJOURNMENT:

Mayor Kidd adjourned the meeting at 10:25 p.m.

Respectfully submitted,

Anna D. Ruggles, CMC, City Recorder



Members Present: George Cushing, Cindy Kistler, Neil Poulsen, Claude Romig, Jon Stagnitti, Margie Waltz-Actor
Members Excused: Kevin Kamberg, Claude Romig, Margie Waltz-Actor
Staff Present: James Reitz
Council Liaison: Elena Uhing
Citizens Present: 02

1. **Call to Order:** The meeting was called to order at 7:26 pm. **The June 26, 2007 meeting minutes were approved as submitted.**

2. **Citizen Communication:** None.

3. **Action Items/Discussion:**

▪ **Renovation Grant Requests:**

• **Gordon Burlingham House, 1306 Birch Street (Washington County tax lot 1S3 6CA-5500). Applicants: Scott and Laura Hancock. File Number: HLR-07-05.** Laura Hancock discussed her chimney project and advised that her interior and firebox needed only a very minor repair and the majority of the project was above the roofline. The repair would involve removing the chimney to the roofline and then rebuilding it. **Stagnitti/Cushing to approve a grant of \$1,000. Motion carried unanimously.**

• **Smith-Schofield House, 2011 18th Avenue (Washington County tax lot 1S3 6BB-11500). Applicant: Holly Tsur. File Number: HLR-07-06.** Holly Tsur discussed replacing her asphalt-shingled roof with one that would be more historically accurate. Multiple layers would be removed and replaced with wood shakes, closer to what was likely on the original roof. She also requested to remove the chimney as the stove had been disabled many years before and so the chimney is not used. The Board agreed to the request because it was not a significant feature of the house. **Cushing/Stagnitti to approve a grant of \$3,000. Motion carried unanimously.**

▪ **Newsletter:** It was determined that news articles needed to be in by August 6. Stagnitti advised that he took some great pictures of the demolition of the house at 12th Avenue and Elm Street for future articles on design guidelines. Poulsen still expressed concern that Romig guidelines article was still too inflammatory.

4. **Old Business/New Business:**

- **Council Liaison Update:** Uhing discussed various Council issues and specifically mentioned two items of Council interest, design guidelines for new subdivisions and the possibility of another safety levy.
- **Farmers Market Booth:** Stagnitti advised that Waltz-Actor and he attended the June market and it was well received. Poulsen reported that he had the wrong date and had missed the July market but offered to join Stagnitti on the August market. Cushing is hoping to remember the September 19th market.
- **Plaques:** Waltz-Actor reported that she is now in charge of FHFG plaques and as such hoped to make them more available.
- **A. T. Smith House:** Kistler and Waltz-Actor reported that most work was on hold waiting for the contractor's availability.
- **Holbrook Lodge:** Stagnitti reported that no new information was available concerning the potential re-siding of the building.

5. **Adjournment:** The meeting adjourned at 8:18 pm.

These minutes respectfully submitted by George Cushing, Secretary

APPROVED

Members Present: George Cushing, Cindy Kistler, Claude Romig, Jon Stagnitti,
Margie Waltz-Actor
Members Absent: Kevin Kamberg, Neil Poulsen
Staff Present: James Reitz was excused
Council Liaison: Elena Uhing was excused
Citizens Present: -0-

The tour was led Mary Jo Morelli of Sojourn Inc. The tour began at 6 pm at Old College Hall. After a quick mention of its travels around the campus we started the tour. Morelli mentioned the cemetery, the petrified stump, and the honey tree; most members were totaly unfamiliar with them. As we walked the campus Morelli discussed the various buildings, both those still there as well as the unusual building that stood were the new building is being built.

We then went south on Cedar Street to 19th Avenue and the Benjamin Cornelius house; then on to Birch Street and 17th Avenue with Morelli discussing various architects of distinctive houses. We then continued west on 17th Avenue and then up to 18th Avenue to note the Smith-Schofield house, as well as the house on 17th Avenue and Main Street that was one of the first major remodeling of a house about to be condemned and is now a major landmark. We then continued up Main Street and dispersed at the farmers market. We all noted the Masonic Lodge building as well as the corrugated siding on the building across the street.

We all felt the tour was very informative and hoped we could in the future schedule other tours to the north side as well as spend more time downtown.

Library Commission Meeting
May 15, 2007
Minutes

3F

APPROVED

Called to Order 7:00p.m. In the Library

Attendance:

Library Commissioners: Doug Martin, John Hansen, Mark Barrett, Deb Smith, Kathleen Poulsen, Anita Eller
Absent: Karen Sheppard
Library Staff: Colleen Winters
Friends: Susan Schubothe

- 1) **Approve Minutes:** Corrections: Auditorium Beach Bill, item number 4 change to 6 citizens not residences, item 3 change period in dollar amount to \$130,000.00, item 2 misspelling Rogers Room is the correction.
- 2) **Friends Report** Beach Bill 25 to 30 people attendended. Friday May 18, Friends Book Sale in the Rogers Room.
- 3) **Foundation Report**
 - a. 5-31 campaign effort start. To invite people that might want to work on the campaign. Think of 1 or 2 people to invite that might be interested.
 - b. Piano purchase is moving forward. Looking for a 7 foot Grand Piano.
 - c. Donor recognition, to people that gave to the 1st campaign.
 - d. Need donor forms at the front desk so we can donate to the foundation.
- 4) **Directors Report**
 - a. Ask for questions: discussed self check out
 - b. Circulation Policy - WCCLS is overhauling their circulation policy. This will impact our policy. It was decided to move our discussion of the Circulation Policy to a later date.
 - c. Past Patron Survey – still unable to locate, will bring up in a later meeting.
 - d. Budget and Levy – In the Staff meeting, the possibility that the levy would not pass was discussed. The Renovation is making progress. We have computers, phone, and staff room. There are some problems that need to be addresses. The Book return is leaking, the window in Colleens office requires replacing, the windows seals are substandard, the carpet is coming up, and it will be refit. The June opening is being revisited. All of the books, furniture, and shelving are back.
 - e. Staffing after reopening the remodeled area. The Levy will not affect the opening. We will schedule 5 people in the building at all times. That's up from 4 people minimum at all times. We will go from 2 public desks to 3. Same number of open hours, until June 30 2007. We are looking to develop a new classification as Reference Assistance.
 - f. Assuming the Levy will fail. Staff stays the same, hours stay at their current level
- 5) **Recommendation to City Council re: Library Budget**
 - a. On May 24, 2007, the Budget committee is meeting. We need to advocate for the Library at this meeting. \$614,000.00 out of \$750,000.00 is from WCCLS, the difference comes from the city budget. The city could remove their support and the Library would only run on WCCLS. If this were to happen the library would need to lay off staff, and the hours would be cut back. It has been suggested that we volunteer to attend and speak with the Budget Committee - Mark Barrett agreed to speak on behalf of the Library Commission at this meeting. Moved and seconded

Meeting Adjourned 8:29p.m.

Next meeting: Wednesday June 20, 7:00p.m.

Library Commission Meeting
June 19, 2007
Minutes

APPROVED

Meeting was called to order at 7:05 PM

Attendance:

Library Commissioners: Mark Barrett, Karen Shepard, Anita Eller, Kathleen Poulsen,
John Hansen

Library Staff: Colleen Winters

City Councilor: Pete Truax

- 1) May minutes were read and corrected; Susan's last name was spelled incorrectly.
- 2) Friends Report: No representative present, recent Book Sale results were disappointing.
- 3) Foundation Report: Last meet was June 18, 2007.
The Foundation is piano shopping.
The Furniture campaign start date has been pushed out to July 19, 2007.
Leadership gift forms are at the front desk, all members of the Foundation, Friends and Commission are asked to donate.

4) Director's Report:

Reviewed circulation stats

Building Update

Reduced summer hours, closed weekends

Increased number of taskets due to weekend closure

Renovation opening to public on June 21/June 22, grand opening will be held at later date

Collections are 95% in place in new space

Some open issues remain

Need to draw up study room policies

Summer reading program underway

Budget meeting anticlimactic, Mark did a great job representing the Commission

New Hillsboro library open, plan to visit as soon as possible

Computer Policy: No update available yet

Circulation Policy: Commission will update after WCCLS updates their policy, revisit in September

Past Patron Surveys: Members asked to review survey and come back to August meeting with ideas

Pin Survey: discuss in August with goal of doing survey in September

Goals of Group:

APPROVED

- A) Update policies WIP
- B) Patron Surveys
- C) Advocacy for library with City Council
- D) Engage in library district discussions, state librarian would make presentation in the fall
- E) At least one Commission member at every library event

Good of the Order:

Councilor Truax:

Budget review completed and approved

Metro Great Cities Program: Forest Grove will be part of study group

New housing developments in Forest Grove

Next Meeting August 21, 2007 at library

Meeting was adjourned at 8:10 PM

Library Commission Meeting
August 27, 2007
Minutes

APPROVED

Called to Order 7:03p.m. In the Library

Attendance:

Library Commissioners: Doug Martin, Mark Barrett, Deb Smith, Kathleen Poulsen, Karen Sheppard

Absent: Anita Eller, John Hansen

Library Staff: Colleen Winters

Councilor: Peter Truax

1) Approve Minutes for June delayed until next meeting

2) Director's Report

1. Renovation Project --

a. The Library opened to the public on Thursday, June 21 2007.

b. There are still some unresolved issues with the renovation:

1. Air conditioning; Rogers Room noise. The city will check into the vibration issue.

2. Leaky book drops

3. Fire Alarms

4. Signage

5. Scrap metal

6. Shelving -- Some shelving was donated to new Community School.

2. Library Operation Issues

a. Hours -- Currently the Library is closed on Saturday and Sunday, and will continue to be closed on Saturday and Sunday this fall. Currently there is no way to add hours.

b. Public Desk coverage -- We now have three public desks to cover.

c. Book Drop -- An analysis of the Front drop was made, and it was found the majority of books in the front drop were overdue books and books from other Libraries. A question was presented concerning the employee time the front drop consumed, and whether it was in the best interest of the Library to continue with the Front Book Drop.

d. Colleen is currently working on a press release, to present the new things that are happening in the Library. It was suggested by Kathleen, that the Library may want to prepare an informational handout for the local schools concerning the Library hours.

3) Patrons Survey -- scheduled to be completed in October

1. Possible item to add to the survey: computer access; CD/DVD's; web site; self check out.

2. Questions to ask. How do you select your materials: web site; walk in; other?

3. Discussed posting Patron Survey on website.

APPROVED

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*Minutes are unofficial until approved by the PAC.
PAC approved minutes as presented July 12, 2007.*

1. CALL TO ORDER:

Present were PAC members: Donna House, John Anderberg, Vicki Pich (arrived at 5:20), Patty Schmitz and Philip Thias. PAC members not present: Cindy McIntyre, Julie Alderson, Kathleen Leatham and Stephanie Oppenlander had indicated that they would not be present. Staff present: Colleen Winters, Linda Taylor, and Bev Maughan. Voting was limited due to not having a quorum for most of the meeting

2. CITIZEN COMMUNICATIONS: None.

3. APPROVAL PUBLIC ARTS COMMISSION REGULAR MEETING MINUTES FROM APRIL 12, 2007: Minutes were not approved due to the lack of a quorum. Approval was tabled until the June meeting.

4. ADDITIONS/DELETIONS: None

5. BUSINESS:

A. CEP Grant: Philip Thias, Kathleen Leatham, Donna House and Deena Barrett were present for the grant application at the City Council meeting on April 19, 2007. As of May 10th we have not heard from the city on our grant status.

The Commission reviewed and approved the forms created for applying, reimbursing, evaluating and tracking PAC mini grants:

1. Reimbursements, summary and project evaluations for PAC commission members pre-approved arts activities.
2. Reimbursements, summary and evaluation for activities or events by other organizations.
3. Forest Grove PAC mini-grant application.

Bev mentioned that the city has award letters and they might be useful for PAC notification. There was a discussion about creating a policy for grant money to be paid in advance when needed when pre-approved by PAC.

2006 CEP Money: 2006 CEP grant will not be spent by the end of June. Bev will write an extension request for Patty to sign.

John and Vickie will meet to discuss advertising ideas around May 12th.

Philip will have a silk screen created for use on sandwich boards. The silkscreen will be based upon the PAC business cards.

B. Policy on Public Art Commissioning/Decommissioning: Tabled until next meeting.

C. Mission Statement Update: Tabled; suggested topic for July retreat.

6. COMMISSIONERS' COMMUNICATIONS: None

7. STAFF COMMUNICATIONS: No staff communications

8. ANNOUNCEMENT OF NEXT MEETING: Thursday, June 14, 5:00 p.m.

9. ADJOURNMENT: Meeting adjourned at 6:30 p.m.

Respectfully submitted,

Philip Thias

*Minutes are unofficial until approved by the PAC
PAC approved minutes as presented July 12, 2007.*

1. CALL TO ORDER:

Present were PAC members: Deena Barrett, Stephanie Oppenlander (arrived at 5:20), Patty Schmitz and Philip Thias. Council Liaison: Mayor Kidd. PAC members not present: Donna House, John Anderberg Cindy McIntyre, Julie Alderson, Kathleen Leatham and Vicki Pich. Staff present: Linda Taylor, Tom Gamble, and Bev Maughan. There was not a quorum in attendance.

2. CITIZEN COMMUNICATIONS:

Mandy Luke, Jessica Aldrich, and Michael Edlefson presented the Invisible Children documentary and their plans to hold a Silent Auction Art Sale as a fundraiser with proceeds going to the Invisible Children movement (attached as pdf). They asked for assistance in contacting artists who could donate any form of art for the sale. Members suggested delaying the auction in order to get better publicity and awareness before the event and to possibly coordinate with the Farmers' Market to reach a larger audience.

3. APPROVAL PUBLIC ARTS COMMISSION REGULAR MEETING MINUTES FROM MAY 10, 2007: Minutes were not approved due to the lack of a quorum. Approval was tabled until the July meeting.

4. ADDITIONS/DELETIONS: None

5. BUSINESS:

A. Policy on Public Art Commissioning/Decommissioning:

Maughan distributed copies of information from Alderson who will create a draft policy to be discussed at next meeting. (Attached as pdf)

B. Mission Statement Update: Tabled until next meeting.

6. COMMISSIONERS' COMMUNICATIONS:

Schmitz noted the Main Course Event being held on July 21.

7. STAFF COMMUNICATIONS:

Taylor noted Arts in the Park was off to a good start. She also described Letterboxing and Questing as activities for those who enjoy hiking and treasure hunting with Questing including a community-wide educational component. It was suggested that this might be a great opportunity for Pacific University's Orientation activities with a scavenger hunt around town.

Gamble noted the initial meeting of the Trails Advisory Committee was well attended.

Kidd reviewed the CEP Grant evaluation process and stated the PAC had been awarded \$3,600 for 07-08. He also commented that Councilor Miller had recently attended the Vancouver, BC, Get Centered! Trip and she noted the public art component in place in Vancouver, BC.

Kidd also explained the "If I Were Mayor" contest sponsored by the League of Oregon Cities (LOC) annually which he would like the PAC to be involved in to sponsor a local contest in the schools with winners having a chance to attend the LOC conference.

8. ANNOUNCEMENT OF NEXT MEETING: Thursday, July 12, 5:00 p.m. at McMenamins Yardhouse

9. ADJOURNMENT: Meeting adjourned at 6:20 p.m.

Respectfully submitted,

Bev Maughan

APPROVED

*Minutes are unofficial until approved by the PAC.
PAC approved minutes as presented September 13, 2007.*

1. CALL TO ORDER:

Present were PAC members: Donna House, John Anderberg, Julie Alderson, Stephanie Oppenlander, Vicki Pich, Kathleen Leatham, Cindy McIntyre and Patty Schmitz. Staff present: Colleen Winters and Mayor Kidd.

2. CITIZEN COMMUNICATIONS: None.

3. APPROVAL PUBLIC ARTS COMMISSION REGULAR MEETING MINUTES FROM APRIL 12, MAY 10 AND JUNE 14, 2007: House moved to accept the minutes. Anderberg seconded. Motion passed unanimously.

4. ADDITIONS/DELETIONS: None.

5. BUSINESS:

A. Policy on Public Art Commissioning/Decommissioning

Alderson presented the information she has gathered on various city and museum policies for commissioning and decommissioning art work. Various issues were discussed relative to what information our policy should contain. General consensus was that the policy should cover all public art in the city of Forest Grove (library, city buildings, park, etc.) and should include information regarding loans of art to the city and by the city to other institutions. Discussion included questions about how involved the Commission should be in approving art created for non-governmental building projects in the city, whether or not an inventory of city public art should include privately owned objects (such as the proposed mural to be painted on the Valley Art building, etc.). It was determined that a database of all public art in the city should be created, with a distinction made between city-owned art and other works that could be considered "public". Winters offered up the Library's collection for a pilot project to develop the database. Alderson will work on this project, with information supplied by the Library. In the meantime, Alderson will draft a full text of a possible commissioning/decommissioning policy for the Commission to consider.

B. Mission Statement Update

McIntyre suggested that the mission statement be as concise as possible. Discussion ensued, with the statement "To promote civic identity, by encouraging, promoting and preserving public art" and a simpler version "Public Arts Commission: Encourage, Promote and Preserve" generating much enthusiasm. Pich moved to accept these statements as the PAC's mission statement(s). Alderson seconded. Passed unanimously.

C. Promoting PAC at Concours on July 15th

Discussion about such events and the appropriate PAC participation. We do not yet have our sandwich board advertising signs, which would be very appropriate for such events.

In the future, our presence could be noted with the signage and the attendance of commissioners at such events. Alderson suggested that we develop an annual calendar of these activities, and each Commissioner could commit to attend specific events during the course of the year. McIntyre suggested that the Commission be more proactive about developing subcommittees to handle such projects, as it's difficult to get the entire Commission together outside of our regular meetings, during which much other business is handled.

6. COMMISSIONERS' COMMUNICATIONS:

- Anderberg announced that, with football season coming up, he will be unable to attend PAC meetings (games are regularly Thursdays at 5:00). August will be his last meeting. House asked if he had any suggestions for a replacement. He will think on it and let the Commission know.
- Pich announced that she has a new cell phone number.
- House announced a Valley Art reception for the August 1st First Wednesday, for the Silverton area artists who will be exhibiting in the VA gallery.

7. STAFF COMMUNICATIONS:

- Winters announced that the library reopened on June 21st. A public celebratory event will follow.
- Kidd announced that the new Pacific University/ Barnes & Noble bookstore has recently opened.
- Winters asked that a discussion of the CEP grants and their distribution be added to the agenda for the August meeting.

8. ANNOUNCEMENT OF NEXT MEETING: Thursday, August 9th. Meeting notices will be posted at the front doors of the Community Auditorium directing the public to the Conference Room if they wish to attend the meeting

9. ADJOURNMENT: Meeting adjourned at 6:15 p.m.

Respectfully submitted,

Julie Alderson

APPROVED

1. ROLL CALL:

Chair Randy Roedl called the meeting to order at 7:33 a.m.

ROLL CALL: MEMBERS PRESENT: Herb Drew, Russell Redmond, Sharon Boge, Susan Aguilar, Rod Fuiten, and Randall Roedl

LIAISONS PRESENT: Tom Johnston, Naomi Montelongo, Melanie Stagnitti, and Ralls Hall

STAFF PRESENT: City Manager Michael Sykes, Fire Chief Bob Mills, Police Chief Glenn VanBlarcom, and Carol Lorenz.

MEMBERS NOT PRESENT: Dan Hornberger

LIAISONS NOT PRESENT: Tim Dierickx, and Brandon Hundley

2. CITIZEN COMMUNICATIONS:

3. APPROVAL OF MINUTES: September 12, 2007

4. ADDITIONS/DELETIONS:

5. ACTION ITEMS/DISCUSSION:

Randy Roedl opened the meeting by informing everyone of the new PSAC member Melanie Stagnitti and thanking her for joining PSAC. He also explained that she could not be present today.

Levy: The council has approved the levy to be on the ballot for November 6, 2007. Rod announced that the amount we have left from the last levy is around 1,100.00 in donated funds. Pete is coordinating the campaign. T.J. is going to be responsible for signs. Ron Thompson is Door to Door. Cindy will handle letters to the editor. Things that need to be done: add levy information onto the internet, post current stories regarding Police and Fire (New Times / Oregonian), organize people to go out around town, a date when the signs should go up, and make sure that the people receiving ballots is correct.

Michael Sykes: Michael spoke to the PSAC group on the reasons that the council decided to go ahead with the levy. He feels that the last levy is still fresh in everyone's minds. The fall ballot does not have a lot of money measures. The last campaign was run well and passed by 3 to 1, we just need to encourage people to vote in order to meet the 50% + 1 vote. The Police and Fire Departments are at unacceptable levels. Public Safety is a priority and receives .75 out of every 1.00 in the general budget. Michael also

**PUBLIC SAFETY ADVISORY COMMISSION
FOREST GROVE FIRE STATION,
1919 ASH STREET
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PAGE 2 OF 3**

explained that 31% of the cities real property is not on the tax role and the new homes are assessed at 57% of the assessed value. The city has tried to look ahead at the future budgets and save money now. Michael feels that if the levy passes in the fall we should be able to restore the cuts immediately.

PSAC Questions and Comments: PSAC feels we need everyone helping to get the word out. Public Safety is at unacceptable levels and the public does not understand why the library and pool are in the same budget as public safety. PSAC feels that if the levy passes that public safety should come first when restoring services. Public safety does not have anywhere else to generate funds. Regarding the next levy, PSAC has had positive feedback about being on the fall ballot. However, PSAC does not want to go back to businesses and ask for donations to run the levy. The idea of charging a public utility fee has been put on hold. There are concerns of charging a fee on a utility bill for services that people do not use.

6. **COMMISSIONER'S REPORTS:** None

7. **STAFF REPORT:** None

8. **OLD BUSINESS:**
CITIZEN COMMUNICATIONS:

Cindy McIntyre: Herb Drew introduced Cindy McIntyre and thanked her for her hard work on the campaign. Cindy introduced herself to the PSAC group and stated her background has been in Business Marketing and that she has worked on levy campaigns. Cindy felt that the campaign work should have started in Nov. and that the amount of time we had to get the word out was not enough. She also recommended that we try again in Nov. 07 and to start right now. She stated that they were able to raise over \$6,000 towards the campaign. They had put signs out and also marketed the levy in other ways. She felt that the percentage of voter turn out was better than expected with the fact that there was not much on the ballot. Cindy stated that she was able to get over 380 citizens that said they would be willing to help in their community. She hopes to have this number grow to around 1,400. She has contacted citizens by going door to door, handing out business cards, talking to people in the grocery store, etc. Cindy hopes that this group could be used where needed towards safety and the livability of the city. People would like to see more community activities. Cindy also suggested that maybe this group could help with fundraisers to help support public safety. Cindy felt that Police and Fire should not be cut and that maybe we could use citizens to help with mowing the parks, painting graffiti, etc.

**PUBLIC SAFETY ADVISORY COMMISSION
FOREST GROVE FIRE STATION,
1919 ASH STREET
September 12, 2007
PAGE 3 OF 3**

ACTION ITEMS/DISCUSSION

Hand Outs: Herb Drew handed out a proposal to city council dated June 21, 2006 and an article from USA Today dated May 3, 2007

Levy: As of May 16, 2007 at 12:01 AM the amount of people that had voted was 44.1% with 2,811 yes votes at 73.72% vs 1,002 no votes at 26.28%. PSAC felt that the 44% turn out was a good turn out and that the citizen's reaction was positive with a lot of participation. The only negative response that PSAC heard was that the citizens wanted the levy to be for Public Safety not social issues. The phone bank said that a lot of citizens made the comment that they did not receive their ballot. With 2/3 of the citizens in Forest Grove voting yes for the levy the PSAC group feels that they owe the citizens something. They plan on putting a letter out thanking everyone for participating in the campaign, and voting.

PSAC agenda going forward: The PSAC group plans on going before the budget committee and city council to recommend that the cuts are not a straight across the board cuts. PSAC believes that the city budget committee needs to look at other areas to cut other than Police and Fire. PSAC feels that it is important that we meet again in June. Randall Roedl was also appointed as the new chairperson for PSAC. Randall Roedl was nominated and it was seconded.

Fire and Police Chiefs concerns: The Fire Department has two frozen positions at this time, they feel they are going to have to look at different ways of providing services. The fire department has concerns about having to use volunteers and the increased response time that could mean the difference between life and death. If the budget is cut, we will have to look at dropping services.

The Police Department has one position open and will lose one more this year, with another officer applying out of the City of Forest Grove, as that position is in jeopardy. In 2000 we were losing trained officers because we were trying to do more with fewer personnel. The 3 officer positions that the police department received in 2002 will most likely be vacant by the start of this summer. The police department training budget along with personnel and materials is going to be reduced also.

9. **ANNOUNCEMENT OF NEXT MEETING:** October 24, 2007

10. **ADJOURNMENT:**

Chair Randy Roedl adjourned the meeting at 08:55 a.m.

Respectfully submitted by:
Carol Lorenz

Memorandum

To: Mayor Kidd and City Councilors
From: Anna D. Ruggles, City Recorder
Subject: Accept Resignation on Public Arts Commission
Date: October 8, 2007

John Anderberg, Public Arts Commission (PAC), At-Large, Term Expiring December 31, 2007, has informed the PAC of his desire to resign from the Public Arts Commission due to other commitments; refer to attached PAC meeting minutes of July 12, 2007.

STAFF RECOMMENDATION: Staff recommends Council accept the above resignation and deem the seat vacant.

In the future, our presence could be noted with the signage and the attendance of commissioners at such events. Alderson suggested that we develop an annual calendar of these activities, and each Commissioner could commit to attend specific events during the course of the year. McIntyre suggested that the Commission be more proactive about developing subcommittees to handle such projects, as it's difficult to get the entire Commission together outside of our regular meetings, during which much other business is handled.

6. COMMISSIONERS' COMMUNICATIONS:

- ★ • Anderberg announced that, with football season coming up, he will be unable to attend PAC meetings (games are regularly Thursdays at 5:00). August will be his last meeting. House asked if he had any suggestions for a replacement. He will think on it and let the Commission know.
- Pich announced that she has a new cell phone number.
- House announced a Valley Art reception for the August 1st First Wednesday, for the Silverton area artists who will be exhibiting in the VA gallery.

7. STAFF COMMUNICATIONS:

- Winters announced that the library reopened on June 21st. A public celebratory event will follow.
- Kidd announced that the new Pacific University/ Barnes & Noble bookstore has recently opened.
- Winters asked that a discussion of the CEP grants and their distribution be added to the agenda for the August meeting.

8. ANNOUNCEMENT OF NEXT MEETING: Thursday, August 9th. Meeting notices will be posted at the front doors of the Community Auditorium directing the public to the Conference Room if they wish to attend the meeting

9. ADJOURNMENT: Meeting adjourned at 6:15 p.m.

Respectfully submitted,

Julie Alderson

MONTHLY BUILDING ACTIVITY REPORT

35

SEPTEMBER

2006 - 2007

	September Zero-Six		September Zero-Seven	
	# Of Permits	Value	# Of Permits	Value
Man. Home Setup		N/A		N/A
Single-Family-New	6	1,540,344.54	3	859,616.27
SFR Addition & Alt/Repair	4	98,908.00	3	80,893.76
Multiple-Family-New/Alt	6 (21 units)	2,303,311.80	1	53,000.00
Group Care Facility				
Commercial New				
Commercial Addition			1	9,000.00
Commercial Alt/Repair	3	10,860.00	3	19,200.00
Industrial New				
Industrial Addition				
Industrial Alt/Repair	2	80,688.00	2	169,367.00
Gov/Pub./Inst. (new/add)	3	158,400.00		
Signs & Grading	3*	730.00	1	Sign
Demolitions	3	SFR		
Total	30	\$4,193,242.34	14	\$1,191,077.03

*3 signs

FISCAL YEAR, TOTAL TO DATE

2006-2007		2007-2008	
Permits: 81	Value: \$7,902,428.85	Permits: 77	Value: \$8,255,419.39

To: City Council

From: Kerstin Cathcart, Senior Planner
Jon Holan, Community Development Director
Michael Sykes, City Manager

Subject: City Tree

Date: September 27, 2007

At the Community Forestry Commission (CFC) meeting of January 24, 2007, the CFC revised their mission statement to read:

The CFC believes that a healthy and expanding community forest is essential to our community's quality of life as to our environmental and economic well being.

In order to increase citizens' awareness about the importance and value of trees in enhancing the community's livability and vitality, the CFC offered residents the opportunity to vote for a City Tree. The City Tree, a kind of tree, not one specific tree itself, will be used to promote tree awareness and as a logo for the CFC. Dedicated preservation and planting of the City Tree would be appropriate as well.

The City Tree ballot was in the July utility bill. 320 residents returned ballots. Up to four people were able to vote on each ballot. The 745 votes received were allocated as follows:

Oregon White Oak = 289 votes
Giant Sequoia = 179
Western Red Cedar = 116
Doug Fir = 89
Oregon Ash = 72

Recommendation: City staff and the Community Forestry Commission recommend the City Council adopt the attached Resolution officially designating the *Oregon White Oak* as the Official City Tree of the City of Forest Grove.



RESOLUTION NO. 2007-57

**RESOLUTION DESIGNATING THE OREGON WHITE OAK
AS THE OFFICIAL CITY TREE OF THE CITY OF FOREST GROVE**

WHEREAS, the name "Forest Grove" was originated in the description "where the *forests* of fir meet the *groves* of oak"; and

WHEREAS, existing Oregon White Oaks likely were either deliberately preserved or planted by first settlers in the 1880s; and

WHEREAS, the Oregon White Oak received 287 votes, out of a total of 745 votes, by the Community Forestry Commission during the Tree City Vote of July and August, 2007; and

WHEREAS, the City's abundant Oregon White Oaks provide economic and aesthetic benefits to the residents of Forest Grove and sustain habitats and improve our ecosystem, and add to our quality of life; and

WHEREAS, there are 189 Oregon White Oaks located on private property that are listed on the City's Register of Significant Trees comprising 73% of all registered significant trees.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY OF FOREST GROVE
AS FOLLOWS:**

Section 1. That the Forest Grove City Council does hereby designate the *Oregon White Oak* as the Official City Tree of the City of Forest Grove.

Section 2. This resolution will take effect immediately upon its adoption by the City Council.

PRESENTED AND PASSED this 8th day of October, 2007.

Anna D. Ruggles, City Recorder

APPROVED by the Mayor this 8th day of October, 2007.

Richard G. Kidd, Mayor

October 3, 2007

**REPORT ON RESOLUTION AUTHORIZING APPROVAL OF THE
INTERGOVERNMENTAL AGREEMENT BETWEEN THE CITY OF FOREST
GROVE AND FOREST GROVE SCHOOL DISTRICT TO COLLECT AND REMIT
A CONSTRUCTION EXCISE TAX**

Project Team: Paul Downey, Director of Administrative Services
Michael Sykes, City Manager

ISSUE STATEMENT Senate Bill 1036, which was adopted by the 2007 Oregon Legislature and became effective September 27, 2007, authorizes school districts to impose Construction Excise Taxes (CET) to fund capital improvements to school facilities. The Forest Grove School District (District) is considering imposing a CET and per the requirements of Senate Bill 1036, the District must, prior to adopting the CET, enter into an intergovernmental agreement (IGA) with any local government that would collect the tax. An IGA to collect and remit the tax has been prepared for Council's approval.

DISCUSSION The District has prepared the IGA and City staff has reviewed it. The IGA addresses the items required by Senate Bill 1036. The IGA states the City will retain 1% of the amounts collected for the City's administration of the tax. The implementation date for collecting the tax is not specific. It currently states "the jurisdiction shall begin collecting CET when instructed by the District." City staff will work with the District on the implementation date as the City will need time (probably a few weeks) to establish its internal processes for administering the tax.

Prior to the CET being collected, the School District Board must adopt a resolution to impose the tax. The IGA being considered tonight must be completed prior to the resolution being adopted by the District. The tax rate is not included in the IGA. The rate will be part of the resolution adopted by the District. The law sets a tax rate limit of \$1.00 per square foot for residential use and \$0.50 for non-residential use with an additional limit of \$25,000 on non-residential use.

The District has submitted a similar IGA to the City of Cornelius and Washington County so the District can collect the tax on properties within District territory in those jurisdictions.

RECOMMENDATION Staff is recommending that the City Council approve the IGA and authorize the City Manager to execute the agreement.



Serving the communities of Forest Grove, Cornelius, Gales Creek and Dilley

City of Forest Grove
Attn: Michael Sykes
PO Box 326
Forest Grove, OR 97116

Re: Construction Excise Tax Intergovernmental agreement

Dear Mike,

On behalf of the Forest Grove School District I am requesting that this intergovernmental agreement for a construction excise tax be placed on the Forest Grove City Council agenda as soon as possible.

As you are aware during the last legislative session Senate Bill 1036 was passed. This allows school districts to impose a tax on new construction measured by square footage of improvements. It requires the revenue be used for capital improvements, defines capital improvements and allows taxes to be used for repayment of capital improvement debt. Senate Bill 1036 sets a tax rate limit of \$1.00/square foot for residential use and \$.50/square foot for non-residential use. It also imposes an additional \$25,000 limit on non-residential use.

The official resolution from the school board will be put forth for board approval at the October 22, 2007 school board meeting however, prior to any resolution adopted by the school board the intergovernmental agreement must be approved.

If you have any questions about the enclosed intergovernmental agreement please feel free to contact me. Darin Davidson, Director of Business and Support Services for the school district, and I will attend the October 8, 2007 City Council meeting to answer any questions from the City Council.

Thank you for your corporation and collaboration with this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Jack Musser", is written over a large, stylized flourish or scribble.

Jack Musser
Superintendent

CC: Darin Davidson, Director of Business and Support Services
Forest Grove School District Board of Directors

RESOLUTION NO. 2007-58

**RESOLUTION OF THE CITY OF FOREST GROVE APPROVING THE
INTERGOVERNMENTAL AGREEMENT BETWEEN THE
CITY OF FOREST GROVE AND FOREST GROVE SCHOOL DISTRICT
TO COLLECT AND REMIT A CONSTRUCTION EXCISE TAX**

WHEREAS, Senate Bill 1036, which was adopted by the 2007 Legislature and which became effective on September 27, 2007, authorizes school districts, as defined in ORS 330.005, to impose construction excise taxes to fund capital improvements to school facilities; and

WHEREAS, Section 5 of Senate Bill 1036 provides that the Construction Excise Tax shall be collected by local jurisdictions and remitted pursuant to intergovernmental agreements; and

WHEREAS, School District is contemplating imposing a construction excise tax within the School District and Section 5 of Senate Bill 1036 also requires school district to enter into intergovernmental agreements with any local government or special district that would collect the tax prior to the adoption of a construction excise tax; and

WHEREAS, the Parties desire to agree to certain procedures needed to collect the Construction Excise Tax and remit the tax to School District.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY OF FOREST GROVE AS FOLLOWS:

Section 1. That the City Council of Forest Grove does hereby approve the Intergovernmental Agreement (Exhibit A) between the City of Forest Grove and Forest Grove School District to collect and remit a construction excise tax and authorize the City Manager to execute the agreement.

PRESENTED AND PASSED this 8th day of October, 2007.

Anna D. Ruggles, City Recorder

APPROVED by the Mayor this 8th day of October, 2007.

Richard G. Kidd, Mayor

**CONSTRUCTION EXCISE TAX
INTERGOVERNMENTAL AGREEMENT**

**TO COLLECT AND REMIT TAX BETWEEN
THE FOREST GROVE SCHOOL DISTRICT AND THE CITY OF FOREST GROVE**

This Construction Excise Tax Intergovernmental Agreement to Collect and Remit Tax ("CET Collection IGA") is effective on the last date of signature below, and is by and between the Forest Grove School District, a school district organized under the laws of the state of Oregon ORS 330.005 ("School District"), and the City of Forest Grove ("Jurisdiction"), collectively referred to as "Parties."

WHEREAS, Senate Bill 1036, which was adopted by the 2007 Legislature and which became effective on September 27, 2007, authorizes school districts, as defined in ORS 330.005, to impose construction excise taxes to fund capital improvements to school facilities; and

WHEREAS, Section 5 of Senate Bill 1036 provides that the Construction Excise Tax shall be collected by local jurisdictions and remitted pursuant to intergovernmental agreements; and

WHEREAS, School District is contemplating imposing a construction excise tax within the School District and Section 5 of Senate Bill 1036 also requires school district to enter into intergovernmental agreements with any local government or special district that would collect the tax prior to the adoption of a construction excise tax; and

WHEREAS, the Parties desire to agree to certain procedures needed to collect the Construction Excise Tax and remit the tax to School District.

NOW THEREFORE, the Parties hereto agree as follows:

1. Information and Forms. Jurisdiction shall provide all of the forms necessary to collect the Construction Excise Tax and School District will provide all necessary information to assist Jurisdiction in doing so.

2. Staffing. Jurisdiction shall provide sufficient staff to calculate and collect the CET along with the collection of other permit fees. School District shall provide sufficient staff to implement the CET program.

3. Collection; Start date. Jurisdiction agrees to collect the CET on behalf of School District for those properties within School District and within Jurisdiction. Jurisdiction shall begin collecting the CET when instructed by the District, and shall continue collection until the CET expires or is terminated by School District.

4. Exemptions. School District shall provide Jurisdiction with all forms necessary for CET exemptions, rebates, and refunds, and any other forms or information necessary for implementation of the CET. If a Person or entity asserts that it is exempt from the CET and files a School District CET Exemption Form at the time the CET would otherwise be due, Jurisdiction shall grant the exemption. It

shall be School District's responsibility to determine the validity of the exemption and to institute collection procedures to obtain payment of the CET, as well as any other remedy School District may have under law, if the Person was not entitled to the exemption.

5. Remittance. Jurisdiction shall remit the collected CET to School District. Remittance shall be quarterly, by the 30th of the month following the quarter (or month) ending. Quarters end on September 30th, December 31st, March 31st, and June 30th, of each year. CET remittance and the CET Report shall be sent to the Forest Grove School District, at 1728 Main Street, Forest Grove OR 97116.

6. CET Reports. Along with the CET remittance, Jurisdiction shall prepare and submit to the School District a report of the CETs and building permits issued for the previous quarter's construction activities. The report shall include: the number of building permits issued that quarter; the aggregate square footage of residential construction; the aggregate square footage of non-residential construction; the number of building permits for which CET exemptions were given; the aggregate square footage of construction for the exempted construction; the aggregate amount of CET paid; and the amount of CET administrative fee retained by Jurisdiction pursuant to this CET Collection IGA.

7. Failure to Pay CET. Upon a Person's refusal to or failure to pay the CET when due, the jurisdiction administering that Person's building permit shall notify School District in writing within five (5) business days of such failure, with information adequate for School District to begin collection procedures against that Person, including the Person's name, address, phone numbers, construction project, square footage of new construction, and building permit number. Upon a Person's refusal or failure to pay the CET, it shall be School District's responsibility to institute collection procedures to obtain payment of the CET as well as any other remedy School District may have under law.

8. Records. Jurisdiction shall make all records related to building permit activity, Construction Excise Tax collections, and CET exemptions available to School District, or its designated auditors, as necessary for School District to audit Construction Excise Tax collections.

9. Administrative Fee. As consideration for the above described services, Jurisdiction may retain 1% of the CET collected by the Jurisdiction as authorized by Section 5 of Senate Bill 1036. Prior to submitting the CET to School District, Jurisdiction shall deduct this administrative fee directly from the CET collected, and the amounts deducted and retained shall be identified on the report submitted to School District.

10. Amendment. This CET Collection IGA may be amended by mutual written agreement of the Parties.

11. Other Agreements. This CET Collection IGA does not affect or alter any other agreements between School District and Jurisdiction.

Forest Grove School District

City of Forest Grove

By: _____
Title: Forest Grove School District Superintendent
Date: _____

By: _____
Title: Michael J. Sykes, City Manager
Date: October 8, 2007

October 8, 2007

**REPORT ON THE CITY OF FOREST GROVE
COMMUNITY TRAILS MASTER PLAN PROJECT**

Project Team: Tom Gamble, Director Parks and Recreation
Ric Balfour, Balfour and Associates
Steve Huffman, Parks Crew Chief
Michael Sykes, City Manager

Background: In 2002, the City of Forest Grove adopted the Parks, Recreation and Open Space Master Plan. (Resolution 2002-19) This plan identified a number of items of importance that were created to “ensure that the livability of Forest Grove is preserved and the needs of its residents are addressed.” This plan describes a vision for parks recreation opportunities for ten years and outlines a five-year plan toward achieving that vision.

One element of the plan was the creation of a system of community wide trails and connections that are to promote a sense of community, build physical connections, serve all ages and abilities, contribute to a strong local economy and establish partnerships.

The Community Trails Project represents a major step towards updating the concepts identified in the Parks, Recreation and Open Space Master Plan and determines the feasibility of building trails in and around our community. Results from this plan will direct the future of trail development in Forest Grove.

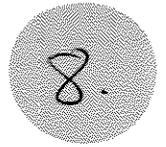
Citizen Input: From the beginning, this project has included listening and carefully considering input from interested and frankly non-interested citizens. Considerable effort has been expended in collecting and tabulating citizen thoughts and concerns which have been included in the plan. These included:

- Formation of the Trails Advisory Committee to the Recreation Commission.
- Three (3) community meetings that included over 50 citizens.
- Six (6) Trails Advisory Committee meetings with staff.
- Three (3) presentations before the Recreation Commission.
- Two Hundred and Thirty Two (232) returned utility bill surveys.
- Numerous meetings with neighbors seeking input.
- Numerous meetings with land owners and developers.

Study Results: The City Council packet includes both the full text and maps from the collective work provided by Ric Balfour and Associates. These results include the Executive Summary, Trail Benefits and Community Profile, both State and
Page 2. Community Trails Master Plan

Regional context for the Forest Grove System, Community Needs and Priorities, Trails Types, Community Trail System Segment Descriptions, and Trail Plan Implementation Strategies.

Recommendations: The Parks and Recreation Commission at their meeting of September 25, 2007, accepted and unanimously approved the study after consideration of public comment and Commission deliberation. City staff recommends the City Council accept and approve the attached Resolution adopting the 2007 City of Forest Grove Community Trails Master Plan.



RESOLUTION NO. 2007-59

**RESOLUTION ADOPTING THE 2007 CITY OF FOREST GROVE
COMMUNITY TRAILS MASTER PLAN**

WHEREAS, the City of Forest Grove adopted the 2002 Parks, Recreation, and Open Space Master Plan to ensure the livability of Forest Grove by examining the City Parks and Recreation Department's facilities, programs, and community needs; and

WHEREAS, an element of the Master Plan was the conceptual design of a trail system that surrounds the City and serves all ages and abilities, contributes to a strong local economy, preserves the character of Forest Grove, provides safe and convenient access, creates partnerships, and builds physical connections; and

WHEREAS, numerous public meetings and contacts have occurred during the development of the Community Trails Master Plan, including survey results of over two hundred and thirty citizens; and

WHEREAS, trails enhance communities by increasing options for safer commuting, recreating and exercising; and

WHEREAS, the Vision Statement of the City of Forest Grove indicates a community that has a wealth of resources that is cherished and preserved to foster sport, recreation, reflection, leisure and distinctive neighborhoods with a variety of accessible parks and open spaces; and

WHEREAS, recommendations for implementation of the plan are included in the study.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY OF FOREST GROVE AS FOLLOWS:

Section 1. That the Forest Grove City Council does hereby adopt the 2007 City of Forest Grove Community Trails Master Plan.

Section 2. This resolution will take effect immediately upon its adoption by the City Council.

PRESENTED AND PASSED this 8th day of October, 2007.

Anna D. Ruggles, City Recorder

APPROVED by the Mayor this 8th day of October, 2007.

Richard G. Kidd, Mayor

September 26, 2007

NewsTimes

Legal Ads/Public Notice:

To be published: Wednesday, October 3, 2007

**NOTICE OF PUBLIC HEARING
CITY OF FOREST GROVE
COMMUNITY TRAILS MASTER PLAN**

NOTICE IS HEREBY GIVEN that the Forest Grove City Council will hold a public hearing on Monday, October 8, 2007, at 7:00 p.m. or thereafter, in the Community Auditorium, 1915 Main Street, Forest Grove, to consider adopting the City of Forest Grove Community Trails Master Plan.

This hearing is open to the public and interested parties are encouraged to attend. A copy of the proposed Community Trails Master Plan is available for inspection before the hearing at the City Recorder's Office or by visiting the City's website at www.forestgrove-or.gov. Written comments or testimony may be submitted at the hearing or sent to the attention of the City Recorder's Office, P. O. Box 326, 1924 Council Street, Forest Grove, OR 97116, prior to the hearing. For further information, please contact the City Recorder's Office at 503.992.3235.

Anna D. Ruggles, CMC, City Recorder
City of Forest Grove

To be published Wednesday, October 3, 2007

**WRITTEN TESTIMONY
RECEIVED**

OCTOBER 8, 2007

PUBLIC HEARING

**COMMUNITY TRAILS
MASTER PLAN**

Written Testimony
 RECEIVED
 OCT 06 2007
 10/8/07
 BY: _____

A PETITION TO THE FOREST GROVE CITY COUNCIL September 07

We the undersigned live along the west side of Strasburg near the proposed trail M-A#23 of Draft v.3 FG Community Trails Master Plan. We share the values that cause the Willamina neighborhood resistance to the trails and do not want our neighborhood to be connected to the trail, we ask (1) that you deny approval of the segment that crosses the Knox Ridge Creek ditch and heads east and south to the children's park on Strasburg and (2) cause construction of a security fence on the west end of said park to control trespass on the private land adjacent to the park.

NAME &	ADDRESS	DATE
Steve Formand	702 Kalex Lane	9/26/07
Craig Bayton	709 Kalex Lane	9/26/07
Kyle J. Crownover	8416 Strasburg	9-26-07
Jacky Luce	2335 Strasburg	9-26-07
Jim Warren	2318 STRASBURG DR FG OR 97116	9-26-07
Bill Henn	2246 Strasburg Dr 97116	9-26-07
Peggy Oakes	711 Kalex Ln 97116	9/26/07
William Morris	2404 Strasburg 97116	9/26/07
Michael J. Charles	2312 Strasburg Drive 97116	9/26/07
Quaitn K. Charles	2312 Strasburg Dr. 97116	9/24/07
Ann M. Haberman	703 Kalex Lane 97116	9/26/07
Karen Pronozuk	2324 Strasburg Dr	9/26/07

TO Forest Grove City Council.

October 2, 2007

I offer the following comments on the Trails Master Plan Draft v.3 for your consideration of the attached petition signed by home owners of 11 of the 14 residences on the west side of Strasburg. The petitioners ask (1) City Council deny approval of the approximately 500 feet of Natural surface trail proposed to cross Knox Ridge Creek continuing east along the south edge of wetland to the boundary of property at the end of Kalex Lane cul-de-sac then continuing south and east to the Children's park off Strasburg and (2) City Council direction to cause construction of a fence at the west end of the Children's park to control trespass on the private land adjacent to the Park.

The petitioners are concerned for the existing security, privacy and wildlife habitat values. These values would be threatened by the segment of the public use trail noted above. The trail would allow increased access to private backyards at all hours of day or night for all public regardless of intent. The trail potentially located immediately adjacent to the wetland is an invitation for a summer wildfire in the dry grass and vegetation of the wetland adjacent to our homes.

The safety of small children is increased with your denying approval of the Natural surface trail connection to the Children's Park thus keeping a different age public with other interests separated from the small children. Parents with children in tow will likely use the paved trails. The fence to stop Park users trespassing on private land increases the safety of unsupervised small children by stopping their play in the drainage ditch, on the farmland, or wetland, and the mischief of trespassers in gardens.

There is potential to improve the experience of users of the Natural surface trail west of Strasburg by extending the Natural surface trail along the bank of Gales Creek west of Richey to near Sheelar Lane. The trail could go north along Sheelar Lane to join the proposed trail at Gales Creek road and continue north as per Draft V.3 of the Plan.

Another option would be to deny approval of the proposed Natural surface trail between Richey and Gales Creek Road resulting in the trail looping back at Richey along the south and north bank of Gales Creek. Students going to Tom McCall School, and other trail users could use the Goff trail. The Strasburg trail could be extended south to join the Natural surface trail.

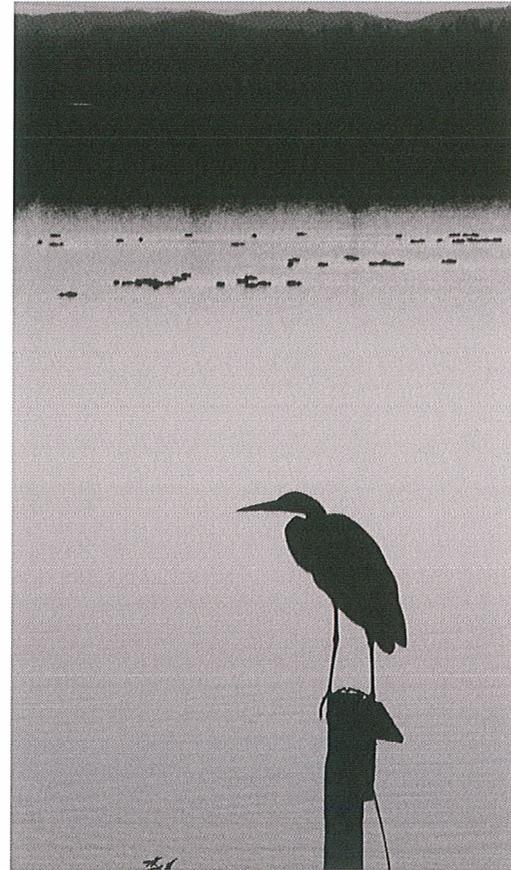
Thanks for the opportunity to present comments on the Draft and our concerns. Your favorable action on the petition will go a long way to developing support for the trails in our neighborhood.



Gary Formanek 702 Kalex Lane

Forest Grove

Forest Grove Community Trails Master Plan



Prepared for: The Forest Grove Parks & Recreation Department

**Prepared by: Ric Balfour & Associates
2406 15th Avenue, Forest Grove, Oregon 97116-2805
ric.balfour@gmail.com**

**city of
forest
grove**

Acknowledgements

The Forest Grove Parks and Recreation Department applied SDC to fund this project.

List members of the following groups...

FG City Council
Richard Kidd, Mayor
Councilors
Tom (TJ) Johnston
Ron Thompson
Pete Truax
Elena Uhing
Victoria Lowe
Camille Miller

Forest Grove Recreation Commission
Paul Waterstreet, Chairman

Duane Anderson
Ralph Brown
Quinn Johnson
Don Jones
Dick Kover
Greg Kriebel
Susan Taylor

Forest Grove Community Trails Technical Advisory Committee

Mike Olson
Mark Barrett
Victoria Lowe
Ron Thompson
John White
Susan Taylor
Richard VanBuskirk
Dick Kover

Staff:

Glen VanBlarcom
Steve Huffman
Tom Gamble, Director

Thanks to all those in the community that participated in this effort.

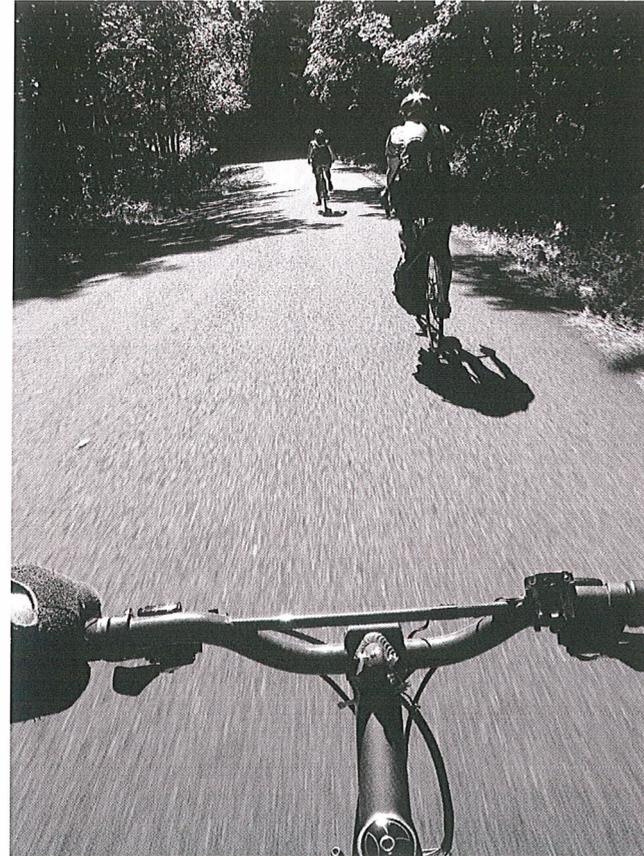
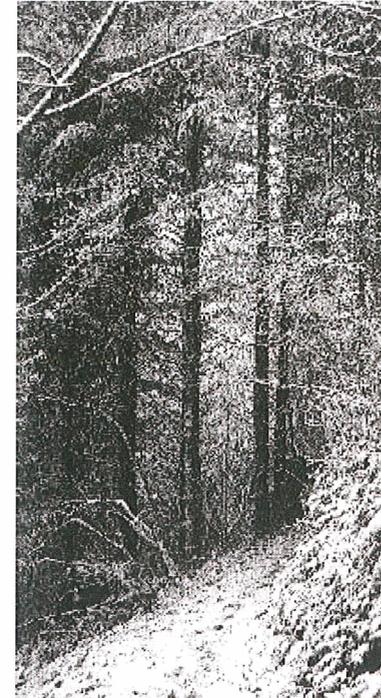


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Executive Summary

▪ Purpose of the Plan

This plan was commissioned to develop more thorough guidance for implementing a city wide trail system based on a main perimeter loop and connections to schools, parks, open space and neighborhoods. Based on the broad delineation of potential routes in the 2002 Parks Master Plan, information was gathered from inspections on the ground as to what was physically feasible and what the community and respective landowners were interested in supporting. This plan will also provide detail for prioritizing and developing future project proposals and grant applications. It will also feed directly into the process involved in updating the current parks master plan.

▪ Planning Process

The Parks and Recreation Commission assembled the Forest Grove Community Trails Technical Advisory Committee to oversee the project and to review information gathered for the project. The contractor used a combination of methods to build information for this plan, including:

- field work
- mail back surveys in the utility bill
- personal interviews with landowners and stakeholders
- three public forums
- a newsletter
- media outreach to local newspapers

The Parks Commission reviewed drafts of the plan and approved it for consideration by the Council on Oct 8th, 2007.



▪ Trail System Existing Resource Assessment

The City has almost half of the potential perimeter loop built along the north edge of Hwy 47 and a number of supportive landowners along the route identified for closing the loop. However, terrain and ownership challenges may not allow the city to maintain a consistent set of standards all the way around. Other alternatives may include a natural surface trail or moving people onto existing sidewalks marked with a special icon or symbol to help users connect to the main path again. Many other opportunities exist to connect parks, neighborhoods and open space areas with the loop trail, particularly in the Fernhill Wetlands area.

- **Community Involvement & Needs**

Interviews, meeting participation and survey results indicate that the community places a high priority on developing a contiguous loop trail around town. This trail should be shared use, paved and wide enough to easily accommodate all users without crowding. Where possible, the trail should include a soft surface trail adjacent to it or nearby and sufficient signage to help users stay on the trail, respect private property and learn about the cultural and natural history of the town and surrounding area. Linking to other regional trails systems was also seen as an important outcome.

- **Partnership Potential**

The plan has laid out a network of trail opportunities around town that can now be tackled systematically with the help of partners identified for each segment. Key regional partners include the Oregon Parks and Recreation Department, Metro, Washington County and Clean Water Services. Local partners include the school district, Pacific University and landowners or developers working on residential developments around town.

- **Strategy for Trail System Development**

The formation of a 501 (c) 3 Community Trails Association is the next logical step in developing this trail system because having an independent group leading the project and seeking support has proven to be a successful strategy for other small towns with similar goals.

Eugene, Warrenton and Vernonia are just three of the many communities in the Willamette Valley that offer excellent models for how to develop city trail systems.

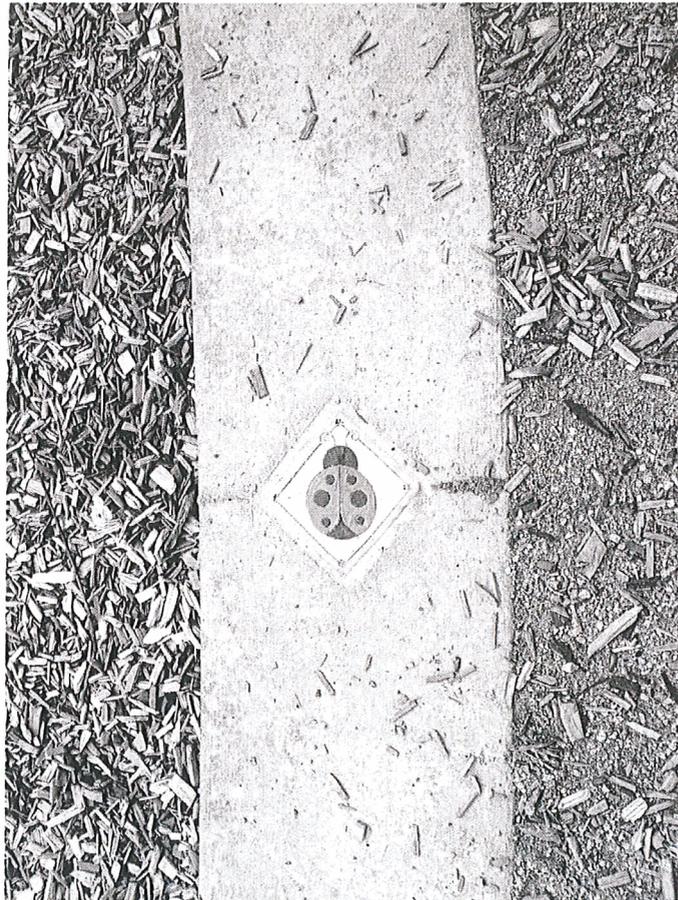
Large grants are available to support big projects but it is just as effective working on a smaller scale to maintain connections through industrial and residential developments as they are permitted. There is no set timeline for implementing this plan, rather it is meant to guide city planners, developers and the community over the next 10-20 years as Forest Grove grows and people recognize the value of good quality trails that are safe and enjoyable to use.



1. Introduction

Purpose of the Plan

The purpose of the Forest Grove Community Trail Master Plan (CTMP) is to provide direction for the development of a coherent, workable park trails plan, and includes objectives, priorities, and information for Forest Grove Parks and Recreation Department (FGPRD), other agencies, trail oriented groups and the public in general.



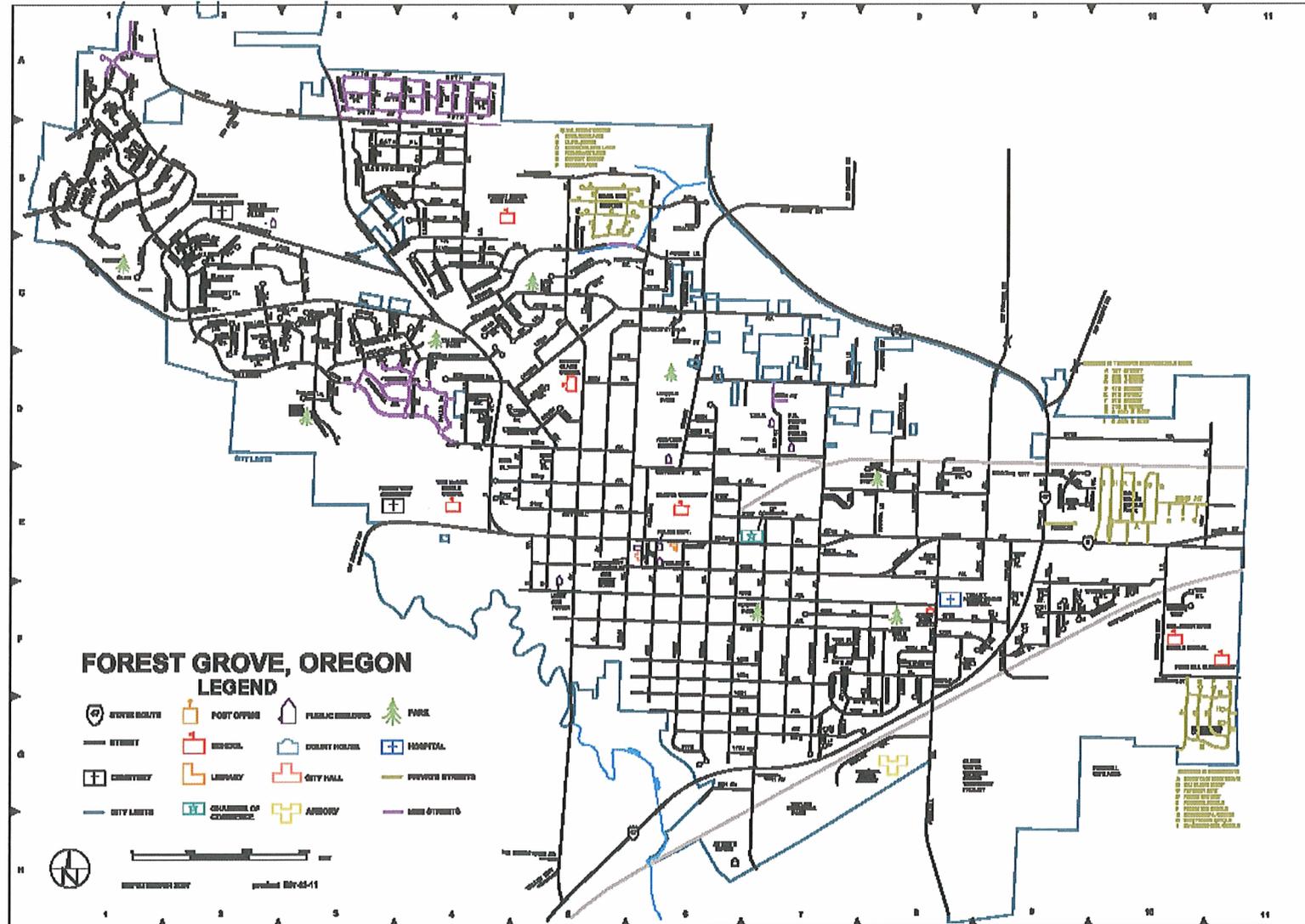
The CTMP deals only with non-motorized trails and is intended as a reference document for planning a citywide shared use trail loop system, unofficially known as the “Emerald Necklace” among early proponents. While the loop is a focus, the plan also includes other potential connector trails. It is conceptual and presented as a long-term vision for priorities, potential locations, and different types of trail.

This plan intends to provide information that will be useful for prioritizing trail segment development, and identifying funding. In addition, it provides information regarding implementation priorities and direction on special projects, such as trail volunteer projects, trail signage, and user conflicts management. This document does not address the development or maintenance of any privately owned trails or old/new roads located on private property.

As the Forest Grove Community Trail System grows and develops there will be an increasing need and demand for park pathways, and trails. The 2002 Forest Grove Parks, Recreation and Open Space Master Plan (PROMP) identifies the trail system as being a major feature among city recreational opportunities. This community is growing and changing and residents are starting to understand how trails create a community resource by providing transportation alternatives, recreational opportunities, environmental aesthetics, open space preservation, and increased adjacent property values.

Planning Area

The planning area encompasses the 6 square miles within the Urban Growth Boundary of Forest Grove and an additional 1.5 square miles within the Metro open space and Clean Water Services Fernhill Property. Trail connection opportunities outside the planning area are identified but not described in detail in this project.



Planning Process

On behalf of the City and community, Ric Balfour and Associates led a process of developing the Community Trails Master Plan using a citizen survey and interviews with residents, interested partners, adjacent landowners, and agency representatives. This is Phase One reflecting trail opportunities, community driven development priorities and partnership interests. Most segments of existing and potential trails were assessed on the ground, except where private property access was not able to be obtained.

This combined community trails picture will show where and how to proceed into Phase Two, which focuses on developing partnership projects, undertaking community outreach, and fundraising. Phase Three will focus on system development and enhancement by adding connector trails, interpretive signs, and a complete community adopt-a-trail program to help with trail maintenance. Some trail segments may be selected for action and proceed through all three phases on a shorter timetable as funds, developer interest, and staff time allow.

Other Local Planning Efforts

In addition to guiding trail development, this plan will provide the Parks and Recreation Commission with the basis for updating of the trails component of the 2002 Parks, Recreation, and Open Space Master Plan. Washington County Metro is in the process of developing regional trails master plan that includes reference to a trail along Gales Creek identified as Regional Trail #9 in their proposal. We have incorporated that route as part of the long term strategy for leveraging funding from the 26-80 Bond measure passed last May, enabling Forest Grove to apply for grant money toward trail development and open space acquisition.

Document Organization

Phase 1, the Community Trails Master Plan, has five components. They are:

- Plan Goals, Objectives, Background and Planning Process
- Trail System Assessment
- Community Involvement & Needs
- Partnership Potential
- Strategy for Trail System Development

2. Trail Benefits & Community Profile

The 2002 Forest Grove Parks, Recreation, and Open Space Master Plan (PROMP) described in some detail characteristics of the city, capacities of park facilities, and community needs. The plan recognized the changing nature of the community, the growth in population and the importance of proactive acquisition of additional open space. Increasing trails for walking and bicycling was among the highest priorities identified at the time. Trails were an important part of the overall plan, but trail routes around town were identified in concept only. The recommended strategies presented in the PROMP are headlined below, two in **bold** have particular relevance to trails and are reproduced in full:

- serve all ages and abilities
- contribute to a strong economy
- preserve the character of Forest Grove
- **provide safe and convenient access to parks for everyone – It is important to provide safe access to parks, ADA access throughout parks, and parks distributed so that every resident lives within a reasonable walking distance of a park**
- create expanded partnerships
- **build physical connection – Develop walkways and multi-purpose trails that are accessible to people with and without disabilities for pedestrians and bicyclists to connect neighborhoods, schools, parks, recreation facilities, and greenways**
- promote a sense of community



The Community Trails Plan represents a major step toward updating the concepts identified in the PROMP and determining trail location opportunities and feasibility on the ground. Results from this plan will feed directly into the development of a new Parks and Recreation Master Plan slated for updating in 2008.

Direction for this project was provided by the vision statement below.

Forest Grove Community Trail System Vision Statement

“Non-motorized pathways and trails provide a recreational opportunity for residents and visitors to the community. Community trails improve the outdoor experience, park aesthetic, environment, and thus our quality of life.”



Furthermore, it is envisioned that the trail system delivers the following:

- a coordinated trail system linking all of the important destinations within the city, and that visitors have access to these trails from neighborhoods, parks and open space trailheads.
- trails that provide visible connections between destinations such as city neighborhoods, natural areas and educational opportunities.
- walking, running, and cycling paths that are convenient, safe and pleasant.
- a trail system linked to Metro Regional Trail #9 along Gales Creek and to the Banks-Vernonia State Trail and the neighboring communities.

This vision can be achieved through the development of a high-class trail system for walking, running and biking for fun, exercise and transportation. The network will connect residences and important destinations easily and safely. Enhancing that network will come from providing relevant educational and interpretive opportunities highlighting cultural and natural history of the area. Limitations of terrain and ownership will mean the trail is not one consistent standard around the loop and for the many connectors. Some will be paved like the Hwy 47 bike/pedestrian path; others will be natural surface trails or pervious material. It will therefore be important to the users of these variations that the City use a consistent marking and signage system. This will help prevent confusion and meandering from designated paths and trails, particularly on adjacent private land.

Community Trail Benefits and Opportunities

Trails enhance communities in a number of different ways by dramatically increasing options for safer commuting, recreating, and socializing. Communities and neighborhoods with trails are consistently rated higher for quality of life. The following are some of the ways trails have been found to affect communities.

Transportation: Trails can provide visitors access to parks, businesses and community resources, and they can also improve safety and increase ADA access. The trail system should encourage non-motorized travel by connecting residents and visitors to the city's resources without using the established roadways. The American Association of State Highway and Transportation Officials (AASHTO) *Green Book* for developing bicycling facilities states, "Increasingly, transportation officials throughout the United States are recognizing the bicycle as a viable transportation mode. While recreational cycling is still the primary use of bicycles in this country, the number of people using bicycles for commuting and other travel purposes has been increasing since the early 1970s. Nationwide, people are recognizing the energy efficiency, cost effectiveness, health benefits and environmental advantages of bicycling... Bicyclists have the same mobility needs as every other user of the transportation system as their primary means of access to jobs, services and recreational activities. Planning for existing and potential bicycle use should be integrated into the overall transportation planning process."

Furthermore, many trips made in cars could be done on bicycles or by foot. Research has shown that *Forty percent of all car trips in the U.S. are 2 miles or shorter – that is, they are within biking/walking/skiing distance.* — Christopher Uhl, Penn State University ecology professor.

Economic: City recreational trails can produce income for communities from tourism, special events, and other uses. Seasonal events create business, utilize campus facilities in summer, and increase overnight stays in the community by holding people in town longer. Improved recreational opportunities improve the quality of life by making an area more attractive for business relocations and migration in.

Land Use Planning: Trails and other green way corridors promote park and recreation development, wet land preservation, and buffered environmental protection. Trails preserve undeveloped lands in urban areas and serve to separate and buffer contradicting land uses. New developments can take advantage of trails and "quality of life" factors that increase property value and selling point.

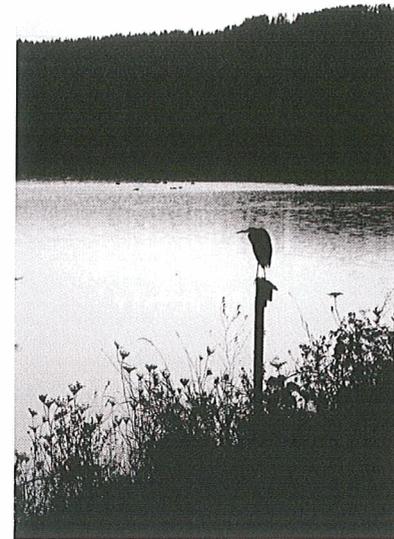
Property Values: Developers and customers are actively seeking trail opportunities within residential and commercial projects. "Trail availability outranked 16 other options, including security, ball fields, golf courses, parks, and access to shopping or business centers," according to a 2002 National Association of Realtors/National Association of Home Builders



survey. Only highway access was ranked as a more important amenity by the 2000 homebuyers surveyed.

Environment: Environmental benefits include wildlife preservation, water quality protection, storm water management, preservation of vegetation, and other benefits, such as firebreaks. Trails become mini greenways acting as wildlife corridors and promote healthy urban and open space ecosystems.

Education: A trail corridor often encompasses several different environments along its route and can be thought of as an outdoor classroom full of educational materials. The scientific community, educators and students can realize the value of trails through a wide range of studies, such as biology, geography, history, recreation management, and art. The Metro open space and Fernhill wetlands trails are poised to be a major destination and contributor to this benefit.



Historic and Culture: Trails can educate and increase awareness about the history and culture of a region. Preserved historical sites provide unique locations for cultural, local and social events. Methods, such as on site interpretive material and promotional literature, aid in the parks effort to preserve historic sites. The plan would list cultural or natural resource story themes that might be highlighted in the future with trail side interpretive signs.

Quality of Life: Increases in the quality of life associated with non-motorized trails are realized through expressions of the parks character and pride, aesthetics of the local environment, economic revitalization of communities, access to the outdoors, opportunities for socialization, and easy increase of mobility.

Universal Access: Provide universal access to and within the trail system with the level of access provided at posted trailheads. Physical barriers and hazards that obstruct access should be removed from paths and trails designated as part of the trail system. Trails should be ranked by their level of disability access.

Recreation: Trails provide an easily accessible outdoor resource for many forms of recreation, most notably walking, running and bicycle riding. Trails greatly increase access to physical activity and fitness opportunities by providing more miles of safe, attractive, and desirable walking, biking and running.

Overview of State Trails Initiatives

Leaders in Oregon's outdoor recreation, economic and health communities are mobilizing to make the development of local trails a statewide initiative. The Oregon Parks and Recreation Department (OPRD) has produced an exhaustive study of Oregon's trail system, issues, and priorities called the "Oregon Trails 2005-2014: A Statewide Action plan (OPRD 2005). Canvassing of recreation providers and consumers has produced a detailed picture of the supply and demand for trails around the state. Forest Grove is part of the NW Region and was identified as "economically distressed" which was among the factors that lead to funding for the development of the trail and bridge over Gales Creek south of town. The study also pointed to recent research that shows how developing local trails has multiple benefits including a general lifting of quality of life values in communities where trail systems are located. The Statewide Trails Plan also identifies the following regional priorities and issues that local agencies are now using to direct program priorities and are part of the criteria used to judge grant funding potential of trail project proposals:

Top Non-Motorized Issue Categories (NW Region)

- A. Need for maintenance of existing trails in the region.
- B. Need for additional funding for non-motorized trail acquisition and development.
- C. Need for additional non-motorized trails (for all user types)—especially in close proximity to where people live.
- D. Need for trail connectivity within the region providing access from urban to rural trails, connections between public facilities, parks and open space and connections from state and regional trails to community trails.

The 2002 Statewide Comprehensive Outdoor Recreation Plan (SCORP) statewide outdoor recreation survey identified running and walking for exercise and walking for pleasure as the most popular outdoor recreation activities in the state. According to the report, these activities are generally engaged in near home, and on a regular basis. The 2004 Oregon Statewide Trail User Survey also identified that trail or day hiking and walking for pleasure are clearly the top trail activities. From the statewide household recreation survey conducted by Oregon State University (OSU), several key findings indicate the importance of non-motorized recreation opportunities that are close to home. The study concluded:

"Clearly, outdoor recreation is an important part of the everyday lives of people in the state of Oregon and a critical contributor to the unique "quality of life" that Oregonians enjoy...Traditional non-metro outdoor recreation activities that have high demands include sightseeing/driving for pleasure, nature/wildlife observation, RV/trailer camping, and ocean beach use. The implications for outdoor recreation planners and managers are that people demand most outdoor recreation opportunities in the communities in which they live, and nearby." p3.2003-07 SCORP

The table below comes from the SCORP plan and shows the most popular recreation activities for Oregonians.

Table ES.1. Top 10 Oregon Outdoor Recreation Activities – State Residents

Activity	Estimated Annual User Days* (Millions)
1. Running/Walking for Exercise	49.2
2. Walking for Pleasure	47.7
3. Birdwatching	18.7
4. Nature/Wildlife Observation	17.8
5. Sightseeing/Driving for Pleasure	12.3
6. RV/Trailer Camping	11.0
7. Golf	9.6
8. Using Park Playground Equipment	8.8
9. Bicycling	7.4
10. Ocean Beach Activities	6.0

* A user day is one instance of participation in a single outdoor recreation activity by one person.



Note: The plan also includes participation estimates for each of the 11 SCORP planning regions.

Because most non-motorized recreation takes place on trails, the study looked at the use pattern on surfaced versus un-surfaced or natural trails. Most of the activity described above takes place on surfaced trails in urban settings rather than natural trails in backcountry settings. The study also found preferences for outdoor recreation on trails close to home rather than those that require a car to get to. In addition, OPRD has been working on the dual challenges of aging and obesity in Oregonians by commissioning an Oregon State University study called “Outdoor Recreation and an Aging Oregon Population” (excerpt below from Summary Report November 6, 2006 by Kreg Lindberg OSU). Given Forest Grove’s large retirement population, the results below are an important indication of trends playing out in this community.

Participation across activities

Turning to individual activities, the following are the Top 5 activities in terms of percent of respondents engaging in them at least once in the past year (activity participation rate):

- 80%, walking.
- 68%, picnicking.
- 63%, sightseeing.
- 62%, visiting historic sites.
- 54%, ocean beach activities.

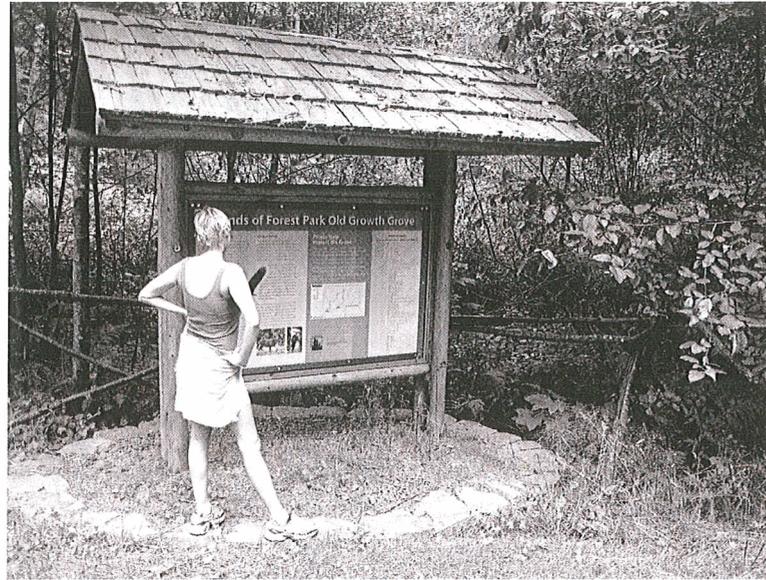
The following are the Top 5 activities in terms of average number of days engaged in the activity in the past year (activity participation intensity):

- 64.3 days, walking.

- 16.2 days, bird watching.
- 12.6 days, jogging.
- 9.9 days, sightseeing.
- 7.7 days, bicycling (road / path).

Walking tops both lists. A comparison across age categories for Top 5 activities by participation intensity leads to the following conclusions:

- Walking is the top activity across all age categories (40-79).
- Jogging is a top activity between the ages of 40-59, but it is also popular for those in their 70s; only 15% of respondents in the latter age group jog, but they do so many days of the year.
- Bicycling is a top activity between the ages of 40-64.
- Sightseeing is a top activity between the ages of 45-74.
- Bird watching is a top activity between the ages of 55-79.
- RV/trailer camping is a top activity between the ages of 65-74.



The OPRD is also very interested in the issue of health and physical activity as it is linked to aging and obesity problems in the state. In another SCORP related study by Randall Rosenberger¹, it was found that hiking trail density was positively associated with physical activity rates, and negatively associated with overweight rates. Urban trail density was found to be positively associated with physical activity rates. Annual days participating in trail or off-trail activities was positively associated with physical activity rates; and negatively associated with overweight rates and obesity rates. OPRD

The Federal Highway Administration (FHA) has established guidelines and standards for developing sidewalks and trails. With respect to mobility issues, the FHA has compiled a list of changes in the population that may affect sidewalk and trail design parameters including:

- There is an increasing proportion of older adults;
- Approximately 20 percent of Americans have a disability and the percentage of people with disabilities is increasing (U.S. Census Bureau, 1994);
- Decreasing mortality rates for a variety of disabling illnesses and injuries are resulting in an increase in the length of time that people live with functional limitations (i.e., people are living longer with less function);
- Over 50 percent of adults in the United States are now obese, making obesity the norm (Center for Disease Control, 1997);

¹ Randall S. Rosenberger. Oregon's Statewide Comprehensive Outdoor Recreation Plan (SCORP). Health and Recreation Linkages in Oregon: Physical Activity, Overweight and Obesity. DRAFT REPORT. 7 August, 2007
Department of Forest Resources, Oregon State University, Corvallis, OR 97331-5703
FG Community Trails Master Plan Final

- Many children travel on their own to and from school.”²

Government and non-governmental organizations alike are increasingly focused on these issues and many, like the Trust for America's Health advocate for the government to play a larger role in prevention. "If we want people to be more physically active, then there have to be safe places to be active. That's not just a class issue. We've designed suburban communities where there are no sidewalks for anybody to go out and take a walk." said Jeffrey Levi, the organization's executive director. This community trail planning effort directly responds to this challenge by improving access to trails for recreation, health, and transportation across the city.



² (Information from <http://www.fhwa.dot.gov/environment/sidewalk2/sidewalks202.htm#dif>)

Regional Context for Forest Grove Trail System

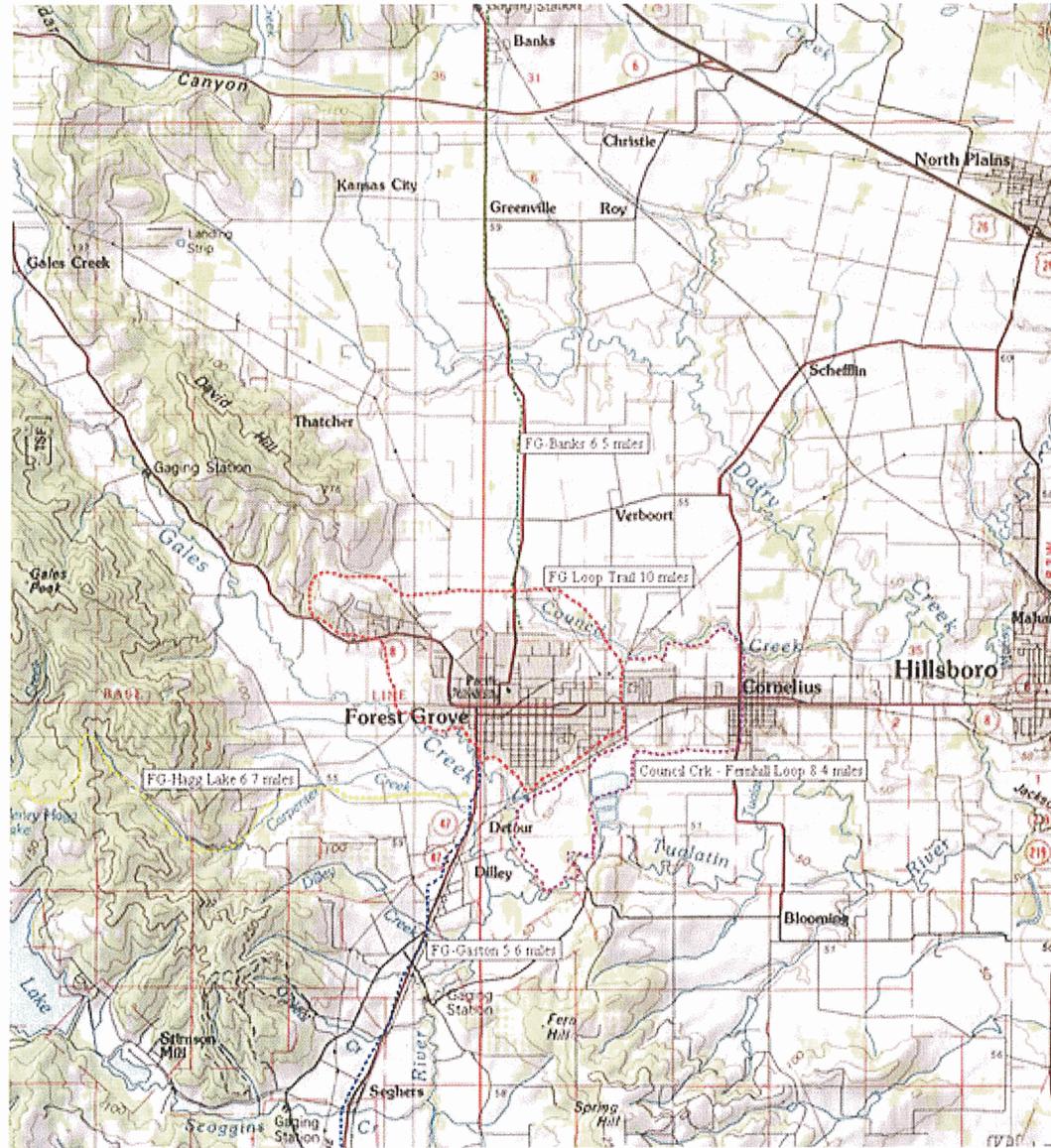
Metro is taking a strong leadership role in identifying open space acquisition opportunities, raising public awareness, passing bond measures and providing technical expertise critical to meeting the needs of an expanding population in the Portland area.

With the passage of the Natural Areas Bond Measure (26-80), Metro has gained both significant political will and funding to help local communities. Being within the Metro region, Forest Grove has access to this program to develop open space and trails projects. The Metro Regional Trails Plan includes a proposal to build a trail along Gales Creek between the Tualatin confluence and the west edge of town.

The map to the right shows other regional trail links suggested by community members during public forums including:

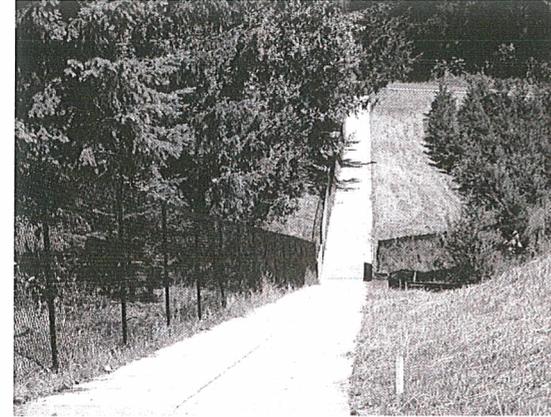
- A link to Hagg Lake up Carpenter Creek
- A loop around Fernhill Wetland, through Cornelius and along Council Creek.
- A link to Gaston and points south along the railroad grade.
- A link to Banks which would connect to Vernonia and Scappoose via existing proposed linear parks.

As these other trail opportunities develop, connector trails or trailheads will need to be developed to extend the distance options for residents and event participants.



Overview of Current City Trail System

Forest Grove has just over 3 miles of paved trail serving bicycle and pedestrian users and made up of one stretch of concrete sidewalk running from the Sunset Drive/Hwy 47 intersection south to TV Highway, then round to B Street on asphalt. There are no designated soft surface trails in City owned parks, natural areas, or open space. Neighboring public open spaces have no designated hard or soft surface trails. There are short routes of natural or unpaved surface material that allow pedestrians to walk between parks and neighborhoods but they are not specifically signed or marked as trails. An example of this type of connector route is the grass and gravel sewer easement that runs from just north of Gales Creek Highway (8) up to Forest Glen Park in the Forest Gales Heights neighborhood.



The city has a sidewalk and bike path system plan which guides the upgrading, connection and extension of sidewalks and bike lanes around town. One of the issues consistently brought to attention during this planning process was the poor standard and number of gaps in the sidewalks system that force pedestrians and cyclists out onto the edge of the street or major roads. Gales Creek Road between Thatcher and Forest Gale Heights has several sections where the sidewalk dead ends or merges out onto the roadside where there is little enough room for bicycles without adding runners, baby joggers and kids walking to school.

The Hwy 47 bike path also received criticism for poor maintenance and for serious deterioration on the section south of B Street. In addition, ODOT built a traffic barrier across the path entrance just west of B Street that forces people to jump over or ride close to highway traffic. Fortunately, the path received a new asphalt surface during the summer of 2007.

There are many informal trails across public open space, private farmland, and vacant lots or along highway and railroad right of ways. These offer important clues about where people are trying to get and have informed this study of potential trails around Forest Grove.

Community Needs and Priorities Assessment

The City has periodically undertaken a “visioning process” to create a set of statements representing what the city will be like ten years out. In 1991 the Forest Grove 2010 “Vision of the Future” included, under the “Space to Breathe” heading, the statement that *“Open spaces have been retained and connected so that one is never far from a natural area of park.”*

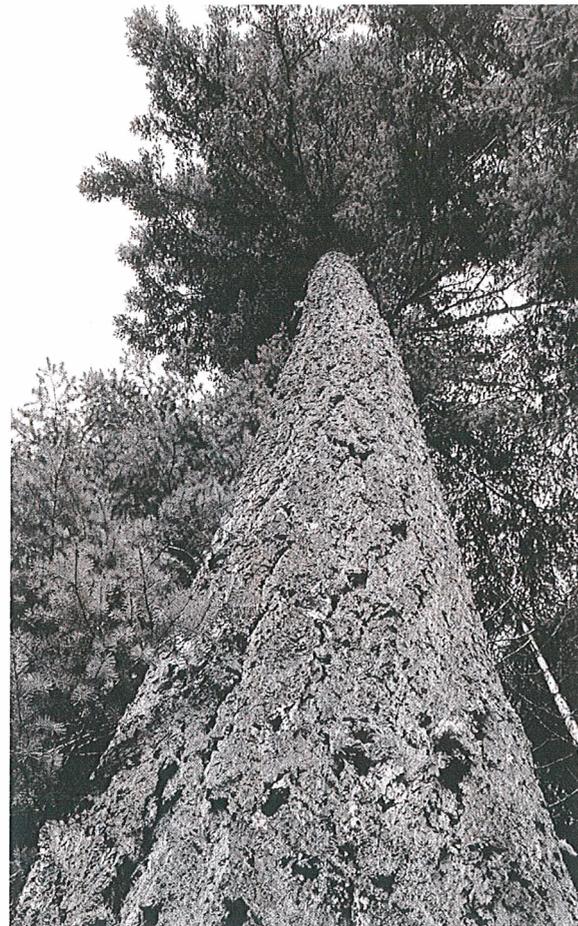
Initial direction for community needs comes from the 2002 Parks, Recreation, and Open Space Master Plan that recommends by 2010 that at least 3.51 miles of additional paved trail and 2.12 miles of natural surface trail be established.

Residents have been surveyed periodically to assess public perceptions of how well the city performs on service delivery. In 2006, **bike lanes** and **parks and trails** were both ranked around 5 on a scale of 1 (very poor) to 7 (very well)³ although the trail rating is indistinguishable from the parks ratings (in future surveys, trails, bike lanes and parks should be separate categories). In 2004, a citizen attitude survey asked what kinds of improvements were important to maintain hometown appeal and livability. The top three were “*fix up downtown*,” “*additional and improved parks & greenspaces*” and *Improved sidewalks*.” These same factors shared equal support in 1991, but the later two factors gained more support in 2005. The surrounding farms and natural beauty were ranked top quality of life factors for residents.

2007 Community Trail Survey Results Summary

Based directly on community input at the first trails forum on June 13, a survey was developed and mailed out to residents via the utility bill and placed around town (Library, Aquatic Center, City Hall, Pacific University, and some businesses). The survey yielded 232 respondents. The planners used public input provided by participants in the June 13 forum as a basis for the statements included in the survey questionnaire. Four main questions were used to help determine the degree of priority residents felt for each answer statement. The goal was to let forum attendees come up with the ideas and the wording and then have the wider community review and rank their merit. For example, under the topic heading “**What kind of loop trail do we want?**” respondents gave “**Foot trails that alleviate the need to drive.**” a rating of 4.05 (1= low, 5 = high priority). Paved trails like the Banks – Vernonia trail also ranked highly.

Overall, there is a strong level of interest in improving trail access around town and for improving the quality of trails, increasing open space access, and improving allied facilities. Citizen responses indicated that they favor establishing a loop trail all the way around town first, followed by connector trails and trailhead facilities. Key Issues included acquiring land for the loop trail, using recycled materials for the trail, and pursuing grants to fund trails. Using the trail for art, events, and business or for horses, ranked lowest. See the following tables for individual item ratings.

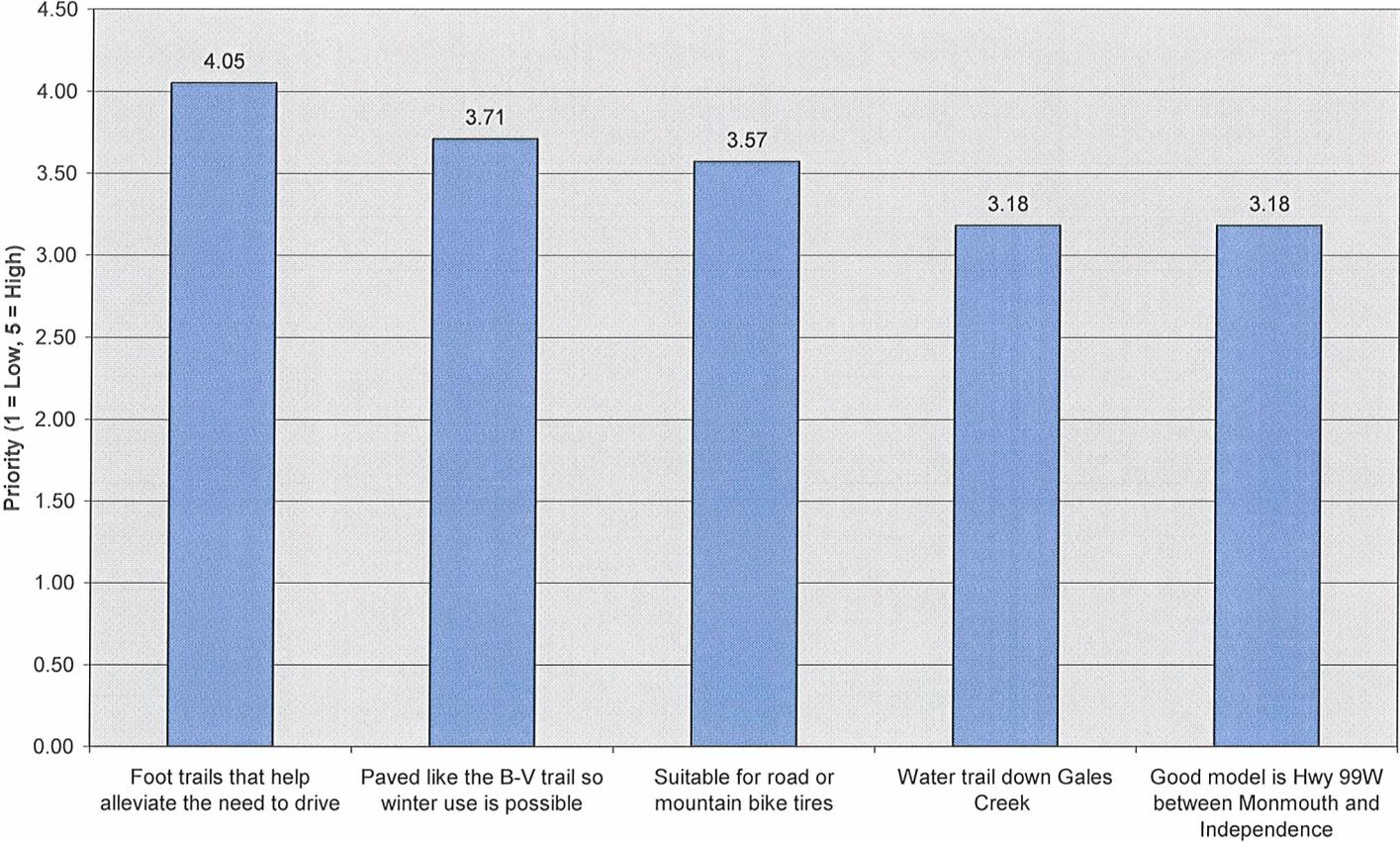


³ 2006 Citizen Attitude Survey Page 2 of 6 Summary Report
FG Community Trails Master Plan Final

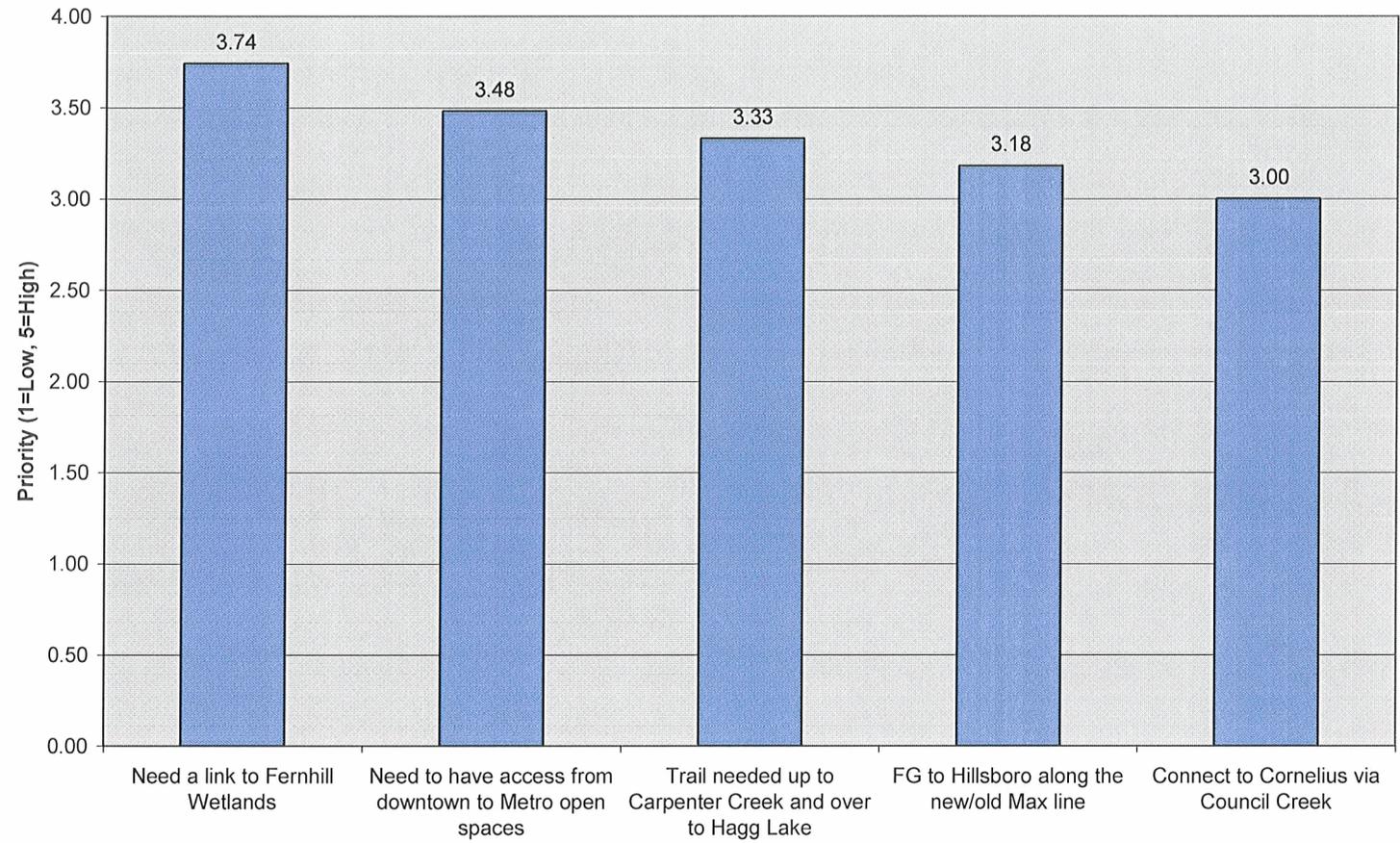
Public Forum Issue Summary

In the second public forum, a number of issues and concerns were brought up by participants (largely from a group in the Willamina/Strasbourg neighborhood) that related to crime, safety, and impacts of trail users. This generated much discussion during the forum followed by a Q&A session to resolve some of the misgivings. Other issues included calls for better sidewalk connections, hard and soft surface trails side-by-side and concerns about maintenance funding.

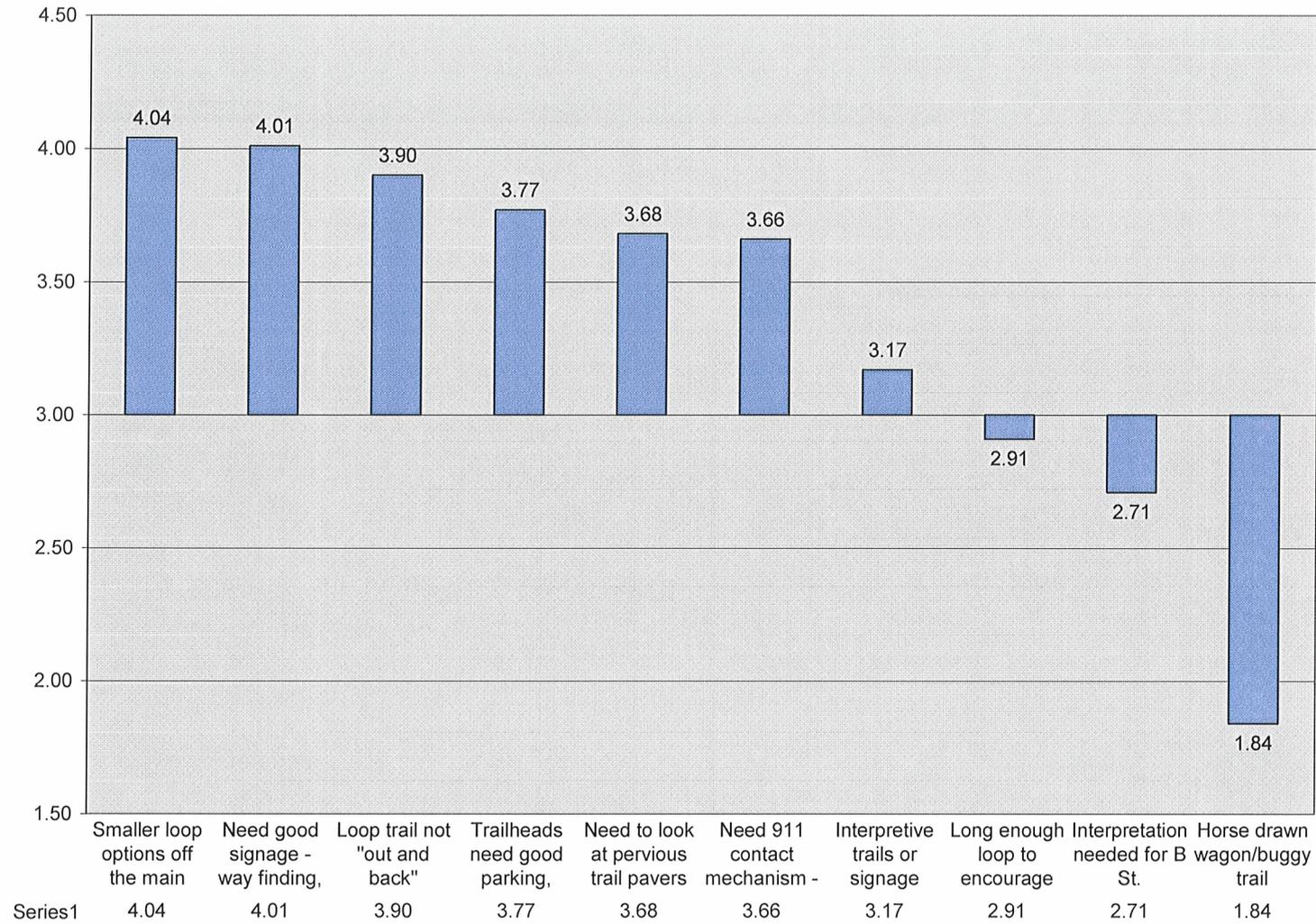
What Kind Of Loop Trail Do We Want?



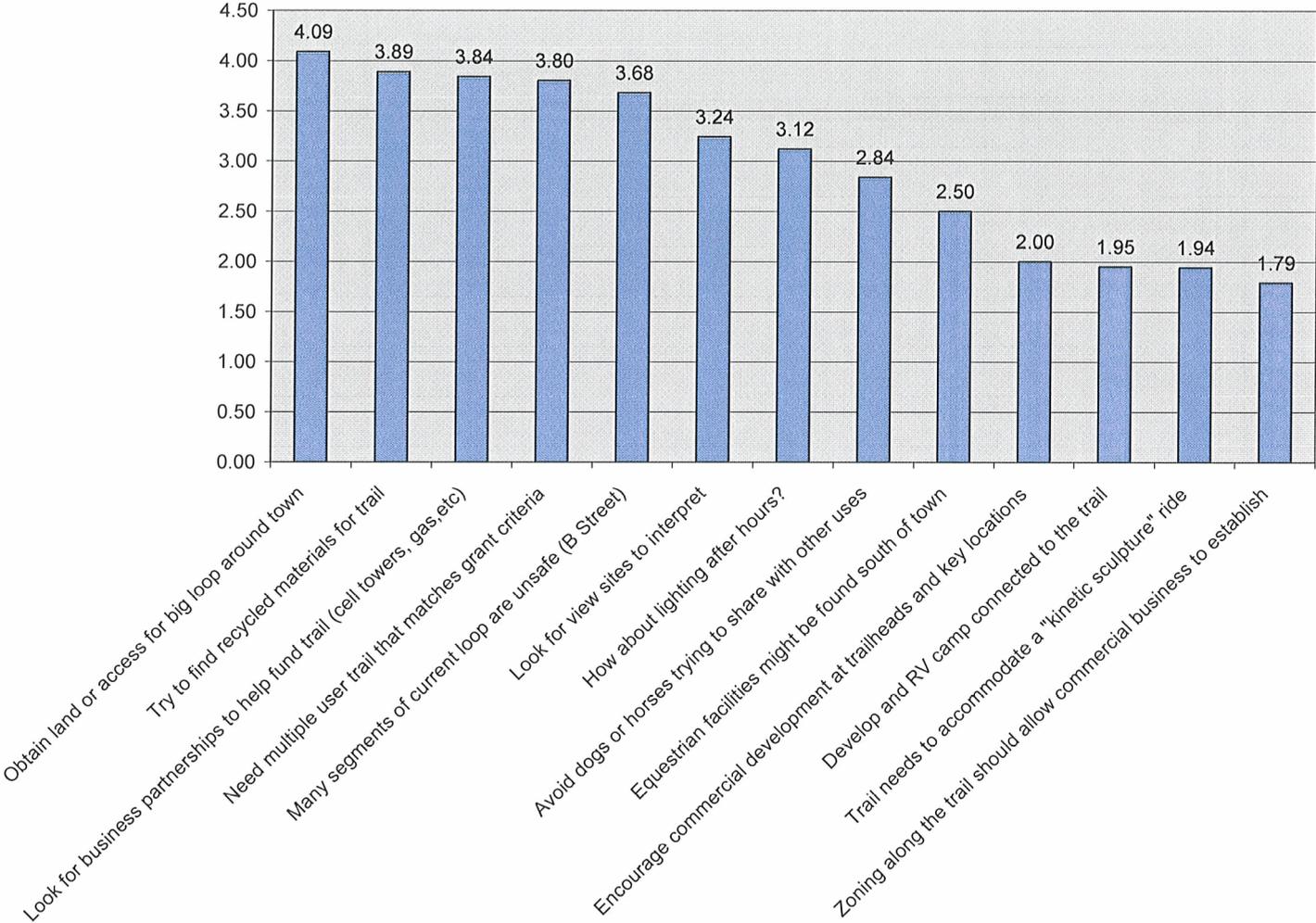
What Connections To Other Local Trails?



What Other Kinds of Trails Are Desired?



What Are The Issues?



3. Trail Types

The following are general descriptions of the range of trail types this plan is considering for inclusion in the trail system around Forest Grove. Special trail types like water trails, horse trails or technical mountain bike trails were not included based on feedback from the public forums.



Single Use: Designating trails for a single use is typically done where trails are crowded, have high (bike commuter path) or very low speed traffic (wheelchair accessible or nature trails) and part of a special purpose mountain bike park. User conflicts can be avoided by designating a single use type, but this is an expensive luxury that may not be affordable or practical in a community trail system. Backcountry settings are more conducive to separate trail options for bikers, walkers and horses.



Shared Use: Designating trails for multiple users is more common in urban areas where trails serve as transportation routes with multiple access points, varied speeds, and room for wider trail widths. Shared trails build better communities by encouraging cooperation, tolerance and broader potential for volunteerism. Shared use trails also represent the most cost effective trail as long as trail widths and signage are designed for the range of users and levels of use.

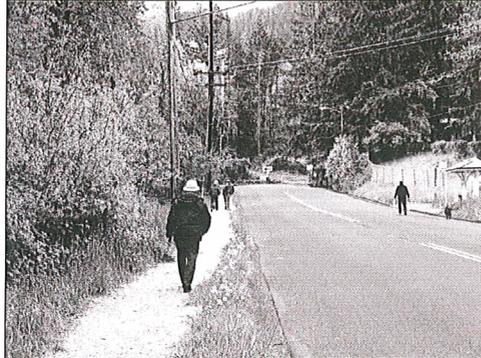
Because the proposed loop trail has a number of large gaps, interim connections will make use of sidewalks along city streets marked with a trail sign or icon inserted into the concrete. Making this alternative safe by clearly marking the trail route and by establishing sidewalks currently missing will be a top priority.



One-Way Trails: Sometimes conditions call for designating a shared use trail as a one-way route. The most common situation for this option is when cyclists and walkers are sharing a trail in steep country and descent speeds may be dangerous to uphill traffic. However, it is difficult to enforce, expensive to sign and can create animosity among users.



Paved or Impervious Surface: Most trails in urban areas are paved with either asphalt, pavers or poured concrete. While expensive, this is often the most cost effective option and sometimes the only way to meet ASHTO standards and ADA requirements⁴ in urban settings. Wet soil conditions and high traffic loads can also dictate the need for paved trails.



Natural Surface or Pervious: Trails in natural areas, or with moderate use levels or trails in dry areas can be built with natural surface material such as compacted earth, gravel, or crushed rock. The construction costs are much cheaper but maintenance can be higher in the long run. Wood chips can work in sites that have low traffic, but they are not good for wheelchairs, dogs or bare feet. Connectors in the trail system and segments located on private land are more likely to be natural surface trails to keep costs down and the footprint minimal.



Combination Paved/Natural Surface: With the right planning and trail easement width, combinations of paved and natural surface trails can be built parallel to serve multiple users. This type of trail is especially effective in congested areas and where runners and others are looking for a low impact options.

⁴ Appendix D. ADA requirements summary

4. Community Trail System Segment Descriptions

Trail segment description, opportunities, and constraints

Investigating the potential for a community trail system was the prime focus of this project. Segment descriptions below start out with the main loop trail (paved & shared use) around town based on the alpha-numerical identification system on the following four maps that cover the city. Maps are inserted after the matrix with a scale is approximately ½ inch to 500 feet. The connector trails in the system will primarily link the loop trail to schools, city parks, and open space. Some will be bike/ped trails, others sidewalk routes and the majority offer natural surface trail opportunities along natural features like Gales Creek. The City has a separate sidewalks plan that is designed to address existing gaps and problems with sidewalks around town.

“Emerald Necklace” Loop Trail Segment Characteristics

Segment i.d	Description	Opportunities	Constraints	Partners
A – B.1 Ritchey Rd to westside B St. to Bridge	<ul style="list-style-type: none"> ▪ Potential bike/ped just north of Gales Ck along UGB/100 year floodplain ▪ Undeveloped land ▪ Natural meadow, riparian forest ▪ 5000 ft, <5% grade 	<ul style="list-style-type: none"> ▪ Developers (Rau et al) are interested in building paved trail during development ▪ Serves Tom McCall ▪ Natural history education 	<ul style="list-style-type: none"> ▪ Flood plain = submersion potential a few weeks of yr ▪ Gales Crk at Ritchey Rd bridge would need parking and trailhead 	<ul style="list-style-type: none"> ▪ Rau and others ▪ Waste Management ▪ Pacific University
B – N – Q	<ul style="list-style-type: none"> ▪ B St sidewalk north to 16th, east to proposed trailhead rail-to-trail bike/ped path ▪ 2500 ft, <10% grade 	<ul style="list-style-type: none"> ▪ safer route to Hwy 47 ▪ cultural history education ▪ trailhead could double as a neighborhood park 	<ul style="list-style-type: none"> ▪ crossing B St. ▪ heavy vehicle traffic in/out of WM transfer station 	<ul style="list-style-type: none"> ▪ Waste Management ▪ Pacific University ▪ Metro ▪ OPRD ▪ Old Town neighbors ▪ FG Charter School
Q – C	<ul style="list-style-type: none"> ▪ Trailhead park on to rail-to-trail south to Hwy 47 ▪ Raised RR embankment 	<ul style="list-style-type: none"> ▪ Natural and cultural history education ▪ Part of proposed rail-to-trail bike/ped path funded by LGG funds 	<ul style="list-style-type: none"> ▪ Bridge need over Gales Creek ▪ Private property on west side after Gales Creek 	<ul style="list-style-type: none"> ▪ Waste Management ▪ Pacific University ▪ Metro ▪ OPRD ▪ Olde Towne neighbors
C – D – E – G – H	<ul style="list-style-type: none"> ▪ Hwy 47 bike/ped path ▪ 20,000 ft (3.8 miles) ▪ <5% grade 	<ul style="list-style-type: none"> ▪ existing bike/ped path ▪ commuter/school route ▪ acquisition of north side to build a natural surface trail alternative along Council Creek north side 	<ul style="list-style-type: none"> ▪ 3 major intersections ▪ natural surface trail route on private land 	<ul style="list-style-type: none"> ▪ ODOT ▪ Washington County ▪ Neighborhood groups
H – I	<ul style="list-style-type: none"> ▪ Sunset Rd to David Hill ext (not yet built) on sidewalk ▪ 1800 ft, <5% grade 	<ul style="list-style-type: none"> ▪ Continue safe bike/ped trail north to Banks 	<ul style="list-style-type: none"> ▪ Hwy 47 Right of Way is too narrow ▪ Flood 	<ul style="list-style-type: none"> ▪ ODOT ▪ Washington County ▪ Neighborhood groups

			<ul style="list-style-type: none"> Needs bike lane 	
I – J – K #30	<ul style="list-style-type: none"> Hwy 47 at Sunset to Thatcher Rd on sidewalk 7000 ft, <10% 	<ul style="list-style-type: none"> connect the north side of the new developments with Thatcher Park sidewalk and bike lane potential for multi-use path on the north side away from residential lots and driveways potential safe-route to school avoids busy sections on Willamina w/o sidewalks 	<ul style="list-style-type: none"> David Hill not extended to Hwy 47 yet Needs bike lane 	<ul style="list-style-type: none"> Developers FGHS ODOT
K – L #29	<ul style="list-style-type: none"> Thatcher Road up David Hill to top of David Hill 4000 ft, <15% grade 	<ul style="list-style-type: none"> connect top of Forest Gale Heights to Thatcher Park and FGHS by bike/ped trail natural history education 	<ul style="list-style-type: none"> crossing Thatcher Rd no sidewalk or bike lane from K up for first 3500 ft 	<ul style="list-style-type: none"> Developers FG Parks and Recreation Burlingham Family
L – M #26	<ul style="list-style-type: none"> David Hill Road to Forest Gale Drive down to Forest Glen Park on sidewalk 6000 ft, <15% grade 	<ul style="list-style-type: none"> connect neighborhood with David Hill and Gales Crk Rd. The 1000 ft west of Forest Glen park will be upgraded in the next year 	<ul style="list-style-type: none"> confined to narrow sidewalk in residential neighborhood – lots of driveways and intersection to cross 	<ul style="list-style-type: none"> Developers Neighborhood associations FG Parks & Rec
M – N/B #21	<ul style="list-style-type: none"> Forest Glen Park to Forest Gale Drive intersection of Gales Crk Rd by bike/ped trail; then sidewalk through Reuter Farm, Goff Road, Tom McCall ES to B St 13,500 ft, <8% grade 	<ul style="list-style-type: none"> Potential commuter/safe-route to school Dbl arched culvert under Hwy 8 could be converted into a ped tunnel to bring bike/ped traffic to south side of Hwy 8 	<ul style="list-style-type: none"> Gales Crk Hwy 8 crossing a serious problem without a light or tunnel confined to narrow sidewalk in residential neighborhood – lots of driveways, gaps, and intersection to cross 	<ul style="list-style-type: none"> Renaissance Homes Developers Neighborhood associations FG Parks & Rec

Connector Trail Segment Characteristics (shared use, natural surface unless otherwise specified)

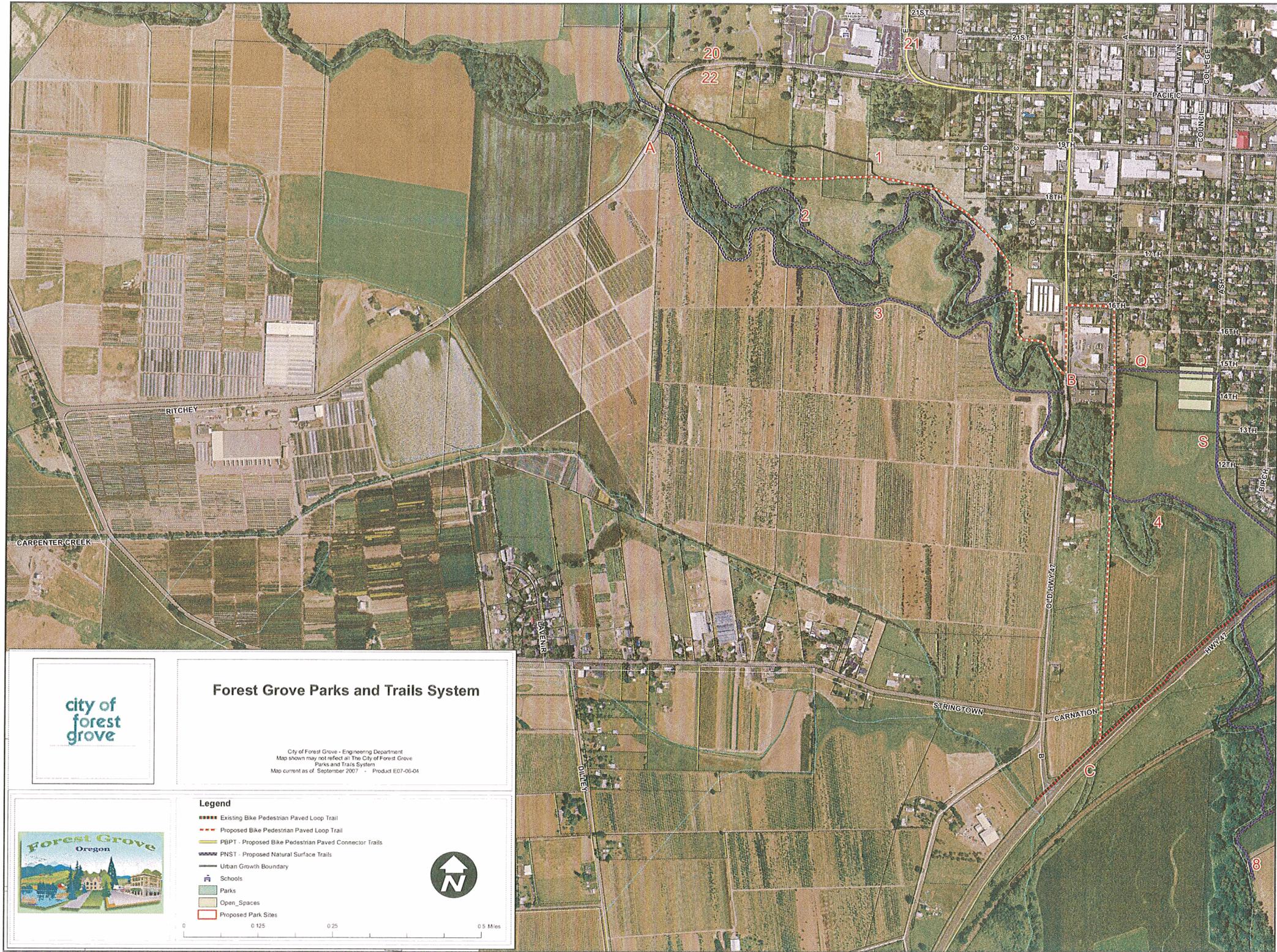
Segment i.d	Description	Opportunities	Constraints	Partners
A – B #2	<ul style="list-style-type: none"> Ritchey Rd Bridge over Gales Creek along north side follows edge of riparian area 3000 ft, <5% grade 	<ul style="list-style-type: none"> nature trail opportunity that would have less traffic than bike/ped inside development Developer willing to donate bottom land for trail and open space 	<ul style="list-style-type: none"> Flood plain = potentially submersed for a few weeks of the winter Weed encroachment from riparian area. 	<ul style="list-style-type: none"> Developers Metro Tom McCall MS Clean Water Services Tualatin River Watershed Council (TRWC)
A – B #3	<ul style="list-style-type: none"> South side of Gales Crk from Ritchey Rd to B St 6250 ft, <5% grade 	<ul style="list-style-type: none"> natural history, nursery trade education easy conversion of levy top access track to natural surface trail or paved bike/ped trail 	<ul style="list-style-type: none"> Flood plain = potentially submersed for a few weeks of the winter Weed encroachment from riparian area. 	<ul style="list-style-type: none"> EF Nursery Tom McCall MS Clean Water Services Tualatin River Watershed Council (TRWC)

B – D #4	<ul style="list-style-type: none"> ▪ B St Bridge over Gales Creek through Permaculture Demo Farm to Metro open space along north side of Gales Crk to Hwy 47 Bridge east of main bridge ▪ 3,500 ft, <5% grade 	<ul style="list-style-type: none"> ▪ natural/cultural history, farming ▪ riparian and wetland restoration 	<ul style="list-style-type: none"> ▪ Flood plain = potentially submersed for a few weeks of the winter ▪ Weed encroachment from riparian area. ▪ Ag lease holder would lose crop land from lease and may need compensation 	<ul style="list-style-type: none"> ▪ Pacific University ▪ Metro ▪ Tom McCall MS ▪ Clean Water Services ▪ Tualatin River Watershed Council (TRWC) ▪ ODOT
Q – D #5	<ul style="list-style-type: none"> ▪ 16th St & A St trailhead east to Ash St Oak Restoration project, then south under Hwy 47 bridge on to A. T. Smith Home ▪ 5000 ft, <5% grade 	<ul style="list-style-type: none"> ▪ natural/cultural history, farming ▪ riparian and wetland restoration 	<ul style="list-style-type: none"> ▪ Flood plain = potentially submersed for a few weeks of the winter ▪ Weed encroachment from riparian area. ▪ Ag lease holder would lose crop land from lease and may need compensation ▪ Crosses P&W railroad 	<ul style="list-style-type: none"> ▪ Pacific University ▪ Metro ▪ Tom McCall MS ▪ Clean Water Services ▪ Tualatin River Watershed Council (TRWC) ▪ ODOT ▪ Friends of AT Smith Home ▪ 84 Lumber
D – E #6, 7, & 8	<ul style="list-style-type: none"> ▪ #6 heads south from Hwy 47 across railroad into Clean Water Services land along Gales Creek 2000 ft; #7 branches east to AT Smith home 1000 ft; ▪ #8 goes south from 6/7 intersection east between farm units to Fernhill Rd at Geiger intersection 7000 ft 	<ul style="list-style-type: none"> ▪ natural/cultural history, farming education ▪ riparian and wetland restoration ▪ wildlife observation ▪ Fernhill Wetlands Master Plan includes trail 6 & 8 ▪ The AT Smith home plans a perimeter trail that should be linked to. 	<ul style="list-style-type: none"> ▪ Flood plain = potentially submersed for a few weeks of the winter ▪ Weed encroachment from riparian area. ▪ Ag lease holder would lose crop land from lease and may need compensation ▪ Crosses P&W railroad and Hwy 47 	<ul style="list-style-type: none"> ▪ Pacific University ▪ Metro ▪ Clean Water Services ▪ Tualatin River Watershed Council (TRWC) ▪ ODOT ▪ Friends of AT Smith Home ▪ Haworth family
# 9	<ul style="list-style-type: none"> ▪ Parallel Fernhill Rd north to Wetlands trailhead ▪ 2700 ft, <5% grade 	<ul style="list-style-type: none"> ▪ natural/cultural history, farming education ▪ riparian and wetland restoration ▪ wildlife observation ▪ waste water treatment 	<ul style="list-style-type: none"> ▪ Flood plain = potentially submersed for a few weeks of the winter ▪ Crossing Fernhill Road during busy periods 	<ul style="list-style-type: none"> ▪ Pacific University ▪ Clean Water Services ▪ Tualatin River Watershed Council (TRWC) ▪ Friends of Fernhill Wetlands
# 8 & 11	<ul style="list-style-type: none"> ▪ From Geiger/Fernhill intersection #8 heads east along north side of Geiger then up into CWS property then east out to Golf Course Road ▪ 10,000 ft, <5% grade ▪ #11 loops up and around into CWS property to corner of Mountain View Estates (Trailer Park) back down to #8 	<ul style="list-style-type: none"> ▪ natural/cultural history, farming education ▪ riparian and wetland restoration ▪ wildlife observation ▪ waste water treatment 	<ul style="list-style-type: none"> ▪ Flood plain = potentially submersed for a few weeks of the winter ▪ Ag lease holder would lose crop land from lease and may need compensation ▪ Private property needs to be crossed south of Cornelius 	<ul style="list-style-type: none"> ▪ Pacific University ▪ Clean Water Services ▪ Tualatin River Watershed Council (TRWC) ▪ Friends of Fernhill Wetlands ▪ Mountain View Estates

	<ul style="list-style-type: none"> ▪ 10,000 ft, <5% grade 			
E – F #10	<ul style="list-style-type: none"> ▪ From Fernhill Wetlands trailhead east as paved bike/ped trail ▪ 3,800 ft, <5% grade 	<ul style="list-style-type: none"> ▪ potential alternative route to Neil Armstrong Middle School (NAMS) & Cornelius ▪ natural/cultural history, native plant nursery education ▪ wetland restoration ▪ wildlife observation ▪ waste water treatment ▪ existing paved and gravel road system 	<ul style="list-style-type: none"> ▪ gap along Fernhill Road south of treatment station ▪ gates and private property ▪ Dogs must be on leash 	<ul style="list-style-type: none"> ▪ Clean Water Services ▪ Tualatin River Watershed Council (TRWC) ▪ Friends of Fernhill Wetlands ▪ Wastewater Treatment plant ▪ NAMS
F – S #12	<ul style="list-style-type: none"> ▪ Poplar St on south side of Hwy 47 east through Merix to Mountain View Rd & NAMS ▪ 4500 ft, <5% grade 	<ul style="list-style-type: none"> ▪ potential alternative route to NAMS and Cornelius ▪ High Tec industry ▪ FG City has a road easement along north edge 	<ul style="list-style-type: none"> ▪ Merix has constraints on public access along north side of plant ▪ Undeveloped land north will be sold and developed for light industrial 	<ul style="list-style-type: none"> ▪ FG & Cornelius City Development ▪ Merix ▪ NAMS & Fernhill ES
S – R #13	<ul style="list-style-type: none"> ▪ Heather St past NAMS/Fernhill ES east to SW 4th, then north to Council Creek ▪ 6,000 ft, <5% grade 	<ul style="list-style-type: none"> ▪ potential alternative route to NAMS and Cornelius ▪ industry and commerce ▪ paved sidewalk to Baseline ▪ Wal-Mart development may become partner 	<ul style="list-style-type: none"> ▪ no sidewalk north of Adair on N 4th ▪ busy TV Hwy crossings ▪ railroad crossings (2) 	<ul style="list-style-type: none"> ▪ FG & Cornelius City Development ▪ Merix ▪ NAMS & Fernhill ES ▪ Wal-Mart
R – G #14	<ul style="list-style-type: none"> ▪ N 4th St to NW Martin/Hwy 47 N intersection along south side of Council Crk to bridge then onto north side of Crk and Council Reservoir ▪ 4,300 ft, <5% grade 	<ul style="list-style-type: none"> ▪ potential alternative route to Cornelius ▪ natural/cultural history, farming education ▪ riparian and wetland restoration ▪ wildlife observation 	<ul style="list-style-type: none"> ▪ potential for private land access not determined ▪ Flood plain = potentially submersed for a few weeks of the winter ▪ Gaps in sidewalk link along NW Martin 	<ul style="list-style-type: none"> ▪ Private land holders ▪ Wal-Mart ▪ Cornelius Environmental recyclers
O #15	<ul style="list-style-type: none"> ▪ from Cedar and 21st intersection east along old railroad to Cornelius and Hillsboro ▪ 31700 ft, <5% grade 	<ul style="list-style-type: none"> ▪ potential alternative bike/ped commuter route to Cornelius and Hillsboro 	<ul style="list-style-type: none"> ▪ access permission along railroad not determined ▪ railroad crossing at Hwy 47 N 	<ul style="list-style-type: none"> ▪ Metro MAX ▪ FG & Cornelius City Development ▪ Pacific University
P #16	<ul style="list-style-type: none"> ▪ Lincoln Park/Sunset Drive east to Stites Park then north to Hwy 47 bike path ▪ 4100 ft, <5% grade 	<ul style="list-style-type: none"> ▪ neighborhood/park/loop trail connector paved 	<ul style="list-style-type: none"> ▪ private property between NE corner of Stites Park and Hwy 47 path 	<ul style="list-style-type: none"> ▪ FG Parks and Recreation ▪ Developer ▪ ODOT ISTE A
P – H #17	<ul style="list-style-type: none"> ▪ Lincoln Park/Sunset Drive north to Hwy 47 bike path ▪ 3000 ft, <5% grade 	<ul style="list-style-type: none"> ▪ neighborhood/park/loop trail connector paved ▪ Sunset sidewalks recently upgraded 	<ul style="list-style-type: none"> ▪ confined to narrow sidewalk in residential neighborhood – lots of driveways to cross 	<ul style="list-style-type: none"> ▪ Pacific University ▪ Adjacent Developers
J – H #18	<ul style="list-style-type: none"> ▪ Hwy 47/Sunset Drive (ext) 	<ul style="list-style-type: none"> ▪ natural/cultural history, urban 	<ul style="list-style-type: none"> ▪ Flood plain = potentially 	<ul style="list-style-type: none"> ▪ Adjacent Developers

	<ul style="list-style-type: none"> west along Council Crk trib 4000 ft, <5% grade 	<ul style="list-style-type: none"> planning education riparian and wetland restoration wildlife observation developer already interested in building trail 	<ul style="list-style-type: none"> submersed for a few weeks of the winter 	
#19	<ul style="list-style-type: none"> Bonnie Lane to Gales Crk Rd through substation 475 ft, <5% grade 	<ul style="list-style-type: none"> Public land, gravel path already in place FGHS safe route to school 	<ul style="list-style-type: none"> Public safety, gates and fences block path 	<ul style="list-style-type: none"> Pacific Power/BPA
#20	<ul style="list-style-type: none"> Strasbourg Rd south to pocket park and west to Knox Ridge Crk path 1400 ft (1100 paved) 	<ul style="list-style-type: none"> Sidewalk exists Connect neighborhood to loop trail natural/cultural history, urban planning, farming education riparian and wetland restoration wildlife observation 	<ul style="list-style-type: none"> confined to narrow sidewalk in residential neighborhood – lots of driveways to cross Willamina neighborhood resistant to trails Flood plain = potentially submersed for a few weeks of the winter 	<ul style="list-style-type: none"> Renaissance Homes FG Parks and Recreation Metro (proposed Regional Trail #9)
#22	<ul style="list-style-type: none"> Tom McCall MS west along Ritchey through FV Cemetery and Knox Ridge Crk path 1800 ft, <20% grade 	<ul style="list-style-type: none"> FGSD and Cemetery are zoned open space public accessible Developers planning open space reserve and trail 	<ul style="list-style-type: none"> Cemetery pump station and access needs to be protected Flood plain = potentially submersed for a few weeks of the winter Steep grade on hillslope 	<ul style="list-style-type: none"> Adjacent Developers FGSD Tom McCall Forest View Cemetery
M – A #23	<ul style="list-style-type: none"> Under Gales Creek Hwy south around Sheelar Farm hill then east to Ritchey Rd along Knox Ridge Crk ditch 7500 ft, <10% grade 	<ul style="list-style-type: none"> Potential alternative loop to busy sidewalk on Willamina Landowner positive to possible trail along Knox Ridge Creek ditch Connect neighborhood to loop trail natural/cultural history, urban planning, farming education riparian and wetland restoration 	<ul style="list-style-type: none"> Willamina neighborhood resistant to trails close to back fences/views Flood plain = potentially submersed for a few weeks of the winter Farmers report problems with dogs/neighbors trespassing & walking on crops. Would need fencing to protect crops/stock 	<ul style="list-style-type: none"> Sheelar Farms John Knox Forest Gale Heights neighborhood
#24	<ul style="list-style-type: none"> Short connector from Willamina down to Knox Ridge Creek ditch on FG City land 500 ft, <10% grade 	<ul style="list-style-type: none"> Public land already, partly paved potential bike/ped trail Connect neighborhood to loop trail natural/cultural history, urban planning, farming education riparian and wetland restoration wildlife observation 	<ul style="list-style-type: none"> last 50 feet in flood plain Willamina neighborhood resistant to trails close to back fences/views 	<ul style="list-style-type: none"> FG City Sheelar Farms

M #25	<ul style="list-style-type: none"> From Forest Glen Park west parallel to Gales Crk Hwy at foot of hill, then up gully to trail #26 on Forest Gale Drive via easement 4200 ft, <25% grade 	<ul style="list-style-type: none"> Public land already, potential nature trail Connect neighborhood to loop trail natural/cultural history, urban planning, farming education riparian and wetland restoration wildlife observation trailhead to be developed at Forest Glen park edge 	<ul style="list-style-type: none"> thick forest, poison oak, steep sidehills and invasive weeds easement needs to be confirmed open for public access 	<ul style="list-style-type: none"> Forest Gale hts neighborhood FG Parks an Rec
M – K #27	<ul style="list-style-type: none"> From Forest Glen Park up to Ammon Way then north to forest edge, east to through Thatcher Park to Thatcher Rd 5000 ft, <20% grade 	<ul style="list-style-type: none"> Bike/ped path Connect neighborhood to loop trail natural/cultural history, urban planning, farming education riparian and wetland restoration trailhead to be developed at Forest Glen park edge 	<ul style="list-style-type: none"> confined to narrow sidewalk in residential neighborhood – lots of driveways to cross no easement from Ammon Way to forest steep slope 	<ul style="list-style-type: none"> Forest Gale Hts neighborhood Developers FG Parks and Recreation Burlingham family
#28 [27]	<ul style="list-style-type: none"> Forest Gale Drive from the northwest corner of new development east down valley through forest to top of Thatcher Park, switchback down through forest to Thatcher Road 3000ft, < 15% grade Side branch to Mountain View Cemetery 2000 ft, <12% 	<ul style="list-style-type: none"> natural surface nature trail Connect neighborhood to loop trail natural/cultural history, urban planning education riparian forest wildlife observation potential for mountain bike skills tails in forest 	<ul style="list-style-type: none"> private land for 60+% of segment length thick forest, poison oak, steep sidehills and invasive weeds 	<ul style="list-style-type: none"> Burlingham Family Falcon Rest developers FG Parks and Recreation
J #31	<ul style="list-style-type: none"> David Hill E along Brook Lane then west up bike/ped path inside development 3500 ft, <10% grade 	<ul style="list-style-type: none"> Connect neighborhood to loop trail riparian area protection 	<ul style="list-style-type: none"> Thatcher Road ped crossing needed 	<ul style="list-style-type: none"> Developers FGHS FG Parks and Recreation
D – E #32	<ul style="list-style-type: none"> short loop trail around substation park just north of Hwy 47 bike path 	<ul style="list-style-type: none"> possible dog off leash park public land adjacent to substation 	<ul style="list-style-type: none"> no parking 	<ul style="list-style-type: none"> FG Parks and Recreation Local dogwalkers



Forest Grove Parks and Trails System

City of Forest Grove - Engineering Department
 Map shown may not reflect all The City of Forest Grove
 Parks and Trails System
 Map current as of September 2007 - Product ED7-06-04



Legend

- - - - - Existing Bike Pedestrian Paved Loop Trail
- - - - - Proposed Bike Pedestrian Paved Loop Trail
- - - - - PBPT - Proposed Bike Pedestrian Paved Connector Trails
- - - - - PNST - Proposed Natural Surface Trails
- Urban Growth Boundary
- Schools
- Parks
- Open Spaces
- Proposed Park Sites







NOTES :

5. Trail Plan Implementation Strategy

This project developed a more detailed concept of potential trail routes around the city of Forest Grove in order for the community to successively choose segments to develop as grant funding and staff time permits. Public feedback on the plan has indicated that the loop trail is the most important, followed by trail connections from the Old Town neighborhood into the Metro open space. It will be crucial for the Planning Department to have this plan on hand when developers and street projects are being reviewed and platted. Crucial connections have been indicated that could be lost if permitting proceeds without this reference being consulted for trail opportunities. This function is one of the key means of implementing the plan.

In addition, this Trails Master Plan will provide important information during the next update of the Parks, Recreation and Open Space Master Plan. It will serve the city in other planning processes as well, including efforts by Washington County to develop a tourism strategy, and Metro's regional trails program development.

Current Projects

The City has already successfully applied for grant funding to develop two important segments of the trail system that will add significantly to the loop trail system. The first is the bike/ped path below Forest Glen Park that will provide a safe link between Forest Gales Drive and the end of Ridge Pointe Drive. The second project is the B St alternative proposed to start at the 16th St trailhead and follow the rail-to-trail bike/ped path south to Hwy 47.



There are a host of residential development plans being drawn, finalized and approved by the city planning department and every one represents a potential partnership to ensure community trails are considered in the proposals. City street improvements also represent an opportunity to establish sidewalks, close gaps and make safer routes to school.

There are several major parcels of industrial land that have adjacent trail connections which could be lost if ownership changes or subdivisions occur without reference to this plan. The parcel north of Merix is an example of a piece of light industrial land that has a city street access easement platted but not a bike/pedestrian path designation.

Clean Water Services has just completed their master plan for Fernhill Wetlands but the trail system they show does not reflect the logical connections identified in this plan. There is an opportunity to share this plan information with that agency to better coordinate future trail development projects and partnerships.

Timetable

There is no set timetable for the proposed trail system outlined above because this is a conceptual plan indicating where future trails should be planned for as developments, land exchanges and transportation planning process allow trails identified to be incorporated. As funding and community interest allow, segments will be examined for potential packaging as a grant proposal and pursued if supported. It is envisioned that the information in this plan guide development of a new FG Parks Recreation and Open Place plan in the next 5 years. Some of the timing will be dictated by developers proceeding with residential projects.

Finding Funding and Grant Sources

The Oregon Parks and Recreation Department has compiled a matrix of federal, state and private grant sources available to various entities in Oregon, some are available only to 501(c)3 groups, others are available to local government (see Appendix C for full grant list). Many cities have created a non-profit "Friends of..." group to gain access to grants and in-kind donations of services and supplies. The City of Warrenton on the Oregon Coast is an excellent example of this initiative that has enabled the community to establish a highly regarded network of trails in and around town. The following grants are major sources of funding that should be targeted for larger projects.

1. Recreation Trails Program (RTP) offers - Recreational Trails Grants that are national grants administered by OPRD for recreational trail-related projects, such as hiking, running, bicycling, off-road motorcycling, and all-terrain vehicle riding. Yearly grants awarded based on funds voted on by the U.S. Congress.
2. Local Government Grant (LGG) - OPRD gives more than \$4 million annually to Oregon communities for outdoor recreation projects. The grants funded from voter-awarded Lottery money. Forest Grove gained LGG funding in 2007 for the B St rail to trail project.
3. Land and Water Conservation Fund Grants (LWCF) grants provide matching grants to state and local governments for acquiring and developing public outdoor recreation areas and facilities. Since 1964, this national grant has awarded more than \$55 million for Oregon recreational areas and facilities.
4. Pedestrian and Bicycle Grant Program (BPGP) is a competitive grant program that provides approximately \$5 million dollars every two years to Oregon cities, counties and ODOT regional and district offices for design and construction of pedestrian and bicycle facilities. Proposed facilities must be within public rights-of-way. Grants are awarded by the Oregon Bicycle and Pedestrian Advisory Committee. '08-'09 Program Grants were awarded by the Oregon Pedestrian and Bicycle Advisory Committee in October 2006. The next grant cycle ('10-'11) will begin in Spring 2008.

Opportunities for Creativity

With such a trail system, there are many opportunities for creativity and community involvement including:

- ✓ Creating a new name for the loop trail through a community contest (if “Emerald Loop” does not stick)
- ✓ Creating a special loop trail icon to go with the name and be applied to signage, icons and publications
- ✓ Developing a neighborhood “adopt-a-trail” program for neighbors along the loop to compete for recognition (cleanest, most interesting, best gardens, most bird boxes, etc)
- ✓ Use the loop to showcase local sculpture or kinetic art (wind chimes)
- ✓ Arrange a 1% for the trail voluntary donation at local retail businesses to help fund projects
- ✓ Highlight the distance needed to close the gap in the loop with a chart downtown
- ✓ Hold a marathon to raise awareness and money for the loop trail
- ✓ Produce a special label on local goods (wine, coffee, nuts, chocolate etc) that highlights the trail and dedicates a portion of sales.
- ✓ Start a citizen trail team to patrol the loop and hand out maps, report maintenance, respond to minor accidents and bicycle repair and help deter vandalism and trespass.

Above all, make it a celebration of this community as a great place to live, work and play.



APPENDICES

APPENDIX A. REFERENCES

Forest Grove City Council 2002 Forest Grove Parks, Recreation, and Open Space Master

Forest Grove City Council 2006 Citizen Attitude Survey Summary Report

Oregon Parks and Recreation Department. 2003-2007 Oregon Statewide Comprehensive Outdoor Recreation Plan (SCORP)

Oregon Parks and Recreation Department. Oregon Trails 2005-2014: A Statewide Action Plan.

Oregon Parks and Recreation Department. Oregon Trails 2005-2014: Water Trails Plan.

Randall S. Rosenberger. Oregon's Statewide Comprehensive Outdoor Recreation Plan (SCORP). Health and Recreation Linkages in Oregon: Physical Activity, Overweight and Obesity. 7 August, 2007 Department of Forest Resources, Oregon State University, Corvallis, OR 97331-5703

Oregon Department of Forestry. Tillamook State Forest Comprehensive Recreation Management Plan. January 1993

North Coast Land Conservancy Strategic Plan 2006-2008

Pacific Greenway Reassessment Project. Phase One Project Scoping: Initial Recreation and Geographical (GIS) Assessment July, 2006. Ric Balfour & Associates for Friends of Forest Park in Partnership With: Wildlife Land Trust

The Conservation Fund. Pacific Greenway – A Vision for Northwest Oregon. 1992

The Conservation Fund. Greenways: A Guide to Planning, Design, and Development. Loring LaB. Schwarz Ed. Charles A. Fink and Robert M. Searns. 1993

Metro Parks and Greenspaces and US Fish and Wildlife Service. Conserving Nature in Every Neighborhood. Program Report 2004.

American Trails “Sharing the Vision of Trails and Greenways for all Americans. Spring 2006 edition.

Metro Data Resource Center. Regional Trails and Greenways – Westside map. 2005.

APPENDIX B. LIST OF RESOURCES & CONTACTS

Organizational Resources for Trail Related Topics

1. American Trails (AT)

AT members are working to enhance and protect America's growing network of interconnected trails. We support local, regional, and long-distance greenways and trails, whether in backcountry, rural, or urban areas. Our goal is to support America's trails by finding common ground and promoting cooperation among all trail interests.

American Trails

P.O. Box 491797

Redding, CA 96049-1797

Telephone: (530) 547-2060 Fax: (530) 547-2035

E-mail: trailhead@americantrails.org

2. The International Mountain Bicycling Association (IMBA)

IMBA is a non-profit educational association whose mission is to create, enhance, and preserve trail opportunities for mountain bikers worldwide. IMBA mail, PO Box 7578, Boulder, CO. 80306

303-545-9011 1-888-442-4622 fax: 303-545-9026

info@imba.com membership@imba.com www.imba.com

IMBA office, 207 Canyon - Suite 301

Boulder, CO 80302

3. Volunteers for Outdoor Colorado (VOC)

Volunteers for Outdoor Colorado (VOC), a 501(c)3, non-political, not-for-profit environmental organization established in 1984, dedicated to promoting and enabling citizens and visitors to be active stewards of their public lands in Colorado.

600 South Marion Pkwy

Denver, Colorado 80209

(303) 715-1010 (800) 925-2220 FAX (303) 715-1212

e-mail: voc@voc.org web: www.voc.org

4. Professional Trailbuilders Association (PTBA)

Founded in 1976 as the Western Trailbuilders Association and renamed in 2004, the Professional Trailbuilders Association (PTBA) is North America's largest private sector group of trail specialists, professional trail contractors, designers, and consultants.

Web: <http://www.trailbuilders.org/about.html>

5. Oregon State Parks and Recreation Department (OPRD)

OPRD has a state trails coordinator and a volunteer program that are excellent resources for trail management and volunteer coordination. The State Trail Coordinators are:

Rocky Houston
 State Trails Coordinator
 Recreation Programs
 Oregon Parks and Recreation Department
 725 Summer St, NE Suite C
 Salem, OR 97301
 503-986-0750
 503-986-0792 Fax

Iris Riggs
 Bicycle Recreation Coordinator
 Oregon Parks and Recreation Department
 725 Summer St. N.E. Suite C
 Salem, OR 97301
 Work Phone: 503-986-0631
 Cell Phone: 503-480-9092
 General Info: 503-986-0707
 Fax: 503-986-0794
 iris.riggs@state.or.us

The Volunteer Hotline is 1-877-225-9803

6. Other State Agencies Contact List

<p>James Johnson, Land Use and Water Planning Coordinator Natural Resources Division Oregon Dept of Agriculture 635 Capitol Street NE Salem OR 97301-2532 503-986-4706</p>	<p>Anna Buckley, Wetlands Specialist Oregon Division of State Lands 775 Summer Street NE Salem, OR 97301 503-378-3805 EXT. 281</p>
<p>David P. Stevens Office of Energy 625 Marion Street Salem OR 97310 503-378-5489</p>	<p>Patty Snow Wildlife Division Oregon Dept of Fish and Wildlife 3406 Cherry Avenue SE Salem, OR 97310 503- 947- 6089</p>
<p>Roberta Young Dept of Environmental Quality 811 SW Sixth Avenue Portland, OR 97204 503-229-6408</p>	<p>David Morman Oregon State Dept of Forestry 2600 State Street Salem, OR 97310 503-945-7413 Lane Shetterly, Director</p>

Director Oregon State Dept of Transportation 355 Capitol Street NE Room 135 Salem, OR 97301-3871 503-986-3452 Bill Fuji, Intergovernmental Liaison Oregon Water Resources Dept 725 Summer St. NE, Suite A Salem, OR 97301 503-986-0887	Dept of Land Conservation and Development 635 Capitol Street NE #150 Salem, OR 97301-2540 503-373-0050
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Information Source References

1. LIGHTLY ON THE LAND: The SCA Trail Building and Maintenance Manual, 2nd Edition By Bob Birkby, The Student Conservation Association \$24.

For half a century, the Student Conservation Association (SCA) has inspired people of all ages to take part in projects that enhance the environment. In settings from city parks to backcountry wilderness, the practical skills presented in its pioneering handbook have been tested in the field by volunteer and professional work crews throughout the nation. Their input enriches every chapter of the new edition with fresh approaches, new ideas, and modern applications of traditional skills.

- New chapters on arid lands restoration and involving conservation volunteers
- The latest in effective management of work crews of all ages
- How to build "sustainable" trails to fit dwindling park maintenance budgets
- For weekend volunteers, youth group leaders, outing club members, and anyone involved in caring for the land

In addition to conservation crew leadership and risk management, Lightly on the Land presents the nuts and bolts of trail construction and maintenance; building with rock; felling and buckling; building with timber; bridge construction; and environmental restoration. It gets down and dirty with tools, knots, and rigging. Throughout, it teaches how to build pathways and reshape existing routes to require a minimum of attention over the years-essential in this era of shrinking park budgets.

2. Wetland Trail Design and Construction

Robert T. Steinholtz - *Bristlecone Trails, Lakewood, CO*

Brian Vachowski - *Project Leader*

This document was produced in cooperation with the Recreational Trails Program of the Federal Highway Administration, U.S. Department of Transportation.

3. Trail Solutions: IMBA's Guide to Building Sweet Singletrack

Trail Solutions is IMBA's premier trailbuilding resource. This 272-page book combines cutting-edge trailbuilding techniques with proven fundamentals in a colorful, easy-to-read format.

Price: \$30 for IMBA Members, \$35 for Non Members

4. Creating Connections - The Oregon Recreational Trails How-To Manual

A Component of the Oregon Trails 2005-2014: A Statewide Action Plan

May 2004 Oregon Parks and Recreation Department

Web Sites

- 1. American Trails** at www.americantrails.org/resources/index.html
- 2. IMBA** at www.imba.org
- 3. Professional Trailbuilders Association (PTBA)** at <http://www.trailbuilders.org/about.html>
- 4. State Trails Website**

Annual Events (dates accurate for 2007)

- a. Earth Day April 20/SOLV April 28**
- b. National Trails Day: June 2**
- c. National Public Lands Day: September, 29**
- d. Washington County Clean and Green/SOLV Clean Up Day October 20**

APPENDIX C. POTENTIAL FUNDING SOURCES

APPENDIX C: POTENTIAL TRAIL FUNDING SOURCES IN OREGON															
FUNDING SOURCE	PROGRAM NAME	WEB ADDRESS	USES						APPLICANTS						
			Plan	Program	Develop	Acquire	Education	Equipment	Non Profit	Sch.	City	County	State	Federal	Other Clubs
American Canoe Assoc.	Club Fostered Stewardship	http://www.acanet.org/conservate-cfs.htm			X	X									
American Hiking Society	National Trails Endowment	www.americanhiking.org			X	X									
Americorps		http://www.americorps.org/joining/direct/direct_or.html			X			X		X	X	X	X		
Avista Foundation	Avista Foundation Grants	http://www.avistafoundation.org/application.asp			X					X					
Barnes & Nobles	Affiliates Program	www.barnesandnoble.com		X						X					
Bikes Belong Coalition	Bikes Belong Grants Program	http://bikesbelong.org/site/page.cfm?PageID=21			X					X	X	X	X		
Boeing Charitable Foundation	Civic and Environmental Contributions	http://www.boeing.com/companyoffices/aboutus/community/charitable.htm	X	X	X	X			X	X	X				
Center for Disease Control (CDC)	Preventive Health & Health Services Block Grant Program	http://www.cdc.gov/nccdphp/aag/aag_blockgrant.htm		X	X						X	X	X		
Eastman Kodak Company	Kodak American Greenways Program	www.conservaionfund.org	X							X	X	X	X		
Federal Dept. of Health & Human Services	Healthy People 2010 Implementation Grants	www.health.gov/healthypeople	X	X						X	X				
Federal Highway Admin.	Recreational Trails Program National Program	www.fhwa.dot.gov/environment/retrail.htm			X	X				X	X	X	X		
Ford Family Foundation	Rural Civic & Community Enhancement Program	http://www.tfff.org/main/guidelines.html#fa			X					X					
Kongsgaard Goldman Foundation	Environmental Protection and Conservation	http://www.kongsgaard-goldman.org/program	X		X					X					

APPENDIX C: POTENTIAL TRAIL FUNDING SOURCES IN OREGON																
FUNDING SOURCE	PROGRAM NAME	WEB ADDRESS	USES						APPLICANTS							
			Plan	Program	Develop	Acquire	Education	Equipment	Non Profit	Sch.	City	County	State	Federal	Other	
	Program	html														
Metro	Parks & Greenspaces Grants Program	www.metro-region.org								X	X	X	X			
Meyer Memorial Trust	General Purpose Grants	http://www.mmt.org/		X	X			X		X	X	X	X	X	X	
National Fish & Wildlife Foundation		www.nfwf.org								X	X	X	X	X	X	
National Park Service	River Trails & Conservation Assistance Program	http://www.nps.gov/ccs/ortca/application.html	X	X						X		X	X	X	X	
National Park Service	Disposal of Federal Surplus Real Property for Parks and Recreation and Historic Monuments	http://www.cfda.gov/public/viewprog.asp?progid=471					X		X			X	X	X		
National Tree Trust	Multiple Programs	www.nationaltreetrust.org		X	X					X	X	X	X	X	X	
New England Foundation for the Arts	Art and Community Landscapes Program	http://www.nefa.org/grantprog/acl/							X		X	X	X	X		
Nike - Community Investment	Community Investment Program	http://www.nike.com/nikebiz/nikebiz.jhtml?page=26&item=giving		X						X						
Oregon Dept. of Trans.	Transportation Enhancement Program	http://www.odot.state.or.us/techserv/engineer/pdu														
ODOT/Oregon Dept. of Land Conservation & Development	Transportation and Growth Management Program	http://www.lcd.state.or.us/tgm/grants.htm	X									X	X			COGs, METRO
Oregon Economic and Community Development Dept.	Needs and Issues Inventory	http://www.econ.state.or.us/needs_issue.htm				X				X		X	X			
Oregon Parks & Recreation	ATV Fund	http://atv.prd.state.or.us/grant	X	X	X	X	X	X	X	X		X	X	X	X	

APPENDIX C: POTENTIAL TRAIL FUNDING SOURCES IN OREGON															
FUNDING SOURCE	PROGRAM NAME	WEB ADDRESS	USES						APPLICANTS						
			Plan	Program	Develop	Acquire	Education	Equipment	Non Profit	Sch.	City	County	State	Federal	Other
Dept.															
Oregon Parks & Recreation Dept.	Recreation Trails Program	www.prd.state.or.us/grants-rectrails.php			X	X	X	X	X		X	X	X	X	X
Oregon Parks & Recreation Dept.	Land & Water Conservation Fund	www.prd.state.or.us/grants_lwcf.php			X	X					X	X	X		X
Oregon Parks & Recreation Dept.	Local Government Grant Programs	www.prd.state.or.us/grants-localgov.php			X	X					X	X	X		X
Oregon Watershed Enhancement Board	Small Grant Program	http://www.oweb.state.or.us/SmallGrant/smallgrant.shtml			X				X		X	X	X	X	
Patagonia	Environmental Grants Program	www.patagonia.com	X	X					X		X	X			
Polaris Industries	Trail Safety and Grants	http://www.polarisindustries.com		X					X				X	X	
Power Bar	Direct impact on Rivers and Trails (DIRT) Program	www.powerbar.com		X											
Recreation Equipment Inc. (REI)	Recreation and Conservation Grants	www.rei.com		X					X						
Rockefeller Family Fund		www.rfund.org	X	X	X										
SOLV	Project Oregon	http://www.solv.org/programs/project_oregon.asp	X	X	X				X	X	X	X	X	X	
Surdna Foundation		www.surdna.org		X	X				X		X	X	X	X	
The Collins Foundation		http://www.collinsfoundation.org/			X		X		X						
The Conservation Alliance		http://www.conservationalliance.com/grants_m			X	X			X						
The Hugh & Jane Ferguson Foundation	Foundation Grant Fund	http://fdncenter.org/grantmaker/ferguson/guide.html	X		X				X						
The Kresge Foundation	Bricks & Mortar Program	http://www.kresge.org/programs/index.htm		X	X				X	X	X	X	X	X	
The		www.mountaineersfou						X	X	X	X				X

APPENDIX C: POTENTIAL TRAIL FUNDING SOURCES IN OREGON															
FUNDING SOURCE	PROGRAM NAME	WEB ADDRESS	USES						APPLICANTS						
			Plan	Program	Develop	Acquire	Education	Equipment	Non Profit	Sch.	City	County	State	Federal	Other
Mountaineers Foundation		ndation.org													
The Oregon Community Foundation	Oregon Historic Trails Fund	http://www.ocf1.org/grant_programs/grant_programs_fr.htm		X	X	X	X		X		X	X	X	X	
The Oregon Community Foundation	Community Grants Fund	http://www.ocf1.org/grant_programs/community_grant_fr.htm		X	X			X							
The Trust for Public Land		http://www.tpl.org/tier2_sa.cfm?folder_id=1825								X	X	X	x	x	
Tom's of Maine/National Park Foundation	River Conservation Grants	http://www.tomsomaine.com/toms/community/rivers2004/frameset_overview.asp			X	X	X		X						
Tread Lightly!	Restoration For Recreation	http://www.treadlightly.org/restore.mv		X				X		X	X	X	X	X	X
U.S. Dept. of Commerce Economic Development Administration	Various Grant Programs	http://www.eda.gov/InvestmentsGrants/Pgmguide.xml	X		X						X	X			
U.S. Dept. of Health & Human Services	Steps to a Healthier U.S. Initiative (STEPS)	http://www.healthierus.gov/steps/	X	X				X		X	X				Tribes
U.S. Dept. of Transportation	Transportation & Community & System Preservation Pilot Program	http://www.fhwa.dot.gov/tcsp/	X		X						X	X	X		
U.S. Fish & Wildlife Service	Partnership for Wildlife	http://federalaid.fws.gov/pw/partwld.html			X								X		
U.S. Fish & Wildlife Service	Jobs in the Woods Program	http://pacific.fws.gov							X		X	X	X		
U.S. Forest Service	Coop Programs - Rural Community Assistance: Economic Recovery Program	http://www.fs.fed.us/r6/coop/Oregon%20State%20Coordinators			X					X	X	X	X		
U.S. Forest Service	Cooperative	http://www.fs.fed.us/r6/			X				X		X	X	X		

APPENDIX C: POTENTIAL TRAIL FUNDING SOURCES IN OREGON															
FUNDING SOURCE	PROGRAM NAME	WEB ADDRESS	USES						APPLICANTS						
			Plan	Program	Development	Acquire	Education	Equipment	Non Profit	Sch.	City	County	State	Federal	Other
Service	Programs - Rural Development Program	coop/Oregon%20State%20Coordinators													
U.S. Forest Service	Urban & Community Forestry Program	http://www.fs.fed.us/ucf/			X				X		X	X	X		
Wal-Mart Foundation		www.walmartfoundation.org							X	X	X	X	X	X	
Wild Bird Unlimited	Pathway to Nature Conservation Fund	www.pathwaystonature.com/index.htm			X									X	

APPENDIX D. AMERICANS WITH DISABILITIES ACT
FHA Accessibility Standards for Pedestrian Sidewalks.

The pedestrian zone should be at least 1.525 m (60 in) wide. This provides sufficient space for two pedestrians to travel side by side without passing other pedestrians, or for two people going in opposite directions to pass one another. In commercial and urban areas, pedestrian volumes are often much higher than in residential areas. The pedestrian zone should be expanded according to the Highway Capacity Manual based on the anticipated volume of users. In areas with heavy pedestrian traffic, the sidewalks should be wide enough to accommodate groups of pedestrians traveling in both directions. The expanded area should still remain free of obstacles. If additional utilities are necessary in an urban setting, the planter/furniture zone should also be expanded.

Table 4 - 2. Guidelines for New Sidewalk Installation

Roadway Classification and Land Use	Sidewalk Requirements	Future Phasing
Highway (rural)	Min. of 1.525 m (60 in) shoulders required.	Secure/preserve ROW for future sidewalks.
Highway (rural/suburban - less than 2.5 d.u./hectare (1 d.u./acre))	One side preferred. Min. of 1.525 m (60 in) shoulders required.	Secure/preserve ROW for future sidewalks.
Suburban Highway (2.5 to 10 d.u./hectare (1 to 4 d.u./acre))	Both sides preferred. One side required.	Second side required if density becomes greater than 10 d.u./hectare (4 d.u./acre).
Major Arterial (residential)	Both sides required.	
Collector and Minor Arterial (residential)	Both sides required.	1.525 m (60 in)
Local Street (Residential - less than 2.5 d.u./hectare (1 d.u./acre))	One side preferred. Min. of 1.525 m (60 in) shoulders required.	Secure/preserve ROW for future sidewalks.
Local Street (Residential - 2.5 to 10 d.u./hectare (1 to 4 d.u./acre))	Both sides preferred. One side required.	Second side required if density becomes greater than 10 d.u./hectare (4 d.u./acre).
Local Street (Residential - more than 10 d.u./hectare (4 d.u./acre))	Both sides required.	
All Streets (commercial areas)	Both sides required.	
All Streets (industrial areas)	Both sides preferred. One side required.	

Note: d.u. stands for dwelling unit

The U.S. Access Board has addressed design considerations for ORARs through the work completed by the Regulatory Negotiation Committee on Accessibility Guidelines for Outdoor Developed Areas. According to the Committee, ORARs should be designed within the following specifications:

- **Surface** - Firm and stable;
- **Clear tread width** - Minimum of 915 mm (36 in);

- **Openings** - Do not permit the passage of a 13 mm (0.5 in) diameter sphere. Elongated openings should be placed so that the long dimension is perpendicular or diagonal to the dominant direction of travel;
- **Tread obstacles** - Maximum height of 25 mm (1 in);
- **Protruding objects** - Objects between 685 mm (27 in) and 2.030 m (80 in) above the surface may not protrude into the route more than 101 mm (4 in);
- **Passing space** - 1.525 m x 1.525 m (60 in x 60 in) provided at maximum intervals of 61 m (200 ft) whenever the clear tread width is less than 1.525 m (60 in);
- **Cross slope** - Maximum of 3 percent;
- **Running grade** - 5 percent or less for any distance; 8.33 percent for a maximum of 15.24 m (50 ft); and 10 percent for a maximum of 9.14 m (30 ft). If the running grade exceeds 5 percent, resting intervals should be provided before and after the maximum grade segment;
- **Resting intervals** - 1.525 m (60 in) minimum in length and at least as wide as the widest portion of the trail segment leading to the resting interval with a cross slope that does not exceed 3 percent in any direction; and
- **Edge protection** - Where provided, should be a minimum of 75 mm (3 in).

APPENDIX E. STATE LAWS AND RULES

1. Liabilities on Trails or Pathways

Trail use on mixed bike/pedestrian trail systems can be dangerous, but it can be very safe if you take the time to build proper trails and educate users on proper etiquette and techniques. Much like a public basketball court or skatepark, there are certain dangers, which may invoke the question of liability. Public recreation on public land is free from any liability issues, as stated in ORS 105.688(1)(a). This statute states that “[A]n owner of land is not liable in contract or tort for any personal injury, death or property damage that arises out of the use of the land for recreational purposes...when the owner of land either directly or indirectly permits any person to use the land for recreational purposes [.]”

To Minimize Liability:

Mark trails clearly according to AASHTO Design Guidelines. Trailhead signs that alert visitors to trail etiquette, rules and conditions are helpful and may reduce liability.

1. Build trails to accepted standards. Both natural and non-natural surfaced trails must be durable, predictable and designed to minimize injuries when trail users fail to negotiate them properly.

To Maximize Safety:

1. Don't surprise trail users with unexpected trail changes or obstacles, or make sure they are properly signed. Make sure that people can see challenging trail sections well in advance.
2. Clearly indicate the distance, use type and etiquette at entry points into the system.
3. Designing proper flow into trails is important. Abrupt transitions from long straight sections to tight and obscured sections may increase the chance of injuries.

Offer riding skills clinics. In addition to riding techniques, include tips on responsible, self-reliant, safe riding.

2. Oregon Revised Statutes pertaining to Liabilities: PUBLIC USE OF LANDS

105.672 Definitions for ORS 105.672 to 105.696. As used in ORS 105.672 to 105.696:

- (1) “Charge” means the admission price or fee asked by any owner in return for permission to enter or go upon the owner’s land.
- (2) “Harvest” has that meaning given in ORS 164.813.
- (3) “Land” includes all real property, whether publicly or privately owned.
- (4) “Owner” means the possessor of any interest in any land, including but not limited to possession of a fee title. “Owner” includes a tenant, lessee, occupant or other person in possession of the land.
- (5) “Recreational purposes” includes, but is not limited to, outdoor activities such as hunting, fishing, swimming, boating, camping, picnicking, hiking, nature study, outdoor educational activities, waterskiing, winter sports, viewing or enjoying historical, archaeological, scenic or scientific sites or volunteering for any public purpose project.
- (6) “Special forest products” has that meaning given in ORS 164.813.
- (7) “Woodcutting” means the cutting or removal of wood from land by an individual who has obtained permission from the owner of the land to cut or remove wood. [1995 c.456 §1]

105.676 Public policy.

The Legislative Assembly hereby declares it is the public policy of the State of Oregon to encourage owners of land to make their land available to the public for recreational purposes, for woodcutting and for the harvest of special forest products by limiting their liability toward persons entering thereon for such purposes and by protecting their interests in their land from the extinguishment of any such interest or the acquisition by the public of any right to use or continue the use of such land for recreational purposes, woodcutting or the harvest of special forest products. [1995 c.456 §2]

105.682 Liabilities of owner of land used by public for recreational purposes, woodcutting or harvest of special forest products.

(1) Except as provided by subsection (2) of this section, and subject to the provisions of ORS 105.688, an owner of land is not liable in contract or tort for any personal injury, death or property damage that arises out of the use of the land for recreational purposes, woodcutting or the harvest of special forest products when the owner of land either directly or indirectly permits any person to use the land for recreational purposes, woodcutting or the harvest of special forest products. The limitation on liability provided by this section applies if the principal purpose for entry upon the land is for recreational purposes, woodcutting or the harvest of special forest products, and is not affected if the injury, death or damage occurs while the person entering land is engaging in activities other than the use of the land for recreational purposes, woodcutting or the harvest of special forest products.

(2) This section does not limit the liability of an owner of land for intentional injury or damage to a person coming onto land for recreational purposes, woodcutting or the harvest of special forest products. [1995 c.456 §3]

105.688 Applicability of immunities from liability for owner of land; restrictions.

(1) Except as specifically provided in ORS 105.672 to 105.696, the immunities provided by ORS 105.682 apply to:

(a) All public and private lands, including but not limited to lands adjacent or contiguous to any bodies of water, watercourses or the ocean shore as defined by ORS 390.605;

(b) All roads, bodies of water, watercourses, rights of way, buildings, fixtures and structures on the lands described in paragraph (a) of this subsection; and

(c) All machinery or equipment on the lands described in paragraph (a) of this subsection.

(2) The immunities provided by ORS 105.682 apply only if:

(a) The owner makes no charge for permission to use the land;

(b) The owner transfers an easement to a public body to use the land; or

(c) The owner charges no more than \$75 per cord for permission to use the land for woodcutting. [1995 c.456 §4; 1999 c.872 §7; 2001 c.206 §1]

105.696 No duty of care or liability created; exercise of care still required of person using land. ORS 105.672 to 105.696 do not:

(1) Create a duty of care or basis for liability for personal injury, death or property damage resulting from the use of land for recreational purposes, for woodcutting or for the harvest of special forest products.

(2) Relieve a person using the land of another for recreational purposes, woodcutting or the harvest of special forest products from any obligation that the person has to exercise care in use of the land in the activities of the person or from the legal consequences of failure of the person to exercise that care. [1995 c.456 §6]

APPENDIX F. PUBLIC COMMENT RECORD

First public meeting title/date: FG Community Trails Forum 6/13/2007 7-9pm

Location : FG City Auditorium Attendance: 14

- Ric Balfour - recreation planner
- Tom Gamble - City Parks Director
- Steve Huffman - City Parks Manager
- Mike Olson – Business owner/resident
- Rich Barnett – Trails Committee/resident
- Jacob Weiss – News Times
- Rich Van Buskirk – Pacific University
- Quinn Johnson - resident
- Dick Koven – Parks Commission/Council
- John White – Parks Commission/trails Committee
- Susan Cooper – resident
- Jill Smith – Oregonian Newspaper
- Steve O’Day – Pacific University
- David Morelli - resident
- Mary Jo Morelli – resident/AT Smith Home
- Ron Thompson – Councilor

Forum Agenda

7:00 pm - Welcome, introductions, outline of forum agenda, purpose and process

- * Project overview Tom and PowerPoint presentation Ric
- * Public involvement "listening posts" description Ric
- * Listening posts staffed by trails subcommittee (at up to four key topics)

Begin gathering input at listening posts

8:00pm Break -

8:30pm Stop, gather input and summarize

8:45pm Summary of key points, next steps and other means of gathering public input

9:00pm End

Recorded input on Trails Plan under four key topics of forum:

- **What kind of loop trail do we want?**
 - Need trail suitable for fat and skinny tires
 - Foot trails that help alleviate the need to drive

- Water trail down Gales Creek from Ritchie Road to AT Smith home and Tualatin River
- Paved like the B-V trail so winter use is possible
- Good model is Hwy 99W between Monmouth and Independence; Moscow to Pullman or Moab to Zion trails

- **What connections to other local trails?**

- Trail needed over Carpenter Creek to Hagg Lake
- Need to have access from downtown to Metro open spaces
- Connect to Cornelius via Council Creek
- Need a link to Fernhill Wetlands
- FG to Hillsboro along the new/old MAX line

- **What other kinds of trails are desired?**

- Need interpretive trails or signage along loop trail to highlight cultural and natural history
- Interpretation needed for B St restoration projects
- Horse drawn wagon/buggy trail opportunities needed
- Long enough loop to encourage a marathon or triathlon or Ironman race around FG
- Loop rail not “out and back”
- smaller loop options of the main loop linking neighborhoods, downtown, parks, schools
- need good signage – way finding, orientation, directional and interpretive
- trailheads need goods parking, toilets, signage (orientation) and picnic tables
- need 911 contact mechanism – cell coverage or emergency phone boxes
- need to look at pervious trails pavers that allow water through

- **What are the issues?**

- How about lighting after hours?
- Encourage commercial development at trailheads and key locations along trail
- Zoning along the trail should allow for supporting commercial businesses to establish – on trail
- Develop an RV camp connected to the trail
- Many segments of current loop are unsafe (B St)
-
- Trail needs to accommodate a “Kinetic sculpture” ride like Da Vinci Days in Corvallis
- Obtain land or access for big loop around town before it is lost/too late!
- Need multiple user trail that matches grant criteria
- Try to find recycled materials for trail
- Look for view sites to interpret
- Avoid dogs or horses trying to share with other users on same trail
- Equestrian facilities might be found south of town

- Look for business partnerships to help fund trail (cell towers, gas, cable, utilities)

Second public meeting title/date: FG Community Trails Forum 7/10/2007 7-9pm

Location : FG City Auditorium Attendance: 14

- Ric Balfour - recreation planner
- Tom Gamble - City Parks Director
- Steve Huffman - City Parks Manager
- Mike Olson – Business owner/resident
- Rich Barnett – Trails Committee/resident
- Jacob Weiss – News Times
- Rich Van Buskirk – Pacific University
- Quinn Johnson - resident
- Dick Koven – Parks Commission/Council
- John White – Parks Commission/trails Committee
- Susan Cooper – resident
- Jill Smith – Oregonian Newspaper
- Steve O’Day – Pacific University
- David Morelli - resident
- Mary Jo Morelli – resident/AT Smith Home
- Ron Thompson – Councilor

Forum Agenda

7:00 pm - Welcome, introductions, outline of forum agenda, purpose and process

- * Project overview Tom and PowerPoint presentation Ric
- * Public involvement "listening post" description Ric
- * Listening post session (at up to four key topics)

Begin gathering input at listening posts

8:00pm Break -

8:30pm Stop, gather input and summarize

8:45pm Summary of key points, next steps and other means of gathering public input

9:00pm End

Feedback from July 10 public meeting at FG Auditorium

▪ **What ideas and issues related to trails are of interest?**

- Make sure privacy concerns of Willamina and Strasbourg Road residents are addressed, including safety and security
- Does the failed FG bond measure affect maintenance of the future trail system?
- Knox Ridge Creek/ditch has seasonal flooding

9
Second Reading

RESOLUTION NO. 2007-52

**RESOLUTION AUTHORIZING EXECUTION OF A LABOR AGREEMENT
BETWEEN THE CITY OF FOREST GROVE AND THE INTERNATIONAL
BROTHERHOOD OF ELECTRICAL WORKERS (IBEW), LOCAL UNION NO. 125,
EFFECTIVE JULY 1, 2007, AND EXPIRING JUNE 30, 2010**

WHEREAS, representatives of the City of Forest Grove and IBEW, Local 125, have met in good faith and negotiated a labor agreement between both parties effective July 1, 2007, through June 30, 2010, and

WHEREAS, the labor agreement provides for certain compensation and fringe benefit adjustments.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY OF FOREST GROVE
AS FOLLOWS:**

Section 1: That the City Manager is authorized to execute the attached labor agreement (Exhibit A) between the City of Forest Grove and IBEW, Local 125.

Section 2: That the compensation plan contained in this agreement is approved, effective July 1, 2007, expiring June 30, 2010.

Section 3: That the fringe benefits contained in this agreement are approved, effective July 1, 2007, expiring June 30, 2010.

PRESENTED AND PASSED for first reading this 24th day of September, 2007.

PRESENTED AND PASSED for second and final reading this 8th day of October, 2007.

Anna D. Ruggles, City Recorder

APPROVED by the Mayor this 8th day of October, 2007.

Richard G. Kidd, Mayor

Exhibit A

AGREEMENT

BETWEEN THE

CITY OF FOREST GROVE

AND

INTERNATIONAL BROTHERHOOD
OF ELECTRICAL WORKERS

LOCAL UNION NO. 125

JULY 1, 2007 TO JUNE 30, 2010



AGREEMENT

The CITY OF FOREST GROVE, Oregon, hereinafter referred to as "the City", and Local Union No. 125 of the INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS, hereinafter referred to as "the Union", hereby mutually establish and agree upon the working conditions and wage schedule hereinafter set forth covering those employees listed in Article 30 and employed by the City of Forest Grove Light and Power Department.

The City and the Union have a common and sympathetic interest in the electrical industry, therefore, a working system and harmonious relations are desirable to improve the relationship between the Employer and the Union. All shall benefit by continuous peace and by adjusting any differences by rational common sense methods. To these ends, this Agreement is made.

ARTICLE 1 - RECOGNITION

1.1 The City recognizes the Union as the sole and exclusive collective bargaining agent for the purpose of establishing wages, hours of work, benefits and conditions of employment for all regular electrical worker employees of the City, excluding supervisory and confidential employees, and employees presently represented in any other bargaining unit.

1.2 For the purposes of this Agreement:

- a. ELECTRICAL WORKER: Is defined as all classifications set-forth in Article 30.
- b. REGULAR FULL-TIME EMPLOYEE: Is defined as any employee who is regularly scheduled to perform work for 40 hours per week.
- c. REGULAR PART-TIME EMPLOYEE: Is defined as any employee who is regularly scheduled to work more than 600 hours in a calendar year, but less than 40 hours per week.
- d. TEMPORARY EMPLOYEE: Is defined as any employee who is employed for a limited period, not to exceed six months in a twelve-month period for a full-time employee, or 600 hours in a calendar year for a part-time employee.
- e. SUPERVISORY EMPLOYEE: Is defined as in Oregon Revised Statutes 243.650 (23).
- f. CONFIDENTIAL EMPLOYEE: Is defined as in Oregon Revised Statutes 243.650 (6).

ARTICLE 2 - DURATION OF AGREEMENT

2.1 This Agreement shall remain in full force and effect from July 1, 2007, up to and including June 30, 2010, and thereafter until terminated by at least sixty (60) days notice, in writing, by either party to the other.

2.2 This agreement may be amended or modified by mutual agreement between the parties hereto, without notice of termination by either party.

ARTICLE 3 - MANAGEMENT RIGHTS

3.1 The Union recognizes the right of the City to manage its affairs, in accordance with its responsibilities, expressed powers, inherent authority, and the City Charter and that, except to the extent expressly abridged by provisions of this Agreement, management functions are not subject to negotiations. These functions include, but are not limited to, directing the activities of the department; determining levels of service and methods of operation, including subcontracting and introduction of new equipment; the right to hire, lay-off, transfer and promote; to discipline or discharge for cause; to determine the work schedules and assign work; to develop employment policies and procedures and any other such rights not specifically referred to in this agreement.

3.2 Unless directly contradicted by the terms of this Agreement or a mandatory subject for bargaining, all employment policies of the City are specifically incorporated herein by reference.

ARTICLE 4 - UNION SECURITY

4.1 Membership or non-membership in the Union shall be the individual choice of employees covered by this Agreement. Employees who are not members of the Union shall make payment in lieu of dues to the Union. Such payment shall be in the same amount as provided for regular Union dues and assessments.

4.2 The City agrees to deduct Union dues or "fair share" from the paycheck of all bargaining unit employees. The City shall not be held liable for checkoff errors, but shall make proper adjustments with the employees and the Union as soon as practicable and upon notification from the Union. The Union agrees to indemnify and hold the City harmless from any action arising under this Article. The amounts to be deducted shall be certified to the City by the Treasurer of the Union by the tenth (10th) day of the succeeding month after such deductions are made.

4.3 Any Employee who is a member of a church or religious body having bona fide religious teachings which prohibit association with a labor organization or the payment of dues to it shall pay an amount or money equivalent to regular Union dues, initiation fees and assessments, if any, to a non-religious charity or another charitable

organization mutually agreed upon by the employee affected and the representative labor organization to which such employee would otherwise be required to pay dues. The employee shall furnish written proof to the employer that this has been done.

4.4 The Union shall assist the City by referring skilled workers to the City when requested.

4.5 The City shall designate bulletin board space for posting of official Union notices.

ARTICLE 5 - EMPLOYEE RIGHTS

5.1 The City and the Union agree there shall be no discrimination with regard to the hiring or tenure of the employees by reason of race, color, religion, sex, pregnancy, citizenship, age, marital status, physical disability, mental disability, veteran's status, medical condition, sexual orientation, political affiliation or national origin, or on the basis of membership in any other protected class. Discrimination on the basis of relationship, mental or physical handicap are prohibited, except in the instance of valid occupational qualification and under the provisions of the Americans with Disabilities Act. The City and the Union agree further that there shall be no discrimination against any employee due to membership or non-membership in the Union or because of an activity in which the employee may engage in on behalf of the Union, provided such activity does not interfere with the employee's performance of work assignments.

5.2 The City shall give all employees ten (10) working days notice of lack of work.

5.3 Employees appointed as Acting Superintendent shall be paid at the Line Foreman rate of pay. Employees shall not be appointed as Acting Superintendent while concurrently serving as Shop Steward.

ARTICLE 6 - STRIKE AND LOCKOUT

6.1 The Union agrees that during the term of this Agreement its membership shall not engage in any strike, work stoppage, slowdown or interruption of services, and the City agrees not to engage in any lockout.

6.2 Disputes between the Union and the City shall be resolved by arbitration in the same manner as set forth in Article 20.

ARTICLE 7 - DISCHARGE, SUSPENSION, WARNING

7.1 New employees may be terminated within the twelve-month (12) probationary period without cause.

7.2 Employees are subject to discipline for just cause. Disciplinary action or measures shall be limited to the following: oral reprimand, written reprimand, demotion, suspension, reduction of pay, or discharge.

7.3 Oral reprimands shall not be subject to the grievance procedure. Written reprimands may be processed through the grievance steps and may proceed to arbitration.

7.4 If the City has reason to reprimand an employee, it shall be done in a manner that is least likely to embarrass the employee before other employees or the public.

ARTICLE 8 - PAID TIME AND HOURS OF WORK

8.1 The workday shall consist of eight (8) hours worked in a twenty-four (24) hour period with a lunch period of thirty (30) minutes, or eight (8) hours worked with a lunch period of one (1) hour. The normal workday at present is from 8:00 AM until 4:30 PM, with a lunch period of thirty (30) minutes. The lunch period shall be midway in the shift. The normal hours of work may be changed by mutual agreement between the City and the Union. Such agreement shall be reduced to writing. The employee shall not receive pay for the lunch period. Each employee shall also be allowed a rest break at the job site, not to exceed fifteen (15) minutes, approximately midway in each half shift, the time of which shall count as time worked. Any employee required to work overtime at the conclusion of the employee's regular shift shall have the option of a meal period of at least thirty (30) minutes, but not to exceed one (1) hour upon having completed the first one and one-half (1.5) hours of overtime work.

8.2 Changes in the normal hours of work for the summer months work schedule may be approved by mutual agreement between the City and the Shop Steward. The Shop Steward shall obtain concurrence from the Union.

8.3 When an employee reports for overtime work four (4) hours or more before the beginning of his regular shift, he shall be paid at the overtime rate until relieved. If the employee has worked six (6) hours or more outside their regular shift hours, they shall receive a minimum of eight and one half (8.5) consecutive hours of rest before their regular shift begins or regular shift hours will be worked at the overtime rate. Before leaving work the employee will notify the Supervisor of the employee's decision to report to the regular shift.

8.4 Work in excess of (8) eight hours per day and work in excess of five (5) eight (8) hour days, or forty (40) hours in any workweek, shall be considered overtime, but hours of work for which daily overtime is allowed shall not be included in computing weekly overtime. Overtime, computed to the nearest quarter hour, shall be compensated for at two (2) times the regular rate of pay. A minimum call back time of one (1) hour between 6 AM and 10:00 PM Monday through Friday and two (2) hours between 10:00 PM and 6:00 AM Monday through Friday, weekends and holidays, shall be paid except that

employees on weekend/holiday stand-by shall only be eligible for a one (1) hour minimum call back. Work contiguous to the regular shift shall be compensated at two (2) times the regular rate of pay for the time actually worked. Employees shall be paid at the overtime rate for all time worked on other than their regular shift or day and for all time worked on holidays, in addition to their holiday pay. Overtime must be pre-approved except in an emergency or while on stand-by. Overtime will be kept equitable within classification and based on a 12 month rolling accumulation and posted for each pay period.

8.5 All overtime worked shall be paid or the employee shall receive compensatory time-off based upon mutual agreement and the Department Head's determination of Department needs. Compensatory time-off shall be scheduled by mutual agreement of the employee and the supervisor based on the needs of the department. Compensatory time-off accumulation shall be capped at forty (40) hours.

8.6 The overtime pay of any employee called from home for overtime work shall be time worked plus one-half (.5) hour for travel time.

ARTICLE 9 - PAID MEALS

9.1 Employees working one and one-half (1.5) hours of overtime contiguous to their regular shift, and up to or through a designated meal time, and any other overtime worked which continues into or through a designated meal time, shall be paid for appropriate meals at the Federal meal per diem rate for breakfast, lunch and dinner. The midnight meal shall be paid at the dinner rate. Amounts distributed for meals shall be paid through payroll and will be included in the employee's taxable income pursuant to IRS regulations. If the IRS meal allowance is increased during the term of this agreement a like percentage shall be added to the amounts listed in section 9.2. Under normal circumstances employees shall not be required to work more than six (6) hours without a meal. In the event an employee is required by management to work more than six (6) hours without a meal break, he shall be paid for one (1) hour at the straight time rate in addition to his compensation for time worked. When employees are scheduled to work outside their normal shift they shall not be required to supply themselves more than one (1) meal within a 24 hour period.

9.2 Designated meal times for the purposes of Article 9 are defined as 6:30 to 7:00 AM for breakfast and shall be paid at the rate nine dollars and sixty cents (\$9.60), 12:00 noon to 12:30 PM for lunch at the rate of fourteen dollars and forty cents (\$14.40), 6:00 to 6:30 PM for dinner at the rate of twenty-five dollars and twenty cents (\$25.20), and 12:00 midnight to 12:30 AM for the midnight meal at the rate of twenty-five dollars and twenty cents (\$25.20). Meal breaks, if taken, during designated meal times, are one-half (.5) hour, and shall be considered unpaid time.

9.3 When conditions imposed upon the City require that work be performed during the designated noontime lunch period, the Foreman may advance the designated

noontime lunch period one-half (.5) hour, or delay it one (1) hour. If such delay of the noontime lunch period still results in employees working through their adjusted meal period, they shall be paid for one (1) hour at the straight time rate in addition to their compensation for time worked.

ARTICLE 10 - HOLIDAYS

10.1 Employees covered by this Agreement shall receive the following paid holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, day after Thanksgiving, Christmas Day and two (2) personal holidays. Personal holidays shall be credited at the beginning of each calendar year and shall be prorated to the nearest hour for newly hired employees, and scheduled with the approval of the supervisor, and used within the calendar year. Employees on vacation when a legal holiday occurs shall be entitled to holiday pay or an extra day vacation.

10.2 Personal holiday hours of eight (8) hours or less as of December 31st of each year shall be carried over into the next year.

ARTICLE 11 - VACATION

11.1 All employees who shall have completed twelve (12) full months of continuous service shall be allowed vacation time in accordance with the following schedule:

<u>Years of Continuous Service</u>	<u>Hours per Month</u>	<u>Days Per Year</u>
1-2 yrs	6.67	10
2-5 yrs	8.00	12
5-10 yrs	10.00	15
10-15 yrs	13.34	20
15-25 yrs	16.67	25
26 yrs	17.34	26
27 + yrs	18.00	27

11.2 Vacation accrual shall be calculated on a monthly basis beginning with the employee's date of employment. If an employee is hired in the middle of the month, vacation accrual shall be pro-rated for the first month of employment. Vacation time shall accrue during all hours of employment at straight time (not including overtime), vacation time, recognized holidays, used sick leave and time off chargeable to an occupational disability.

11.3 Employees are encouraged to take vacation time on a yearly basis and vacation accrual shall not exceed 45 days (360 hours) without the approval of the City Manager.

11.4 Upon termination of employment, an employee who has not taken accrued vacation and who has been continuously employed for at least twelve (12) calendar months shall be entitled to vacation compensation, not to exceed 45 days (360 hours).

11.5 Vacations may be taken any time with the prior approval of the Director or his designee.

11.6 Employees may not take vacation time in increments of less than one (1) hour. Vacation in excess of one (1) hour may be taken in increments of one quarter (1/4) hour.

ARTICLE 12 - APPROVED ABSENCE

12.1 Sick Leave. Employees shall accrue sick leave at the rate of eight (8) hours for each month of service. Sick leave may be accrued to a maximum of fourteen hundred (1400) hours. For purposes of the sick leave conversion at retirement, the cap shall remain at one thousand (1000) hours. When employees are terminated, all accrued sick leave credits shall be canceled. Employees taking time off for doctor or dentist appointments during working hours shall have such time charged against their sick leave accumulation. The City may request a doctor's release to return to work if the City can reasonably articulate its need for the release. Employees falsifying their claim for sick leave shall be liable for disciplinary action by the City. When an employee must be away from the job because of illness in the immediate family, such time off may be charged against sick leave time on an hourly basis. If the absence becomes prolonged, such time off may be charged against accumulated vacation. Employees must keep their department head informed as to their status to qualify under this provision. Under no circumstances shall the City grant an employee sick leave with pay for time off from City employment when sickness or injury resulted from employment other than with the City of Forest Grove.

12.1.1 Upon retirement, an employee's accrued, unused sick leave shall be converted to the employee's retirement account to be withdrawn in a lump sum or in the form of a monthly annuity. The conversion amount to be credited at retirement shall be based on the following table:

<u>Sick Leave Hours</u>	<u>Conversion at Retirement</u>
Up to 700	50%
701-775	55%
776-850	60%
851-925	65%
926-1000	70%

12.2 Funeral Leave. Whenever a death shall occur in an employee's immediate family or household, including grandparents, grandchildren, and in-laws, a leave of absence not to exceed 40 working hours, with full pay, shall be granted. Up to four (4)

hours of paid leave shall be given to an employee acting as pallbearer for anyone not listed above. Funeral leave is intended for the purpose of attending the funeral and/or attending to the affairs of the deceased.

12.3 Jury Duty. All regular employees who are called for jury duty or subpoenaed as a witness in a case for which they are not a party shall be entitled to receive full pay for such time off, if they endorse their checks for such services over to the City.

12.4 Leave of Absence Without Pay. All regular full-time employees may be granted a leave of absence without pay upon written application to the Director, providing such leave does not impair the functions of the department. Leave for longer than one (1) month must be approved by the City Manager.

12.5 Regular full-time employees in the service of the City shall maintain their place on the seniority list while on leave for good cause or while under transfer to some other department or on Union full-time appointment for a period not to exceed (1) year.

ARTICLE 13 - PROBATIONARY PERIOD

13.1 All original and re-employment appointments shall be made for a probationary period of twelve (12) months. The probationary period shall be deemed a part of the examining process for determining the qualifications of the employee for regular full-time employee status. A probationary employee may be dismissed or demoted, and shall not have recourse to the grievance procedures.

13.2 An employee promoted to a higher paying classification shall serve a probationary period of six (6) months. The City may return the probationary employee to the former job during the probationary period without recourse to the grievance procedure.

ARTICLE 14 - INDUSTRIAL ACCIDENT

14.1 The City shall provide Workers' Compensation insurance in accordance with the requirements of the State of Oregon. Employees who sustain an injury or illness compensable by Workers' Compensation and who are unable to perform their normal duties as a result of such injury or accident shall be compensated by the City's insurance carrier for the period of time loss. The difference between the Workers' Compensation payments and the employee's regular straight-time wages, less any payroll deductions, shall be paid by the City for a period of sixty-five workdays. Whenever an employee receives a check from the City's insurance carrier, the employee shall report the amount and the period, which it represents to the City's payroll department. If an employee is off work beyond the sixty-five (65) day period as a result of a work injury, accrued days of leave may be used on a pro rata basis to supplement the employee's insured disability income until leave is exhausted.

14.2 Both parties agree to the principle that during the period that the employee receives compensation from both the insurance carrier and the City, the employee shall suffer no financial penalty nor should the employee have a financial advantage as regards employee's regular pay, referred to in Section 14.1, by being on disability status.

14.3 It is in the mutual interest of the parties to return an injured employee to work as soon as practicable. When possible, the City shall provide limited duty assignments within the department for injured employees. With the concurrence of the attending physician, an injured employee shall return to work in the limited duty assignment if work is available, until such time as the employee is released for normal duties. Such limited duty assignment is intended to be temporary in nature and not a permanent assignment.

ARTICLE 15 - SAFETY

15.1 All work under this Agreement shall be performed according to the Oregon Occupational Safety and Health Code. If the Oregon Occupational Safety and Health Code does not cover a specific work situation, the National Electric Safety Code shall apply when appropriate. This Agreement shall apply when its terms exceed the requirements of the safety codes.

15.2 It is the responsibility of the City and employees to comply with all state safety regulations set forth in Section 15.1.

15.3 The determination as to the safety of any operation shall initially be made by the Foreman and/or Working Foreman on the job. When in the opinion of the Foreman, the work assigned to a crew cannot be done safely because of the manpower and equipment available, the Foreman may reject the job. If any dispute arises because of such a decision by a Foreman, the City and the Union shall jointly hold a hearing on the matter as soon thereafter as time permits.

15.4 The City shall hold one safety meeting per month. The City and members shall establish a safety committee to investigate all accidents, unsafe conditions and actions as they occur.

ARTICLE 16 - CLOTHING AND TOOLS

16.1 Protective clothing shall be furnished to all employees whenever and wherever it shall be necessary for health and safety reasons. This shall not include footwear. The City shall provide an allowance to employees annually for the purchase of rain gear (New employees will receive a pro-rated amount). The City's intent is to provide an allowance of \$300.00 to all classifications within the Bargaining Unit, payable on July 1st of each year. Amounts distributed for clothing shall be paid through payroll and will be

included in the employees' taxable income pursuant to IRS regulations. Clothing purchased by the employee must meet Flame Retardant guidelines when the potential for exposure dictates.

16.2 All Journeyman Lineman and Apprentices shall furnish the first set of tools. Then the City shall furnish replacements as they are lost, stolen or worn out. All equipment purchased by the City will be stored on City property.

16.3 The City shall provide work gloves as needed and shall be stored on City property.

16.4 Employees requiring prescription lenses shall be reimbursed up to \$325.00 once every two years for prescription safety glasses. Employees shall be required to present receipts for prescription safety glasses to receive reimbursement and will be stored on City property. Safety glasses will be replaced at City expense if the safety glasses are damaged while an employee is performing regular job duties. The City shall purchase and provide safety glasses for those employees who do not require prescription glasses.

ARTICLE 17 - SENIORITY

17.1 Seniority is hereby defined to mean the length of continuous service with the City within the bargaining unit. Seniority is a factor for management to consider when making decisions on employee promotion, layoffs, or other employee requests. When management determines that all other factors are equal, seniority shall be the determining factor.

17.2 When employees are laid off because of lack of work, they shall maintain their seniority rights during the layoff period for time equivalent to their length of service, but not to exceed one (1) year.

ARTICLE 18 - OUTSIDE EMPLOYMENT

18.1 It is agreed that no employee under this Agreement shall perform gainful outside employment, unless such outside work receives the prior approval of the Director and is compatible with the employee's City duties, in no way detracts from the efficiency of the employee in City duties, presents no conflict of interest with City affairs, in no way discredits City employment, and does not take preference over extra duty required by City employment.

ARTICLE 19 - WORKING RULES - MISCELLANEOUS PROVISIONS

19.1 The Union recognizes the right of the City to establish reasonable rules and regulations for the safe, sanitary and efficient conduct of the City's business, and

reasonable penalties for the violation of such rules and regulations. All employees shall continue to comply with the presently published rules, except in those areas superceded by this Agreement. Changes or additions to such rules shall be furnished to the Union, at the time of issuance, and such changes or additions shall be subject to review under the grievance procedure if the Union objects to said rules as violations of this Agreement within thirty (30) days after issuance.

19.2 Standby. Department employees may be required to be on call in a standby status for the purpose of responding to customer outages or emergencies pertaining to the Light and Power Department and the City's electric utility system during weekends and/or holiday periods.

19.2.1 Standby duty shall be performed by journeyman linemen, and other department journeymen employed as of the date of this agreement, and work assignments for standby shall be made on a rotating basis from week to week.

19.2.2 Standby crews shall be compensated at the rate of two (2) hours on the overtime schedule per person per standby day. Compensation for standby duty shall be for Saturdays, Sundays, and holidays only. Employees who have weekend standby duty shall be expected to be in a standby status from the close of regular work on Friday to the beginning of regular work on Monday. An employee who is unable to report to work or cannot be located shall forfeit standby pay. In the event standby crews are called to work, they shall receive additional compensation at the overtime rate for time actually worked.

19.2.3 The Operations Superintendent shall be notified, when practicable, when additional personnel are necessary for emergency work.

19.2.4 Employees assigned to stand-by duty shall be provided with a pager or other communication device and shall be expected to respond in a timely manner when contacted. They shall be required to be available to receive emergency calls during time periods outside of their normal working hours. Failure to be available or to respond while on stand-by shall result in a loss of stand-by pay.

19.3 Night Work. When Journeymen are sent out at night to perform repair work which requires working on energized primary equipment or climbing off the ground, not less than two (2) Journeymen shall be required, except for re-fusing transformers and lines.

19.4 Construction. All framing and erection of poles or towers and stringing of wires shall be done by Journeyman Linemen assisted by Helpers, as required. All employees working eighty (80) feet above the ground or higher shall be paid at the rate of double-time (2X) while working at such height. This shall exclude roofs where no exceptional hazards exist and/or aerial man lifts.

19.5 Underground. The installation of underground electrical systems when performed by regular qualified employees of the City shall be performed with not more than two (2) Helpers to every Journeyman Lineman. The connection, termination, and maintenance of underground systems shall be performed under applicable rules set forth in the Oregon Occupational Safety and Health Code and the National Electrical Safety Code.

19.6 Tree Trimming and Brush Cutting. Tree trimming and brush cutting shall be performed in accordance with the State of Oregon Occupational Safety and Health Code.

19.6.1 After trees are trimmed from primary areas, or brush is cut from under energized lines, the limbs or brush may be chipped or hauled away by qualified employees.

19.7 Apprentice Linemen or Apprentice Metermen. The City may employ in each branch of the Electrical Workers' Trade one (1) Apprentice for each two (2) Journeymen, including Line Foremen, Line Working Foremen, Metermen, Working Foremen and other premium classifications as Journeymen, provided, that with the consent of the Union, the foregoing limitations may be suspended or modified when the need for training additional skilled employees exists. An Apprentice shall work under the direct supervision of a Journeyman.

19.7.1 No Apprentice shall be permitted to work on live wires, apparatus and/or equipment operated at voltages in excess of 750 volts until the fifth six-month period of the apprenticeship.

19.7.2 An Apprentice Meterman shall work under the direct supervision of a Journeyman Meterman and may perform other work as assigned.

19.8 Layout of Work. On jobs having a Foreman, employees are not to take directions, orders, or accept the layout of any job from anyone except the Foreman.

19.9 Where the work of an outside employee involves two or more classifications on the same day, the outside employee shall be paid at the higher rate of pay for actual time worked in that higher classification. No Foreman shall, at the same time, perform or supervise work for more than one (1) crew except, however, when two (2) or more crews are combined for a specified job, the Director or Superintendent shall designate one (1) of the Foremen to be in charge of the job, with no reduction in pay for either Foreman.

19.10 Supervisors and employees outside of the Bargaining Unit shall not handle tools and do that class of work required of a Journeyman except: a) when life or property is in danger and there are no other qualified persons available to do the work, b) when necessary to check the work of others, or c) when necessary to train others.

ARTICLE 20 - GRIEVANCE PROCEDURES

20.1 For the purpose of this Agreement, a grievance is defined as a dispute about the meaning or interpretation of a particular clause of this Agreement, or an alleged violation of this Agreement, or of the laws governing the relationship between the City and employee or unlawful supervisory action which reasonably could be interpreted to endanger the job of an employee or the benefits arising there from.

20.2 Any dispute which arises between the parties during the term of this Agreement shall be handled as follows:

STEP 1 The Steward shall, on behalf of the aggrieved party, present the grievance in writing to the Superintendent within ten (10) working days of its occurrence, not including the day of occurrence or the day upon which the employee became aware of the occurrence. The dispute shall be discussed by the Superintendent, Steward, and the Employee. The Superintendent shall make every effort to reach a satisfactory conclusion within five (5) working days.

STEP 2 If no agreement is reached at Step 1, the employee, groups of employees, or Shop Steward shall present their grievance, in writing, to the Director within ten (10) working days of the response to Step 1. This grievance is to be signed by the grievant. Copies of the written grievance shall also be submitted to the City Manager and the Union Business Manager setting forth:

- (a) the nature of the grievance and the circumstances from which it arose,
- (b) remedy or correction the City or Union requested to make, and
- (c) the Section or Sections of the Agreement, if any, relied upon or claimed to have been violated.

The City and the Union shall endeavor wherever practicable to settle any grievance at this point, such "Settlement Agreement" to be signed by both parties and copies thereof to be furnished to the City Manager and the Union Business Manager. If, however, the employee and the Director do not settle such grievance directly within ten (10) working days after its presentation by the employee, then steps hereafter shall apply. Time frames herein may be extended by mutual agreement.

STEP 3 If no agreement is reached as provided in Step 2, the Union Business Manager or his authorized representative shall submit the grievance, in writing, to the City's authorized representative or representatives within ten (10) working days from the response at Step 2. The Union and the City shall meet to consider the grievance and may call and present witnesses to testify at such meeting and each shall pay all costs of the appearance of any witnesses so called by it. The time frames herein may be extended by mutual agreement.

20.3 If no agreement is reached through the process outlined in Step 3, an arbitrator may be selected at the request of either party to arbitrate the particular grievance. The arbitrator shall be selected jointly by the City and the Union and is to be chosen from a list of five (5) arbitrators residing in Oregon supplied by either the Public Employee Relations Board, State of Oregon, or the Office of the Federal Mediation and Conciliation Service, by lot or mutual agreement. The City and the Union shall each alternatively strike from this list, one (1) name at a time, until only one (1) name remains on the list.

Two (2) days shall be allowed for the striking of each name. The initial striking shall be determined by lot. The name of the arbitrator remaining on the list shall be accepted by both parties.

20.4 During the process of the grievance procedure, there shall be no strike or lockout. The arbitrator shall interpret this Agreement, determine if it has been violated, and determine awards, restitution, and corrective action. The arbitrator shall pass on the admissibility of the evidence. Each of the parties hereto shall provide all books, records, documents, or any other material which, in the opinion of the arbitrator, is relevant to the issue in dispute. The arbitrator's decision shall be final and binding on both parties, but the arbitrator shall have no power to alter, modify, amend, add to or detract from the terms of this Agreement. Neither party to the dispute shall seek judicial review. Should either party fail to promptly proceed with the steps of this grievance procedure or fail or refuse to abide by the decision of the arbitrator, the other party shall be free to take whatever action it deems necessary. The fee of the arbitrator and his incidental expenses shall be borne equally by the parties. Each party shall be responsible for costs of presenting its own case to and in arbitration.

ARTICLE 21 - AGENTS OF THE UNION

21.1 Whenever agents of the Union shall visit the place of employment, they shall make their presence known to the Supervisors and Director and shall not interfere with any employee in the performance of his work.

ARTICLE 22 - SAVINGS CLAUSE

22.1 Whenever it shall be found that any portion of this Agreement is in violation of any City, State or Federal law, such portion of the Agreement shall become invalid, and the remainder of the Agreement shall remain in effect. The City and the Union agree to negotiate substitute provisions for those Articles that may be in question.

ARTICLE 23 - SUBCONTRACTING

23.1 Nothing contained in this Agreement shall act as a bar to the City being able to subcontract out portions of work now being performed under this Agreement when such action would enhance the efficiency of operations or when technological advances make it feasible to do so, provided that the work subcontracted does not result in layoffs.

ARTICLE 24 - SCOPE OF AGREEMENT

24.1 The City and the Union shall not be bound by any requirement not specifically stated in this Agreement. The City and the Union are not bound by any unwritten past practices of the City or the Union, unless such past practices or understandings are specifically stated or referred to in this Agreement.

24.2 The Union and the City agree that this Agreement is intended to cover all matters affecting wages, rates of pay, hours, grievance procedures, working conditions, and all terms and conditions of employment and similar or related subjects and that, during the term of this Agreement, neither the City nor the Union shall be required to negotiate on any further matter affecting these or any other subjects not specifically set forth in this Agreement.

ARTICLE 25 - HEALTH AND WELFARE

25.1 The City shall provide medical, dental and vision insurance benefits to the employee and his dependents comparable to Blue Cross Plan V PPO medical insurance, Blue Cross Plan II dental insurance and Blue Cross UCR vision insurance. The City shall also offer Kaiser medical and dental insurance as an alternative to Blue Cross. The City agrees to contribute to employee's health insurance coverage an amount equal to ninety percent (90%) of the Blue Cross medical, dental and vision premium.

25.2 Upon retirement from the City service, employees with three (3) years of continuous service, may elect to continue their group medical insurance coverage at their expense.

ARTICLE 26 - LONG TERM DISABILITY INSURANCE

26.1 The City shall provide long-term disability insurance, which provides sixty percent (60%) of monthly salary up to a maximum salary of \$4,000 per month, after an eligibility period of ninety (90) days. Premium costs shall be paid in full by the City.

ARTICLE 27 - RETIREMENT PLAN

27.1 The City shall provide a defined benefit retirement plan. After six (6) months of full-time regular employment, employees covered by this Agreement are required to

participate in the retirement system. The City shall pay the employees' portion of the contribution. Total contributions to the retirement plan shall meet actuarial requirements. Employees who terminate prior to being eligible for vesting rights shall withdraw their contributions, plus interest, to the plan.

27.2 The amendments to the retirement plan which were adopted by council Resolution No. 90-58 shall be granted to the members of IBEW. Specifically to include the addition of active IBEW employees under Section VII, Part 3 of the City's Retirement Plan. This provision applies to eligible active employees of the City only and specifically excludes separated employees. The City and the Union agree that the only employees who will be eligible under Section VII, Part 3 are as follows:

Adams, Jeffery
Hanville, Laurence
Hormann, Keith
Jansen, Kent

Stickles, James
Smith, Roy
Temple, Eric
Vandehey, Donald

27.3 Retirees who are members of the City's retiree health insurance plan shall have their premiums reduced by \$65 per month upon reaching the Medicare age of 65. This applies to retired employees only and not dependents.

27.4 An employee eligible to receive disability retirement who is also receiving workers' compensation, shall have his/her retirement benefit reduced by the amount of the workers' compensation. Under no circumstances shall an employee's compensation from disability retirement and workers' compensation exceed the employee's average monthly earnings as of the date of disability.

ARTICLE 28 - LIFE INSURANCE

28.1 The City shall provide life insurance in an amount equal to an employee's annual salary rounded to the nearest thousand dollars. Premium costs shall be paid in full by the City.

ARTICLE 29 - DEFERRED COMPENSATION

29.1 Employees shall have the option of participating in a deferred compensation plan sponsored by the City. The deferred compensation plan shall be of no direct cost to the City and employee participation shall be voluntary.

29.2 The City shall offer to the bargaining unit any IRS tax deferred plans it offers to other City employees.

ARTICLE 30 - CLASSIFICATION AND WAGES

30.1 All wages to be increased by 3.50 percent July 1, 2007, 3.50 percent July 1, 2008, and 3.50 percent July 1, 2009.

Classification		Hourly	Hourly	Hourly
		Rate	Rate	Rate
		Eff: 7/1/07	Eff: 7/1/08	Eff: 7/1/09
		<u>3.50%</u>	<u>3.50%</u>	<u>3.50%</u>
Line Foreman	115%	\$39.78	\$41.17	\$42.61
Line Working Foreman	110%	\$38.05	\$39.38	\$40.76
Meter Relay Foreman	113%	\$39.09	\$40.45	\$41.87
Meterman Working Foreman	110%	\$38.05	\$39.38	\$40.76
Journeyman Lineman	100%	34.59	35.80	37.05
Journeyman Meterman	100%	34.59	35.80	37.05
Apprentice, 7th	90%	\$31.13	\$32.22	\$33.35
Apprentice, 6th	84%	\$29.06	\$30.07	\$31.12
Apprentice, 5th	80%	\$27.67	\$28.64	\$29.64
Apprentice, 4th	76%	\$26.29	\$27.21	\$28.16
Apprentice, 3rd	73%	\$25.25	\$26.13	\$27.05
Apprentice, 2nd	70%	\$24.21	\$25.06	\$25.94
Apprentice, 1st	65%	\$22.48	\$23.27	\$24.08
Mechanic, After 4 years		22.50	23.29	24.11
Mechanic, After 3 years		21.79	22.55	23.34
Mechanic, After 2 years		21.05	21.79	22.55
Mechanic, After 1 year		20.17	20.88	21.61
Mechanic, After 6 months		19.09	19.76	20.45
Mechanic, Start		18.00	18.63	19.28
Tree Trimmer Foreman	90%	\$31.13	\$32.22	\$33.35
Tree Trimmer	80%	\$27.67	\$28.64	\$29.64

Sr. Util Wkr, Thereafter	23.82	24.65	25.51
Sr. Util Wkr, After 6 months	21.41	22.16	22.94
Sr. Util Wkr, Start	18.99	19.65	20.34
Meter Reader, Thereafter	21.03	21.77	22.53
Meter Reader, After 6 months	17.85	18.47	19.12
Meter Reader, Start	15.06	15.59	16.14

30.2 Each employee shall be paid at one (1) of the steps of the range prescribed for his/her classification. Employee performance shall be evaluated in writing in a format prescribed by the City. Performance evaluations shall be conducted after six (6) months and one (1) year of employment, and on an annual basis thereafter. Merit raises may be granted based on the evaluation of work performance. Whenever an employee is appointed to a position in a higher classification, he/she shall receive at least the nearest higher salary in the new salary range. The merit and promotional salary increases shall be instituted at the beginning of the next pay period following completion of required service or notice of promotion.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement this

_____ day of _____, 2007

International Brotherhood of
Electrical Workers, Local Union 125

City of Forest Grove

Business Manager

Michael J. Sykes, City Manager

October 1, 2007

**REPORT ON BOUNDARY CHANGE PROPOSAL NO. ANX 07-01
ANNEXATION TO FOREST GROVE
SCHEDULED FOR HEARING DATE OF OCTOBER 8, 2007**

PROJECT TEAM: Kerstin Cathcart, Senior Planner
Jon Holan, Community Development Director
Michael Sykes, City Manager

ISSUE STATEMENT: Consideration of a petition to annex to the City of Forest Grove initiated by the property owner. The territory to be annexed consists of a parcel totaling 0.90 acres. It is located at 2385 NW Willamina Avenue. More specifically the territory includes Washington County tax map 1N331BD, lot 700 as shown on Figure 1 attached to this staff report. The annexation is being proposed at this time to allow access to the property to the north of this parcel.

STAFF RECOMMENDATION: The staff recommends that the annexation be approved by the Council and, if so, that the territory be withdrawn from Forest Grove R.F.P.D., Washington County Service District for Enhanced Law Enforcement and the Washington County Service District for Urban Road Maintenance. The staff has prepared an ordinance with draft findings and conclusions which would support the approval and the withdrawals.

BACKGROUND: The legal framework for review of boundary changes in the Portland metropolitan area consists of ORS 222, Metro Code Chapter 3.09 and ORS 197.763. Additional background on the annexation process is contained in attached report.

PROPOSAL NO. ANX-06-05 CITY OF FOREST GROVE – Annexation

Petitioners: Bryon & Shoana McKelvey, Property Owners
Matt Wellner, Applicant

Proposal No. ANX 07-01 was initiated by a consent petition of the property owners. The petition meets the requirement for initiation set forth in ORS 222.170 (2) - double majority annexation law, and Metro Code 3.09.040 (a) - Metro's minimum requirements for a petition. The Council must review the proposal and determine whether it is in compliance with the applicable criteria.

The territory to be annexed consists of a parcel totaling 0.90 acres, with the street address of 2385 NW Willamina Avenue. More specifically the territory includes Washington County Map IN331BD, tax lot 700. It has an assessed real market value of \$336,760 and a Measure 50 value of \$121,100.

REASONS FOR ANNEXATION

The annexation is necessary to provide access to an adjacent lot to the north and to provide city services to the property.

CRITERIA FOR DECISION-MAKING

The Legislature has directed Metro to establish criteria for annexations, which must be used by all cities within the Metro boundary. The Metro Code states that a final decision shall be based on substantial evidence in the record of the hearing and that the written decision must include findings of fact and conclusions from those findings. The Code requires these findings and conclusions to address the following minimum criteria:

- 1) Consistency with directly applicable provisions in ORS 195 agreements or ORS 195 annexation plans. [ORS 195 agreements are agreements between various service providers about who will provide which services where. The agreements are mandated by ORS 195 but none are currently in place for this area. Annexation plans are timelines for annexations that may only be done after all required 195 agreements are in place and that must have been voted on by the City residents and the residents of the area to be annexed.]
- 2) Consistency with directly applicable provisions of urban planning area agreements between the annexing entity and a necessary party.
- 3) Consistency with directly applicable standards for boundary changes contained in Comprehensive land use plans and public facility plans.
- 4) Consistency with directly applicable standards for boundary changes contained in the Regional Framework Plan or any functional plans.
- 5) Whether the proposed boundary change will promote or not interfere with the timely, orderly and economic provision of public facilities and services.
- 6) If the boundary change is to Metro, determination by Metro Council that territory should be inside the UGB shall be the primary criteria.

- 7) Consistency with other applicable criteria for the boundary change in question under state and local law.

The Metro Code also contains a second set of ten factors which are to be considered where: 1) no ORS 195 agreements have been adopted, and 2) a necessary party is contesting the boundary change. Those ten factors are not applicable at this time because no necessary party has contested the proposed annexation.

LAND USE PLANNING

The annexation of territory into Forest Grove is subject to state, regional and local planning requirements. These include: State Land Use Goal 14: Urbanization; Metro Regional Framework Plan; Urban Growth Management Agreement between Washington County and Forest Grove; and the Forest Grove Comprehensive Plan and various public facility plans.

State Land Use Goal 14

The annexation is consistent with Goal 14, which requires communities, "to provide for an orderly and efficient transition from rural to urban land use." The goal specifies that conversion of urbanizable land to urban uses be based on: orderly, economic provision of public facilities; availability of sufficient land for various uses; LCDC goals or the acknowledged comprehensive plan; and encouragement of development within urban areas before conversion of urbanizable areas.

Regional Framework Plan

The annexation is consistent with regional plans. This territory is inside Metro's jurisdictional boundary and inside the regional Urban Growth Boundary (UGB). The law that requires Metro to adopt criteria for boundary changes specifically states that those criteria shall include ". . . compliance with adopted regional urban growth goals and objectives, functional plans . . . and the regional framework plan of the district [Metro]." The Regional Framework Plan, which includes the regional urban growth goals and objectives, the Growth Management Functional Plan and the Regional Transportation Plan were examined and found not to contain specific criteria applicable to boundary changes.

The Metro Code states that decisions on boundary changes should be ". . . consistent with specific directly applicable standards or criteria for boundary changes contained in comprehensive land use plans, public facility plans . . ." Thus the applicable plans must be examined for "specific directly applicable standards or criteria."

Washington County Planning

The annexation is consistent with Washington County planning policies. Washington County reviewed its role in service provision in its County 2000 program, the County's financial management plan. The County established a policy of supporting a service delivery system that distinguishes between municipal and countywide services. To achieve tax fairness and expenditure equity in the provision of public services the County's policy is to provide only countywide services with general fund revenues. The County policy favors municipal services being provided either by cities or special districts.

The territory is designated and zoned FD-10 (Future Development – 10 acre district).

This zoning applies to the unincorporated portions of some city active planning areas where these cities are the only available source of urban services. . . The FD-10 District provides recognition of the desirability of encouraging and retaining limited interim uses until a need for more intensive urban land use activities develops and such lands are annexed to a city.

Washington County's Urban Growth Management policies require urban development to be accompanied by adequate urban services. The growth management policies define both urban development and necessary urban services. Public sewer, public water and a balanced urban level transportation system are the primary urban services considered.

Urban Growth Management Agreement.

Washington County and the City of Forest Grove jointly prepared and adopted an Urban Planning Area Agreement (UPAA) to coordinate land use actions within the City's planning area. The subject territory is within the area covered by the UPAA. Pertinent portions of the UPAA are as follows:

* * *

III. Planning Responsibilities

- A. The following policies are intended to further clarify the respective planning interests and duties of the CITY and the COUNTY as they relate to the Forest Grove Urban Planning Area:
2. The CITY shall be responsible for comprehensive planning in the incorporated and unincorporated portions of the CITY's urban planning area, and shall implement the planning process outlined in the CITY's comprehensive plan. The COUNTY shall support the planning process and participate as necessary.

* * *

9. Urban development in the urban planning area shall be served with adequate urban services including sewer, water, storm drainage, streets, and police and fire protection. The CITY shall be responsible for the preparation, adoption and amendment of the public facility plan required by OAR 660-11 within the urban planning area.
10. As required by OAR 660-11-010, the CITY is identified as the appropriate provider of local water, sanitary sewer, storm sewer and transportation facilities within the urban planning area. Exceptions include facilities provided by other service providers subject to the terms of any intergovernmental agreement the CITY may have with other service providers not covered by an intergovernmental agreement; and future facilities that are more appropriately provided by an agency other than the CITY. The CITY shall provide urban services consistent with annexation and fiscal policies.
11. The CITY has developed a transportation plan which addresses the existing and future traffic needs of the urban planning area. The CITY shall coordinate local transportation plans, proposals and improvements with the COUNTY.

13. The CITY shall monitor and regulate the conversion of vacant and agricultural land to urban uses through the extension of water and sewer service, land partitioning requirements and annexations within the urban planning area. Unincorporated urbanizable land shall not be converted to urban development prior to annexation to the CITY.

City Planning

The City of Forest Grove has active planning responsibility for the entire area within the regional urban growth boundary surrounding the City. This territory is within the boundary.

The City Comprehensive Plan covers the territory to be annexed. The current Comprehensive Plan designation for the territory is **Low Density Residential B-Standard** (6.22 units per net acre). The zoning of the property will change upon annexation from the current County zone (FD-10) to the City designation of **R-7 Single Family** according to standards outlined in City Zoning Code 9.614, which requires the appropriate zone district upon annexation according to the underlying comprehensive plan designation.

The City's comprehensive plan policies were reviewed for policies related to annexation. The proposal was found to be consistent with the following:

Local Urbanization Goals:

1. Land shall be made available within the urban growth boundary to meet all urban land use needs.
2. Utility services shall be provided incrementally without bypassing large parcels of vacant land to serve peripheral parcels.

Local Urbanization Policies:

2. All lands within the Urban Growth Boundary shall be assigned priorities for urban development. Priorities shall be based on the City's ability to provide urban services and the orderly and efficient timing of service extensions. These priorities shall be the basis for making decisions on all development proposals and requests for annexation.
3. Provide for an Urban Growth Management Strategy to set forth policies on the urbanization of vacant and agricultural land. The policies should cover the extension of water and sewer service, land partitioning requirements, zoning, and annexations within the Urban Growth Boundary. The strategy shall provide for the orderly and cost-efficient accommodation of anticipated urban growth for the next 10 years.
4. Trunk lines for utilities shall be extended only to service areas which are adjacent to existing development.
5. Sewer and water utilities shall not be extended beyond the City's corporate limits and shall be provided only after annexation.

CONSISTENCY OF PROPOSAL WITH LAND USE PLANNING REQUIREMENTS

The proposal is consistent with State, regional and local planning requirements listed in the preceding pages. The proposal meets the requirements of State Land Use Goal 14: Urbanization by providing for an orderly transition from rural to urban land use; allowing the efficient provision of public facilities; allowing for the future construction of needed housing; and implementing the City's acknowledged comprehensive plan. The proposal promotes the development of residential development as an "Inner Neighborhood" design type as defined by the Metro 2040 Concept Plan and is consistent with Title 1 of the Metro Functional Plan by providing for the expansion of housing.

The City's growth management strategy is represented by the Comprehensive Plan and the proposal is consistent with the goal and policies presented in this document. The property, when developed, will extend urban services from areas immediately adjacent to the property or to areas immediately adjacent to the property. These services have capacity to serve the site. Thus, the annexation of this area appears to be consistent with the intent of Policies 2 and 3. Policy 4 and 5 prohibits extension of utility outside the City and only to area which are adjacent to existing development. The following section will discuss the availability of municipal facilities and services to the territory in more detail.

FACILITIES AND SERVICES

Sewer. The site falls within the Northeast service area of the City's Sewer Master Plan. The site will connect to an 8" sewer line that will extend from Sunset Drive along Willamina Avenue. Further, the implementation of the Sewer Master Plan for this territory represents a logical extension of sewer service where a nearby service line would be extended to provide service to the site.

Forest Grove lies within the service district of Clean Water Services (CWS). CWS is the NPDES permit holder and operates and maintains wastewater treatment and collection facilities within its boundary. Through intergovernmental agreement between the City and CWS, the City performs some of the operation, maintenance, and administrative functions on portion of the collection system within city limits. If a property is not already within CWS's service district, the applicant must go through an additional annexation process with CWS.

The City is responsible for billing its customers after service is installed and for collecting sanitary and storm sewer connection fees. If the City imposes the same connection fees and use charges as Clean Water Services, it simply passes these monies on to Clean Water Services to pay for the costs of treatment and transmission of the sewage or storm water. The City may impose higher costs than Clean Water Services charges and keep the difference to offset City costs. Forest Grove does not charge a higher fee. The City assesses system development charges (SDCs) upon development of the property.

Water. The property is currently served by city water. The City of Forest Grove has two sources of water supply. The primary source is the Forest Grove watershed, consisting of 4,300 acres of the Clear Creek drainage basin. The City also has water rights from Gales Creek. Water from the Forest Grove watershed is treated at the City's treatment plant located in the northwest section of the City. The treatment plant has a capacity of about 3.0 million gallons per day (mgd). Another other major source is the joint Hillsboro/Forest Grove/Beaverton water treatment plant, which is supplied from the Trask and Scoggins impoundments via the Tualatin River. The joint water supply system has a nominal capacity of 60 mgd. Forest Grove owns 13.3 percent (8 mgd) of the system's capacity.

The City's main storage reservoir is located adjacent to the Forest Grove Water Treatment Plant. It has a storage capacity of 5 million gallons (mg). This is adequate for the existing system. An additional reservoir provides 1 mg of storage for the Forest Gale Heights area.

Storm Water Management. Clean Water Services (CWS) County Service District is responsible for storm water management in Washington County. Due to the City's Intergovernmental Agreement with CWS, adequate storm water facilities meeting CWS standards will be required as part of any development approval. The site will either tie into a storm line that runs south to north approximately 250 feet east of the site or hook into the Sunset Drive system.

The City is responsible for billing and collecting sanitary and storm sewer connection fees from its customers after the services are installed. Clean Water Services (CWS) establishes the rates for sanitary and storm sewer services which the City bills to its customers. The City keeps a portion of these fees to pay for the transmission services performed by the City and passes the other portion on to CWS to pay for the treatment and transmission services performed by CWS. The division of the fees is determined by CWS.

If the City needs additional revenue to fund its operating costs, the City may impose a surcharge and retain that surcharge to cover its costs. Forest Grove currently imposes a surcharge on sanitary sewer. CWS assesses system development charges (SDCs) which the City collects when building permits are issued. The City retains a portion of the SDCs and CWS receives the remainder. CWS sets the division of the SDCs between the City and CWS.

Police. The territory to be annexed is within the Washington County Enhanced Sheriff's Patrol District which, in addition to the basic County-wide level of protection, provides 0.94 officers per 1,000 people. The City may withdraw the territory from the District upon annexation. If the City declares the territory withdrawn from the District on the effective date of the annexation the District's tax levy will no longer apply.

Upon annexation the City of Forest Grove Police Department would assume responsibility for the property. The City employs 26 officers, equating to 1.46 officers per 1,000 people. The department operates on three ten-hour shifts, 7 days a week. Staffing for each shift is determined by calls for service.

The Police Department has expressed concerns about access to the area and moving in and out of the City limits to respond to calls in this North-Central area. Regarding access, they are concerned about the road condition of Willamina Avenue in terms of police response. This issue can be addressed during the development review process. The irregular city boundary in this part of the city makes it difficult for the police to determine whether they or the Sheriff's Department have primary jurisdiction when responding to a call. While this situation was improved by the city-sponsored annexation in 2006, the irregular boundary exists primarily in this part of Forest Grove.

Fire. The territory is within the boundary of the Forest Grove Rural Fire Protection District, the City may withdraw the territory from the District upon annexation. If the City declares the

territory withdrawn from the District on the effective date of the annexation the District's tax levy will no longer apply.

The City Fire Department Operates through an intergovernmental agreement between the City of Forest Grove and the Forest Grove Rural Fire Protection District. The City and District share all capital costs equally. Fire service is provided from two fire stations. The main station (constructed in 1995) is located in the center of the City on Ash Street. The second station is located in the Gales Creek area. The City and District co-own property near the intersection of David Hill Road and Thatcher Road for a possible fire station if development in that area warrants a third station.

The Fire Department operates with 1 Fire Chief, 1 Administrative Assistant, 2 Division Chiefs in charge of Fire Prevention and Training, 1 Fire Inspector 15 career Firefighters and 42 Volunteer Firefighters. The Department provides 4 to 5 career firefighters on duty at all times at the Ash Street Station. On certain alarms, the volunteers respond to the station along with off duty career firefighters. All personnel are provided with pagers for alerting them. Night responses are augmented by the resident volunteers that live at the Ash Street Station. The Fire Department is equipped with 5-Pumpers, 2-Water Tenders, 1-104' Aerial Platform Truck, 1- Rescue, 1-Support Unit 5-Pick-ups, 1- Command Vehicle.

Transportation. The territory to be annexed is within the boundary of the Washington County Urban Road Maintenance District. The City can withdraw the territory from the District upon annexation to the City. It is worth noting that Willamina Avenue is still within Washington County's jurisdiction and therefore is only maintained to county road standards.

Parks. The city parks nearest to the subject property are Lincoln Park and the future Stites Park. Lincoln Park is undergoing a major renovation while Stites Park is still undeveloped.

Other Services. The City of Forest Grove provides a municipal utility for electric power through its City Light and Power Department. Forest Grove provides library services, land use planning, zoning, building and general administration services.

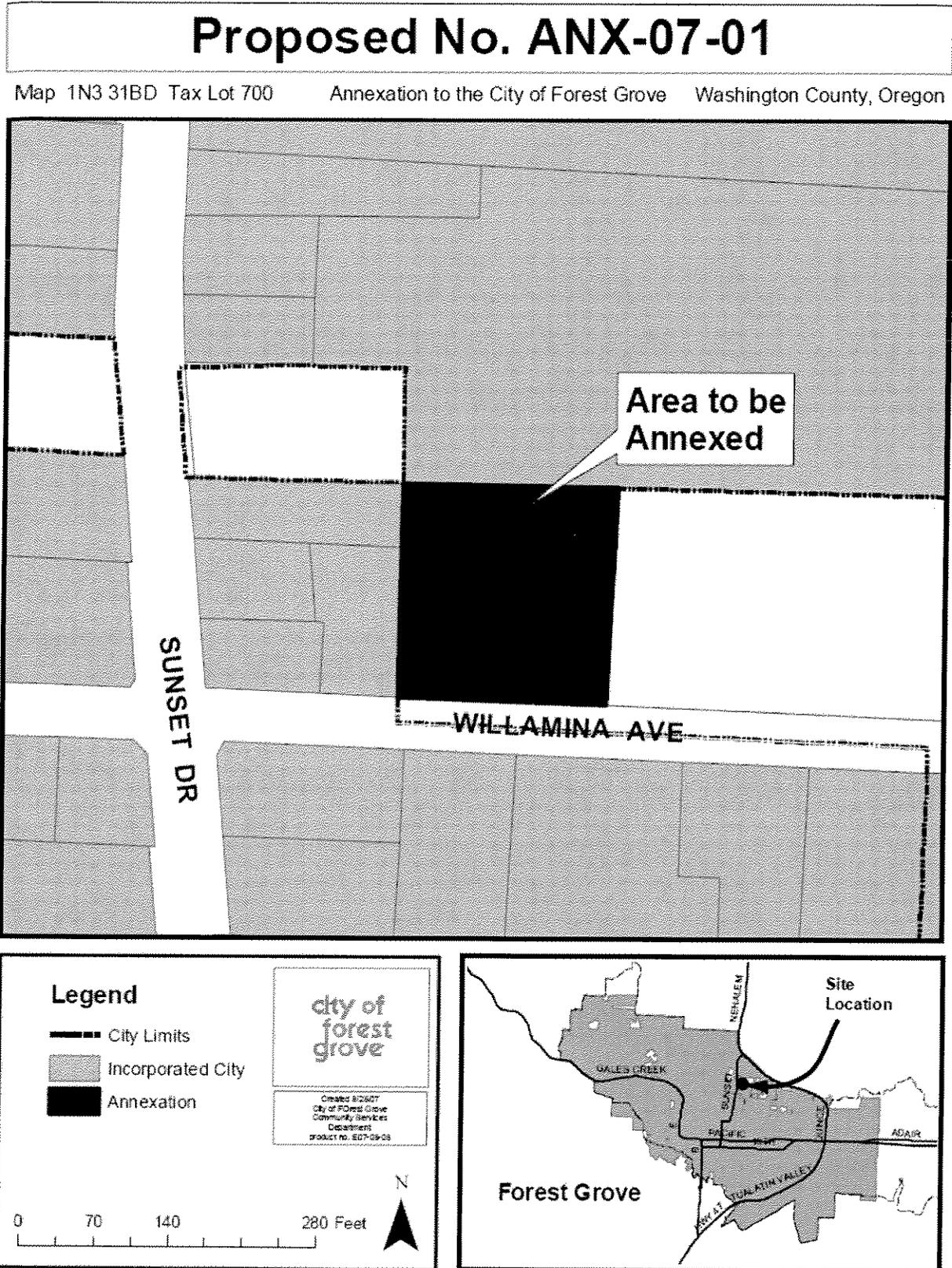
MEASURE 37

Staff recommends that approval be withheld until the Measure 37 waivers are signed.

RECOMMENDATION

Staff recommends approval of proposed annexation number ANX 07-01 based on the study and the proposed findings and reason for decision included in the attached ordinance. The staff recommends that the City withdraw the territory from the Forest Grove Rural Fire Protection District, the Washington County Enhanced Law Enforcement District and the Urban Roads Maintenance District as allowed by state statute.

FIGURE 1



NOTICE OF PUBLIC HEARING: FOREST GROVE CITY COUNCIL

PROPOSED ANNEXATION TO THE CITY OF FOREST GROVE

NOTICE IS HEREBY GIVEN THAT AT **7:00 PM, OR THEREAFTER, ON MONDAY, OCTOBER 8, 2007**, IN THE **COMMUNITY AUDITORIUM, 1915 MAIN STREET**, FOREST GROVE, OREGON, THERE SHALL BE A PUBLIC HEARING BY AND BEFORE THE FOREST GROVE CITY COUNCIL ON A BOUNDARY CHANGE PROPOSAL. INTERESTED PERSONS MAY APPEAR AND WILL BE GIVEN REASONABLE OPPORTUNITY TO BE HEARD.

PROPOSAL NO. ANX-07-01 – ANNEXATION TO THE CITY OF FOREST GROVE of a total 0.90 acre territory located at 2385 NW Willamina Avenue, more particularly:

Map 1N3 31 BD tax lot 700 in Washington County, Oregon

The purpose of this annexation is to make city services available to facilitate future development. Upon annexation the territory will be rezoned from FD-10 (County) to R-7 Single Family.

Applicable criteria for annexations may be found in the Metro Code 3.09.050 and the City's growth policies can be found in the Comprehensive Plan.

To speak at the hearing please fill out a speakers card prior to the beginning of the hearing.

Failure of an issue to be raised in the hearing, in person or by letter, or failure to provide statements or evidence sufficient to afford the City Council an opportunity to respond to the issue precludes appeal to the Oregon Land Use Board of Appeals on that issue.

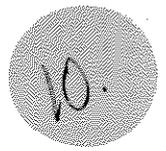
A copy of the application, all documents and evidence submitted by or on behalf of the applicant and applicable criteria are available for inspection at no cost and will be provided at reasonable cost.

The staff report will be available for inspection at no cost 15 days before the hearing and a copy will be provided at reasonable cost.

To review the information in the application, acquire copies of these items or for other general information contact Kerstin Cathcart at (503) 992-3226.

Anna D. Ruggles, City Recorder

August 24, 2007



first reading

ORDINANCE NO. 2007-16

**ORDINANCE ANNEXING CERTAIN TRACTS OF LAND INTO THE CITY
LIMITS OF FOREST GROVE AND WITHDRAWING THE TRACTS FROM
WASHINGTON COUNTY ENHANCED LAW ENFORCEMENT DISTRICT,
WASHINGTON COUNTY URBAN ROADS MAINTENANCE DISTRICT AND
THE FOREST GROVE RURAL FIRE PROTECTION DISTRICT**

FOREST GROVE MAKES THE FOLLOWING FINDINGS:

WHEREAS, the City received a complete petition from the property owner of a certain tract of land depicted on the attached map (Exhibit B) and described in Exhibit A of this ordinance, requesting that their property be annexed to the city limits of Forest Grove; and

WHEREAS, the City received written consent from a majority of the electors in the territory proposed to be annexed and the owner of more than half the land in the territory proposed to be annexed, before the date of the public hearing, as required by ORS 222.170(2); and

WHEREAS, the tract of land is contiguous to the City and can be served by City services; and

WHEREAS, the City Council dispenses with submitting the question of the proposed annexation to the electors of the City for their approval or rejection; and

WHEREAS, the tract of land lies within the boundary of the Washington County Enhanced Law Enforcement District; and

WHEREAS, the tract of land lies within the boundary of the Washington County Urban Roads Maintenance District; and

WHEREAS, the tract of land lies within the boundary of the Forest Grove Rural Fire Protection District; and

WHEREAS, the City conducted a public hearing and mailed, published and posted notice of the public hearing as required by law; and

WHEREAS, a report was prepared as required by law, and the City Council having considered the report and the testimony at the public hearing, does hereby favor the annexation of the subject tracts of land and withdrawal from the districts based on findings and conclusions attached hereto as Exhibit C; and

WHEREAS, the annexation and withdrawals are not contested by any necessary party.

**NOW, THEREFORE, THE CITY OF FOREST GROVE ORDAINS AS
FOLLOWS:**

Section 1. The tract of land, described in Exhibit A and depicted on the attached map (Exhibit B), is declared to be annexed to the City of Forest Grove, Oregon.

Section 2. The tract of land annexed by this ordinance and described in Section 1 are withdrawn from Washington County Enhanced Law Enforcement District, Washington County Urban Roads Maintenance District and the Forest Grove Rural Fire Protection District.

Section 3. The findings and conclusions attached as Exhibit C are adopted. The City Recorder shall immediately file a certified copy of this ordinance with Metro and other agencies required by Metro Code Chapter 3.09.050(g) and ORS 222.005. The annexation and withdrawals shall become effective upon filing of the annexation records with the Secretary of State as provided by ORS 222.180.

PRESENTED AND PASSED the first reading the 8th day of October, 2007.

PASSED the second reading the 22nd day of October, 2007.

Anna D. Ruggles, City Recorder

APPROVED by the Mayor this 22nd day of October, 2007.

Richard G. Kidd, Mayor

EXHIBIT A
Proposal ANX 07-01

Legal Description

For Tax Lot 700, Map 1N3 31 BD

A tract of land being Lot 6 of the duly recorded plat of the "North Forest Grove Acres," Washington County Plat Records, being situated in the Northwest $\frac{1}{4}$ of Section 31, T1N, R3W, W.M., Washington County, Oregon, being more particularly described as follows:

Beginning at the southwest corner of Lot 5, said "North Forest Grove Acres"; thence along the northerly right-of-way line of Willamina Avenue, N87°52'39"W, 206.80 feet to the southeast corner of Lot 7, said "North Forest Grove Acres"; thence along the easterly line of said Lot 7, N02°08'21"E, 185.29 feet to the southerly line of that tract of land described in Document No. 99-005659, Washington County Deed Records; thence along said southerly line and its easterly extension along the southerly line of Lot 25 of the duly recorded plat of "Cook Village", said plat records, S88°03'49"E, 206.80 feet to the northwest corner of said Lot 5; thence along the westerly line thereof, S02°08'19"W, 185.96 feet to the point of beginning.

EXHIBIT B

Proposed No. ANX-07-01

Map 1N3 31BD Tax Lot 700 Annexation to the City of Forest Grove Washington County, Oregon

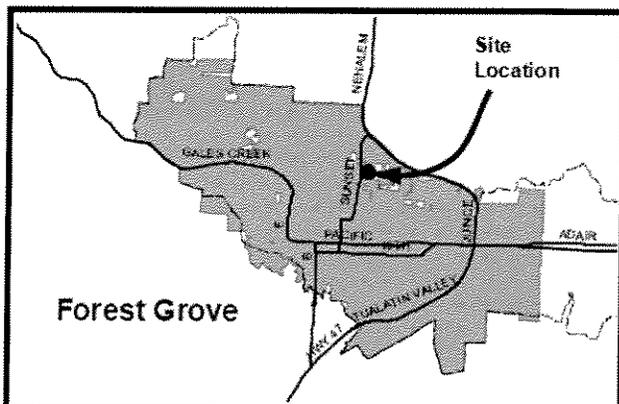
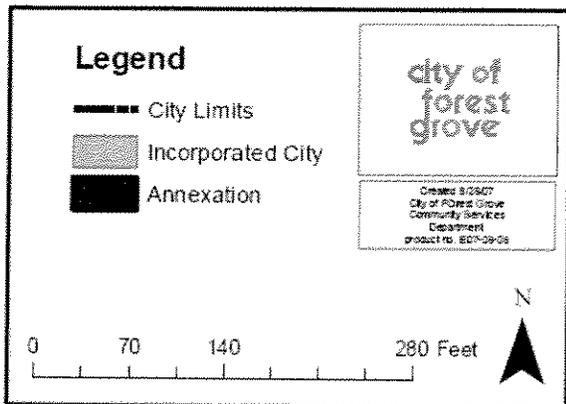
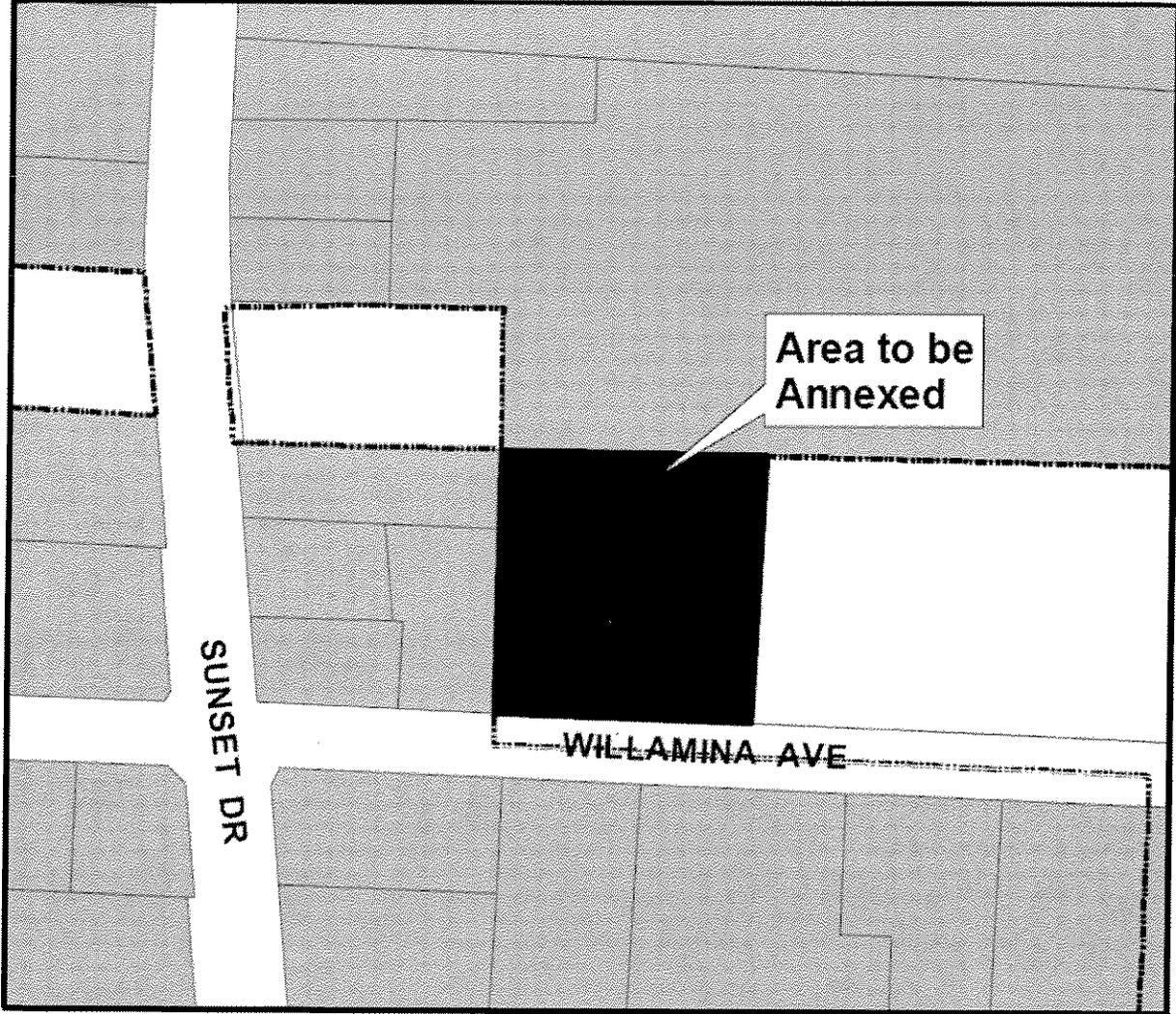


EXHIBIT C
Proposal ANX-07-01

FINDINGS

Based on the staff study and the public hearing the City Council found:

1. Proposal No. ANX 07-01 was initiated by a consent petition of the property owners. Both residents are also registered voters. The petition meets the requirement for initiation set forth in ORS 222.170 (2) (double majority annexation law) and Metro Code 3.09.040 (a) (Metro's minimum requirements for a petition).
2. The territory to be annexed consists of one parcel totaling 0.90 acres, with the street address of 2385 NW Willamina Avenue. More specifically the territory includes Washington County Map 1N331BD, tax lot 700. It has an assessed real market value of \$336,760 and a Measure 50 value of \$121,100.
3. The annexation is necessary for the parcel to provide access to the lot adjacent to the north and provide public utilities for future development.
4. The annexation is consistent with the Metro criteria for annexations. The Legislature has directed Metro to establish criteria for annexations, which must be used by all cities within the Metro boundary. The Metro Code states that a final decision shall be based on substantial evidence in the record of the hearing and that the written decision must include findings of fact and conclusions from those findings. The Code requires these findings and conclusions to address the following minimum criteria:
 - 1) Consistency with directly applicable provisions in ORS 195 agreements or ORS 195 annexation plans. [ORS 195 agreements are agreements between various service providers about who will provide which services where. The agreements are mandated by ORS 195 but none are currently in place for this area. Annexation plans are timelines for annexations that may only be done after all required 195 agreements are in place and that must have been voted on by the City residents and the residents of the area to be annexed.]
 - 2) Consistency with directly applicable provisions of urban planning area agreements between the annexing entity and a necessary party.
 - 3) Consistency with directly applicable standards for boundary changes contained in Comprehensive land use plans and public facility plans.
 - 4) Consistency with directly applicable standards for boundary changes contained in the Regional Framework Plan or any functional plans.
 - 5) Whether the proposed boundary change will promote or not interfere with the timely, orderly and economic provision of public facilities and services.
 - 6) If the boundary change is to Metro, determination by Metro Council that territory should be inside the UGB shall be the primary criteria.
 - 7) Consistency with other applicable criteria for the boundary change in question under state and local law.

5. The annexation is consistent with State and regional planning requirements. These include: State Land Use Goal 14: Urbanization; Metro Regional Framework Plan:

State Land Use Goal 14. Goal 14 requires communities, "To provide for an orderly and efficient transition from rural to urban land use. The goal specifies that conversion of urbanizable land to urban uses be based on: orderly, economic provision of public facilities; availability of sufficient land for various uses; LCDC goals or the acknowledged comprehensive plan; and encouragement of development within urban areas before conversion of urbanizable areas.

Regional Framework Plan. This territory is inside Metro's jurisdictional boundary and inside the regional Urban Growth Boundary (UGB). The law that requires Metro to adopt criteria for boundary changes specifically states that those criteria shall include ". . . compliance with adopted regional urban growth goals and objectives, functional plans . . . and the regional framework plan of the district [Metro]." The Regional Framework Plan, which includes the regional urban growth goals and objectives, the Growth Management Functional Plan and the Regional Transportation Plan were examined and found not to contain specific criteria applicable to boundary changes.

6. The annexation is consistent with Washington County planning policies. The Metro Code states that the Council's decision on this boundary change should be ". . . consistent with specific directly applicable standards or criteria for boundary changes contained in comprehensive land use plans, public facility plans . . ." Thus the applicable plans must be examined for "specific directly applicable standards or criteria."

The territory is designated and zoned FD-10 (Future Development – 10 acre district).

Washington County's Urban Growth Management policies require urban development to be accompanied by adequate urban services. The growth management policies define both urban development and necessary urban services. Public sewer, public water and a balanced urban level transportation system are the primary urban services considered.

The subject territory is within the area covered by an Urban Planning Area Agreement (UPAA), jointly prepared and adopted by Washington County and the City of Forest Grove. The annexation is consistent with the UPAA and its purpose is to coordinate land use actions within the City's planning area.

7. The City of Forest Grove has active planning responsibility for the entire area within the regional urban growth boundary surrounding the City. This territory is within the boundary.

The City Comprehensive Plan covers the territory to be annexed. The current Comprehensive Plan designation for the territory is Medium Density Residential (12 units per net acre). The zoning of the property will change upon annexation from the current County zone (FD-10) to the City designation of R-7 Single Family according to standards outlined in City Zoning Code 9.614, which requires the appropriate zone district upon annexation according to the underlying comprehensive plan designation.

The City's Comprehensive Plan policies were reviewed for policies related to annexation. The following policies are pertinent:

Local Urbanization Goals

1. Land shall be made available within the urban growth boundary to meet all urban land use needs.
2. Utility services shall be provided incrementally without bypassing large parcels of vacant land to serve peripheral parcels.

Local Urbanization Policies

2. All lands within the Urban Growth Boundary shall be assigned priorities for urban development. Priorities shall be based on the City's ability to provide urban services and the orderly and efficient timing of service extensions. These priorities shall be the basis for making decisions on all development proposals and requests for annexation.
3. Provide for an Urban Growth Management Strategy to set forth policies on the urbanization of vacant and agricultural land. The policies should cover the extension of water and sewer service, land partitioning requirements, zoning, and annexations within the Urban Growth Boundary. The strategy shall provide for the orderly and cost-efficient accommodation of anticipated urban growth for the next ten years.
4. Trunk lines for utilities shall be extended only to service areas which are adjacent to existing development.
5. Sewer and water utilities shall not be extended beyond the City's corporate limits and shall be provided only after annexation.

Urbanization Policy 2 calls for the City to designate priority areas for urban development. The City has not established a prioritization system for urban development. Similarly, Urbanization Policy 3 calls for the City to develop urban growth management policies. The City's growth management strategy is represented by the Comprehensive Plan. This territory will develop in conjunction with other properties and is adjacent to existing development. The property has the necessary urban services available with adequate capacity and is thus consistent with the intent of Policies 2 and 3. Policies 4 and 5 prohibit extension of utility outside the City and only to areas which are adjacent to existing development.

8. The site falls within the Northeast service area of the City's Sewer Master Plan. The site will connect to an 8" sewer line that will extend from Sunset Drive along Willamina Avenue. Further, the implementation of the Sewer Master Plan for this territory represents a logical extension of sewer service where a nearby service line would be extended to provide service to the site.
10. The property is served by city water at this time.

11. There is no existing storm water facility adjacent to or within the territory. The territory is within Clean Water Service's (CWS) service boundary. CWS is responsible for storm water management in Washington County. Any development will be contingent upon obtaining annexation to CWS service district. Due to the City's Intergovernmental Agreement with CWS, adequate storm water facilities meeting CWS standards will be required as part of any development approval
12. The territory to be annexed is within the Washington County Enhanced Sheriff's Patrol District which, in addition to the basic County-wide level of protection, provides .94 officers per 1000 population. The City may withdraw the territory from the District upon annexation. If the City declares the territory withdrawn from the District on the effective date of the annexation the District's tax levy will no longer apply. Upon annexation the City of Forest Grove Police Department would assume responsibility for the property.
13. The territory is within the boundary of the Forest Grove Rural Fire Protection District, The City may withdraw the territory from the District upon annexation. If the City declares the territory withdrawn from the District on the effective date of the annexation the District's tax levy will no longer apply.
14. The territory to be annexed is within the boundary of the Washington County Urban Road Maintenance District. The City can withdraw the territory from the District upon annexation to the City.
15. The city parks nearest to the subject property are Lincoln Park and the future Stites Park. Lincoln Park is undergoing a major renovation while Stites Park is still undeveloped.
16. The City of Forest Grove provides a municipal utility for electric power through its City Light and Power Department. Forest Grove provides library services, land use planning, zoning, building and general administration services.

REASONS FOR DECISION

Based on the Findings, City Council Determined:

1. The Metro Code at 3.09.050(d)(3) calls for consistency between the City's decision and any "specific directly applicable standards or criteria for boundary changes contained in comprehensive plans, public facilities plans. . . ." The Council has reviewed both the County comprehensive plan which currently applies to these parcels and the City Comprehensive Plan which will apply upon annexation.

The County Plan does not contain any criteria directly applicable to annexations. The County 2000 program suggests that the County supports all urban lands annexing to cities.

The City's Comprehensive Plan provides in Urbanization Policy 5 that sewer and water utilities may not be extended to lands outside the City limits and may only be provided

after annexation. Thus, the plan anticipates that all lands within the City's urban planning area will be urbanized by first annexing to the City and then extending urban services to annexed areas.

Certain policies within the City's Comprehensive Plan contain criteria indirectly applicable to annexation decisions. Local Urbanization Goals 1 and 2 and Policies 2 through 4 suggest that lands should only be annexed if the City can provide adequate urban services in an orderly and efficient manner; that anticipated growth should be accommodated in an orderly and cost-efficient manner; and should be adjacent to existing development. Thus, the annexation is consistent with the intent of Policies 2 and 3.

The Council concludes that the annexation is consistent with the applicable plans.

2. Metro Code 3.09.050(d)(1) requires the Council's findings to address consistency with applicable provisions of urban service agreements or annexation plans adopted pursuant to ORS 195. There are no such plans or agreements in place. Therefore the Council finds that there are no inconsistencies between these plans/agreements and this annexation.
3. The Council notes that the Metro Code also calls for consistency of the annexation with urban planning area agreements. As stated in Finding No. 7, the Forest Grove-Washington County UPAA specifically says that the County assumes this area will be served by the City. Therefore, the Council finds the annexation to be consistent with the UPAA.
4. The Metro Code calls for consistency of the annexation with the Regional Framework Plan or any functional plan. Because there were no directly applicable criteria for boundary changes found in the Regional Framework Plan or the Urban Growth Management Function Plan or the Regional Transportation Plan (see Finding No. 4) the Council concludes the annexation is not inconsistent with this criterion.
5. Metro Code 3.09.050(e)(3) states that another criterion to be addressed is that the annexation will not interfere with the timely, orderly and economic provision of public services and facilities. The Council finds the City's services will be adequate to serve the proposal before development is allowed and that the timely provision of services will not be negatively affected by the annexation. Therefore, the proposed boundary change promotes the timely, orderly and economic provision of services.
6. The City may specify in its annexation Ordinance that the territory will be simultaneously withdrawn from the Washington County Enhanced Law Enforcement District, Washington County Urban Roads Maintenance District and the Forest Grove Rural Fire Protection District. The City is not part of any of these districts. The services provided by these districts are provided by the City from City resources. To prevent the property from being taxed by both the Districts and the City, the territory should be simultaneously withdrawn from these Districts.

TO: City Council

FROM: Jon Holan, Community Development Director
Michael Sykes, City Manager

RE: Gales Creek Terrace Planned Residential Development

DATE: October 8, 2007

ISSUE STATEMENT: The applicant is proposing to develop an 87 lot planned residential development and subdivision in two phases. The site is located south of 19th Avenue (extended) and west of "D" Street. The entire property is 19.55 acres in size with 10.13 acres within the Urban Growth Boundary and 9.42 acres outside the boundary. The UGB was determined when Metro Chief Operating Officer approved a minor UGB amendment on December 28, 2006 based on floodplain considerations. As a result of the Council approval of a Comprehensive Plan and Zoning amendments at its last meeting, the site is located in both the R-5 Single-Family and A-2 Multi-Family residential zones. Adoption of a PRD would allow the applicant to exercise several design alternatives, including combining the density of the two districts throughout the site, a reduction in lot frontage requirements, revised setback requirements, etc.

BACKGROUND: The original proposal for the site was a 122 unit project. Due to issues associated with floodplain and the location of the UGB, a re-submittal for 100 lots was filed. This project was then revised by the applicant as a result of Planning Commission review to the present proposal of 87 lots. The Commission requested that more active open space for the residents that was centrally located. Further, the Commission was concerned about the sideyard setbacks of the detached dwellings, particularly along Gales Creek Terrace. In addition, the Commission was concerned with the number of attached units in one grouping.

As a result, the applicant submitted the redesign comprised of a total of 87 lots (25 attached units, 16 two story single family detached units, and 46 single family detached units with day light basements). All single family detached lots having a width of 40 feet or greater would have interior side yards of 6 feet (for a total of 12 feet between units). The number of attached units in a grouping would not exceed five. Tract C (between Lots 34 and 35) was expanded from a pedestrian way to a 7,416 square foot active recreational area for the residents. A new Tract L (14,047 square feet) is proposed south of Lot 47 that would be available for resident open space.

Overall, there is 33,392 square feet of private open space. Open space proposed to be dedicated to the City for public use is proposed closest to Gales Creek at 420,295 square feet. In addition, there is 13,443 square feet of open space for water quality facilities.

Some of the more significant items associated with the application are as follows:

Density: As discussed in the staff report on the Comprehensive Plan and Zoning amendment, the target density for the site is 88 units taking slope density into consideration. Thus, the proposed

number of units complies with the base zoning density for the site without any request for density bonus.

Access: The traffic analysis prepared for this project assessed future impacts for the project and cumulative impacts from this project and two other potential projects to the west and south of Pacific Avenue. The following is a summary of the assessment:

19th Avenue - Primary access for this project would be provided by 19th Avenue. The project is conditioned to construct a 32 foot wide street from "C" Street to the western boundary of the site. There are two other potential projects to the west that will participate in the widening of 19th Avenue to collector standards (40 feet curb-to-curb). As part of their obligation, the applicant will have to acquire a house at the southwest corner of 19th and "B" to obtain the rights-of-way needed for the widening.

One issue associated with the widening of 19th Avenue is a mature White Oak tree located within the right-of-way west of "D" Street. It appears it will have to be removed. When more detailed engineering is completed, staff and applicant will consider options to see if the tree can be saved.

19th and "B" Street Intersection: The traffic analysis concluded that the project or the cumulative traffic impacts from the three projects would not require a traffic signal at the 19th/B Street intersection. However, staff believes that the analysis was based on an incorrect assumption. As a result, a condition requires the applicant to enter into an agreement with the City to participate in the installation of the traffic signal. It is anticipated by staff that the other two projects, when submitted, will also be required to participate via an agreement with the City.

18th Avenue – This street is intended to address two functions. The project has been conditioned to extend pavement from the project to connect with existing pavement on the southern end of "D" Street. This would provide access for those dwellings planned to be located at the southeastern portion of the development site. There are 6 peak hourly trips (for the 100 unit project) that is anticipated to use this route.

The street also will serve as an alternative emergency access. The project is conditioned to construct 18th Avenue east of "D" Street as a 20 foot wide gravel road to allow for emergency vehicles. To discourage normal traffic to use this part of the road, a removable barricade (e.g. chain gate) will be installed east of "D" Street.

The issue associated with these two improvements is that yards for two existing homes south of 18th Avenue and east of "D" Street have been extended into the existing right-of-way. These improvements may have some impact on the existing yards. The applicant has indicated that they would work with the current property owners about locating the improvements in a manner to minimize impacts on the existing landscaping.

"D" Street – There are two aspects to "D" Street as it pertains to this project. Between 18th and 19th Avenues, as described above, the project will provide a paved connection from the project site to the southern terminus of the existing pavement on "D" Street.

The other aspect is to accommodate traffic from Gales Creek Terrace and the other two projects between 19th and Pacific avenues. To widen "D" Street to an adequate width (32 feet curb-to-curb), the project is conditioned to contribute a not to exceed \$1200 per unit at the building permit to help reconstruct the street. It is anticipated that the other two projects will have a similar condition to

provide adequate funding to complete the street improvements.

Pacific Avenue – The traffic analysis indicates that left turn lanes on Pacific Avenue at “C” and “D” streets would be needed when the three projects develop but not needed for any individual project. Gales Creek Terrace has been conditioned to enter into an agreement to participate in the installation of these turn lanes.

Revised Circulation: The City is currently updating its Transportation System Plan. One potential project on that plan is the extension of “E” Street to 19th Avenue and continue the one way street system to “E” Street. The project’s design can accommodate this new project if it gets constructed. If this improvement is built, then the need for left turn lanes on Pacific Avenue would be unnecessary since Pacific would be one-way (westbound).

Sanitation: The first phase of the project along 19th can be served by an existing sewer line to the east. The remainder of the project will need to be served by a new sewer line located along the southern portion of the property (it is also needed for the other two potential projects to the west). This line is in the City’s Sewer Master Plan and requires an extension of the line across a property (known as the Kyle property) located between the site and “B” Street. The line would then connect to a CWS pump station on 16th Avenue near “B” Street. The Kyle property has been offered to the City as a donation that would contribute to the completion the trail system and a possible staging area. Although the property has experienced some environmental contamination in the past, Department of Environmental Quality has issued a Letter of No Further Action. The installation of the sewer line *may* result in coming in contact with some of the contaminated soils. Thus, project has been conditioned for the applicant to enter into an agreement with the City about the installation of the sewer line and delineate any obligations if contaminated soil is disturbed by the installation of the line.

Grading: The original project of 122 lots would have required cuts of up to 16 feet in height along the extension of 19th Avenue. Due to the location of the UGB at the approximate 180 foot contour to avoid flooding, cuts have been reduced to 4 feet in that area. The grading plan is intending to establish the lowest lot elevation at 186 feet along the southern boundary to provide extra “freeboard” for flooding considerations. The greatest amount of fill reaches 12 feet where the upper portion of lots 82 to 87 is planned for pad heights of 196 feet in elevation. Retaining walls generally vary from 2 to 6 feet with a maximum height of 8 feet in the vicinity of lot 48. There is a condition included for staff approval of the retaining wall design.

Flooding: Public Works Department has determined that the 100 year flood elevation would not exceed 180 foot elevation. As noted above, no lot will be below an elevation of 186 feet.

Landscaping and Design: Staff has worked with the applicant on house elevations to create variety but with a consistent theme (i.e. craftsman style). Proposed conditions on the project require approval of roof structures to provide greater variety and wrap the finished look around the entire structure.

The heights of the structures are proposed to be two to three stories in height. As a result of the redesign, the only remaining attached units are the rear garage dwellings along 19th Avenue. This creates an opportunity for a well design streetscape as well as parking opportunities along 19th. The applicant is proposing to use fencing to define the private front yard space from the public space. In addition, south of the alleyway, a 10 foot wide landscape strip is proposed to help provide privacy between the units along 19th Avenue and Gales Creek Terrace (see Sheet 34 for a plan and cross

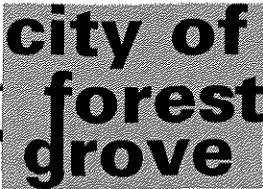
section view of this landscape strip.)

More detailed analysis of the project is provided in the staff report.

RECOMMENDATION: The Planning Commission adopted Decision Number 07-12 recommending to the City Council the approval of the 87 lot Planned Residential Development. Staff recommends the City Council adopt the attached ordinance approving Gales Creek Terrace Planned Residential Development either as recommended from the Planning Commission or with amendments deemed appropriate as a result of the public hearing.

ALTERNATIVES: The Council may:

1. Approve the Planned Residential Development, including conditions, as proposed; or
2. Approve the Planned Residential Development with added, deleted or modified conditions; or
3. Deny the Planned Residential Development, stating reasons for denial; or
4. Continue the matter for further considerations.



NOTICE OF PUBLIC HEARING: FOREST GROVE CITY COUNCIL

A PUBLIC HEARING will be held before the Forest Grove City Council to review the following application:

Applicant: Gales Creek Terrace LLC
16505 Bethany Court, Suite 120, Beaverton, Oregon 97006

Owners: Ronald and Wanda Rau, 31250 SW Unger Road, Cornelius, Oregon 97113

Location: 1548 19th Avenue (Washington County Tax Lots 1S4 1-400 and 1S4 1AA-7200)

Requests: Establishment of a Planned Residential Development overlay designation for Gales Creek Terrace, a 100-lot subdivision

Criteria: Land Division Ordinance Sections:
9.104 *Tentative Plats for Subdivisions*
9.107 *Information Required on Tentative and Final Plats for Land Divisions*
9.109 *Required Improvements*
9.110 *Design Standards*
9.114 *Planned Development Subdivisions*

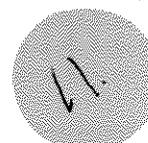
File Numbers: PRD-06-04

This Public Hearing will take place before the Forest Grove City Council on **Monday, October 8, 2007, at 7:00 p.m.** or thereafter, in the **Community Auditorium, 1915 Main Street, in Forest Grove.** At this time and place all persons will be given a reasonable opportunity to give testimony about these proposals. If an issue is not raised in the hearing (by person or by letter) or if the issue is not explained in sufficient detail to allow the Council to respond to the issue, then that issue cannot be used for an appeal to the Land Use Board of Appeals (LUBA). If additional documents or evidence are provided in support of an application, any party shall be entitled to a continuance of the hearing. Unless there is a continuance, if a participant so requests before the conclusion of the initial evidentiary hearing, the record shall remain open for at least seven (7) days after the hearing. Information pertaining to these requests may be obtained from Associate Planner James Reitz at the Community Development Department, 1924 Council Street, (503) 992-3233, between 8 a.m. and 5 p.m. The staff report will be available seven days prior to the hearing; copies will be available at cost. This notice is sent by the authority of the Forest Grove City Council.

Anna D. Ruggles, City Recorder

October 3, 2007

For a complete copy of the agenda item, including ordinance or resolution, staff report(s), map(s), plats, and other related information, please access our website at www.forestgrove-or.gov. Copies of the reports, etc., may also be purchased for \$12.00, plus \$0.20 per page over 10 pages. For further information pertaining to the agenda or agenda items, please contact the City Recorder's Office at 503.992.3235.



first Reading

**ORDINANCE AMENDING THE FOREST GROVE ZONING MAP
TO DESIGNATE TWO PARCELS AS THE GALES CREEK TERRACE
PLANNED RESIDENTIAL DEVELOPMENT**

WHEREAS, the current version of the Gales Creek Terrace Planned Residential Development application was filed on June 6, 2007; and

WHEREAS, notice was sent to Department of Land Conservation and Development and no comments were received; and

WHEREAS, notice of this request was mailed to property owners and residents within 300 feet of the subject site on July 9, 2007, as required by Land Division Ordinance Section 9.117 and Zoning Ordinance Section 9.915. Notice was also published in the *News Times*, as required by Zoning Ordinance Section 9.915; and

WHEREAS, the Planning Commission held the duly-noticed public hearing on the proposed planned residential development on July 30, September 4 and September 17, 2007

WHEREAS, the City Council held a public hearing on the proposed planned residential development on October 8 and 22, 2007; and

WHEREAS, there is on file with the City Council a staff report which includes the criteria, facts, and conclusions which collectively are the findings supporting this request:

NOW, THEREFORE, THE CITY OF FOREST GROVE ORDAINS AS FOLLOWS:

SECTION 1. The findings for adoption of this ordinance are attached as Exhibit "A."

SECTION 2. The minutes of the Planning Commission meetings of July 30, September 4 and September 17, 2007, staff report and other portions of the record are hereby incorporated by reference into this ordinance.

SECTION 3. Based on the above findings, the Forest Grove Zoning Ordinance Map is hereby amended to designate Washington County tax lots 1S4 1-400 and 1S4 1AA-7200 with a Planned Residential Development Overlay, with the conditions listed in Exhibit "B", and as further described in the attached map, listed as Exhibit "C".

PRESENTED AND PASSED the first reading the 8th day of October, 2007.

PASSED the second reading the 22nd day of October, 2007.

Anna D. Ruggles, City Recorder

APPROVED by the Mayor this 22nd day of October, 2007.

Richard G. Kidd, Mayor

EXHIBIT A
ORDINANCE NO. 2007-17

- (1) The application has been revised by the applicant to reduce the total number of lots from 100 to 87 comprising 62 single-family detached and 25 attached units. Further, interior side yard setbacks for detached dwellings are proposed to be increased from 5 feet to 6 feet for all lots with a width of 40 feet or greater. For lots of less than 40 feet in width, the setbacks for detached dwellings are proposed for 5 feet.
- (2) Criterion: Public facilities serving the proposed development, including but not limited to, sanitary sewers, water, streets, storm sewers, electrical power facilities, parks, public safety and schools shall be adequate and meet current City standards; or it is guaranteed that inadequate or nonexistent public facilities will be upgraded or constructed by the applicant prior to occupancy of the project.

Analysis and Findings:

- Public facilities including sanitary sewers, water, storm sewers and electrical power either do not exist or do not meet current City standards. Utilities within and to the site will be constructed to City standards and specifications by the applicant.
- Phase 1 of the project (consisting of 21 lots fronting 19th Avenue) could be developed by extending an existing sanitary sewer line. Phase 2 (consisting of the balance of 66 lots) could only be developed after the construction of a new sanitary line that would connect to the "B" Street pump station. The applicant has entered into an agreement in principle to obtain the necessary easement from the owner of the property between Gales Creek Terrace and "B" Street. If the City does not receive ownership of the land, staff has proposed a condition to require that the easement be dedicated prior to the Phase 2 final plat approval. Staff has also proposed the standard condition to require that the sanitary sewer system be designed and constructed in compliance with the Sanitary Sewer Master Plan.
- None of the adjoining streets are constructed to City standards, and both 18th and 19th avenues have substandard rights-of-way less than a block off-site. The applicant has proposed to purchase a home to allow 19th Avenue to be fully improved between "C" and "D" streets. Staff has recommended that the applicant also be required to improve 19th Avenue between from the site to "C" Street to a City standard of 32 feet; participate in upgrading the paved width of "D" Street between 19th and Pacific avenues to accommodate the projected traffic; participate in installing a left-turn lane on Pacific Avenue at "D" and "C" streets, and participate in the installation of a traffic signal at the "B" Street /19th Avenue intersection, and construct an emergency access route in the 18th Avenue right-of-way. With these conditions, streets within, adjacent to, and serving Gales Creek Terrace would comply with City standards.
- Gales Creek Terrace is within an area served by the Forest Grove School District. The applicant consulted with the Forest Grove School District business manager prior to submitting the application (see PRD application page 48). In the short term, it appears that school capacity would be adequate.
- Approximately ten acres would be dedicated to the City for public park purposes, and would be developed with both passive and active recreational facilities. In addition, each home will be assessed the standard parks system development charge.
- The project is within an area served by City police and fire services.

Conclusion: With the proposed conditions of approval, the site would be fully-served with City-standard public facilities.

- (3) Criterion: The impact of the proposed development on public facilities shall not exceed the impact anticipated for the site in the formulation of the public facilities master plans contained in the Comprehensive Plan.

Analysis and Findings:

- Sanitary sewers, water, storm sewers and electrical power facilities to and within the project will be constructed to City Master Plan or other municipal specifications.
- The underground utilities within street right-of-ways and utility easements will be public and built to City master plan specifications.

Conclusion: Because all public facilities would be required to be built to master plan specifications, staff finds that there would not be any adverse impact on the City's public utility system. The proposed development's impact on public facilities will not exceed the anticipated impact for the site as contained in the Comprehensive Plan, and the project would meet the public facility master plan criteria.

- (4) Criterion: Any uses proposed for the development which is not listed as uses permitted outright in the zone in which the proposed PD is located shall be designed to achieve compatibility with both the remainder of the PD and properties adjacent to the PD site.

Analysis and Finding: Because a single-family dwelling development is a permitted use in both the R-5 Single-Family and the A-2 Multi-Family Residential zones, this criterion is met.

- (5) Criterion: The proposal shall provide adequate open space, landscaping, and design features to minimize significant adverse effects on adjacent properties and uses.

Analysis and Findings:

- The proposal includes open space tracts totaling over ten acres, plus two water quality facilities. The proposed open space area would be used for both passive and active recreation, and would also include a pedestrian walkway.
- Each home would have its own private landscaped yard space for use by the residents.
- Street trees will be installed following home construction.
- Most of the project site would be separated from the adjacent neighborhood by either streets or tracts. A six-foot tall solid wood fence would be installed along the east property line of lots 62 to 71, adjacent to the existing homes fronting "D" Street. Staff has proposed an additional fence along the west and south property lines of Washington County tax lot 1S4 1AA-400 (1608 18th Avenue) to provide visual separation from the driveway serving lots 81-87. With this condition, the project site would be adequately buffered from all other adjoining property.

Conclusion: The useable open space would be substantial, and readily accessible to the residents via the public sidewalk and pedestrian path network. In addition, each home would have its own private yard space. While the yards for the townhouses would be diminutive, the common open space would more than compensate. Lastly, a fence would be installed to separate the project site from the adjoining neighborhood.

Therefore, the requirement for adequately-sized open space and minimal adverse effects on adjacent properties appears to have been met.

- (6) Criterion: The location, shape, size and character of common open space areas shall be suitable and appropriate to the scale and character of the project, considering its size, density, expected population, topography, and the number, type and location of buildings to be provided.

Analysis and Findings: The proposal includes a 10-acre open space area, plus two water quality facilities. The proposed open space area would be used for both passive and active recreation, and would also include a pedestrian walkway.

Conclusion: Because the dedicated open space would be approximately one-half of the total site area and would be improved for both passive and active recreation, the requirement for adequately-sized open space appears to have been met.

- (7) Criterion: The proposed development shall not result in creation of any nuisance, including but not limited to air, land, or water degradation, noise, glare, heat, vibration or other conditions which may be injurious to public health, safety, and welfare.

Analysis and Findings:

- The proposed development consists exclusively of single-family homes and accessory uses and the creation of any nuisance, including but not limited to air, land, or water degradation, noise, glare, heat, or vibration is not anticipated.
- The surface water leaving the site would be treated for water quality as directed by Clean Water Services' *Design and Construction Standards for Surface Water Management*.
- Decorative streetlights shall be required to comply with the City's standards and specifications. Street illumination shall be comparable to that created by existing street lights, and is not anticipated to have any adverse impact on adjacent properties.
- Because this development will not result in creation of any nuisance, including but not limited to air, land, or water degradation, noise, glare, heat, vibration or other conditions which may be injurious to public health, safety, and welfare this criteria is met.

- (8) Criterion: The proposal shall meet the intent and objectives for a PD as expressed in Sections 9.680 (PRD), or 9.730 (CPD), or 9.760 (PID), or 9.770 Manufactured Home Subdivisions or 9.780 Manufactured Home Parks (MHP), as appropriate.

Analysis and Findings: It is the intent of Zoning Ordinance Section 9.680 to accommodate creative and planned residential development in residential districts. In addition the intent is to facilitate the development of parcels suitable for residential use but are difficult to develop by virtue of topography, natural landscape features, unique historical character, or being an isolated problem area by being passed over and subsequently surrounded by development. A PRD would permit those innovations in the technology of land development, which are in the best interest of the City of Forest Grove.

In order to accomplish this intent, it is the purpose of these regulations:

- (1) to permit in a PRD a variety of dwelling types, including single-family, two-family and multi-family dwellings such as townhouses, garden apartments, and high-rise types.

Finding: The proposed development consists exclusively of single-family homes. However, permitted uses in the A-2 Multi-Family Residential zone include single-family detached and attached homes, two-family (duplex) homes, and apartments. Providing a variety of dwelling types would both expand the housing options available (and could offer a broader market selection), and would better address the intent to encourage creative development.

(2) to permit the flexible spacing of lots and buildings in order to encourage:

(a) the separation of pedestrian and vehicular circulation;

Finding: Sidewalks will be provided on both sides of all public streets. In addition, a pedestrian walkway network would be constructed in the open space tracts and through the middle of the central block. The mid-block walkway would connect with the walkway in the open space tract. This standard is met.

(b) the conservation of natural amenities of the landscape;

Finding: Approximately half of the trees would be retained. For the trees to be removed, staff has proposed a condition to require the installation of a comparable number of trees in the open space tracts, and that the new trees are of a species native to western Oregon.

(c) the provision of readily accessible open space,

Finding: The open space areas would abut 23 lots and would be readily accessible to the other lots via public sidewalks and walkways. The open space area would be improved for both passive and active recreation, and would also include a pedestrian pathway. It appears that the intent of the regulation is met.

(d) the creation of functional and interesting residential areas, and

Finding: The proposed project would create a subdivision of 100 single-family detached and attached homes. It would include a ten-acre open space area which would be developed for both passive and active recreation. It appears that the intent of this regulation is met.

(e) the provision of a necessary complement of community facilities.

Finding: The proposal includes a large (> 10-acre) open space area that would be improved with both passive and active recreational facilities. It appears that the intent of this regulation is met.

EXHIBIT B
ORDINANCE NO. 2007-17

To ensure compliance with all of the applicable provisions of the Zoning Ordinance and Land Division Ordinance, the City Council hereby adopts the following conditions of approval:

GENERAL:

1. The applicant is bound to the project description and all representations made by the applicant during the application and decision-making proceeding.
2. The applicant must comply with all applicable City building and development standards, including all dimensional standards and public works specifications, except as modified by these conditions of approval.

FINAL PLAT REQUIREMENTS:

3. The final plat must comply with Land Division Ordinance Section 9.107 et. seq., and substantially comply with the tentative plat (LDO Section 9.105(3) *Action on Final Plat*).
4. Street names shall be revised as follows (LDO Section 9.110(1)j. *Street Names*):
 - East-west trending streets shall be avenues, and north-south trending streets shall be streets (Municipal Code Section 9.205).
 - Gales Creek Terrace shall be 18th Place.
 - As the proposed "E" Street would not align with the existing "E" Street, an alternate name must be selected. To maintain alphabetical continuity, the proposed "G" Street will also need to be renamed.
5. A ten-foot-wide utility and sidewalk easement is required adjacent to all property lines abutting a street (including any tracts). Eaves and projections may extend into the public utility easement with the consent of the utility providers (LDO Section 9.110(2)c.i. *Easements*).
6. The improved area of Tract "C" located between lots 34-35 and Tract "I" between lots 74/75 shall be platted as separate tracts and retained by the applicant and/or homeowners association.
7. A separate tract shall be created for each storm water quality facility. The facilities shall remain in private ownership. An easement to the City of Forest Grove shall be provided over said tracts for maintenance of the facilities and conveyance system (LDO Section 9.109 *Required Improvements-Storm Sewers and Erosion Control Facilities*).
8. Extend Tract "D" and the public access and utility easements to the east property line of the project site. The width and location of these easements shall align with the existing public alley between 17th and 18th avenues.
9. Prior to submittal of the Phase 2 final plat, submit a copy of the recorded sanitary sewer easement across Washington County tax lot 1S4 1-203 (a.k.a. the Kyle property).
10. Submit a copy of the proposed final deed restrictions concurrent with the final plat. The CCRs shall provide adequate provisions including but not limited to funding for the maintenance of all privately maintained open space and recreation areas, the water quality tracts, and access ways. To ensure the funding mechanism is adequate, provide an estimate of the total anticipated maintenance expenses for a ten-year period, and describe how those expenses will be met (LDO Section 9.107(42) *Final Plat Requirements*).
11. Pedestrian tracts shall be created between lots 16/17 and 58/59 (LDO Section 9.110(2)b. *Design Standards/Blocks*).
12. The final plat for Phase 1 shall be submitted within one year of tentative plat approval, pursuant to LDO Section 9.105 *Final Plat For Subdivisions*. Upon satisfactory completion, a Mylar copy of the recorded plat shall be provided to the Community Development Department. Home building permits shall not be issued until the Mylar is received.

IMPROVEMENTS (GENERALLY): All plans submitted to date are considered *conceptual* only. Detailed plans and specifications must be submitted that demonstrate compliance with standards and regulations adopted by the City of Forest Grove and/or all other agencies that have jurisdiction. No home building permits will be issued until all required public improvements have been constructed and accepted by the City of Forest Grove and/or others having jurisdiction.

10. All site grading and public improvement work shall conform to the City of Forest Grove *Municipal Code, Gales Creek Terrace Subdivision Conditions of Approval, City of Forest Grove Standard Specifications, Uniform Building Code Appendix Chapter 33 Excavation and Grading, and the Agreement Allowing Developer to Construct Public Improvement.*
11. All utilities shall be constructed to Master Plan specifications, and all construction shall comply with CWS Resolution and Order 07-20 *Design and Construction Standards for Sanitary Sewer and Surface Water Management.*
12. The recommendations of the geotechnical report shall be incorporated into the construction plans for the subdivision.
13. Grading along the north property line shall result in a cut not to exceed four feet from native grade.
14. Permits for grading and erosion control shall be obtained from the Building Division prior to any excavation. Site grading shall conform to 1994 Uniform Building Code Appendix Chapter 33 Table 33-A. The application shall include a grading plan complying with 1994 UBC Appendix Chapter 33 for engineered grading, erosion control plan, and the geotechnical report. The soils and geotechnical report shall be provided prior to issuance of a grading permit.

ELECTRICAL SYSTEM

15. Underground utility lines shall be required throughout and provisions made for a looped feed. Electrical plans need to be coordinated with the Light and Power Department. Submit an electronic copy of the utility plans to Light and Power Director (503/992-3256).
16. Any existing electrical facilities that conflict with the proposed development shall be relocated at the developer's expense.
17. A minimum eight-foot clearance shall be maintained between electrical transformers and any combustible structures (National Electrical Supply Code (NESC) Section 15 and Forest Grove Light and Power Department *Electrical Service Requirements and Guidelines* Section 1.09 *Clearances From Utility Equipment*).
18. Transformer locations shall be no more than 200 feet from the farthest meter to be served by that transformer. Transformers shall be located within 15 feet of a suitable driving surface that is accessible to City personnel at all hours. To site the transformers and/or the access ways, additional public utility easements may be required.
19. Decorative street lighting fixtures shall comply with the City's standards and specifications.

STREETS

20. On-site, 19th Avenue shall be designed for an ultimate width of 40 feet curb-to-curb. Until the abutting properties develop, 19th Avenue shall be constructed to a 32-foot-wide travel way with parking on one side only.
21. 19th Avenue between "C" and "D" streets shall be fully improved to a 32 foot street standard with sidewalks on one side of the street.
22. All other streets within Gales Creek Terrace shall be improved to an unrestricted Local street status (54-foot-wide rights-of-way and 32-foot wide streets).
23. To address adequate access for D Street, an assessment not to exceed \$1,200 per unit shall be paid at building permit for each dwelling for the improvement of "D" Street from Pacific Avenue to 19th Avenue. Prior to submittal of the first building permit, the City Engineer shall finalize the

assessment based on more refined cost estimates and more accurate number of dwelling unit yield.

24. An emergency gravel access shall be installed within the "E" Street right-of-way with a design approved by the City Engineer and installed prior to construction of any dwellings.
25. "D" Street from 18th Avenue to the project site shall be provided with a pave connection with a design approved by the City.
26. All construction traffic shall be directed to use 19th Avenue. No construction traffic (including that associated with home building) will be permitted to use any of the adjacent local streets, except as necessary to extend them into the site.
27. All signage (including, but not limited to, street names, vehicular parking restrictions, and vehicular and pedestrian traffic protection and direction) for public rights-of-way and easements; pavement striping and marking; and pavement reflectors (including, but not limited to, blue fire hydrant markers), shall be shown on the approved plans and installed by the developer, as required by the Engineering Department. To minimize conflict with driveway locations and street trees, signs shall be attached to utility poles wherever possible (LDO Section 9.109(1)a. *Required Improvements - Streets*).
28. The Geotechnical Investigation and Report shall contain a separate section addressing public improvements. In that section, address structural design and construction of public streets and roadways referencing the *Washington County Uniform Road Improvements and Design Standards*. Include alternate design considerations for "wet-weather" construction. The street design shall meet or exceed minimum standards established by the City Engineer.
29. Prior to any physical improvements, the applicant shall enter into a Development Agreement with the City that addresses:
 1. Participation in the installation of left-turn lanes on Pacific Avenue at "C" and "D" streets;
 2. Participation on the installation of a traffic signal at "B" Street/19th Avenue intersection; and
 3. Acquisition of a sewer easement and installation of a sewer line across the Kyle property (Washington County tax lot number 1S4 1-203) and addressing potential contamination matters on the Kyle property.

WATER, STORM AND SANITARY

All work shall conform (as applicable) with the following City of Forest Grove/CWS-approved plans and specifications.

30. Submit an application for a new NPDES General Permit #1200-C along with the DEQ-required Land Use Compatibility Statement (LUCS). Application forms are available from the Community Development Department.
31. Submit copies of approved CWS and DSL permits.
32. Provide storm drainage calculations for the water quality facility and address detention, as per CWS standards and specifications (LDO Section 9.109(1)b. *Required Improvements-Storm Sewers and Erosion Control Facilities*).
33. All storm water runoff from any newly created impervious surface areas shall drain to an approved public storm water facility (LDO Section 9.109(1)b. *Required Improvements-Storm Sewers and Erosion Control Facilities*).
34. Once the water quality facilities in the storm water quality tracts are constructed to City and CWS standards and accepted by the City, the tracts shall be dedicated to the declarant or an approved homeowners association. An easement for purposes of maintenance, conveyance, treatment and detention of storm and surface water runoff shall be granted to the City of Forest Grove (LDO Section 9.109(1)b. *Required Improvements-Storm Sewers and Erosion Control Facilities*).
35. Water-quality (sumped) manholes will be required at each inlet pipeline to water quality facilities. Unless approved otherwise, water-quality manholes shall not substitute for standard flow-through or junction manholes (LDO Section 9.109(1)b. *Required Improvements-Storm Sewers and Erosion Control Facilities*).

36. Storm drain and sanitary sewer piping materials shall be approved by the City Engineer. Storm drain piping between a water quality manhole and discharge into the water quality facility shall be concrete pipe with a beveled end section and rip-rap designed for the discharge location (LDO Section 9.109(1)b. *Required Improvements-Storm Sewers and Erosion Control Facilities*).
37. If the City does not receive ownership of the land, the easement for the sewer line crossing the Kyle property be dedicated prior to the Phase 2 final plat approval.
38. Sanitary sewerage facilities shall be constructed in compliance with the Sanitary Sewer Master Plan (LDO Section 9.109(1)c. *Required Improvements-Sanitary Sewer Facilities*).

FIRE

39. New fire hydrants shall be installed as per City requirements. Hydrants shall be equipped with 4-inch Storz connection, and their locations identified with blue reflective pavement markers at the street centerline (Municipal Code Section 5.635 *Amendments to the Uniform Fire Code*).
40. Dead end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved turnaround (Tract "B" and 19th Avenue in Phase 1, and Tract "D.")
41. "No Parking – Fire Lane" signs shall be posted on one side of the Tract "D" driveway and along both sides of the Tract "B" driveway.
42. Fire hydrant spacing shall not exceed 400 feet.

SIDEWALKS AND WALKWAYS (LDO Section 9.109(1)e. *Sidewalks*).

43. Property-line sidewalks shall be installed adjacent to all tracts concurrent with street construction.
44. Property-line sidewalks shall be installed adjacent to all lots concurrent with home construction
45. Sidewalks shall be installed at street corner radius returns concurrent with street construction
46. A walkway shall be installed in a tract between lots 53 and 54, in alignment with the walkway between lots 10 and 11. This walkway shall connect with the walkway in tracts "E" and "J."
47. Walkways shall be constructed to the following standards (LDO Section 9.110(2)(b) *Pedestrian Ways*).
 - Minimum width of eight feet.
 - Constructed of Portland cement concrete, six inches thick.
 - Any remaining area shall be landscaped or otherwise improved; the design shall be approved by the Community Development Department prior to construction.

SETBACKS

48. Front yard and corner side yard setbacks shall be a minimum of ten feet except where there is a transformer. At these locations, the setback shall be twelve feet. The street connection requirements of ZO Section 9.624(1)(a)-(c) shall apply (ZO Section 9.624 *Setback and Lot Width Requirements* and LDO Section 9.110(2)c. *Easements*).

ARCHITECTURAL STANDARDS

49. To provide for greater architectural variety, roof structures for the attached units shall be more varied by submitting and receive approval by the Community Development Director prior to or concurrent with submittal of the building permit for the first attached units.
50. At least 75% of those lots with less than 9,000 square feet of lot area shall comply with LDO Section 9.110(3)(h) *Street Connection Requirement*.
51. All lots shall comply with LDO Section 9.110(3)(i) *Diversity Requirement*.
52. Front façade siding materials shall "wrap" the entire structure.
53. Homes with street-facing side yards shall have windows in the side facades, in compliance with LDO Section 9.110(3)(h) *Street Connection Requirement*.

54. To preserve privacy, side elevation windows shall: a) not align with the windows in the adjacent home, or b) use translucent glass, or c) the sill shall be not less than 5 ½ feet above the floor.
55. Any modifications to the proposed design types shall be submitted to the Community Development Department for review and approval by the Director or his designee prior to submitting for building permits (ZO Section 9.816.5 *Compliance with Final Plan*).

TREES

56. Existing on-site and off-site trees that may be adversely affected by street or utility extensions or on-site grading shall be identified and protected. Protection measures shall be included on the grading plans and shall be in place prior to any grading activity. Measures shall remain in place for the duration of construction (ZO Section 9.945(D)(3) *Protection Plan*).
57. Chain-link fencing shall be installed around all tree protection zones.
58. City staff shall be notified prior to commencement of grading or excavation near any of the protected trees, to verify that the tree protection measures are in place.
59. A tree removal permit shall be required for all trees to be removed (ZO Section 9.942 *Permit Requirements*). To compensate for the trees to be removed, a one-for-one replacement (19 trees) shall be required for all existing native trees. Replacement trees shall be of a species native to western Oregon and shall be planted in the open space tracts. These trees shall have a minimum two-inch caliper upon installation.
60. Street trees adjacent to buildable lots shall be charged a street tree installation fee at the time of building permit issuance (LDO Section 9.109(1)g.iv. *Street Trees*).

OTHER

61. Mailboxes and newspaper receptacles (serving at least four but not more than eight homes) are required; locking mailboxes are recommended. These facilities shall be located in the vicinity of streetlights. Locations and specifications should be confirmed with the Forest Grove Post Office prior to installation. Installation shall occur prior to occupancy of the first home (LDO Section 9.109(1)h. *Mailboxes*).
62. A six-foot-tall cedar solid or "good-neighbor" fence or equivalent shall be installed on the rear lot line of lots 62 to 71, and the south and west property lines of 1608 18th Avenue (Washington County tax lot 1S4 1AA-4000 (ZO Section 9.682(5) *Perimeter Requirements*).
63. Prior to approval of the public improvement agreement, the Community Development director shall approve the design for the retaining walls.

PLANNING COMMISSION MEETING MINUTES
FOREST GROVE COMMUNITY AUDITORIUM CONFERENCE ROOM

July 30, 2007 - 7:00 P.M.

PAGE 1 of 8

1. CALL TO ORDER:

Chairman Beck called the meeting to order at 7:10 p.m. **Planning Commission Present:** Tom Beck, Carolyn Hymes, Ed Nigbor, Luann Arnott, Lisa Nakajima and Cindy McIntyre. **Absent:** Al Miller **Staff Present:** Jon Holan, Community Development Director; Marcia Phillips, Permit Coordinator/Recorder.

2. PUBLIC MEETING:

2.1 PUBLIC COMMENT PERIOD FOR NON-AGENDA ITEMS: None.

2.2 PUBLIC HEARING:

A. Comprehensive Plan Amendment Number CPA 06-01 and Zoning Map Amendment ZC 07-01: Gales Creek Terrace LLC, as applicant, is requesting the redesignation of a 4.2 acre portion of a 19.55 acre site. The Comprehensive Plan Amendment is to re-designate the 4.2 acre area from "Exclusive Farm Use" (EFU) to Low Density Residential. The requested zone change is to rezone the same area from EFU to Single Family Residential" (R-5). The amendments are the result of bringing the subject site into Urban Growth Boundary. The 19.55 acre parcel is located at the western terminus of 19th Avenue rights-of-way and the 8.7 acre site is located adjacent and north of Gales Creek on the property. (Washington County Tax Lot Number 1S 4 1-400.)

Chairman Beck read the hearing procedures and asked for disclosure of any conflicts of interest, ex-parte contacts, bias or abstentions. Commissioner Arnott said she visited the property to look at it. There were no challenges from the audience.

Chairman Beck opened the public hearing at 7:12 p.m. and called for the staff report.

Mr. Holan said the proposed amendment is to establish Low Density Residential plan designation and Single Family Residential (R-5) zoning on the 4.2 acre site brought into the UGB by Metro earlier this year. This 4.2 acre site is part of the 19.55 acre parent parcel. A planned residential development has been submitted for 100 units on a 10.13 acre portion of the parcel and includes the 4.2 acre site subject to this amendment. Based on the analysis prepared by staff, it is found that the proposed designation would essentially meet Metro's ten unit per net acre density requirement.

Staff experienced projector problems, so maps could not be displayed for the audience. Holan invited members of the audience to come forward, and view the maps. One citizen came forward.

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Metro is the agency that determines the location of the Urban Growth Boundary. On February 28, 2007, Metro revised the UGB generally based on the 180 foot elevation. This elevation is based on findings by the City's Public Works Department that the 180 foot elevation is above the estimated 100 year flood plain for Gales Creek.

The proposed amendments would be at a lower density than the planned future character of the area including the remainder of the developed portion of the 19.55 acre parent parcel. Taking slope reductions into account, the 4.2 acre site would yield a density of 7.62 units per net acre. The remaining portion of the parcel within the UGB is planned and zoned for high density residential consistent with the large area south of Pacific Avenue and east of "B" Street.

The proposed amendment for single family residential would meet locational criteria for a low density single family residential development. About 50% of the site is 10 to 15 percent in slope and almost the entire net area is less than 25 percent in slope. A higher density designation, such as Medium Density or High Density residential could be considered for the site by the Commission. The one area where there is a question is the site's slope. A majority of the site is at or above the 10 percent slope criteria for either medium or high density residential.

The most significant issue is whether designating a portion of the 19.55 acre parcel for low density residential would be considered a spot zone given the adjacent, existing plan designations for the area. Generally, there are no definitive criteria for spot zones. Generally, a spot zone may be found where the site in question is small and there are no substantial dissimilar characteristics with other properties in the area planned for the same general land uses.

Staff recommends approval of the Comprehensive Plan Amendment and Zone Change. The Commission could consider higher density.

Chairman Beck said that given the slope consideration, the R-5 zoning works consistently with the Metro requirement.

Commissioner Hymes arrived at 7:50 p.m.

Commissioner Nakajima stated that this site is a little bit different because it is on the edge of the UGB, and the report talks about tax lot 400 being 16.92 acres, when actually 9.42 acres are not buildable because they are outside the UGB. Is it reasonable to use that number? Is there any precedent any where else in the community?

Holan stated that Knox Ridge was an example, where a substantial portion of the property lay outside the UGB. For the site being considered, the total acreage was

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looked at for purposes of looking at the overall site area. In terms of the density analysis, staff used that portion of the property inside the UGB.

Chairman Beck summarized the staff report by stating that, given the slope considerations, focus is on the single family residential designation for the Comprehensive Plan and R-5 for the zoning designation, and these designations work consistently with Metro's requirements.

Holan said staff believes the designations work consistently with Metro's requirements, based on the information received from Metro staff.

APPLICANT:

Thomas Cutler, 5000 SW Meadows Road, Suite 400, Lake Oswego, OR 97035.

Mr. Cutler stated that he represents the applicant, Gales Creek Terrace, LLC. As mentioned in the staff report, the ownership and control of the property has changed hands, so this is a new application. The application is very different from the previous proposal presented to the Commission, and many of the previous issues have been resolved. A much smaller area is being brought into the UGB than originally proposed. Everyone has come to a good solution with respect to where the Urban Growth Boundary should be located. The applicant supports staff's report and recommendation.

Metro determined the Urban Growth Boundary line, and coupled with that decision Metro's ordinance states that the site be zoned at least ten units per net developable acre. That decision was never appealed to LUBA. That leaves the very real constraint that whatever the zoning is, it needs to be at least ten units per net developable acre. Due to concerns of the Commission and citizens, the applicant has volunteered to go with the lowest density possible to still meet the Metro requirements. Looking at the surrounding zoning, it might be natural to request A-1 or A-2. But due to concerns of the Commission and community, the applicant is willing to go with a substantially lower zoning designation. R-5 is the lowest zoning designation that would still allow the capacity for unit yield that Metro requires in their ruling.

Matt Sprague, SFA Design Group, 9020 SW Washington Square Dr., Suite # 350, Portland, OR 97223.

If this were looked at as just an individual parcel not part of another development coming in, the automatic minimum zoning requirement under Metro to meet the ten units per acre requirement would be an A-1 zone. Utilizing the A-1 and R-5 zoning over the entire site, the applicant was able to come up with a net density of 10 units per acre. This was done in an attempt to get the density to the absolute lowest zoning that was possible.

PROPONENTS:

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Bob Browning, 3012-B Pacific Avenue, Forest Grove, OR 97116. Mr. Browning said he supports the continuing efforts of folks to find a use for this property. The constitutional question was the correct establishment of the UGB, which has been determined by Metro. There is some question whether tonight's proceedings are necessary.

OPPONENTS:

Ron Thompson, 1728 "C" Street, Forest Grove, OR 97116. Mr. Thompson said he had concerns regarding the Comprehensive Plan Amendment. This land is steep and has slopes. The property should not be developed south of 18th Avenue. The Comprehensive Plan designates this property as Gales Creek Natural Resource Area. The City established the 180 foot UGB line and Metro agreed. According to our own Comprehensive Plan, there is to be no high density on slopes over 10%, and 50% of the site is over 10% slope.

Chairman Beck said that because the R-5 zone is permitted with slope less than 20%, the applicant is actually following what Mr. Thompson is suggesting. In this development A-1 and A-2 is not allowed due to slope.

Del Schrag, 1810 "D" Street, Forest Grove, OR 97116. Mr. Schrag said his property is bordered on the west and south by the applicant's property. Gales Creek is a beautiful area. Metro says we need open spaces and pleasant places. Metro could pay the owners to keep this property and not develop it. This is a unique parcel. A person can walk ten minutes from downtown and be in an area full of wildlife. Mr. Schrag encouraged the Commission to keep housing to the lowest levels possible.

Doug Thompson, 1728 "C" Street, Forest Grove, OR 97116. Mr. Thompson said he would like to see the City's proposed trail above the 180 foot line. Parts of this property should be a lower density (R-10) not R-5 despite what Metro says. Sherwood is a great city due to good planning.

Dick Lane, 1608 18th Avenue, Forest Grove, OR 97116. The Comprehensive Plan still states that the Gales Creek Natural Resource area is on this exact property. The property should be developed minimally and kept as natural as possible. At a previous meeting the Commission recommended R-10 zoning. If Metro can decide the UGB line and density, the City has no control.

Bonnie Combs, 1908 "C" Street, Forest Grove, OR 97116. Ms. Combs gave the Commission a picture of a large oak tree endangered by development (Handout # 1). The Comprehensive Plan Amendment and Zone Change do affect the lives of the trees on this property. An archeological report should be obtained to look for Native American grave sites.

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John White, 1715 17th Avenue, Forest Grove, OR 97116. Mr. White said good progress has been made on determining the 180 foot UGB line. Due to the degree of slope on the property, it would be good to do some grading and to put in some retaining walls to allow the houses to be built on more level ground. There would also be less slope on the streets. Mr. White said the City's loop trail is proceeding nicely, and he wants to see the progress continue.

OTHER:

Walt Wentz, 1817 17th Avenue, Forest Grove, OR 97116. Mr. Wentz said there was an error on the public notice where it says an 8.7 acre lot on the third line from the bottom. The Comprehensive Plan Amendment redesignates the property from Future Farm Use to Residential. Mr. Wentz said he is not sure anyone has informed Gales Creek of these changes. "B" Street floods in the winter. The nursery located across Gales Creek from the site has an earthen berm for protection from the flood waters. Any encroachment on the channel will raise the flood level.

REBUTTAL:

Mr. Cutler said Metro decided that if this property was brought into the UGB, it must be 10 units per net developable acre. The Forest Grove City Council could have appealed this decision. The Urban Growth Boundary Line has been determined, and Metro has stated the area must be 10 units per net developable acre, so zoning is determined from that. R-5 is the only zoning that satisfies Metro's criteria. The zoning cannot be R-10 and still meet Metro's criteria.

The matter of trees will be discussed at the public hearing for the Planned Residential Development.

Flood issues have been adequately addressed. Decisions must be based on scientifically determined habitat preservation techniques. This is not only about livability and sustainability, but also about families. Once the natural resource areas have been protected and buffered, it is about these families. The applicant's development will provide affordable housing opportunities, add to the tax resources, and add value to the community.

Chairman Beck closed the public hearing at 8:35 p.m. and brought the meeting back to the Commission for discussion.

Chairman Beck called for a five minute recess.

DISCUSSION:

The meeting resumed at 8:45 p.m. Chairman Beck said that during the break, the

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Commissioners questioned staff regarding density and zoning. How the property is zoned will affect the Planned Residential Development. Beck asked Holan to read the densities.

Holan: R-5 with slope – 27.07 units – 4.2 acres
R-7 with slope – 19.33 units – approximately 8 fewer units
R-10 with slope – 13.55 units – approximately 13-14 fewer units

Beck: Please discuss the overall Comprehensive Plan vision for the Gales Creek area.

Holan: In the Comprehensive Plan, there is not a specifically designated area for the Gales Creek Natural Resource area. The Comprehensive Plan is more general, and just says along Gales Creek.

Commissioner McIntyre: This property is being brought into the city as residential from farm land. Can it be brought in as EFU?

Holan: No.

Commissioner McIntyre: Can it be brought in as R-10?

Holan: The problem would be with Metro. They can determine densities, and have stated the property must be ten units per net developable acres. This is in Metro's code.

Commissioner McIntyre: What if the Commission would not accept anything but R-10?

Holan: Metro, the applicant or property owner might litigate. This is an Urban Growth Boundary criteria which is part of Metro's code.

Chairman Beck: One conundrum is clearly that the Commission wants as little development as possible. Unfortunately, in the past the whole area was zoned A-1 and A-2. Looking at Metro's order, this area is considered an inner neighborhood near downtown. In a practical sense, the Commission's choices are A-1, A-2 and R-5 due to what is adjacent to the property. These are some practical realities beyond our control. The Commission has some control over how the property develops.

Commissioner McIntyre: The area floods. How many people do we want to be involved in the flood? Metro is forcing us to do something we know is not right. Maybe we need to stand up to Metro.

Chairman Beck: It is not accurate to discuss whether this area will flood. That has

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been decided. This area should not flood, because it is above the flood line.

Commissioner Arnott: I prefer R-10 zoning.

Commissioner Nigbor: Years ago I built a house on a steep slope. The City said I needed engineering. I had to build cassons twenty five feet deep, so the house would not slide. Keep density down where slope is greater.

Commissioner Hymes: This is a difficult area. The Commission has had a hard time finding a way to get around the R-5 zoning.

Commissioner Hymes made a motion on CPA-06-01 to recommend approval of the redesignation of 4.2 acres from "Exclusive Farm Use" (EFU) to Low Density Residential. Commissioner Nakajima seconded. Motion passed 4-2.

Commissioner Nakajima made a motion on ZC-07-01 to recommend approval of the rezone of the same area from EFU to Single Family Residential" (R-5). Commissioner Hymes seconded. Motion passed 4-2.

 **B. Planned Residential Development Number PRD-06-01: Gales Creek Terrace LLC, as applicant, is requesting a planned residential development to construct 100 single-family detached and attached homes on a 13.14 acre site. The site is located at the western terminus of 19th Avenue rights-of-way. (Washington County Tax Lot Numbers: 1S 4 1-400 and 1S4 1AA-7200.)**

Chairman Beck stated that staff has asked for a continuance on PRD-06-01. The applicant's traffic engineer will not be available on August 20, 2007, which would be the next usual Planning Commission meeting date. The hearing could begin on that date, and then if the traffic engineer's testimony was needed, could be continued to the September 3rd meeting. Upon further discussion, it was determined that there would not be enough Commissioners available on August 20th to make a quorum.

Chairman Beck continued PRD-06-01 to the Tuesday, September 4, 2007, Planning Commission meeting.

3.0 BUSINESS MEETING:

3.1 APPROVAL OF MINUTES: None.

3.2 REPORTS FROM COMMISSIONERS/SUBCOMMITTEES: None.

3.3 DIRECTOR'S REPORT: None.

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- 3.4 ANNOUNCEMENT OF NEXT MEETING:** Next meeting will be held on August 6, 2007, in the Public Auditorium's small conference room.
- 3.5 ADJOURNMENT:** The meeting was adjourned at 9:25 p.m.

Respectfully submitted by:
Marcia Phillips

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1. CALL TO ORDER:

Chairman Beck called the meeting to order at 7:05 p.m. **Planning Commission Present:** Tom Beck, Carolyn Hymes, Luann Arnott, Lisa Nakajima, and Al Miller. **Absent:** Ed Nigbor, and Cindy McIntyre. **Staff Present:** Jon Holan, Community Development Director; Marcia Phillips, Permit Coordinator/Recorder.

2. PUBLIC MEETING:

2.1 PUBLIC COMMENT PERIOD FOR NON-AGENDA ITEMS: None.

2.2 PUBLIC HEARING:

Chairman Beck stated that there was a non-agenda item that would be discussed first, because it would require a very short amount of time.

Mr. Holan explained that Chantal Hamlets is a small planned residential development located north of 21st Avenue in the vicinity of Elm Street. When the final plat map was recorded, the street name to be used on the interior private street was Elm Loop. However, when the street signs were erected and addresses assigned, Elm Drive and Green Court were used. The renaming will not actually change any street name, but merely correct the inconsistency between the name on the plat map and the actual names. Staff is requesting that the Planning Commission recommend to the City Council the renaming of the streets.

Commissioner Miller made a motion to recommend to City Council the renaming of the streets in Chantal Hamlets. Commissioner Nakajima seconded. Motion passed 5-0.



A. Planned Residential Development Number PRD-06-01: Gales Creek Terrace LLC, as applicant, is requesting a planned residential development to construct 100 single-family detached and attached homes on a 13.14 acre site. The site is located at the western terminus of 19th Avenue rights-of-way. (Washington County Tax Lot Numbers: 1S 4 1-400 and 1S4 1AA-7200.) (Continued from the July 30, 2007 meeting.)

Chairman Beck read the hearing procedures and asked for disclosure of any conflicts of interest, ex-parte contacts, bias or abstentions. Commissioner Nakajima said she knows several of the property owners, but did not believe it would influence her decision. Commissioner Miller stated that he lives in the neighborhood, knows people involved, and this PRD has been discussed in the past. There were no objections and no challenges from the audience.

Chairman Beck opened the public hearing at 7:08 p.m. and called for the staff report.

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Mr. Holan said Gales Creek Terrace is located on two parcels totaling 19.55 acres. The Urban Growth Boundary (UGB) crosses the property. Metro approved a minor UGB amendment on December 28, 2006, to bring in an additional 4.2 acres into the UGB on the property. As a result the property has 10.13 acres inside the UGB and 9.42 acres outside the boundary. Due to the UGB amendment, an urban plan and zone designation must be established for the 4.2 acres area. The applicant has requested the area be planned for low density residential with Single Family Residential (R-5) zone district. This request has received a recommendation for approval by the Planning Commission and the City Council will consider the request at their September 10, 2007, meeting.

Gales Creek Terrace is one of several development proposals anticipated in the area south of Pacific Avenue and west of "D" Street. Several other parcels have been recently annexed for future development, but those applications have not yet been filed. Two other projects to the west would access the same streets as Gales Creek Terrace, and these properties have been taken into consideration in the staff report regarding traffic.

The applicant is proposing to develop the site with a two-phase subdivision consisting of 54 town homes, 46 single-family-detached homes, a 10.05-acre open space area with a trail system, play area and two water quality tracts. The homes have a somewhat Craftsman style look. Streets would be located in public rights-of-way, with the exception of the driveway in Tract "D". The detached homes are all proposed to be two or three stories with two-car side-by-side garages. The town homes would be three stories high with either two-car tandem or two-car side-by-side garages. All of the town homes would take their vehicular access from a 20-foot-wide private driveway.

The site is located near the Gales Creek floodplain. For this site, the location of the 100-year floodplain elevation establishes the location of the UGB. Due to the uncertain location of the UGB, the applicant worked with the City and Metro to better define its location. An elevation of 180 feet was approved by Metro, and that boundary is reflected in the application. A retaining wall will be built along the property lines of homes in the lower portion of the site to raise the level of the yards and homes to 186-feet in order to add an extra level of protection.

Two portions of the open space area are proposed to be improved with active play areas and a gazebo, and are intended to be retained by the development. With the exception of these two areas, the open space is intended to be dedicated to the City as part of the community's trail system. The bulk of the riparian areas are located outside the developable portion of the property.

Sam Kyle, an adjacent property owner, has offered to donate his property to the City to be used as part of the trail system, and would allow for a sewer line to be

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run across the Kyle property for this PRD. Phase one would run a sewer line along Pacific Avenue. Phase two would require the sewer line across the Kyle property.

The net area for this project would total 6.87 acres. Development is required to achieve a minimum of 80% of the target density. The number of permitted units may be reduced where the topography exceeds a 10% grade. The R-5 zone has a target density of 8.81 units per net acre. The A-2 Multi-Family zone has a target density of 20.28 units per net acre. Density is proposed to be “blended” throughout the project. The grand total allowable without slope reductions would be 98 units, and the minimum required would be 80 units. With 100 units proposed, the project exceeds by one unit the Target Density without slope reduction. With slope reduction, the project would be reduced to 88.46 units. The applicant has requested Incentive Density, which could allow for up to a 15% bonus above the Target Density if the Commission finds that the application complies with the criteria as stated in the staff report.

The applicant is requesting front yard setbacks of 10 feet to the living area and 20 feet to the garage. For those lots facing one street with a side yard adjacent to another street, the applicant is proposing that the street side yard dimension be reduced to ten feet. The applicant is proposing that the side yard setbacks be a minimum of five feet. No adjustment for rear yard setbacks has been requested for the detached homes. The town homes would be located 5-feet from the alley. The landscape strip along the back property lines of the homes facing Gales Creek Terrace is a nice amenity.

Staff proposes a condition of approval for an assessment to be paid for the improvement on “D” Street. The fee would be collected at the building permit for each house from Gales Creek Terrace and the Kinzer development to the west. The applicant has purchased the home on 19th Avenue to allow the street to go through. There appears to be no way to save the large Oak tree due to street alignment. The applicant proposes minimal development of 18th Avenue between “C” and “D” Streets for emergency access, and installation of a gate to prevent public access into the development. This provides an alternative emergency access. The traffic study indicates that turn lanes at “C” and “D” streets would be warranted, and a condition of approval is included which requires the applicant to participate in the installation of the left turn lanes. There are 430 parking spaces available, with an average of four spaces per unit.

The applicant proposes to donate 8 acres along Gales Creek to the City. Sam Kyle also proposes to donate his property, and because the City is keeping the Kyle land as open space (not digging into the contaminated soil), it was determined by the City’s Land Use Attorney that it would be alright for the City to accept the donation.

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APPLICANT:

Matt Sprague, SFA Design Group, 9020 SW Washington Square Drive, Suite 350, Portland, OR 97223.

Mike Robinson, Attorney, 1120 NW Couch St., Portland, OR 97209.

Mr. Sprague gave an overall description of the site. The applicant is proposing 100 lots, which is 22 less than the previous application. The new application has a lower zoning density (R-5) with less developable area and more open space. The attached units have been centralized instead of being located along the perimeter near existing single family homes. To be even safer, the homes along Gales Creek will have a retaining wall, so the yards and homes will be raised to 186 feet above the flood line. 46% Of the property will be developed and 54% will be open space. The applicant proposes 25,000 square feet of open space inside the UGB for active and passive recreation with a play ground, picnic area and benches. There will be four pathway connections from public sidewalks to the "Emerald Necklace" (community trail).

Chairman Beck stated that the Commission has worked hard with other PRDs to get centralized community open space for use of the home owners.

Sprague replied that the applicant has provided for private open space, and has provided open space for the public along Gales Creek. This is a substantial amenity for the City of Forest Grove.

Mr. Robinson said that the applicant has a different type of site than the other PRDs. The applicant has made land available for the "Emerald Necklace", and wants to concentrate on this area, and not so much on the interior open space of the development.

Mr. Sprague showed pictures of the streetscape along 19th Avenue, and also showed a drawing of the landscape strip along the back yards of the units facing Gales Creek Terrace. He also showed a cross section of the site elevations, and examples of different house elevations front, side and rear. Sprague stated that JLS Homes will be building the homes.

Brian Sites, 16505 NW Batten Ct., Suite 120, Portland, OR. Mr. Sites said there will be a fence along the back property line of the detached homes. Each homeowner will put in their own fence along the side property lines. The attached homes will have a fence across the back property line, and down to the units.

Ben Altman, SFA Design Group, 9020 SW Washington Square Drive, Suite 350, Portland, OR 97223. The applicant has done significant traffic analysis, and

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has coordinated with staff, Kittleson Engineering (City TSP), and Charbonneau Engineering particularly regarding the configuration of the intersection at 19th Avenue and "B" Street, and the intersections of "C" and "D" Streets at Pacific Avenue. The applicant had Charbonneau Engineering focus on this PRD plus development to the west. The applicant has worked closely with the City's Community Development Director and Engineering Department on traffic issues, and connectivity.

Robinson said the applicant concurs with staff's recommendation of shared expense for the installation of left turn lanes on Pacific Avenue at C and D streets and the installation of a traffic signal the at B Street/19th Avenue intersection. The applicant also agrees to participate in obtaining the necessary easement for the sewer line across the Kyle property, and assuming responsibility for any mitigation due to contaminated soils as a result of the installation of the sewer line. The applicant is requesting clarification of the extent of the applicant's participation. The applicant is requesting modification of Condition # 29 to clarify this point.

Chairman Beck called for a five minute recess at 9:00 p.m.

OPPONENTS:

Ron Thompson, 1728 "C" Street, Forest Grove, OR 97116. Mr. Thompson said he was concerned about the improvements on 18th Avenue and was not clear about the improvements on "D" Street between 18th and 19th Avenues. With 18th Avenue being widened and graveled, will his hedge and mailbox have to be removed? Mr. Thompson was also concerned about the pool in his yard, and wanted to know whether there will be a fence between his property and the PRD.

Holan explained that "D" Street will provide a connection to the PRD. It is not proposed to do a full improvement - there will be no curbs and sidewalks. If Mr. Thompson's mailbox is in the public right-of-way, it may be affected by the improvements, because the gravel roadway will take almost all of the 25-foot right-of-way in front of Mr. Thompson's house.

Chairman Beck stated that if the hedge is in the public right-of-way, it will be taken out. There will be a wooden 6-foot "good neighbor" fence around the entire PRD.

Thompson said he is concerned about traffic problems. Cars get backed up at the light on Pacific, and if another light is installed on 19th Avenue, it will cause even more of a backup. He is also concerned about having children around the contaminated soil on the Kyle property. Thompson urged the Commission to allow no more that three attached units in a row.

Dick Lane, 4406 Settlers Loop, Forest Grove, OR 97116. Mr. Lane said he had several concerns.

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1. The slope below the original UGB line is more than 10%.
2. Gales Creek floods every year. (Showed pictures of flooding.)
3. There needs to be a hydro analysis done by an independent Hydro Engineer not affiliated with the City or the applicant.
4. The Oregonian newspaper reported that six homes built on a slope in Hillsboro had to be abandoned due to sliding. Thirty-five entities are involved in law suits.
5. The Forest Grove Comprehensive Plan states that Gales Creek is a natural resource area from Ritchey Road to Highway 47. It is intended to remain in a natural state (Exhibit 2).
6. What happened to the R-10 zoning the Commission previously approved?
7. In 2005, 250 people signed a petition not to move the UGB line for high density housing.

John White, 1715 17th Avenue, Forest Grove, OR 97116. Mr. White stated that he has been involved with the New Vision for Forest Grove – a green city. Mr. White encouraged the Commission to think about several issues: water quality with a sewer line in this area, light pollution from lighting fixtures and the use of better green building practices. This project could become a model for the rest of the City. Mr. White also encouraged the Commission to retain as many trees as possible along the Thompson/Lane property line. It may mean one less trail access to save those trees, and would limit the attractive nuisance of the Thompson pool. Will there be a monitoring system to identify and get rid of the contaminated soil on the Kyle property? Mr. White said good progress was being made regarding traffic. He is opposed to development below the original UGB line. He stated that this is not the best plan for development in this area, but the best under the circumstances.

Holan said the sewer master plan shows the sewer line in this location. Presumably it will be designed so no effluent will escape.

Del Schrag, 1810 "D" Street, Forest Grove, OR 97116. Mr. Schrag said it would be better to develop the upper part of the property and leave the lower part alone. This is a wildlife habitat area. Mr. Schrag was pleased that the present developer is trying to give the City open space, but he wishes there were more open space and fewer houses.

REBUTTAL:

Robinson: The applicant appreciates the comments, and will address those comments pertinent to the criteria of approval. The applicant will survey the 18th Avenue right-of-way to determine whether improvements may encroach on Mr. Thompson's mailbox and hedge. Regarding traffic backup, traffic signals can be linked to work in tandem to minimize backup. Regarding more open space, Orenco

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Station has a very large open space that is hardly used, because it is too large and not intimate. Orenco Station does not have the amenity this PRD has - Gales Creek. Regarding the homes built on a slope in Hillsboro, these homes were built on a 36-foot retaining wall. Mr. Robinson said the applicant agrees with Mr. White about the dark sky type of lighting, and will use this type of lighting in the development to minimize light pollution. The applicant can work with the City to avoid cutting down trees along the Thompson/Lane property lines to build the trail.

Commissioner Hymes asked about the contaminated soil, and the process to remove it.

Mr. Holan said that five feet below the surface hydrocarbon - contaminated oils were discovered. A process will need to be worked out, and an agreement for monitoring and proper disposal of any soils found to be contaminated. The excavator would remove soil to install the sewer. Perhaps a person on site could do spot checks to test this soil for contamination. Mr. Holan said he does not believe there will be a problem, because the City does not propose to disturb the soil.

Commissioner Nakajima wanted to know when the traffic counts were done on the first traffic analysis. She wanted to make sure the counts were done when school buses would be included.

Frank Charbonneau, Charbonneau Engineering. Mr. Charbonneau stated that the traffic counts were done July 2007 and May 2007, at peak hours. The school buses would have been included.

Chairman Beck closed the public hearing at 9:47 p.m., and returned the hearing to the Planning Commission for discussion.

Chairman Beck asked if there were any particular conditions of approval Mr. Holan wanted to point out.

Mr. Holan said there were no particular issues with the conditions, except Condition # 29 for which he had proposed rewording.

Commissioner Nakajima said her feeling is that the community needs to be looked at as a whole. Incentive densities are not appropriate due to slope. She would be agreeable to 90-91 units. She does not like six townhouses in a row. Three to five in a row would be acceptable. The landscaping is good. Putting the single-family homes next to existing single-family homes is good. Commissioner Nakajima said she appreciates the open space, and appreciates what has been done on the new application. She has a problem with the density.

Commissioner Hymes said the project does not meet the criteria for incentive density, and she would like to see more open space.

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Chairman Beck said that considering slope, the minimum would be 70 units per net acre, maximum 88 units and 102 with the incentive bonus. There are a lot of positive things about this proposal. Density is concentrated away from the creek and other property owners. He understands putting the public open space where it is, most of the land could not be built upon anyway. What the project is missing is open space the residents can actually use. There are two odd corners inside the development that have been designated as open space. These private open space areas are next to the public path. Chairman Beck said he would like to see open space in the middle of the project, perhaps along the row of houses facing Gales Creek Terrace and maybe along the connecting pathway. One hundred homes means there will be a lot of people living here.

Commissioner Miller said that in talking about eliminating some units for more open space, keep in mind that people have to be able to access the open space.

Chairman Beck said that City Council is looking closely at side yard setbacks. It would be best to decrease the number of units and use standard setbacks.

Chairman Beck directed Mr. Holan to write a condition of approval that would have the look of the retaining walls approved by the Community Development Director.

Mr. Robinson requested a two week continuance of the hearing to the September 17, 2007, meeting. He explained that this will give the applicant the opportunity to address some of the issues raised at this meeting.

Chairman Beck discussed the request with the Commissioners, and granted the applicant's request for a continuance to the September 17, 2007, meeting.

Chairman Beck said that the public hearing is closed, but at the September 17th meeting the Planning Commission will go through a similar process with a public hearing open to public comment on the changes only.

3.0 BUSINESS MEETING:

3.1 APPROVAL OF MINUTES: Commissioner Miller made a motion to approve minutes of the July 2, July 16, July 30 and August 6 meetings. Commissioner Arnott seconded. Motion passed 5-0 with a voice vote.

3.2 REPORTS FROM COMMISSIONERS/SUBCOMMITTEES: None.

3.3 DIRECTOR'S REPORT: None.

3.4 ANNOUNCEMENT OF NEXT MEETING: Next meeting will be held on

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3.5 ADJOURNMENT: The meeting was adjourned at 10:15 p.m.

Respectfully submitted by:
Marcia Phillips

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1. CALL TO ORDER:

Chairman Beck called the meeting to order at 7:03 p.m. **Planning Commission Present:** Tom Beck, Al Miller, Carolyn Hymes, Lisa Nakajima. **Absent:** Luann Arnott, Cindy McIntyre, and Ed Nigbor. **Staff Present:** Jon Holan, Community Development Director; Marcia Phillips, Permit Coordinator/Recorder.

2. PUBLIC MEETING:

2.1 PUBLIC COMMENT PERIOD FOR NON-AGENDA ITEMS: None.

2.2 PUBLIC HEARING:

A. Planned Residential Development Number PRD-06-01: Gales Creek Terrace LLC, as applicant, is requesting a planned residential development to construct 100 single-family detached and attached homes on a 13.14 acre site. The site is located at the western terminus of 19th Avenue rights-of-way. (Washington County Tax Lot Numbers: 1S 4 1-400 and 1S4 1AA-7200.) (Continued from the July 30, 2007 and September 4, 2007 meetings.)

Chairman Beck asked for an update from Staff regarding PRD-06-04 Gales Creek Terrace.

Mr. Holan stated that the applicant has submitted a new design in response to a number of comments by the Planning Commission. All forty foot tall homes would have six foot side yard setbacks. Those less than forty feet tall would have five foot side yard setbacks. The number of units has been reduced from 100 to 87 units. A central open space has been added (Tract C) with a tot structure where single family residences were located before.

Mr. Holan said the applicant's samples of retaining walls have no texture. Staff handed out a sheet (Handout # 3) which showed several examples of retaining walls build with textured brick Mr. Holan said something in a brown tone would be better. Mr. Holan said that the applicant is agreeable to the Community Development Director determining the detail of the retaining wall.

Staff received a letter from Sam Kyle (Handout # 2) dated September 17, 2007. Chairman Beck said the City is trying to be cautious, and Kyle is saying in the letter that the City is being too cautious. Kyle feels that the City is too stringent in their requirements.

Mr. Holan explained that the City has not yet set requirements.

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APPLICANT:

Mike Robinson, 1120 NW Couch St., Portland, OR 97209. Mr. Robinson said the applicant requested a continuance of the hearing so the applicant could respond to the comments made by the Planning Commission at the last meeting. Comments were made in three areas: open space, density and setbacks. Mr. Robinson described the revised site plan, which addressed these issues. Mr. Robinson stated that he was seeing the Kyle letter (Handout # 2) for the first time tonight. Mr. Robinson said Mr. Kyle was trying to make a point, but is not sure it is relevant to tonight's proceeding.

Mr. Robinson said the number of units has been reduced to 87, which is one below the maximum density. The applicant dropped thirteen very small units to provide a central open space, which increases the amount of open space to 450,000 square feet, of which 622 square feet will be private open space. There are three ways for the public to reach the open space.

In return for providing open space, the applicant is requesting smaller set backs. The smaller setbacks are mitigated by the open space to the rear of those lots facing Gales Creek. Greater setbacks would cause the loss of the single-family units on larger lots. The applicant is proposing to put a "tot lot" in Tract C, a gazebo in the open space to the south, and a ten foot planting strip along the alley. The applicant is willing to work with staff to determine the color and texture of the retaining wall.

Tom Cutler, 5000 S.W. Meadows Rd., Lake Oswego, OR 97035. Mr. Cutler said he was disheartened to hear that the applicant is not really giving up anything. He is pleased that the applicant was able to address ninety percent of the Planning Commission's concerns. This has been a long and agonizing process, but ends up being a better product. Mr. Cutler gave a brief history of the project, and stated that early drawings had large condominiums facing the creek. There has been a long series of compromises. There was a big compromise on the UGB line. There was a big compromise from 122-100 units. Instead of pushing for A-2 zoning above the UGB line, the applicant voluntarily went with R-5. The property could have had more lots. The land could have remained private. The area is zoned for agriculture. The land could have been preserved for private open space such as a private park.

In the most recent redesign, the applicant has compromised by reducing the number of units to 87, which is a sacrifice. The applicant has created a centralized open space, and the open space in the southwest corner has been doubled. This almost doubled the amount of private open space. One path has been eliminated in the southeast corner to save trees.

The applicant has worked hard, and feels good about this project.

PROPOSERS: None.

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OPPONENTS:

Dick Lane, 4406 Settlers Loop, Forest Grove, OR 97116. Mr. Lane stated that he is trying to sell his home on 16th Avenue, which is a hard sell. He is concerned with the visual and physical product along his boundaries. 18th Avenue looks right into Mr. Lane's lot. Mr. Lane said he wants to see more detail of the proposed improvements for 18th Avenue. How wide will it be? Mr. Lane thought the 18th Avenue right-of-way would never be used due to flooding on the Rau property.

Del Schrag, 1810 "D" Street, Forest Grove, OR 97116. Mr. Schrag said he is faced with development to the west and south of his property. He is concerned with increased traffic on 18th Avenue and "D" Street. Mr. Schrag asked what improvements will be done on "D" Street.

Chairman Beck explained that the area is zoned A-1. When any property owners develop their property, they will be required to put in a 32-foot wide street with curbs and sidewalks.

Mr. Holan said south of 18th Avenue minimal paving will be required on "D" Street. 18th Avenue will be gated. For property owners in the proposed project, a more efficient way would be to travel interior streets to 19th Avenue

Zed Thompson, 1728 "C" Street, Forest Grove, OR 97116. Mr. Thompson said the applicant should be allowed to build only seventy homes. There have been mistakes made regarding Gales Creek. The City Council annexed the area. The City Council said the City would have control, but Metro really controls what happens.

Ron Thompson, 1728 "C" Street, Forest Grove, OR 97116. Mr. Thompson said improvements to 18th Avenue will affect Mr. Lane's yard and his hedge. Mr. Thompson wants to know if his hedge will be torn out. "D" Street needs to be improved between 18 Avenue and Pacific Avenue. The applicant should be allowed to build only seventy units, which is the minimum. Soon 500 high density units will be built in this area as other properties to the west develop. Protect Gales Creek's natural area. Mr. Thompson stated that there was no compromise on the 180-foot UGB line. Photographs clearly show the area floods.

OTHER: None.

REBUTTAL:

Mr. Robinson said the focus must be on the approval criteria. The applicant is willing to meet with Mr. Lane, Mr. Thompson and other neighbors regarding off site improvements. The applicant is willing to work with the Fire Department and

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Public Works Departments, and has no desire to take out people's hedges and trees. It will be good to get everyone together to determine the best way to do the improvements. In regards to traffic, folks will not go south to go north. The applicant wants to maximize improvements in certain areas per Staff recommendation. Gales Creek can be protected by approving this project. Gales Creek will be dedicated to the City.

Mr. Cutler said a few folks were asking questions, and invited them to meet with the applicant and his representatives after the meeting.

Chairman Beck closed the public hearing at 8:44 p.m., and returned the meeting to the Planning Commission for discussion.

DISCUSSION:

Commissioner Hymes: The applicant came back with a redesign that addressed all of the Commission's concerns.

Chairman Nakajima: Change is difficult. The area was zoned by the City's forefathers. The developer has listened to the Planning Commission's concerns, and has developed a creative design. Gales Creek will not be the same, but the City will gain improvements along with the developer.

Commissioner Miller: The applicant has presented a much nicer looking design. There is a reduction of the number of units, although it is more towards the maximum number of units allowed. Open space has been increased, and is more accessible. Gales Creek is visible from many of the homes. The setbacks are better. The applicant has given the Commission what was requested. The applicant is willing to meet with the neighbors to discuss concerns they may have, and the applicant is willing to work with staff.

Chairman Beck: I agree with Chairman Miller. There is a new condition of approval that allows the Community Development Director to determine the look of the retaining wall, and the developer will pick one that fits the region. I am extremely pleased with where the developer has gone. This will be a nice development. I agree with Commissioner Nakajima that this is the first step in a huge transformation of the area. The new homes will not have large trees around them because they are new, but they will. The design has single-family homes around the borders, and attached single-family units to the north, near the City, where they belong. The applicant has worked creatively with setbacks. I like this design.

Mr. Holan: A new condition of approval (# 62) will be added which states that prior to approval of the public improvement agreements, the

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Community Development Director shall approve the design for the retaining walls.

Commissioner Miller made a motion that the Commission recommend approval to City Council for PRD-06-04 Gales Creek Terrace with conditions of approval as noted. Commissioner Nakajima seconded the motion. Motion passed 4-0.

Chairman Beck asked the Planning Commission to recommend to City Council the approval of an extension of 19th Avenue to "E" Street. It would be a real solution to traffic problems at "B" Street and 19th Avenue. The double ninety degree turns are a problem.

Mr. Holan explained that will be part of the Transportation System Plan update. Staff is aware of the Commission's concern and recommendation, and is attempting to accommodate. The process for the TSP update is just beginning, so it will be several months before any hearings.

3.0 BUSINESS MEETING:

3.1 APPROVAL OF MINUTES: None.

3.2 REPORTS FROM COMMISSIONERS/SUBCOMMITTEES: None.

3.3 DIRECTOR'S REPORT:

There has been an application for a Conditional Use Permit for the LDS Church at the Parks at Forest Grove located north of the David Hill Road extension. This may be scheduled for the second Commission meeting in October.

Joint work sessions have begun regarding Periodic Review. The topics: Evaluation of the Comprehensive Plan and the proposed work plan.

There may be no Planning Commission meeting October 1, 2007.

Commissioner Miller asked about the Kyle letter (Handout # 2).

Mr. Holan said that based upon staff's conversation, Mr. Kyle feels that the City is requiring excessive monitoring means regarding the contaminated soil on his property. He had concerns about Condition # 29, but revision of that condition tonight takes care of it. Mr. Kyle is reminding everyone that much of the contamination was done by the City. The contamination is encapsulated by five feet of clay soil. If that area of the site is exposed, an agreement will determine the means to mitigate. The only proposed digging will be for installation of the sewer line and a parking lot for the trailhead.

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3.4 **ANNOUNCEMENT OF NEXT MEETING:** Next meeting will be held on October 15, 2007.

3.5 **ADJOURNMENT:** The meeting was adjourned at 8:15 p.m.

Respectfully submitted by:
Marcia Phillips

Planning Commission Findings and Decision Number 07-12 to Recommend Approval of the Gales Creek Terrace Planned Residential Development (PRD-06-04)

WHEREAS, the current version of the Gales Creek Terrace Planned Residential Development application was filed on June 6, 2007; and

WHEREAS, notice was sent to Department of Land Conservation and Development and no comments were received; and

WHEREAS, notice of this request was mailed to property owners and residents within 300 feet of the subject site on July 9, 2007, as required by Land Division Ordinance Section 9.117 and Zoning Ordinance Section 9.915. Notice was also published in the *News Times*, as required by Zoning Ordinance Section 9.915; and

WHEREAS, the Planning Commission held the duly-noticed public hearing on the proposed planned residential development on July 30, September 4 and September 17, 2007.

(A) The City of Forest Grove Planning Commission does hereby recommend approval of the Gales creek Terrace PRD, making the following specific findings in support of this decision:

- (1) The application has been revised by the applicant to reduce the total number of lots from 100 to 87 comprising 62 single family detached and 25 attached units. Further, interior side yard setbacks for detached dwellings are proposed to be increased from 5 feet to 6 feet for all lots with a width of 40 feet or greater. For lots of less than 40 feet in width, the setbacks for detached dwellings are proposed for 5 feet.
- (2) Public facilities serving the proposed development, including but not limited to, sanitary sewers, water, streets, storm sewers, electrical power facilities, parks, public safety and schools shall be adequate and meet current City standards; or it is guaranteed that inadequate or nonexistent public facilities will be upgraded or constructed by the applicant prior to occupancy of the project.

Analysis and Findings:

- Public facilities including sanitary sewers, water, storm sewers and electrical power either do not exist or do not meet current City standards. Utilities within and to the site will be constructed to City standards and specifications by the applicant.
- Phase 1 of the project (consisting of 21 lots fronting 19th Avenue) could be developed by extending an existing sanitary sewer line. Phase 2 (consisting of the balance of 79 lots) could only be developed after the construction of a new sanitary line that would connect to the "B" Street pump station. The applicant has entered into an agreement in principle to obtain the necessary easement from the owner of the property between Gales Creek Terrace and "B" Street. Staff has proposed a condition to require that the easement be dedicated prior to the Phase 2 final plat approval. Staff has also proposed the standard condition to require that the sanitary sewer system be designed and constructed in compliance with the Sanitary Sewer Master Plan.
- None of the adjoining streets are constructed to City standards, and both 18th and 19th Avenues have substandard rights-of-way less than a block off-site. The applicant has proposed to purchase a home to allow 19th Avenue to be fully

improved between "C" and "D" streets. Staff has recommended that the applicant also be required to improve 19th Avenue between from the site to "C" Street to a City standard of 32 feet; participate in upgrading the paved width of "D" Street between 19th and Pacific avenues to accommodate the projected traffic; participate in installing a left-turn lane on Pacific Avenue at D and C streets, and participate in the installation of a traffic signal at the B/19th intersection, and construct an emergency access route in the 18th Avenue right-of-way. With these conditions, streets within, adjacent to, and serving Gales Creek Terrace would comply with City standards.

- Gales Creek Terrace is within an area served by the Forest Grove School District. The applicant consulted with the Forest Grove School District business manager prior to submitting the application (see PRD application page 48). In the short term, it appears that school capacity would be adequate.
- Approximately ten acres would be dedicated to the City for public park purposes, and would be developed with both passive and active recreational facilities. In addition, each home will be assessed the standard parks system development charge.
- The project is within an area served by City police and fire services.

Conclusion: With the proposed conditions of approval, the site would be fully-served with City-standard public facilities.

- (3) The impact of the proposed development on public facilities shall not exceed the impact anticipated for the site in the formulation of the public facilities master plans contained in the Comprehensive Plan.

Analysis and Findings:

- Sanitary sewers, water, storm sewers and electrical power facilities to and within the project will be constructed to City Master Plan or other municipal specifications.
- The underground utilities within street right-of-ways and utility easements will be public and built to City master plan specifications.

Conclusion: Because all public facilities would be required to be built to master plan specifications, staff finds that there would not be any adverse impact on the City's public utility system. The proposed development's impact on public facilities will not exceed the anticipated impact for the site as contained in the Comprehensive Plan, and the project would meet the public facility master plan criteria.

- (4) Any uses proposed for the development which is not listed as uses permitted outright in the zone in which the proposed PD is located shall be designed to achieve compatibility with both the remainder of the PD and properties adjacent to the PD site.

Analysis and Finding: Because a single-family dwelling development is a permitted use in both the R-5 Single-Family and the A-2 Multi-Family Residential zones, this criterion is met.

- (5) The proposal shall provide adequate open space, landscaping, and design features to minimize significant adverse effects on adjacent properties and uses.

Analysis and Findings:

- Decorative streetlights shall be required to comply with the City's standards and specifications. Street illumination shall be comparable to that created by existing street lights, and is not anticipated to have any adverse impact on adjacent properties.
 - Because this development will not result in creation of any nuisance, including but not limited to air, land, or water degradation, noise, glare, heat, vibration or other conditions which may be injurious to public health, safety, and welfare this criteria is met.
- (8) The proposal shall meet the intent and objectives for a PD as expressed in Sections 9.680 (PRD), or 9.730 (CPD), or 9.760 (PID), or 9.770 Manufactured Home Subdivisions or 9.780 Manufactured Home Parks (MHP), as appropriate.

Analysis and Findings: It is the intent of Zoning Ordinance Section 9.680 to accommodate creative and planned residential development in residential districts. In addition the intent is to facilitate the development of parcels suitable for residential use but are difficult to develop by virtue of topography, natural landscape features, unique historical character, or being an isolated problem area by being passed over and subsequently surrounded by development. A PRD would permit those innovations in the technology of land development, which are in the best interest of the City of Forest Grove.

In order to accomplish this intent, it is the purpose of these regulations:

- (1) to permit in a PRD a variety of dwelling types, including single-family, two-family and multi-family dwellings such as townhouses, garden apartments, and high-rise types.

Finding: The proposed development consists exclusively of single-family homes. However, permitted uses in the A-2 Multi-Family Residential zone include single-family detached and attached homes, two-family (duplex) homes, and apartments. Providing a variety of dwelling types would both expand the housing options available (and could offer a broader market selection), and would better address the intent to encourage creative development.

- (2) to permit the flexible spacing of lots and buildings in order to encourage:

- (a) the separation of pedestrian and vehicular circulation;

Finding: Sidewalks will be provided on both sides of all public streets. In addition, a pedestrian walkway network would be constructed in the open space tracts and through the middle of the central block. The mid-block walkway would connect with the walkway in the open space tract. This standard is met.

- (b) the conservation of natural amenities of the landscape;

Finding: Approximately half of the trees would be retained. For the trees to be removed, staff has proposed a condition to require the installation of a comparable number of trees in the open space tracts, and that the new trees are of a species native to western Oregon.

6. **The improved area of Tract "C" located between lots 34-35 and Tract "I" between lots 74/75 shall be platted as separate tracts and retained by the applicant and/or homeowners association.**
7. A separate tract shall be created for each storm water quality facility. The facilities shall remain in private ownership. An easement to the City of Forest Grove shall be provided over said tracts for maintenance of the facilities and conveyance system (LDO Section 9.109 *Required Improvements-Storm Sewers and Erosion Control Facilities*).
8. **Extend Tract "D" and the public access and utility easements to the east property line of the project site. The width and location of these easements shall align with the existing public alley between 17th and 18th Avenues.**
9. **Prior to submittal of the Phase 2 final plat, submit a copy of the recorded sanitary sewer easement across Washington County tax lot 1S4 1-203 (a.k.a. the Kyle property).**
10. Submit a copy of the proposed final deed restrictions concurrent with the final plat. The CCRs shall provide adequate provisions including but not limited to funding for the maintenance of all privately maintained open space and recreation areas, the water quality tracts, and access ways. To ensure the funding mechanism is adequate, provide an estimate of the total anticipated maintenance expenses for a ten-year period, and describe how those expenses will be met (LDO Section 9.107(42) *Final Plat Requirements*).
11. Pedestrian tracts shall be created between lots 16/17 and 58/59 (LDO Section 9.110(2)b. *Design Standards/Blocks*).
12. The final plat for Phase 1 shall be submitted within one year of tentative plat approval, pursuant to LDO Section 9.105 *Final Plat For Subdivisions*. Upon satisfactory completion, a Mylar copy of the recorded plat shall be provided to the Community Development Department. Home building permits shall not be issued until the Mylar is received.

IMPROVEMENTS (GENERALLY): All plans submitted to date are considered *conceptual* only. Detailed plans and specifications must be submitted that demonstrate compliance with standards and regulations adopted by the City of Forest Grove and/or all other agencies that have jurisdiction. No home building permits will be issued until all required public improvements have been constructed and accepted by the City of Forest Grove and/or others having jurisdiction.

10. All site grading and public improvement work shall conform to the City of Forest Grove *Municipal Code, Gales Creek Terrace Subdivision Conditions of Approval, City of Forest Grove Standard Specifications, Uniform Building Code Appendix Chapter 33 Excavation and Grading, and the Agreement Allowing Developer to Construct Public Improvement.*
11. All utilities shall be constructed to Master Plan specifications, and all construction shall comply with CWS Resolution and Order 07-20 *Design and Construction Standards for Sanitary Sewer and Surface Water Management.*
12. The recommendations of the geotechnical report shall be incorporated into the construction plans for the subdivision.
13. **Grading along the north property line shall result in a cut not to exceed four feet from native grade.**
14. Permits for grading and erosion control shall be obtained from the Building Division prior to any excavation. Site grading shall conform to 1994 Uniform Building Code Appendix Chapter 33 Table 33-A. The application shall include a grading plan complying with 1994 UBC Appendix Chapter 33 for engineered grading, erosion control plan, and the geotechnical report. The soils and geotechnical report shall be provided prior to issuance of a grading permit.

and Design Standards. Include alternate design considerations for "wet-weather" construction. The street design shall meet or exceed minimum standards established by the City Engineer.

29. **Prior to any physical improvements, the applicant shall enter into a Development Agreement with the City that addresses:**
 1. **Participation in the installation of left turn lanes on Pacific Avenue at C and D streets;**
 2. **Participation on the installation of a traffic signal at B Street/19th Avenue intersection; and**
 3. **Acquisition of a sewer easement and installation of a sewer line across the Kyle property (Washington County tax lot number 1S 4 1-203) and addressing potential contamination matters on the Kyle.**

WATER, STORM AND SANITARY

All work shall conform (as applicable) with the following City of Forest Grove/CWS-approved plans and specifications.

30. Submit an application for a new NPDES General Permit #1200-C along with the DEQ-required Land Use Compatibility Statement (LUCS). Application forms are available from the Community Development Department.
31. Submit copies of approved CWS and DSL permits.
32. Provide storm drainage calculations for the water quality facility and address detention, as per CWS standards and specifications (LDO Section 9.109(1)b. *Required Improvements-Storm Sewers and Erosion Control Facilities*).
33. All storm water runoff from any newly created impervious surface areas shall drain to an approved public storm water facility (LDO Section 9.109(1)b. *Required Improvements-Storm Sewers and Erosion Control Facilities*).
34. Once the water quality facilities in the storm water quality tracts are constructed to City and CWS standards and accepted by the City, the tracts shall be dedicated to the declarant or an approved homeowners association. An easement for purposes of maintenance, conveyance, treatment and detention of storm and surface water runoff shall be granted to the City of Forest Grove (LDO Section 9.109(1)b. *Required Improvements-Storm Sewers and Erosion Control Facilities*).
35. Water-quality (sumped) manholes will be required at each inlet pipeline to water quality facilities. Unless approved otherwise, water-quality manholes shall not substitute for standard flow-through or junction manholes (LDO Section 9.109(1)b. *Required Improvements-Storm Sewers and Erosion Control Facilities*).
36. Storm drain and sanitary sewer piping materials shall be approved by the City Engineer. Storm drain piping between a water quality manhole and discharge into the water quality facility shall be concrete pipe with a beveled end section and rip-rap designed for the discharge location (LDO Section 9.109(1)b. *Required Improvements-Storm Sewers and Erosion Control Facilities*).
37. Sanitary sewerage facilities shall be constructed in compliance with the Sanitary Sewer Master Plan (LDO Section 9.109(1)c. *Required Improvements-Sanitary Sewer Facilities*).

FIRE

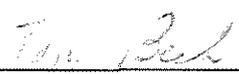
38. New fire hydrants shall be installed as per City requirements. Hydrants shall be equipped with 4-inch Storz connection, and their locations identified with blue reflective pavement markers at the street centerline (Municipal Code Section 5.635 *Amendments to the*

TREES

55. Existing on-site and off-site trees that may be adversely affected by street or utility extensions or on-site grading shall be identified and protected. Protection measures shall be included on the grading plans and shall be in place prior to any grading activity. Measures shall remain in place for the duration of construction (ZO Section 9.945(D)(3) *Protection Plan*).
56. Chain-link fencing shall be installed around all tree protection zones.
57. City staff shall be notified prior to commencement of grading or excavation near any of the protected trees, to verify that the tree protection measures are in place.
58. **A tree removal permit shall be required for all trees to be removed (ZO Section 9.942 *Permit Requirements*). To compensate for the trees to be removed, a one-for-one replacement (19 trees) shall be required for all existing native trees. Replacement trees shall be of a species native to western Oregon and shall be planted in the open space tracts. These trees shall have a minimum two-inch caliper upon installation.**
59. Street trees adjacent to buildable lots shall be charged a street tree installation fee at the time of building permit issuance (LDO Section 9.109(1)g.iv. *Street Trees*).

OTHER

60. Mailboxes and newspaper receptacles (serving at least four but not more than eight homes) are required; locking mailboxes are recommended. These facilities shall be located in the vicinity of streetlights. Locations and specifications should be confirmed with the Forest Grove Post Office prior to installation. Installation shall occur prior to occupancy of the first home (LDO Section 9.109(1)h. *Mailboxes*).
61. **A six-foot-tall cedar solid or "good-neighbor" fence or equivalent shall be installed on the rear lot line of lots 62 to 71, and the south and west property lines of 1608 18th Avenue (Washington County tax lot 1S4 1AA-4000 (ZO Section 9.682(5) *Perimeter Requirements*).**
62. **Prior to approval of the public improvement agreement, the Community Development director shall approve the design for the retaining walls.**



TOM BECK, Chair



Date



Planned Residential Development Staff Report and Recommendation

Community Development Department, Planning Division

REPORT DATE: August 28, 2007

HEARING DATE: September 4, 2007

LAND USE REQUEST: A rezone to establish a Planned Residential Development overlay designation on R-5 Single-Family and A-2 Multi-Family Residential-zoned parcels

FILE NUMBER(S)/NAME(S): PRD-06-04 Gales Creek Terrace

PROPERTY LOCATION: The development site is a 19.55-acre parcel located south of 19th Avenue west of "D" Street

LEGAL DESCRIPTION: Washington County Tax Lots 1S4 1-400 and 1S4 1AA-7200

OWNERS/APPLICANT(S): Applicant: Gales Creek Terrace LLC (Bryan Seits)
16505 Bethany Court, Suite 120, Beaverton, Oregon 97006
Property Owners: Ronald and Wanda Rau
31250 SW Unger Road, Cornelius, Oregon 97113
Applicant's Representative: SFA Design Group, 9020 SW Washington Square Drive, Suite 350, Portland, Oregon 97223
Design Team:
Planners: Matt Sprague and Ben Altman
Civil Engineer: Brent Fitch
Landscape Architect: Jim Hensley
Architect: James Cooper

ZONING AND PLAN DESIGNATIONS: Comprehensive Plan Map Designations
High Density Residential (HDR)
Low Density Residential-Medium (LDR-A) (proposed)

Base Zone Designations
A-2 Multi-Family Residential
R-5 Single-Family Residential (proposed)

**APPLICABLE STANDARDS
AND CRITERIA:**

City of Forest Grove Zoning Ordinance:

- Section 9.620 et. seq. *Single-Family Residential (R-5)*
- Section 9.670 et. seq. *Multi-Family Residential (A-2)*
- Section 9.680 et. seq. *Planned Residential Development*
- Section 9.810 et. seq. *Establishment of a Planned Development*
- Section 9.830-9.834 *Access, Egress and Circulation*
- Section 9.940 et. seq. *Tree Protection Ordinance*

City of Forest Grove Land Division Ordinance

- Section 9.104 *Tentative Plats for Subdivisions*
- Section 9.107 *Information Required on Tentative and Final Plats for Land Divisions*
- Section 9.109 *Required Improvements*
- Section 9.110 *Design Standards*
- Section 9.114 *Planned Development Subdivisions*

REVIEWING STAFF:

Jon Holan, Community Development Director
Rob Foster, Public Works Director
James Reitz (AICP), Associate Planner

RECOMMENDATION:

Staff recommends that the application for a Planned Residential Development overlay be approved with conditions

I. LAND USE HISTORY

Gales Creek Terrace is located on two parcels totaling 19.55 acres. The Urban Growth Boundary (UGB) crosses the property. Metro Chief Operating Officer approved a minor UGB amendment on December 28, 2006 to bring in an additional 4.2 acres into the UGB on the property. As a result, the property has 10.13 acres within the UGB and 9.42 acres outside the boundary. As a result of the UGB amendment, an urban plan and zone designation must be established for the 4.2 acre area. The applicant has requested the area be planned for low density residential with Single Family Residential (R-5) zone district. This request has received a recommendation for approval by the Planning Commission at their July 30, 2007 hearing. The City Council will consider the request at their September 10, 2007 meeting.

Gales Creek Terrace is one of several development proposals anticipated in the area south of Pacific Avenue and west of "D" Street. Several other parcels have been recently annexed for future development, but as of the writing of this report, those applications have not yet been filed. These projects would collectively result in the re-development of an area that is currently developed with a smattering of rural residential and agricultural uses. No subdivisions have

been developed in the area in recent history under either City or County standards.

Public notice was mailed to property owners and residents within 300 feet of the site on July 9, 2007, as provided in the manner required by Land Division Ordinance (LDO) Section 9.117 and Zoning Ordinance (ZO) Section 9.915. Notice of these requests was also published in the *News Times*. Copies of the application materials were provided to the Plans Review Board, and the Department of Land Conservation and Development (pursuant to ORS 197.610). DLCDC has not commented on the application. The hearing was originally scheduled for July 30, 2007; it was rescheduled to September 4, 2007.

II. ANALYSIS

A. DESCRIPTION OF PROPOSAL:

The applicant is proposing to develop the site with a two-phase subdivision consisting of 54 town homes and 46 single-family-detached homes (for a total of 100 new homes), a 10.05-acre open space area (tracts E, H, J and K) with a trail system and play area, and two water quality tracts. Phase 1 would consist of 21 lots (20 town home and 1 single-family detached lot), all fronting the extension of 19th Avenue. This phase would be developed by extending existing utilities. Phase 2 would consist of the balance of the project. Utilities (particularly sanitary sewer) would need to be constructed off-site to serve the second phase.

Town home lot areas would range from 1,392 square feet (several lots) to 2,976 square feet (lot 75). Average area of the town home lots would be 1,650 square feet. Single-family detached lots would range from 3,201 square feet (lot 92) to 6,285 square feet (lot 100). Average area of the lots for the single-family detached homes would be 3,916 square feet (see Narrative, p. 41). Average lot area over the project would be 2,692 square feet more or less.

Streets would all be located in public rights-of-way, with the exception of the driveway in Tract "D." All streets within the project would have 32-foot-wide travel ways in 54-foot-wide rights-of-way, except 19th Avenue, which is proposed to be a 40-foot-wide travel way in a 66-foot-wide right-of-way. Some of 19th Avenue would not be built to its ultimate dimension until the adjoining parcels were developed. In addition, off-site street connections on 18th Avenue, 19th Avenue, and "D" Street are proposed, and are discussed in greater detail below.

The detached homes are all proposed to be two or three stories (some with daylight basements) and two-car side-by-side garages (see Narrative Exhibits 40-50). The town homes would be three stories with either two-car tandem or two-car side-by-side garages. All of the town homes would take their vehicular access from a 20-foot-wide private driveway (Tract "B"). Proposed exterior materials include lap and board-and-batten siding, double-hung windows, and some stone or masonry accents. The proposed elevations include small front porches. The architecture is somewhat Craftsman, with porches, double-hung windows, and some masonry trim. Floor areas for the detached units would range from 2,000 to 3,500 square feet (excluding garages). Town home floor areas would range

between 1,400 and 1,800 square feet (excluding garages). Staff has included a condition to require that all elevations be finished with the same siding material as the front façade.

The proposal includes several open space tracts, two water quality tracts, and pedestrian ways, but each of those facilities would be required in a conventional subdivision. What separates this application from a standard subdivision review process is the size of the open space area (over ten acres), the extensive pathway system, and the flexible application of design standards, including reduced lot areas and yard setbacks.

ZO Section 9.682(4) allows for the modification of minimum lot size, setbacks, permitted dwelling types and community facilities. In addition, Land Division Ordinance Section 9.114(3) states that "The provisions of (the LDO) concerning the design and improvement of land division may be waived where such land division is proposed as a Planned Development, and where there is full compliance with the provision of Section 9.810 through 9.816 of the Zoning Ordinance (Establishment of a Planned Development) and with this section." The applicant's design concept utilizes a number of these provisions as outlined below.

Further, according to the opinion of the City's special land use counsel:

"Except for the design standards applicable to a Planned Development, the development standards in both the Land Division Ordinance and Zoning Ordinance are intended to be flexible. They may be waived so long as the applicant provides adequate alternative measures in the development proposal to satisfy the purposes of the waived standards. This burden falls upon the applicant, and where a proposed alternative does not achieve the purpose of a development standard it is meant to replace, the original standard still applies."

For example, if an applicant requested a street grade greater than that allowed by the LDO, it could be permitted without the applicant requesting a variance, but only if the proposal would still "achieve the purpose of the development standard it is meant to replace."

Approval of the rezone request would result in a Zoning Ordinance Map Amendment from R-5 Single-Family Residential and A-2 Multi-Family Residential to R-5 Single-Family Residential and A-2 Multi-Family Residential with a Planned Residential Development (PRD) overlay.

B. SITE EXAMINATION:

The site consists of two parcels and totals 19.55 acres. About half of the site is proposed for development; the balance is located in the Gales Creek flood plain. The majority of the site is in pasture, with trees located along Gales Creek. Staff has proposed a condition to require protective fencing around all trees to be retained as per the arborist's report, as well as around all near-site trees that might be affected by grading.

There is one single-family home and several outbuildings that will be removed. There is a small wetland identified at the south end of the site. Any activity within the wetland, wetland buffer, or Gales Creek buffer area must be permitted by Clean Water Services and/or the Division of State Lands. Staff has proposed a condition to require copies of all permit applications to and approvals from those agencies.

The site slopes down toward the south (toward Gales Creek) at an average of less than 20% (see Narrative pp. 32-33 *Slope Analysis*).

C. URBAN GROWTH BOUNDARY/FLOODPLAIN LOCATION:

The site is located in proximity to the Gales Creek floodplain. For this site, the location of the 100-year floodplain elevation establishes the location of the Urban Growth Boundary (UGB). Information indicates that the UGB was based on a 1974 floodplain study prepared by Washington County. Aside from a very generalized map, staff has been unable to find the study.

Due to the uncertain location of the UGB, the applicant worked with the City and Metro to better define its location. A "safe harbor" elevation of 180 feet was approved by Metro in December 2006. That boundary is reflected in this application.

D. EXISTING COMPREHENSIVE PLAN DESIGNATION AND ZONING OF SITE AND AREA:

LOCATION	COMPREHENSIVE PLAN DESIGNATION	ZONE DISTRICT	LAND USE
Site	High Density Residential (HDR) & Low Density Residential-Medium (LDR-A)	Multi-Family Residential (A-2) and Single-Family Residential (R-5)	Agriculture and Rural Residential
North	High Density Residential (HDR)	Multi-Family Residential (A-2)	Agriculture and Rural Residential
South	(County) Exclusive Farm Use (EFU)	(County) Exclusive Farm Use (EFU)	Agriculture
East	High Density Residential (HDR); Medium Density Residential (MDR); General Industrial (GI)	Multi-Family Residential (A-2); Two-Family Residential (A-1) and General Industrial (GI)	Single-Family Residential; "B" Street mini-storage; vacant land
West	(County) FD-10 and Exclusive Farm Use (EFU); High Density Residential (HDR)	(County) FD-10 and Exclusive Farm Use (EFU); Multi-Family Residential (A-2)	Agriculture and Rural Residential

E. SITE DESIGN:

The intent of a Planned Residential Development (PRD) is to "accommodate creative and imaginative planned residential development . . . and to facilitate the development of parcels . . . which are difficult to develop by virtue of topography, natural landscape features, unique historical character, or (their) being an isolated problem area ... passed over and subsequently surrounded by development." (ZO Section 9.680).

This section further describes the intent of the PRD regulations as intending to:

- (1) *Permit ... a variety of dwelling types, including single-family, two-family, and multi-family dwellings such as townhouses, garden apartments, and high-rise types.*

Comment: The application consists of single-family detached and attached homes, reflecting a variety in its approach. In the R-5 and A-2 zones, single-family detached and attached homes (town homes) are permitted uses.

- (2) *Permit the flexible spacing of lots and buildings in order to encourage:*

- (a) *The separation of pedestrian and vehicular circulation*

Comment: Streets and sidewalks would be provided throughout the project site, and a pathway system extended through the open space tracts. This pathway system could ultimately be connected to both the east and west along Gales Creek as those properties develop.

- (b) *The conservation of natural amenities of the landscape*

Comment: The small wetland located at the south end of the site would be preserved. About half of the existing trees would be retained. Staff has proposed a condition to require installation of additional native-species trees in the open space tracts to compensate for the trees to be removed.

- (c) *The provision of readily accessible open space*

Comment: The proposed open space tracts would be located along the entire south side of the development site. They would abut 23 lots and would be readily accessible to all residents via several pedestrian connections.

- (d) *The creation of functional and interesting residential areas, and*

Comment: The application includes a variety of dwelling types, substantial open space, a pedestrian pathway network, and recreational facilities.

(e) *The provision of a necessary complement of community facilities.*

Comment: The application includes a pedestrian pathway network and recreational facilities including both passive (benches and picnic tables) and active elements (play structure and swing set).

The intent of a planned development is also described in ZO Section 9.810:

The intent of a Planned Development designation is to provide greater flexibility in the development of land fro residential, commercial, or industrial development, or a mixture thereof. The Planned Development provides planned flexibility in the administration of certain Code standards to encourage:

- *Creative site development.*
- *Efficient use of the land with a more economical arrangement of buildings, circulation system and utilities.*
- *Mitigation of unfavorable visual and other environmental impacts of development on adjacent land.*
- *A provision of variety in the:*
 - *Location of improvements.*
 - *Lot size.*
 - *Density.*
 - *Building bulk and structure type.*
- *Conservation of natural features, and*
- *The creation of open space and the best use of open space.*

Each of these is addressed below.

Creative site development: The proposal consists of a mixture of 54 town homes and 46 single-family detached homes, a large (greater than 10-acre) open space area, pathway system, and two water quality tracts. The lots vary in area and dimension, and the street design is reflective of the existing block pattern but has modified in response to the site's configuration and topography.

Efficient use of the land: If efficient use of the land is defined as achieving at least target density, then this application complies with this intent.

Efficiency could also be defined as allowing for the greatest number of units on the smallest area of land. Using that measure, more single-family attached homes and/or duplexes and/or apartments would provide for a more efficient use of the land.

Mitigation of unfavorable visual impacts, etc.: As the proposal is for single-family homes, no unfavorable visual or other environmental impacts would be anticipated.

Variety in the:

- **Location of improvements:** The proposal includes open space tracts that would abut 23 of the lots and would be readily accessible to all future residents via several pedestrian connections. With the exception of two areas, the open space area is intended to be dedicated to the City as part of the community's trail system. Staff has included a condition for the installation of a trail in the dedicated area.

Two portions of the open space area are proposed to be improved with active play areas and a gazebo intended to be retained by the development (although the application indicates that the area between lots 32-33 would be dedicated to the City, staff has proposed a condition to require that it be remain in private ownership). A mid-block pedestrian way is proposed between lots 16-17, 38-39 and 58-59.

- **Lot Size:** The development site is located in the R-5 Single-Family and A-2 Multi-Family Residential zones. A subdivision with lots for single-family detached homes would therefore have to comply with the lot area standards of the R-5 Single-Family Residential zone. The minimum lot area and average lot area in the R-5 Zone is 4,000 square feet and 5,000 square feet respectively (see also the *Density* section below).

The proposed site design provides for 46 single-family detached homes on individual lots ranging from 3,201 square feet (lot 92) to 6,285 square feet (lot 100). Average area of the lots for the single-family detached homes would be 3,916 square feet (see Narrative, p. 41). If the proposed units were attached, the average lot size would exceed the minimum A-2 Zone requirement of 2,000 square feet and would be below the 5,000 square-foot average required in the R-5 Zone.

Town home lot areas would range from 1,392 square feet (several lots) to 2,976 square feet (lot 75). Average area of the town home lots would be 1,650 square feet. The town home lots would all be located in the A-2 Zone. Twelve of the 56 town home lots would exceed the 2,000-square-foot minimum lot area.

Average lot area over the project would be would be 2,692 square feet more or less.

- **Density:** The proposed project includes 54 town homes and 46 single-family detached units to be constructed on 19.55 gross acres of land (10.13 acres within the UGB). Net area (gross area less rights-of-way and areas set aside for common usage such as the open space and water quality tracts) would total 6.87 acres (299,257 square feet, the sum total of the lots). Development is required to achieve a minimum of 80% of the target density. The number of permitted units may be reduced where the topography exceeds a 10% grade. (See Narrative pp. 32-34).

The R-5 Single-Family zone has a target density of 8.81 units per net acre. The A-2 Multi-Family zone has a target density of 20.28 units per net acre. Density is proposed to be "blended" throughout the project i.e., somewhat lower density in the A-2 area, and somewhat higher density in the R-5 area.

In the R-5 zone are 3.55 net acres (154,728 square feet) which calculates to 31 units ($3.55 \times 8.71 = 30.92$). The minimum required to comply with the 80% standard would be 25 units.

In the A-2 zone are 3.36 acres (146,607 square feet) which calculates to 68 units ($3.36 \times 20.28 = 68.14$). The minimum required to comply with the 80% standard would be 55 units.

The grand total allowable without slope reductions would be 99 units, and the minimum required would be 80 units.

With 100 units proposed, the project exceeds by one unit the Target Density without slope reduction. With slope reduction, the project would be reduced to 88.46 units.

The applicant has requested Incentive Density (see Exhibit B), which could allow for up to a 15% bonus above the Target Density if the Planning Commission finds that the application complies with the following criteria:

- The availability and accessibility of public transportation, and/or connectivity improvements which are likely to result in reduced vehicular use.

Comment: No public transit would be available. There would be the usual connectivity within the project site and to adjacent parcels due to the required sidewalks and mid-block pedestrian connection. An additional pedestrian walkway would be constructed along Gales Creek, which could be a segment of the proposed "Emerald Necklace" path network. Staff concludes that this criterion would be met.

- How well natural resources, such as streams, riparian areas, wetlands, etc. are protected, integrated into the design of the subdivision, defined as a common area, and made accessible to as many individual parcels as possible.

Comment: Attachment D shows the location of riparian habitat on the site as identified by Metro. Virtually all of the riparian area will be avoided by the proposed development area and contained in the open space area. In addition, it will be enhanced as a result of this project. It will be made accessible via a pedestrian walkway. Staff concludes that this criterion would be met.

- How well common recreational areas are integrated into the subdivision such that there is the maximum number of physical connections to lots, and visual connections to future dwelling sites.

Comment: Common open space and recreational areas are proposed along Gales Creek in several locations. All would be readily accessible to the lots via the public sidewalks and the pedestrian walkway. Staff concludes that with the proposed condition, this criterion would be met.

- Public accessibility and use of the common recreation area where appropriate, given intended use of the area, linkage to future trails, etc. (A small children's play area may be best separated from any public use or accessibility, whereas a public area connected to a stream corridor may improve both the subdivision and the public's use of the corridor).

Comment: Public accessibility within Gales Creek Terrace would be provided by the public sidewalks to be installed along the streets, and also via a pedestrian walkway located along Gales Creek along the south side of the project site. Pedestrian connectivity to the adjoining neighborhood would be via the public sidewalk. A future pedestrian way extension to the west (toward Ritchey Road) and east (toward "B" Street) would be possible when those parcels develop. Staff concludes that this criterion would be met.

- Other design features, amenities, and/or improvements which can be shown (by use of built examples) to increase the value of the subdivision for neighborhood residents and the general public and/or provide more affordable housing.

Comment: Gales Creek Terrace would provide above-average common open space compared to most other projects. In addition, two housing types are proposed: attached single-family (town homes) and single-family detached homes (see Narrative p. 58). The town homes would range in area from 1,400 to 1,800 square feet, comparable to the town homes in other recently-reviewed PRDs. The single-family detached homes would range in area from 2,000 to 3,500 square feet. As the smaller square footage of the town homes should result in a less-expensive product, the proposal could be considered as providing affordable housing. Staff concludes that with the combination of greater recreational area and the potential for more affordable housing, this criterion would be met.

Summary and Conclusion: Since the five criteria can be met, staff concludes that the project could comply with the Incentive Density criteria. Applying Incentive Density would allow up to 102 units ($88.46 \times 1.15 = 101.73$). See Attachment C *Slope Density Analysis* for calculations).

- **Building Bulk and Structure Type:** Proposed are single-family detached and single-family attached homes. In the R-5 and A-2 zones, single-family detached and attached homes are permitted. In the A-2 Zone, two-family (duplex) homes and apartments are also permitted uses. (See also the Architecture section that follows).

Related to building bulk would be the proposed setbacks. This is of concern to staff because as building bulk increases, the potential adverse impacts on adjacent properties (shade, noise, reduced privacy, reduction of open space, etc.) can also increase. The applicant is proposing several adjustments to the setback requirements (see Narrative p.42).

- **Front Yard:** The standard setback is 14 feet to the living area and 20 feet to the garage. Requested are setbacks of 10 feet and 20 feet respectively. The ten-foot-dimension poses some issues, as discussed in the following paragraphs.
- **Corner Side Yard:** The standard setback for a side yard adjacent to a street is 14 feet. For those lots facing one street with a side yard adjacent to another street, the applicant is proposing that the street side yard dimension be reduced to ten feet.

There are two conflicts with the ten-foot width: the standard ten-foot-wide public utility easement (PUE) required by LDO Section 9.110(2)c., and the National Electrical Supply Code (NESC) requirement to maintain separation between electrical equipment and combustible materials.

- The PUE is used to locate the "dry" utilities of power (including transformers and junction boxes), telephone, and cable television. To provide for the safe operation of heavy equipment, this area must remain clear of obstructions, including eaves.
- NESC Section 15 *Transformers and Regulators* requires separation between transformers and combustible materials. The Light and Power Department's *Electrical Service Requirements and Guidelines* require a minimum eight-foot distance: "For transformers, the distance to openings (i.e., windows, doors, etc.) and combustible structures is eight feet." Due to the dimensions of a transformer (roughly 4 x 6 feet) and because the transformer may be sited anywhere within the ten-foot PUE, a home set back only ten feet from the property line could place it as close as four to six feet from the transformer.

Therefore, staff is recommending that the requested ten-foot setback be permitted, but only if the required NESC distances are maintained and only with the permission of all utility providers. In addition, the street connection requirement of ZO Section 9.663(3) should still be imposed.

- **Interior Side Yard:** ZO Section 9.624(3) establishes a 3:1 eave-height-to-setback ratio for the side yard setback, with a minimum side yard of five feet. The distance from grade to eave (or in the case of a side gable, grade to peak) is divided by three, to establish the minimum setback. The applicant is proposing that the side yard setback be a minimum of five feet.

The purpose of the setback requirement is to ensure that as building height and bulk increases, the building is pulled back somewhat from the

side property line so as to minimize the "tunnel" effect between homes (often exacerbated with fencing), the casting of shadows into adjacent yards, etc. It is for this reason that homes constructed in Forest Grove since at least 1971 (when a comparable setback provision was adopted) are more likely to have full-hipped roofs, partial-hipped roofs, or jerkin head roofs. These architectural features can result in a smaller roof structure, thus allowing the building to be located closer to the property line.

The proposed homes would all have two or three stories. This would generally require at least a five-foot setback. Additional setback would normally be necessary due to building height. Based on the submitted plans, the two-story homes in Gales Creek Terrace would normally need to have a setback of about 6-to-8 feet; the three-story homes would normally need to have a setback of about nine feet. However, as proposed, the foundations of the homes would be as close as 5 feet to the property line (for a total of 10 feet between buildings). In addition, projections such as chimneys and eaves would be located even closer to the property line.

All two- or three-story homes with side gables located adjacent to each other, separated by only ten feet (measured from foundation to foundation, the eaves would be closer) would be the most likely to create sunless side yards and cast shadows into adjacent yards. However, this is less of a concern to staff in this proposal than it has been in other proposed planned developments because a majority of the lots (74) have a north/south orientation, thus allowing maximum sun exposure between buildings. In addition, because the topography of the site slopes up from Gales Creek, those homes with an east/west orientation would be located above their neighbor to the south, thus maximizing their solar exposure.

Based on the discussion above, staff is not recommending any conditions to reduce the bulk of the roof structure or increase the setback requirements.

- **Rear Yard:** The standard rear yard setback is 15 feet. No adjustment for the detached homes has been requested. The town homes would be located five feet to the alley in Tract "B".
- **Conservation of Natural Features/Creation of and Best Use of Open Space:** The proposal includes a greater than 10-acre open space area (Tracts "E", "H", "J", and "K") and two water quality tracts (Tracts "C" and "F"). In staff's opinion, the amount of preserved open space is substantial.

ZO Section 9.685(6) *Open Space Required* (in a PRD) requires the provision of "at least 600 square feet of landscaped open space" immediately adjacent to all residential dwellings. This has historically been interpreted to include the yard areas adjacent to each dwelling, including the narrow side yards. Practically speaking, the side yards would be used only to provide access to

the rear yards; they would not provide any useable open space or recreational opportunity.

While the individual yards may not be substantial, they are comparable to those approved in several other planned developments recently reviewed. In addition, the proposal to dedicate to the City over ten acres for both passive and active recreation purposes more than complies with any quantitative and qualitative standard.

F. ARCHITECTURE:

The applicant has provided several examples of the proposed architecture. All detached homes would be two or three stories (some including daylight basements) with three or four bedrooms, gables, and two-car garages. Floor areas would range from 1,400 to 3,500 square feet (excluding garages).

All attached homes would be three stories with three bedrooms, street-facing gables, and two-car tandem or side-by-side garages. Floor areas would be 1,400 to 1,800 square feet (excluding garages).

All plans are somewhat Craftsman in style (see sheets 40-50). Homes with Craftsman architecture typically feature low-pitched gabled roofs, knee braces, porches supported by tapered square columns (often on massive piers), gabled dormers, clapboard siding, shingled dormers (or even entire floors), exposed rafter ends (which are not always practical in a wet climate due to the necessity for rain gutters), masonry trim, entry doors with multiple windows, and windows with multiple lights over one (i.e., three over one, four over one, etc.). Garages were rarely attached, and were located to the rear of the house.

The proposed elevations include combinations of most of the above (none exhibit exposed rafter ends), but also include non-Craftsman elements, including what appear to be sliding windows and doors, one-over-one windows, fixed-pane windows, shutters, and arched entries. Garages are attached. Of the seven single-family detached home elevations submitted, four have the garage forward of the porch.

Given the number of units proposed, staff would encourage the Commission to adopt a condition to require a greater variety of architecture. While there is some variation of the attached units, staff recommends that greater variation through varying roof styles could achieve more variety. While homes with Craftsman-style architecture exists in the adjoining neighborhood, so too are other architectural styles, up to and including 1950s-era Ranches. To provide for greater architectural variety, staff has proposed a condition to vary the roof elements of the attached units. The Commission could consider that, overall, no more than 25 units each are representative of a particular architectural style.

Staff has proposed several other conditions pertaining to the architecture, including standard conditions to ensure compliance with the Land Division Ordinance street connection and diversity standards; continuation of front façade

siding materials around the entire structure; windows in the street-side facades; and privacy requirements.

G. LANDSCAPING:

Sheets 32 to 34 of the submittal provide the landscape plans. Staff does not have any concerns with the plans at this time and will be reviewed in more detailed through the final plan review. However, related to site design, the proposal is including the use of landscaping to provide a buffer and screening between the two sets of attached units (see Sheet 34). This will also provide privacy for the rear yards of the attached units along Gales Creek Terrace.

H. BLOCK LENGTH:

Two blocks (lots 2-26/47-75 and lots 33-46) exceed the block length standards of LDO Section 9.110(2)a. This section states:

In residential subdivisions and mixed use developments, and within the limitations of Section 9.110(1)f. no block shall be more than 330 feet in length. This length can be exceeded up to a maximum length of 660 feet when:

Full street connections at interval of 330 feet are prevented by topography, barriers such as railroads and freeways, or environmental constraints such as major streams and rivers, or

- H. The average slope of the block area exceeds 15%; and*
- I. The additional block length is the minimum necessary to address characteristics of the site; and*
- J. The tangent of the roadway centerline does not vary more than 30 degrees transverse to the slope contours.*

Block length standards were adopted to reduce out-of-direction travel and avoid the creation of "super-blocks." Block length is measured between the centerlines of the boundary streets (LDO Section 9.102(7)).

Both blocks would span 630 feet, centerline to centerline. The application asserts that "...consistent with Metro's 2040 block spacing criteria, the 330-foot standard is also intended to benefit non-auto bike and pedestrian movements by minimizing excessively long blocks." To that end, the applicant has proposed a mid-block pedestrian connection.

While it is staff's opinion that the applicant has not met the exceptions above, staff concurs that providing another north-south street connection at this location is arguably unnecessary, since all the proposed streets would be built to an unrestricted width (i.e., at least 32 feet wide). Had narrower streets been proposed, a mid-block vehicular connection might have been advisable in order to provide an alternative emergency vehicle route. With all full-width streets, that does not appear to be necessary.

The lower block would comply with the environmental constraint criterion, as these lots abut the Gales Creek drainage way. However, in such circumstances, LDO Section 9.110(2)b. can provide for a walkway, as proposed by the applicant. No additional conditions appear to be necessary.

I. STREET CIRCULATION AND DESIGN:

The roadway circulation system is characterized by three east-west streets (18th and 19th avenues and Gales Creek Terrace) and three north-south streets ("D", "E" and "G" streets). The primary access roads would be 19th Avenue and "D" Street. (See Sheet 36 *Neighborhood Circulation Plan*).

At staff's request, the applicant had prepared a traffic study with two revisions. The original study dated June, 2007 included Gales Creek Terrace as a stand-alone project, and also as a component of the entire geographic area south of Pacific Avenue to Ritchey Road (see Traffic Analysis Report, Figure C). At least two other significant residential projects are anticipated in this area, on the Kenzer and Kim properties. The traffic study is predicated on the total number of units anticipated to result from the construction of all three projects. That study was based on the development of the westward extension of the Pacific Avenue and 19th Avenue one-way couplet, with a roundabout at the Pacific Avenue/"E" Street intersection.

The first revision, dated July, 2007, was in response to staff concerns that there was no analysis without the extension. The time frame for the connection is indefinite; it would not occur until the property on the south side of that intersection is developed. The second revision, dated August, 2007, addressed staff concerns that there was no analysis about the impacts on C and D streets with and without a barricade on D Street.

19th Avenue

Project: Nineteenth Avenue west of "B" Street is a designated Local street. It has not been improved either within the project site or between "D" and "C" streets. The applicant proposes to construct improvements to City standards in those sections. For the segment between "C" and "D" street, that would necessitate the removal of a single-family home. The applicant has secured a purchase option to do so.

Between "C" and "B" streets, 19th Avenue has been fully improved. It has a curb-to-curb width of 34 feet. No additional improvements to this segment are proposed.

As a Local street, 19th Avenue within Gales Creek Terrace could be developed with one of three City-standard cross sections, with a roadway width of 24-to-32 feet. The latter width would be unrestricted, i.e., the number of units to be served would not be limited, and on-street parking would be allowed on both sides.

However, staff is concerned that the number of units to be created by Gales Creek Terrace and other projects to the west (estimated at approximately 360 units in total), would render a Local street standard inadequate. Staff is also anticipating that the Pacific Avenue/19th Avenue couplet will be extended southward to include this segment, which would require that 19th Avenue be constructed at a collector standard. The City is currently updating its Transportation System Plan to include the extension and classify 19th Avenue from the extension eastward to B Street as a collector.

The applicant concurred with this assessment, and designed 19th Avenue within the project site to a Collector street standard at a 66 foot wide right-of-way. Fifteen (15) feet of the right-of-way would be provided by the property north of the site (see Sheet 12). Regarding the street improvement, Sheet 12 indicates a pavement width of 28 feet on a 41 foot wide right-of-way within the site. In subsequent discussions with the applicant, 19th Avenue would be constructed to 32 foot pavement width with a 5 foot sidewalk on the south side of the street. The balance of the street (15 feet of right-of-way and 8 feet of pavement, plus a sidewalk) would be installed when the abutting property to the north is developed.

For the segment between the site and "C" street, staff finds that an adequate street connection of at least 32 feet in width is needed for this project. This width reflects the current local street standard which should be sufficient given the amount of traffic generated by the project. The applicant has agreed to continue from the site the construction of the 32 foot wide street with sidewalks on the south side. In order to construct this segment, the applicant proposes to purchase a property at the 19th Avenue/"C" Street intersection.

From C to B street, the 19th Avenue pavement width is 34 feet and is adequate for the project. Regarding the 19th/B Street intersection, southbound traffic entering the 19th Avenue/"B" Street intersection has the right-of-way. Eastbound traffic on 19th Avenue entering the "B" Street intersection must stop. At any time during the day but particularly during the morning peak hour, this traffic may be prohibited from entering the intersection because of the volume of through traffic. However, the traffic report concludes that traffic from the development would not meet signal warrants and the Level of Service would remain within acceptable parameters without the signal.

Cumulative Impacts: As noted above, the traffic study examined the traffic impact from Gales Creek Terrace and two potential developments to the west. The traffic study indicates that the other future projects to the west also use 19th Avenue since it is designed as a collector for the area. Further, proposed changes to the circulation system in the area (i.e. the extension of E Street to 19th) will result in 19th to become the primary eastbound route to the 19th Avenue/Pacific Avenue couplet. Staff proposes that the other two projects participate in the completion of 19th Avenue to a collector street standard.

Regarding the traffic signal at 19th and B Street, the traffic analysis determined there was insufficient warrants to justify a traffic signal. However, the analysis, in staff's opinion supported by other traffic engineers indicate that the

assumption used for evaluating the intersection was incorrect. Staff is currently working on further evaluation of the intersection. However, at this time staff proposes that all three projects share in the cost of traffic signal. A condition of approval is included to participate in that improvement.

18th Avenue

18th Avenue is a designated Local street. It has not been improved to City standards west of "B" Street. The segment between "B" and "C" streets lacks curbs, gutters, and sidewalks, while the segment west of "C" Street lacks all improvements.

The applicant proposes minimal improvements to 18th Avenue between "C" and "D" streets. These improvements would include providing a 20-foot-wide emergency access lane and installation of a gate to prevent public access. Because of the limited amount of traffic that would use this route even if fully improved, staff concurs with the proposal to improve it for emergency vehicle access only.

"D" Street

"D" Street is a designated Local street. It has not been improved to City standards (pavement width at 18 feet), lacking curbs, gutters, and sidewalks from 19th to Pacific and minimal pavement south of 19th which does not extend to 18th Avenue. As a result of recent discussions with staff, the applicant's representative indicates that they would repave D Street between 19th and Pacific at an 18 foot width along with completing an existing sidewalk. South of 19th Avenue, they propose to connect D Street to 18th and project site but at the same width as that exists.

Staff concurs with the proposed improvements between 18th and 19th avenues to improve access and recognizing the low traffic levels generated by the project in this area. Regarding D Street north of 19th Avenue, staff is concerned that D Street will serve as the main north-south access point for the project until such time as E Street connects with 19th Avenue. This conclusion is reflected in the traffic study. The issue is that the roadway in its current configuration does not meet city standards for lane width standards (11 feet where there is no curb.) Further, Fire Department staff has commented that "D" Street would be the primary emergency access route into the neighborhood, and that the existing paved width and condition is already inadequate for existing development, a situation that would be exacerbated with the addition of 100 new units in Gales Creek Terrace. Thus, staff believes that this segment of "D" Street warrants additional improvements to meet standard local street improvement standards of 32 feet curb-to-curb with sidewalks and curbs. This would allow for adequate improvements for pedestrian and vehicular traffic from general activity and address potential safety issues due to the presence of the elementary and middle school north of Pacific Avenue west of E Street.

The road improvement, based on the traffic analysis, indicates that the Kinzer property to the west will also benefit from the improvement. Thus, staff is

proposing a condition of approval for an assessment to be paid for the improvement on D Street. Preliminarily, staff estimates that this assessment would be no greater than \$1200 per unit collected at the building permit for each house from Gales Creek Terrace and the Kinzer development. The amount is based on a cost of \$200,000 for the improvement divided by a potential of 150 units. Further refinement of this amount will need to be made. Any costs above the \$200,000 would be borne by the City. This would defer improvements until the actual impact is caused by the construction of the dwelling units.

"D" Street south of 18th Avenue would be a dead end street serving seven lots. The International Fire Code restricts the number of units that can be served when there is only one point of access. IFC Appendix D Section D107.1 *One or two family dwelling residential developments* requires that "developments . . . where the number of dwelling units exceeds 30 shall be provided with separate and approved fire apparatus access roads. . . ." As only seven units are proposed on this segment, this criterion would be met.

The proposed terminus of "D" Street would align with the east/west alley located between 17th and 18th avenues. This alley terminates approximately 150 east of the project boundary, and provides vehicular access to several of the homes fronting 17th and 18th avenues. As the intervening 1.65-acre parcel is located in the A-1 Two-Family Residential Zone and is developed with only a single-family home, it is likely that it will one day be developed more intensively and could benefit from additional vehicular and utility access. Therefore, staff has proposed a condition to require that a public roadway and utility easement be extended to the east property line to allow for those connections to be made.

Pacific Avenue

Pacific Avenue is a designated Arterial street. While it does not abut the site, the submitted traffic study indicates that a left-turn lane would be warranted at both "C" Street and "D" Street once all three sites (Gales Creek Terrace, Kenzer, and Kim) are developed. Installation of a turn lane would necessitate removal of on-street parking along Pacific Avenue. The traffic report notes that "Pacific Avenue does not appear to be a heavily parked street as no vehicles were parked during a recent traffic survey" (p.8). Because the left turn lane would not be warranted at this time, staff has not included it as a condition of approval. However, the study indicates that the turn lanes at C and D streets would be warranted with all three projects. Thus, a condition is included for the applicant to participate in the installation of the left turn lanes.

J. ENVIRONMENTAL QUALITY:

A small wetland is located at the south end of the site. The wetland and wetland buffer are under the jurisdiction of Clean Water Services (CWS) and the Division of State Lands. Any work in or near the wetland and buffer area would require permits from those agencies.

K. TREE PRESERVATION:

The applicant submitted a tree preservation and removal plan. Zoning Ordinance Section 9.945(D)(4) states trees of 6-inch diameter or larger, measured 4.5 feet above natural grade, shall be preserved unless the applicant proves that removal is necessary as a result of:

- (a) Necessity to remove diseased trees or trees weakened by age, storm, fire or other injury.
- (b) Necessity to observe good arboricultural practices.
- (c) Need for access immediately around the proposed structure for construction equipment.
- (d) Need for access to the building site for construction equipment.
- (e) Essential grade changes needed to implement safety standards common to standard engineering or architectural practices.
- (f) Surface water drainage and utility installations.
- (g) Locations of driveways, buildings or other permanent improvements so as to avoid unreasonable economic hardship.

About half of the trees in the development site would be removed. To compensate, staff has proposed a condition require the installation of a comparable number of trees in the open space tracts, and that the new trees are of a species native to western Oregon.

In addition, because grading for Gales Creek Terrace could affect the condition of off-site trees, staff has proposed a condition to require that such trees be identified and tree protection measures be installed prior to any excavation and grading.

One off-site tree of significance is located in the 19th Avenue right-of-way near the "D" Street intersection (see Sheet 37 *Aerial Photograph*). While staff would generally support retention of such a significant Oregon white oak tree, the necessity for 19th Avenue to be constructed as a Collector street to serve the traffic created by the entire neighborhood creates a greater need. Due to its location in the right-of-way, even trying to shift the travel lanes to the south, and boring the utilities, could still result in degrading the tree's root system and compromising its health.

L. SITE GRADING:

The site has an overall slope of less than 20%. The site would be re-graded, but to a far lesser extent than was originally proposed. In the original application, the area along the north property line would have been reduced in elevation by up to 16 feet. The current proposal has reduced that figure to about four feet. Staff has proposed a condition to limit grading along 19th Avenue to four feet or less.

Additional retaining walls are proposed along the open space tracts. As they would not abut any existing homes, staff has no objection to their installation. (Fencing would also be installed to ensure pedestrian safety).

Staff has also proposed a condition to require the submittal of a geo-technical report prior to any site grading or excavation. This report will identify any construction constraints and recommend specific mitigation measures.

M. CITY SERVICES:

This site is on the fringe of the city, and has only recently been annexed. Staff has proposed several conditions to require that the public utilities within the site and those substandard utilities serving the site be constructed to City standards.

Sanitary Sewerage – Limited City sanitary sewer facilities are currently available. The project is proposed to be constructed in two phases. Phase 1 (along the 19th Avenue extension) would extend an existing sanitary sewer line. To serve the balance of the project, the Forest Grove Sanitary Sewer Master Plan stipulates that a gravity system be constructed from the existing pump station located on "B" Street just south of 16th Avenue. The applicant has been in negotiations with the downstream property owner to obtain an easement from the project site to "B" Street. The applicant indicates that the property owner will provide an easement to the developers for the sanitary sewer for certain considerations. Further, the property owner has also reached an agreement with the City to donate entire 8 acre parcel to the City along Gales Creek. The site is contaminated but a letter of No Further Action has been issued by DEQ. While there are details to resolve concerning the donation, staff is conditioning the project to mitigate any new contamination issues that *may* result from the sewer line installation.

Once installed, this sanitary line will allow all properties to the west of Gales Creek Terrace (including the Kenzer and Kim sites) to develop. Because those sites would also benefit from this improvement, they should participate in the cost to extend the sewer into this area. The applicant has therefore drafted a development agreement to share those expenses with the benefiting parties. The affected parties have agreed in principle to the development agreement; it would be finalized once Gales Creek Terrace has received approval.

In summary, staff has proposed a condition to require that the sanitary sewer system be constructed in accordance with the Sanitary Sewer Master Plan. Practically speaking, that would give the applicant up to a year to complete the easement transaction and formally adopt the development agreement. Absent that, the project could not move forward as currently designed. Upon completion of the facilities, sanitary sewerage would be adequate to serve the proposed use.

Water – Six-inch cast iron water lines have been installed in "D" Street, 19th and 18th avenues. Eight-inch lines would be installed within Gales Creek Terrace. These facilities would be adequate to provide domestic service and fire flows.

Storm Drainage – No City-standard storm drainage lines exist in this area. Staff has proposed a condition to require their installation.

Fire Protection/Access – All streets would be constructed to at least an unrestricted Local street standard width of 32 feet curb-to-curb. Because the

proposed "D" Street stub south of 18th Avenue would serve less than thirty units, no access restrictions or fire suppression systems would be necessary. Several standard Fire Department conditions are proposed.

Police Protection -- The Police Department is concerned that "D" Street between 18th and Pacific avenues would not be adequately improved to serve the projected number of homes.

Electrical Service -- The project is proposed to be served by underground utilities. This coincides with current Light and Power policies for new residential subdivisions. Conditions have been proposed to assure compliance with electrical service and street light installation policies.

Public School Systems -- The applicant consulted with the Forest Grove School District business manager prior to submitting the application (see PRD application page 58). In the short term, it appears that school capacity would be adequate.

N. COMPATIBILITY:

The surrounding neighborhood consists primarily of agricultural land and rural residential to the west and north and lower density residential to the north east and east. In terms of scale and intensity of use, the proposal would be a significant change to the agricultural and rural residential area and an increase in intensity of residential development when compared with the existing residential neighborhood to the north east and east.

As the Comprehensive Plan designates this general area for densities ranging from 9.6 to 20.28 dwelling units per net acre, staff finds there would be no significant compatibility issues associated with this project, as the proposed use would not generate any noise, vibration, heat or glare impacts different from what the Comprehensive Plan anticipated.

In addition, a six-foot-tall solid wood fence is proposed along the east property line of lots 1 and 76-84, comparable to those seen in many Forest Grove neighborhoods. Staff has proposed a condition to require this fence, and to also have a fence installed next to 1608 18th Avenue. This latter fence would provide more separation between the existing home and the Tract "D" driveway.

III. REQUIRED APPROVALS

Section 9.815 of the Forest Grove Zoning Ordinance authorizes the Planning Commission to act on a request from a property owner for a Planned Residential Development after holding a public hearing pursuant to Sections 9.916 of the Ordinance. Following the public hearing, the Planning Commission shall act to recommend that the preliminary plan be approved as proposed, approved subject to conditions or modifications, denied, or continue the matter for further consideration. A recommendation of approval or approval subject to conditions or modifications shall be transmitted to the City Council along with findings of fact made by the Planning Commission, preliminary plan application materials

and a record of the testimony received on the proposal by the Planning Commission. If the Planning Commission acted to deny an application, no further action would be taken on it unless it were appealed to the City Council.

It should be noted that Zoning Ordinance Section 9.680-9.686 provides the basis for determining if a specific parcel of land is appropriate for the planned development process. Zoning Ordinance 9.810-9.819.5 provides the standards and criteria for a planned development approval.

IV. APPROVAL CRITERIA AND FINDINGS

The applicant's responses to the following criteria are on pages 62 to 64 inclusively of the Narrative. A preliminary plan for a Planned Residential Development shall be approved if findings are made that each of the following criteria is satisfied (ZO Section 9.814):

- (1) Public facilities serving the proposed development, including but not limited to, sanitary sewers, water, streets, storm sewers, electrical power facilities, parks, public safety and schools shall be adequate and meet current City standards; or it is guaranteed that inadequate or nonexistent public facilities will be upgraded or constructed by the applicant prior to occupancy of the project.

Applicant's Response: The public facilities available to the site are adequate to serve this proposed development. The sanitary sewer will extend to the "B" Street pump station. If an easement is not secured from the property owner to the east, the developer and other benefiting property owners to the west could construct a new pump station at the southeast portion of the subject property. Water service is available in sufficient quantities and adequate pressure to serve the site. Storm water will be discharged into Gales Creek without impact to existing neighborhoods to the east. Electrical power and telephone services are available to the site.

The development is providing a large park/open space area, so the impact on other existing parks should be minimal. The impact on public safety services should be minimal, or at least proportional to other residential developments, and the increase in property taxes and revenues should offset any increase in those costs. The impacts to school facilities from this project have generally been anticipated as part of the general growth in the District, and new school facilities are planned to accommodate the growth.

Staff Analysis and Findings:

- Public facilities including sanitary sewers, water, storm sewers and electrical power either do not exist or do not meet current City standards. Utilities within and to the site will be constructed to City standards and specifications by the applicant.

- Phase 1 of the project (consisting of 21 lots fronting 19th Avenue) could be developed by extending an existing sanitary sewer line. Phase 2 (consisting of the balance of 79 lots) could only be developed after the construction of a new sanitary line that would connect to the "B" Street pump station. The applicant has entered into an agreement in principle to obtain the necessary easement from the owner of the property between Gales Creek Terrace and "B" Street. Staff has proposed a condition to require that the easement be dedicated prior to the Phase 2 final plat approval. Staff has also proposed the standard condition to require that the sanitary sewer system be designed and constructed in compliance with the Sanitary Sewer Master Plan.
- None of the adjoining streets are constructed to City standards, and both 18th and 19th Avenues have substandard rights-of-way less than a block off-site. The applicant has proposed to purchase a home to allow 19th Avenue to be fully improved between "C" and "D" streets. Staff has recommended that the applicant also be required to improve 19th Avenue between from the site to "C" Street to a City standard of 32 feet; participate in upgrading the paved width of "D" Street between 19th and Pacific avenues to accommodate the projected traffic; participate in installing a left-turn lane on Pacific Avenue at D and C streets, and participate in the installation of a traffic signal at the B/19th intersection, and construct an emergency access route in the 18th Avenue right-of-way. With these conditions, streets within, adjacent to, and serving Gales Creek Terrace would comply with City standards.
- Gales Creek Terrace is within an area served by the Forest Grove School District. The applicant consulted with the Forest Grove School District business manager prior to submitting the application (see PRD application page 48). In the short term, it appears that school capacity would be adequate.
- Approximately ten acres would be dedicated to the City for public park purposes, and would be developed with both passive and active recreational facilities. In addition, each home will be assessed the standard parks system development charge.
- The project is within an area served by City police and fire services.

Conclusion: With the proposed conditions of approval, the site would be fully-served with City-standard public facilities.

- (2) The impact of the proposed development on public facilities shall not exceed the impact anticipated for the site in the formulation of the public facilities master plans contained in the Comprehensive Plan.

Applicant's Response: *The sewer master plan anticipated the development of this general area, and calls for upgrades to the pump station on "B" Street and the construction of a 10" diameter sewer line through the subject property. The development will install water lines and upgrade the water system in accordance with the water master plan. The storm water will drain into Gales Creek, after treatment in two water quality swales. The proposed storm drainage system is consistent with the Storm*

Drainage Master Plan. This development will not exceed anticipated system impacts. Therefore, this criterion is met.

Staff Analysis and Findings:

- Sanitary sewers, water, storm sewers and electrical power facilities to and within the project will be constructed to City Master Plan or other municipal specifications.
- The underground utilities within street right-of-ways and utility easements will be public and built to City master plan specifications.

Conclusion: Because all public facilities would be required to be built to master plan specifications, staff finds that there would not be any adverse impact on the City's public utility system. The proposed development's impact on public facilities will not exceed the anticipated impact for the site as contained in the Comprehensive Plan, and the project would meet the public facility master plan criteria.

- (3) Any uses proposed for the development which is not listed as uses permitted outright in the zone in which the proposed PD is located shall be designed to achieve compatibility with both the remainder of the PD and properties adjacent to the PD site.

Applicant's Response: *The applicant is only proposing uses permitted outright in the A-2 and R-5 zones. Therefore, this criterion is not applicable.*

Staff Analysis and Finding: Because a single-family dwelling development is a permitted use in both the R-5 Single-Family and the A-2 Multi-Family Residential zones, this criterion is met.

- (4) The proposal shall provide adequate open space, landscaping, and design features to minimize significant adverse effects on adjacent properties and uses.

Applicant's Response: *There are no significant or unanticipated adverse effects on the adjacent properties to the west, the south or the north. One potential perceived adverse effect could be the impact of increased density on the adjacent single-family properties to the east. Five single-family detached homes are adjacent to the eastern boundary of the subject site.*

The plat provides for single-family detached homes adjacent to these five existing home in order to minimize impacts. The existing adjacent homeowners will have some loss of views to the south and west, and a loss of some of the privacy they enjoy living next to vacant land.

However, there is a substantial amount of retained open space provided with this development, which helps minimize and mitigate the impacts of adjacent development. In addition, street trees and other landscaping and

design features provided in this plan help to compensate for development impacts.

Ten single-family homes back up to tax lots 3600, 3700 and 3800. A public street provides separation of the new homes from tax lot 4000 and only one house is adjacent to tax lot 6500. Overall, any potential impacts, real or perceived, are typical of an emerging residential area, where open spaces are converted to developed lots. In this case over half the site is retained in open space, which helps to maintain a sense of openness.

Staff Analysis and Findings:

- The proposal includes open space tracts totaling over ten acres, plus two water quality facilities. The proposed open space area would be used for both passive and active recreation, and would also include a pedestrian walkway.
- Each home would have its own private landscaped yard space for use by the residents.
- Street trees will be installed following home construction.
- Most of the project site would be separated from the adjacent neighborhood by either streets or tracts. A six-foot tall solid wood fence would be installed along the east property line of lots 1 and 76-84, adjacent to the existing homes fronting "D" Street. Staff has proposed an additional fence along the west and south property lines of Washington County tax lot 154 1AA-400 (1608 18th Avenue) to provide visual separation from the driveway serving lots 94-100. With this condition, the project site would be adequately buffered from all other adjoining property.

Conclusion: The useable open space would be substantial, and readily accessible to the residents via the public sidewalk and pedestrian path network. In addition, each home would have its own private yard space. While the yards for the townhouses would be diminutive, the common open space would more than compensate. Lastly, a fence would be installed to separate the project site from the adjoining neighborhood. Therefore, the requirement for adequately-sized open space and minimal adverse effects on adjacent properties appears to have been met.

- (5) The location, shape, size and character of common open space areas shall be suitable and appropriate to the scale and character of the project, considering its size, density, expected population, topography, and the number, type and location of buildings to be provided.

Applicant's Response: *The proposed open space takes advantage of Gales Creek as a natural point of interest, and is suitable located, with easy access from three different locations. The park will be on relatively level ground, appropriate for walking trails. The playground is suitable for*

anticipated children in the area. The shelter or gazebo will be used for picnics or small gatherings. Overall, the open space area is substantial in relation to the scale of this development, as it contains about one-half the total site area.

Staff Analysis and Findings: The proposal includes a 10-acre open space area, plus two water quality facilities. The proposed open space area would be used for both passive and active recreation, and would also include a pedestrian walkway.

Conclusion: Because the dedicated open space would be approximately one-half of the total site area and would be improved for both passive and active recreation, the requirement for adequately-sized open space appears to have been met.

- (6) The proposed development shall not result in creation of any nuisance, including but not limited to air, land, or water degradation, noise, glare, heat, vibration or other conditions which may be injurious to public health, safety, and welfare.

Applicant's Response: *The proposed development will not result in the creation of any net nuisance injurious to the public health, safety and welfare. Single-family homes are proposed which normally do not create such negative impacts. Provisions are made to protect water quality and trees are preserved or will be planted to help maintain air quality.*

Staff Analysis and Findings:

- The proposed development consists exclusively of single-family homes and accessory uses and the creation of any nuisance, including but not limited to air, land, or water degradation, noise, glare, heat, or vibration is not anticipated.
 - The surface water leaving the site would be treated for water quality as directed by Clean Water Services' *Design and Construction Standards for Surface Water Management*.
 - Decorative streetlights shall be required to comply with the City's standards and specifications. Street illumination shall be comparable to that created by existing street lights, and is not anticipated to have any adverse impact on adjacent properties.
 - Because this development will not result in creation of any nuisance, including but not limited to air, land, or water degradation, noise, glare, heat, vibration or other conditions which may be injurious to public health, safety, and welfare this criteria is met.
- (7) The proposal shall meet the intent and objectives for a PD as expressed in Sections 9.680 (PRD), or 9.730 (CPD), or 9.760 (PID), or 9.770 Manufactured Home Subdivisions or 9.780 Manufactured Home Parks (MHP), as appropriate.

Applicant's Response: *The proposed 100-lot subdivision meets the intent of Section 9.680 by providing a creative, imaginative, and attractive residential development which maintains substantial open space. This property is suitable for residential use, and the proposed design creatively solves challenges created by virtue of topography, natural landscape features and unique historical character. The subject property is in an isolated, challenging area passed over by surrounding development. This development permits innovation in the best interest of the City of Forest Grove. Alternative housing is proposed which is currently not available in the City of Forest Grove. The lots and houses are designed to take advantage of the location of open spaces and views of the Gales Creek greenway and the Coast Range. The design includes separation of pedestrian and vehicular circulation, conservation of natural resources, readily available open space, creation of a functional and interesting neighborhood, and provision of recreational facilities.*

Staff Analysis and Findings: It is the intent of Zoning Ordinance Section 9.680 to accommodate creative and planned residential development in residential districts. In addition the intent is to facilitate the development of parcels suitable for residential use but are difficult to develop by virtue of topography, natural landscape features, unique historical character, or being an isolated problem area by being passed over and subsequently surrounded by development. A PRD would permit those innovations in the technology of land development, which are in the best interest of the City of Forest Grove.

In order to accomplish this intent, it is the purpose of these regulations:

- (1) to permit in a PRD a variety of dwelling types, including single-family, two-family and multi-family dwellings such as townhouses, garden apartments, and high-rise types.

Finding: The proposed development consists exclusively of single-family homes. However, permitted uses in the A-2 Multi-Family Residential zone include single-family detached and attached homes, two-family (duplex) homes, and apartments. Providing a variety of dwelling types would both expand the housing options available (and could offer a broader market selection), and would better address the intent to encourage creative development.

- (2) to permit the flexible spacing of lots and buildings in order to encourage:

- (a) the separation of pedestrian and vehicular circulation;

Finding: Sidewalks will be provided on both sides of all public streets. In addition, a pedestrian walkway network would be constructed in the open space tracts and through the middle of the central block. The mid-block walkway would connect with the walkway in the open space tract. This standard is met.

- (b) the conservation of natural amenities of the landscape;

Finding: Approximately half of the trees would be retained. For the trees to be removed, staff has proposed a condition to require the installation of a comparable number of trees in the open space tracts, and that the new trees are of a species native to western Oregon.

- (c) the provision of readily accessible open space,

Finding: The open space areas would abut 23 lots and would be readily accessible to the other lots via public sidewalks and walkways. The open space area would be improved for both passive and active recreation, and would also include a pedestrian pathway. It appears that the intent of the regulation is met.

- (d) the creation of functional and interesting residential areas, and

Finding: The proposed project would create a subdivision of 100 single-family detached and attached homes. It would include a ten-acre open space area which would be developed for both passive and active recreation. It appears that the intent of this regulation is met.

- (e) the provision of a necessary complement of community facilities.

Finding: The proposal includes a large (> 10-acre) open space area that would be improved with both passive and active recreational facilities. It appears that the intent of this regulation is met.

V. ALTERNATIVES

The Planning Commission has the following alternatives:

1. Recommend approval of the Planned Residential Development as proposed.
2. Recommend approval of the Planned Residential Development with added, deleted, or modified conditions.
3. Deny the Planned Residential Development, stating reasons for doing so.
4. Continue the matter for further consideration.

VI. SUMMARY AND RECOMMENDATION

In summary, staff finds that the application has adequately demonstrated compliance with the applicable provisions of the Zoning Ordinance and Land Division Ordinance. Based on the above, staff recommends that the Planning Commission recommend approval, subject to the following conditions.

VII. PROPOSED CONDITIONS OF APPROVAL

Note that many of the following are standard conditions required of all subdivisions. These conditions have not necessarily been specifically addressed in the staff report, but the code sections that require them are listed following each proposed condition. **Proposed conditions unique to this application are in bold.**

GENERAL:

1. The applicant is bound to the project description and all representations made by the applicant during the application and decision-making proceeding.
2. The applicant must comply with all applicable City building and development standards, including all dimensional standards and public works specifications, except as modified by these conditions of approval.

FINAL PLAT REQUIREMENTS:

3. The final plat must comply with Land Division Ordinance Section 9.107 et. seq., and substantially comply with the tentative plat (LDO Section 9.105(3) *Action on Final Plat*).
4. Street names shall be revised as follows (LDO Section 9.110(1)j. *Street Names*):
 - East-west trending streets shall be avenues, and north-south trending streets shall be streets (Municipal Code Section 9.205).
 - Gales Creek Terrace shall be 18th Place.**
 - As the proposed "E" Street would not align with the existing "E" Street, an alternate name must be selected. To maintain alphabetical continuity, the proposed "G" Street will also need to be renamed.**
5. A ten-foot-wide utility and sidewalk easement is required adjacent to all property lines abutting a street (including any tracts). Eaves and projections may extend into the public utility easement with the consent of the utility providers (LDO Section 9.110(2)c.i. *Easements*).
6. **The improved area of Tract "H" located between lots 32-33 shall be platted as a separate tract and retained by the applicant and/or homeowners association.**
7. A separate tract shall be created for each storm water quality facility. The facilities shall remain in private ownership. An easement to the City of Forest Grove shall be provided over said tracts for maintenance of the facilities and conveyance system (LDO Section 9.109 *Required Improvements-Storm Sewers and Erosion Control Facilities*).
8. **Extend Tract "D" and the public access and utility easements to the east property line of the project site. The width and location of these easements shall align with the existing public alley between 17th and 18th Avenues.**
9. **Prior to submittal of the Phase 2 final plat, submit a copy of the recorded sanitary sewer easement across Washington County tax lot 1S4 1-203 (a.k.a. the Kyle property).**

10. Submit a copy of the proposed final deed restrictions concurrent with the final plat. The CCRs shall provide adequate provisions including but not limited to funding for the maintenance of all privately maintained open space and recreation areas, the water quality tracts, and access ways. To ensure the funding mechanism is adequate, provide an estimate of the total anticipated maintenance expenses for a ten-year period, and describe how those expenses will be met (LDO Section 9.107(42) *Final Plat Requirements*).
11. Pedestrian tracts shall be created between lots 16/17 and 58/59 (LDO Section 9.110(2)b. *Design Standards/Blocks*).
12. The final plat for Phase 1 shall be submitted within one year of tentative plat approval, pursuant to LDO Section 9.105 *Final Plat For Subdivisions*. Upon satisfactory completion, a Mylar copy of the recorded plat shall be provided to the Community Development Department. Home building permits shall not be issued until the Mylar is received.

IMPROVEMENTS (GENERALLY): All plans submitted to date are considered *conceptual* only. Detailed plans and specifications must be submitted that demonstrate compliance with standards and regulations adopted by the City of Forest Grove and/or all other agencies that have jurisdiction. No home building permits will be issued until all required public improvements have been constructed and accepted by the City of Forest Grove and/or others having jurisdiction.

10. All site grading and public improvement work shall conform to the City of Forest Grove *Municipal Code*, Gales Creek Terrace Subdivision *Conditions of Approval*, City of Forest Grove *Standard Specifications*, Uniform Building Code Appendix Chapter 33 *Excavation and Grading*, and the *Agreement Allowing Developer to Construct Public Improvement*.
11. All utilities shall be constructed to Master Plan specifications, and all construction shall comply with CWS Resolution and Order 07-20 *Design and Construction Standards for Sanitary Sewer and Surface Water Management*.
12. The recommendations of the geotechnical report shall be incorporated into the construction plans for the subdivision.
13. **Grading along the north property line shall result in a cut not to exceed four feet from native grade.**
14. Permits for grading and erosion control shall be obtained from the Building Division prior to any excavation. Site grading shall conform to 1994 Uniform Building Code Appendix Chapter 33 Table 33-A. The application shall include a grading plan complying with 1994 UBC Appendix Chapter 33 for engineered grading, erosion control plan, and the geotechnical report. The soils and geotechnical report shall be provided prior to issuance of a grading permit.

ELECTRICAL SYSTEM

15. Underground utility lines shall be required throughout and provisions made for a looped feed. Electrical plans need to be coordinated with the Light and Power Department. Submit an electronic copy of the utility plans to Light and Power Director (503/992-3256).
16. Any existing electrical facilities that conflict with the proposed development shall be relocated at the developer's expense.

17. A minimum eight-foot clearance shall be maintained between electrical transformers and any combustible structures (National Electrical Supply Code (NESC) Section 15 and Forest Grove Light and Power Department *Electrical Service Requirements and Guidelines* Section 1.09 *Clearances From Utility Equipment*).
18. Transformer locations shall be no more than 200 feet from the farthest meter to be served by that transformer. Transformers shall be located within 15 feet of a suitable driving surface that is accessible to City personnel at all hours. To site the transformers and/or the access ways, additional public utility easements may be required.
19. Decorative street lighting fixtures shall comply with the City's standards and specifications.

STREETS

20. **On-site, 19th Avenue shall be designed for an ultimate width of 40 feet curb-to-curb. Until the abutting properties develop, 19th Avenue shall be constructed to a 32-foot-wide travel way with parking on one side only.**
21. **19th Avenue between "C" and "D" streets shall be fully improved to a 32 foot street standard with sidewalks on one side of the street.**
22. **All other streets within Gales Creek Terrace shall be improved to an unrestricted Local street status (54-foot-wide rights-of-way and 32-foot wide streets).**
23. **To address adequate access for D Street, an assessment not to exceed \$1200 per unit shall be paid at building permit for each dwelling for the improvement of D Street from Pacific Avenue to 19th Avenue. Prior to submittal of the first building permit, the City Engineer shall finalize the assessment based on more refined cost estimates and more accurate number of dwelling unit yield.**
24. **An emergency gravel access shall be installed within the E Street right-of-way with a design approved by the City Engineer and installed prior to construction of any dwellings.**
25. **D Street from 18th Avenue to the project site shall be provided with a pave connection with a design approved by the City.**
26. **All construction traffic shall be directed to use 19th Avenue. No construction traffic (including that associated with home building) will be permitted to use any of the adjacent local streets, except as necessary to extend them into the site.**
27. All signage (including, but not limited to, street names, vehicular parking restrictions, and vehicular and pedestrian traffic protection and direction) for public rights-of-way and easements; pavement striping and marking; and pavement reflectors (including, but not limited to, blue fire hydrant markers), shall be shown on the approved plans and installed by the developer, as required by the Engineering Department. To minimize conflict with driveway locations and street trees, signs shall be attached to utility poles wherever possible (LDO Section 9.109(1)a. *Required Improvements - Streets*).
28. The Geotechnical Investigation and Report shall contain a separate section addressing public improvements. In that section, address structural design and construction of public streets and roadways referencing the *Washington County Uniform Road Improvements and Design Standards*. Include alternate

design considerations for "wet-weather" construction. The street design shall meet or exceed minimum standards established by the City Engineer.

29. **Prior to any physical improvements, the applicant shall enter into a Development Agreement with the City for their proportional participation in the installation of left turn lanes on Pacific Avenue at C and D streets and the installation of a traffic signal at B Street/19th Avenue intersection. In addition, the agreement shall include the applicant's participation with obtaining the necessary easement for the sewer line across the Kyle property (Washington County tax lot number 1S 4 1-203) and assuming responsibility for any mitigation due to contaminated soils as a result of installing the sewer line.**

WATER, STORM AND SANITARY

All work shall conform (as applicable) with the following City of Forest Grove/CWS-approved plans and specifications.

30. Submit an application for a new NPDES General Permit #1200-C along with the DEQ-required Land Use Compatibility Statement (LUCS). Application forms are available from the Community Development Department.
31. Submit copies of approved CWS and DSL permits.
32. Provide storm drainage calculations for the water quality facility and address detention, as per CWS standards and specifications (LDO Section 9.109(1)b. *Required Improvements-Storm Sewers and Erosion Control Facilities*).
33. All storm water runoff from any newly created impervious surface areas shall drain to an approved public storm water facility (LDO Section 9.109(1)b. *Required Improvements-Storm Sewers and Erosion Control Facilities*).
34. Once the water quality facilities in the storm water quality tracts are constructed to City and CWS standards and accepted by the City, the tracts shall be dedicated to the declarant or an approved homeowners association. An easement for purposes of maintenance, conveyance, treatment and detention of storm and surface water runoff shall be granted to the City of Forest Grove (LDO Section 9.109(1)b. *Required Improvements-Storm Sewers and Erosion Control Facilities*).
35. Water-quality (sumped) manholes will be required at each inlet pipeline to water quality facilities. Unless approved otherwise, water-quality manholes shall not substitute for standard flow-through or junction manholes (LDO Section 9.109(1)b. *Required Improvements-Storm Sewers and Erosion Control Facilities*).
36. Storm drain and sanitary sewer piping materials shall be approved by the City Engineer. Storm drain piping between a water quality manhole and discharge into the water quality facility shall be concrete pipe with a beveled end section and rip-rap designed for the discharge location (LDO Section 9.109(1)b. *Required Improvements-Storm Sewers and Erosion Control Facilities*).
37. Sanitary sewerage facilities shall be constructed in compliance with the Sanitary Sewer Master Plan (LDO Section 9.109(1)c. *Required Improvements-Sanitary Sewer Facilities*).

FIRE

38. New fire hydrants shall be installed as per City requirements. Hydrants shall be equipped with 4-inch Storz connection, and their locations identified with blue reflective pavement markers at the street centerline (Municipal Code Section 5.635 *Amendments to the Uniform Fire Code*).
39. Dead end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved turnaround (**Tract "B" and 19th Avenue in Phase 1, and Tract "D."**)
40. **"No Parking – Fire Lane" signs shall be posted on one side of the Tract "D" driveway and along both sides of the Tract "B" driveway.**
41. **Fire hydrant spacing shall not exceed 400 feet.**

SIDEWALKS AND WALKWAYS (LDO Section 9.109(1)e. *Sidewalks*).

42. Property-line sidewalks shall be installed adjacent to all tracts concurrent with street construction.
43. Property-line sidewalks shall be installed adjacent to all lots concurrent with home construction
44. Sidewalks shall be installed at street corner radius returns concurrent with street construction
45. **A walkway shall be installed in a tract between lots 38 and 39, in alignment with the walkway between lots 16/17 and 58/59. This walkway shall connect with the walkway in Tract "J."**
46. Walkways shall be constructed to the following standards (LDO Section 9.110(2)(b) *Pedestrian Ways*).
 - Minimum width of eight feet.
 - Constructed of Portland cement concrete, six inches thick.
 - Any remaining area shall be landscaped or otherwise improved; the design shall be approved by the Community Development Department prior to construction.

SETBACKS

47. Front yard and corner side yard setbacks shall be a minimum of ten feet except where there is a transformer. At these locations, the setback shall be twelve feet. The street connection requirements of ZO Section 9.624(1)(a)-(c) shall apply (ZO Section 9.624 *Setback and Lot Width Requirements* and LDO Section 9.110(2)c. *Easements*).

ARCHITECTURAL STANDARDS

48. **To provide for greater architectural variety, roof structures for the attached units shall be more varied by submitting and receive approval by the Community Development Director prior to or concurrent with submittal of the building permit for the first attached units.**
49. At least 75% of those lots with less than 9,000 square feet of lot area shall comply with LDO Section 9.110(3)(h) *Street Connection Requirement*.
50. All lots shall comply with LDO Section 9.110(3)(i) *Diversity Requirement*.

51. Front façade siding materials shall "wrap" the entire structure.
52. Homes with street-facing side yards shall have windows in the side facades, in compliance with LDO Section 9.110(3)(h) *Street Connection Requirement*.
53. To preserve privacy, side elevation windows shall: a) not align with the windows in the adjacent home, or b) use translucent glass, or c) the sill shall be not less than 5 ½ feet above the floor.
54. Any modifications to the proposed design types shall be submitted to the Community Development Department for review and approval by the Director or his designee prior to submitting for building permits (ZO Section 9.816.5 *Compliance with Final Plan*).

TREES

55. Existing on-site and off-site trees that may be adversely affected by street or utility extensions or on-site grading shall be identified and protected. Protection measures shall be included on the grading plans and shall be in place prior to any grading activity. Measures shall remain in place for the duration of construction (ZO Section 9.945(D)(3) *Protection Plan*).
56. Chain-link fencing shall be installed around all tree protection zones.
57. City staff shall be notified prior to commencement of grading or excavation near any of the protected trees, to verify that the tree protection measures are in place.
58. **A tree removal permit shall be required for all trees to be removed (ZO Section 9.942 *Permit Requirements*). To compensate for the trees to be removed, a one-for-one replacement (19 trees) shall be required for all existing native trees. Replacement trees shall be of a species native to western Oregon and shall be planted in the open space tracts. These trees shall have a minimum two-inch caliper upon installation.**
59. Street trees adjacent to buildable lots shall be charged a street tree installation fee at the time of building permit issuance (LDO Section 9.109(1)g.iv. *Street Trees*).

OTHER

60. Mailboxes and newspaper receptacles (serving at least four but not more than eight homes) are required; locking mailboxes are recommended. These facilities shall be located in the vicinity of streetlights. Locations and specifications should be confirmed with the Forest Grove Post Office prior to installation. Installation shall occur prior to occupancy of the first home (LDO Section 9.109(1)h. *Mailboxes*).
61. **A six-foot-tall cedar solid or "good-neighbor" fence or equivalent shall be installed on the rear lot line of lots 1, 76-84, and the south and west property lines of 1608 18th Avenue (Washington County tax lot 1S4 1AA-4000 (ZO Section 9.682(5) *Perimeter Requirements*).**

VIII. LIST OF ATTACHMENTS

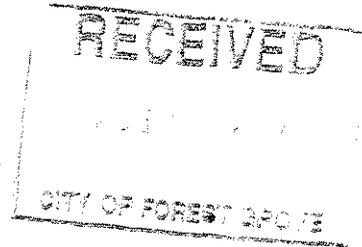
The following attachments were received, marked, and entered into the record as evidence for this application at the time this staff report was written. Attachments of evidence received after the date of this report will be marked beginning with the next consecutive letter and will be entered into the record at the time the Public Hearing is opened, prior to oral testimony.

- Attachment A** Application Materials, prepared and submitted by SFA Design Group
- Attachment B** SFA Letter dated August 9, 2007
- Attachment C** Slope Density Analysis
- Attachment D** Metro Maps showing location of Riparian area

ATTACHMENT B



SFA Design Group, LLC
STRUCTURAL | CIVIL | LAND USE PLANNING



August 9, 2007

James Reitz, Associate Planner
City of Forest Grove
1924 Council Street
Forest Grove, OR 97116

RE: Minor Correction to Narrative – Gales Creek Terrace, PRD and Preliminary Plat,
PRD-0604

James:

We just found an error in our narrative for the PRD/Pre- Plat, and wanted to make the correction prior to the hearing. On page 34 in the response to Density, the narrative states, **“The applicant is not requesting any additional density, so this criterion is not applicable”**.

However, the Target Density is calculated at 99 units, and the proposed development is for 100 units. Therefore we are, in fact, requesting Incentive Density, as calculated in the Tables on page 33. The calculated maximum Incentive Density is 103 units. The development meets the Incentive Density criteria as follows:

1. The developed area of the site is shifted north to avoid impacts along Gales Creek. A substantial open space area along the creek is protected by Common Open Space Tracts. Public access is provided to and through the open space with a pathway system.
2. The development is designed so that the street system creates terraces, which provide each lot with good visual connection to the open space area and creek. The subdivision name is derived from this design feature. The proposed sidewalk and pathway system provides four connections from the development to the open space area, and there is a linear pathway (east/west) which is designed to be part of the City's intended perimeter trail system. This pathway extends along the northern edge of the open space the full width of the entire property, and provides for future connectivity to the east and west of the site.
3. The development provides a formal children's play area and also a picnic area for residents. These two formally improved recreation areas, intended primarily for the residents of the development, will be physically separated from the more public east/west stream corridor pathway by a retaining wall.

Therefore the application is within the allowed Incentive Density and complies with the incentive approval criteria.

Please add this revision to the record.

Sincerely,

A handwritten signature in cursive script that reads "Ben Altman".

Ben Altman
Senior Planner/Project Manager

ATTACHMENT C

Slope Density Analysis

Slope	Net acreage	slope adj	Target Density	Units - Target
0-9.9	0.89	1.00	8.71	7.75
10-14.9	1.80	0.90	8.71	14.11
15-24.9	0.84	0.70	8.71	5.12
25-34.9	0.02	0.50	8.71	0.09
35 & over	0.00	0.00	8.71	0.00
Total Net Area	3.55 # of units			27.07
	Net Density			7.62

Remainder of Tax Lot 400 already in UGB with A-2 Zoning

Slope	Net acreage	slope adj	Target Density	Units - Target	Units - Target
0-9.9	0.17	1.00	20.28	3.45	23.29
10-14.9	1.30	0.90	20.28	26.38	5.44
15-24.9	0.37	0.70	20.28	7.40	0.08
25-34.9	0.02	0.50	20.28	0.37	0.03
35 & over	0.01	0.00	20.28	0.18	0.00
Total Net Area	1.86 # of units			37.76	28.85
	Net Density			17.48	19.81

Tax Lot 7200 with A-2 Zoning

Net acreage	slope adj	Target Density	Units - Target
1.15	1.00	20.28	23.29
0.30	0.90	20.28	5.44
0.01	0.70	20.28	0.08
0.00	0.50	20.28	0.03
0.00	0.00	20.28	0.00
Total	1.46		28.85
			19.81

DENSITY COMPARISON OF PROPOSED DESIGNATIONS WITH METRO DENSITY STANDARD

	Units - Target	Proposed Metro - Slope	Proposed - Slope
23.29	23.29	32.54	32.54
6.05	5.44	28.85	28.85
0.12	0.08	30.96	27.07
0.06	0.03	31.08	27.07
0.05	0.00	31.08	27.07
29.57	28.85	31.08	27.07
Unit Yield	98.93	92.35	86.46
Overall Density	14.10	13.44	12.87

city of
forest
grove
1924 Council Street
P.O. Box 328
Forest Grove, OR 97116

ATTACHMENT D



METRO

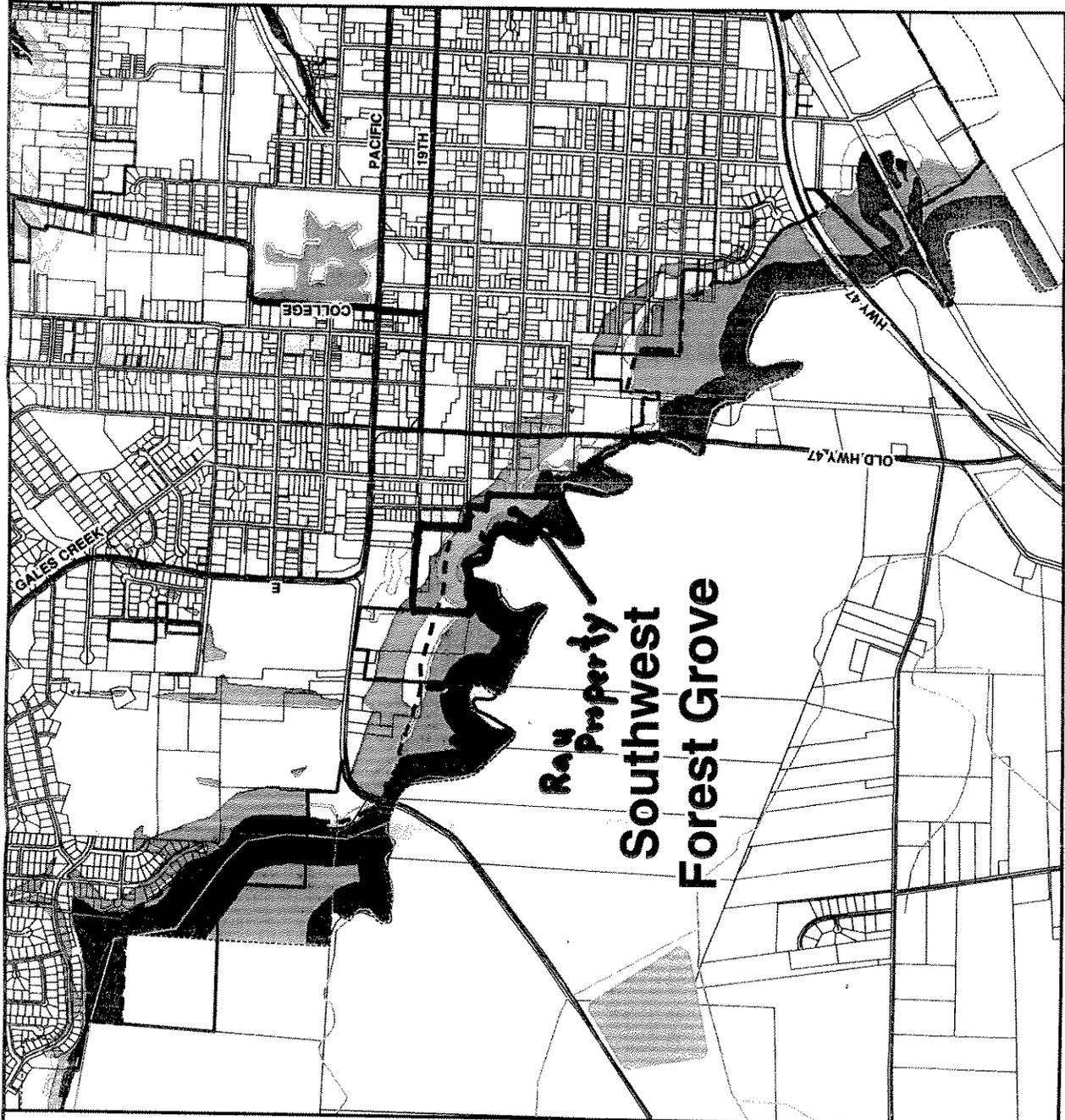
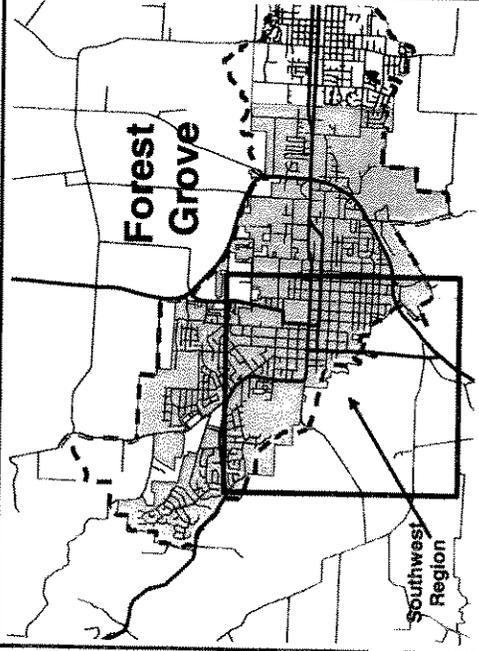
Regionally Significant Fish and Wildlife Habitat Inventory Map

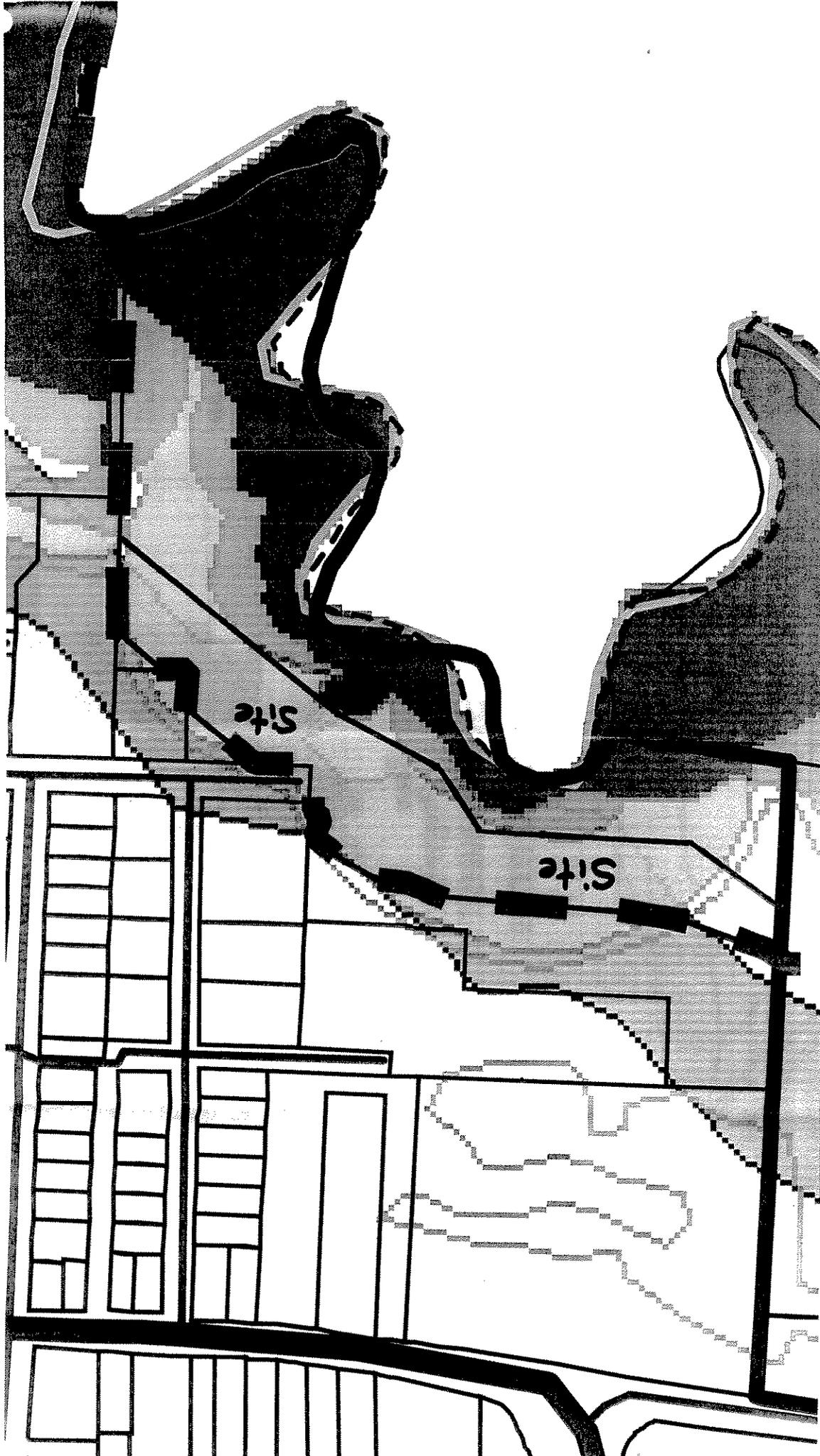
Southwest Forest Grove

Legend

- Metro Boundary
- Urban Growth Boundary
- City Boundary
- River & Lake Areas
- Slope of 10% or More
- Wildlife Habitat**
- Riparian Wildlife Habitat Class I
- Riparian Wildlife Habitat Class II
- Upland Wildlife Habitat Class A
- Upland Wildlife Habitat Class B

Created 4/4/07
City of Forest Grove
Community Services
Department
Product # 104-07-03







To: Planning Commission

From: Jon Holan, Community Development Director

**Subject: Parking Analysis and Revised Conditions for PRD 06-04,
Gales Creek Terrace**

Date: September 4, 2007

Upon further review of the staff report, staff did not provide any parking analysis and we propose several modifications and additions to the recommended conditions.

Parking Analysis

The project includes 100 units with 54 attached and 46 detached units. Based on the applicant's information (see Sheet 35), the parking is broken down as follows:

Garages: All the units are intended to have two car garages for 200 parking spaces.

Driveways: Twenty-nine of the attached units will provide 1 space per unit within the front yard driveway. All the detached units will provide 2 spaces in the driveway. This totals 121 spaces.

On-street parking: One hundred nine (109) spaces.

Total: 200+121+109= 430 spaces or 4.3 spaces per unit.

There appears to be sufficient parking provided by the development. The most problematic area is the 25 attached units along 19th Avenue which do not have any driveway parking. There would be 29 on-street parking spaces on 19th in front of the units (i.e. between E and G streets). This would offer over one on-street space per unit in close proximity to the units. In addition, six more spaces on E and G streets on the same block as the units are also available.

Regarding the 29 units with a one car drive-way space and two garage spaces, there are 12 spaces on the same block as the units with 15 additional spaces in

front of the detached products along Gales Creek Terrace across the street from the attached units. This would be a total on 27 on-street parking spaces available in the immediate area of the units that provide 3 off-street spaces per unit.

Based on the overall parking and its distribution to the most problematic areas, staff would conclude that the proposed design would provide sufficient parking spaces.

Modified and New Conditions of Approval

The intent is to clarify and assure property improvements are made consistent with staff recommendation. These changes are as follows:

21. 19th Avenue between the site and "C" and "D" streets shall be fully improved to a 32 foot street standard with sidewalks on one side of the street.
23. To address adequate access for D Street, an assessment not to exceed \$1200 per unit shall be paid at building permit for each dwelling for the improvement of D Street from Pacific Avenue to 19th Avenue. Prior to submittal of the first building permit, the City Engineer shall finalize the assessment based on more refined cost estimates and more accurate number of dwelling unit yield. The City shall construct the improvement unless the applicant exercises the option to construct the road with a design approved by the City Engineer.
24. An emergency gravel access shall be installed within the ~~E Street~~ 18th Avenue right-of-way with a design approved by the City Engineer and installed prior to construction of any dwellings.
25. D Street from 18th Avenue to the project site shall be provided with a paved connection with a design approved by the City Engineer. The improvement shall consist of a paved tie-in tapering to match the terminus of the existing pavement on the southern end of D Street.
29. Prior to any physical improvements, the applicant shall enter into a Development Agreement with the City for their proportional participation in the installation of left turn lanes on Pacific Avenue at C and D streets and the installation of a traffic signal at B Street/19th Avenue intersection. The installation of the traffic light shall be based on the participation of the three projects identified in the staff report for PRD 06-01. The proportional share shall be based on the pm peak hourly trips generated at the intersection for each project. In addition, the agreement shall

include the applicant's participation with obtaining the necessary easement for the sewer line across the Kyle property (Washington County tax lot number 1S 4 1-203) and assuming responsibility for any mitigation due to contaminated soils as a result of installing the sewer line.

New Condition 47 as follows:

47. The applicant shall construct the trail shown on Sheet 36 of the preliminary submittal to a design approved by the City Engineer and the Parks and Recreation Director. The trail shall be installed and accepted as part of other public improvements made for the project.

TRAFFIC ANALYSIS REPORT

FOR

GALES CREEK TERRACE

19TH AVENUE

CITY OF FOREST GROVE

PREPARED BY

Charbonneau Engineering LLC

9370 SW Greenburg Rd., Suite 411, Portland, OR 97223
(503) 293-1118 • FAX (503) 293-1119



RENEWS: 12/31/07

AUGUST 2007

PROJECT 07-23

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FL07136

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INTRODUCTION

This traffic study has been prepared to document and evaluate the traffic operation, circulation, and safety conditions associated with three residential developments in the City of Forest Grove. The proposed developments include the Gales Creek Terrace property (46 single-family units & 54 townhome units), Kinzer property (48 single-family units & 39 townhome units), and the Kim property (78 single-family units & 60 townhome units). The study vicinity included Pacific Avenue, 19th Street, 'B' Street, and the general development area. The site is located along the south side of Pacific Avenue and west of 'D' Avenue on the west side of the City's current central downtown area and is highlighted on the vicinity map (Figure 'a') in the appendix.

TRAFFIC ANALYSIS CONSIDERATIONS

In the project scope established with the project development team and input provided by City of Forest Grove staff, a number of important elements were identified and considered in this study.

- Inventory and record pertinent information such as traffic control devices, circulation patterns, lane widths, pedestrian & bicycle facilities, transit zones, parking conditions, and street characteristics.
- Record data on typical weekdays during the AM & PM peak traffic hours.
- Conduct peak hour traffic counts at the study intersections including Pacific Avenue at 'B' Street, 'C' Street, and 'D' Street and 19th Avenue at 'B' Street.
- Level of service (LOS) analysis of the study intersections to measure the approach delays for comparison to City standards, signal warrant determination, left turn lane warrants, traffic control, and lane configuration.
- Determination of the impacts associated with the Gales Creek Terrace development.
- Determination of the impacts associated with all three developments.
- Documenting the traffic circulation and impacts associated with retention of the current one-way couplet on Pacific Avenue and 19th Avenue.
- Documenting the traffic circulation and impacts associated with and without placement of a street barricade on 'D' Street north of 18th Avenue.
- Establishment of the project trip distribution based on connectivity to the respective development sites (without extension of one-way couplet system), traffic count data, input from City Staff and DKS Associates, and engineering judgement.
- Review of traffic accident data furnished by ODOT and determination of the intersection crash rates.
- Inclusion of traffic growth to account for future conditions. A two percent per year growth rate over a three-year period was applied to the existing traffic volumes. This rate was established from the City's Transportation System Plan Final Report.

SITE DESCRIPTION, STREETS, AND CRITICAL INTERSECTIONS

The three development sites (Gales Creek Terrace, Kinzer Development, & Kim Development) are located south of Pacific Highway and west of 'D' Street. The surrounding area consists of residential properties. Development of the Gales Creek Terrace site includes construction of 46 single-family homes and 54 townhomes. Although final site plans have not been established for the Kinzer and Kim properties the number of housing units for each location has been projected. Therefore, for traffic analysis purposes the Kinzer property was analyzed for 48 single-family units and 39 townhome units and the Kim site analyzed for 78 single-family units and 60 townhomes.

In conjunction with the proposed development vehicular access will be provided with connections to Richey Road, Pacific Avenue (to/from Kim Development, no 'E' Street connection), and the future extension of 19th Avenue between the proposed development and 'D' Street. Alternative access plans were also considered with and without a traffic barricade installed on 'D' Street north of 18th Avenue. No through traffic connection on 18th Avenue between 'C' and 'D' Streets was considered in the analysis. Figure 'b' illustrates the proposed site plan for the Gales Creek Terrace development. Figure 'c' depicts the locations of all three development properties (Gales Creek Terrace, Kinzer, & Kim) and the proposed traffic circulation system.

The intersection of **Pacific Avenue at 'B' Street** is controlled by signalization with the east leg consisting of two one-way (eastbound) lanes. The north, south, and west intersection legs permit two-way traffic flow and have two travel lanes. The existing lane configuration and traffic control is presented on Figure 'd'. On both sides of the intersection 'B' Street measures 40 feet wide between the curbs. West of 'B' Street the curb-to-curb width on Pacific Avenue is 40 feet and east of 'B' Street the width is 32 feet.

The intersection of **19th Avenue at 'B' Street** is controlled by stop signing and overhead flashing beacons. Stop signs are posted on the northbound and eastbound approaches. East of the intersection traffic flow is one-way eastbound on 19th Avenue and contains two travel lanes. The north, south, and west intersection legs permit two-way flow and have two travel lanes. Parallel on-street parking is permitted along both sides of 19th Avenue. Parallel on-street parking is permitted on the west side of 'B' Street. 'B' Street measures 40 feet wide between the curbs. The curb-to-curb width on 19th Street is 50 feet east of 'B' Street and 35 feet west of the intersection.

Pacific Avenue at 'C' Street is configured as four-way intersection of two-way streets with stop control on the northbound and southbound approaches. There are no separate turn lanes at this location. The speed is posted at 30 MPH on Pacific Avenue.

Pacific Avenue at 'D' Street is configured as tee-shaped design of two-way streets with stop control on the northbound approach of 'D' Street. There are no separate turn lanes at this location. The speed is posted at 30 MPH on Pacific Avenue.

TRAFFIC CIRCULATION CONSIDERATIONS

The traffic circulation followed in the analysis considered that the City's existing one-way couplet on Pacific Avenue and 19th Avenue would be maintained as City staff indicated that extension of the couplet may not occur for many years. Therefore, it was imperative to determine the impacts without the extension. The existing one-way couplet is shown on Figure 'c' along with the proposed access connections to the development sites.

TRAFFIC OPERATIONAL ANALYSIS

In order to evaluate traffic flow and delay in the area four intersections were analyzed for level of service (LOS) conditions, safety, and traffic control. The intersections evaluated included Pacific Avenue at 'B', 'C', and 'D' Streets and 19th Avenue at 'B' Street. LOS analyses were completed in AM and the PM peak hour periods for the following scenarios:

- Year 2007 Existing Traffic
- Year 2010 Background Traffic
- Year 2010 Total Traffic with Gales Creek Terrace
- Year 2010 Total Traffic with Gales Creek Terrace, Kinzer, and Kim Developments – combined developments.

In order to perform the LOS analysis at the critical intersections manual traffic counts were conducted during the AM (7:00-9:00 AM) and PM peak (4:00-6:00 PM) traffic hours. Figure 1 illustrates the existing volume data for the weekday peak hours.

Background growth is comprised of the existing traffic factored with a traffic growth rate. For this project a growth rate of two percent per year was applied for the three-year analysis period. The growth rate was derived from data contained in the City's Transportation System Plan, Final Report by DKS Associates, November 1999. Background traffic volumes (sum of existing and growth traffic) are illustrated in Figure 2.

Figure 3 represents the trip distribution anticipated within and surrounding the project's study area. The distribution was developed from review of existing traffic count data, street connectivity (existing and proposed with the development plans), existing local development, City input, DKS Associates input, and engineering judgement.

Figures 4 & 5 were developed to illustrate the trip distribution for Gales Creek Terrace with and without the street barricade placed on 'D' Street north of 18th Avenue, respectively. Figures 8a & 8b depict the AM & PM peak hour trip assignments for Gales Creek Terrace with the barricade installed on 'D' Street. Figures 9a & 9b depict the AM & PM peak hour trip assignments for Gales Creek Terrace without the barricade installed on 'D' Street.

Figures 6 & 7 were developed to illustrate the trip distribution for the Kinzer and Kim Developments, respectively. The peak hour trip assignments at the four study intersections on Pacific Avenue and on 19th Avenue are shown on Figures 10 and 11 for the Kinzer and Kim properties, respectively.

Figure 12 illustrates the year 2010 total traffic (sum of background plus site generated traffic) at the four study intersections on Pacific Avenue and 19th Avenue associated with the Gales Creek Terrace development scenario.

Figure 13 illustrates the year 2010 total traffic (sum of background and site generated traffic) at the four study intersections on Pacific Avenue and 19th Avenue associated with Gales Creek Terrace, Kinzer, and Kim developments combined.

VEHICULAR TRIP GENERATION

Trip rates presented in the Institute of Transportation Engineers (ITE) Trip Generation manual, 7th edition (year 2003), were utilized to estimate the project's trip generation. Single-family residential (ITE 210) and Townhome (ITE 230) trip rates were applied to estimate the trips generated by the proposed developments. Tables 1-3 present the trip generation summary.

Table 1. Projected trip generation for Gales Creek Terrace

ITE Land Use	Units (#)	Weekday						
		ADT	AM Peak Hour			PM Peak Hour		
			Total	Enter	Exit	Total	Enter	Exit
<i>Single-Family (#210)</i>	46							
Generation Rate ¹		9.57	0.75	25%	75%	1.01	63%	37%
Single-Family Trips		440	35	9	26	46	29	17
<i>Residential Condo/Townhouse (#230)</i>	54							
Generation Rate ¹		5.86	0.44	17%	83%	0.52	67%	33%
Condo/Townhouse Trips		316	24	4	20	28	19	9
Net New Site Trips	100	756	59	13	46	74	48	26

¹ Source: *Trip Generation*, 7th Edition, ITE, 2003, average rates.

Table 2. Projected trip generation for Kinzer Development

ITE Land Use	Units (#)	Weekday						
		ADT	AM Peak Hour			PM Peak Hour		
			Total	Enter	Exit	Total	Enter	Exit
<i>Single-Family (#210)</i>	48							
Generation Rate ¹		9.57	0.75	25%	75%	1.01	63%	37%
Single-Family Trips		459	36	9	27	48	30	18
<i>Residential Condo/Townhouse (#230)</i>	39							
Generation Rate ¹		5.86	0.44	17%	83%	0.52	67%	33%
Condo/Townhouse Trips		229	17	3	14	20	13	7
Net New Site Trips	87	688	53	12	41	68	43	25

¹ Source: *Trip Generation*, 7th Edition, ITE, 2003, average rates.

Table 3. Projected trip generation for Kim Development

ITE Land Use	Units (#)	Weekday						
		ADT	AM Peak Hour			PM Peak Hour		
			Total	Enter	Exit	Total	Enter	Exit
<i>Single-Family (#210)</i>	78							
Generation Rate ¹		9.57	0.75	25%	75%	1.01	63%	37%
Single-Family Trips		746	59	15	44	79	50	29
<i>Residential Condo/Townhouse (#230)</i>	60							
Generation Rate ¹		5.86	0.44	17%	83%	0.52	67%	33%
Condo/Townhouse Trips		352	26	4	22	31	21	10
Net New Site Trips	138	1,098	85	19	66	110	71	39

¹ Source: *Trip Generation*, 7th Edition, ITE, 2003, average rates.

Development of Gales Creek Terrace is expected to generate 756 daily trips, 59 AM peak hour trips, and 74 PM peak hour trips. The Kinzer site is projected to generate 688 daily trips, 53 AM peak hour trips, and 68 PM peak hour trips. The Kim property is projected to generate 1,098 daily trips, 85 AM peak hour trips, and 110 PM peak hour trips.

Based on the trip generation associated with the perspective developments each site will contribute the following number of daily trips within the study area. For comparison purposes the proportion (percentage) associated with each site is provided.

Development Site	Ave. Daily Traffic Generation	% ADT
Gales Creek Terrace	756	30%
Kinzer Development	688	27%
Kim Development	<u>1,098</u>	<u>43%</u>
Total ADT Generated	2,542	100%

CAPACITY ANALYSIS

Capacity analyses were performed to determine the levels of service for the weekday AM and PM peak hours. Traffix software (Version 7.5) was used to determine the level of service for each scenario considered. The program is based on the 2000 Highway Capacity Manual methodology. Tables 4a and 4b summarize the analysis results. Copies of the capacity analysis calculations are included in the appendix.

Table 4a Capacity Analysis Summary, Existing & Year 2010 Background Traffic

Intersection	Type of Control	Peak Hour	Traffic Scenario							
			2007 Existing				2010 Background			
			Crit. Mov't	LOS	Delay	v/c	Crit. Mov't	LOS	Delay	v/c
Pacific Avenue at "D" Street	Two-way Stop	AM	NB	B	10.4	-	NB	B	10.6	-
		PM	NB	B	10.0	-	NB	B	10.1	-
Pacific Avenue at "C" Street	Two-way Stop	AM	SB	B	14.0	-	B	B	14.5	-
		PM	SB	C	19.7	-	C	C	21.3	-
Pacific Avenue at "B" Street	Signal	AM	-	B	11.2	0.61	-	B	11.8	0.64
		PM	-	B	10.9	0.56	-	B	11.5	0.60
19th Street at "B" Street	Two-way Stop	AM	-	B	8.3	0.60	-	B	9.5	0.64
		PM	-	B	9.7	0.65	-	C	11.2	0.69

Table 4b Capacity Analysis Summary, Year 2010 Gales Creek & Combined Developments

Intersection	Type of Control	Peak Hour	Traffic Scenario							
			2010 Total Gales Creek Terrace				2010 Total Combined Developments			
			Crit. Mov't	LOS	Delay	v/c	Crit. Mov't	LOS	Delay	v/c
Pacific Avenue at "D" Street	Two-way Stop	AM	NB	B	13.4	-	NB	B	14.0	-
		PM	NB	B	14.5	-	NB	C	16.1	-
Pacific Avenue at "C" Street	Two-way Stop	AM	SB	B	14.7	-	SB	C	15.5	-
		PM	SB	C	22.4	-	SB	D	26.0	-
Pacific Avenue at "B" Street	Signal	AM	-	B	12.6	0.49	-	B	12.9	0.51
		PM	-	B	13.4	0.50	-	B	13.7	0.55
19th Street at "B" Street	Two-way Stop	AM	-	B	9.1	0.63	-	C	11.7	0.73
		PM	-	C	11.1	0.69	-	C	12.9	0.74

Notes: 2000 Highway Capacity Manual methodology used in analysis. Crit. Mov't - Critical movement or critical approach.

For the existing and year 2010 background scenarios the study intersections operate at level of service 'C' or better. The conditions are acceptable and exceed the City's level of service standard. Therefore, intersection improvements are not necessary through the year 2010 background scenario.

For the year 2010 total traffic (Gales Creek Terrace scenario & combined developments scenario) all of the study intersections will maintain acceptable conditions (LOS 'D' or better) under the current traffic control. Therefore, no improvements will be necessary based on the capacity analysis.

Generally, LOS 'A', 'B', 'C', and 'D' are desirable service levels ranging from no vehicle delays to average or longer than average delays in the peak hours. Level 'E' represents long delays indicating signalization warrants need to be reviewed and signals considered only if warrants are met. Level 'F' indicates that intersection improvements, such as widening and signalization, may be required. According to the Highway Capacity Manual (HCM), the following delay times are associated with the LOS at stop controlled unsignalized and signalized intersections.

Level of Service criteria defined in the 2000 Highway Capacity Manual.

Level of Service (LOS)	Unsignalized Control Stopped Delay (sec/veh)	Signalized Control Stopped Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

LEFT TURN LANE WARRANT ANALYSIS

Left turn warrants were prepared to determine if separate turn lanes are warranted on Pacific Avenue at 'C' Street and at 'D' Street. The analysis indicated that the warrant is not met for the year 2010, Gales Creek Terrace scenario.

With all three developments (Gales Creek Terrace, Kinzer, & Kim) westbound left turn lanes are warranted at both intersections in the year 2010 (total traffic PM peak hour). Storage lengths of 75 feet are recommended at each intersection.

To implement the left turn lanes on Pacific Avenue it will be necessary to re-stripe the existing two lane configuration to add the westbound left turn lane at each intersection and restrict parking on both sides (Pacific Avenue does not appear to be a heavily parked street as no vehicles were parked during a recent traffic survey). Currently the street width measures 40 feet between curbs. Therefore, it will be possible to implement the turn lanes within the existing street section without widening.

At the intersection of 19th Avenue and 'B' Street it will not be necessary to install another southbound lane according to the analysis. By retaining the current traffic control (stop control on the eastbound and northbound approaches) the intersection is expected to operate satisfactorily without geometric changes through the year 2010 total traffic scenario.

TRAFFIC SIGNAL WARRANTS

The peak hour signal warrant presented in the Manual on Uniform Traffic Control Devices (MUTCD, Figure 4C-3) was reviewed at the study intersections including 19th Street at 'B' Avenue and Pacific Avenue at 'C' and 'D' Streets. The analysis confirmed that the signal warrant is not met for the existing, year 2010 background, or year 2010 total traffic scenarios. A copy of the peak hour signal warrant is included.

ACCIDENT HISTORY

Accident data for the study intersections on 'B' Street was obtained from ODOT and reviewed to evaluate the traffic safety status. The data was derived from a five-year study period covering the years 2001 through 2005.

The accident rates presented in Table 5 below are based on the number of accidents per million entering vehicles (MEV). Typically, an intersection is not considered unsafe unless the accident rate exceeds the threshold of 1.0 accidents per MEV.

Table 5 Accident Rate Summary

Intersection	Accident History (Years)	Number of Accidents	Accidents per year	Annual Traffic Entering (veh/yr)	Accident rate per M.E.V.*
Pacific Avenue at "B" Street	5	8	1.6	4499757	0.356
19th Street at "B" Street	5	1	0.2	3141064	0.064

* M.E.V. - million entering vehicles.

The study intersections have not experienced a crash rate over 0.356 accidents per MEV and therefore safety mitigation is not necessary.

Accident data for Pacific Avenue at 'C' and 'D' Streets has been requested from ODOT and has yet to be received. When this information is available a memorandum will be prepared to document the results.

PEDESTRIANS, BICYCLES & TRANSIT

Sidewalks occur on both sides of Pacific Avenue, 'B' Street, and 19th Avenue and most streets throughout the downtown area. Sidewalks are also present at the intersections of Pacific Avenue at 'B' Street, 'C' Street, and 'D' Street and at 19th Avenue and 'B' Street.

A bicycle lane is marked on the north side of Pacific Avenue at 'B' street and along the south side of 19th Avenue east of 'B' Street.

Tri-Met provides transit service along Pacific Avenue, 'B' Street, and 19th Avenue with a bus stop/pull-out lane located in the northeast corner of 'B' Street at 19th Avenue.

SUMMARY AND RECOMMENDATIONS

The traffic study has been prepared to document and evaluate the traffic operation, circulation, and safety conditions associated with three residential developments in the City of Forest Grove. The proposed developments include the Gales Creek Terrace property (46 single-family units & 54 townhomes units), Kinzer property (48 single-family units & 39 townhome units), and the Kim property (78 single-family units & 60 townhome units). The study area included Pacific Avenue, 19th Street, and 'B' Street, 'C' Street, and 'D' Street. The site is located along the south side of Pacific Avenue and west of 'D' Avenue. The site location is highlighted on the vicinity map (Figure 'a'). Figure 'c' illustrates the three development locations and the future street connectivity.

In order to evaluate traffic flow and delay in the area four intersections were analyzed for level of service (LOS) conditions, safety, and traffic control. The intersections evaluated included 'B' Street, 'C' Street, and 'D' Street at Pacific Avenue and 19th Avenue at 'D' Street. The LOS analyses were completed in the peak hours for the existing, year 2010 background, and year 2010 total traffic conditions. Analysis of the total traffic conditions included identifying the impacts associated with the Gales Creek Terrace development and the combined impacts for all three sites.

The trip distribution and trip assignment analysis included alternative scenarios to address the impacts associated with and without placement of a street barricade on 'D' Street north of 18th Avenue. A series of traffic flow maps (reference Figures 8a-9b) illustrate that installation of the barricade is not projected to have a significant impact on the number of trips using 'D' Street or the other streets in the immediate area.

For the existing and year 2010 background scenarios the study intersections will experience acceptable LOS conditions and mitigation will not be necessary. For the year 2010 total traffic scenario the signalized intersection of Pacific Avenue at 'B' Street will maintain (LOS 'B'). The stop controlled intersections including Pacific Avenue at 'C' Street and 'D' Street and 19th Avenue at 'B' Street will operate at LOS 'D' or better without any improvements.

The peak hour signal warrant was reviewed at each of the study intersections including 19th Street at 'B' Avenue. The analysis confirmed that the signal warrant is not met for the existing, year 2010 background, or year 2010 total traffic scenarios at any of the intersections. Therefore, new traffic signals will not be required.

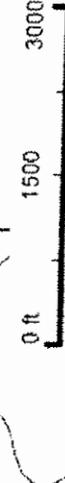
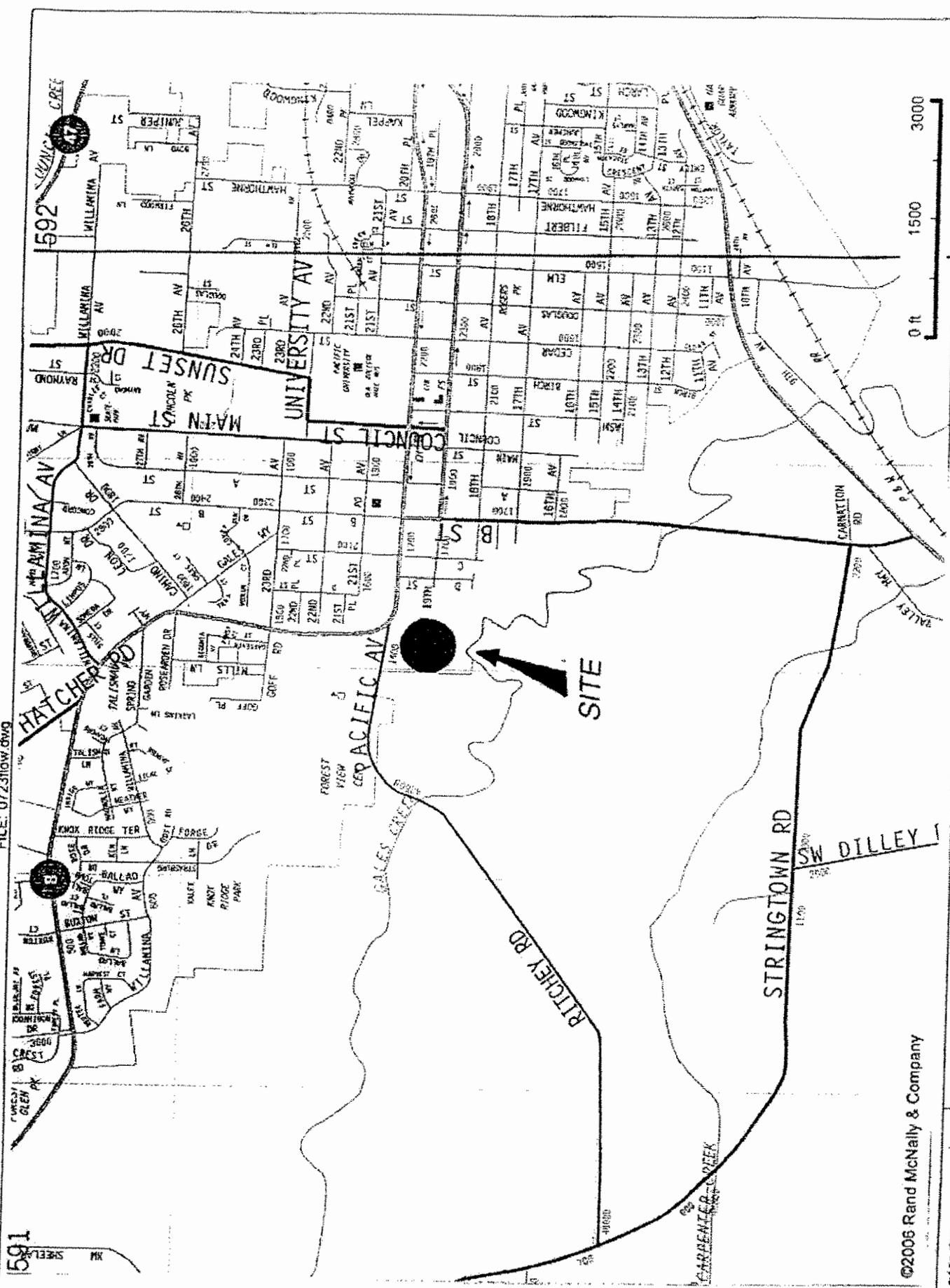
Left turn warrants were prepared to determine if separate left turn lanes are warranted on Pacific Avenue at 'C' Street and at 'D' Street. The analysis indicated that the warrant is not met in year 2010 for the Gales Creek Terrace scenario. However, with all three developments (Gales Creek Terrace, Kinzer, & Kim) considered westbound left turn lanes are warranted at 'C' and 'D' Streets in the year 2010 (total traffic, PM peak hour). Storage lengths of 75 feet are recommended at each intersection. To implement the left turn lanes on Pacific Avenue it will be necessary to re-stripe the existing two lane configuration at each intersection and restrict parking on both sides of the street.

APPENDIX

- Vicinity Map Figure a
- Site Plan Figure b
- Traffic Circulation Plan Figure c
- Lane Configuration and Traffic Control Figure d
- Traffic Flow Diagrams
 - Figure 1 Year 2007 Existing Traffic, AM & PM Peak Hour
 - Figure 2 Year 2010 Background Traffic
 - Figure 3 Trip Distribution
 - Figure 4 Trip Distribution, Gales Creek Terrace, 'D' Street Barricaded
 - Figure 5 Trip Distribution, Gales Creek Terrace, No 'D' Street Barricade
 - Figure 6 Trip Distribution, Kinzer Development, 'D' Street Barricaded
 - Figure 7 Trip Distribution, Kim Development, 'D' Street Barricaded
 - Figure 8a AM Peak Hour Trip Assignment, Gales Creek Terrace, 'D' Street Barricaded
 - Figure 8b PM Peak Hour Trip Assignment, Gales Creek Terrace, 'D' Street Barricaded
 - Figure 9a AM Peak Hour Trip Assignment, Gales Creek Terrace, No 'D' Street Barricade
 - Figure 9b PM Peak Hour Trip Assignment, Gales Creek Terrace, No 'D' Street Barricade
 - Figure 10 Trip Assignment, Kinzer Development
 - Figure 11 Trip Assignment, Kim Development
 - Figure 12 Year 2010 Total Traffic, Gales Creek Terrace
 - Figure 13 Year 2010 Total Traffic, Combined Developments
- Traffic Count Data
- Left Turn Lane Warrants
- Peak Hour Signal Warrant
- Accident History Summary (furnished by ODOT)
- Traffix & HCS Capacity Analysis Worksheets

PLOT DATE: 05/15/07

FILE: 0723flow.dwg



VICINITY MAP
GALES CREEK TERRACE

FIGURE
a

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NOTES:

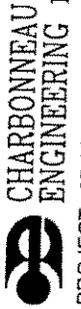
CHARBONNEAU
ENGINEERING LLC



PROJECT: 23



SCALE:
1" = 200'



CHARBONNEAU
ENGINEERING LLC

PROJECT: 07-23

NOTES: Site plan provided by SFA Design
Group, LLC.

SITE PLAN

GALES CREEK TERRACE

FIGURE

b



NO SCALE

TOM McCALL
ELEMENTARY
SCHOOL

'E' ST

'C' ST

'B' ST

RITCHIE RD

PACIFIC AVE

KINZER
DEVELOPMENT

KIM
DEVELOPMENT

19TH AVE

18TH AVE

17TH AVE

16TH AVE

'G' ST

'F' ST

'D' ST

GALES CREEK TERRACE

CHARBONNEAU
ENGINEERING LLC

NOTES: Two possible circulation scenarios:
1 - Barricade on 'D' Street at NE 18th Street
2 - No barricade on 'D' Street at NE 18th Street

PROJECT:

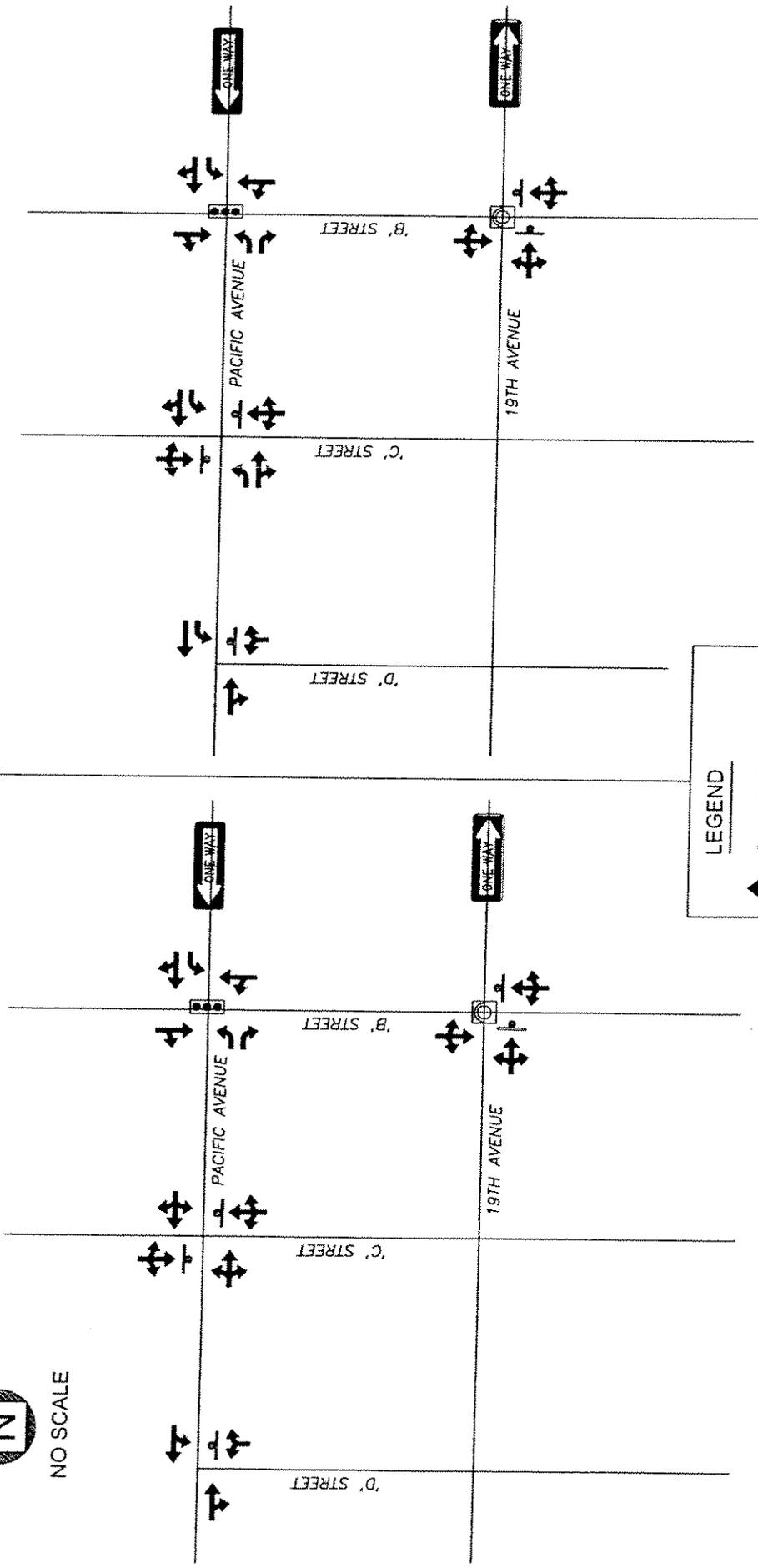
CIRCULATION PLAN
GALES CREEK TERRACE

FIGURE

C



NO SCALE



LEGEND

- CHANNELIZATION
- STOP SIGN
- SIGNAL
- FLASHING BEACON

EXISTING

PROPOSED

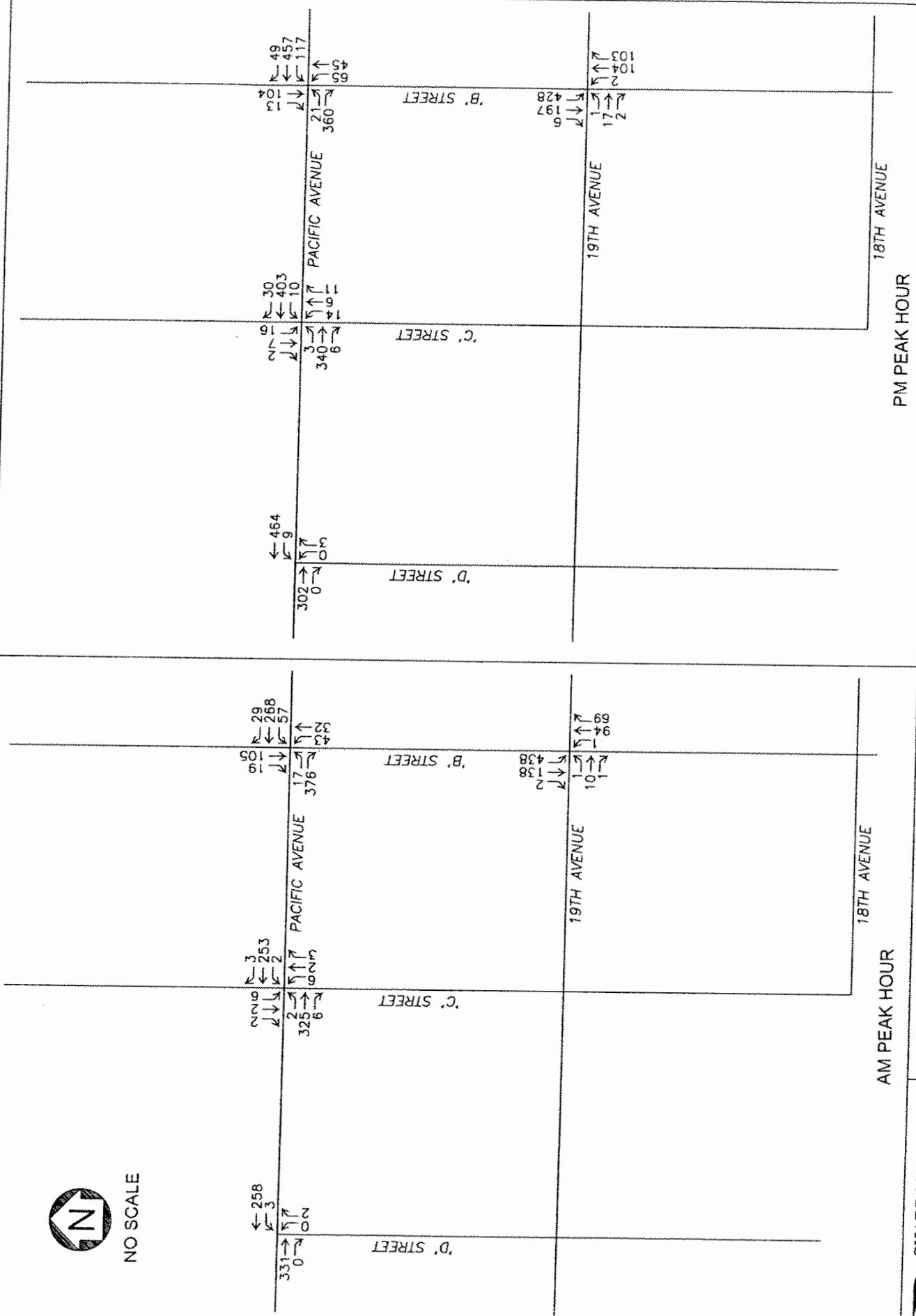
CHARBONNEAU ENGINEERING LLC
PROJECT: 07-23

NOTES: Under existing conditions Pacific Avenue and 19th Avenue are two-way streets west of 'B' Street.

LANE CONFIGURATIONS AND TRAFFIC CONTROL
GALES CREEK TERRACE



NO SCALE



AM PEAK HOUR

PM PEAK HOUR

CHARBONNEAU ENGINEERING LLC
 PROJECT: 03

NOTES:

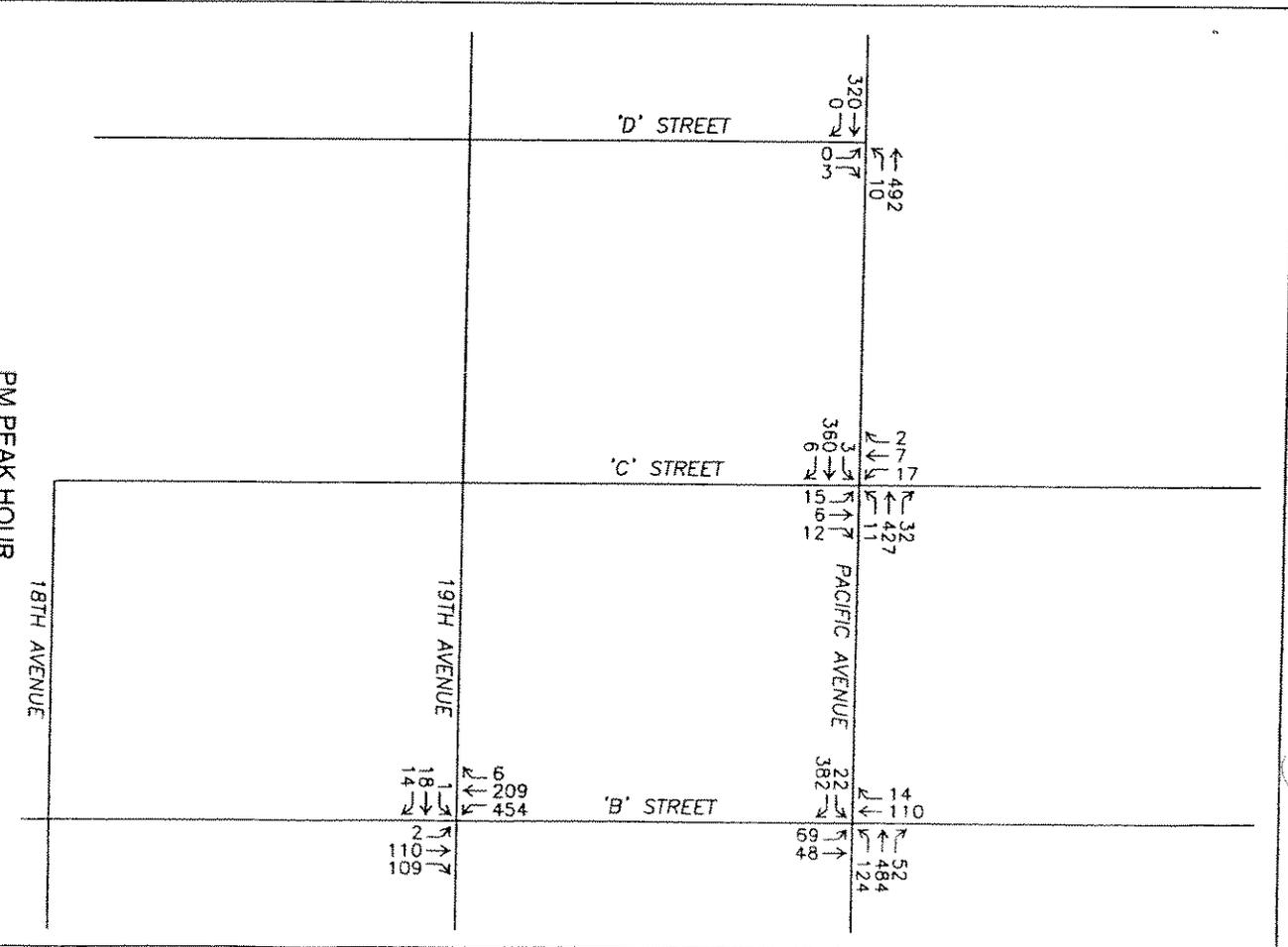
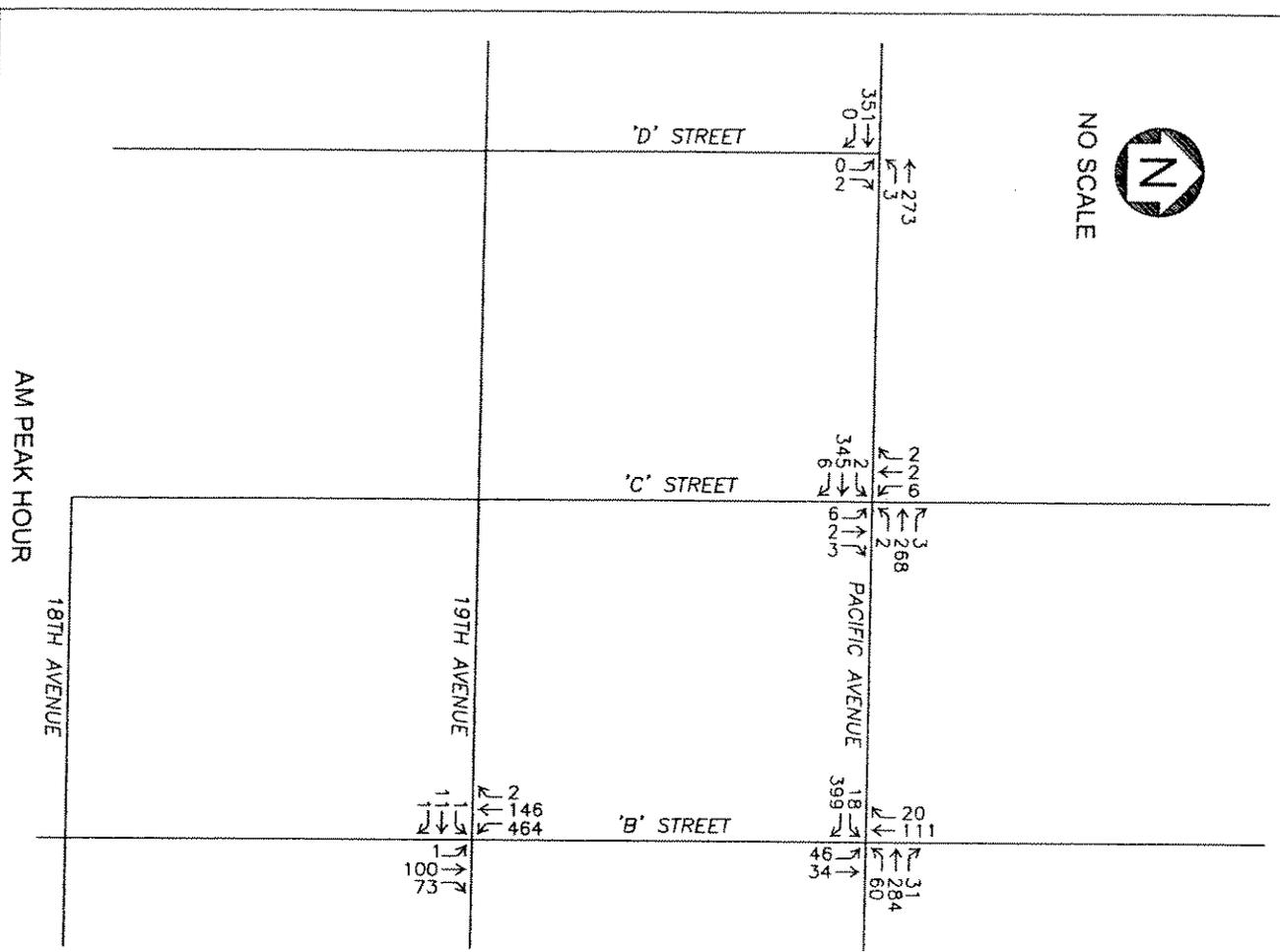
2007 EXISTING TRAFFIC
 GALES CREEK TERRACE

FIGURE

1



NO SCALE



CHARBONNEAU ENGINEERING LLC

PROJECT: 07-23

NOTES: 2010 Background Traffic = 2007 Existing Traffic + growth (2% per year for 3 years).

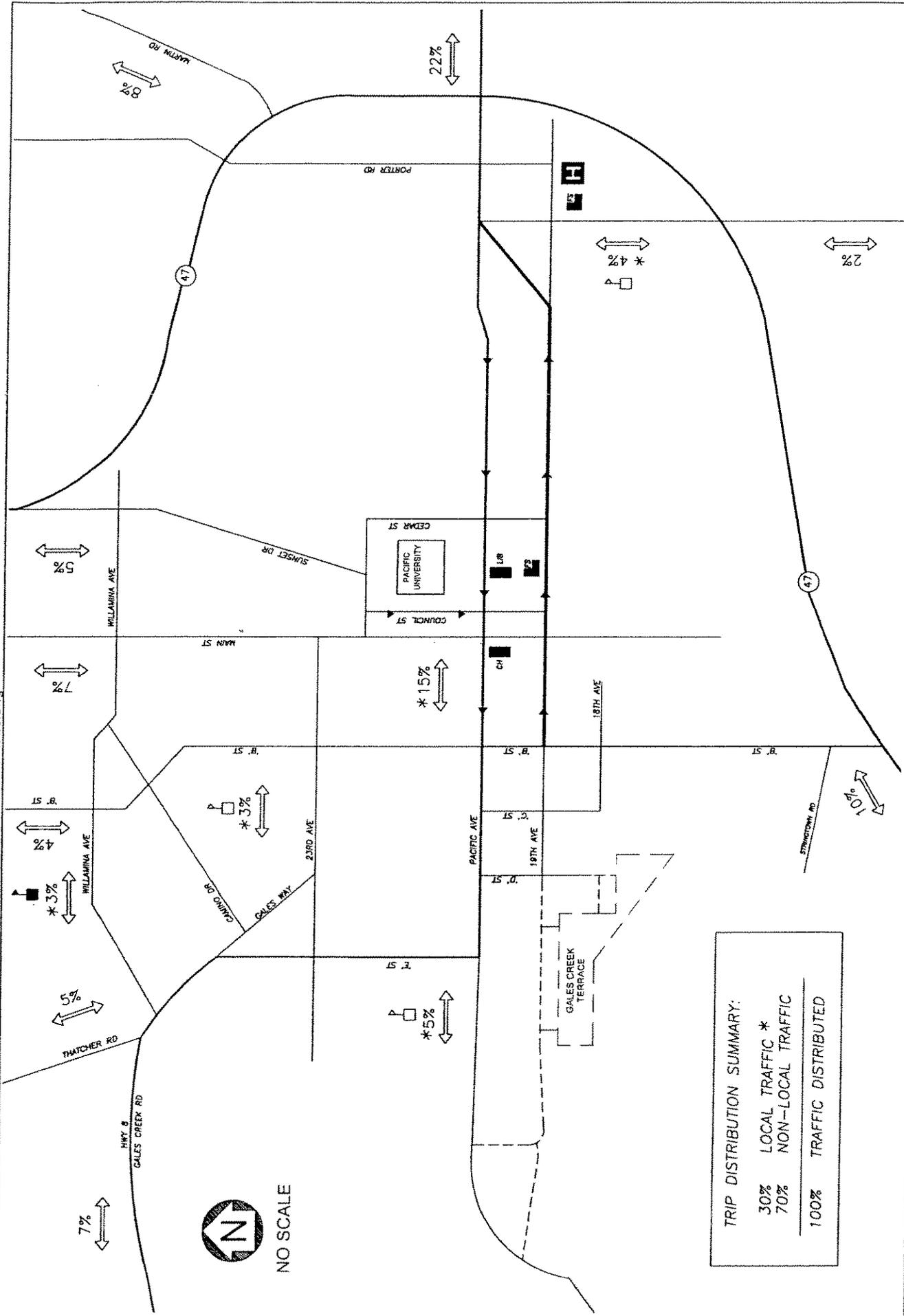
**2010 BACKGROUND TRAFFIC
GALES CREEK TERRACE**

FIGURE

2

PLOT DATE: 08/03/07

FILE: 0723flow3.dwg



NO SCALE

TRIP DISTRIBUTION SUMMARY:

- 30% LOCAL TRAFFIC *
- 70% NON-LOCAL TRAFFIC
- 100% TRAFFIC DISTRIBUTED

CHARBONNEAU ENGINEERING LLC

PROJECT 23

NOTES: Trip distribution based on Forest Grove TSP and engineering judgement, and DKS Associates input.

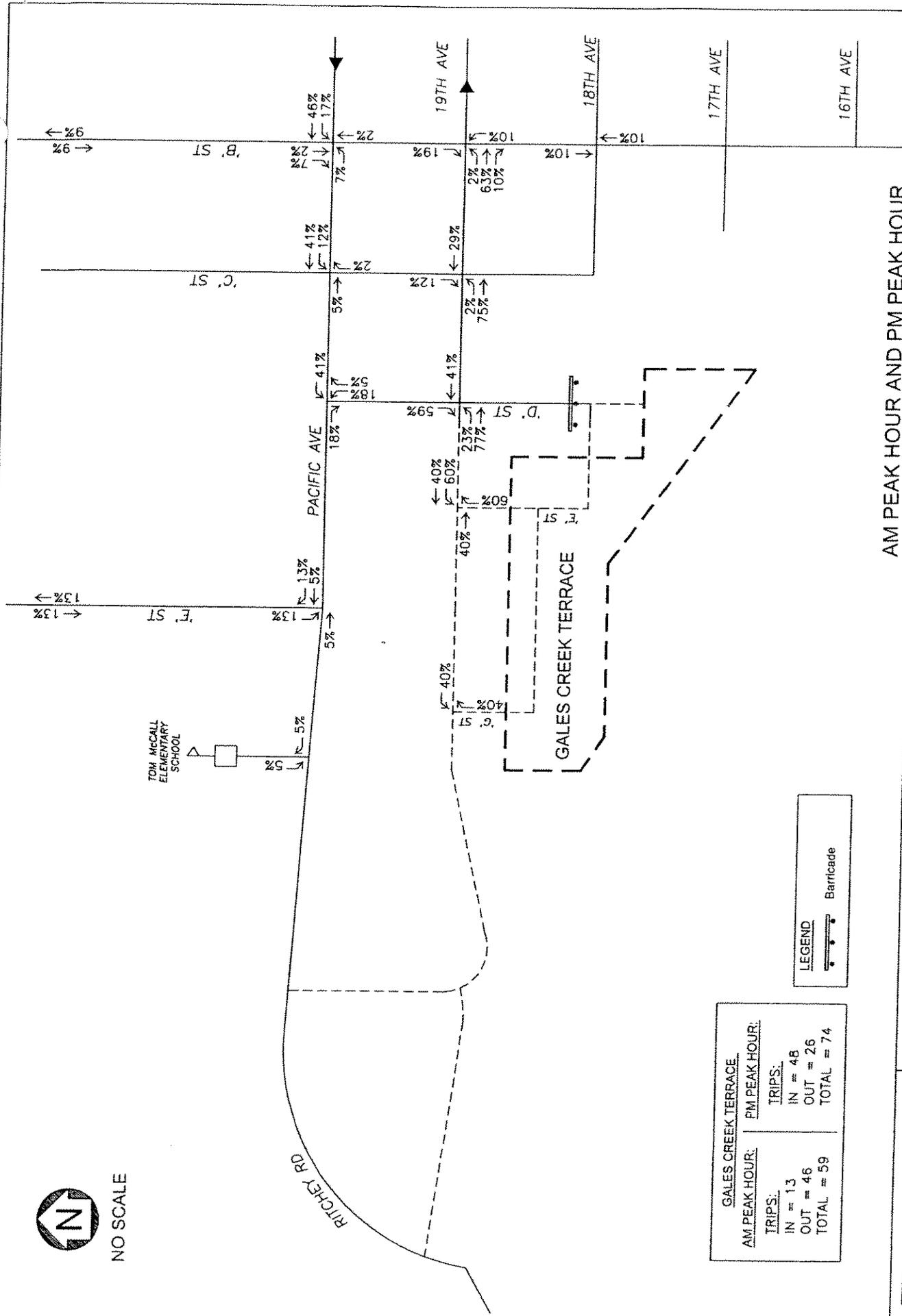
**TRIP DISTRIBUTION
GALES CREEK TERRACE**



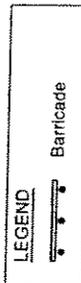
NO SCALE

TOM MCCALL
ELEMENTARY
SCHOOL

RITCHIE RD



GALES CREEK TERRACE	
AM PEAK HOUR:	PM PEAK HOUR:
TRIPS:	TRIPS:
IN = 13	IN = 48
OUT = 46	OUT = 26
TOTAL = 59	TOTAL = 74



AM PEAK HOUR AND PM PEAK HOUR

TRIP DISTRIBUTION - GALES CREEK TERRACE
'D' STREET BARRICADED
GALES CREEK TERRACE

Notes: Trip generation based on Single Family (ITE# 210) and Townhouse (ITE #230) trip rates.

CHARBONNEAU ENGINEERING LLC
PROJECT: 07-23

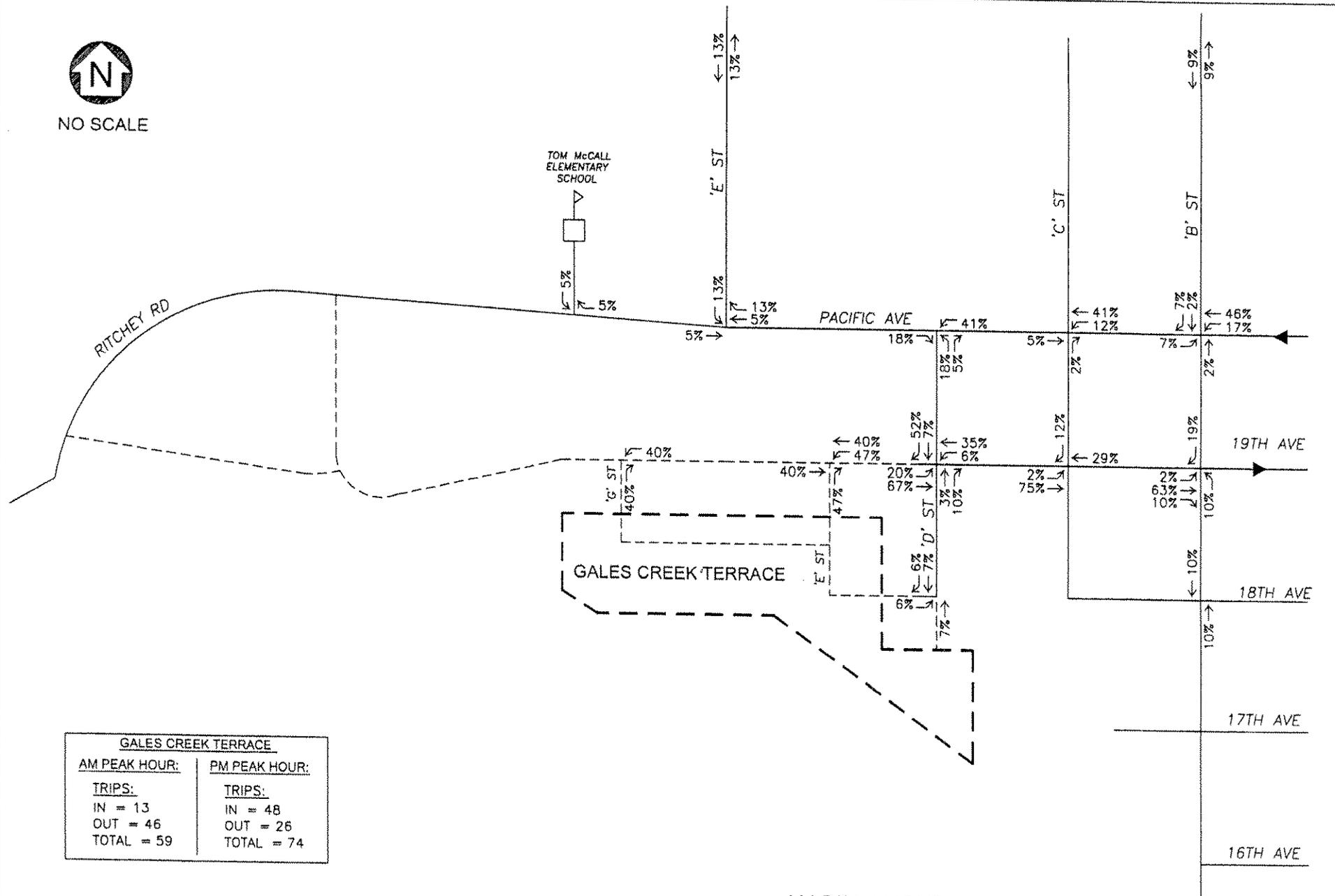


NO SCALE

TOM McCALL
ELEMENTARY
SCHOOL



5% ←
5% →



GALES CREEK TERRACE	
AM PEAK HOUR:	PM PEAK HOUR:
TRIPS:	TRIPS:
IN = 13	IN = 48
OUT = 46	OUT = 26
TOTAL = 59	TOTAL = 74

AM PEAK HOUR AND PM PEAK HOUR

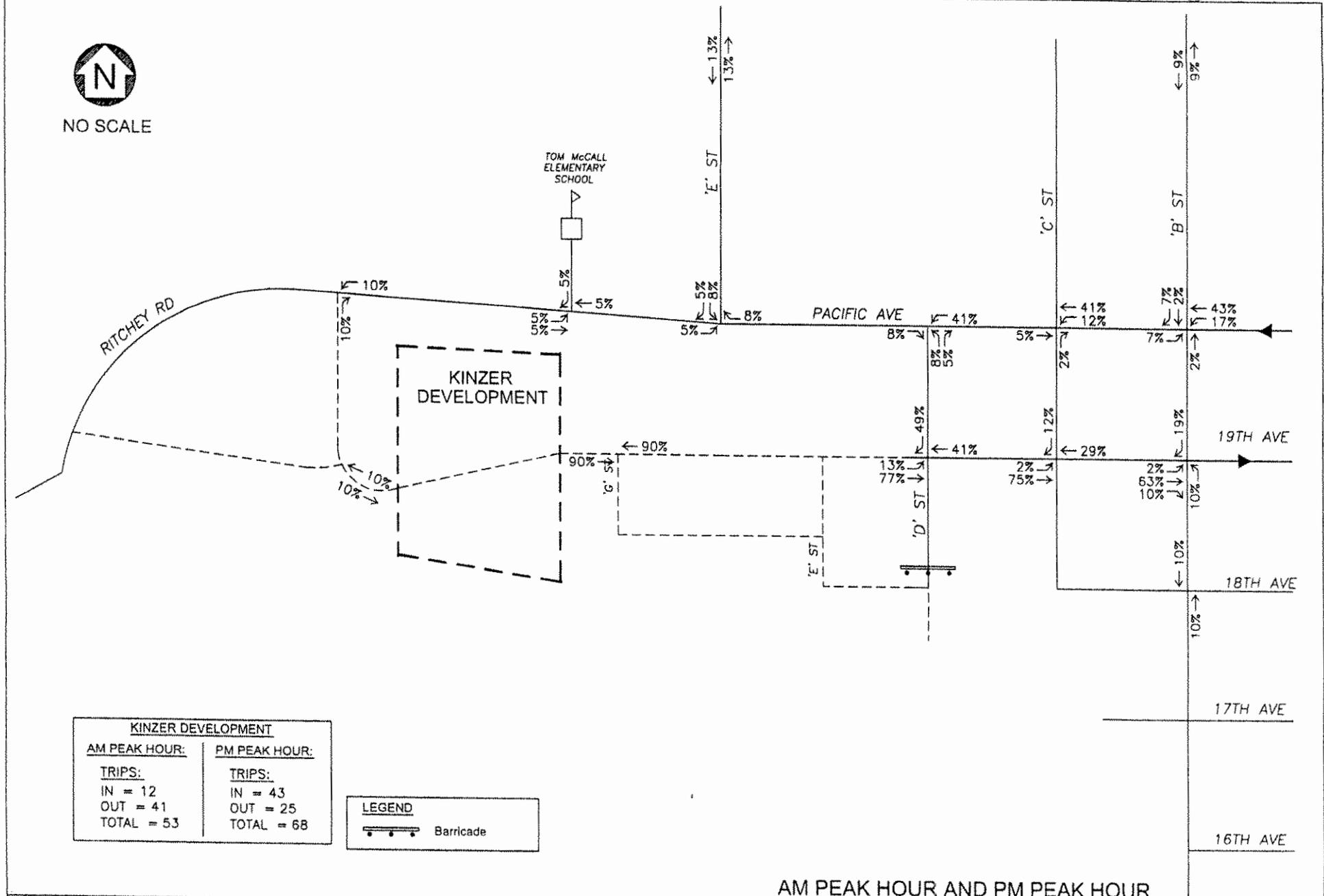
TRIP DISTRIBUTION - GALES CREEK TERRACE
NO BARRICADE ON 'D' STREET
GALES CREEK TERRACE

FIGURE

5



NO SCALE



KINZER DEVELOPMENT	
AM PEAK HOUR:	PM PEAK HOUR:
TRIPS:	TRIPS:
IN = 12	IN = 43
OUT = 41	OUT = 25
TOTAL = 53	TOTAL = 68

LEGEND

Barricade

AM PEAK HOUR AND PM PEAK HOUR

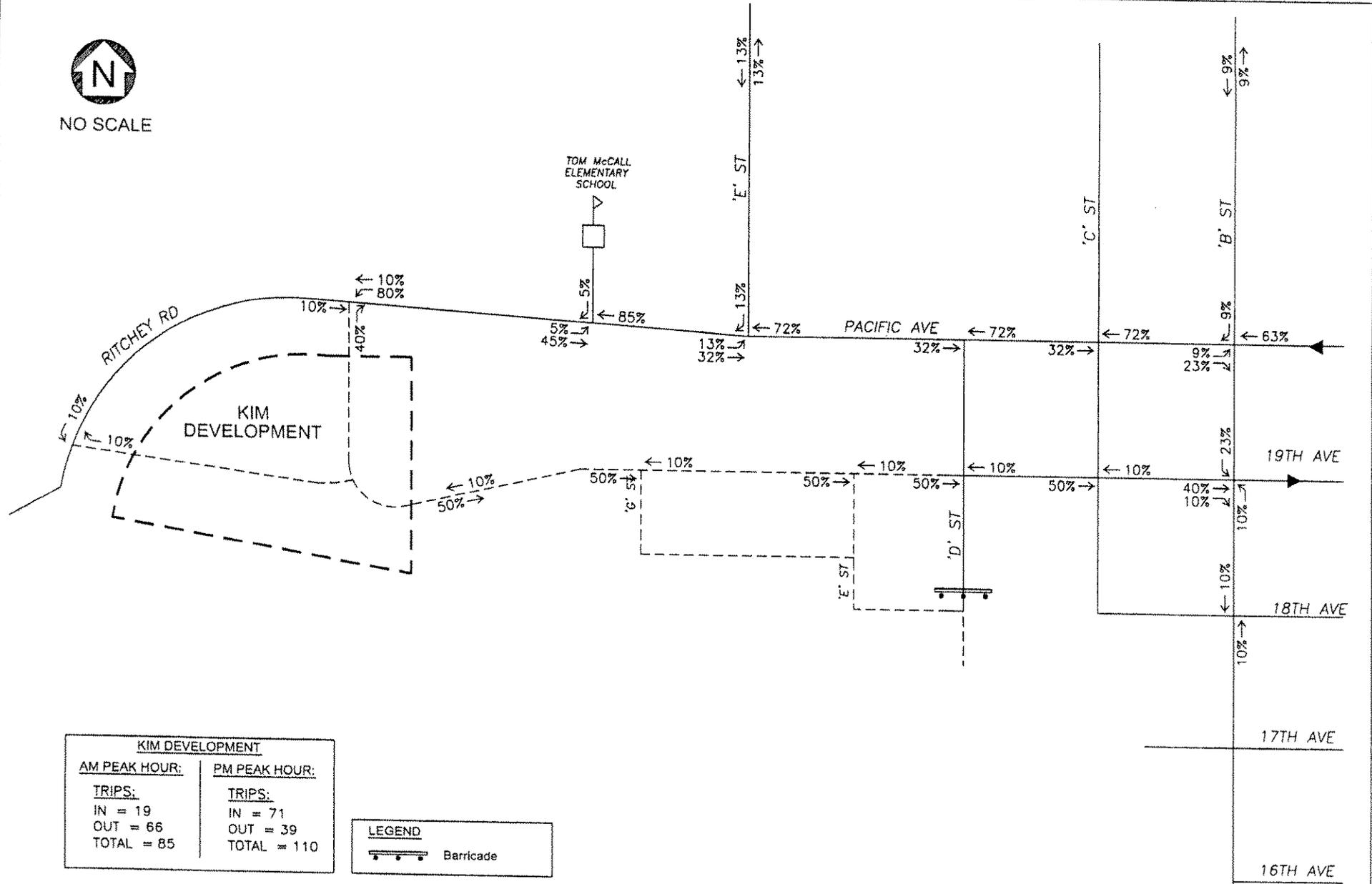
TRIP DISTRIBUTION - KINZER DEVELOPMENT
'D' STREET BARRICADED
GALES CREEK TERRACE

FIGURE

6



NO SCALE



KIM DEVELOPMENT	
AM PEAK HOUR:	PM PEAK HOUR:
TRIPS:	TRIPS:
IN = 19	IN = 71
OUT = 66	OUT = 39
TOTAL = 85	TOTAL = 110

LEGEND

Barricade

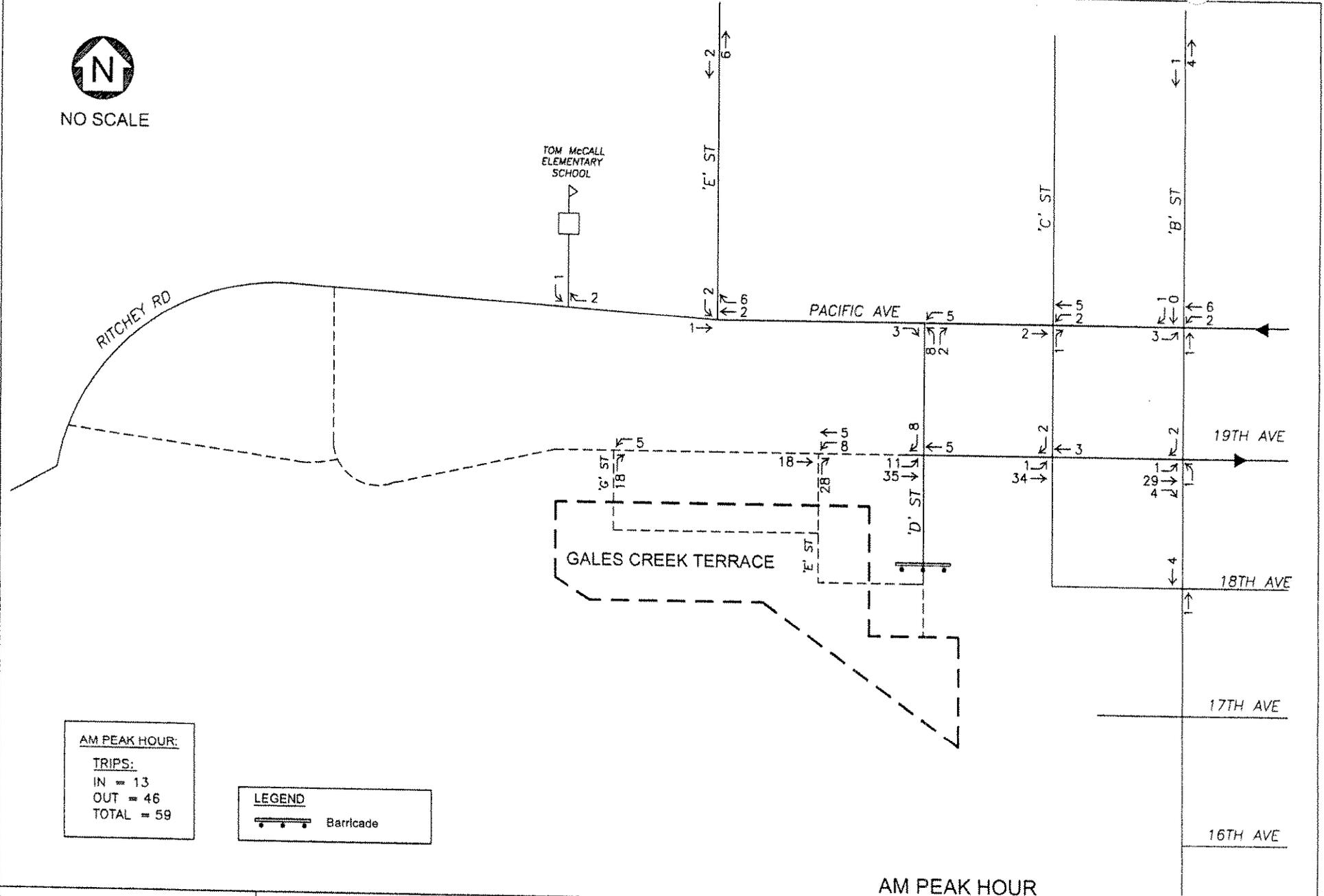
AM PEAK HOUR AND PM PEAK HOUR

TRIP DISTRIBUTION - KIM DEVELOPMENT
'D' STREET BARRICADED
GALES CREEK TERRACE



NO SCALE

TOM McCALL
ELEMENTARY
SCHOOL



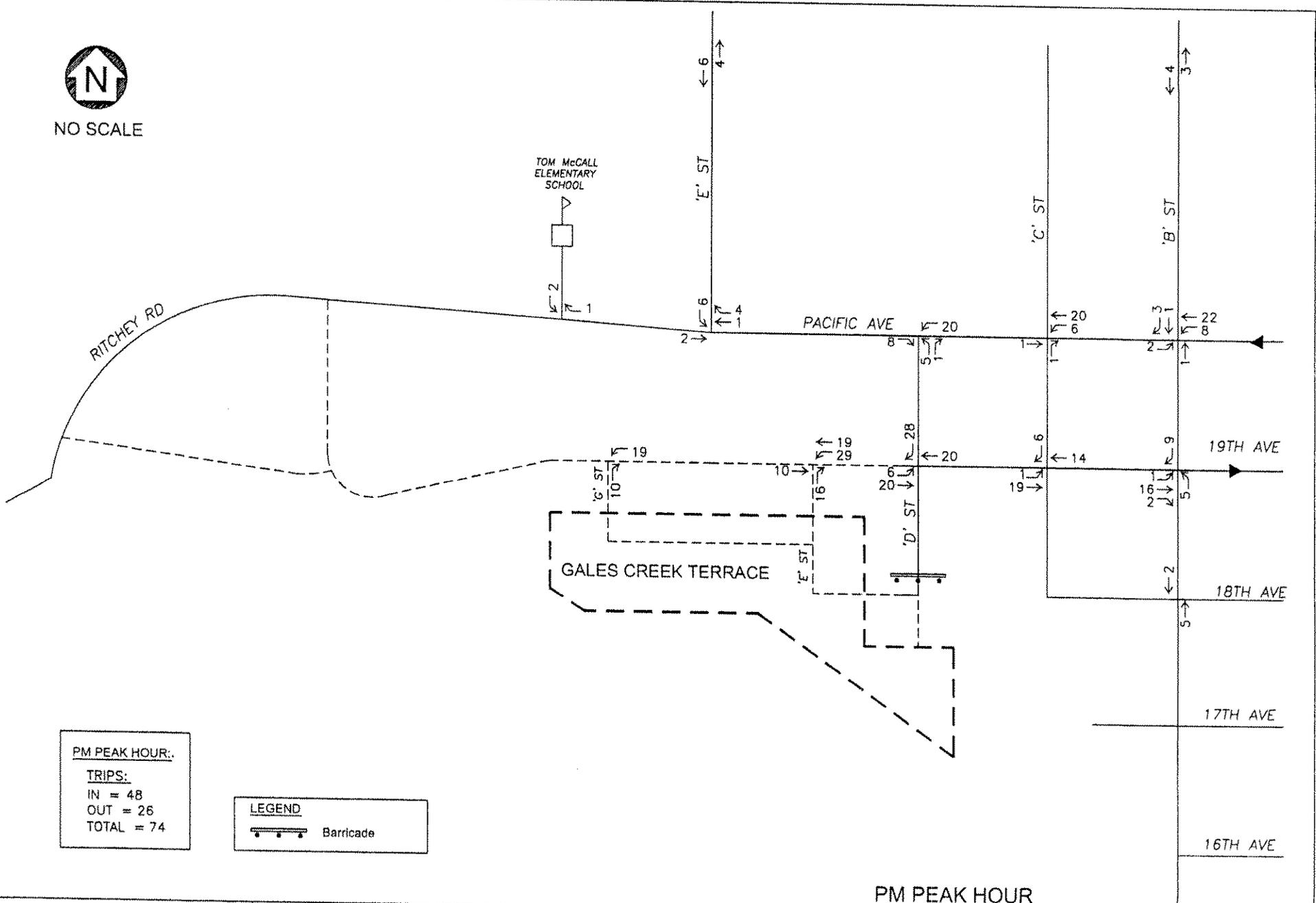
AM PEAK HOUR:
 TRIPS:
 IN = 13
 OUT = 46
 TOTAL = 59

LEGEND
 Barricade

AM PEAK HOUR



NO SCALE



PM PEAK HOUR:

TRIPS:
 IN = 48
 OUT = 26
 TOTAL = 74

LEGEND



Barricade

PM PEAK HOUR



NO SCALE

TOM McCALL
ELEMENTARY
SCHOOL

RITCHIE RD

PACIFIC AVE

GALES CREEK TERRACE

E. ST

C. ST

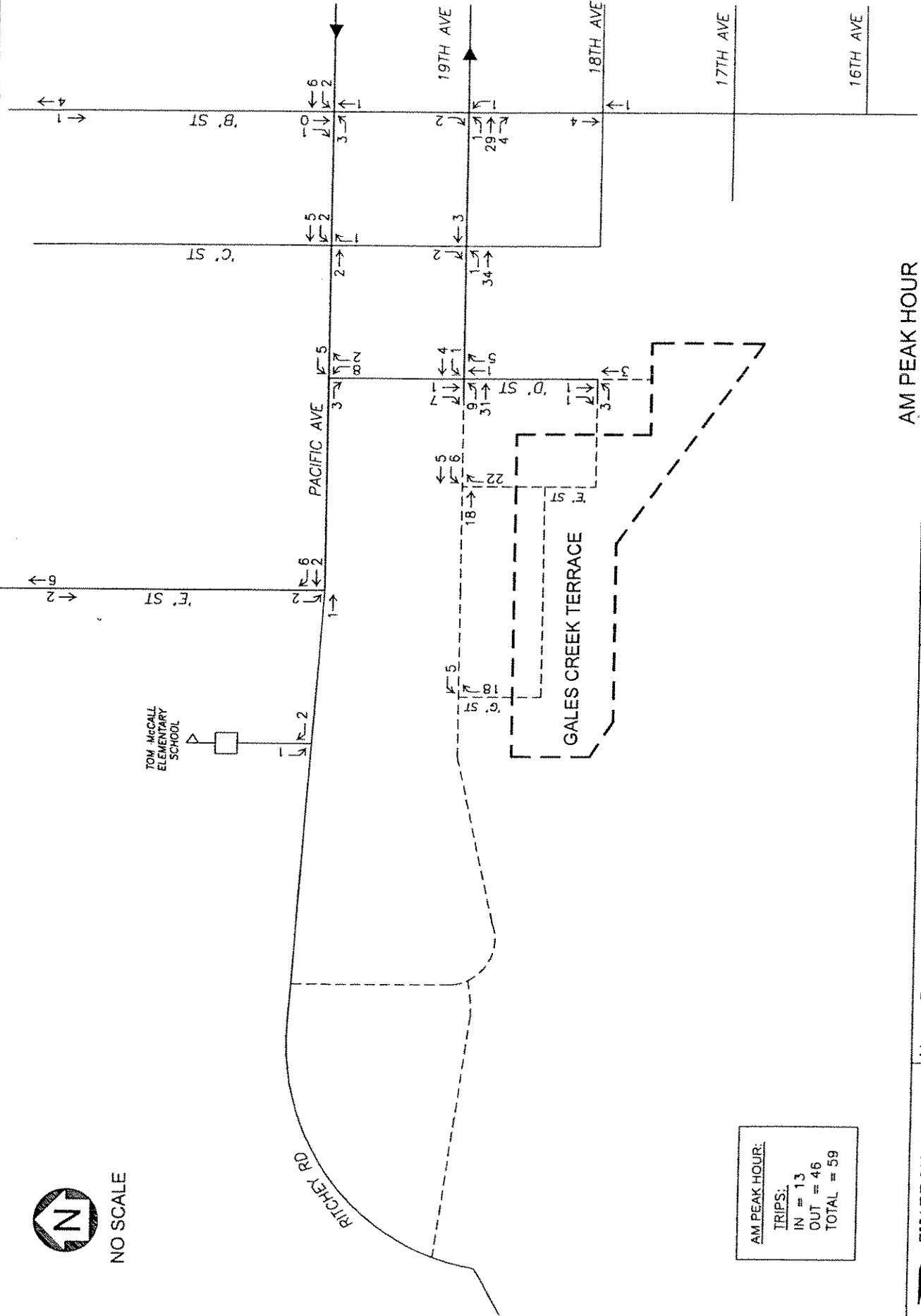
B. ST

19TH AVE

18TH AVE

17TH AVE

16TH AVE



AM PEAK HOUR:
 TRIPS:
 IN = 13
 OUT = 46
 TOTAL = 59

AM PEAK HOUR

CHARBONNEAU
ENGINEERING LLC

PROJECT: 07-23

Notes: Trip generation based on Single Family (ITE# 210) and Townhouse (ITE #230) trip rates.

TRIP ASSIGNMENT - GALES CREEK TERRACE
NO BARRICADE ON D STREET
GALES CREEK TERRACE

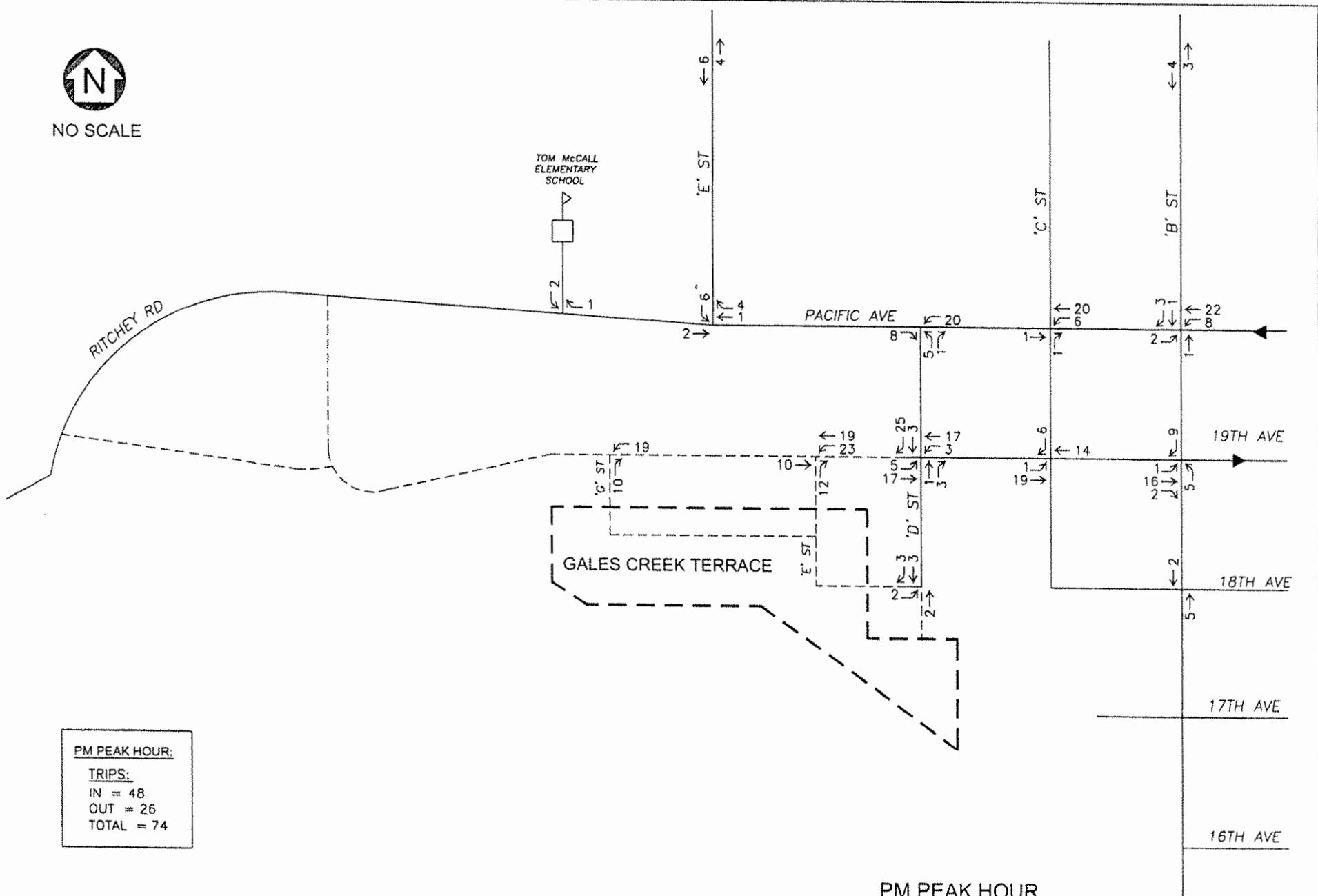
FIGURE

9a



NO SCALE

TOM McCALL
ELEMENTARY
SCHOOL



PM PEAK HOUR:

TRIPS:

IN = 48
OUT = 26
TOTAL = 74

PM PEAK HOUR



**CHARBONNEAU
ENGINEERING LLC**

PROJECT: 3

Notes: Trip generation based on Single Family (ITE# 210) and Townhouse (ITE #230) trip rates.

**TRIP ASSIGNMENT - GALES CREEK TERRACE
NO BARRICADE ON 'D' STREET
GALES CREEK TERRACE**

FIGURE

9b



NO SCALE

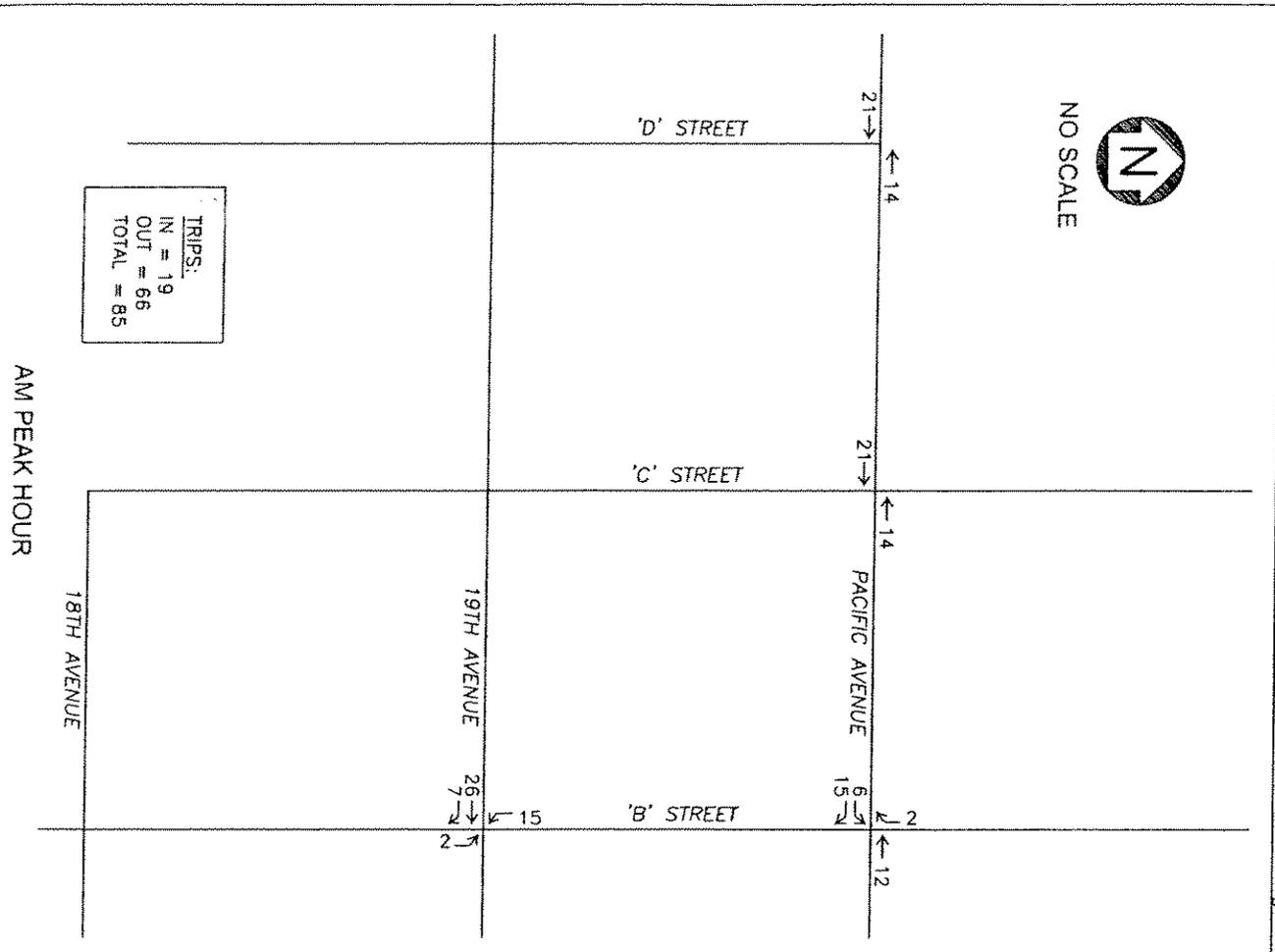


TRIPS:
 IN = 43
 OUT = 25
 TOTAL = 68

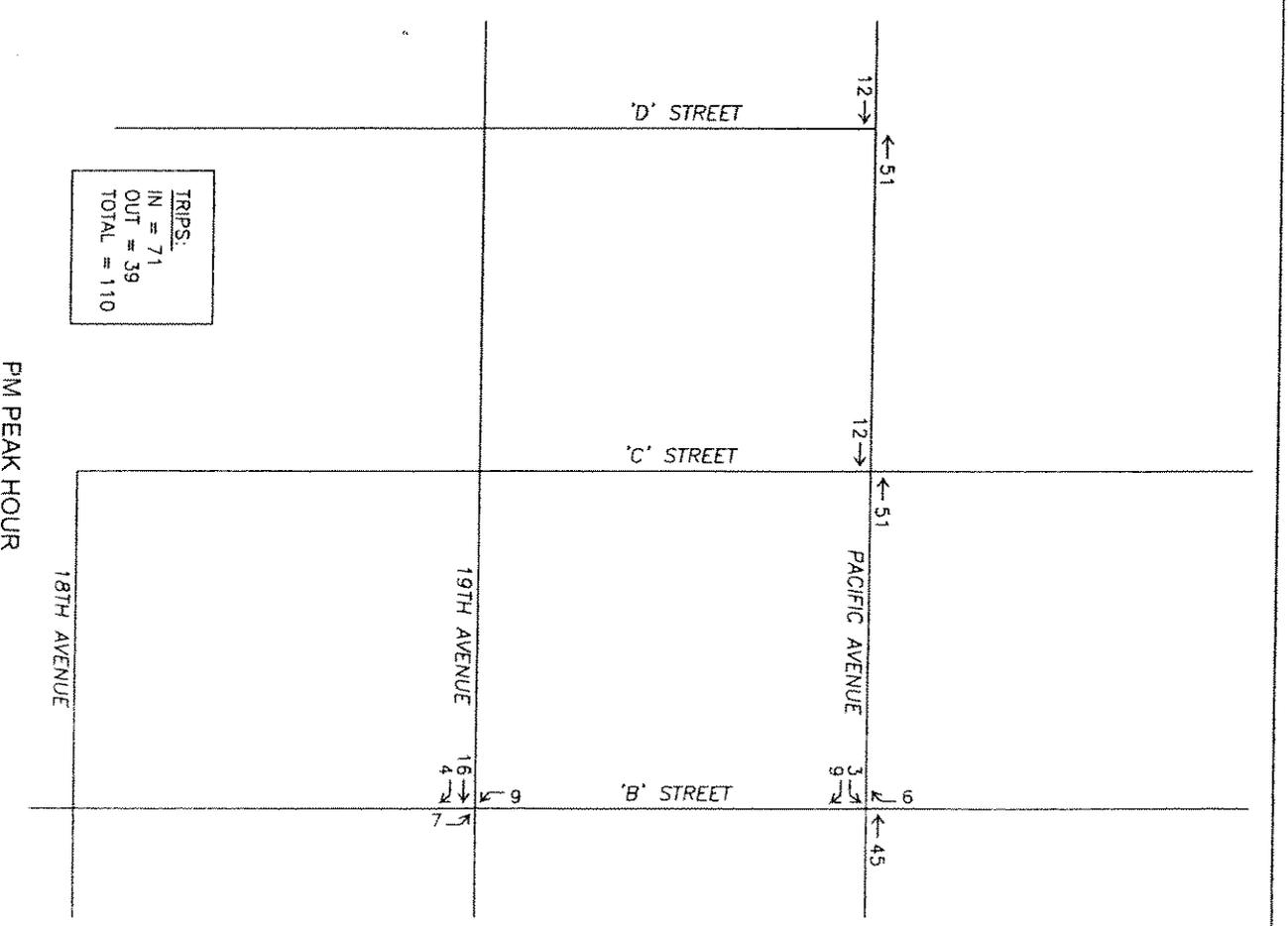
TRIPS:
 IN = 12
 OUT = 41
 TOTAL = 53



NO SCALE



TRIPS:
IN = 19
OUT = 66
TOTAL = 85



TRIPS:
IN = 71
OUT = 39
TOTAL = 110

CHARBONNEAU ENGINEERING LLC
PROJECT 03

NOTES:

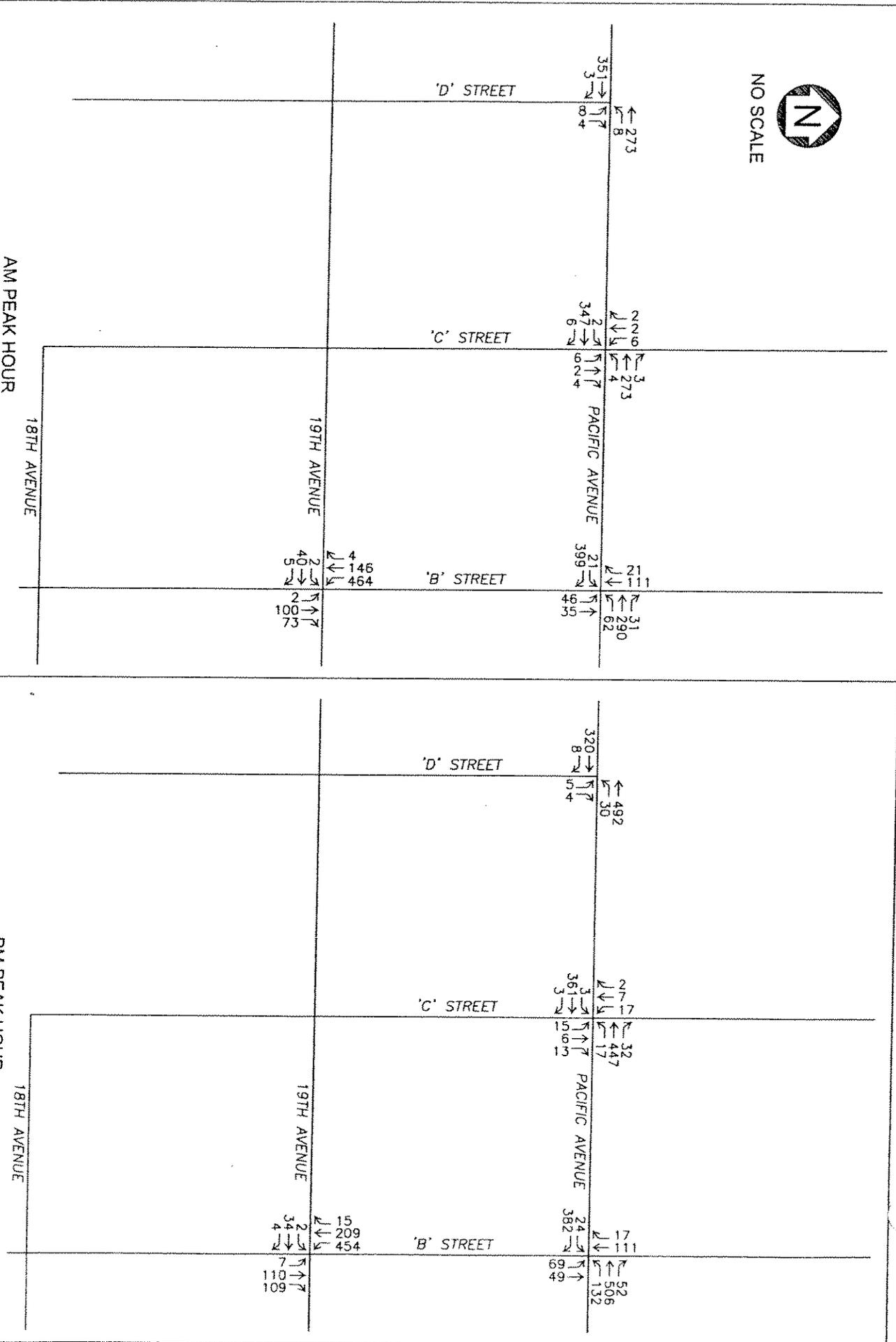
TRIP ASSIGNMENT - KIM DEVELOPMENT
GALES CREEK TERRACE

FIGURE

11



NO SCALE



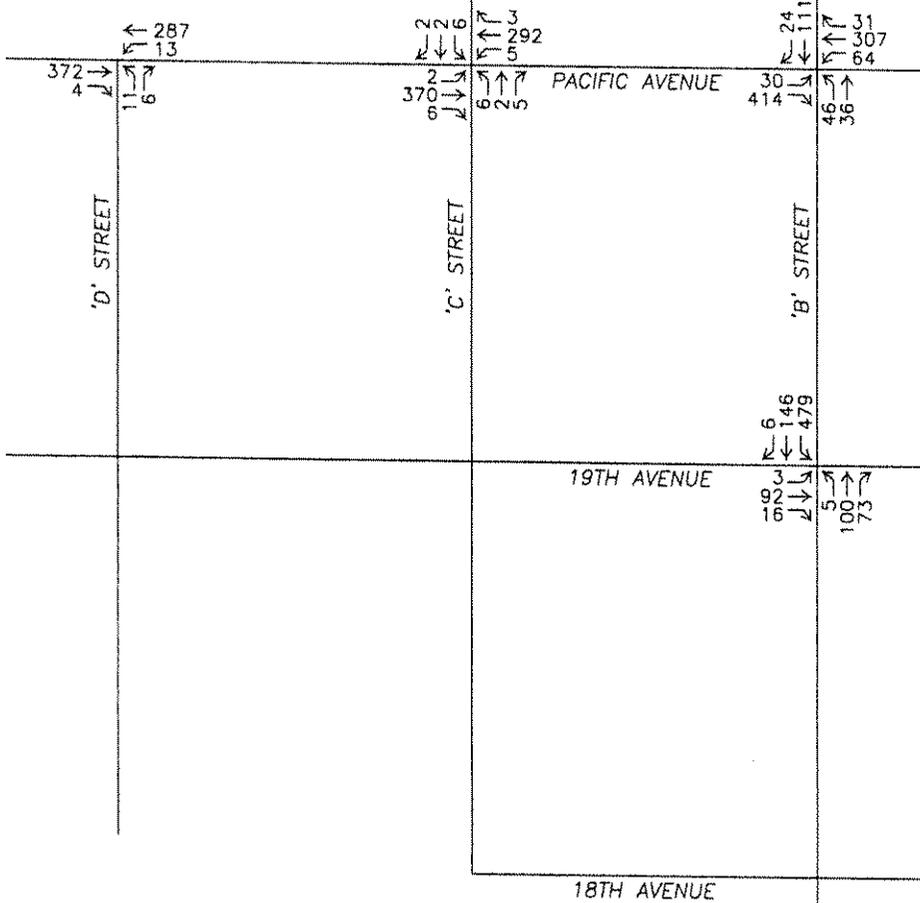
CHARBONNEAU ENGINEERING LLC
PROJECT: 07-23

NOTES: 2010 Total Traffic - 'D' Street Barricaded = 2010 Background Traffic + Gales Craek Terrace Trip Assignment.

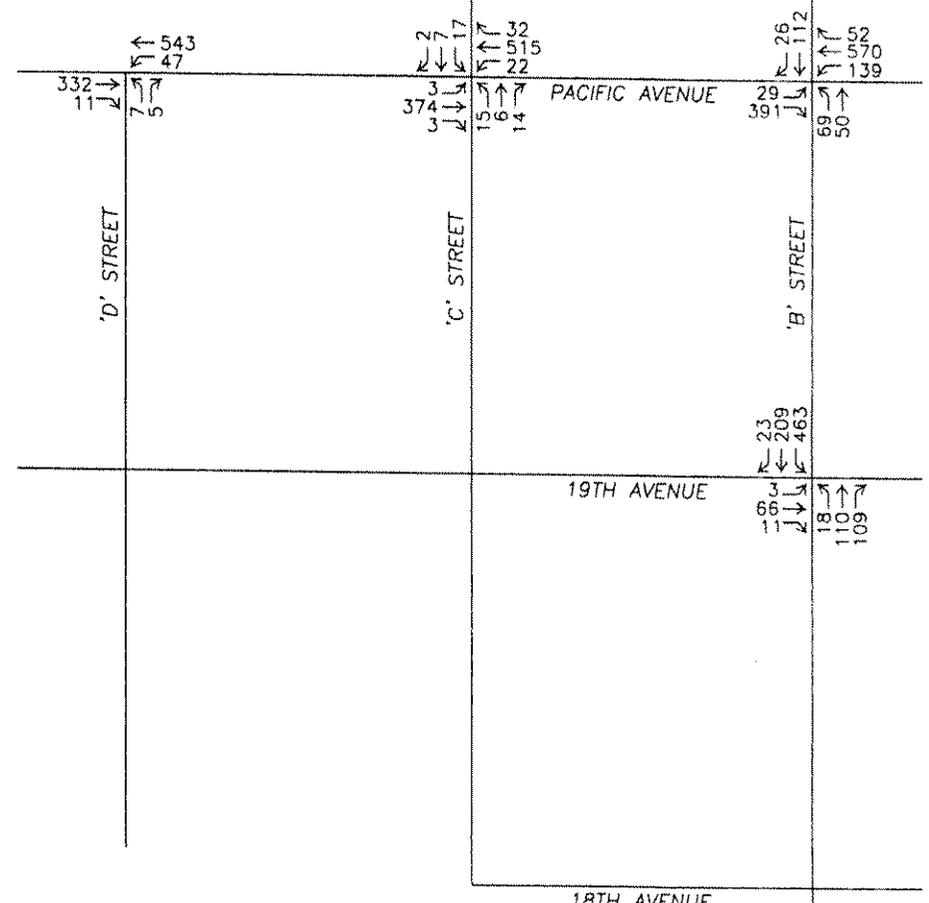
2010 TOTAL TRAFFIC - GALES CREEK TERRACE WITH/WITHOUT 'D' STREET BARRICADED GALES CREEK TERRACE



NO SCALE



AM PEAK HOUR

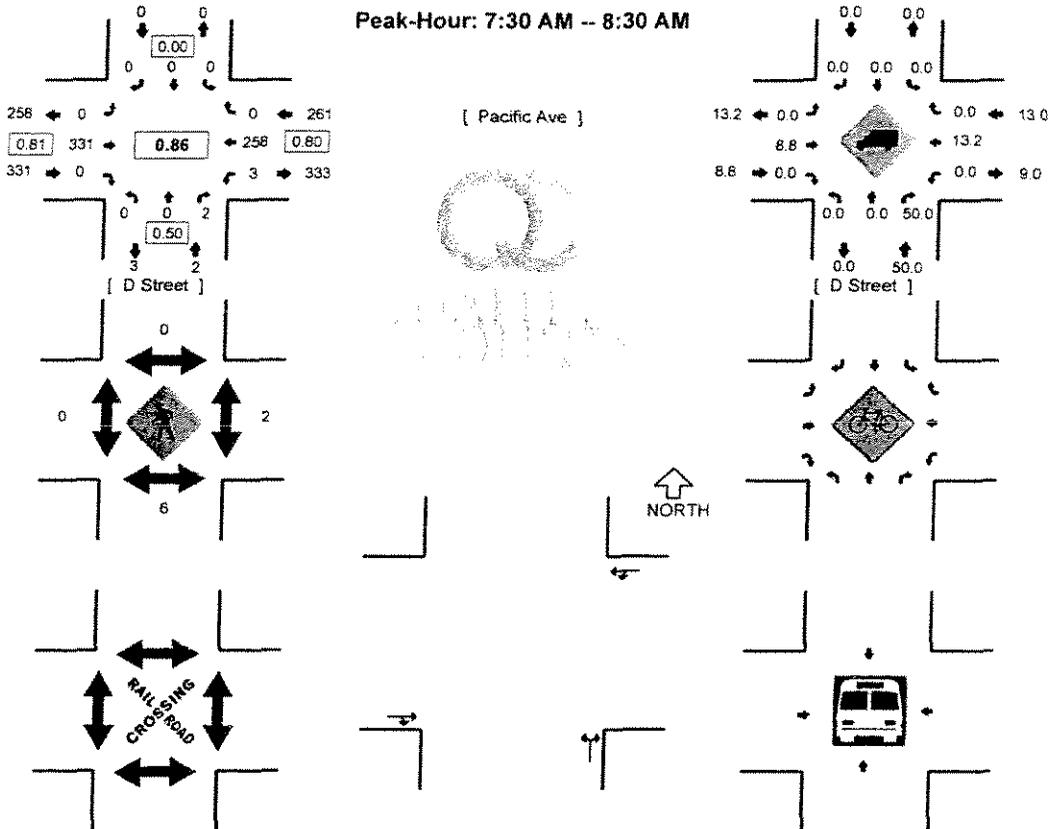


PM PEAK HOUR

INTERSECTION: D Street-Pacific Ave
 WEATHER:

QC JOB #: 10271501
 DATE: 7/26/2007

Peak-Hour: 7:30 AM -- 8:30 AM



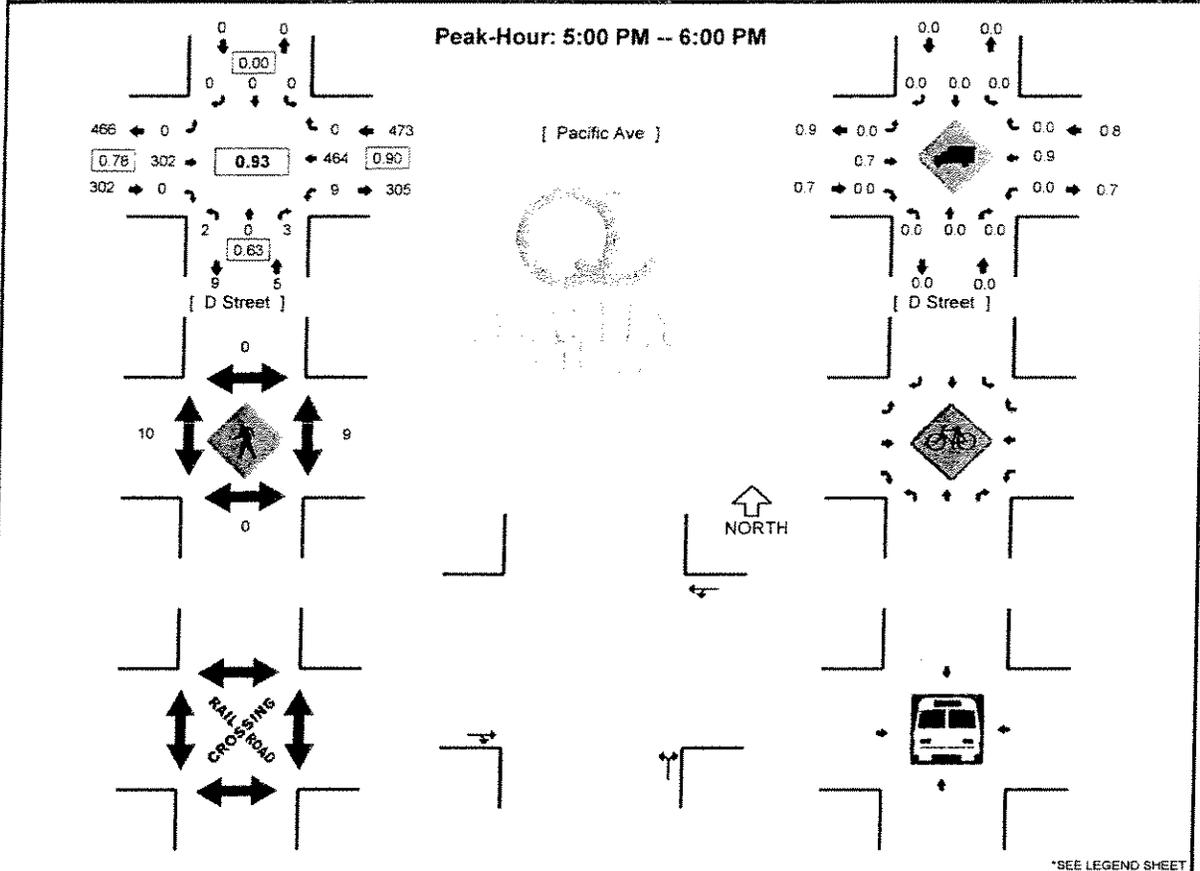
*SEE LEGEND SHEET

5-MIN COUNT PERIOD BEGINNING AT	D Street (Northbound)			D Street (Southbound)			Pacific Ave (Eastbound)			Pacific Ave (Westbound)			TOTAL	HOURLY TOTALS
	Left	Thru	Right U	Left	Thru	Right U	Left	Thru	Right U	Left	Thru	Right U		
7:00 AM	0	0	1	0	0	0	0	18	0	0	15	0	34	
7:05 AM	0	0	0	0	0	0	0	14	0	0	13	0	27	
7:10 AM	0	0	0	0	0	0	0	21	0	0	11	0	32	
7:15 AM	0	0	0	0	0	0	0	27	0	0	18	0	45	
7:20 AM	0	0	0	0	0	0	0	25	0	0	19	0	44	
7:25 AM	0	0	0	0	0	0	0	13	0	1	11	0	25	
7:30 AM	0	0	1	0	0	0	0	32	0	1	15	0	49	
7:35 AM	0	0	0	0	0	0	0	21	0	0	24	0	45	
7:40 AM	0	0	0	0	0	0	0	39	0	0	24	0	63	
7:45 AM	0	0	0	0	0	0	0	26	0	0	23	0	49	
7:50 AM	0	0	0	0	0	0	0	37	0	1	22	0	60	
7:55 AM	0	0	0	0	0	0	0	32	0	0	27	0	59	532
8:00 AM	0	0	0	0	0	0	0	21	0	0	28	0	49	547
8:05 AM	0	0	0	0	0	0	0	20	0	0	29	0	49	569
8:10 AM	0	0	0	0	0	0	0	26	0	1	11	0	38	575
8:15 AM	0	0	0	0	0	0	0	21	0	0	19	0	40	570
8:20 AM	0	0	0	0	0	0	0	31	0	0	23	0	54	580
8:25 AM	0	0	1	0	0	0	0	25	0	0	13	0	39	594
8:30 AM	0	0	0	0	0	0	0	22	0	1	24	0	47	592
8:35 AM	0	0	0	0	0	0	0	29	0	0	14	0	43	590
8:40 AM	0	0	0	0	0	0	0	23	0	0	12	0	35	562
8:45 AM	0	0	0	0	0	0	0	18	0	0	20	0	38	551
8:50 AM	0	0	0	0	0	0	0	30	0	1	16	0	47	538
8:55 AM	0	0	0	0	0	0	0	21	0	0	13	0	34	513
PEAK 15-MIN FLOW RATES	Northbound			Southbound			Eastbound			Westbound			TOTAL	
	Left	Thru	Right U	Left	Thru	Right U	Left	Thru	Right U	Left	Thru	Right U		
All Vehicles	0	0	0	0	0	0	0	408	0	4	276	0	688	
Heavy Trucks	0	0	0	0	0	0	0	32	0	0	60	0	92	
Pedestrians	8			0			0			8			16	
Bicycles														
Railroad														
Stopped Buses														

Counter Comments:

INTERSECTION: D Street-Pacific Ave
 WEATHER:

QC JOB #: 10271503
 DATE: 7/26/2007



*SEE LEGEND SHEET

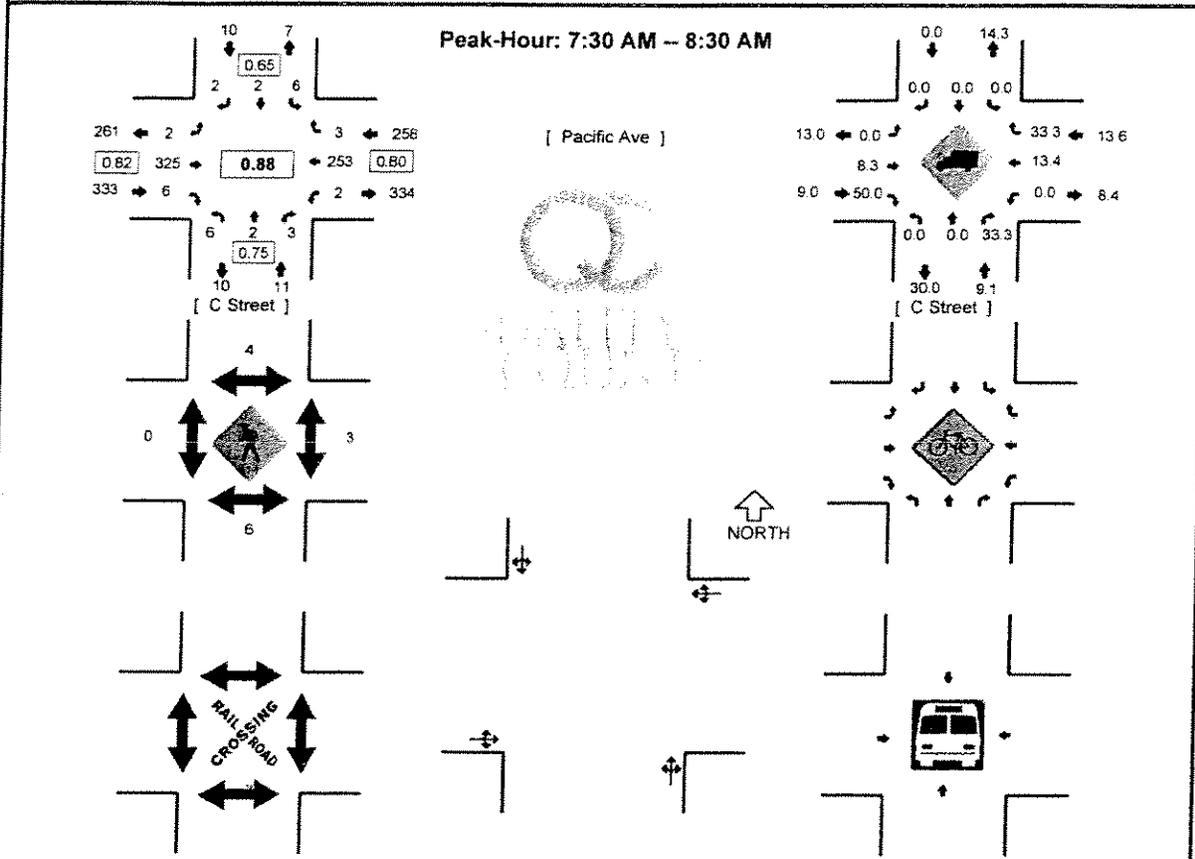
5-MIN COUNT PERIOD BEGINNING AT	D Street (Northbound)				D Street (Southbound)				Pacific Ave (Eastbound)			Pacific Ave (Westbound)			TOTAL	HOURLY TOTALS		
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru			Right	U
4:00 PM	1	0	0		0	0	0		0	38	0		1	35	0		75	
4:05 PM	0	0	0		0	0	0		0	39	0		0	39	0		78	
4:10 PM	0	0	0		0	0	0		0	32	2		1	33	0		68	
4:15 PM	0	0	1		0	0	0		0	36	0		2	33	0		72	
4:20 PM	0	0	1		0	0	0		0	27	0		0	31	0		59	
4:25 PM	0	0	0		0	0	0		0	32	0		0	33	0		65	
4:30 PM	0	0	0		0	0	0		0	32	0		0	34	0		66	
4:35 PM	0	0	0		0	0	0		0	16	0		0	29	0		45	
4:40 PM	0	0	1		0	0	0		0	23	0		0	39	0		63	
4:45 PM	0	0	0		0	0	0		0	26	0		1	42	0		69	
4:50 PM	0	0	0		0	0	0		0	17	0		0	30	0		47	
4:55 PM	0	0	0		0	0	0		0	28	0		0	36	0		64	771
5:00 PM	0	0	1		0	0	0		0	22	0		1	47	0		71	767
5:05 PM	0	0	0		0	0	0		0	29	0		1	37	0		67	756
5:10 PM	0	0	0		0	0	0		0	24	0		0	28	0		52	740
5:15 PM	0	0	0		0	0	0		0	29	0		2	38	0		69	737
5:20 PM	0	0	0		0	0	0		0	25	0		1	34	0		60	738
5:25 PM	0	0	0		0	0	0		0	38	0		0	40	0		78	751
5:30 PM	1	0	0		0	0	0		0	23	0		0	33	0		57	742
5:35 PM	0	0	1		0	0	0		0	16	0		1	31	0		49	746
5:40 PM	0	0	0		0	0	0		0	24	0		0	50	0		74	757
5:45 PM	0	0	1		0	0	0		0	25	0		1	34	0		61	749
5:50 PM	1	0	0		0	0	0		0	28	0		1	45	0		75	777
5:55 PM	0	0	0		0	0	0		0	19	0		1	47	0		67	780

PEAK 15-MIN FLOW RATES	Northbound				Southbound				Eastbound			Westbound			TOTAL		
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru		Right	U
All Vehicles	4	0	4		0	0	0		0	308	0		8	516	0		840
Heavy Trucks	0	0	0		0	0	0		0	4	0		0	8	0		12
Pedestrians	0				0				20				20				40
Bicycles																	
Railroad																	
Stopped Buses																	

Counter Comments:

INTERSECTION: C Street-Pacific Ave
WEATHER:

QC JOB #: 10271502
DATE: 7/26/2007



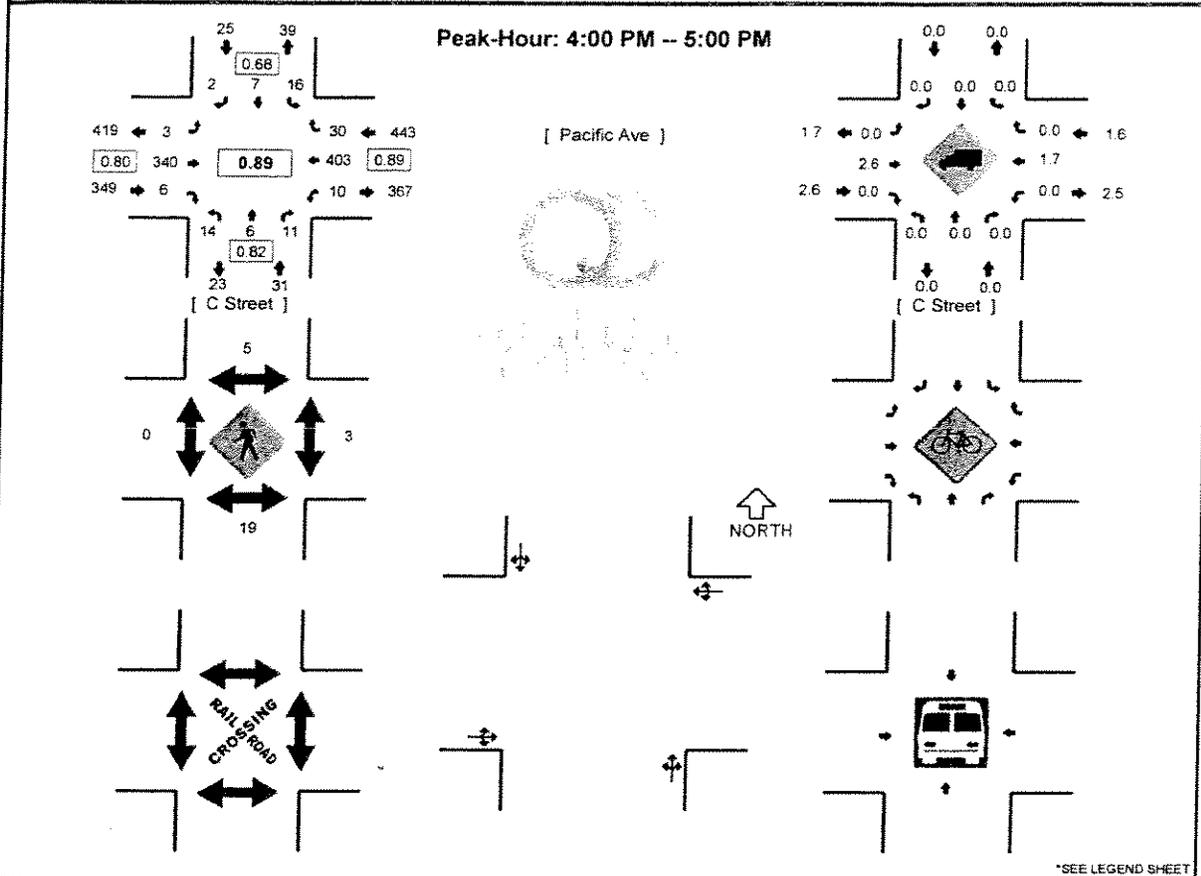
*SEE LEGEND SHEET

5-MIN COUNT PERIOD BEGINNING AT	C Street (Northbound)			C Street (Southbound)			Pacific Ave (Eastbound)			Pacific Ave (Westbound)			TOTAL	HOURLY TOTALS
	Left	Thru	Right U	Left	Thru	Right U	Left	Thru	Right U	Left	Thru	Right U		
7:00 AM	1	0	1	3	0	0	0	18	1	1	14	0	39	
7:05 AM	0	0	0	1	0	0	0	14	0	1	13	0	29	
7:10 AM	0	0	0	0	0	0	0	19	2	0	11	0	32	
7:15 AM	1	0	0	0	0	0	0	25	2	1	17	0	46	
7:20 AM	0	0	0	1	1	0	0	25	0	0	19	0	46	
7:25 AM	0	0	0	1	0	0	0	13	0	0	11	0	25	
7:30 AM	1	0	1	1	1	0	1	31	1	0	15	0	52	
7:35 AM	0	0	0	1	0	0	0	21	0	0	24	0	46	
7:40 AM	0	0	0	0	0	0	0	39	0	0	24	0	63	
7:45 AM	0	0	0	1	0	0	0	25	1	0	23	0	50	
7:50 AM	0	0	0	0	1	1	0	36	1	0	22	0	61	
7:55 AM	1	0	0	0	0	0	0	32	0	0	26	0	59	548
8:00 AM	1	1	0	1	0	0	0	21	0	0	27	1	52	561
8:05 AM	0	0	2	0	0	0	0	20	0	0	29	0	51	583
8:10 AM	0	0	0	0	0	0	0	24	2	0	12	1	39	590
8:15 AM	1	0	0	0	0	0	0	21	0	1	18	0	41	585
8:20 AM	2	0	0	2	0	0	0	31	0	1	21	1	58	597
8:25 AM	0	1	0	0	0	1	1	24	1	0	12	0	40	612
8:30 AM	2	0	0	1	0	0	0	22	0	0	23	0	48	608
8:35 AM	2	0	0	1	0	0	0	29	0	0	12	0	44	606
8:40 AM	0	0	0	0	0	0	0	23	0	0	12	0	35	578
8:45 AM	0	0	0	0	0	1	0	17	1	0	19	0	38	566
8:50 AM	2	0	0	1	0	0	1	29	0	0	15	0	48	553
8:55 AM	0	0	1	3	0	0	0	20	1	0	13	2	40	534
PEAK 15-MIN FLOW RATES	Northbound			Southbound			Eastbound			Westbound			TOTAL	
	Left	Thru	Right U	Left	Thru	Right U	Left	Thru	Right U	Left	Thru	Right U		
All Vehicles	0	0	0	4	4	4	0	400	8	0	276	0	696	
Heavy Trucks	0	0	0	0	0	0	0	28	4	0	60	0	92	
Pedestrians		8			4			0			12	0	24	
Bicycles														
Railroad														
Stopped Buses														

Counter Comments:

INTERSECTION: C Street-Pacific Ave
 WEATHER:

QC JOB #: 10271504
 DATE: 7/26/2007



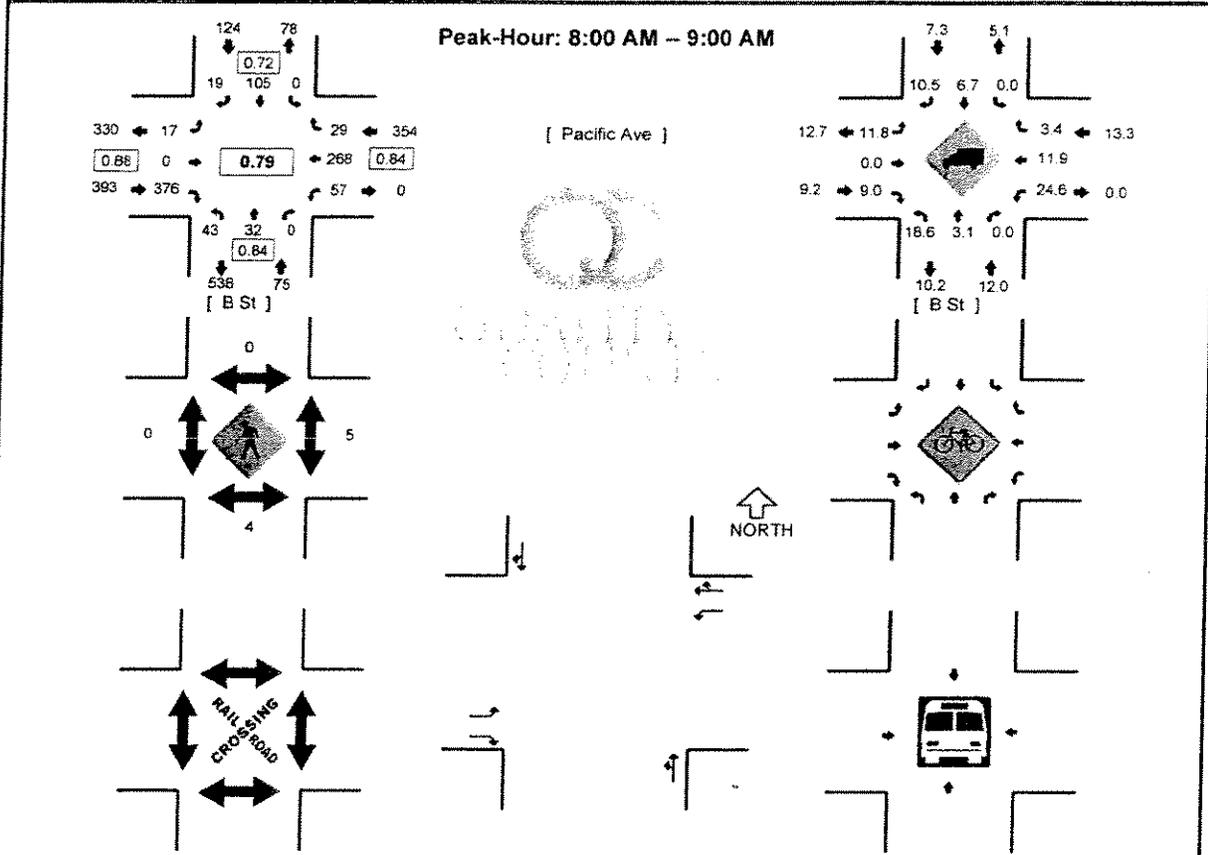
*SEE LEGEND SHEET

5-MIN COUNT PERIOD BEGINNING AT	C Street (Northbound)				C Street (Southbound)				Pacific Ave (Eastbound)				Pacific Ave (Westbound)				TOTAL	HOURLY TOTALS
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	2	2		0	0	0		0	37	1		1	33	4		63	
4:05 PM	0	0	0		2	1	0		1	38	0		1	39	2		84	
4:10 PM	3	0	2		1	0	0		0	32	0		0	31	1		70	
4:15 PM	0	0	1		3	1	1		0	37	0		0	34	2		79	
4:20 PM	0	1	0		2	1	1		0	28	0		2	30	2		67	
4:25 PM	1	0	2		0	0	0		1	27	4		2	32	2		71	
4:30 PM	1	0	1		3	0	0		0	32	0		0	33	2		72	
4:35 PM	1	2	0		3	0	0		0	16	0		2	28	4		56	
4:40 PM	0	0	0		1	1	0		1	23	0		0	39	3		68	
4:45 PM	2	0	3		1	2	0		0	26	0		2	41	2		79	
4:50 PM	2	1	0		0	1	0		0	17	0		0	28	4		53	
4:55 PM	1	0	0		0	0	0		0	27	1		0	35	2		66	848
5:00 PM	3	1	0		1	0	1		1	22	0		0	44	2		75	840
5:05 PM	4	1	0		0	1	0		0	29	0		0	34	0		69	825
5:10 PM	1	0	0		1	1	1		0	24	0		2	26	1		57	812
5:15 PM	1	1	0		2	0	0		0	28	1		0	39	3		75	808
5:20 PM	1	0	0		0	0	1		1	24	0		0	33	2		62	803
5:25 PM	1	0	1		0	1	1		2	33	3		0	38	2		82	814
5:30 PM	2	0	0		1	0	1		0	23	0		0	30	1		58	800
5:35 PM	1	0	0		2	0	0		0	15	2		1	31	0		52	796
5:40 PM	3	1	0		2	0	0		0	23	1		0	47	1		78	806
5:45 PM	0	1	0		0	2	0		0	26	0		1	35	0		65	792
5:50 PM	2	2	0		1	0	1		0	28	0		0	43	0		77	816
5:55 PM	1	0	3		1	0	0		1	17	1		0	47	5		76	826
PEAK 15-MIN FLOW RATES	Northbound				Southbound				Eastbound				Westbound				TOTAL	
All Vehicles	24	8	16		12	4	0		4	428	4		8	412	28		948	
Heavy Trucks	0	0	0		0	0	0		0	24	0		0	12	0		36	
Pedestrians		20			8				0				8				36	
Bicycles																		
Railroad																		
Stopped Buses																		

Counter Comments:

INTERSECTION: B St--Pacific Ave
 WEATHER:

QC JOB #: 10255102
 DATE: 5/15/2007



*SEE LEGEND SHEET

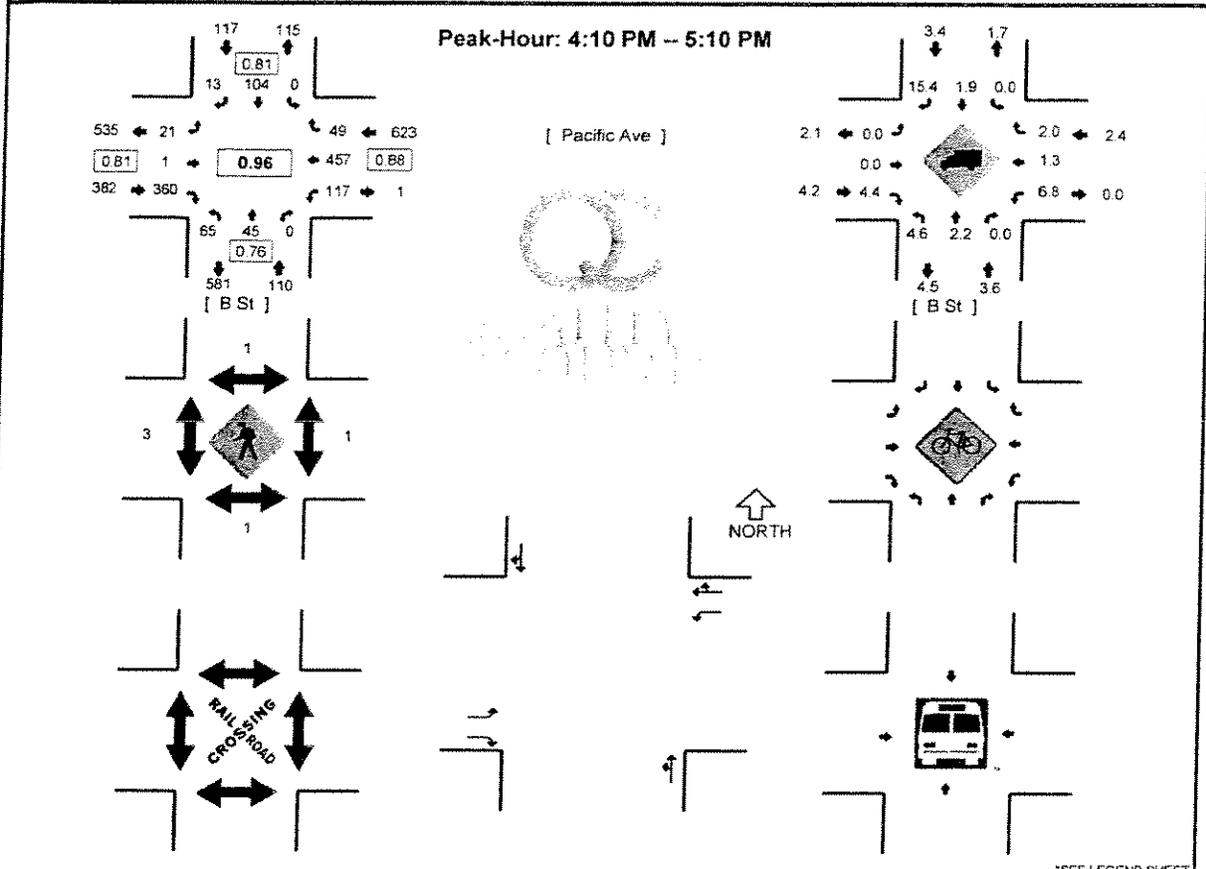
5-MIN COUNT PERIOD BEGINNING AT	B St (Northbound)				B St (Southbound)				Pacific Ave (Eastbound)				Pacific Ave (Westbound)				TOTAL	HOURLY TOTALS
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	4	2	0	0	0	2	0	0	0	0	24	0	5	8	2	0	47	
7:05 AM	3	2	0	0	0	5	0	0	0	0	33	0	4	12	1	0	60	
7:10 AM	1	3	0	0	0	7	1	0	0	0	20	0	5	16	3	0	56	
7:15 AM	3	3	0	0	0	3	0	0	0	0	27	0	6	12	2	0	56	
7:20 AM	4	6	0	0	0	6	0	0	0	0	33	0	4	16	1	0	70	
7:25 AM	5	5	0	0	0	7	1	0	0	0	41	0	6	25	3	0	93	
7:30 AM	4	4	0	0	0	5	0	0	0	0	29	0	7	14	3	0	66	
7:35 AM	7	4	0	0	0	12	0	0	1	0	39	0	2	19	6	0	90	
7:40 AM	1	8	0	0	0	16	0	0	0	0	40	0	4	12	4	0	85	
7:45 AM	1	6	0	0	0	16	0	0	1	0	34	0	6	10	0	0	74	
7:50 AM	2	7	0	0	0	13	0	0	0	0	33	0	5	17	0	0	77	
7:55 AM	5	2	0	0	0	11	1	0	0	0	39	0	9	26	4	0	97	871
8:00 AM	4	4	0	0	0	12	0	0	0	0	31	0	7	16	1	0	75	899
8:05 AM	5	3	0	0	0	13	1	0	0	0	20	0	4	15	3	0	64	903
8:10 AM	1	2	0	0	0	5	0	0	0	0	34	0	1	20	3	0	66	913
8:15 AM	2	3	0	0	0	10	0	0	0	0	31	0	5	16	2	0	69	926
8:20 AM	4	6	0	0	0	3	1	0	1	0	29	0	9	24	1	0	78	934
8:25 AM	5	1	0	0	0	4	0	0	0	0	24	0	2	12	4	0	52	893
8:30 AM	1	2	0	0	0	3	0	0	1	0	30	0	5	28	0	0	70	897
8:35 AM	2	2	0	0	0	5	1	0	4	0	30	0	7	23	3	0	77	884
8:40 AM	4	3	0	0	0	16	2	0	1	0	30	0	4	31	3	0	94	893
8:45 AM	3	2	0	0	0	11	6	0	1	0	35	0	5	24	3	0	90	909
8:50 AM	7	1	0	0	0	12	3	0	6	0	47	0	3	25	4	0	108	940
8:55 AM	5	3	0	0	0	11	5	0	3	0	35	0	5	34	2	0	103	946

PEAK 15-MIN FLOW RATES	Northbound				Southbound				Eastbound				Westbound				TOTAL
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	60	24	0	0	0	136	56	0	40	0	468	0	52	332	36	0	1204
Heavy Trucks	20	0	0	0	0	12	8	0	4	0	76	0	12	40	0	0	172
Pedestrians		0				0				0				4			4
Bicycles																	
Railroad																	
Stopped Buses																	

Counter Comments:

INTERSECTION: B St-Pacific Ave
WEATHER:

QC JOB #: 10255104
DATE: 5/15/2007



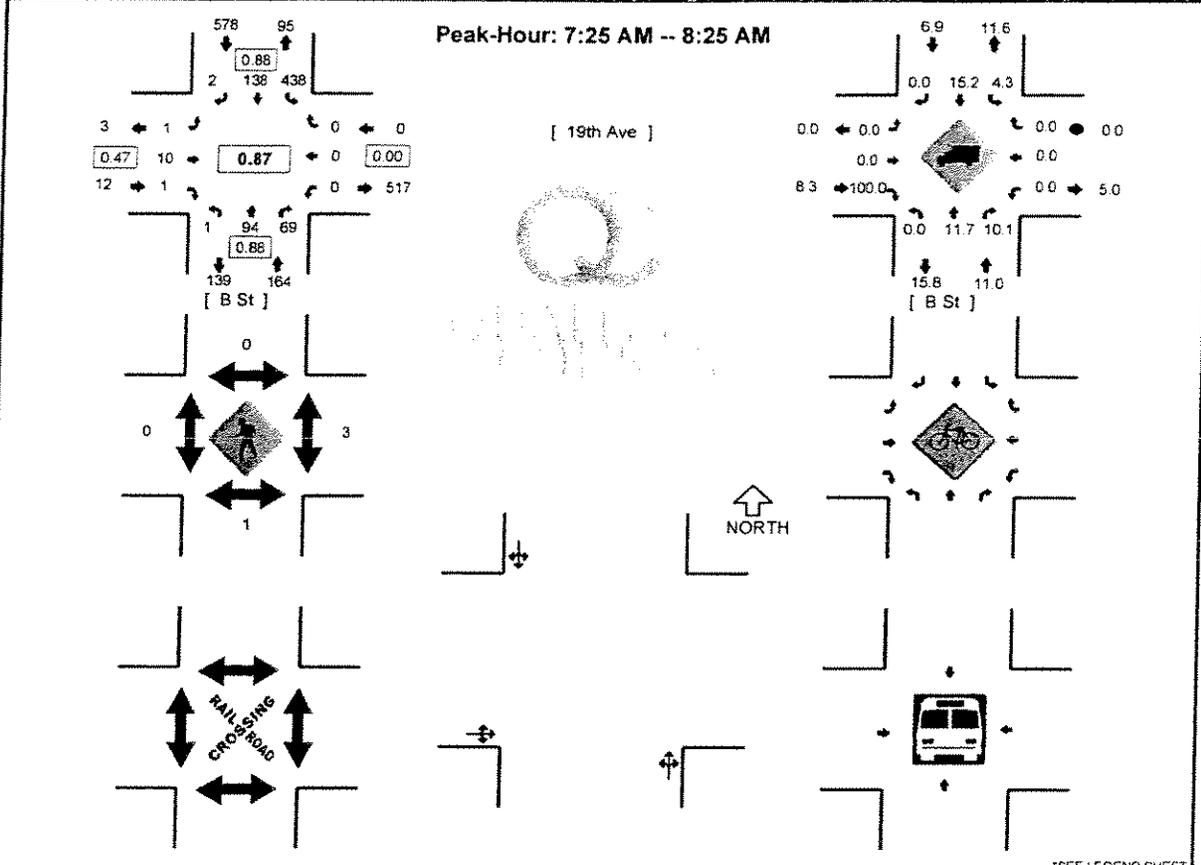
*SEE LEGEND SHEET

5-MIN COUNT PERIOD BEGINNING AT	B St (Northbound)				B St (Southbound)				Pacific Ave (Eastbound)				Pacific Ave (Westbound)				TOTAL	HOURLY TOTALS
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	4	3	0	0	0	13	0	0	3	0	25	0	8	32	6	0	94	
4:05 PM	0	1	0	0	0	12	0	0	1	0	42	0	12	31	0	0	99	
4:10 PM	6	7	0	0	0	11	0	0	1	0	39	0	4	34	5	0	107	
4:15 PM	5	4	0	0	0	11	3	0	4	0	36	0	12	47	2	0	124	
4:20 PM	2	4	0	0	0	9	1	0	0	0	31	0	10	13	10	0	80	
4:25 PM	4	3	0	0	0	7	0	0	1	0	31	0	12	40	6	0	104	
4:30 PM	8	2	0	0	0	8	1	0	1	1	27	0	6	29	6	0	89	
4:35 PM	4	3	0	0	0	5	2	0	3	0	25	0	13	47	3	0	105	
4:40 PM	14	5	0	0	0	7	2	0	2	0	36	0	9	47	3	0	125	
4:45 PM	5	2	0	0	0	6	0	0	1	0	23	0	10	35	0	0	82	
4:50 PM	7	3	0	0	0	11	0	0	3	0	34	0	6	48	2	0	114	
4:55 PM	6	4	0	0	0	9	2	0	0	0	27	0	8	26	4	0	86	1209
5:00 PM	2	4	0	0	0	11	1	0	3	0	25	0	15	45	6	0	112	1227
5:05 PM	2	4	0	0	0	9	1	0	2	0	26	0	12	46	2	0	104	1232
5:10 PM	5	3	0	0	0	13	0	0	1	0	17	0	15	41	7	0	102	1227
5:15 PM	3	1	0	0	0	10	2	0	4	2	26	0	5	36	6	0	95	1198
5:20 PM	4	3	0	0	0	7	0	0	0	0	24	0	12	37	3	0	90	1208
5:25 PM	5	1	0	0	0	2	3	0	0	0	31	0	12	38	9	0	101	1205
5:30 PM	3	4	0	0	0	7	0	0	0	0	38	0	11	33	3	0	99	1215
5:35 PM	4	0	0	0	0	4	0	0	1	2	31	0	7	37	5	0	91	1201
5:40 PM	3	3	0	0	0	9	1	0	0	0	36	0	9	34	3	0	98	1174
5:45 PM	6	2	0	0	0	6	1	0	0	0	30	0	9	45	0	0	99	1191
5:50 PM	2	1	0	0	0	5	0	0	0	0	26	0	7	42	3	0	86	1163
5:55 PM	3	2	0	0	0	6	1	0	1	0	24	0	10	56	7	0	110	1187
PEAK 15-MIN FLOW RATES	Northbound				Southbound				Eastbound				Westbound				TOTAL	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	104	40	0	0	0	96	8	0	24	0	372	0	100	520	20	0	1284	
Heavy Trucks	4	0	0	0	0	4	0	0	0	0	20	0	0	4	0	0	32	
Pedestrians	0	0	0	0	0	4	0	0	0	0	0	0	4	0	0	0	8	
Bicycles																		
Railroad																		
Stopped Buses																		

Counter Comments:

INTERSECTION: B St-19th Ave
 WEATHER:

QC JOB #: 10255101
 DATE: 5/15/2007



*SEE LEGEND SHEET

5-MIN COUNT PERIOD BEGINNING AT	B St (Northbound)				B St (Southbound)				19th Ave (Eastbound)				19th Ave (Westbound)				TOTAL	HOURLY TOTALS
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	4	7	0	25	6	1	0	0	0	0	0	0	0	0	0	43	
7:05 AM	0	6	2	0	32	8	0	0	0	1	1	0	0	0	0	0	50	
7:10 AM	1	5	3	0	27	7	0	0	0	1	0	0	0	0	0	0	44	
7:15 AM	0	6	7	0	22	12	1	0	0	0	0	0	0	0	0	0	48	
7:20 AM	0	10	4	0	28	14	0	0	0	0	0	0	0	0	0	0	56	
7:25 AM	0	10	1	0	44	10	0	0	0	0	0	0	0	0	0	0	65	
7:30 AM	0	8	5	0	32	9	1	0	0	0	0	0	0	0	0	0	55	
7:35 AM	0	10	3	0	43	8	0	0	0	0	0	0	0	0	0	0	64	
7:40 AM	0	10	7	0	52	11	0	0	1	1	0	0	0	0	0	0	82	
7:45 AM	0	8	10	0	39	12	0	0	0	2	0	0	0	0	0	0	71	
7:50 AM	0	7	5	0	32	19	0	0	0	0	0	0	0	0	0	0	63	
7:55 AM	0	7	5	0	30	23	0	0	0	0	0	0	0	0	0	0	65	706
8:00 AM	0	9	13	0	39	14	0	0	0	1	0	0	0	0	0	0	76	739
8:05 AM	0	6	8	0	32	6	0	0	0	0	1	0	0	0	0	0	53	742
8:10 AM	0	3	5	0	35	3	0	0	0	1	0	0	0	0	0	0	47	745
8:15 AM	0	5	2	0	31	12	0	0	0	0	0	0	0	0	0	0	50	747
8:20 AM	1	11	5	0	29	11	1	0	0	5	0	0	0	0	0	0	63	754
8:25 AM	0	5	3	0	26	7	0	0	0	3	0	0	0	0	0	0	44	733
8:30 AM	0	2	4	0	28	8	0	0	0	1	0	0	0	0	0	0	43	721
8:35 AM	0	7	4	0	27	15	2	0	0	1	0	0	0	0	0	0	56	713
8:40 AM	0	5	13	0	39	12	0	0	0	0	0	0	0	0	0	0	69	700
8:45 AM	0	6	5	0	39	12	0	0	0	0	0	0	0	0	0	0	62	691
8:50 AM	0	5	16	0	44	18	0	0	0	0	0	0	0	0	0	0	83	711
8:55 AM	0	7	7	0	39	10	0	0	0	1	0	0	0	0	0	0	64	710
PEAK 15-MIN FLOW RATES	Northbound				Southbound				Eastbound				Westbound				TOTAL	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	112	80	0	536	124	0	0	4	12	0	0	0	0	0	0	868	
Heavy Trucks	0	4	8	0	24	20	0	0	0	0	0	0	0	0	0	0	56	
Pedestrians	0				0				0				0				0	
Bicycles																		
Railroad																		
Stopped Buses																		

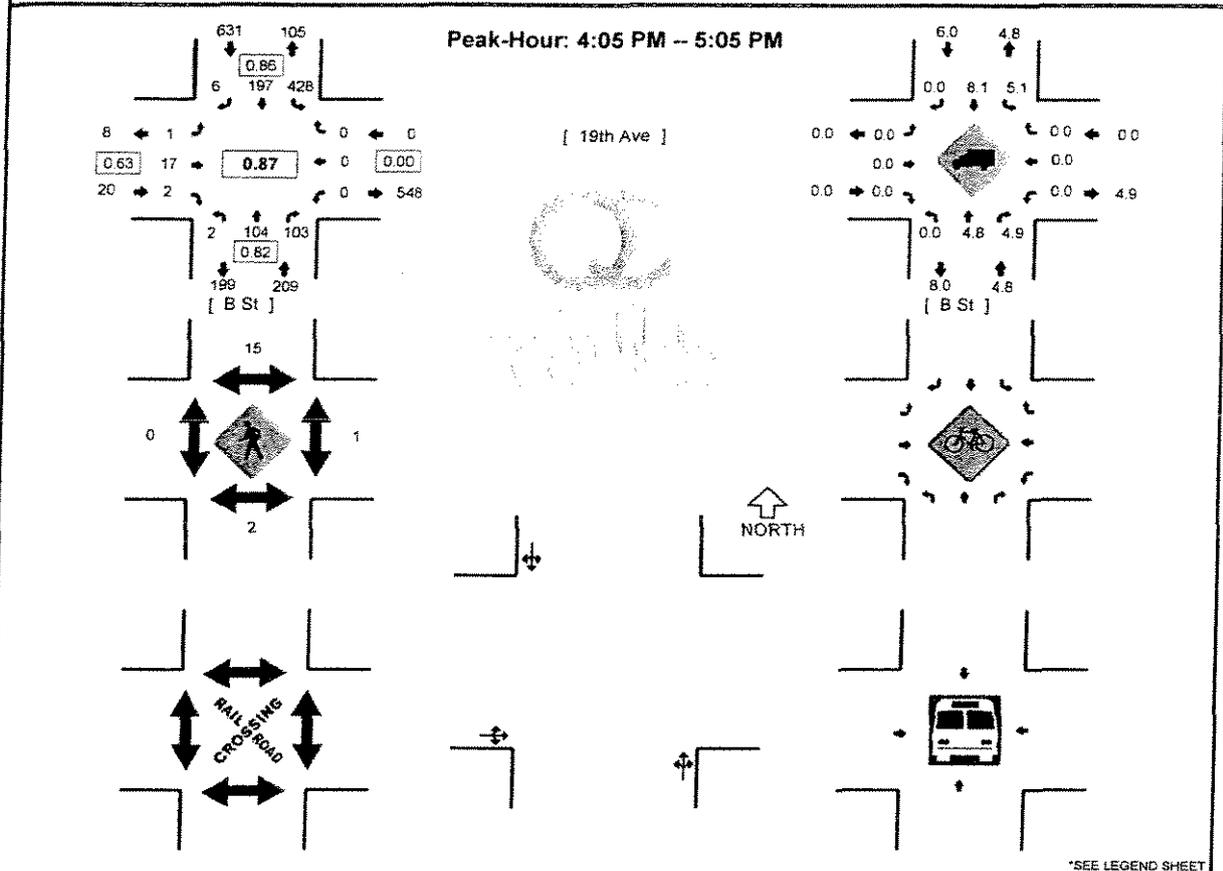
Counter Comments:

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

INTERSECTION: B St--19th Ave
WEATHER:

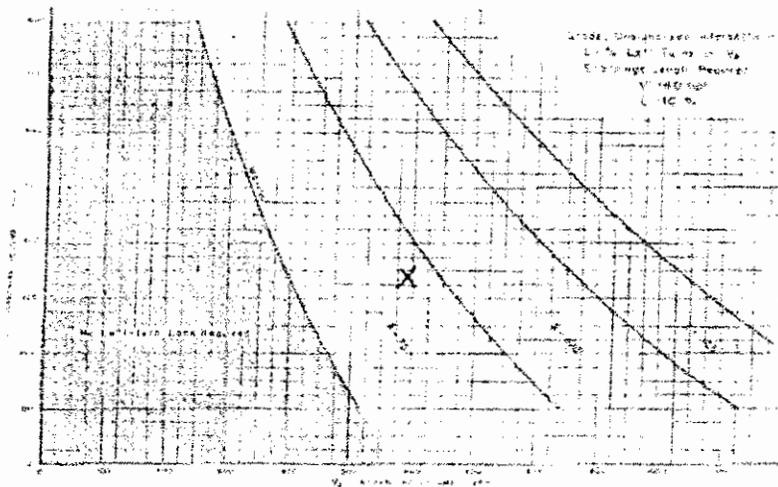
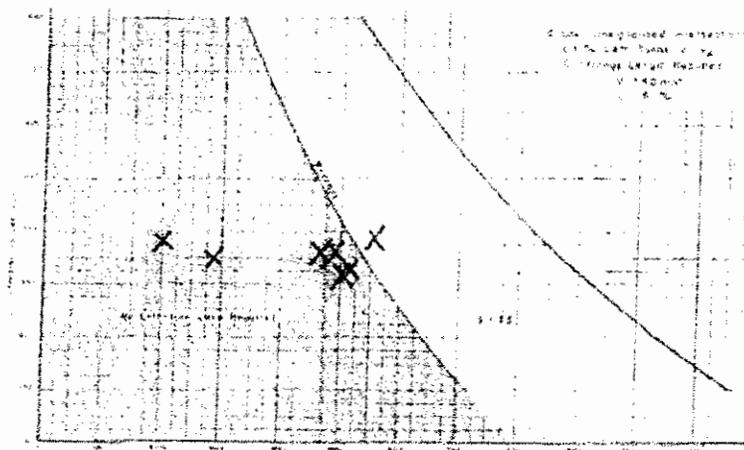
QC JOB #: 10255103
DATE: 5/15/2007



*SEE LEGEND SHEET

5-MIN COUNT PERIOD BEGINNING AT	B St (Northbound)				B St (Southbound)				19th Ave (Eastbound)				19th Ave (Westbound)				TOTAL	HOURLY TOTALS
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	5	12	0	32	14	0	0	0	0	0	0	0	0	0	0	63	
4:05 PM	0	1	9	0	50	15	1	0	0	0	1	0	0	0	0	0	77	
4:10 PM	0	14	11	0	46	16	1	0	0	3	0	0	0	0	0	0	91	
4:15 PM	0	8	14	0	36	19	0	0	0	2	0	0	0	0	0	0	79	
4:20 PM	0	7	8	0	43	14	1	0	0	3	0	0	0	0	0	0	76	
4:25 PM	0	7	5	0	34	19	0	0	0	1	1	0	0	0	0	0	67	
4:30 PM	0	10	3	0	33	11	0	0	0	3	0	0	0	0	0	0	60	
4:35 PM	1	7	10	0	27	19	2	0	0	0	0	0	0	0	0	0	66	
4:40 PM	0	17	11	0	30	14	1	0	0	2	0	0	0	0	0	0	75	
4:45 PM	1	8	11	0	33	16	0	0	1	1	0	0	0	0	0	0	71	
4:50 PM	0	10	7	0	39	16	0	0	0	0	0	0	0	0	0	0	72	
4:55 PM	0	8	6	0	26	16	0	0	0	0	0	0	0	0	0	0	56	853
5:00 PM	0	7	8	0	31	22	0	0	0	2	0	0	0	0	0	0	70	860
5:05 PM	0	7	10	0	36	14	0	0	0	1	0	0	0	0	0	0	68	851
5:10 PM	0	6	9	0	26	13	1	0	0	1	0	0	0	0	0	0	56	816
5:15 PM	0	5	7	0	31	12	2	0	0	0	0	0	0	0	0	0	57	794
5:20 PM	0	7	7	0	29	16	0	0	0	2	0	0	0	0	0	0	61	779
5:25 PM	0	5	4	0	37	14	0	0	0	0	0	0	0	0	0	0	60	772
5:30 PM	0	6	13	0	38	18	0	0	0	1	0	0	0	0	0	0	76	788
5:35 PM	1	4	13	0	30	9	0	0	0	2	0	0	0	0	0	0	59	781
5:40 PM	0	6	1	0	37	18	1	0	0	1	0	0	0	0	0	0	64	770
5:45 PM	0	8	7	0	33	14	0	0	0	0	0	0	0	0	0	0	62	761
5:50 PM	1	3	6	0	16	9	0	0	0	0	0	0	0	0	0	0	35	724
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	668
PEAK 15-MIN FLOW RATES	Northbound				Southbound				Eastbound				Westbound				TOTAL	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	92	136	0	528	200	8	0	0	20	4	0	0	0	0	0	988	
Heavy Trucks	0	8	12	0	28	8	0	0	0	0	0	0	0	0	0	0	56	
Pedestrians		4				24				0				0			28	
Bicycles																		
Railroad																		
Stopped Buses																		

Counter Comments:



Storage requirements for critical left-turn movements at unsignalized intersections on 2-lane roads.

Intersection	Mov't	Analysis Period 2012 Total Traffic	Speed V (mph)	Opposing Volume V _o (vph)	Advancing Volume V _a (vph)	Left Turns in Advancing Volume (vph)	% Left Turns in Advancing Volume L	Storage Req'd (ft)
Gales Creek Terrace								
Pacific Avenue at "D" Street	WB/LT	2010 Total, AM Peak Hour	30	354	281	8	2.85%	None
		2010 Total, PM Peak Hour		328	522	30	5.75%	None
Pacific Avenue at "C" Street	WB/LT	2010 Total, AM Peak Hour	30	355	280	4	1.43%	None
		2010 Total, PM Peak Hour		367	496	17	3.43%	None
Combined Developments								
Pacific Avenue at "D" Street	WB/LT	2010 Total, AM Peak Hour	30	375	300	13	4.33%	None
		2010 Total, PM Peak Hour		343	590	47	7.97%	75'
		2010 Bkgd, PM Peak Hour		320	502	10	1.99%	None
Pacific Avenue at "C" Street	WB/LT	2010 Total, AM Peak Hour	30	328	300	5	1.67%	None
		2010 Total, PM Peak Hour		380	569	22	3.87%	75'
		2010 Bkgd, PM Peak Hour		369	470	11	2.34%	None

Source: Highway Research Record #211, Harnetink, M. D.

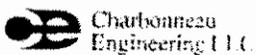
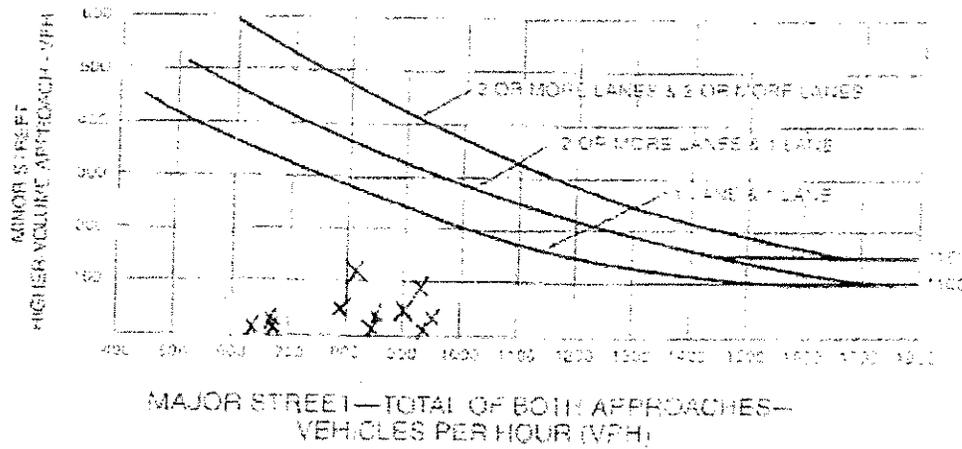


Figure 4C-3. Warrant 3, Peak Hour



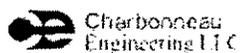
MAJOR STREET—TOTAL OF BOTH APPROACHES—VEHICLES PER HOUR (VPH)

Note: 30 mph applies to the lower third of volume for the lower approach with two or more lanes and 40 mph applies to the lower half of volume for a minor street approach with one lane.

Peak hour volume warrant for signalization data for study intersections.

Intersection	Analysis Period 2010 Total Traffic	Major Street Speed (mph)	Major Street		Minor Street High Volume Approach		Signal Warranted?
			Volume (vph)	Lanes (#)	Volume (vph)	Lanes (#)	
Gales Creek Terrace							
Pacific Avenue at "D" Street	AM Peak Hour	30	635	1	12	1	No
	PM Peak Hour		850	1	9	1	No
Pacific Avenue at "C" Street	AM Peak Hour	30	635	1	12	1	No
	PM Peak Hour		863	1	34	1	No
19th Street at "B" Street	AM Peak Hour	35	789	1	47	1	No
	PM Peak Hour		904	1	40	1	No
Combined Developments							
Pacific Avenue at "D" Street	AM Peak Hour	30	676	1	17	1	No
	PM Peak Hour		933	1	12	1	No
Pacific Avenue at "C" Street	AM Peak Hour	30	676	1	13	1	No
	PM Peak Hour		949	1	35	1	No
19th Street at "B" Street	AM Peak Hour	35	809	1	111	1	No
	PM Peak Hour		932	1	60	1	No

Source: Manual on Uniform Traffic Control Devices (MUTCD), 2003 Edition



OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

"B" Street at Pacific Avenue in Forest Grove
1-1-2001 through 12-31-2005

CITY OF FOREST GROVE, WASHINGTON COUNTY

SPR#	INVEST	DATE	CLASS	CITY STREET	RD CHAR	INT-TYP	INT-REL	OFF-RD	WTHR	CRASH TYP	SPCL USE	TRLCR QTY	MOVE	FRM	TO	VEH TYPE	V#	INJ	A	S	E	LICNS	RES	LOC	FRAPOR	ACFT#	EVENT	CRASH
00304	N N N	01/23/2004	14	B ST	INTER	CROSS	N	N	RAIN	N	0-TURN	01	NONE	STRGHT	E	W	01	DRVR	NONE	27	M	OR-Y	OR<25	000	000	000	000	00
00609	N N N	01/27/2005	14	B ST	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE	0	STRGHT	E	W	01	DRVR	NONE	54	F	OR-Y	OR<25	000	000	000	000	00
05845	N N N	08/10/2005	14	B ST	INTER	CROSS	N	N	RAIN	BIKE	01	NONE	0	STRGHT	S	N	01	DRVR	INJB	20	F	OR-Y	OR<25	000	000	000	000	00

CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
2007 EXISTING TRAFFIC, WEEKDAY AM PEAK HOUR

GALES CREEK TERRACE

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 PACIFIC AVE AND 'D' STREET

Average Delay (sec/veh): 10.4 Worst Case Level Of Service: B

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled

Rights: Include Include Include Include

Lanes: 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Volume Module:

Growth Adj: 1.00

Initial Base: 0 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

User Adj: 1.00

PHF Adj: 0.86

PHF Volume: 0 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduct Vol: 0

Final Vol: 0 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Critical Gap Module:

Critical Gap: 6.2

FollowUpTim: 3.3

Capacity Module:

Conflict Vol: 385

Potent Cap: 667

Move Cap: 667

Level Of Service Module:

Stopped Del: 10.4

LOS by Move: B

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap: 667

Shrd StpDel: 10.4

Shared LOS: A

ApproachDel: 10.4

ApproachLOS: B

CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
2007 EXISTING TRAFFIC, WEEKDAY AM PEAK HOUR

GALES CREEK TERRACE

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 PACIFIC AVENUE AND 'C' STREET

Average Delay (sec/veh): 14.0 Worst Case Level Of Service: B

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled

Rights: Include Include Include Include

Lanes: 0 0 1 0 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0 0

Volume Module:

Growth Adj: 1.00

Initial Base: 6 2 3 6 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

User Adj: 1.00

PHF Adj: 0.88

PHF Volume: 7 2 3 7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

Reduct Vol: 0

Final Vol: 7 2 3 7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

Critical Gap Module:

Critical Gap: 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5 6.2 7.1 6.5

FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 3.5 4.0 3.3 3.5 4.0 3.3 3.5 4.0 3.3 3.5 4.0 3.3 3.5 4.0

Capacity Module:

Conflict Vol: 673

Potent Cap: 371 379 678 371 379 678 371 379 678 371 379 678 371 379 678 371 379 678 371 379

Move Cap: 368 378 678 368 378 678 368 378 678 368 378 678 368 378 678 368 378 678 368 378

Level Of Service Module:

Stopped Del: 14.0

LOS by Move: B

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap: 678

Shrd StpDel: 14.0

Shared LOS: A

ApproachDel: 14.0

ApproachLOS: B

GALES CREEK TERRACE
CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
2007 EXISTING TRAFFIC, WEEKDAY AM PEAK HOUR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 PACIFIC AVENUE AND 'B' STREET

Cycle (sec): 39 Critical Vol./Cap. (X): 0.605
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 11.2
Optimal Cycle:OPTIMIZED Level Of Service: B

Approach: North Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R

Control: Permitted Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 1 0 0 0 0 0 1 0 0 0 1 1 0 0 1 0

Volume Module:
Base Vol: 43 32 0 0 105 19 17 0 376 57 268 29
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 43 32 0 0 105 19 17 0 376 57 268 29
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.79 0.79 0.79 0.79 0.79 0.79 0.79 0.79 0.79 0.79 0.79 0.79
PHF Volume: 54 41 0 0 133 24 22 0 476 72 339 37
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 54 41 0 0 133 24 22 0 476 72 339 37
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 54 41 0 0 133 24 22 0 476 72 339 37

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.85 0.85 1.00 1.00 0.98 0.98 0.95 1.00 0.85 0.95 0.99 0.99
Lanes: 0.57 0.43 0.00 0.00 0.85 0.15 1.00 0.00 1.00 1.00 0.90 0.10
Final Sat.: 923 687 0 0 1575 285 1805 0 1615 1805 1689 183

Capacity Analysis Module:
Vol/Sat: 0.06 0.06 0.00 0.00 0.08 0.08 0.01 0.00 0.29 0.04 0.20 0.20
Crit Moves: *****
Green/Cycle: 0.14 0.14 0.00 0.00 0.14 0.14 0.03 0.00 0.49 0.07 0.52 0.52
Volume/Cap: 0.42 0.42 0.00 0.00 0.61 0.61 0.38 0.00 0.61 0.61 0.38 0.38
Delay/Veh: 16.6 16.6 0.0 0.0 19.8 19.8 22.9 0.0 8.6 26.3 5.8 5.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 16.6 16.6 0.0 0.0 19.8 19.8 22.9 0.0 8.6 26.3 5.8 5.8
DesignQueue: 1 1 0 0 3 0 0 0 6 1 4 0

GALES CREEK TERRACE
CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
2007 EXISTING TRAFFIC, WEEKDAY AM PEAK HOUR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 19TH STREET AND 'B' STREET

Cycle (sec): 1 Critical Vol./Cap. (X): 0.603
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 8.3
Optimal Cycle: Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Yield Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 1 0 0 0 0 0 1 0 0 0 0 1 0 0 0 0 0 0

Volume Module:
Base Vol: 1 94 69 438 138 2 1 10 1 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 1 94 69 438 138 2 1 10 1 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87
PHF Volume: 1 108 79 503 159 2 1 11 1 0 0 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 1 108 79 503 159 2 1 11 1 0 0 0

Saturation Flow Module:
Sat/Lane: 0
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.01 0.57 0.42 0.75 0.24 0.01 0.08 0.84 0.08 0.00 0.00 0.00
Final Sat.: 4 359 264 834 263 4 6 56 6 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.30 0.30 0.30 0.60 0.60 0.60 0.21 0.21 0.21 0.21 0.00 0.00 0.00
Crit Moves: *****
Green/Cycle: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Volume/Cap: 0.30 0.30 0.30 0.60 0.60 0.60 0.21 0.21 0.21 0.21 0.00 0.00 0.00
Delay/Veh: 3.1 3.1 3.1 9.9 9.9 9.9 2.2 2.2 2.2 2.2 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 3.1 3.1 3.1 9.9 9.9 9.9 2.2 2.2 2.2 2.2 0.0 0.0 0.0
DesignQueue: 0 0 0 0 0 0 0 0 0 0 0 0 0

GALES CREEK TERRACE
 CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
 2007 EXISTING TRAFFIC, WEEKDAY PM PEAK HOUR

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 PACIFIC AVE AND 'D' STREET

Average Delay (sec/veh): 10.0 Worst Case Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled						
Rights:	Include			Include			Include			Include						
Lanes:	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0

Volume Module:

Base Vol:	0	0	3	0	0	0	0	302	0	9	464	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	3	0	0	0	0	302	0	9	464	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	0	0	3	0	0	0	0	325	0	10	499	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	3	0	0	0	0	325	0	10	499	0

Critical Gap Module:

Critical Gp:	xxxx	xxxx	6.2	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	4.1	xxxx	xxxx
FollowUpTim:	xxxx	xxxx	3.3	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	2.2	xxxx	xxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	325	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	325	xxxx	xxxx
Potent Cap.:	xxxx	xxxx	721	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	1246	xxxx	xxxx
Move Cap.:	xxxx	xxxx	721	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	1246	xxxx	xxxx

Level Of Service Module:

Stopped Del:	xxxx	xxxx	10.0	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	7.9	xxxx	xxxx
LOS by Move:	*	*	B	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shrd StpDel:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	7.9	xxxx	xxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	10.0			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	B			*			*			*		

GALES CREEK TERRACE
 CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
 2007 EXISTING TRAFFIC, WEEKDAY PM PEAK HOUR

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 PACIFIC AVENUE AND 'C' STREET

Average Delay (sec/veh): 19.7 Worst Case Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled						
Rights:	Include			Include			Include			Include						
Lanes:	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	0

Volume Module:

Base Vol:	14	6	11	16	7	2	3	340	6	10	403	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	14	6	11	16	7	2	3	340	6	10	403	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	16	7	12	18	8	2	3	382	7	11	453	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	16	7	12	18	8	2	3	382	7	11	453	34

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxx	4.1	xxxx	xxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxx	2.2	xxxx	xxxx

Capacity Module:

Cnflct Vol:	889	901	385	894	888	470	487	xxxx	xxxx	389	xxxx	xxxx
Potent Cap.:	266	280	667	264	285	598	1087	xxxx	xxxx	1181	xxxx	xxxx
Move Cap.:	257	276	667	252	281	598	1087	xxxx	xxxx	1181	xxxx	xxxx

Level Of Service Module:

Stopped Del:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	8.3	xxxx	xxxx	8.0	xxxx	xxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	334	xxxx	xxxx	273	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shrd StpDel:	xxxx	17.0	xxxx	xxxx	19.7	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shared LOS:	*	C	*	*	C	*	*	*	*	*	*	*
ApproachDel:	17.0			19.7			xxxxxx			xxxxxx		
ApproachLOS:	C			C			*			*		

GALES CREEK TERRACE
 CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
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Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 PACIFIC AVE AND 'D' STREET

Average Delay (sec/veh): 10.6 Worst Case Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Include	Include	Include
Lanes:	0 0 0 0 1	0 0 0 0 0	0 0 1 0 0	0 1 0 0 0

Volume Module:

Base Vol:	0	0	2	0	0	0	0	351	0	3	273	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	2	0	0	0	0	351	0	3	273	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	0	0	2	0	0	0	0	408	0	3	317	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	2	0	0	0	0	408	0	3	317	0

Critical Gap Module:

Critical Gp:	xxxx	xxxx	6.2	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	4.1	xxxx	xxxx
FollowUpTim:	xxxx	xxxx	3.3	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	2.2	xxxx	xxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	408	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	408	xxxx	xxxx
Potent Cap.:	xxxx	xxxx	647	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	1162	xxxx	xxxx
Move Cap.:	xxxx	xxxx	647	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	1162	xxxx	xxxx

Level Of Service Module:

Stopped Del:	xxxx	xxxx	10.6	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	8.1	xxxx	xxxx
LOS by Move:	*	*	B	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT		LT - LTR - RT		LT - LTR - RT	LT - LTR - RT					
Shared Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shrd StpDel:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	8.1	xxxx	xxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	10.6			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	B			*			*			*		*

GALES CREEK TERRACE
 CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
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Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 PACIFIC AVENUE AND 'C' STREET

Average Delay (sec/veh): 14.5 Worst Case Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Include	Include	Include
Lanes:	0 0 1 0 0	0 0 1 0 0	0 0 1 0 0	0 0 1 0 0

Volume Module:

Base Vol:	6	2	3	6	2	2	2	345	6	2	268	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	2	3	6	2	2	2	345	6	2	268	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	7	2	3	7	2	2	2	392	7	2	305	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	7	2	3	7	2	2	2	392	7	2	305	3

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxx	4.1	xxxx	xxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxx	2.2	xxxx	xxxx

Capacity Module:

Cnflct Vol:	713	713	395	714	714	306	308	xxxx	xxxx	399	xxxx	xxxx
Potent Cap.:	349	360	658	349	359	738	1264	xxxx	xxxx	1171	xxxx	xxxx
Move Cap.:	346	359	658	345	358	738	1264	xxxx	xxxx	1171	xxxx	xxxx

Level Of Service Module:

Stopped Del:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	7.8	xxxx	xxxx	8.1	xxxx	xxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT		LT - LTR - RT	LT - LTR - RT		LT - LTR - RT	LT - LTR - RT					
Shared Cap.:	xxxx	400	xxxx	xxxx	389	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shrd StpDel:	xxxx	14.3	xxxx	xxxx	14.5	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	14.3			14.5			xxxxxx			xxxxxx		
ApproachLOS:	B			B			*			*		*

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Level of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 PACIFIC AVENUE AND 'B' STREET

Cycle (sec): 39 Critical Vol./Cap. (X): 0.641
 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 11.8
 Optimal Cycle: OPTIMIZED Level of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	0	1	1	0	0	1	0	0

Volume Module:

Base Vol:	46	34	0	0	111	20	18	0	399	60	284	31
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	46	34	0	0	111	20	18	0	399	60	284	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
PHF Volume:	58	43	0	0	141	25	23	0	505	76	359	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	43	0	0	141	25	23	0	505	76	359	39
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	58	43	0	0	141	25	23	0	505	76	359	39

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.86	0.86	1.00	1.00	0.98	0.98	0.95	1.00	0.85	0.95	0.99	0.99
Lanes:	0.58	0.42	0.00	0.00	0.85	0.15	1.00	0.00	1.00	1.00	0.90	0.10
Final Sat.:	938	694	0	0	1576	284	1805	0	1615	1805	1687	184

Capacity Analysis Module:

Vol/Sat:	0.06	0.06	0.00	0.00	0.09	0.09	0.01	0.00	0.31	0.04	0.21	0.21
Crit Moves:	****			****			****			****		
Green/Cycle:	0.14	0.14	0.00	0.00	0.14	0.14	0.03	0.00	0.49	0.07	0.52	0.52
Volume/Cap:	0.45	0.45	0.00	0.00	0.64	0.64	0.41	0.00	0.64	0.64	0.41	0.41
Delay/Veh:	16.8	16.8	0.0	0.0	21.2	21.2	23.3	0.0	9.2	29.1	5.9	5.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	16.8	16.8	0.0	0.0	21.2	21.2	23.3	0.0	9.2	29.1	5.9	5.9
DesignQueue:	1	1	0	0	3	0	0	0	6	2	4	0

GALES CREEK TERRACE
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Level of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 19TH STREET AND 'B' STREET

Cycle (sec): 1 Critical Vol./Cap. (X): 0.639
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 9.5
 Optimal Cycle: 0 Level of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Yield Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	0

Volume Module:

Base Vol:	1	100	73	464	146	2	1	11	1	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	100	73	464	146	2	1	11	1	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	1	115	84	533	168	2	1	13	1	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	1	115	84	533	168	2	1	13	1	0	0	0

Saturation Flow Module:

Sat/Lane:	0	0	0	0	0	0	0	0	0	0	0	0
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.01	0.57	0.42	0.75	0.24	0.01	0.08	0.84	0.08	0.00	0.00	0.00
Final Sat.:	4	360	263	835	263	4	5	57	5	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.32	0.32	0.32	0.64	0.64	0.64	0.22	0.22	0.22	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume/Cap:	0.32	0.32	0.32	0.64	0.64	0.64	0.22	0.22	0.22	0.00	0.00	0.00
Delay/Veh:	3.4	3.4	3.4	11.3	11.3	11.3	2.3	2.3	2.3	0.0	0.0	0.0
AdjDel/Veh:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
DesignQueue:	0	0	0	0	0	0	0	0	0	0	0	0

GALES CREEK TERRACE
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 PACIFIC AVE AND 'D' STREET

Average Delay (sec/veh): 10.1 Worst Case Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 1 0 0 0 0 1 0 0 0

Volume Module:
Base Vol: 0 0 3 0 0 0 0 320 0 10 492 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 3 0 0 0 0 320 0 10 492 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume: 0 0 3 0 0 0 0 344 0 11 529 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 0 3 0 0 0 0 344 0 11 529 0

Critical Gap Module:
Critical Gp: xxxxx xxx 6.2 xxxxx xxx xxxxx xxxxx xxx xxxxx 4.1 xxx xxxxx
FollowUpTim: xxxxx xxx 3.3 xxxxx xxx xxxxx xxxxx xxx xxxxx 2.2 xxx xxxxx

Capacity Module:
Conflict Vol: xxx xxx 344 xxx xxx xxxxx xxx xxx xxxxx 344 xxx xxxxx
Potent Cap.: xxx xxx 703 xxx xxx xxxxx xxx xxx xxxxx 1226 xxx xxxxx
Move Cap.: xxx xxx 703 xxx xxx xxxxx xxx xxx xxxxx 1226 xxx xxxxx

Level Of Service Module:
Stopped Del: xxxxx xxx 10.1 xxxxx xxx xxxxx xxxxx xxx xxxxx 7.9 xxx xxxxx
LOS by Move: * * B * * * * * A * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxx xxx xxxxx xxx xxx xxxxx xxx xxx xxxxx xxx xxx xxxxx
Shrd StpDel: xxxxx xxx xxxxx xxxxx xxx xxxxx xxxxx xxx xxxxx 8.0 xxx xxxxx
Shared LOS: * * * * * A * * *
ApproachDel: 10.1 xxxxxx xxxxxx xxxxxx
ApproachLOS: B * * *

GALES CREEK TERRACE
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 PACIFIC AVENUE AND 'C' STREET

Average Delay (sec/veh): 21.3 Worst Case Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0

Volume Module:
Base Vol: 15 6 12 17 7 2 3 360 6 11 427 32
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 15 6 12 17 7 2 3 360 6 11 427 32
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89
PHF Volume: 17 7 13 19 8 2 3 404 7 12 480 36
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 17 7 13 19 8 2 3 404 7 12 480 36

Critical Gap Module:
Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxx xxxxx 4.1 xxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxx xxxxx 2.2 xxx xxxxx

Capacity Module:
Conflict Vol: 942 955 408 947 940 498 516 xxx xxxxx 411 xxx xxxxx
Potent Cap.: 245 260 648 243 266 577 1060 xxx xxxxx 1159 xxx xxxxx
Move Cap.: 236 257 648 231 262 577 1060 xxx xxxxx 1159 xxx xxxxx

Level Of Service Module:
Stopped Del: xxxxx xxx xxxxx xxxxx xxx xxxxx 8.4 xxx xxxxx 8.1 xxx xxxxx
LOS by Move: * * * * * A * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxx 313 xxxxx xxx 250 xxxxx xxx xxx xxxxx xxx xxx xxxxx
Shrd StpDel: xxxxx 18.0 xxxxx xxxxx 21.3 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * C * * C * * * * *
ApproachDel: 18.0 21.3 xxxxxx xxxxxx
ApproachLOS: C C * *

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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)
 Intersection #3 PACIFIC AVENUE AND 'B' STREET

Cycle (sec): 36 Critical Vol./Cap. (X): 0.597
 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/Veh): 11.5
 Optimal Cycle: OPTIMIZED Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 1 0 0 0 0 0 0 1 0 0 0 1 1 0 0 1 0

Volume Module:
 Base Vol: 69 48 0 0 110 14 22 0 382 124 484 52
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 69 48 0 0 110 14 22 0 382 124 484 52
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96
 PHF Volume: 72 50 0 0 115 15 23 0 398 129 504 54
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 72 50 0 0 115 15 23 0 398 129 504 54
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol: 72 50 0 0 115 15 23 0 398 129 504 54

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.80 0.80 1.00 1.00 0.99 0.99 0.95 1.00 0.85 0.95 0.99 0.99
 Lanes: 0.59 0.41 0.00 0.00 0.89 0.11 1.00 0.00 1.00 1.00 0.90 0.10
 Final Sat: 900 626 0 0 1660 211 1805 0 1615 1805 1690 182

Capacity Analysis Module:
 Vol/Sat: 0.08 0.08 0.00 0.00 0.07 0.07 0.01 0.00 0.25 0.07 0.30 0.30
 Crit Moves: ****
 Green/Cycle: 0.13 0.13 0.00 0.00 0.13 0.13 0.02 0.00 0.41 0.12 0.51 0.51
 Volume/Cap: 0.60 0.60 0.00 0.00 0.52 0.52 0.58 0.00 0.60 0.60 0.58 0.58
 Delay/Veh: 19.4 19.4 0.0 0.0 16.4 16.4 38.0 0.0 9.7 19.5 7.1 7.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 19.4 19.4 0.0 0.0 16.4 16.4 38.0 0.0 9.7 19.5 7.1 7.1
 DesignQueue: 1 1 0 0 2 0 0 0 5 2 5 1

GALES CREEK TERRACE
 CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
 2010 BACKGROUND TRAFFIC, WEEKDAY PM PEAK HOUR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)
 Intersection #4 19TH STREET AND 'B' STREET

Cycle (sec): 1 Critical Vol./Cap. (X): 0.690
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/Veh): 11.2
 Optimal Cycle: 0 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Yield Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 0 0

Volume Module:
 Base Vol: 2 110 109 454 209 6 1 18 2 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 2 110 109 454 209 6 1 18 2 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87
 PHF Volume: 2 126 125 522 240 7 1 21 2 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Final Vol: 2 126 125 522 240 7 1 21 2 0 0 0

Saturation Flow Module:
 Sat/Lane: 0 0 0 0 0 0 0 0 0 0 0 0
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.01 0.50 0.49 0.68 0.31 0.01 0.05 0.86 0.09 0.00 0.00 0.00
 Final Sat: 6 333 330 756 348 10 5 93 10 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.38 0.38 0.38 0.69 0.69 0.69 0.22 0.22 0.22 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Volume/Cap: 0.38 0.38 0.38 0.69 0.69 0.69 0.22 0.22 0.22 0.00 0.00 0.00
 Delay/Veh: 4.2 4.2 4.2 13.8 13.8 13.8 2.3 2.3 2.3 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 4.2 4.2 4.2 13.8 13.8 13.8 2.3 2.3 2.3 0.0 0.0 0.0
 DesignQueue: 0 0 0 0 0 0 0 0 0 0 0 0

GALES CREEK TERRACE
 CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
 2010 TOTAL TRAFFIC - GALES CREEK TERRACE, WEEKDAY AM PEAK HR

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 PACIFIC AVE AND 'D' STREET

Average Delay (sec/veh): 13.4 Worst Case Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Include	Include	Include
Lanes:	0 0 1 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0

Volume Module:

Base Vol:	8	0	4	0	0	0	351	3	8	273	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	0	4	0	0	0	351	3	8	273	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	9	0	5	0	0	0	408	3	9	317	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	9	0	5	0	0	0	408	3	9	317	0

Critical Gap Module:

Critical Gp:	6.4	xxxx	5.2	xxxx	xxxx	xxxx	xxxx	xxxx	4.1	xxxx	xxxx
FollowUpTim:	3.5	xxxx	3.3	xxxx	xxxx	xxxx	xxxx	xxxx	2.2	xxxx	xxxx

Capacity Module:

Cnflct Vol:	746	xxxx	410	xxxx	xxxx	xxxx	xxxx	xxxx	412	xxxx	xxxx
Potent Cap.:	384	xxxx	646	xxxx	xxxx	xxxx	xxxx	xxxx	1158	xxxx	xxxx
Move Cap.:	382	xxxx	646	xxxx	xxxx	xxxx	xxxx	xxxx	1158	xxxx	xxxx

Level Of Service Module:

Stopped Del:	xxxx	8.1	xxxx	xxxx							
LOS by Move:	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT										
Shared Cap.:	xxxx	442	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shrd StpDel:	xxxx	13.4	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	8.1	xxxx	xxxx
Shared LOS:	*	B	*	*	*	*	*	*	A	*	*
ApproachDel:	13.4		xxxxxx						xxxxxx		
ApproachLOS:	B		*						*		

GALES CREEK TERRACE
 CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
 2010 TOTAL TRAFFIC - GALES CREEK TERRACE, WEEKDAY AM PEAK HR

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 PACIFIC AVENUE AND 'C' STREET

Average Delay (sec/veh): 14.7 Worst Case Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Include	Include	Include
Lanes:	0 0 1 0 0	0 0 1 0 0	0 0 1 0 0	0 0 1 0 0

Volume Module:

Base Vol:	6	2	4	6	2	2	2	347	6	4	273	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	2	4	6	2	2	2	347	6	4	273	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	7	2	5	7	2	2	2	394	7	5	310	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	7	2	5	7	2	2	2	394	7	5	310	3

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxx	4.1	xxxx	xxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxx	2.2	xxxx	xxxx

Capacity Module:

Cnflct Vol:	726	725	398	727	727	312	314	xxxx	xxxx	401	xxxx	xxxx
Potent Cap.:	343	354	656	342	353	733	1258	xxxx	xxxx	1168	xxxx	xxxx
Move Cap.:	339	352	656	337	351	733	1258	xxxx	xxxx	1168	xxxx	xxxx

Level Of Service Module:

Stopped Del:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	7.9	xxxx	xxxx	8.1	xxxx	xxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT											
Shared Cap.:	xxxx	407	xxxx	xxx	381	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shrd StpDel:	xxxx	14.2	xxxx	xxxx	14.7	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	14.2				14.7		xxxxxx			xxxxxx		
ApproachLOS:	B				B		*			*		

GALES CREEK TERRACE
 CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
 2010 TOTAL TRAFFIC - GALES CREEK TERRACE, WEEKDAY AM PEAK HR

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 PACIFIC AVENUE AND 'B' STREET

Cycle (sec): 60 Critical Vol./Cap. (X): 0.489
 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 12.6
 Optimal Cycle: OPTIMIZED Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 1 0 0 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0

Volume Module:
 Base Vol: 46 35 0 0 110 21 21 0 399 62 290 31
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 46 35 0 0 110 21 21 0 399 62 290 31
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
 PHF Volume: 51 39 0 0 122 23 23 0 443 69 322 34
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 51 39 0 0 122 23 23 0 443 69 322 34
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 51 39 0 0 122 23 23 0 443 69 322 34

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.85 0.85 1.00 1.00 0.98 0.98 0.95 0.95 1.00 0.85 0.95 0.99
 Lanes: 0.57 0.43 0.00 0.00 0.84 0.16 1.00 0.00 1.00 1.00 0.90 0.10
 Final Sat.: 918 699 0 0 1560 298 1805 0 1615 1805 1691 181

Capacity Analysis Module:
 Vol/Sat: 0.06 0.06 0.00 0.00 0.08 0.08 0.01 0.00 0.27 0.04 0.19 0.19
 Crit Moves: *****
 Green/Cycle: 0.16 0.16 0.00 0.00 0.16 0.16 0.04 0.00 0.56 0.08 0.60 0.60
 Volume/Cap: 0.35 0.35 0.00 0.00 0.49 0.49 0.32 0.00 0.49 0.49 0.32 0.32
 Delay/Veh: 23.2 23.2 0.0 0.0 24.2 24.2 30.5 0.0 8.4 29.2 6.1 6.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 23.2 23.2 0.0 0.0 24.2 24.2 30.5 0.0 8.4 29.2 6.1 6.1
 DesignQueue: 1 1 0 0 3 1 1 0 7 2 5 0

GALES CREEK TERRACE
 CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
 2010 TOTAL TRAFFIC - GALES CREEK TERRACE, WEEKDAY AM PEAK HR

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 19TH STREET AND 'B' STREET

Cycle (sec): 1 Critical Vol./Cap. (X): 0.632
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 9.1
 Optimal Cycle: 0 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Yield Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 0 0 1 0 0 0 0 1 0 0 0 1 0 0 0 0 0 0 0 0

Volume Module:
 Base Vol: 2 100 73 464 146 4 2 40 5 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 2 100 73 464 146 4 2 40 5 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
 PHF Volume: 2 111 81 516 162 4 2 44 6 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Final Vol.: 2 111 81 516 162 4 2 44 6 0 0 0

Saturation Flow Module:
 Sat/Lane: 0 0 0 0 0 0 0 0 0 0 0 0
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.01 0.57 0.42 0.75 0.24 0.01 0.04 0.85 0.11 0.04 0.00 0.00
 Final Sat.: 7 353 257 816 257 7 5 92 11 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.32 0.32 0.32 0.63 0.63 0.63 0.48 0.48 0.48 0.48 0.00 0.00
 Crit Moves: *****
 Green/Cycle: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Volume/Cap: 0.32 0.32 0.32 0.63 0.63 0.63 0.48 0.48 0.48 0.48 0.00 0.00
 Delay/Veh: 3.3 3.3 3.3 11.0 11.0 11.0 6.3 6.3 6.3 6.3 0.0 0.0
 AdjDel/Veh: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 DesignQueue: 0 0 0 0 0 0 0 0 0 0 0 0

GALES CREEK TERRACE
 CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
 2010 TOTAL TRAFFIC - GALES CREEK TERRACE, WEEKDAY PM PEAK HR

Level of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)
 Intersection #1 PACIFIC AVE AND 'D' STREET
 Average Delay (sec/veh): 14.5 Worst Case Level of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Include	Include	Include
Lanes:	0 0 1 0 0	0 0 0 0 0	0 0 0 1 0	0 0 1 0 0

Volume Module:	Base Vol:	Growth Adj:	Initial Bse:	User Adj:	PHF Adj:	PHF Volume:	Reduct Vol:	Final Vol:
	5 0 4	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	0.93 0.93 0.93	5 0 4	0 0 0	5 0 4
	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
	30 492	8 30 492	8 30 492	8 30 492	0.93 0.93 0.93	32 529	0 0 0	32 529

Critical Gap Module:	Critical Gp:	FollowUpTim:
	6.4 XXXX	3.5 XXXX
	6.2 XXXX XXXX XXXX XXXX XXXX	3.3 XXXX XXXX XXXX XXXX XXXX

Capacity Module:	Conflict Vol:	Potent Cap:	Move Cap:
	942 XXXX	294 XXXX	288 XXXX
	348 XXXX XXXX XXXX XXXX XXXX	699 XXXX XXXX XXXX XXXX XXXX	699 XXXX XXXX XXXX XXXX XXXX

Level of Service Module:	Stopped Del:	LOS by Move:	Movement:	Shared Cap:	Shrd StpDel:	Shared LOS:	ApproachDel:	ApproachLOS:
	XXXXX XXXX XXXX XXXX XXXX XXXX	8.0 XXXX XXXX	LT - LTR - RT	390 XXXX	14.5 XXXX XXXX XXXX XXXX XXXX	B	14.5	B
	XXXXX XXXX XXXX XXXX XXXX XXXX	A	LT - LTR - RT	XXXX XXXX XXXX XXXX XXXX	XXXX XXXX XXXX XXXX XXXX	A	XXXXX	XXXXX

GALES CREEK TERRACE
 CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
 2010 TOTAL TRAFFIC - GALES CREEK TERRACE, WEEKDAY PM PEAK HR

Level of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)
 Intersection #2 PACIFIC AVENUE AND 'C' STREET
 Average Delay (sec/veh): 22.4 Worst Case Level of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Include	Include	Include
Lanes:	0 0 1 0 0	0 0 1 0 0	0 0 1 0 0	0 0 1 0 0

Volume Module:	Base Vol:	Growth Adj:	Initial Bse:	User Adj:	PHF Adj:	PHF Volume:	Reduct Vol:	Final Vol:
	15 6 13	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	0.89 0.89 0.89	17 7 15	0 0 0	17 7 15
	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
	3 361	7 2 3 361	7 2 3 361	7 2 3 361	0.89 0.89 0.89	19 502	3 19 502	3 19 502

Critical Gap Module:	Critical Gp:	FollowUpTim:
	7.1 6.5	3.5 4.0
	6.2 7.1 6.5 6.2	3.3 3.5 4.0 3.3

Capacity Module:	Conflict Vol:	Potent Cap:	Move Cap:
	978 990	232 248	222 243
	407 983 974 520	648 230 254 560	648 217 249 560

Level of Service Module:	Stopped Del:	LOS by Move:	Movement:	Shared Cap:	Shrd StpDel:	Shared LOS:	ApproachDel:	ApproachLOS:
	XXXXX XXXX XXXX XXXX XXXX XXXX	8.5 XXXX XXXX	LT - LTR - RT	983 974 520	22.4 XXXX XXXX XXXX XXXX XXXX	C	22.4	C
	XXXXX XXXX XXXX XXXX XXXX XXXX	A	LT - LTR - RT	XXXX XXXX XXXX XXXX XXXX	XXXX XXXX XXXX XXXX XXXX	A	XXXXX	XXXXX

GALES CREEK TERRACE
 CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
 2010 TOTAL TRAFFIC - GALES CREEK TERRACE, WEEKDAY PM PEAK HR

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 PACIFIC AVENUE AND 'B' STREET

Cycle (sec): 60 Critical Vol./Cap. (X): 0.499
 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 13.4
 Optimal Cycle: OPTIMIZED Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	0	0	1	0	0	1	0	0

Volume Module:

Base Vol:	69	49	0	0	111	17	24	0	382	132	506	52
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	69	49	0	0	111	17	24	0	382	132	506	52
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	72	51	0	0	116	18	25	0	398	138	527	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	51	0	0	116	18	25	0	398	138	527	54
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	72	51	0	0	116	18	25	0	398	138	527	54

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.84	0.84	1.00	1.00	0.98	0.98	0.95	1.00	0.85	0.95	0.99	0.99
Lanes:	0.58	0.42	0.00	0.00	0.87	0.13	1.00	0.00	1.00	1.00	0.91	0.09
Final Sat.:	934	664	0	0	1618	248	1805	0	1615	1805	1699	175

Capacity Analysis Module:

Vol/Sat:	0.08	0.08	0.00	0.00	0.07	0.07	0.01	0.00	0.25	0.08	0.31	0.31
Crit Moves:	****			****			****			****		
Green/Cycle:	0.15	0.15	0.00	0.00	0.15	0.15	0.03	0.00	0.49	0.15	0.62	0.62
Volume/Cap:	0.50	0.50	0.00	0.00	0.46	0.46	0.50	0.00	0.50	0.50	0.50	0.50
Delay/Veh:	24.9	24.9	0.0	0.0	24.3	24.3	36.6	0.0	10.7	24.7	6.7	6.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.9	24.9	0.0	0.0	24.3	24.3	36.6	0.0	10.7	24.7	6.7	6.7
DesignQueue:	2	1	0	0	3	1	1	0	7	4	7	1

GALES CREEK TERRACE
 CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
 2010 TOTAL TRAFFIC - GALES CREEK TERRACE, WEEKDAY PM PEAK HR

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 19TH STREET AND 'B' STREET

Cycle (sec): 1 Critical Vol./Cap. (X): 0.692
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 11.1
 Optimal Cycle: 0 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Yield Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	0

Volume Module:

Base Vol:	7	110	109	454	209	15	2	34	4	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	7	110	109	454	209	15	2	34	4	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	8	122	121	504	232	17	2	38	4	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	8	122	121	504	232	17	2	38	4	0	0	0

Saturation Flow Module:

Sat/Lane:	0	0	0	0	0	0	0	0	0	0	0	0
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.49	0.48	0.67	0.31	0.02	0.05	0.85	0.10	0.00	0.00	0.00
Final Sat.:	20	322	319	729	335	24	7	111	13	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.38	0.38	0.38	0.69	0.69	0.69	0.34	0.34	0.34	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume/Cap:	0.38	0.38	0.38	0.69	0.69	0.69	0.34	0.34	0.34	0.00	0.00	0.00
Delay/Veh:	4.2	4.2	4.2	13.9	13.9	13.9	3.6	3.6	3.6	0.0	0.0	0.0
AdjDel/Veh:	4.2	4.2	4.2	13.9	13.9	13.9	3.6	3.6	3.6	0.0	0.0	0.0
DesignQueue:	0	0	0	0	0	0	0	0	0	0	0	0

GALES CREEK TERRACE
 CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
 2010 TOTAL TRAFFIC - COMBINED DEVELOPMENTS, WEEKDAY AM PEAK HR

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 PACIFIC AVE AND 'D' STREET

Average Delay (sec/veh): 14.0 Worst Case Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Include	Include	Include
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0

Volume Module:

Base Vol:	11	0	6	0	0	0	0	372	4	13	287	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	0	6	0	0	0	0	372	4	13	287	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	13	0	7	0	0	0	0	433	5	15	334	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	13	0	7	0	0	0	0	433	5	15	334	0

Critical Gap Module:

Critical Gp:	6.4	xxxx	6.2	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	4.1	xxxx	xxxx
FollowUpTim:	3.5	xxxx	3.3	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	2.2	xxxx	xxxx

Capacity Module:

Cnflct Vol:	799	xxxx	435	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	437	xxxx	xxxx
Potent Cap.:	357	xxxx	625	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	1133	xxxx	xxxx
Move Cap.:	354	xxxx	625	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	1133	xxxx	xxxx

Level Of Service Module:

Stopped Del:	xxxx	8.2	xxxx	xxxx								
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT											
Shared Cap.:	xxxx	418	xxxx									
Shrd StpDel:	xxxx	14.0	xxxx	8.2	xxxx	xxxx						
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:	14.0		xxxxxx			xxxxxx				xxxxxx		
ApproachLOS:	B		*			*				*		*

GALES CREEK TERRACE
 CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
 2010 TOTAL TRAFFIC - COMBINED DEVELOPMENTS, WEEKDAY AM PEAK HR

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 PACIFIC AVENUE AND 'C' STREET

Average Delay (sec/veh): 15.5 Worst Case Level Of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Include	Include	Include
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0

Volume Module:

Base Vol:	6	2	5	6	2	2	2	370	6	5	292	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	2	5	6	2	2	2	370	6	5	292	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	7	2	6	7	2	2	2	420	7	6	332	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	7	2	6	7	2	2	2	420	7	6	332	3

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxx	4.1	xxxx	xxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxx	2.2	xxxx	xxxx

Capacity Module:

Cnflct Vol:	776	775	424	777	777	334	335	xxxx	xxxx	427	xxxx	xxxx
Potent Cap.:	317	331	634	316	331	713	1235	xxxx	xxxx	1143	xxxx	xxxx
Move Cap.:	313	329	634	310	328	713	1235	xxxx	xxxx	1143	xxxx	xxxx

Level Of Service Module:

Stopped Del:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	7.9	xxxx	xxxx	8.1	xxxx	xxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT											
Shared Cap.:	xxxx	392	xxxx	xxxx	354	xxxx						
Shrd StpDel:	xxxx	14.5	xxxx	xxxx	15.5	xxxx						
Shared LOS:	*	B	*	*	C	*	*	*	*	*	*	*
ApproachDel:	14.5			15.5			xxxxxx			xxxxxx		
ApproachLOS:	B			C			*		*	*		*

GALES CREEK TERRACE
 CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
 2010 TOTAL TRAFFIC - COMBINED DEVELOPMENTS, WEEKDAY AM PEAK HR

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 PACIFIC AVENUE AND 'B' STREET

Cycle (sec): 60 Critical Vol./Cap. (X): 0.506
 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 12.9
 Optimal Cycle: OPTIMIZED Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	1	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	0	1	1	0	0	1	0	0

Volume Module:

Base Vol:	46	36	0	0	111	24	30	0	414	64	307	31
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	46	36	0	0	111	24	30	0	414	64	307	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	51	40	0	0	123	27	33	0	460	71	341	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	40	0	0	123	27	33	0	460	71	341	34
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	51	40	0	0	123	27	33	0	460	71	341	34

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.86	0.86	1.00	1.00	0.98	0.98	0.95	1.00	0.85	0.95	0.99	0.99
Lanes:	0.56	0.44	0.00	0.00	0.82	0.18	1.00	0.00	1.00	1.00	0.91	0.09
Final Sat.:	912	714	0	0	1525	330	1805	0	1615	1805	1702	172

Capacity Analysis Module:

Vol/Sat:	0.06	0.06	0.00	0.00	0.08	0.08	0.02	0.00	0.28	0.04	0.20	0.20
Crit Moves:	****			****			****			****		
Green/Cycle:	0.16	0.16	0.00	0.00	0.16	0.16	0.05	0.00	0.56	0.08	0.59	0.59
Volume/Cap:	0.35	0.35	0.00	0.00	0.51	0.51	0.34	0.00	0.51	0.51	0.34	0.34
Delay/Veh:	23.3	23.3	0.0	0.0	24.5	24.5	29.4	0.0	8.5	29.5	6.6	6.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.3	23.3	0.0	0.0	24.5	24.5	29.4	0.0	8.5	29.5	6.6	6.6
DesignQueue:	1	1	0	0	4	1	1	0	7	2	5	1

GALES CREEK TERRACE
 CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
 2010 TOTAL TRAFFIC - COMBINED DEVELOPMENTS, WEEKDAY AM PEAK HR

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 19TH STREET AND 'B' STREET

Cycle (sec): 1 Critical Vol./Cap. (X): 0.725
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 11.7
 Optimal Cycle: 0 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Yield Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	0

Volume Module:

Base Vol:	5	100	73	479	146	6	3	92	16	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	100	73	479	146	6	3	92	16	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	6	111	81	532	162	7	3	102	18	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	6	111	81	532	162	7	3	102	18	0	0	0

Saturation Flow Module:

Sat/Lane:	0	0	0	0	0	0	0	0	0	0	0	0
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.56	0.41	0.76	0.23	0.01	0.03	0.83	0.14	0.00	0.00	0.00
Final Sat.:	16	328	239	782	238	10	5	141	25	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.34	0.34	0.34	0.68	0.68	0.68	0.73	0.73	0.73	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume/Cap:	0.34	0.34	0.34	0.68	0.68	0.68	0.73	0.73	0.73	0.00	0.00	0.00
Delay/Veh:	3.6	3.6	3.6	13.3	13.3	13.3	15.8	15.8	15.8	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	3.6	3.6	3.6	13.3	13.3	13.3	15.8	15.8	15.8	0.0	0.0	0.0
DesignQueue:	0	0	0	0	0	0	0	0	0	0	0	0

GALES CREEK TERRACE
 CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
 2010 TOTAL TRAFFIC - COMBINED DEVELOPMENTS, WEEKDAY PM PEAK HR

Level of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)
 Intersection #1 PACIFIC AVE AND 'D' STREET
 Average Delay (sec/veh): 16.1 Worst Case Level of Service: C
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Stop Sign	Uncontrolled	Uncontrolled	Uncontrolled
Rights:	Include	Include	Include	Include
Lanes:	0 0 1 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Volume Module:	7 0 5 0 0	0 0 0 0 0	0 332 11	47 543 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	7 0 5 0 0	0 0 0 0 0	0 332 11	47 543 0
User Adj:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.93 0.93 0.93 0.93 0.93	0.93 0.93 0.93 0.93 0.93	0.93 0.93 0.93	0.93 0.93 0.93
PHF Volume:	8 0 5 0 0	0 0 0 0 0	0 357 12	51 584 0
Reduct Vol:	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0
Final Vol.:	8 0 5 0 0	0 0 0 0 0	0 357 12	51 584 0

Critical Gap Module:
 Critical Gp: 6.4 XXXX 6.2 XXXX XXXX XXXX XXXX XXXX 4.1 XXXX XXXX
 FollowUpLim: 3.5 XXXX 3.3 XXXX XXXX XXXX XXXX XXXX 2.2 XXXX XXXX

Capacity Module:
 Conflict Vol: 1048 XXXX 363 XXXX XXXX XXXX XXXX XXXX XXXX 369 XXXX XXXX
 Potent Cap.: 255 XXXX 686 XXXX XXXX XXXX XXXX XXXX XXXX 1201 XXXX XXXX
 Move Cap.: 246 XXXX 686 XXXX XXXX XXXX XXXX XXXX XXXX 1201 XXXX XXXX

Level of Service Module:
 Stopped Del: XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX 8.0 XXXX XXXX
 LOS by Move: * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: XXXX 336 XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX
 Shrd StpDel: XXXX 16.1 XXXX XXXX XXXX XXXX XXXX XXXX XXXX 8.1 XXXX XXXX
 Shared LOS: * * * * *
 ApproachDel: 16.1 XXXXXX XXXXXX XXXXXX
 ApproachLOS: C

GALES CREEK TERRACE
 CHARBONNEAU ENGINEERING LLC, PROJECT 07-23
 2010 TOTAL TRAFFIC - COMBINED DEVELOPMENTS, WEEKDAY PM PEAK HR

Level of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)
 Intersection #2 PACIFIC AVENUE AND 'C' STREET
 Average Delay (sec/veh): 26.0 Worst Case Level of Service: D
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Stop Sign	Uncontrolled	Uncontrolled	Uncontrolled
Rights:	Include	Include	Include	Include
Lanes:	0 0 1 0 0	0 0 1 0 0	0 0 1 0 0	0 0 1 0 0
Volume Module:	15 6 14 17 7	2 3 374 3	22 515 32	
Growth Adj:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	15 6 14 17 7	2 3 374 3	22 515 32	
User Adj:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.89 0.89 0.89 0.89 0.89	0.89 0.89 0.89 0.89 0.89	0.89 0.89 0.89	0.89 0.89 0.89
PHF Volume:	17 7 16 19 8	2 3 420 3	25 579 36	
Reduct Vol:	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	
Final Vol.:	17 7 16 19 8	2 3 420 3	25 579 36	

Critical Gap Module:
 Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 XXXX XXXX 4.1 XXXX XXXX
 FollowUpLim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 XXXX XXXX 2.2 XXXX XXXX

Capacity Module:
 Conflict Vol: 1080 1093 422 1086 1076 597 615 XXXX XXXX 424 XXXX XXXX
 Potent Cap.: 198 216 636 196 221 507 975 XXXX XXXX 1146 XXXX XXXX
 Move Cap.: 187 211 636 183 215 507 975 XXXX XXXX 1146 XXXX XXXX

Level of Service Module:
 Stopped Del: XXXX XXXX XXXX XXXX XXXX XXXX XXXX 8.7 XXXX XXXX
 LOS by Move: * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: XXXX 268 XXXX XXXX 201 XXXX XXXX XXXX XXXX XXXX XXXX
 Shrd StpDel: XXXX 20.7 XXXX XXXX 26.0 XXXX XXXX XXXX XXXX XXXX
 Shared LOS: * * * * *
 ApproachDel: 20.7 XXXXXX XXXXXX XXXXXX
 ApproachLOS: C

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	AJR
Agency/Co.	Charbonneau Engineering LLC.
Date Performed	8/6/2007
Analysis Time Period	PM Peak Hour

Site Information

Intersection	'D' Street at Pacific Avenue
Jurisdiction	City of Forest Grove
Analysis Year	2010 Total Traffic

Project Description: *Gales Creek Terrace, #07-23 - Gales Creek Terrace Scenario*

East/West Street: *Pacific Avenue*

North/South Street: *'D' Street*

Intersection Orientation: *East-West*

Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
	1	2	3	4	5	6
Movement	L	T	R	L	T	R
Volume (veh/h)	0	320	8	30	492	0
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Hourly Flow Rate (veh/h)	0	344	8	32	529	0
Proportion of heavy vehicles, P _{HV}	0	--	--	0	--	--

Median type	<i>Undivided</i>					
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
	7	8	9	10	11	12
Movement	L	T	R	L	T	R
Volume (veh/h)	5	0	4	0	0	0
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Hourly Flow Rate (veh/h)	5	0	4	0	0	0
Proportion of heavy vehicles, P _{HV}	0	0	0	0	0	0

Percent grade (%)	0			0		
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	0	0	0	0	0
Configuration		LR				

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
	1	4	7	8	9	10	11	12
Movement								
Lane Configuration		LT		LR				
Volume, v (vph)		32		9				
Capacity, c _m (vph)		1218		389				
v/c ratio		0.03		0.02				
Queue length (95%)		0.08		0.07				
Control Delay (s/veh)		8.0		14.5				
LOS		A		B				
Approach delay (s/veh)	--	--		14.5				
Approach LOS	--	--		B				

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	AJR	Intersection	'C' Street at Pacific Avenue
Agency/Co.	Charbonneau Engineering LLC	Jurisdiction	City of Forest Grove
Date Performed	8/6/2007	Analysis Year	2010 Total Traffic
Analysis Time Period	AM Peak Hour		

Project Description: <i>Gales Creek Terrace, #07-23 - Gales Creek Terrace Scenario</i>	
East/West Street: <i>Pacific Avenue</i>	North/South Street: <i>'C' Street</i>
Intersection Orientation: <i>East-West</i> Study Period (hrs): <i>0.25</i>	

Vehicle Volumes and Adjustments						
Major Street Movement	Eastbound			Westbound		
	1 L	2 T	3 R	4 L	5 T	6 R
Volume (veh/h)	2	347	6	4	273	3
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Hourly Flow Rate (veh/h)	2	394	6	4	310	3
Proportion of heavy vehicles, P _{HV}	0	--	--	0	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street Movement	Northbound			Southbound		
	7 L	8 T	9 R	10 L	11 T	12 R
Volume (veh/h)	6	2	4	6	2	2
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Hourly Flow Rate (veh/h)	6	2	4	6	2	2
Proportion of heavy vehicles, P _{HV}	0	0	0	0	0	0
Street grade (%)	0			0		
RT Approach	N			N		
Storage	0			0		
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		

Control Delay, Queue Length, Level of Service							
Approach Movement	EB 1	WB 4	Northbound			Southbound	
			7	8	9	10	11
Lane Configuration	LTR	LTR	LTR			LTR	
Volume, v (vph)	2	4	12			10	
Capacity, C _m (vph)	1259	1170	408			383	
v/c ratio	0.00	0.00	0.03			0.03	
Queue length (95%)	0.00	0.01	0.09			0.08	
Control Delay (s/veh)	7.9	8.1	14.1			14.7	
LOS	A	A	B			B	
Approach delay (s/veh)	--	--	14.1			14.7	
Approach LOS	--	--	B			B	

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	AJR	Intersection	D' Street at Pacific Avenue
Agency/Co.	Charbonneau Engineering LLC.	Jurisdiction	City of Forest Grove
Date Performed	8/6/2007	Analysis Year	2010 Total Traffic
Analysis Time Period	AM Peak Hour		

Project Description: Gales Creek Terrace, #07-23 - Gales Creek Terrace Scenario	
East/West Street: Pacific Avenue	North/South Street: D' Street
Intersection Orientation: East-West	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments						
Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	0	351	3	8	273	0
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86
Hourly Flow Rate (veh/h)	0	408	3	9	317	0
Proportion of heavy vehicles, P _{HV}	0	--	--	0	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	8	0	4	0	0	0
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86
Hourly Flow Rate (veh/h)	9	0	4	0	0	0
Proportion of heavy vehicles, P _{HV}	0	0	0	0	0	0
Percent grade (%)		0			0	
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	0	0	0	0	0
Configuration		LR				

Control Delay, Queue Length, Level of Service							
Approach	EB	WB	Northbound			Southbound	
Movement	1	4	7	8	9	10	11
Lane Configuration		LT		LR			
Volume, v (vph)		9		13			
Capacity, c _m (vph)		1159		436			
v/c ratio		0.01		0.03			
Queue length (95%)		0.02		0.09			
Control Delay (s/veh)		8.1		13.5			
LOS		A		B			
Approach delay (s/veh)	--	--		13.5			
Approach LOS	--	--		B			

TWO-WAY STOP CONTROL SUMMARY

General Information

Site Information

Analyst	AJR
Agency/Co.	Charbonneau Engineering LLC,
Analysis Performed	8/6/2007
Analysis Time Period	PM Peak Hour

Intersection	'D' Street at Pacific Avenue
Jurisdiction	City of Forest Grove
Analysis Year	2010 Total Traffic

Project Description	Gales Creek Terrace, #07-23 - Gales Creek Terrace Scenario		
East/West Street:	Pacific Avenue	North/South Street:	'D' Street
Intersection Orientation:	East-West	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street Movement	Eastbound			Westbound		
	1 L	2 T	3 R	4 L	5 T	6 R
Volume (veh/h)	0	320	8	30	492	0
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Hourly Flow Rate (veh/h)	0	344	8	32	529	0
Proportion of heavy vehicles, P _{HV}	0	--	--	0	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street Movement	Northbound			Southbound		
	7 L	8 T	9 R	10 L	11 T	12 R
Volume (veh/h)	5	0	4	0	0	0
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Hourly Flow Rate (veh/h)	5	0	4	0	0	0
Proportion of heavy vehicles, P _{HV}	0	0	0	0	0	0
Street grade (%)		0			0	
Driveway Approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	0	0	0	0	0
Configuration		LR				

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
			7	8	9	10	11	12
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
Volume, v (vph)		32		9				
Capacity, c _m (vph)		1218		389				
v/c ratio		0.03		0.02				
Queue length (95%)		0.08		0.07				
Control Delay (s/veh)		8.0		14.5				
LOS		A		B				
Approach delay (s/veh)	--	--		14.5				
Approach LOS	--	--		B				

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	AJR	Intersection	'C' Street at Pacific Avenue
Agency/Co.	Charbonneau Engineering LLC	Jurisdiction	City of Forest Grove
Date Performed	8/6/2007	Analysis Year	2010 Total Traffic
Analysis Time Period	AM Peak Hour		

Project Description: <i>Gales Creek Terrace, #07-23 - Gales Creek Terrace Scenario</i>	
East/West Street: <i>Pacific Avenue</i>	North/South Street: <i>'C' Street</i>
Intersection Orientation: <i>East-West</i>	Study Period (hrs): <i>0.25</i>

Vehicle Volumes and Adjustments						
Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	2	347	6	4	273	3
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Hourly Flow Rate (veh/h)	2	394	6	4	310	3
Proportion of heavy vehicles, P _{HV}	0	--	--	0	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	6	2	4	6	2	2
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Hourly Flow Rate (veh/h)	6	2	4	6	2	2
Proportion of heavy vehicles, P _{HV}	0	0	0	0	0	0
Percent grade (%)	0			0		
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Control Delay, Queue Length, Level of Service							
Approach	EB	WB	Northbound			Southbound	
Movement	1	4	7	8	9	10	11
Lane Configuration	LTR	LTR	LTR			LTR	
Volume, v (vph)	2	4	12			10	
Capacity, c _m (vph)	1259	1170	408			383	
v/c ratio	0.00	0.00	0.03			0.03	
Queue length (95%)	0.00	0.01	0.09			0.08	
Control Delay (s/veh)	7.9	8.1	14.1			14.7	
LOS	A	A	B			B	
Approach delay (s/veh)	--	--	14.1			14.7	
Approach LOS	--	--	B			B	

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	AJR
Company/Co.	Charbonneau Engineering LLC
Performed	8/6/2007
Analysis Time Period	PM Peak Hour

Site Information

Intersection	C Street at Pacific Avenue
Jurisdiction	City of Forest Grove
Analysis Year	2010 Total Traffic

Project Description: Gales Creek Terrace, #07-23 - Gales Creek Terrace Scenario

East/West Street: Pacific Avenue	North/South Street: C Street
Intersection Orientation: East-West	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movement	Eastbound			Westbound		
	1 L	2 T	3 R	4 L	5 T	6 R
Volume (veh/h)	3	361	3	17	447	32
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Hourly Flow Rate (veh/h)	3	405	3	19	502	35
Proportion of heavy vehicles, P _{HV}	0	--	--	0	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street Movement	Northbound			Southbound		
	7 L	8 T	9 R	10 L	11 T	12 R
Volume (veh/h)	15	6	13	17	7	2
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Hourly Flow Rate (veh/h)	16	6	14	19	7	2
Proportion of heavy vehicles, P _{HV}	0	0	0	0	0	0
Street grade (%)	0			0		
Flare approach	N			N		
Storage	0			0		
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
			7	8	9	10	11	12
Movement	1	4						
Lane Configuration	LTR	LTR		LTR			LTR	
Volume, v (vph)	3	19		36			28	
Capacity, c _m (vph)	1041	1162		304			234	
v/c ratio	0.00	0.02		0.12			0.12	
Queue length (95%)	0.01	0.05		0.40			0.40	
Control Delay (s/veh)	8.5	8.1		18.4			22.5	
LOS	A	A		C			C	
Approach delay (s/veh)	--	--		18.4			22.5	
Approach LOS	--	--		C			C	

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	AJR
Agency/Co.	Charbonneau Engineering LLC.
Date Performed	8/6/2007
Analysis Time Period	AM Peak Hour

Site Information

Intersection	D' Street at Pacific Avenue
Jurisdiction	City of Forest Grove
Analysis Year	2010 Total Traffic

Project Description *Gales Creek Terrace, #07-23 - Combined Development Scenario*

East/West Street: *Pacific Avenue*

North/South Street: *D' Street*

Intersection Orientation: *East-West*

Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street Movement	Eastbound			Westbound		
	1 L	2 T	3 R	4 L	5 T	6 R
Volume (veh/h)	0	372	4	13	287	0
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86
Hourly Flow Rate (veh/h)	0	432	4	15	333	0
Proportion of heavy vehicles, P _{HV}	0	--	--	0	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street Movement	Northbound			Southbound		
	7 L	8 T	9 R	10 L	11 T	12 R
Volume (veh/h)	11	0	6	0	0	0
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86
Hourly Flow Rate (veh/h)	12	0	6	0	0	0
Proportion of heavy vehicles, P _{HV}	0	0	0	0	0	0
Percent grade (%)	0			0		
Flared approach	N			N		
Storage	0			0		
RT Channelized?			0			0
Lanes	0	0	0	0	0	0
Configuration	LR					

Control Delay, Queue Length, Level of Service

Approach Movement	EB	WB	Northbound			Southbound		
	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
Volume, v (vph)		15		18				
Capacity, c _m (vph)		1134		413				
v/c ratio		0.01		0.04				
Queue length (95%)		0.04		0.14				
Control Delay (s/veh)		8.2		14.1				
LOS		A		B				
Approach delay (s/veh)	--	--		14.1				
Approach LOS	--	--		B				

TWO-WAY STOP CONTROL SUMMARY

General Information

Site Information

Analyst	AJR
Agency/Co.	Charbonneau Engineering LLC.
Performed	8/6/2007
Analysis Time Period	PM Peak Hour

Intersection	D' Street at Pacific Avenue
Jurisdiction	City of Forest Grove
Analysis Year	2010 Total Traffic

Project Description: *Gales Creek Terrace, #07-23 - Combined Development Scenario*

East/West Street: *Pacific Avenue*

North/South Street: *D' Street*

Intersection Orientation: *East-West*

Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street Movement	Eastbound			Westbound		
	1 L	2 T	3 R	4 L	5 T	6 R
Volume (veh/h)	0	332	11	47	543	0
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Hourly Flow Rate (veh/h)	0	356	11	50	583	0
Proportion of heavy vehicles, P _{HV}	0	--	--	0	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street Movement	Northbound			Southbound		
	7 L	8 T	9 R	10 L	11 T	12 R
Volume (veh/h)	7	0	5	0	0	0
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Hourly Flow Rate (veh/h)	7	0	5	0	0	0
Proportion of heavy vehicles, P _{HV}	0	0	0	0	0	0
Grade (%)		0			0	
Flare Approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	0	0	0	0	0
Configuration		LR				

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
			7	8	9	10	11	12
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
Volume, v (vph)		50		12				
Capacity, C _m (vph)		1203		335				
v/c ratio		0.04		0.04				
Queue length (95%)		0.13		0.11				
Control Delay (s/veh)		8.1		16.1				
LOS		A		C				
Approach delay (s/veh)	--	--		16.1				
Approach LOS	--	--		C				

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	AJR	Intersection	'C' Street at Pacific Avenue
Agency/Co.	Charbonneau Engineering LLC	Jurisdiction	City of Forest Grove
Date Performed	8/6/2007	Analysis Year	2010 Total Traffic
Analysis Time Period	AM Peak Hour		

Project Description: <i>Gales Creek Terrace, #07-23 - Combined Developments Scenario</i>	
East/West Street: <i>Pacific Avenue</i>	North/South Street: <i>'C' Street</i>
Intersection Orientation: <i>East-West</i>	Study Period (hrs): <i>0.25</i>

Vehicle Volumes and Adjustments						
Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	2	370	6	5	292	3
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Hourly Flow Rate (veh/h)	2	420	6	5	331	3
Proportion of heavy vehicles, P _{HV}	0	--	--	0	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	6	2	5	6	2	2
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Hourly Flow Rate (veh/h)	6	2	5	6	2	2
Proportion of heavy vehicles, P _{HV}	0	0	0	0	0	0
Percent grade (%)	0			0		
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Control Delay, Queue Length, Level of Service								
Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR		LTR			LTR		
Volume, v (vph)	2	5	13			10		
Capacity, c _m (vph)	1237	1144	395			357		
v/c ratio	0.00	0.00	0.03			0.03		
Queue length (95%)	0.00	0.01	0.10			0.09		
Control Delay (s/veh)	7.9	8.2	14.4			15.4		
LOS	A		B			C		
Approach delay (s/veh)	--	--	14.4			15.4		
Approach LOS	--		B			C		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	AJR	Intersection	C' Street at Pacific Avenue
Company	Charbonneau Engineering LLC	Jurisdiction	City of Forest Grove
Performed	8/6/2007	Analysis Year	2010 Total Traffic
Analysis Time Period	PM Peak Hour		

Project Description: <i>Gales Creek Terrace, #07-23 - Combined Developments Scenario</i>	
East/West Street: <i>Pacific Avenue</i>	North/South Street: <i>C' Street</i>
Intersection Orientation: <i>East-West</i>	Study Period (hrs): <i>0.25</i>

Vehicle Volumes and Adjustments						
Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	3	374	3	22	515	32
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Hourly Flow Rate (veh/h)	3	420	3	24	578	35
Proportion of heavy vehicles, P _{HV}	0	--	--	0	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	15	6	14	17	7	2
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Hourly Flow Rate (veh/h)	16	6	15	19	7	2
Proportion of heavy vehicles, P _{HV}	0	0	0	0	0	0
Street grade (%)		0			0	
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Control Delay, Queue Length, Level of Service								
Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR	LTR			LTR		
Volume, v (vph)	3	24	37			28		
Capacity, C _m (vph)	976	1147	269			199		
v/c ratio	0.00	0.02	0.14			0.14		
Queue length (95%)	0.01	0.06	0.47			0.48		
Control Delay (s/veh)	8.7	8.2	20.5			26.0		
LOS	A	A	C			D		
Approach delay (s/veh)	--	--	20.5			26.0		
Approach LOS	--	--	C			D		

TRAFFIC ANALYSIS REPORT

FOR

GALES CREEK TERRACE

19TH AVENUE

CITY OF FOREST GROVE

PREPARED BY



**CHARBONNEAU
ENGINEERING LLC**

JULY 2007

PROJECT 07-23

TRAFFIC ANALYSIS REPORT

FOR

GALES CREEK TERRACE

19TH AVENUE

CITY OF FOREST GROVE

PREPARED BY

Charbonneau Engineering LLC

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RENEWS: 12/31/07

JULY 2007

PROJECT 07-23

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INTRODUCTION

This traffic study has been prepared to document and evaluate the traffic operation, circulation, and safety conditions associated with three residential developments in the City of Forest Grove. The proposed developments include the Gales Creek Terrace property (46 single-family units & 54 townhomes units), Kinzer property (48 single-family units & 39 townhome units), and the Kim property (78 single-family units & 60 townhome units). The study vicinity included Pacific Avenue, 19th Street, 'B' Street, and the general development area. The site is located along the south side of Pacific Avenue and west of 'D' Avenue. The site location is situated on the west side of the City's current central downtown and is highlighted on the vicinity map (Figure 'a') in the appendix.

TRAFFIC ANALYSIS CONSIDERATIONS

In the project scope established with the project development team and input provided by City of Forest Grove staff, a number of important elements were identified and considered in this study.

- Inventory and record pertinent information such as traffic control devices, circulation patterns, lane widths, pedestrian & bicycle facilities, transit zones, parking conditions, and street characteristics.
- Record data on typical weekdays during the AM & PM peak traffic hours.
- Conduct peak hour traffic counts at the study intersections including Pacific Avenue at 'B' Street and 19th Avenue at 'B' Street.
- Level of service (LOS) analysis of the study intersections to measure the approach delays for comparison to City standards, signal warrant determination, and lane configuration.
- Determination of the impacts associated with each development.
- Determination of the impacts associated with all three developments.
- Documenting traffic circulation associated with retention of the current one-way couplet on Pacific Avenue and 19th Avenue.
- Documenting traffic circulation associated with extending the one-way couplet on Pacific Avenue and 19th Avenue to 'E' Street.
- Establishment of the project trip distribution based the on the current and future street system and connectivity to the project sites, traffic count data, input from City Staff, and engineering judgement.
- Review of traffic accident data furnished by ODOT and determination of the intersection crash rates.
- Inclusion of traffic growth to account for future conditions. A two percent per year growth rate over a three-year period was applied to the existing traffic volumes. This rate was established from the City's Transportation System Plan Final Report.

SITE DESCRIPTION, STREETS, AND CRITICAL INTERSECTIONS

The three development sites (Gales Creek Terrace, Kinzer Development, & Kim Development) are located south of Pacific Highway and west of 'D' Street. The surrounding

area consists of residential properties. Development of the Gales Creek Terrace site includes construction of 46 single-family homes and 54 townhomes. Although final site plans have not been established for the Kinzer and Kim properties the number of housing units for each location has been projected. Therefore, for traffic analysis purposes the Kinzer property was analyzed for 48 single-family units and 39 townhome units and the Kim site analyzed for 78 single-family units and 60 townhomes.

In conjunction with the proposed development vehicular access will be provided with connections to Richey Road, Pacific Avenue, the future extension of 19th Avenue from 'D' Street, and 18th Avenue. Figure 'b' illustrates the proposed site plan for the Gales Creek Terrace development. Figure 'c' depicts the locations of all three development properties (Gales Creek Terrace, Kinzer, & Kim) and the proposed traffic circulation system.

The intersection of **Pacific Avenue at 'B' Street** is controlled by signalization with the east leg consisting of two one-way (eastbound) lanes. The north, south, and west intersection legs permit two-way traffic flow and have two travel lanes. The existing lane configuration and traffic control is presented on Figure 'd'. On both sides of the intersection 'B' Street measures 40 feet wide between the curbs. West of 'B' Street the curb-to-curb width on Pacific Avenue is 40 feet and east of 'B' Street the width is 32 feet.

The intersection of **19th Avenue at 'B' Street** is controlled by stop signing and overhead flashing beacons. Stop signs are posted on the northbound and eastbound approaches. East of the intersection traffic flow is one-way eastbound on 19th Avenue and contains two travel lanes. The north, south, and west intersection legs permit two-way flow and have two travel lanes. Parallel on-street parking is permitted along both sides of 19th Avenue. Parallel on-street parking is permitted on the west side of 'B' Street. 'B' Street measures 40 feet wide between the curbs. The curb-to-curb width on 19th Street is 50 feet east of 'B' Street and 35 feet west of the intersection.

TRAFFIC CIRCULATION CONSIDERATIONS

The future traffic circulation plan extending the one-way couplet on Pacific Avenue and 19th Avenue is shown on Figure 'c'. The couplet's extension to 'E' Street will necessitate improving 19th Avenue west of 'D' Street and along the north frontage of the Gales Creek Terrace site. Ultimately 19th Avenue will be extended through the Kinzer and Kim properties, establishing access to Richey Road and Pacific Avenue. These proposed street improvements were considered in preparing the trip distribution, assignments, and year 2010 traffic conditions.

TRAFFIC OPERATIONAL ANALYSIS

In order to evaluate traffic flow and delay in the area two intersections were analyzed for level of service (LOS) conditions, safety, and traffic control. The intersections evaluated included 'B' Street at Pacific Avenue and at 19th Avenue. LOS analyses were completed in AM and the PM peak hour periods for the following scenarios:

- 2007 Existing Traffic
- 2010 Background Traffic
- 2010 Total Traffic with Gales Creek Terrace
- 2010 Total Traffic with Kinzer Development
- 2010 Total Traffic with Kim Development
- 2010 Total Traffic with Gales Creek Terrace, Kinzer, and Kim Developments – Existing Couplet System & Extended Couplet System

In order to perform the LOS analysis at the critical intersections manual traffic counts were conducted during the AM (7:00-9:00 AM) and PM peak (4:00-6:00 PM) traffic hours. Figure 1 illustrates the existing volume data for the weekday peak hours.

Background growth is comprised of the existing traffic factored with a traffic growth rate. For this project a growth rate of two percent per year was applied for the three-year analysis period. The growth rate was derived from data contained in the City's Transportation System Plan, Final Report by DKS Associates, November 1999. Background traffic volumes (sum of existing and growth traffic) are illustrated in Figure 2.

Implementation of the one-way couplet extension will result in traffic circulation changes from the current conditions. In order to document the changes the rerouted traffic associated with the two study intersections is depicted in Figure 3.

The year 2010 total traffic is the summation of background traffic volumes, rerouted traffic, and site generated traffic. Year 2010 peak hour volumes are presented in Figure 7a (Gales Creek Terrace), Figure 7b (Kinzer Development), Figure 7c (Kim Development) and Figure 7d (combined developments, extended couplet).

Figures 8 -10 were developed to illustrate the trip distribution, trip assignments, and year 2010 total traffic, respectively for the existing couplet scenario (no extension of the one-way couplet system).

VEHICULAR TRIP GENERATION

Trip rates presented in the Institute of Transportation Engineers (ITE) Trip Generation manual, 7th edition (year 2003), were utilized to estimate the project's trip generation. Single-family residential (ITE 210) and Townhome (ITE 230) trip rates were applied to estimate the trips generated by the proposed developments. Tables 1-3 present the trip generation summary.

Table 1. Projected trip generation for Gales Creek Terrace

ITE Land Use	Units (#)	Weekday						
		ADT	AM Peak Hour			PM Peak Hour		
			Total	Enter	Exit	Total	Enter	Exit
<i>Single-Family (#210)</i>	46							
Generation Rate ¹		9.57	0.75	25%	75%	1.01	63%	37%
Single-Family Trips		440	35	9	26	46	29	17
<i>Residential Condo/Townhouse (#230)</i>	54							
Generation Rate ¹		5.86	0.44	17%	83%	0.52	67%	33%
Condo/Townhouse Trips		316	24	4	20	28	19	9
Net New Site Trips	100	756	59	13	46	74	48	26

¹ Source: *Trip Generation*, 7th Edition, ITE, 2003, average rates.

Table 2. Projected trip generation for Kinzer Development

ITE Land Use	Units (#)	Weekday						
		ADT	AM Peak Hour			PM Peak Hour		
			Total	Enter	Exit	Total	Enter	Exit
<i>Single-Family (#210)</i>	48							
Generation Rate ¹		9.57	0.75	25%	75%	1.01	63%	37%
Single-Family Trips		459	36	9	27	48	30	18
<i>Residential Condo/Townhouse (#230)</i>	39							
Generation Rate ¹		5.86	0.44	17%	83%	0.52	67%	33%
Condo/Townhouse Trips		229	17	3	14	20	13	7
Net New Site Trips	87	688	53	12	41	68	43	25

¹ Source: *Trip Generation*, 7th Edition, ITE, 2003, average rates.

Table 3. Projected trip generation for Kim Development

ITE Land Use	Units (#)	Weekday						
		ADT	AM Peak Hour			PM Peak Hour		
			Total	Enter	Exit	Total	Enter	Exit
<i>Single-Family (#210)</i>	78							
Generation Rate ¹		9.57	0.75	25%	75%	1.01	63%	37%
Single-Family Trips		746	59	15	44	79	50	29
<i>Residential Condo/Townhouse (#230)</i>	60							
Generation Rate ¹		5.86	0.44	17%	83%	0.52	67%	33%
Condo/Townhouse Trips		352	26	4	22	31	21	10
Net New Site Trips	138	1,098	85	19	66	110	71	39

¹ Source: *Trip Generation*, 7th Edition, ITE, 2003, average rates.

Development of Gales Creek Terrace is expected to generate 756 daily trips, 59 AM peak hour trips, and 74 PM peak hour trips. The Kinzer site is projected to generate 688 daily trips, 53 AM peak hour trips, and 68 PM peak hour trips. The Kim property is projected to generate 1,098 daily trips, 85 AM peak hour trips, and 110 PM peak hour trips.

Based on the trip generation associated with the perspective developments each site will contribute the following number of daily trips within the study area. For comparison purposes the proportion (percentage) associated with each site is provided.

<u>Development Site</u>	<u>Ave. Daily Traffic Generation</u>	<u>% ADT</u>
Gales Creek Terrace	756	30%
Kinzer Development	688	27%
Kim Development	<u>1,098</u>	<u>43%</u>
Total ADT Generated	2,542	100%

The trip distribution for each of the proposed developments was based on the future traffic patterns and street connectivity associated with current and extended one-way couplet. Other considerations include site location, area development, traffic count data, City input, and engineering judgement. Figure 4 depicts the trip distribution within the general study area, Figures 5a-5c illustrate the trip distribution for each development site, Figures 6a-6c illustrate the corresponding trip assignments, and Figure 6d illustrates the total trip assignment for the combined developments for the extended one-way couplet scenario.

CAPACITY ANALYSIS

Capacity analyses were performed to determine the levels of service for the weekday AM and PM peak hours. Traffix software (Version 7.5) was used to determine the level of service for each scenario considered. The program is based on the 2000 Highway Capacity Manual methodology. Tables 4a, 4b, and 4c summarize the analysis results. Copies of the capacity analysis calculations are included in the appendix.

Table 4a Capacity Analysis Summary for Existing and Background Conditions

Intersection	Type of Control	Peak Hour	Traffic Scenario							
			2007 Existing				2010 Background			
			Crit. Mov't	LOS	Delay	v/c	Crit. Mov't	LOS	Delay	v/c
Pacific Avenue at "B" Street	Signal	AM	-	B	11.2	0.61	-	B	11.8	0.63
		PM	-	B	10.9	0.56	-	B	11.5	0.57
19th Street at "B" Street	Two-way Stop	AM	-	B	8.3	0.6	-	B	9.5	0.64
		PM	-	B	9.7	0.65	-	B	9.1	0.64

Notes: 2000 Highway Capacity Manual methodology used in analysis. Crit. Mov't - Critical movement or critical approach.

Table 4b. Summary of capacity analysis for study intersections with Extended Couplet.

Development Scenario	Intersection	Type of Control	Peak Hour	Traffic Scenario			
				2010 Total			
				Crit. Mov't	LOS	Delay	v/c
Gales Creek Terrace Development	Pacific Avenue at "B" Street	Signal	AM	-	A	8.4	0.52
			PM	-	A	9.9	0.60
	19th Street at "B" Street	Two-way Stop	AM	SB	D	30.2	-
			PM	SB	F	59.0	-
		Mitigated ¹	AM	SB	C	19.2	-
			PM	SB	C	23.3	-
Kinzer Development	Pacific Avenue at "B" Street	Signal	AM	-	A	8.4	0.52
			PM	-	A	9.9	0.59
	19th Street at "B" Street	Two-way Stop	AM	SB	D	30.1	-
			PM	SB	F	59.6	-
		Mitigated ¹	AM	SB	C	19.2	-
			PM	SB	C	23.4	-
Kim Development	Pacific Avenue at "B" Street	Signal	AM	-	A	8.5	0.52
			PM	-	B	10.2	0.61
	19th Street at "B" Street	Two-way Stop	AM	SB	D	32.0	-
			PM	SB	F	64.7	-
		Mitigated ¹	AM	SB	C	19.8	-
			PM	SB	C	24.2	-
Combined Developments	Pacific Avenue at "B" Street	Signal	AM	-	A	8.6	0.47
			PM	-	B	10.7	0.62
	19th Street at "B" Street	Two-way Stop	AM	SB	E	39.7	-
			PM	SB	F	81.2	-
		Mitigated ¹	AM	SB	C	22.1	-
			PM	SB	D	26.7	-

Notes: 2000 Highway Capacity Manual methodology used in analysis. SB - Southbound, Crit. Mov't - Critical movement or critical approach.

¹ - Mitigation: Construct separate left turn lane on the southbound approach.

The analysis associated with 2010 Total Traffic scenario incorporates an extended one way couplet along Pacific Avenue (westbound) and 19th Street (eastbound) from "B" Street to "E" Street.

Table 4c. Summary of capacity analysis for study intersections with Existing Couplet

Intersection	Type of Control	Peak Hour	Traffic Scenario			
			2010 Total			
			Crit. Mov't	LOS	Delay	v/c
Pacific Avenue at "B" Street	Signal	AM	-	B	10.6	0.58
		PM	-	B	12.1	0.60
19th Street at "B" Street	Two-way Stop	AM	-	C	10.9	0.69
		PM	-	C	11.8	0.71

Notes: 2000 *Highway Capacity Manual* methodology used in analysis. Crit. Mov't - Critical movement or critical approach.

For the existing and year 2010 background scenarios the study intersections operate at level of service 'B'. The conditions are acceptable and exceed the City's level of service standard. Therefore, intersection improvements are not necessary through the year 2010 background scenario.

For the year 2010 total traffic (extended couplet and existing couplet scenarios) the signalized intersection of Pacific Avenue at 'B' Street will maintain acceptable conditions (LOS 'B' or better). Extension of the one-way couplet system will permit the signal to operate as two phases (current operation is three phases) resulting in a lower cycle length.

For the extended couplet design and the year 2010 total traffic scenario the stop controlled intersection of 'B' Street at 19th Avenue will degrade to LOS 'F' in the PM peak hour. This condition will occur whether Gales Creek Terrace, Kinzer property, or Kim property develop individually or in combination. To mitigate the failing LOS it will be necessary to implement a separate southbound left turn lane on 'B' Street. The proposed lane configuration and traffic control is shown on Figure 'd'. In order to accommodate the traffic flow associated with incorporation of the one-way couplet extension west of 'B' Street it will be necessary to maintain stop control on the northbound and southbound approaches to 19th Avenue. Eastbound traffic on 19th Avenue will not be controlled by stop signing. Parking will be maintained on 19th Avenue.

For the year 2010 total traffic without extension of the one-way couplet the current traffic control at 'B' Street and 19th Avenue will be sufficient to maintain LOS 'C' conditions. The stop control on the northbound and eastbound legs shall be maintained and no additional lanes will be necessary.

Generally, LOS 'A', 'B', 'C', and 'D' are desirable service levels ranging from no vehicle delays to average or longer than average delays in the peak hours. Level 'E' represents long delays indicating signalization warrants need to be reviewed and signals considered only if warrants are met. Level 'F' indicates that intersection improvements, such as widening and signalization, may be required. According to the Highway Capacity Manual (HCM), the

following delay times are associated with the LOS at stop controlled unsignalized and signalized intersections.

Level of Service criteria defined in the 2000 Highway Capacity Manual.

Level of Service (LOS)	Unsignalized Control Stopped Delay (sec/veh)	Signalized Control Stopped Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

QUEUING & LEFT TURN LANE ANALYSIS

The southbound queue length on 'B' Street at 19th Avenue was analyzed using the Highway Capacity Software (HCS) to determine the length of storage. Copies of the reports are included in the appendix.

Through the 2010 total traffic scenario with extension of the one-way couplet the 95th percentile queue for southbound traffic on 'B' Street at 19th Avenue approach will equate to 3.2 vehicles in the PM peak hour. Therefore, it is recommended that a separate southbound left turn lane be provided with 100 feet of storage. The turn lane may be incorporated (without street widening) by re-striping 'B' Street for three lanes (currently 40 feet wide between curbs) on the north approach and removing on-street parking (approximately six spaces along the west curb line).

For the year 2010 total traffic scenario and no extension of the one-way couplet it will not be necessary to add a separate southbound left turn lane on 'B' Street at 19th Avenue because the southbound movement will be uncontrolled.

TRAFFIC SIGNAL WARRANTS

The peak hour signal warrant presented in the Manual on Uniform Traffic Control Devices (MUTCD, Figure 4C-3) was reviewed at the intersection of 'B' Avenue and 19th Street. The analysis confirmed that the signal warrant is not met for the existing, year 2010 background, or year 2010 total traffic (extended and non-extended couplet) scenarios. A copy of the peak hour signal warrant is included.

ACCIDENT HISTORY

Accident data for the study intersections on 'B' Street was obtained from ODOT and reviewed to evaluate the traffic safety status. The data was derived from a five-year study period covering the years 2001 through 2005.

The accident rates presented in Table 5 below are based on the number of accidents per million entering vehicles (MEV). Typically, an intersection is not considered unsafe unless the accident rate exceeds the threshold of 1.0 accidents per MEV.

Table 5 Accident Rate Summary

Intersection	Accident History (Years)	Number of Accidents	Accidents per year	Annual Traffic Entering (veh/yr)	Accident rate per M.E.V.*
Pacific Avenue at "B" Street	5	8	1.6	4499757	0.356
19th Street at "B" Street	5	1	0.2	3141064	0.064

* M.E.V. - million entering vehicles.

The study intersections have not experienced a crash rate over 0.356 accidents per MEV and therefore safety mitigation is not necessary.

PEDESTRIANS, BICYCLES & TRANSIT

Sidewalks occur on both sides of Pacific Avenue, 'B' Street, and 19th Avenue and most streets throughout the downtown area. Sidewalks are also present at the intersections of Pacific Avenue and 'B' Street and 19th Avenue and 'B' Street.

A bicycle lane is marked on the north side of Pacific Avenue at 'B' street and along the south side of 19th Avenue east of 'B' Street.

Tri-Met provides transit service along Pacific Avenue, 'B' Street, and 19th Avenue with a bus stop/pull-out lane located in the northeast corner of 'B' Street at 19th Avenue.

SUMMARY AND RECOMMENDATIONS

The traffic study has been prepared to document and evaluate the traffic operation, circulation, and safety conditions associated with three residential developments in the City of Forest Grove. The proposed developments include the Gales Creek Terrace property (46 single-family units & 54 townhomes units), Kinzer property (48 single-family units & 39 townhome units), and the Kim property (78 single-family units & 60 townhome units). The study area included Pacific Avenue, 19th Street, and 'B' Street. The site is located along the south side of Pacific Avenue and west of 'D' Avenue. The site location is highlighted on the vicinity map (Figure 'a').

Implementation of the one-way couplet extension along Pacific Avenue and 19th Avenue west of 'B' Street will result in traffic circulation changes from the current conditions. Figure 'c' illustrates the three development locations, the one-way couplet extension, and the future street connectivity.

In order to evaluate traffic flow and delay in the area two intersections were analyzed for level of service (LOS) conditions, safety, and traffic control. The intersections evaluated included 'B' Street at Pacific Avenue and at 19th Avenue. The LOS analyses were completed in the peak hours for the existing, year 2010 background, and year 2010 total traffic conditions with and without extension of the one-way couplet system. Analysis of the total traffic conditions included identifying the impacts associated with each development and the combined impacts for all three sites.

For the existing and year 2010 background scenarios the study intersections will experience LOS 'B' conditions and mitigation will not be necessary. For the year 2010 total traffic scenario the signalized intersection of Pacific Avenue at 'B' Street will maintain acceptable conditions (LOS 'A'). Modification of the signal phasing from three to two phases will be necessary under the extended couplet scenario.

In the year 2010 total traffic scenario (with extension of the one-way couplet) the stop controlled intersection of 'B' Street at 19th Avenue will degrade to LOS 'F' in the PM peak hour. This condition will occur whether Gales Creek Terrace, Kinzer property, or Kim property develop individually or in combination. To mitigate the failing LOS it will be necessary to implement a separate southbound left turn lane on 'B' Street. The proposed lane configuration and traffic control is shown on Figure 'd'. In order to accommodate the traffic flow it will be necessary to maintain stop control on the northbound and southbound approaches to 19th Avenue.

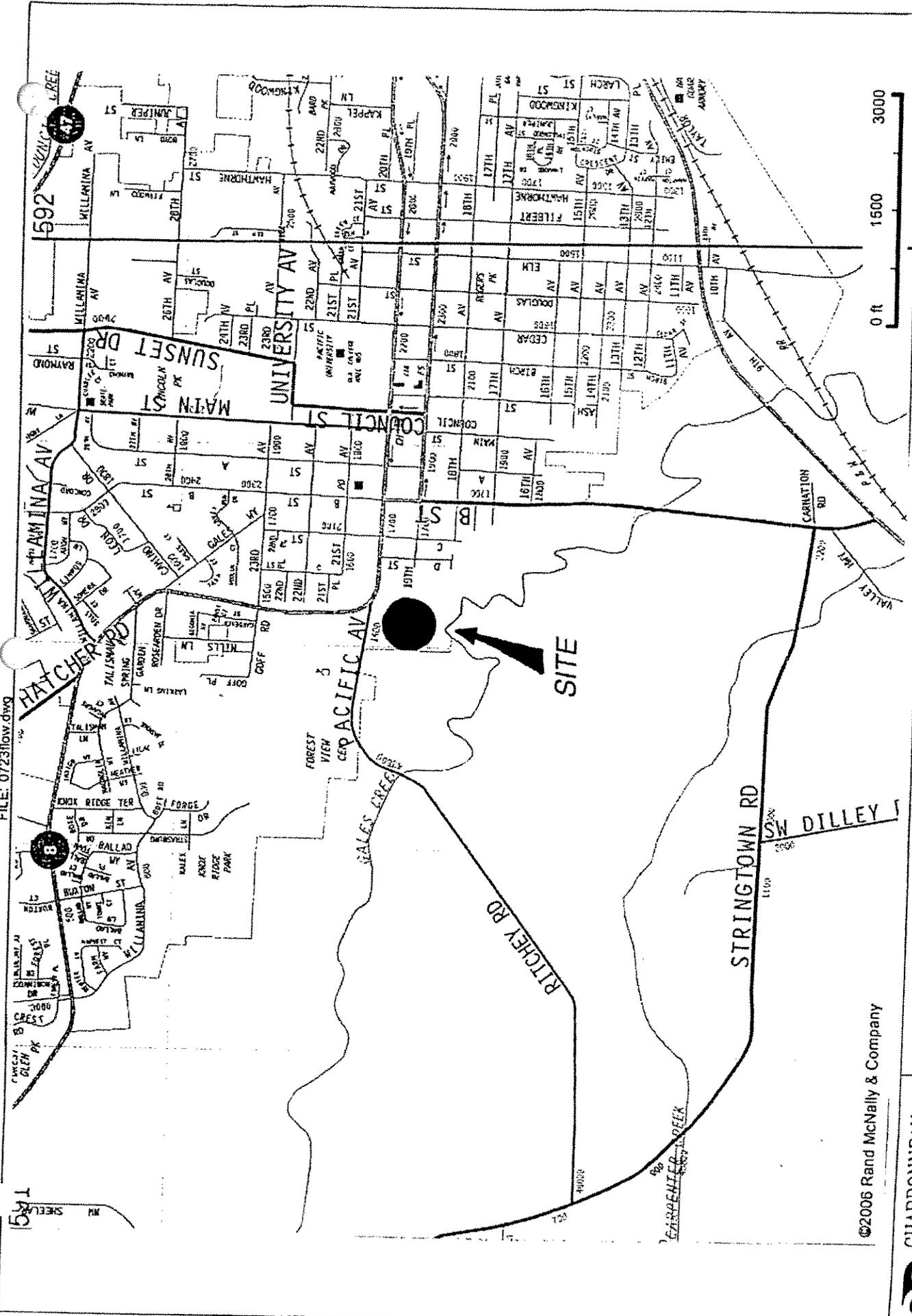
The southbound queue length on 'B' Street at 19th Avenue was analyzed (year 2010 total traffic, extended couplet scenario) in order to determine the length of storage required. Based on the analysis results it is recommended that a separate southbound left turn lane be provided with 100 feet of storage. The turn lane may be added without street widening by re-striping 'B' Street (currently 40 feet wide between curbs) for three lanes on the north approach and removing on-street parking (approximately six spaces along the west curb line).

For the year 2010 total traffic without extension of the one-way couplet the current traffic control at 'B' Street and 19th Avenue will be sufficient to maintain LOS 'C' conditions. The stop control on the northbound and eastbound legs shall be maintained and no additional lanes will be necessary.

The peak hour signal warrant was reviewed at the intersection of 'B' Avenue and 19th Street and the analysis confirmed that the signal warrant is not met for the existing, year 2010 background, or year 2010 total traffic scenarios.

APPENDIX

- Vicinity Map Figure a
- Site Plan Figure b
- Proposed Traffic Circulation Figure c
- Lane Configuration and Traffic Control Figure d
- Traffic Flow Diagrams
 - Figure 1 Year 2007 Existing Traffic, AM & PM Peak Hour
 - Figure 2 Year 2010 Background Traffic
 - Figure 3 Rerouted Existing Traffic
 - Figure 4 Trip Distribution – Extended Couplet
 - Figure 5a Trip Distribution, Gales Creek Terrace – Extended Couplet
 - Figure 5b Trip Distribution, Kinzer Development– Extended Couplet
 - Figure 5c Trip Distribution, Kim Development – Extended Couplet
 - Figure 6a Trip Assignment, Gales Creek Terrace – Extended Couplet
 - Figure 6b Trip Assignment, Kinzer Development – Extended Couplet
 - Figure 6c Trip Assignment, Kim Development – Extended Couplet
 - Figure 6d Trip Assignment, Combined Developments - Extended Couplet
 - Figure 7a Year 2010 Total Traffic, Gales Creek Terrace - Extended Couplet
 - Figure 7b Year 2010 Total Traffic, Kinzer Development - Extended Couplet
 - Figure 7c Year 2010 Total Traffic, Kim Development - Extended Couplet
 - Figure 7d Year 2010 Total Traffic, Combined Development - Extended Couplet
 - Figure 8 Trip Distribution, Combined Developments – Existing Couplet
 - Figure 9 Trip Assignment, Combined Developments – Existing Couplet
 - Figure 10 Year 2010 Total Traffic, Combined Developments – Existing Couplet
- Traffic Count Data
- Peak Hour Signal Warrant
- Accident History Summary (furnished by ODOT)
- Traffic & HCS Capacity Analysis Worksheets



VICINITY MAP
GALES CREEK TERRACE



NOTES:

CHARBONNEAU
ENGINEERING LLC

PROJECT: 07-23

©2006 Rand McNally & Company

PLOT DATE: 06/01/07

FILE: 0723site.dwg



SCALE:
1" = 200'



 **CHARBONNEAU
ENGINEERING LLC**

NOTES: Site plan provided by SFA Design
Group, LLC.

PROJECT: 07

SITE PLAN
GALES CREEK TERRACE

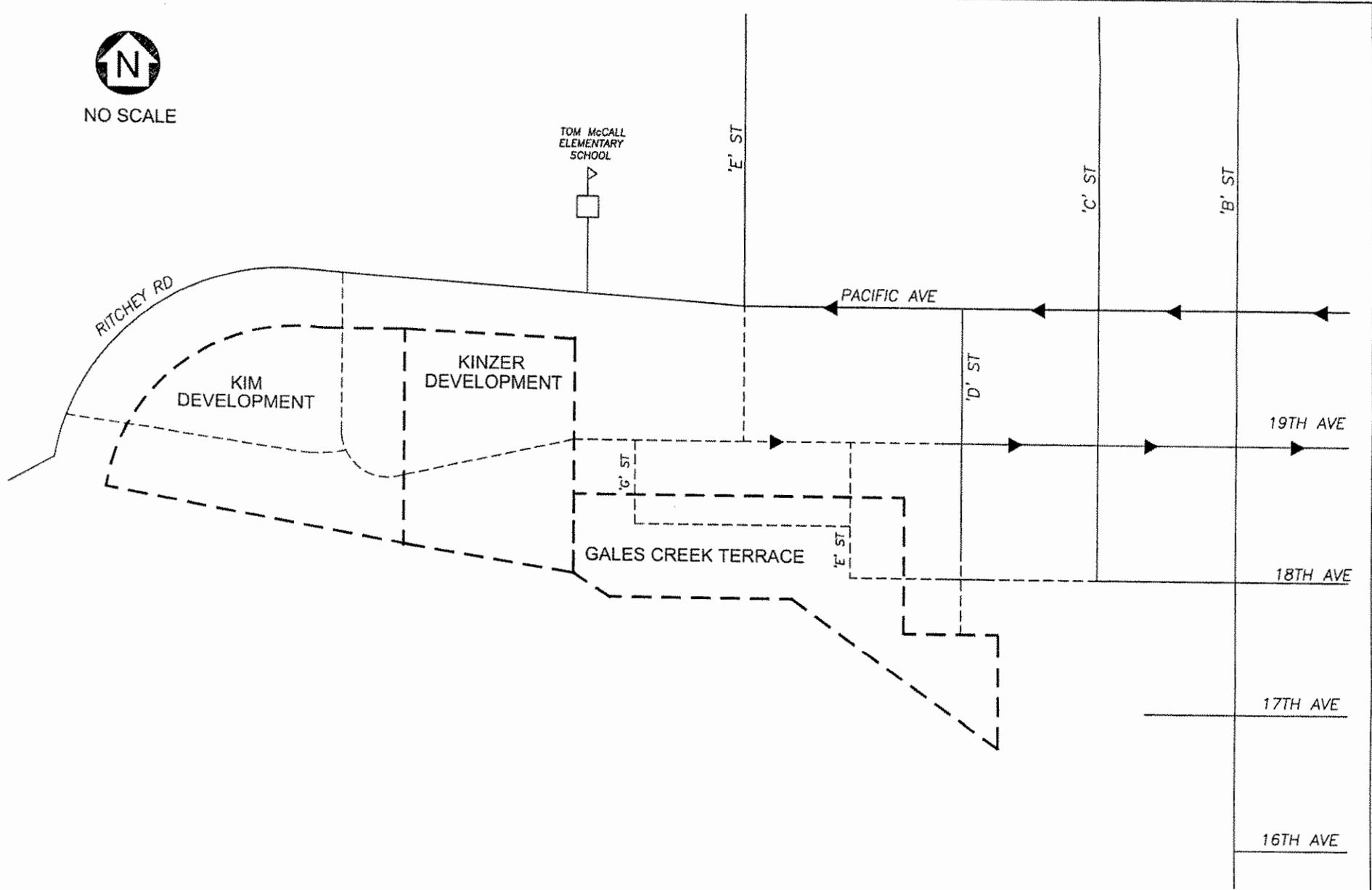
FIGURE

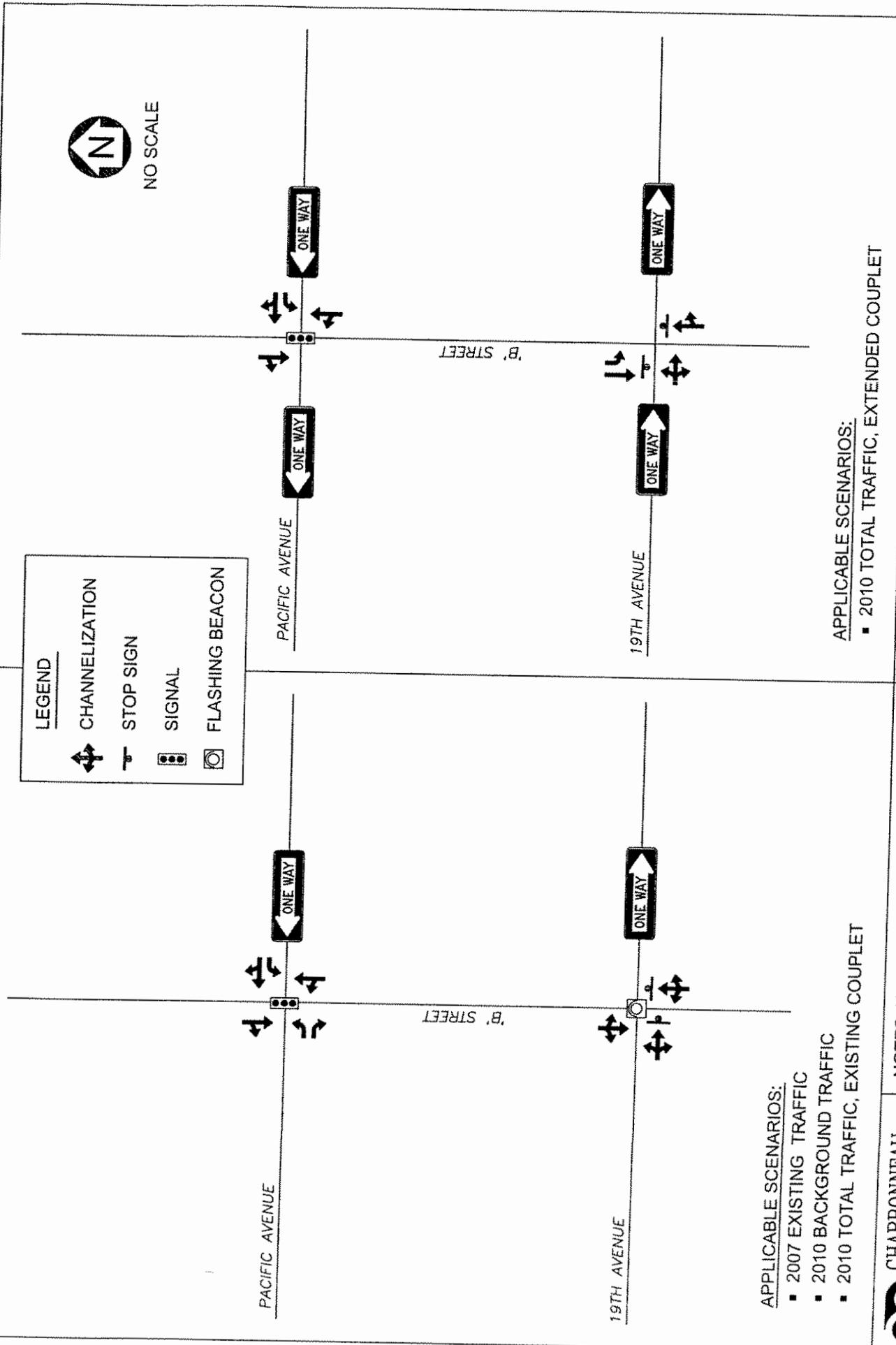
b



NO SCALE

TOM McCALL
ELEMENTARY
SCHOOL





APPLICABLE SCENARIOS:

- 2007 EXISTING TRAFFIC
- 2010 BACKGROUND TRAFFIC
- 2010 TOTAL TRAFFIC, EXISTING COUPLET

APPLICABLE SCENARIOS:

- 2010 TOTAL TRAFFIC, EXTENDED COUPLET

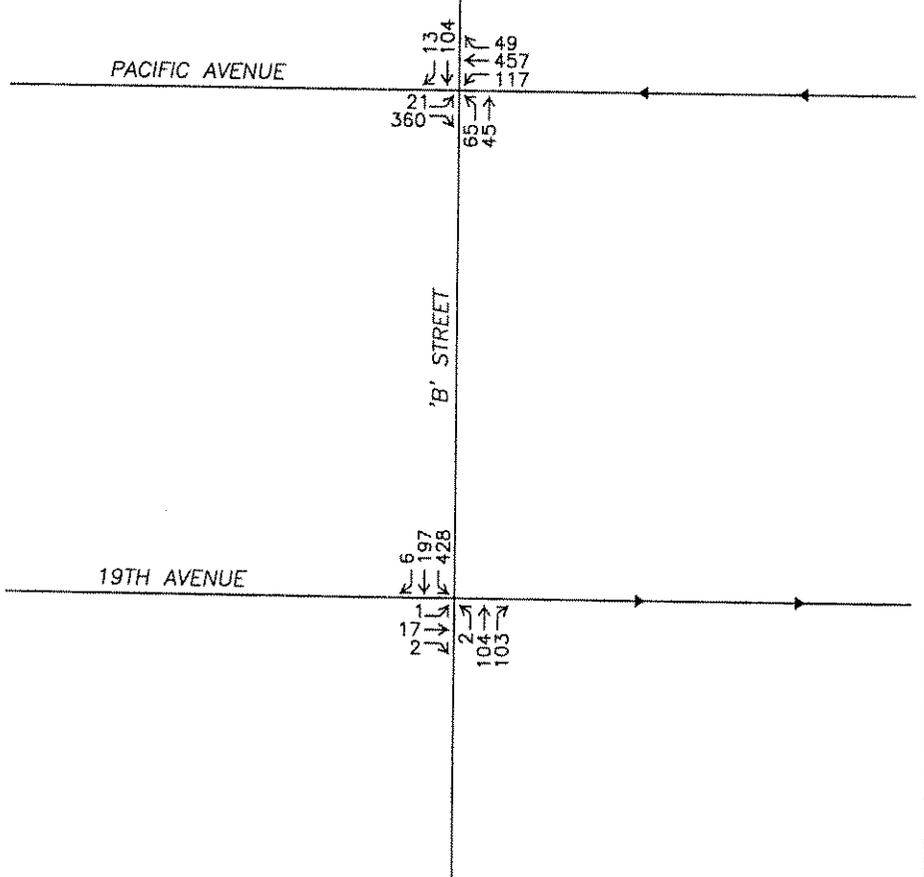
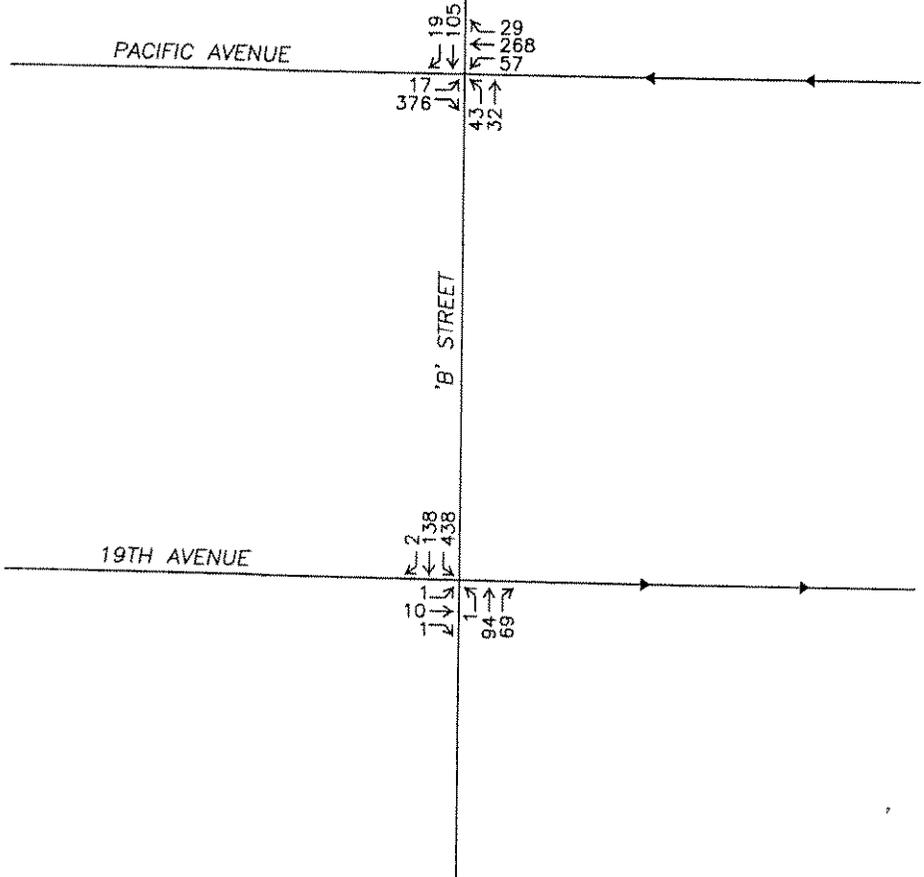
NOTES: Under existing conditions Pacific Avenue and 19th Avenue are two-way streets west of 'B' Street.

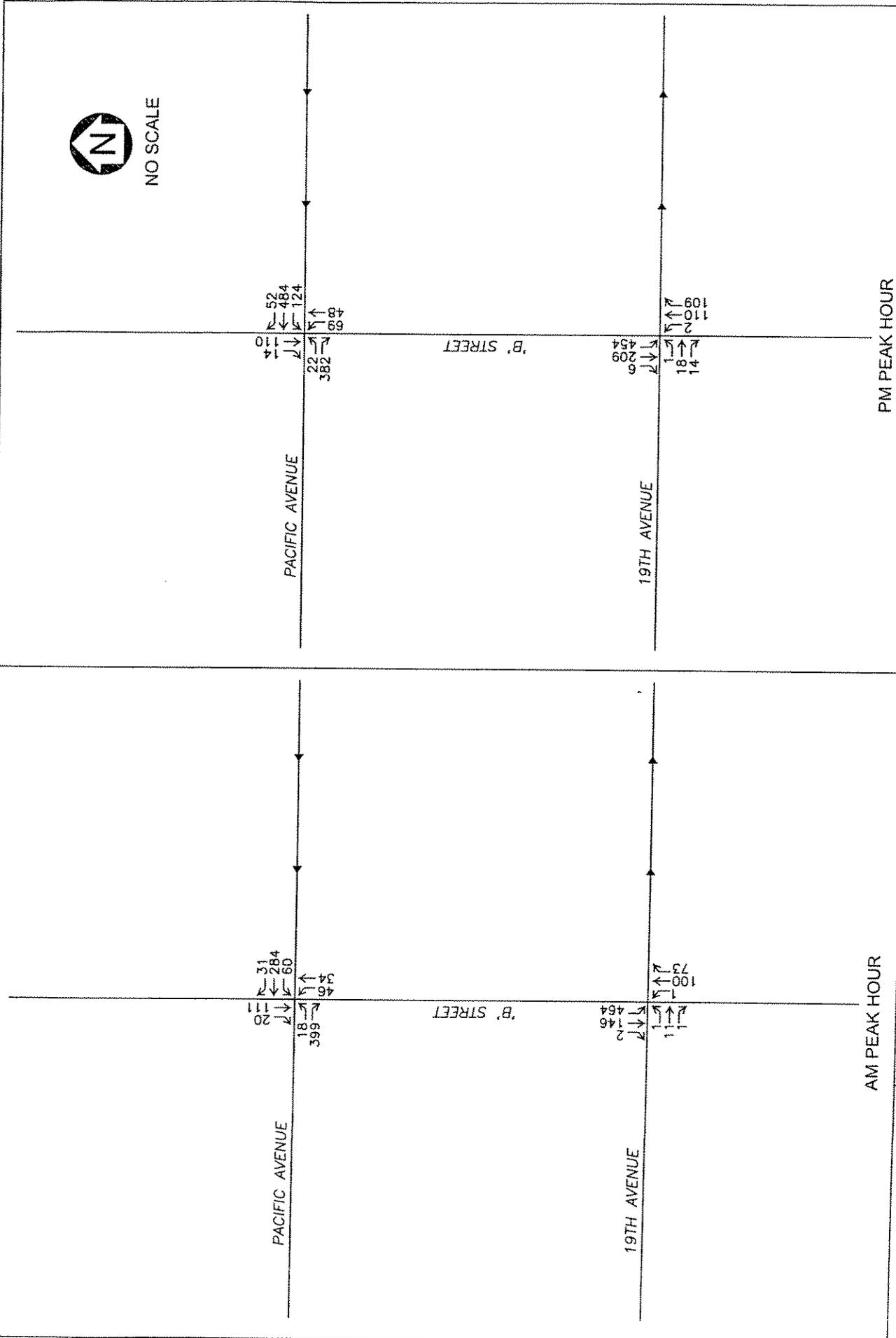
CHARBONNEAU ENGINEERING LLC
PROJECT: 07

LANE CONFIGURATIONS AND TRAFFIC CONTROL
GALES CREEK TERRACE
FIGURE d



NO SCALE

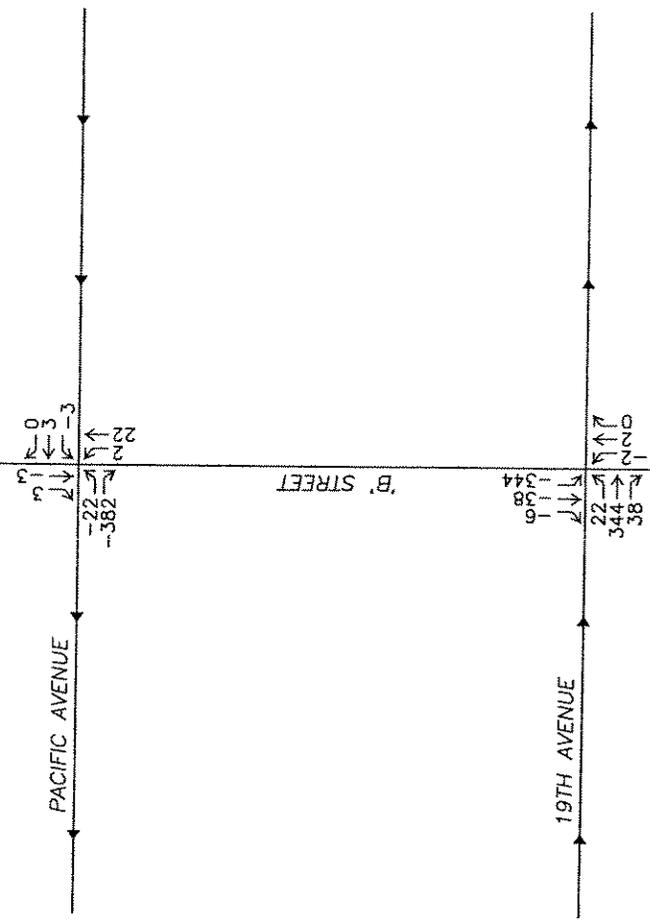




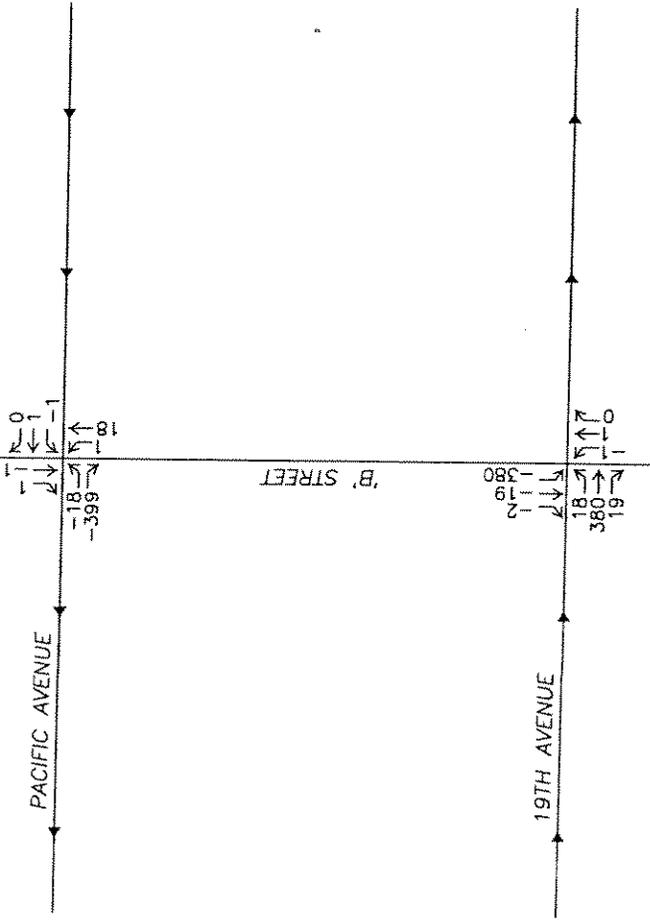
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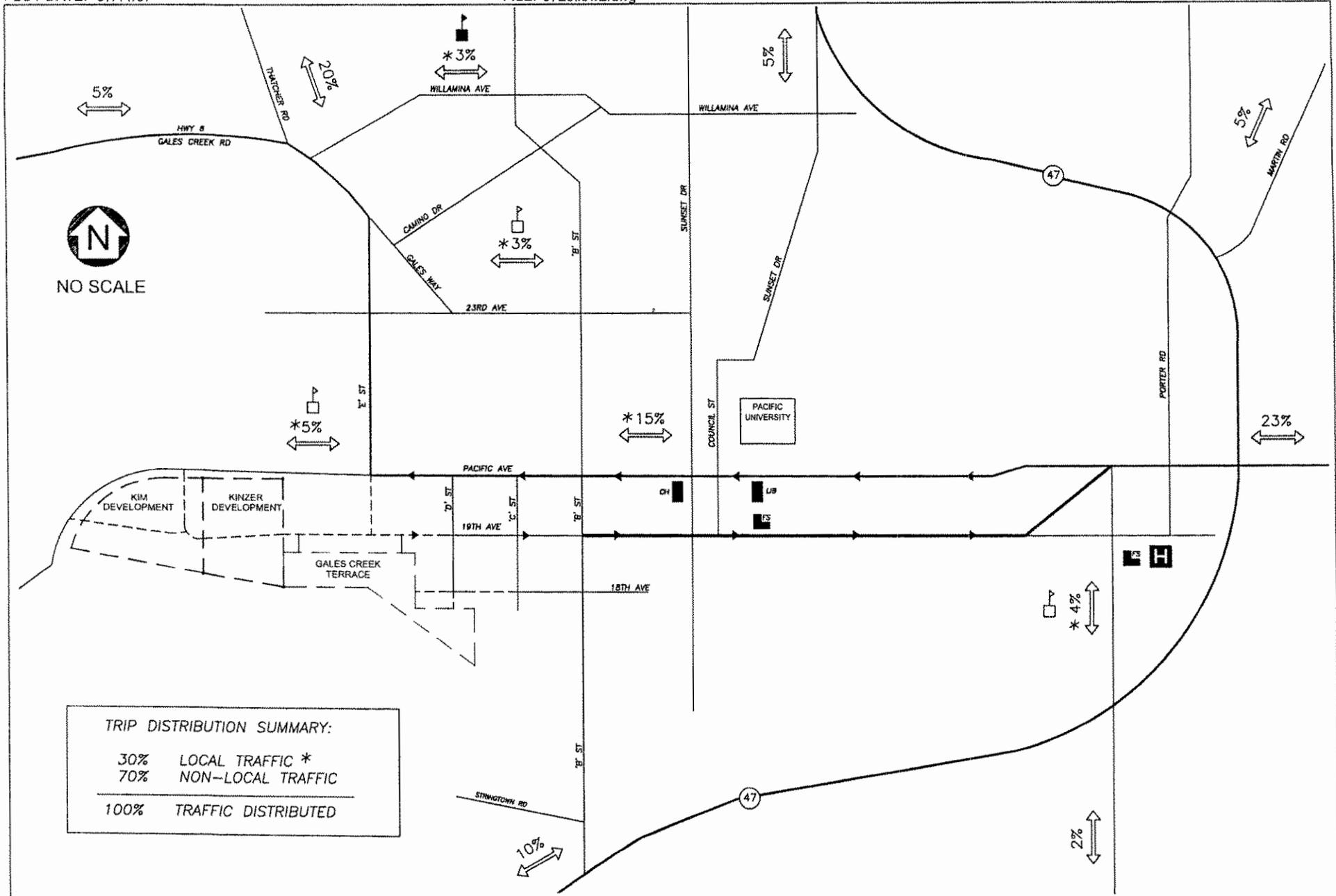


AM PEAK HOUR



PM PEAK HOUR

 CHARBONNEAU ENGINEERING LLC PROJECT: 07-23	NOTES: Rerouted Traffic based on 2010 Background Traffic and extension of one way couplet system.	REROUTED EXISTING TRAFFIC GALES CREEK TERRACE	
		FIGURE	3



PLOT DATE: 07/11/07

FILE: 0723flow2.dwg



NO SCALE

TOM McCALL
ELEMENTARY
SCHOOL

KINZER
DEVELOPMENT

RITCHIE RD

PACIFIC AVE

D. ST

C. ST

B. ST

19TH AVE

18TH AVE

17TH AVE

16TH AVE

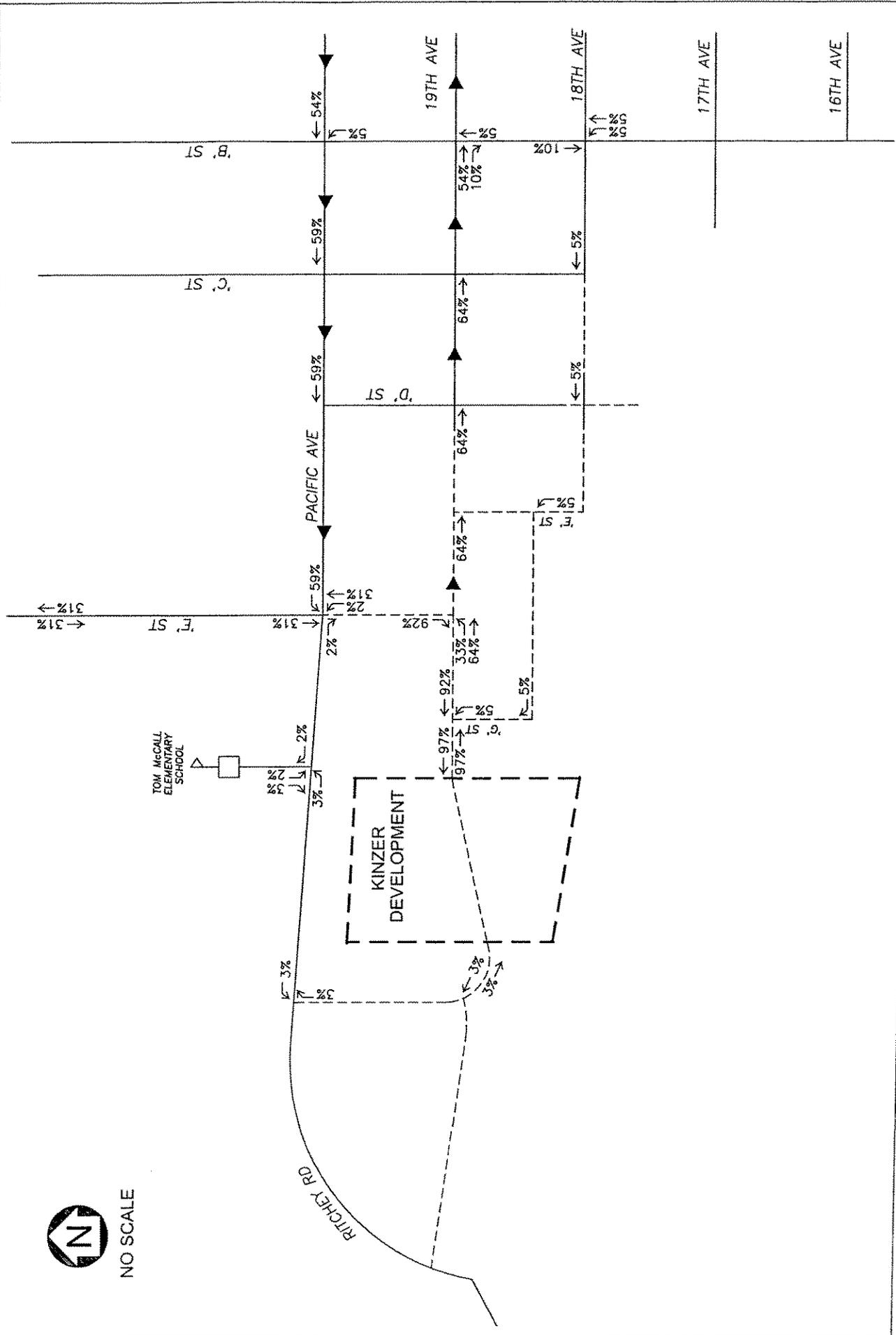
TRIP DISTRIBUTION - KINZER DEVELOPMENT
EXTENDED COUPLET
GALES CREEK TERRACE

Notes:
Pacific Avenue is proposed a westbound one-way street, east of "E" Street.
19th Avenue is proposed a eastbound one-way street, east of "E" Street.

CHARBONNEAU
ENGINEERING LLC
PROJECT: 07-

FIGURE

5b



PLOT DATE: 07/11/07

FILE: 0723flow2.dwg



NO SCALE

TOM McCALL
ELEMENTARY
SCHOOL

RITCHIE RD

KIM
DEVELOPMENT

PACIFIC AVE

19TH AVE

18TH AVE

17TH AVE

16TH AVE

'B' ST

'C' ST

'D' ST

'E' ST

'E' ST

'G' ST

10%

2%

10%

76%

2%

22%

5%

81%

22%

9%

5%

59%

5%

31%

31%

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PLOT DATE: 07/11/07

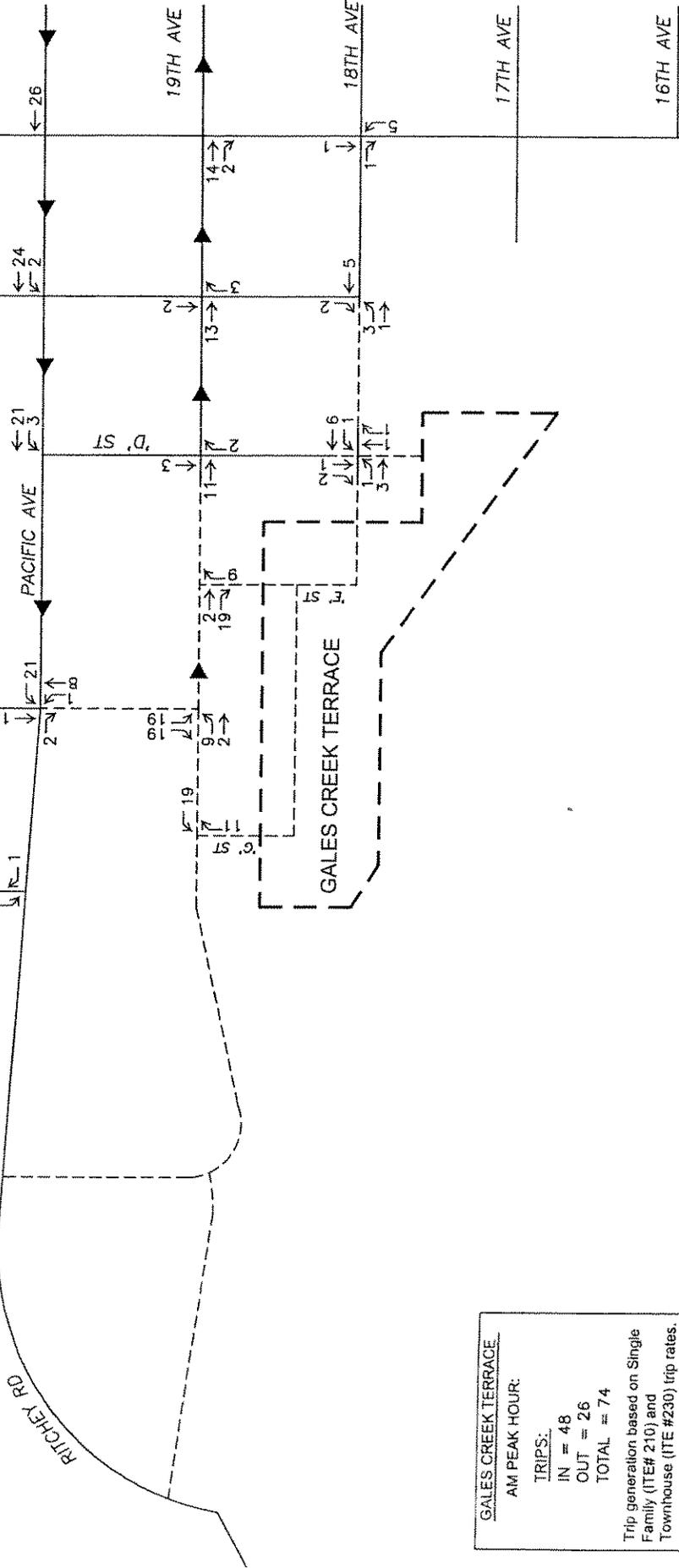
FILE: 0723flow2.dwg



NO SCALE

TOM McCALL
ELEMENTARY
SCHOOL

RITCHIE RD



GALES CREEK TERRACE
 AM PEAK HOUR:
 TRIPS:
 IN = 48
 OUT = 26
 TOTAL = 74

Trip generation based on Single Family (ITE# 210) and Townhouse (ITE #230) trip rates.

PM PEAK HOUR



PROJECT: 07-23

Notes:
 Pacific Avenue is proposed a westbound one-way street, east of "E" Street.
 19th Avenue is proposed a eastbound one-way street, east of "E" Street.

TRIP ASSIGNMENT - GALES CREEK TERRACE
 EXTENDED COUPLER
 GALES CREEK TERRACE

FIGURE

6a ii

PLOT DATE: 07/11/07

FILE: 0723flow2.dwg

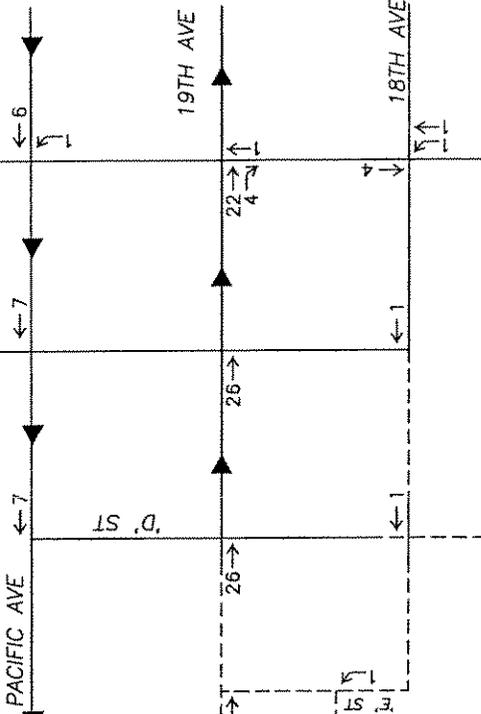


NO SCALE

TOM McCALL
ELEMENTARY
SCHOOL

KINZNER
DEVELOPMENT

RITCHIE RD



KINZNER DEVELOPMENT
 AM PEAK HOUR:
 TRIPS:
 IN = 12
 OUT = 41
 TOTAL = 53
 Trip generation based on Single Family (ITE# 210) and Townhouse (ITE #230) trip rates.

AM PEAK HOUR

 **CHARBONNEAU
ENGINEERING LLC**
 PROJECT: 07

Notes:
 Pacific Avenue is proposed a westbound one-way street, east of "E" Street.
 19th Avenue is proposed a eastbound one-way street, east of "E" Street.

**TRIP ASSIGNMENT - KINZNER DEVELOPMENT
 EXTENDED COUPLER
 GALES CREEK TERRACE**

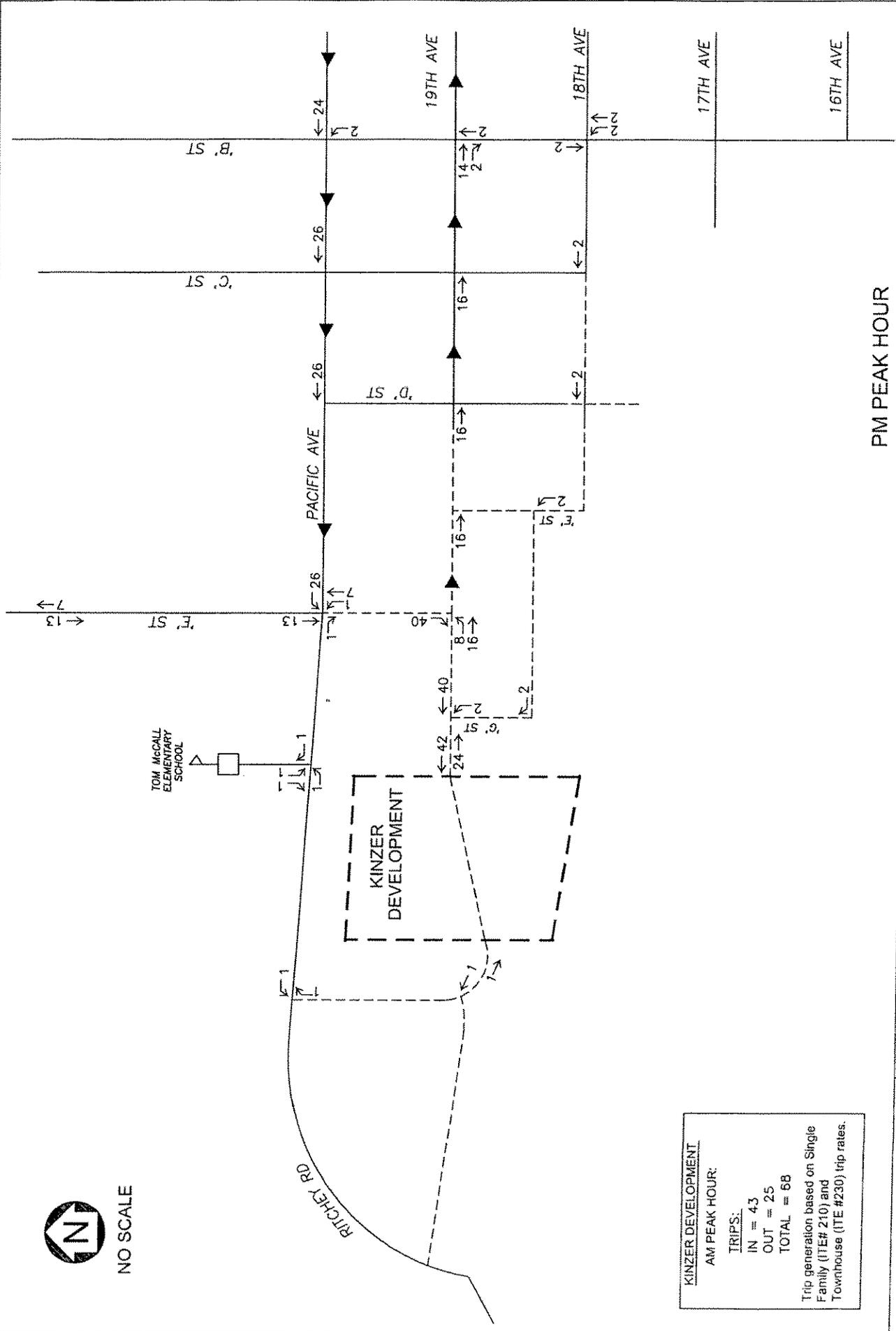
FIGURE
6b i

PLOT DATE: 07/11/07

FILE: 0723flow2.dwg



NO SCALE



KINZER DEVELOPMENT
 AM PEAK HOUR:
 TRIPS:
 IN = 43
 OUT = 25
 TOTAL = 68
 Trip generation based on Single Family (ITE# 210) and Townhouse (ITE #230) trip rates.

PM PEAK HOUR

CHARBONNEAU ENGINEERING LLC
 PROJECT: 07-23

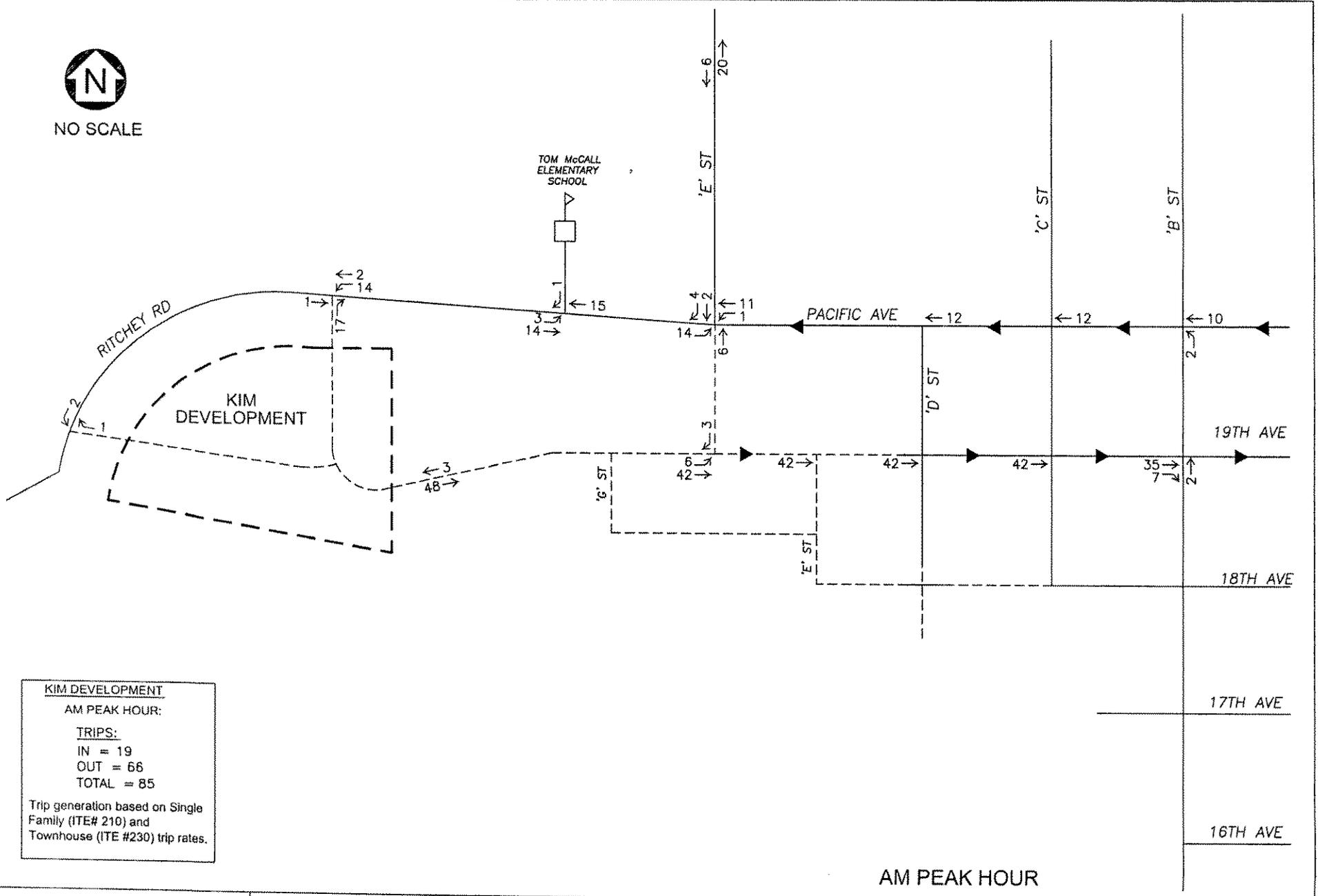
Notes:
 Pacific Avenue is proposed a westbound one-way street, east of "E" Street.
 19th Avenue is proposed a eastbound one-way street, east of "E" Street.

TRIP ASSIGNMENT - KINZER DEVELOPMENT
 EXTENDED COUPLET
 GALES CREEK TERRACE

FIGURE
 6b ii



NO SCALE



KIM DEVELOPMENT
 AM PEAK HOUR:
 TRIPS:
 IN = 19
 OUT = 66
 TOTAL = 85

Trip generation based on Single Family (ITE# 210) and Townhouse (ITE #230) trip rates.

AM PEAK HOUR

EXHIBIT 2

CPA 02-02

Proposed Amendments to "Open Space" and
"Parks and Recreation" Sections

of

Chapter IX – Land Use

of

Section II – Goals and Policies

of the

Forest Grove Comprehensive Plan

March 2002

CPA 02-02

Adoption of "Park, Recreation and Open Space Master Plan"

Proposed Amendments to "Open Space" and "Parks and Recreation" Goals and Policies

Page 1

The Comprehensive Plan Map of the City (separate attachment) indicates various kinds of open space. In addition to existing and future public parks (see Parks and Recreation Section of this chapter) resource lands, natural parks, greenways and landscaping are also designated. The various designations of open space on the map with their function and suitable land uses for them are described below.

Resource Lands -

These lands remain in an open space use, either vacant, in cropland, in forest, for grazing, for wildlife or as recreational land. When certain of these areas have physical limitations

And hazards for use as cropland, using these areas for timber, wildlife and recreation will be most appropriate.

(Gales Creek Natural Area -)

The land designated along Gales Creek between Ritchey Road and the Relocated Tualatin Valley Highway 47 and continuing in a northerly direction along the urban growth boundary and or the western edge of Forest Grove until it meets David Hill Road, is intended to remain in a natural state with a nature trail suitable for multi-use, including hiking, and jogging, and bicycling running through it along the creek. Development in this area should be minimal to protect the value of the area in its natural state.

Landscaping And Greenways -

Several strips of greenspace and landscaping are designated on the Plan Map. The greenway along either side of the Relocated Tualatin Valley Highway 47 between Pacific Avenue south and west approximately to B Street and Pacific Avenue north to approximately Sunset Drive is associated with the easement of the highway and Southern Pacific Railroad tracks that run along the south side of the highway. An extensive amount of vegetation currently exists in this strip as well as a developed bike path along the north and southern side of the roadway. Preserving this strip of green space will add to the visual attractiveness of the roadway and bike path for travelers, plus give access to other trail connections.

Additional strips of landscaping are necessary along the major arterial of Pacific and 19th Ave. and along boundaries between areas of industrial land use and residential land use. Along arterials the landscaping will be a requirement of development. This will be required along the street and of improvements made to the roadway. This will serve as a buffer to residential and commercial development from traffic noise and pollution associated with the arterial. It will also be an aesthetic improvement to the city's entrance. Between industrial and residential land use areas, landscaping is also designated to serve as a buffer to protect each use from the negative aspects of the other.

CPA 02-02

Adoption of "Park, Recreation and Open Space Master Plan"

Proposed Amendments to "Open Space" and "Parks and Recreation" Goals and Policies



Michael C. Robinson
PHONE: (503) 727-2264
FAX: (503) 346-2264
EMAIL: MRobinson@perkinscoie.com

1120 N.W. Couch Street, Tenth Floor
Portland, OR 97209-4128
PHONE: 503.727.2000
FAX: 503.727.2222
www.perkinscoie.com

September 12, 2007

VIA E-MAIL

Mr. Thomas Beck
Chairman
City of Forest Grove Planning Commission
P. O. Box 326
Forest Grove, OR 97116-0326

Re: My Client, Integrity Development Group; City of Forest Grove File No. PRD-06-04, Gales Creek Terrace

Dear Chairman Beck and Members of the Planning Commission:

This office represents the applicant. Enclosed with this letter is a revised site plan for the Gales Creek Terrace planned resident development. **(Exhibit 1)**. As you know, the applicant requested, and the Planning Commission agreed, to continue the hearing from September 4, 2007 until September 17, 2007. The applicant requested that the Planning Commission continue the hearing in order to allow it to solve the Commission's concerns about the proposed planned residential development application. The revised plan shows the applicant's response to the Planning Commission's questions.

After considerable effort in order to respond to the Planning Commission's questions, the applicant now proposes an 87 dwelling unit plan instead of a 100 unit dwelling unit plan. The 87 units consist of the following:

- Forty-six (46) single family detached dwelling on forty feet (40') by 100 feet (100') lots (the same as on the original plan).

66181-0001/LEGAL13551583.1

Mr. Thomas Beck
September 12, 2007
Page 2

- Twenty-five (25) attached units on twenty feet (20') by seventy-one feet (71') lots adjacent to 19th Avenue. None of the attached dwelling units are in clusters of more than five (5) dwelling units.
- Sixteen (16) single family detached units on forty feet (40') by ninety feet (90') lots. These lots are located between Gales Creek Terrace and the alley. The applicant has eliminated all of the sixteen feet (16') wide attached units. The applicant has reduced the number of attached units from fifty-four (54) to sixteen (16) and increased the number of detached units from forty-six (46) to sixty-two (62).

The applicant now proposes 27,642 square feet (0.64 acres) of private open space and 422,954 square feet (9.71 acres) of public open space. The revised open space plan includes a central open space area between Gales Creek Terrace and the alley. The applicant proposes a ten feet (10') wide public access easement from Gales Creek Terrace to the north, allowing access to 19th Avenue, and a ten feet (10') wide public access easement to the south, allowing access to the public trail in the open space area within the Gales Creek Terrace floodplain. An eight feet (8') wide walkway will be constructed in both easements.

The revised density relies only upon the base density and does not require an Incentive Density bonus. (See page 9 of September 4, 2007 staff report). The revised plan includes additional open space in the central open space area and an increased open space tract "L." Tract "L" includes open space area both in and out of the Urban Growth Boundary ("UGB"). Because the open space is passive open space, it does not represent an urban use and is, therefore, allowed in the Exclusive Farm Use ("EFU") zoning district outside of the UGB.

For these reasons, the Planning Commission can find that applicant has addressed the issues raised by the Planning Commission concerning open space, location of open space, massing of townhomes and density. The revised plan is consistent with the base zone density allowed by the PRD zoning district.

The Planning Commission also asked about setbacks for the detached single family dwellings. The applicant told the Planning Commission at the September 4, 2007 hearing that it proposed five feet (5') setbacks, or ten feet (10') between units. In fact, the applicant proposes a twenty-eight feet (28') wide unit on the larger detached single family lots, which provides for six feet (6') setbacks on either side, or a total of twelve feet (12')

Mr. Thomas Beck
September 12, 2007
Page 3

between units. This six feet (6') setback is one foot (1') greater than the minimum required in the R-5 zoning district. Forest Grove Zoning Ordinance ("FGZO") 9.624(3). Because the larger single family detached lots adjacent to Gales Creek Terrace "step down" the grade, the side yard setback requirement could be as high as eight feet (8') pursuant to FGZO 9.624(3) for the downhill portion of the houses. However, as the staff report points out at pages 4 and 11-12, the PRD district allows a reduction of side yard setbacks. Staff noted at page 12 that it was "not recommending any conditions to ... increase the setback requirements." The Planning Commission can agree with this recommendation for two reasons.

First, the larger detached single family dwellings that front on Gales Creek Terrace not only have amply-sized rear yards but face on permanently-dedicated open space. This means that residents of those lots will have a perception of greater open space, notwithstanding twelve feet (12') between the single family structures.

Second, the twelve feet (12') separation between single family structures exceeds the minimum five feet (5') and a larger side yard setback would be required only for the portion of the downhill slope of the single family homes. The proposed side yard setbacks are generous, leave ample opportunity for residents to use their side yards and provide for adequate separation between the structures.

The side yard setbacks for the smaller detached single family dwellings are five feet (5'), or a total of ten feet (10') between the dwellings. Because these are smaller lots that replace the attached units, a reduced setback is appropriate.

The A-2 zoning district in which the attached units are proposed allows a zero foot (0') side yard setback. FGZO 9.673(3)(b). The applicant proposes a ten feet (10') separation between groups of townhomes instead of the twenty feet (20') required by FGZO 9.673(3)(c).ii. The Planning Commission can find that this is appropriate because these units have fenced front yards adjacent to 19th Avenue, a contiguous ten feet (10') wide landscaped portion of the alley at the rear and are adjacent to a central open space containing 6,000 square feet.

The Planning Commission asked whether the open space in the Gales Creek Terrace floodplain would have been useable at all. The answer is yes for the following reasons.

First, the floodplain line could have been below one hundred eighty feet (180'). The line established by the Federal Emergency Management Agency ("FEMA") is 172.5 feet.

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Page 4

The applicant compromised with the City and Metro to adopt a higher floodplain elevation in order to respond to the concerns of the City and the community regarding perceived flood hazards, thus voluntarily providing an extra measure of assurance in this regard.

Second, the plan that was previously before the Planning Commission proposed 122 units, including units which were in the southwest and southeast corners of the area. The applicant could have pressed forward with a request for higher density zoning, i.e. an A-2 designation which would have been consistent with the existing designation for property adjacent to the UGB boundary. The applicant could have asked for more total units and for units extending into the area the applicant is now offering for public dedication. However, in the spirit of compromise, and out of a sincere desire to do what is best for the community and the project, the applicant elected not to press for greater units and density, allowing instead for the dedication of much more open space than originally contemplated.

Third, the EFU zoning district does not prohibit activities; it simply prohibits urban activities. The EFU zone allows a number of agricultural and horticultural uses including farm buildings, livestock, grazing, etc. The applicant could have either achieved a lower floodplain elevation, could have proposed more intensive use as allowed in the EFU zoning district, and could have leased or sold this land for any number of private uses. Under any such circumstance, however, the EFU zoned property could have been used for other than dedication to the City.

Fourth, and related to the above argument, the applicant seller believes that the land is viable because the applicant is paying for the land. The purchase of the property is based on the total acreage. Instead of proposing to develop it for urban uses or use it for agricultural purposes, the applicant is dedicating the open space area to the City at no cost. The applicant is not required to do so; the applicant could have decided to transfer the floodplain area to the homeowners' association, sold it to Metro, or sold or leased it to private individuals as suggested above.

Finally, the dedication to the City is adjacent to the Kyle property which gives the City a critical amount of open space and a continuous connection for open space along Gales Creek. For these reasons, the Planning Commission can find that the floodplain area is, in fact, useable and the value the applicant is offering through dedication is both real and substantial. Nevertheless, the Planning Commission raised this issue in the context of

Mr. Thomas Beck
September 12, 2007
Page 5

density. Because the applicant's proposed density now does not rely upon an incentive density, the Planning Commission can find that this issue has been resolved.

For these reasons, the applicant respectfully requests that the Planning Commission approve this revised plan. The applicant will be happy to answer any questions that the Planning Commission has at the continued hearing on September 17, 2007.

Very truly yours,

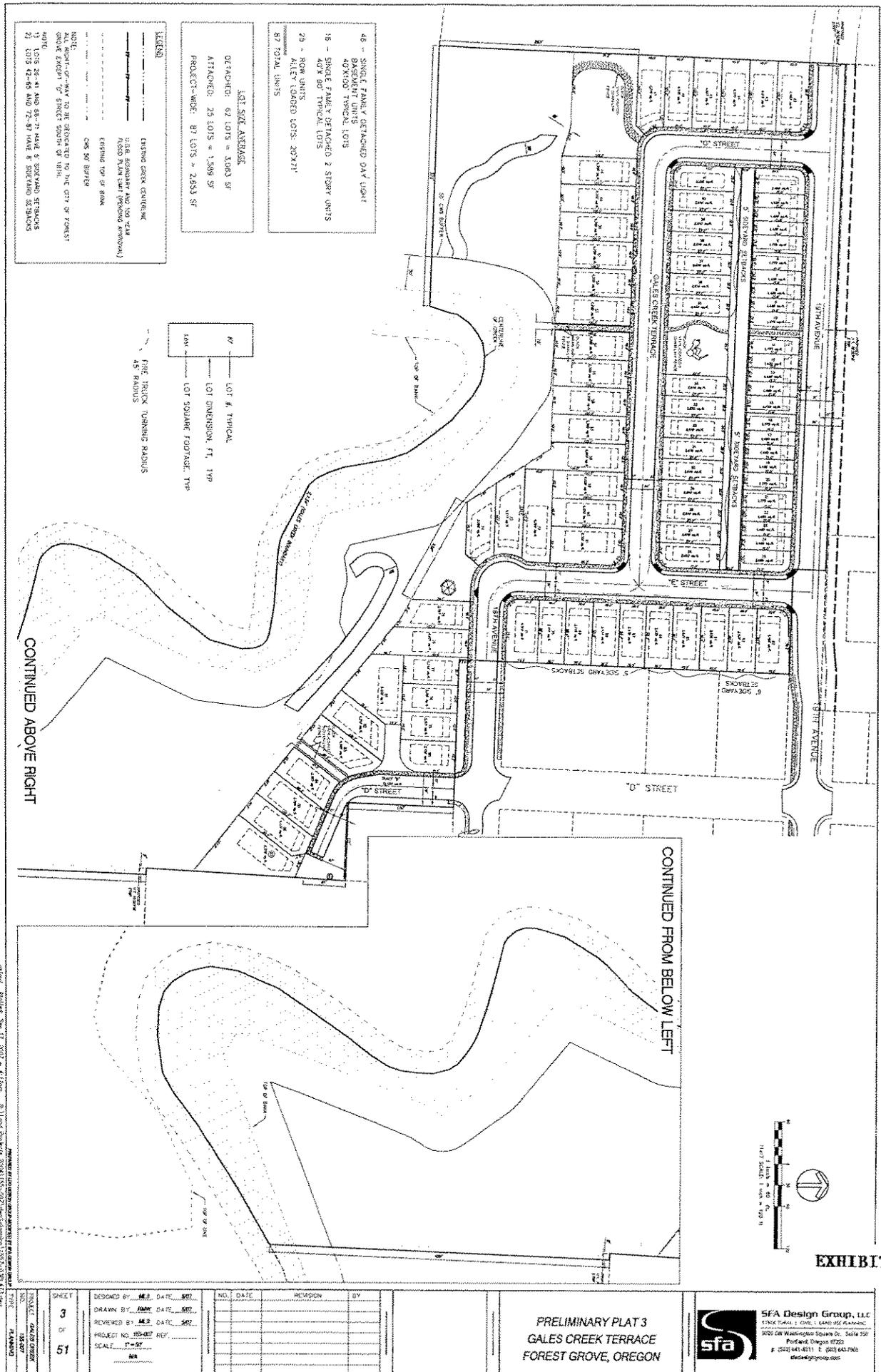
 for Michael C. Robinson

Michael C. Robinson

MCR/cfr

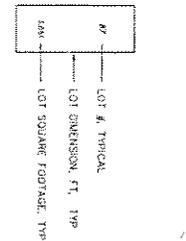
Enclosure

cc: Mr. Bryan Seits (w/encl.) (via email)
Ms. Fe' Bates (w/encl.) (via email)
Mr. Thomas Cutler (w/encl.) (via email)
Mr. Matt Sprague (w/encl.) (via email)
Mr. Ben Altman (w/encl.) (via email)
Mr. Frank Charbonneau (w/encl.) (via email)



LEGEND

- EXISTING CREEK CENTERLINE
- EXISTING EASEMENT AND LOT SIZE
- EXISTING ROAD (SHOWING PERSONAL)
- EXISTING TOP OF BANK
- CON. ST. CENTER



1st. SUE. AVERAGE
 DETACHED: 67 LOTS = 1,000 SF
 ATTACHED: 28 LOTS = 1,586 SF
 PROJECT-WIDE: 97 LOTS = 2,586 SF

46 - SINGLE FAMILY DETACHED ONE UNIT
 BASEMENT LOTS
 40 X 100 TYPICAL LOTS

16 - SINGLE FAMILY DETACHED 2 STORY UNITS
 40 X 90 TYPICAL LOTS

29 - ROW UNITS
 ALLEY LOCATED LOTS: 207/211
 87 TYPICAL UNITS

CONTINUED ABOVE RIGHT

CONTINUED FROM BELOW LEFT

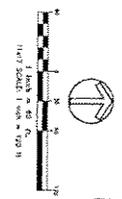


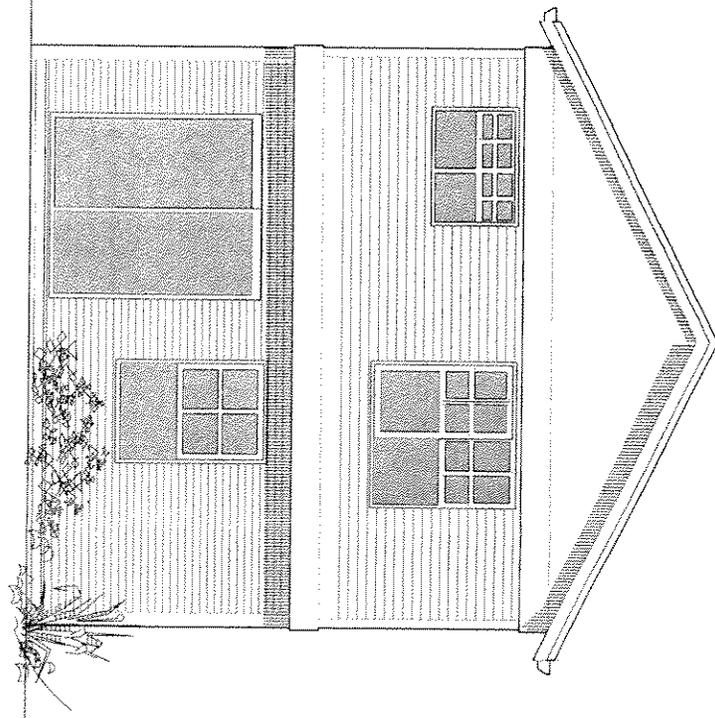
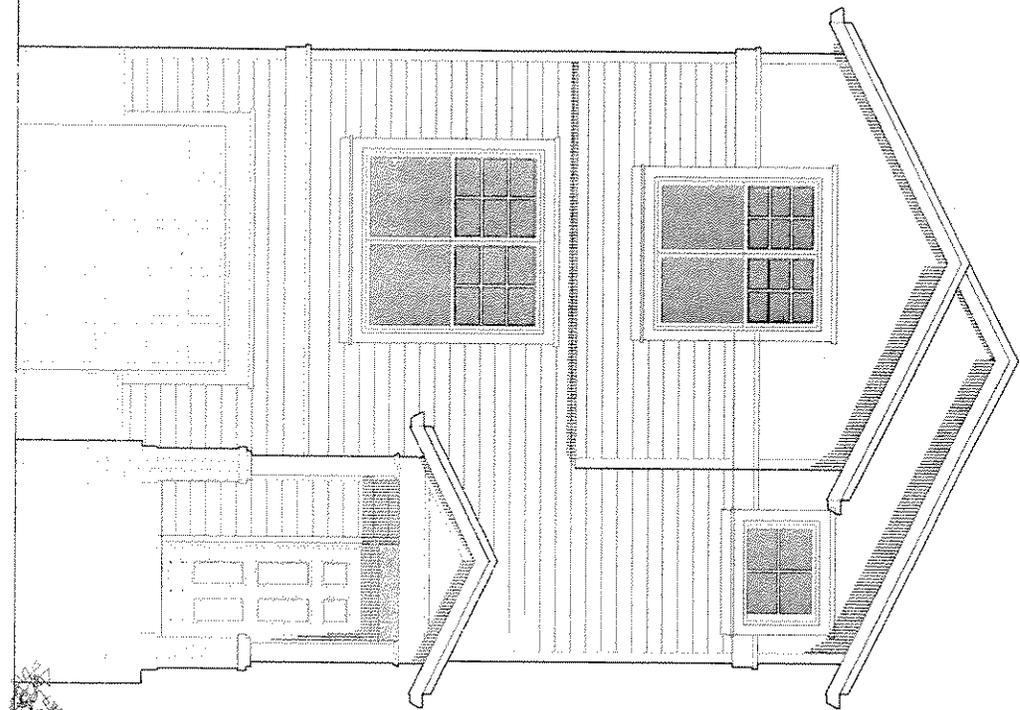
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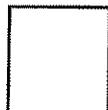
SHEET	3	OF	51
DESIGNED BY	M.P.	DATE	SEP 17 2007
DRAWN BY	M.P.	DATE	SEP 17 2007
REVIEWED BY	M.P.	DATE	SEP 17 2007
PROJECT NO.	155-067	REF.	NA
SCALE	1"=50'		

PRELIMINARY PLAT 3
 GALES CREEK TERRACE
 FOREST GROVE, OREGON

SFA Design Group, LLC
 STRUCTURAL, CIVIL, LAND USE PLANNING
 3020 SW Washington Square Dr. Suite 300
 Portland, Oregon 97221
 P (503) 441-8111 F (503) 443-7462
 sfad@sfagroup.com



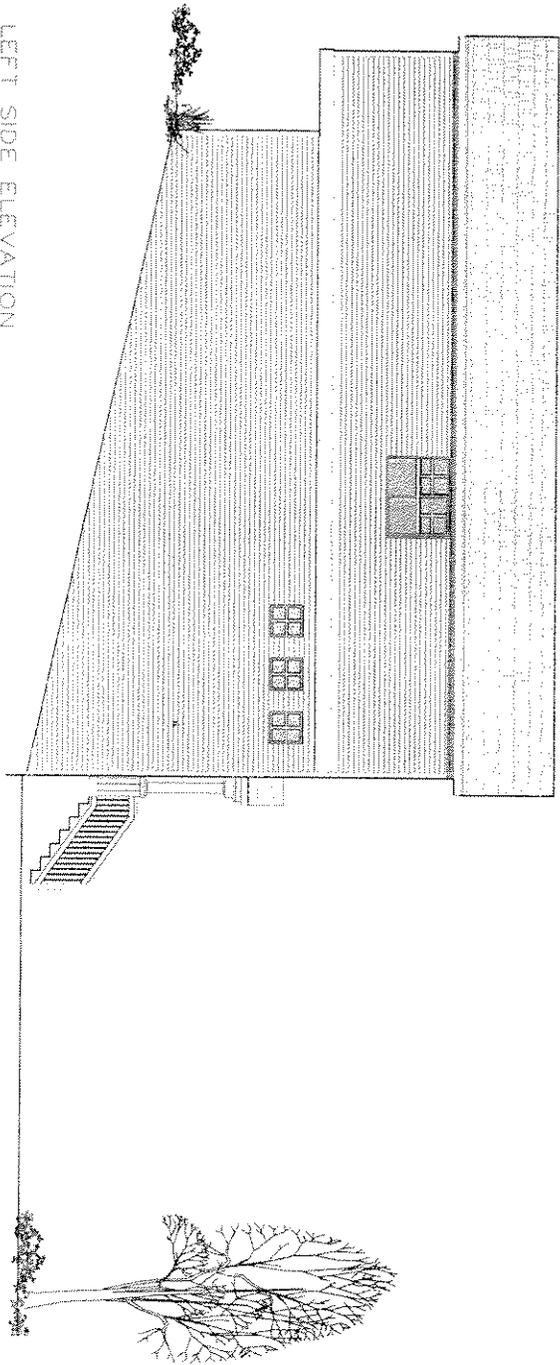
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SECTION



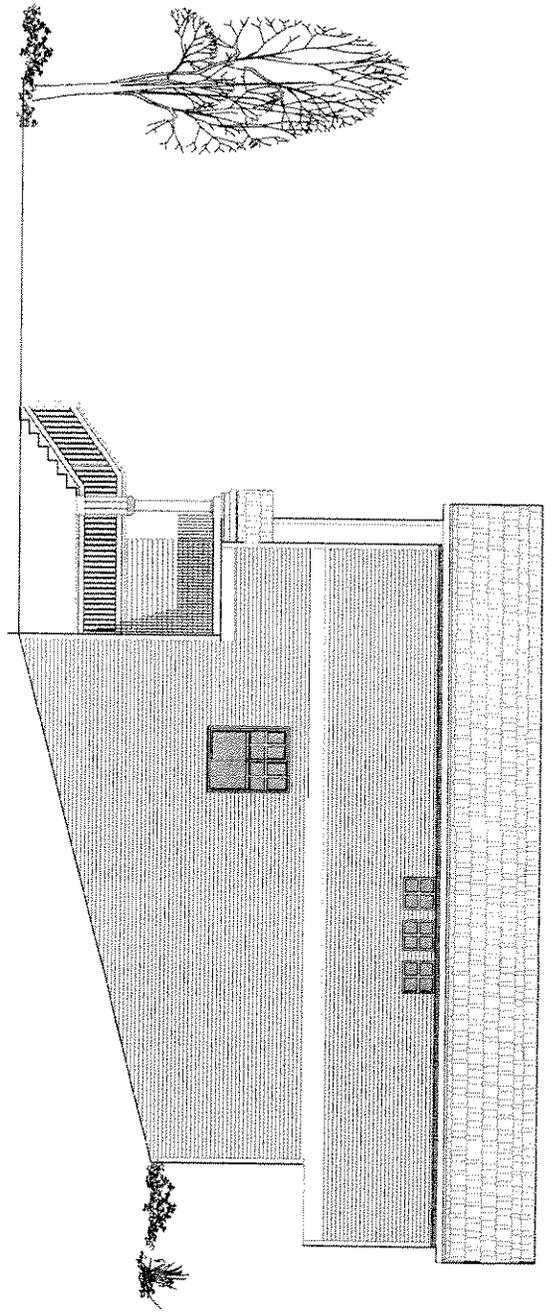
JLS CUSTOM HOMES
"To Instill Pride In the Communities We Build"

Plans Provided By
JLS
Drafting
 Phone : (503)533-4006
 E-mail : ben@jlscustomhomes.com

LEFT SIDE ELEVATION



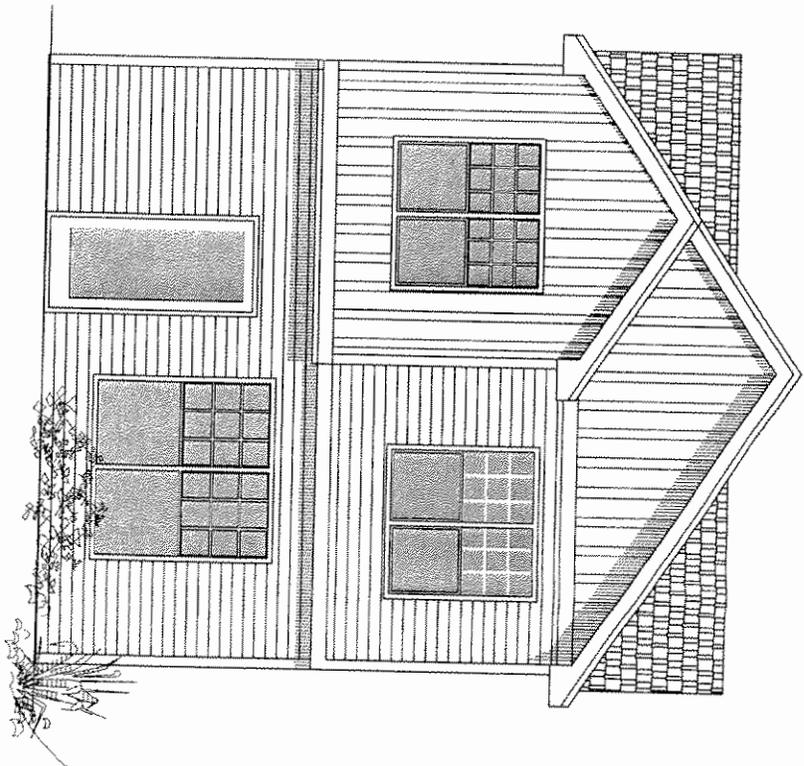
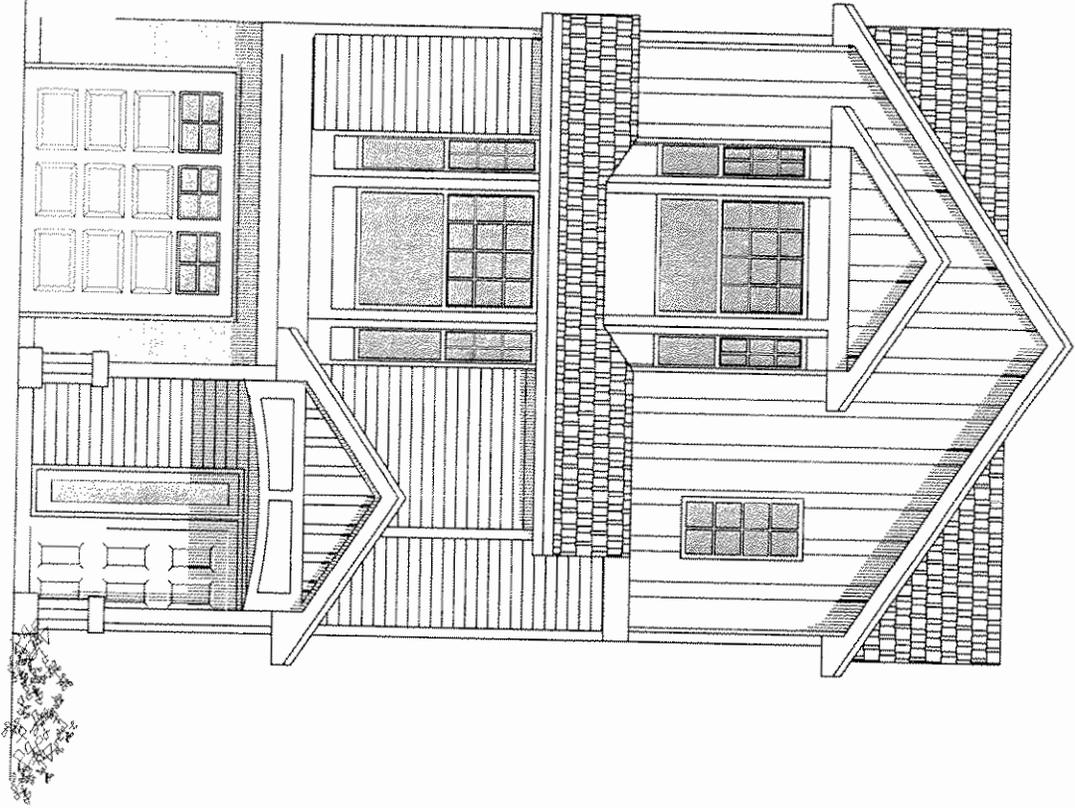
RIGHT SIDE ELEVATION



1/8" = 1'-0" A-1			
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JLS CUSTOM HOMES
"To Instill Pride In the Communities We Build"

Plans Provided By
JLS Drafting
 Phone : (563) 633-4006
 E-mail : ben@jlscustomhomes.com

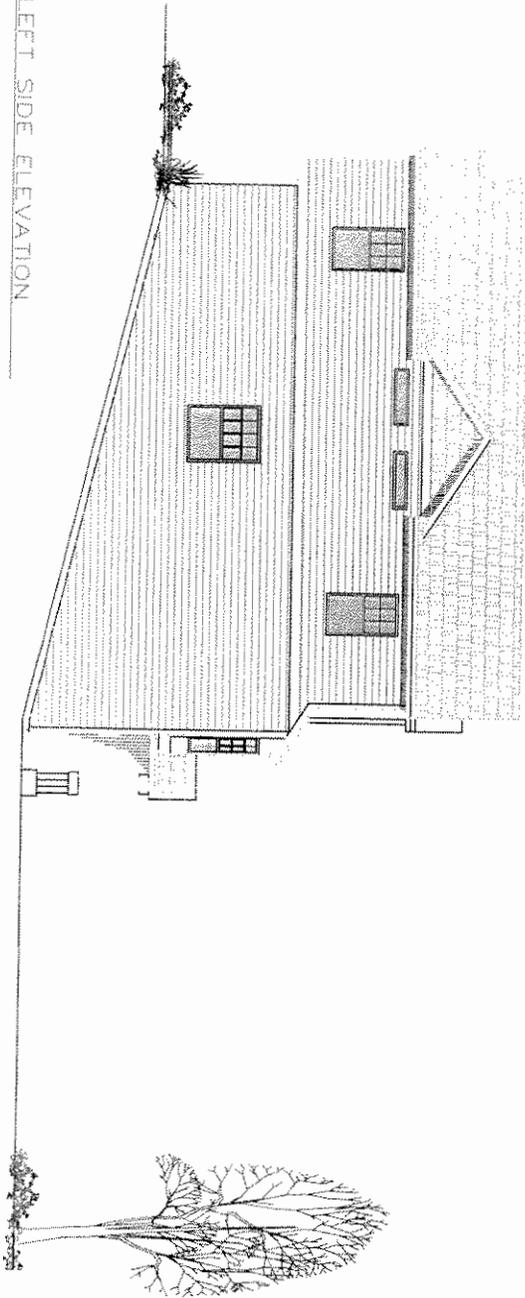


Sheet
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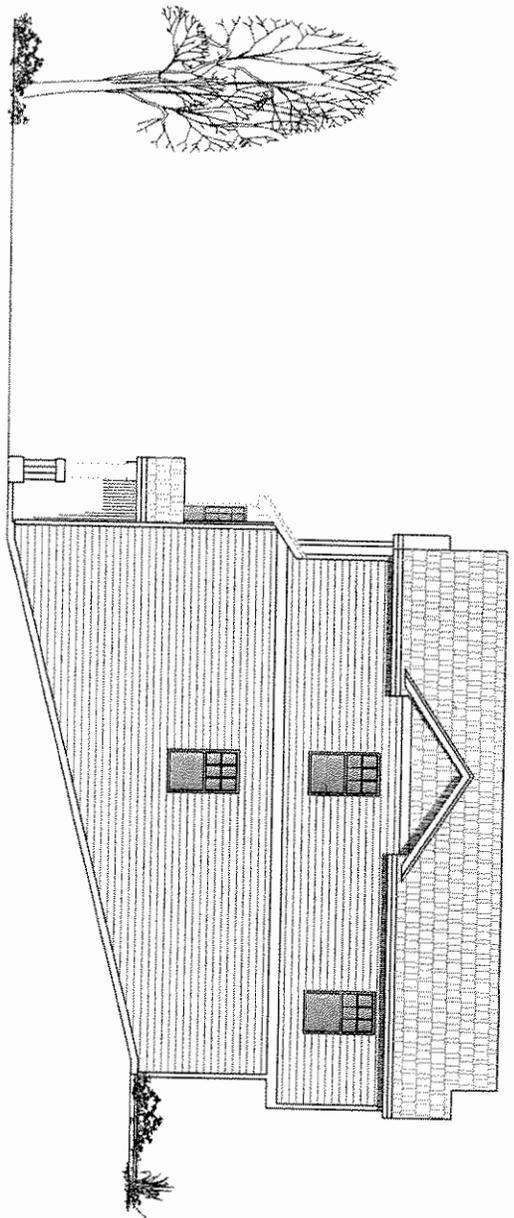
JLS CUSTOM HOMES
"To Instill Pride In the Communities We Build"

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JLS
Drafting
 Phone : (503)533-4066
 E-mail : ben@jlsustomhomes.com

LEFT SIDE ELEVATION



RIGHT SIDE ELEVATION



SHEET
A-2

JLS CUSTOM HOMES
"To Instill Pride in the Communities We Build"

Plans Provided By
JLS Drafting
Phone : (503)533-4056
E-mail : ban@jlscustomhomes.com





KYLE
DEVELOPMENT COMPANY
INC.

Handout #2

September 17, 2007

City of Forest Grove Planning Commission
Forest Grove City Council
Jon Holan, Community Dev. Director
Michael Sykes, City Manager
1924 Council Street
P.O. Box 326
Forest Grove, Oregon 97116-0326

RE: RES Property (Kyle Property)
Planned Residential Development Staff Report and Recommendation
PRD-06-04 Gales Creek Terrace Dated 8/28/2007 (Hearing 9-4-07)

To Whom It May Concern:

After review of the most recent Staff Report and Recommendations, we are concerned about how the City is misrepresenting the environmental issues to the Public about the RES property and its response to the developer in conjunction with the extension and development of the sanitary sewer on the property currently owned by us.

The issues of contamination have been reviewed both on the RES property and the adjacent property owned by the City of Forest Grove. All contamination found was located next to the old City's Power & Light Facility. Several reports have listed the original source of the contamination to be from the City's own site, as well as, possibly another up gradient properties, i.e. the Bretthauer Oil Company at the S.E. corner of 16th and B Street. Refer to Farallon Consulting's report letter dated October 17, 2001 attached as Exhibit A and has a brief narrative of the issue, the City having the entire file. It is very peculiar, but to the best of my knowledge, the City was never required to identify their "Source of Contamination" and was issued a No Further Action (NFA) by the DEQ. The amount of contamination on the RES Property was minimal and was located next to the City's property and after clean-up efforts by the RES Partners, our property received an NFA letter of clean-up completion. (See Exhibit B.)

It should also be noted that the RES Property was a dumping site for the City, among others for many years during the Karban Rock ownership and the City in fact owned the land for an extensive period of time in the early 1900's. In addition, the City's old Light & Power Generation site was at this location and was used as storage for their old transformers.

In my personal investigation with a former Forest Grove City Light & Power employee, it was disclosed that their standard method of disposal of the old transformer liquids (PCBs) was to dump it on the ground.

371 NE Gilman Blvd., Suite 360
Issaquah, Washington 98027
(425) 391-1170
(425) 391-3369 (Fax)
www.kyledevelopment.com

RECEIVED 09-17-'07 15:33 FROM- 4253913369

TO - City of Forest Grove P002/012

In our investigation there were no contaminations revealed in the northerly portions of our property, where the City, amongst others, used this for a fill site and is the approximate location of the sewer line extension.

Thusly, we don't believe that the GCT Development should be unreasonably burdened by the potential impacts that may have been caused by the City.

With this in mind, this site has become a surplus property for us thus creating an opportunity for donation to establish a park for the community of Forest Grove. We are long time associated with the City of Forest Grove whereby Mr. Bregante and Mr. Westervelt were two of the original-founding partners of Westak, which was established in the '70s and is still a substantial employer in the City today. My personal history goes back from my parents attending school in Forest Grove in the '30s to my great grandparents homesteading in the Gales Creek area. We used to use the old City Fire Hall for Christmas Family Reunions in the '50s.

We hope this has given you additional insight to the RES property and any concerns you might have with the possible questions relating to contamination. If you have any further questions, please feel free to contact us.

Sincerely,



Sam Kyle
Kyle Development Company, Inc.
For the RES Partnership

cc: Thomas Cutler



October 17, 2001

Mr. Andree Pollock, Manager
UST Cleanup and Compliance Section
Northwest Region
Oregon Department of Environmental Quality
2020 SE Fourth Avenue, Suite 400
Portland, Oregon 97201-4987

**RE: CITY OF FOREST GROVE PROPERTY
1524 B STREET, FOREST GROVE, OREGON
DEQ FILE NO. 34-01-0002
FARALLON PN: 717-001**

Dear Ms. Pollock:

Farallon Consulting, L.L.C. (Farallon) has prepared this letter on behalf of Mr. Sam Kyle regarding the property located at 1524 B Street in Forest Grove, Oregon, that is owned by the City of Forest Grove, Oregon (referred to herein as the City Property). Mr. Kyle is part owner of the adjacent property to the west-northwest of the City Property (referred to herein as the Kyle/Bregante/Westerfelt Property) (Figure 1). The City of Forest Grove has conducted limited subsurface investigations at the City Property, which documented the release of petroleum hydrocarbons to soil and groundwater. Based on these limited investigations, the consultant for City of Forest Grove (ATC Associates, Inc.) concluded that pending results of additional groundwater monitoring, the City Property would qualify for No Further Action (NFA) status.

The purpose of this letter is to present a brief summary of evidence that a release of petroleum hydrocarbons at the City Property resulted in contamination at the Kyle/Bregante/Westerfelt Property and that the available information indicates that the City Property should not qualify for NFA status. Mr. Kyle has previously requested, that the City of Forest Grove complete a thorough investigation of contamination which resulted from the release of petroleum hydrocarbons at the City Property, and implement remedial actions to clean up soil and groundwater at the Kyle/Bregante/Westerfelt Property.

BACKGROUND

KYLE/BREGANTE/WESTERFELT PROPERTY

In November 2000, the owners of the Kyle/Bregante/Westerfelt Property entered into a Purchase and Sale Agreement with METRO for transfer of the Kyle/Bregante/Westerfelt Property. As part of METRO's due diligence activities, Phase I and Phase II Environmental Site Assessments (ESAs) were conducted by URS Corporation at the Kyle/Bregante/Westerfelt Property. The Phase I ESA described past and present land use practices and operations and evaluated the



potential for the presence of hazardous substances and soil and/or groundwater contamination at the Kyle/Bregante/Westerfelt Property. Based on the findings of the Phase I ESA, a Phase II ESA was recommended for the Kyle/Bregante/Westerfelt Property to address potential recognized environmental conditions.

The Phase II ESA involved drilling five borings (B-1 through B-5) to depths up to 24 feet below ground surface (bgs) to collect soil and groundwater samples for laboratory analysis (Figure 1). Fill material comprised of wood, brick, metal, and plastic debris in a silty matrix extends up to 8 feet bgs at the Kyle/Bregante/Westerfelt Property. A layer of clay 1- to 2-feet thick underlies the fill, and sand and silty sand are beneath the clay layer (Figures 2 and 3). Shallow groundwater was encountered at approximately 12 feet bgs within the sand and silty sand layer during the Phase II ESA. The inferred direction of the groundwater flow under the Kyle/Bregante/Westerfelt Property is from the east towards the west.

Results of the Phase II ESA indicated that soil and groundwater samples collected from borings B-1 and B-3 contained concentrations of petroleum hydrocarbons in the diesel and oil ranges (Table 1 in Appendix A from the report prepared by URS Corporation dated December 21, 2000). Soil samples from borings B-2, B-4, and B-5 did not contain concentrations of petroleum hydrocarbons above the laboratory reporting limit.

Boring B-1 is located on the Kyle/Bregante/Westerfelt Property just west of the City Property. The Phase II ESA described a layer that appeared to be saturated with a "viscous, oily, black fluid" at the 8.5 to 10 foot bgs interval and a strong petroleum odor in soil from 8.5 to 24 feet bgs in boring B-1. The analytical results of soil samples collected from eight and 12 feet bgs at boring B-1 are summarized on Table 1 in Appendix A. Concentrations of petroleum hydrocarbons and carcinogenic polyaromatic hydrocarbons (PAHs) in the soil samples from this boring exceeded their respective Oregon Department of Environmental Quality (DEQ) soil cleanup levels.

Boring B-3 is located in the central portion of the Kyle/Bregante/Westerfelt Property, west-northwest of boring B-1 (Figure 1). The analytical results of soil samples collected from eight and 20 feet bgs at boring B-3 detected concentrations of petroleum hydrocarbons in the diesel and oil ranges exceeding their respective DEQ soil cleanup levels. The concentrations of petroleum hydrocarbons at boring B-3 were less than the concentrations reported at boring B-1, which indicates that boring B-1 is located closer to the source of contamination.

Polychlorinated biphenyls (PCBs) were detected at a concentration of 0.545 milligrams/kilogram (mg/kg) in the soil sample from eight feet bgs at boring B-3. This concentration exceeded the DEQ soil cleanup level for residential soil. None of the other soil samples collected from borings B-1 or B-3 contained concentrations of PCBs above the laboratory reporting limit of 0.500 mg/kg. PCBs were historically a component of the insulating fluid used in electrical transformers and capacitors.

The chromatographs from analysis of the soil samples collected at eight feet bgs from borings B-1 and B-3, and the soil sample collected at 12 feet bgs from boring B-1 are very similar. This suggests that the same source is responsible for the petroleum hydrocarbons in soil collected



from both boring locations. The chromatograph for the soil sample collected at 20 feet bgs from boring B-3 appears similar to petroleum hydrocarbons in the other soil samples except that it has undergone more weathering. Chromatographs for each of these samples are provided in Appendix A.

Groundwater monitoring wells were not installed as part of the Phase II ESA; however, groundwater "reconnaissance" samples were collected from borings B-1, B-2, and B-3. The analytical results of the groundwater reconnaissance samples collected from borings B-1 and B-3 detected concentrations of petroleum hydrocarbons as diesel and oil above their respective DEQ groundwater cleanup levels, exhibited a heavy petroleum sheen, and a strong petroleum odor. These results indicate that the release of petroleum hydrocarbons has affected the groundwater underlying the Kyle/Bregante/Westerfelt Property.

The soil and groundwater analytical results indicate that concentrations of petroleum hydrocarbons in soil and groundwater are present in the south-southeast portion of the Kyle/Bregante/Westerfelt Property. The similarity of the chromatographs for soil samples collected from borings B-1 and B-3 strongly suggest that petroleum hydrocarbons at both locations originated from the same source. Observations during the Phase II ESA indicate that the contamination is limited to silty sand and sand that underlies a clay layer (Figures 2 and 3). The surficial layer of fill material was not contaminated at the boring locations on the Kyle/Bregante/Westerfelt Property. The lack of any evidence of contamination in the fill material indicates that the source of contamination was not a surficial release on the Kyle/Bregante/Westerfelt Property.

CITY PROPERTY

The Phase I ESA conducted by URS for the Kyle/Bregante/Westerfelt Property reported that the City of Forest Grove Light & Power Department occupied the City Property since at least 1912. Subsequent to the Phase I ESA, Mr. Kyle learned that a wood-fired power plant was operated at the City Property until three petroleum hydrocarbon-burning generators were installed some time during the late 1930s or early 1940s. ATC Associates reported in the *Draft Report of Findings - Preliminary Site Investigation, 1524 "B" Street, Forest Grove, Oregon* (Draft PSI Report) prepared by ATC Associates dated December 28, 2000, that according to City of Forest Grove personnel, the City of Forest Grove Light & Power Department operated a fuel oil power plant at the City Property until the 1970s.

The available information does not indicate where the tanks used to store petroleum hydrocarbon fuel for the power plant were located at the City Property or whether the tanks, if underground, were properly decommissioned after power generation ceased at the City Property. Also, no information was available that indicated whether electrical transformers or capacitors that contained PCBs were stored or handled on the City Property. PCBs were detected in one of the soil samples collected at the Kyle/Bregante/Westerfelt Property.

ATC Associates conducted two investigations to assess the source, nature and extent of petroleum hydrocarbons in soil and groundwater at the City Property. The initial investigation conducted on December 26, 2000 involved drilling five borings (A-1 through A-5) to collect soil



and groundwater reconnaissance samples for laboratory analysis (Figure 1). Preliminary results of the initial investigation were documented in the Draft PSI Report.

The suspected locations of two USTs on the City Property were shown on figures prepared by ATC Associates (Figure 1). One of the USTs reportedly contained gasoline and the other diesel. The gasoline UST was reportedly used to fuel City of Forest Grove Power & Light Department vehicles. The use of the diesel UST and the size of both USTs were not presented in the available information. The USTs had reportedly been removed in the 1980s (ATC Associates December 28, 2000). The reports prepared by ATC Associates did not indicate where the fuel used to operate the power generators was stored.

Based on pictures of fieldwork in the Draft PSI Report, the five borings appeared to be drilled with a solid stem 2-foot diameter auger (posthole) drill rig. Soil samples were reportedly collected from the drill cuttings off the augers and groundwater reconnaissance samples were collected from open boreholes. These methods for collecting soil and groundwater samples do not meet industry standards; therefore, analytical data for the soil and groundwater reconnaissance samples collected using this drilling and sampling methodology should be considered qualitative.

The five borings were drilled to a total depth of 14 feet bgs and groundwater was encountered at a depth of 8 to 10 feet bgs. ATC Associates did not document how the borings were backfilled after drilling. No boring logs were included in the copy of the Draft PSI Report provided to Farallon. Based on the boring locations shown on maps prepared by ATC Associates, it appears that borings A-2 and A-4 were actually drilled on the Kyle/Bregante/Westerfelt Property.

Observations by ATC Associates during drilling indicated that the soil encountered in borings A-1, A-2, A-4, and A-5 was similar and had "moderate petroleum odors" from 5 to 8 feet bgs and "moderate to strong petroleum odors" from eight to 14 feet bgs. The soil encountered at boring A-3 had a slight petroleum odor from five to 14 feet bgs. Soil samples from each boring collected at either the 12 or 13 to 14 foot bgs interval were submitted to a laboratory for hydrocarbon identification analysis using the Northwest Total Petroleum Hydrocarbon (NWTPH-HCID) method and total petroleum hydrocarbons (TPH) in the diesel and oil ranges using the NWTPH-Dx method.

The soil sample collected from boring A-4 from 12 to 14 feet bgs contained 1,850 mg/kg TPH in the diesel range and 462 mg/kg TPH in the oil range. Concentrations of TPH as diesel or oil in soil samples from the other borings were relatively low to non-detect. These results are not consistent with the field observations of "moderate to strong petroleum odors," discolored soil, and the sheen on groundwater. The discrepancy between field observations and analytical results may be due to the non-standard methods of drilling and collecting soil samples.

The soil sample collected from boring A-2 at 13 to 14 feet bgs was also analyzed for polychlorinated biphenyls (PCBs) using US Environmental Protection Agency Method 8082. However, this sample was non-detect for TPH in the diesel and oil ranges and would not have been expected to contain PCBs. None of the soil samples that contained detectable



concentrations of TPH in the diesel or oil ranges were analyzed for PCBs; therefore it is not known if PCBs are present in soil at the City Property.

Groundwater reconnaissance samples were only collected and analyzed from two of the five borings (A-3 and A-5). Analytical results for the groundwater reconnaissance samples indicated that TPH in the gasoline range was non-detect and concentrations of TPH in the diesel and oil ranges were 0.391 and 12 milligrams per liter (mg/l) and 0.600 and 6.0 mg/l, respectively.

The Draft PSI Report concluded that:

- Investigations on both the City Property and the Kyle/Bregante/Westerfelt Property identified similar contamination in the subsurface;
- Petroleum hydrocarbon contamination at the City Property was evident in the soil from 5 to 14 feet bgs, the total depth drilled during the preliminary investigation;
- A rainbow colored sheen was observed on the groundwater that had collected in each of the open boreholes with "the strongest level of odor, discoloration of soil and most apparent sheen" on the water surface at borings A-4 and A-5; and
- Groundwater reconnaissance samples indicated that groundwater was contaminated with TPH as diesel and oil.

ATC Associates conducted another subsurface investigation at the City Property from February to May 2001. The objective of the subsurface investigation was to "assess whether subsurface soil and groundwater have been impacted as a result of historical activities at the site and/or adjacent properties." The results of the subsurface investigation were documented in the *Site Characterization/Subsurface Investigation Report* (SC/SI Report) dated June 27, 2001. Because the SC/SI Report was submitted to DEQ, the discussion below does not include a detailed summary of the results of the subsurface investigation. However, some of the findings of the subsurface investigation that are relevant to the source and extent of contamination found at the City Property and the Kyle/Bregante/Westerfelt Property are discussed below.

The subsurface investigation involved drilling nine soil borings (GP-1 through GP-9) to collect soil samples and five borings to install groundwater monitoring wells (MW-1 through MW-5) at the City Property (Figure 1). Groundwater levels were measured and groundwater samples were collected for laboratory analyses in February and May 2001.

Cross-sections A-A' and B-B' extend west-east across the properties and north-south along the boundary between the Kyle/Bregante/Westerfelt Property and the City Property, respectively. These cross-sections illustrate soil types, indications of contamination, and soil and groundwater analytical results from investigations on both properties. As shown on cross-sections A-A' and B-B' (Figures 2 and 3), ATC Associates noted petroleum sheens, odors, and discolored soil on the logs for 10 of the 14 borings drilled for the subsurface investigation at depths ranging from near the surface (boring GP-5) to as deep as 24 feet bgs (boring GP-3). The ten borings are located in the northern and central portion of the City Property. The four borings where



indications of petroleum hydrocarbon contamination were not noted include borings MW -1, MW-2 and GP-8 in the southeastern portion of the City Property and boring GP-4 within the northern building at the City Property. Indications of contamination were noted by ATC Associates in the surficial fill material at three borings (GP-2, GP-5, and MW-4). The presence of contamination in the fill material on the northern portion of the City Property strongly suggests that a shallow release of petroleum hydrocarbons in the diesel and oil range occurred in this area and migrated downgradient to the southwest-west onto the Kyle/Bregante/Westerfelt Property.

Concentrations of gasoline and diesel in soil exceeded the Soil Matrix Level II guidelines in samples from borings GP-6 and A-4, respectively (ATC Associates had erroneously stated that none of the soil samples exceeded the diesel soil cleanup level of 500 mg/kg). Because PAHs and PCBs were not analyzed in the soil sample with the highest concentrations of diesel and oil (Boring A-4), it is not known if these analytes are present and/or exceed their respective cleanup levels at the City Property. Also, insufficient historical information regarding the City Property was provided in the reports prepared by ATC Associates to assess if the detection of PCBs in a soil sample collected on the Kyle/Bregante/Westerfelt Property was from a source (e.g. electrical transformers, etc.) located on the City Property.

Concentrations of benzene and n-propylbenzene in groundwater samples from well MW-3 exceeded the cleanup levels for groundwater during one or both of the groundwater sampling rounds. Groundwater samples from wells MW-3, MW-4, and MW-5 contained elevated concentrations of gasoline (up 3,950 $\mu\text{g/l}$), diesel (up to 2,410 $\mu\text{g/l}$), and lube oil (1,250 $\mu\text{g/l}$). However, there are no established cleanup levels for gasoline, diesel or lube oil.

SUMMARY

The distribution of petroleum hydrocarbons in soil and groundwater extends from an apparent source located on the northern portion of the City Property towards the west across the Kyle/Bregante/Westerfelt Property. Evidence indicating that the source(s) of contamination are on the City Property includes:

- Large quantities of petroleum hydrocarbons were previously stored at the City Property for power generation and equipment containing PCBs may have been stored or used at the City Property;
- No potential source areas were identified during the due diligence investigations at the Kyle/Bregante/Westerfelt Property;
- The shallowest indications of contamination were found in fill material on the City Property. The presence of petroleum hydrocarbons in the fill material is likely due to a surficial or very shallow subsurface release on the City Property.
- The highest concentrations of petroleum hydrocarbons in soil and groundwater on the Kyle/Bregante/Westerfelt Property were found at boring B-1 located adjacent to the City Property and concentrations decreased in the downgradient direction (west); and,



- Chromatographs for soil samples collected at borings B-1 and B-3 indicate that contamination at both locations originated from the same source and contamination on the City Property was reported to be very similar to contamination found on the Kyle/Bregante/Westerfelt Property.

The lateral and vertical extent of contamination in soil and groundwater was not defined on the City Property or the Kyle/Bregante/Westerfelt Property by the Phase II ESA. It is possible that the plume of petroleum hydrocarbons in groundwater extends westward from the City Property to Gales Creek on the western boundary of the Kyle/Bregante/Westerfelt Property. Additional investigation is necessary to evaluate the extent of contamination.

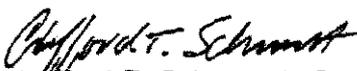
The owners of the Kyle/Bregante/Westerfelt Property have requested that the City of Forest Grove perform the following activities:

- Identify the location of the former fuel storage tanks, fill lines, product conveyance piping, and any sumps, pits, dry wells, or other potential source areas associated with past power generation operations on the City Property;
- Investigate the soil and groundwater conditions at the potential source areas identified on the City Property;
- Characterize the extent in soil and groundwater of petroleum hydrocarbons, PAHs, PCBs, and any other chemicals that migrated from the source(s) at the City Property, including those areas on the adjacent Kyle/Bregante/Westerfelt Property that are contaminated by the releases on the City Property; and,
- Design and implement a cleanup action to remediate all soil and groundwater contamination on the Kyle/Bregante/Westerfelt Property that originated from the source(s) on the City Property.

Please contact Mr. Sam Kyle at (425) 391-1170 or the undersigned at (425) 427-0061 to discuss this matter in more detail or for additional information regarding the properties.

Sincerely,

Farallon Consulting, L.L.C.


Clifford T. Schmitt, R.G.
Principal

Attachments: Figures 1, 2 and 3
Appendix A

cc: Mr. Sam Kyle, Kyle Development Company

CS:ck9/dmr



Oregon

Theodore Kulongoski, Governor

Department of Environmental Quality

Northwest Region Portland Office

2020 SW 4th Avenue, Suite 400

Portland, OR 97201-4987

(503) 229-5263

FAX (503) 229-6945

TTY (503) 229-5471

February 5, 2004

Samuel Kyle
Kyle Development Company, Inc.
10 NE Alder Street
Issaquah, WA 98027

Re: No Further Action Determination
Kyle Property Site
Forest Grove, Oregon
ECSI #3311

Dear Mr. Kyle:

The Oregon Department of Environmental Quality (DEQ) has completed its evaluation of the approximately 3-acre parcel of property located near the intersection of 16th Avenue and B Street, in Forest Grove, Oregon. This evaluation was conducted in accordance with the terms of a Letter Agreement between DEQ and you, dated November 19, 2002. The evaluation was documented in a Staff Report dated December 8, 2003.

The Staff Report recommended no further action (NFA) based on the Risk-Based Corrective Action Plan (RBCAP) dated September 3, 2003 and supplemental evaluation by DEQ.

DEQ provided a public comment period from January 2 to February 2, 2004, to announce the proposed NFA determination, and DEQ's intent to remove the site from the Confirmed Release List (CRL) and Inventory of hazardous substance sites. No comments were received by DEQ. Based on our review of available site information, no further action is required at the site under the Oregon Environmental Cleanup law, ORS 465.200 *et. seq.*, unless additional information becomes available that warrants further investigation.

DEQ files and the Environmental Cleanup and Site Information (ECSI) database will be updated to reflect the NFA determination upon complete payment of DEQ oversight costs. Project closeout activities will be initiated and you should receive a final invoice from DEQ within 60 days.

If you have any questions or comments about the information presented in this letter, please contact Mark Pugh at (503) 229-5587.

RECEIVED

FEB 13 2004

KYLE DEVELOPMENT COMPANY 

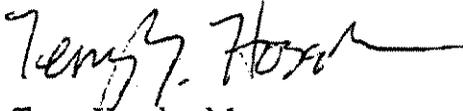
Exhibit B

TO- City of Forest Grove P011/012

RECEIVED 09-17-'07 15:33 FROM- 4253913369

Thank you for your participation in DEQ's Cleanup Program.

Sincerely,

A handwritten signature in black ink, appearing to read "Terry Hosaka", with a long horizontal flourish extending to the right.

Terry Hosaka, Manager
Cleanup and Emergency Response

cc: Mark Pugh, DEQ NWR C/ER



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