

**CITY OF WEST LINN**  
**PLANNING COMMISSION PUBLIC HEARING**  
**SCHEDULED HEARING DATE: SEPTEMBER 17, 2008**

**FILE NO.:**            **ZC-08-01/ PLN-08-06**

**REQUEST:**        **ZONE CHANGE FROM MEDIUM DENSITY  
RESIDENTIAL R-10 TO R-4.5 AND  
COMPREHENSIVE PLAN MAP CHANGE FROM  
LOW TO MEDIUM DENSITY RESIDENTIAL AT 18270  
AND 18340 WILLAMETTE DRIVE AND 18395 SHADY  
HOLLOW ROAD**

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**PLANNING & BUILDING  
DEPT.  
LAND USE ACTION**

**TO:** West Linn Planning Commission  
**FROM:** West Linn Planning Staff (Peter Spir, Associate Planner)  
**DATE:** August 12, 2008  
**FILE NO.:** ZC-08-01, PLN-08-06  
**SUBJECT:** Zone change from R-10 to R-4.5 and Comprehensive Plan Map change from Low to Medium Density Residential at 18270 and 18340 Willamette Drive and 18395 Shady Hollow Way.

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Planning Director's Initials



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**SPECIFIC DATA**

**OWNER/APPLICANT:** Willamette Commons, LLC 3380 Barrington Drive, West Linn, OR 97068

**SITE LOCATION:** 18270 and 18340 Willamette Drive and 18395 Shady Hollow Way.

**SITE SIZE:** 90,478 square feet or 2.08 acres

**LEGAL**

**DESCRIPTION:** Clackamas County Assessor's Map 2-1E-14DB tax lots 1100, 1200 and 1500

**COMP PLAN**

**DESIGNATION:** Low Density Residential

**ZONING:** R-10 (10,000 square foot minimum lot size/single family residential)

**APPROVAL**

**CRITERIA:** CDC Chapter 105 (Amendments to the Code and Map)

**120-DAY RULE:** The application was declared complete on August 7, 2008. Therefore the 120-day period lapses on December 5, 2008. There is no 120 day limit on the Plan Amendment.

**PUBLIC NOTICE:** Notice was mailed to property owners within 500 feet of the subject property and the Robinwood Neighborhood Association on August 12, 2008. The property was posted with a sign on September 4, 2008. The

notice was also posted on the City's website. DLCD has been notified 45 days prior to the plan change hearing and ODOT has also been notified. Therefore, public notice requirements of Community Development Code Chapter 99 have been met.

## **SPECIFIC PROPOSAL**

The application is for the rezoning and Comprehensive Plan redesignation of three parcels located at the northeast corner of Willamette Drive and Shady Hollow Way. Tax lots 1100 and 1200 contain single family homes while tax lot 1500 is vacant.

The applicants wish to rezone the property from R-10 to R-4.5, which requires also a Comprehensive Plan Map Amendment to redesignate the same parcels on the Comprehensive Plan Map from low to medium density residential. It is important to remember that no development is proposed at this time, only the rezoning and Plan Map redesignation. If the applicant is successful in obtaining the zone and plan map change then he is expected to proceed with the submittal of a separate development application for design review and possibly a Planned Unit Development. There will be a full public hearing before the Planning Commission to consider that application if or when it is submitted.

## **BACKGROUND**

The properties in this application are currently zoned R-10. The property to the north is zoned R-10 and occupied by single family homes on large lots. The property to the east is zoned R-10 and occupied by single family homes. Across Shady Hollow Way, also to the east, the two properties are zoned R-10 and R-4.5. There are single family homes on these lots. One of the lots (R-4.5) is owned by the City of West Linn and represents an undeveloped portion of the Robinwood Park property. The property to the south is zoned R-10 and General Commercial. A single family house occupies the R-10 zoned parcel and Burgerville restaurant occupies the General Commercial parcel. On the opposite side of Willamette Drive the zoning is R-10 (single family residential 10,000 square foot lot size). Single family homes occupy these lots. Many are non-conforming due to lot sizes of under 10,000 square feet.

Looking at this property within the larger context of Willamette Drive, it represents the northern residential "edge" to a three-quarter mile long stretch of commercially zoned properties. Planning theory often encourages medium or higher density housing as way to transition between commercial zones and lower density residential zones. This is most often seen when the transition takes place on a major arterial such as Willamette Drive. Alternately, the need for a transition could be considered already satisfied by the width of Shady Hollow Way which separates the residential and commercial uses.

Site analysis reveals that the properties are surrounded by tall dense hedges and bushes which limit visual access to the site. Robinwood Creek represents the northern edge of the site. Although not much more than a modest channel, the creek is classified as a riparian corridor with a minimum 100 foot transition area on both sides of the creek. The applicant's arborist states in the submittal that one tree that may be significant. But until the applicant applies for a separate design review, neither the creek or tree issue is relevant to the zone and plan change.

## MAJOR ISSUES

### Compatibility

Whereas the area north of Shady Hollow Way has been zoned R-10 residential for years, the proposed zone and map change will allow a higher density of housing and different housing types. Although there are findings that can be made to support the zone and plan change, it is understandable the residents of this area may not be comfortable with the zone and plan change particularly when they have no idea what will be built at this site. To address that concern, staff will recommend that the applicant be limited to single family attached or detached configuration only. Triplex or other configurations would not be permitted.

### Domino Effect

Another issue is that adjacent property owners may see this plan and zone change as a precursor to subsequent zone and plan change applications for adjacent property which might threaten the character and value of their neighborhood north towards Arbor Drive. Essentially, the concern is the "domino effect". Robinwood Creek should help establish an appropriate boundary between the zones.

### Opens the Door to Office Uses

A zone change to R-4.5 opens the door to a conditional use permit to develop professional offices and similar uses per CDC 14.060. The Neighborhood Plan and Staff cannot justify or support any such proposal and for that reason a condition would limit the allowable uses to residential only.

## PUBLIC COMMENTS

Mrs. Hvostov of 2748 Robinwood Way spoke with staff at City Hall on August 14, 2008 and declared her opposition to the zone and plan change. She was particularly concerned that it could result in the expansion of higher density housing northwards towards Arbor Drive, a diminution in property values and increased traffic.

Staff met with Robert Stowell and Kevin Bryck on August 28, 2008 to discuss the application. They wanted to see a screen of trees retained along Willamette Drive. They want a sidewalk/footpath on all frontages. They want to see a transition between on-site buildings and off-site buildings. They want to see no diminution in level of service for vehicles turning from Shady Hollow Drive onto Willamette Drive. They were opposed to street improvements on Shady Hollow Drive that result in an easier curve radius at the southeast corner of the site because it will promote faster cornering and attendant safety problems. They supported the idea of the applicant making improvements to Robinwood Park in lieu of on-site common open spaces. Staff agreed with most of these suggestions but noted that most of these issues will not be relevant until a design review/development application is submitted.

Additional comments were received from Gail Curtis, Senior Transportation Planner from ODOT. Her conclusion, based on ODOT analysis, was that the project would not have a significant impact on traffic. She recommended specific conditions regarding additional ROW and physical improvements. That letter is attached. Staff responded by saying that these conditions are appropriate at the time that an actual development application is made. Gail Curtis agreed.

## **RECOMMENDATION**

Based on staff and applicant findings, staff recommends approval of the application. The following conditions of approval are also recommended:

1. The property within the rezone area cannot be developed for non-residential uses.
2. The units shall be limited to single family attached, duplex or detached single family residential configuration only. Triplex or other configurations with more attached units are not permitted.
3. A 25 foot wide buffer shall be provided between buildings on the project site and the properties at 18194 and 18200 Shady Hollow Way.

p:/devrvw/staff reports2008/ZC-08-01-shadyhollow-9-3-08

## ADDENDUM

### APPROVAL CRITERIA AND FINDINGS

#### ZC-07-02, PLN-07-02

Staff recommends adoption of the findings for approval contained within the applicant's submittal, with the following exceptions and additions:

#### **105.050 QUASI-JUDICIAL AMENDMENTS AND STANDARDS FOR MAKING THE DECISION**

*A decision to approve, approve with conditions, or to deny an application for a quasi-judicial amendment shall be based on all of the following standards:*

- A. *The standards set forth in Section 99.110(A); which provide that the decision shall be based on consideration of the following factors:*
  1. *The applicable Comprehensive Plan policies as identified in sub-section "3" of this section and map designation.*
  2. *The applicable standards of any provision of this Code or other applicable implementing ordinance.*

#### **FINDING NO. 1**

Consistency with the Comprehensive Plan is addressed in Finding No. 3 below. The Community Development Code (CDC) is the applicable implementing ordinance. A useful starting point is to examine the purpose statements of the two zones involved in this application: R-10 and R-4.5. The purpose statement for R-10 in the CDC is as follows:

#### **11.000 SINGLE-FAMILY RESIDENTIAL DETACHED, R-10**

#### **11.010 PURPOSE**

*The purpose of this zone is to provide for urban development at levels which relate to the site development limitations, proximity to commercial development and to public facilities and public transportation. This zone is intended to implement the Comprehensive Plan policies and locational criteria, and is applicable to areas designated as Low Density Residential on the Comprehensive Plan Map and Type I and Type II lands identified under the Buildable Lands Policy.*

The compelling language in that purpose statement is, “*urban development at levels which relate to the site development limitations, proximity to commercial development and to public facilities and public transportation.*” By its location on a major arterial and public transportation, the fact that it is adjacent to a half mile long stretch of commercial development and fully serviced by utilities, the R-10 designation is reasonable. The purpose statement for the R-4.5 zone is surprisingly similar:

**14.000      *SINGLE-FAMILY RESIDENTIAL ATTACHED AND  
DETACHED/DUPLEX, R-4.5***

**14.010      *PURPOSE***

*The purpose of this zone is to provide for urban development at levels which relate to the site development limitations, proximity to commercial development and public facilities and public transportation, and to the surrounding development pattern. This zone is intended to carry out the intent of the Comprehensive Plan which is to provide for a choice in housing types, and is intended to implement the policies and locational criteria in the Comprehensive Plan for medium density residential housing.*

Staff finds that the site has no physical development limitations, is adjacent to general commercial, and is fully serviced with utilities, streets and public transportation. The surrounding development pattern is mixed: nonconforming sized residential lots to the west, larger residential lots to the north, more residential lots to the east, a park to the east, R-4.5 zoned residential and a Burgerville restaurant to the south in the General Commercial zone. There is reference to the locational criteria in the Comprehensive Plan. Staff discusses that criterion in Finding No. 2. Staff finds that the purpose statement of the proposed R-4.5 zone is satisfied at this location.

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- B.      *The standards set forth in Section 99.110(B) which provide that in making the decision, consideration may also be given to the following:*
1.      *Proof of change in the neighborhood or community or a mistake or inconsistency in the Comprehensive Plan or Zoning Map as it relates to the property which is the subject of the development application.*
  2.      *Factual oral testimony or written statements from the parties, other persons and other governmental agencies relevant to the existing conditions, other applicable standards and criteria, possible negative or positive attributes of the proposal or factors in sub-section "A" or "B-1" above.*

## FINDING NO. 2

Regarding a change in the neighborhood, the properties on the east side of Willamette Drive between Shady Hollow Way and Arbor Drive have been residential for decades. Although Burgerville was built in 1990, it replaced a popular drive in restaurant that had occupied that site for many decades. Changes would appear to be subtle. At the corner of Arbor Drive and Willamette Drive a group residential facility has been built and occupied. The remaining properties are relatively well maintained.

One dimension that has changed is Willamette Drive. In 1984 when the Comprehensive Plan was adopted, that street carried a relatively modest volume of traffic with a level of service of A-B which was very good. Today, the increased population of West Linn and adjacent cities have yielded an attendant increase in traffic on Willamette Drive to the extent that the LOS is C-D during AM/PM peaks.

So to answer the criteria, staff finds that while there has been no dramatic or significant change in the occupied neighborhood, (if we define the neighborhood as the environs or the surrounding properties rather than the larger Robinwood neighborhood); staff finds that the neighborhood has been transformed by the effects of increased traffic loads on Willamette Drive. Typically the transformation is seen in a shift in tenure from owner occupied to renter occupied. Often there is an attendant decline in the quality of the home's upkeep. Another familiar response is the replacement of single family homes with multi-family or attached housing on the premise that the tenure of occupants in these buildings is limited. In other instances there is a shift in uses such as the change at the corner of Arbor Drive from single family residential to a group residential facility.

Thus staff finds that the changes have been subtle regarding most surrounding land uses with the exception of Willamette Drive whose increased traffic has made the corridor better suited to attached housing rather than detached housing.

Regarding a mistake or inconsistency in the comprehensive plan or zoning map staff finds that the comprehensive plan's locational criteria for R-4.5 or medium density residential is more appropriately applied to this location than the locational criteria of R-10 or low density residential.

The locational criteria for medium-high density housing (R-4.5) are as follows:

- i) *Areas that are not subject to development limitations such as topography, flooding, or poor drainage;*
- ii) *Areas where the existing services and facilities have the capacity for additional development;*
- iii) *Areas within one-half mile of public transportation.*

Staff finds that there are no development limitations along Willamette Drive north to Arbor Drive. All utilities and services are available at the subject site. Tri-Met bus service runs right along Willamette Drive with a stop in front of Burgerville and at the intersection with Arbor

Drive. Proximity to public transportation is a good argument in favor of higher density housing. Higher densities can help sustain regular Tri-Met service. Thus the mistake was ever classifying the site R-10 instead of a more appropriate R-4.5.

(As a sidebar, staff finds that the flaws in the original zoning map continue. Whereas this site on Willamette Drive is R-10, a large area of R-4.5 was established near Hillside Place and College View Place where none of the criteria is met for R-4.5. It may be an appropriate long term solution to rezone that area to R-10.)

Conversely, the locational criteria for low density housing (e.g. R-10) are not met on Willamette Drive. That criterion is as follows:

- i) *Areas with limited capacity for development in terms of the existing facilities such as sewer, water, and drainage; and/or,*
- ii) *Areas having development limitations due to the topography, soil characteristics, drainage, high water table, and flooding.*

Staff finds that there are no capacity limits in terms of utilities at this location. There are no topographic, soil, flooding or other physical constraints at this site so strictly from the standpoint of the comprehensive plan's locational criteria, the area should not have been classified as R-10. Thus an inconsistency or mistake exists.

Regarding the "*possible negative or positive attributes of the proposal*", staff will first discuss the positive.

Metro and the City of West Linn, as well as planning theory, have long supported higher residential density along major arterials and transit corridors as a way to maximize the use and cost effectiveness of transit and the street infrastructure. If more people live along the existing street then it won't be necessary to build and maintain new roads and utilities further out on the urban fringe to accommodate lower density development. The maintenance cost per lineal foot of road is kept low when more people live adjacent to it.

More people concentrated along transit corridors also make regular transit service more cost effective. Higher transit use serves the Transportation Planning Rule's objective of encouraging multi-modal transportation; reducing total vehicle miles traveled (VMT) and fossil fuel consumption and pollution. The population concentration helps sustain a more profitable and attractive commercial corridor and social space particularly during non peak periods and during the weekends.

Also, planning theory has long called for a transition between commercial and low density residential land uses. That transition usually comes in the form of medium to high density housing. That transition would therefore be on the north side of Shady Hollow Road on the applicant's property. R-4.5 zoning would be one way to effect that transition. (GC>R-4.5>R-10) Alternately, that transition could be satisfied by the presence of Shady Hollow Road, but that is only 32 feet wide and offers no vertical barriers between the two uses (commercial and residential). A transition comprising distance and vertical barriers or structures is better since

the built structures can act to block and mitigate negative impacts (noise, glare, etc) associated with the commercial use.

Higher density housing is also regarded as an appropriate transition between the impacts of transportation corridors such as Willamette Drive and single family housing on streets further away from the arterial.

Staff also notes that property of the south side of Shady Hollow Way and most of the nearby Lazy River Drive is zoned R-4.5. We can see that over the years, the area along Lazy River Drive has developed in a reasonable fashion with a mix of single family homes and attached/common wall single family homes. Staff is unaware of any complaints directed at the existing R-4.5 zone or uses over the last 20 years. There were some medical offices developed on Lazy River Drive as allowed by R-4.5 but staff proposes a condition to prohibit non-residential uses at the site.

Although the discussion of traffic is more appropriately tied future development applications, ODOT provided their comments. ODOT determined that the proposed zone change would lead to additional trip generation, but it would have no significant impact on traffic conditions on Willamette Drive.

The negative attribute of the zone and plan change is that Shady Hollow Way already serves to delineate the boundary between General Commercial and low density residential (R-10). By moving medium density residential (R-4.5) north, it increases the likelihood of additional rezoning of adjacent properties. The concern is that this will, no matter how attractive the R-4.5 development may be, change the character of the neighborhood. Whereas most traffic generated by the development of this site will directly access Willamette Drive at the Shady Hollow Road another negative consequence could be increased traffic on Shady Hollow Road.

The Robinwood Neighborhood Plan's policy 1.7 calls for preserving residential zoning and that uses should be preserved north to the northern city limits. Since R-4.5 is a residential zone then the proposal agrees with the neighborhood plan. But if we interpret the policy to say that the current residential uses: single family detached-must be maintained then any attached housing allowed by the R-4.5 zone would be at odds with the policy. If however we interpret the policy to simply mean that residential uses of one kind or another must be built then the change to R-4.5, even if it includes attached housing, satisfies the policy. Staff agrees with the latter interpretation.

For any testimony from parties besides staff or the applicant, see the public comments section above, and any other post-staff-report attachments.

Staff finds the criteria are met.

- C. *The Comprehensive Plan, Plan and Ordinance Revision Process, and Specific Policy No. 4, which provides that the decision shall be based on consideration of the following criteria:*
1. *Conformance with the Comprehensive Plan policies and criteria.*

### **FINDING NO. 3**

In 2008, Robinwood Neighborhood Association developed a neighborhood plan which was adopted by West Linn City Council on May 12, 2008. The neighborhood plan must be given full consideration and respect particularly when it comes to a map plan change or zone change. A number of policies could be deemed applicable but at least two stand out. Policy 1.7 communicates the neighborhood's desire that residential zoning and uses be preserved from the north edge of the existing commercial zone to the northern city limits along Willamette Drive. The R-4.5 zone is a residential zone. R-4.5 allows duplexes, detached and attached housing. Therefore, the proposal agrees with the neighborhood plan in that residential uses are proposed and policy 1.7 is met.

Meanwhile, policy 3.6 seeks to “*provide affordable housing opportunities as part of a diverse Robinwood neighborhood*”, albeit within the confines of the Robinwood Main Street Area which coincides with the area zoned General Commercial. This kind of language finds its way into virtually all plans. It borders on platitudinous. The true test of the city or neighborhood's commitment to this kind of language is how people react when affordable housing is proposed near their home or in their neighborhood. Many people oppose affordable housing because it is feared that it will impact their property value or bring the amorphous “those kinds of people” into the area. In this case, since no design is submitted for review we don't even know if the units will be affordable, but for the sake of this discussion let's assume they are.

In West Linn and nearby Lake Oswego, affordable housing is a relative term tied to a percentage of the average local income. For example, Hoodview Townhomes near City Hall can be considered affordable. These townhomes cost less than the average single family home. While that may qualify them as affordable within the context of West Linn, they are hardly affordable in a regional sense. The townhomes are occupied by many empty nesters, retirees, young couples or single person householders who either do not need or cannot afford a larger dwelling. Many are attracted to this type of housing because they are not planning on living in the community for more than a few years. There is no evidence that the proximity of the Hoodview Townhomes to single family homes along Parker Road has diminished their value. Affordable housing, such as may be found in the R-4.5 zone, represents a much needed component of the total housing inventory of this city and any community or neighborhood.

Staff finds that the proposed zone and plan change meets the neighborhood plan policy 3.6.

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## **Comprehensive Plan Goal 10: Housing applies:**

### ***Goals***

1. *Preserve the character and identity of established neighborhoods.*
3. *Encourage the development of affordable housing for West Linn residents of all income levels.*

### ***Policies***

2. *Provide the opportunity for development of detached and attached single-family units, duplexes, garden apartments, town houses, row houses, multiplex units and boarding houses, lodging or rooming houses, and manufactured housing.*
5. *Allow for flexibility in lot design, size, and building placement to promote housing variety and protection of natural resources.*

### ***Recommended Action Measures***

1. *Evaluate how West Linn can meet its share of the regional need for affordable housing.*

## **FINDING NO. 4**

Staff finds that Goal 1 and Goal 3 are at cross purposes to one another.

On the one hand, Goal 1's desire ("*preserve character and identity*") is to preserve the status quo. It could be interpreted to mean that no change to zoning or housing types should ever take place. Meanwhile Goal 3's desire to introduce affordable housing can only be fulfilled by the introduction of new and different housing types and the zones that allow those different homes such as attached or common wall housing. Staff regards policy statement 5 as the tiebreaker in this debate by declaring that the inventory of housing must be expanded to allow greater "*flexibility in lot design, size, and building placement to promote housing variety*". Therefore staff finds that this criterion is met by allowing the zone and plan change.

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## **Comprehensive Plan Goal 2 Land Use Planning applies:**

1. *Maintain land use and zoning policies that continue to provide for a variety of living environments and densities within the city limits.*

### ***Policies***

7. *The following are criteria that shall be used when designating residential areas. This list is not exhaustive, but helps determine what types of residential densities are appropriate, given topographical constraints, available public facilities, etc.*

- a. *Low density residential lands (e.g. R-10) will meet the following criteria:*
  - iii) *Areas with limited capacity for development in terms of the existing facilities such as sewer, water, and drainage; and/or,*
  - iv) *Areas having development limitations due to the topography, soil characteristics, drainage, high water table, and flooding.*
  
- b. *Medium density residential lands (e.g. R-4.5) will meet all of the following criteria:*
  - iv) *Areas that are not subject to development limitations such as topography, flooding, or poor drainage;*
  - v) *Areas where the existing services and facilities have the capacity for additional development;*
  - vi) *Areas within one-half mile of public transportation.*

#### ***Recommended Action Measures***

- 4. *Establish regulations that set minimum and maximum number of housing units to be allowed in each residential district. Regulations shall be established that encourage using land appropriately and wisely to both accommodate new residents and respect existing neighborhood design.*
  
- 5. *Allow for flexibility in lot design, size, and building placement to promote housing variety and protection of natural resources.*

#### **FINDING NO. 5**

The R-4.5 zone and Medium Density Residential designation will allow for housing variety, flexibility in lot design, size, and building placement. That zone allows single family detached and attached homes and duplexes. In contrast, the R-10 zone only allows single family residential housing. The majority of Robinwood is zoned R-10. Thus single family homes dominate. There is R-4.5 zoning generally south of Shady Hollow Way and along Lazy River Drive. Only one of the parcels in that area is occupied by one attached dwelling. Most of the R-4.5 zone is occupied by Robinwood Park so no real opportunities for housing variety exist in the north portion of Robinwood. Staff notes that there are apartment buildings/projects in the vicinity of the Willamette Drive and Hidden Springs Road intersection, but nothing like that density north of Cedaroak Drive a half a mile to the south.

Allowing the proposed zone and plan designation will meet the goals, policies and recommended action measures listed above.

**Comprehensive Plan Goal 13 Energy Conservation policies apply:**

*5. Promote location of housing, shopping, and employment uses in close proximity to each other and well connected by transit consistent with policies included in Chapter 2 of this Plan.*

**FINDING NO. 6**

Increasing residential density along and near major corridors pays dividends in terms of achieving the critical mass or numbers of people within walking distance to sustain the commercial sector during non peak hours and to efficiently sustain mass transit. Specifically, the land proposed for conversion to the R-4.5 and the medium density plan designation is 40 feet from the start of a half a mile long stretch of shopping and restaurants in the commercial zone. Employment opportunities abound in offices and businesses in that same corridor along Willamette Drive. A transit stop is just 60 feet from the site.

Staff finds the application is compliance with Comprehensive Plan policies and criteria. The criterion is met.

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2. *There is a public need for the change or that the change can be demonstrated to be in the interest of the present and future community.*
3. *The changes will not adversely affect the health, safety and welfare of the community.*

**FINDING NO. 7**

Title 7 (Metro Code Sections 3.07.710-3.07.760) – Affordable Housing section of the Metro 2040 functional plan seeks to ensure that all cities and counties in the region are providing opportunities for affordable housing for households of all income levels.

The intent of Title 7 is to provide a choice of housing types, reduce barriers to sufficient and affordable housing for all income levels in the region, create housing opportunities commensurate with the wage rates of jobs available across the region, and initiate a process for addressing current and future needs for affordable housing.

There is a public need for affordable housing in West Linn. The fact that land zoned R-4.5 is smaller than most lots in Robinwood should translate into more affordable parcels and, by extension, more affordable homes. Increased building material costs, an over supply of single family homes, the push for sustainability and the increasing awareness of the inefficiencies and high cost of oversized homes should make smaller attached and/or detached housing units very attractive. Purchasers or tenants of housing at this site could range from students and staff at

the nearby Marylhurst University to senior citizens selling larger homes in Robinwood or elsewhere in West Linn and moving into smaller more manageable homes/units at this site.

Meanwhile, higher fuel costs are encouraging increased usage of mass transit. Combining those trends in housing with this location on Willamette Drive served by transit, means that the development of affordable housing is appropriate and should be well received.

The final criterion is that the changes will not adversely affect the health, safety, and welfare of the community. Regarding health, the proximity of increased housing opportunities next to a park and trail system should encourage a healthier population. Proximity to transit and bike lanes along Willamette Drive allows for the use of alternate and healthier modes of transportation.

Regarding safety, traffic is an obvious concern. Assuming about 20-22 units generating a maximum 9.5 trips each per day that translates to 211 trips accessing Willamette Drive at Shady Hollow Way. If the site were developed fully under the R-10 zoning then up to nine homes could be built to produce 86 trips or 125 less trips than that generated by R-4.5 zoning and development. According to the applicant's traffic engineering study the proposed zone change will not reduce the performance of the intersections studied below the minimum acceptable performance standards of West Linn's Transportation System Plan and the State of Oregon's highway plan. The AM peak hour level of service is expected to fall to "D". If there is a flaw in this analysis it would appear to be that all traffic from this site was assumed to access via the Shady Hollow and Willamette Drive intersection. It does not consider the possibility that traffic could access or leave the rezoned property via the Arbor Drive and Willamette Drive intersection. Although the LOS may be acceptable at that intersection, and the LOS of Sleepy Hollow as a local street will continue to stay at "A", the quality of life and safety may be diminished to an unknown degree by increased traffic, traffic speeds and noise.

ODOT also looked at the proposed zone change and the potential for traffic increase. ODOT determined that although the proposed zone change would lead to additional trip generation, it would have no significant impact on traffic conditions and levels of service on Willamette Drive. ODOT declared no opposition to the rezone.

Regarding the general welfare of the community, staff finds that the new zoning will create always needed affordable housing opportunities. An increased population along Willamette Drive will help sustain a more active and social streetscape with more people walking along Willamette Drive towards Starbucks and area restaurants. It may become a safer place too from the standpoint of more eyes on the street or the likelihood of increased surveillance.

# EXHIBITS

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**CITY OF WEST LINN  
PLANNING COMMISSION  
PUBLIC HEARING NOTICE  
FILE NO. ZC-08-01/PLN-08-06**

The West Linn Planning Commission is scheduled to hold a public hearing, on **Wednesday, September 17, 2008, starting at 7:00 p.m.** in the Council Chambers of City Hall (located at 22500 Salamo Road, West Linn, OR,) to consider the request of Mr. and Mrs. Emani for a Zone Change from R-10 (low density single family residential (R-10) to R-4.5 (medium density residential) and a Comprehensive Plan Map Amendment from Low density to Medium-High Density Residential for properties at the northeast corner of Shady Hollow Road also known as 18270 and 18340 Willamette Drive and 18395 Shady Hollow Way. Approval criteria for the Zone Change and the Comprehensive Plan Map Amendment are contained in CDC Chapter 105. Approval or disapproval of the request will be based upon these criteria and these criteria only. At the hearing, it is important that comments relate specifically to the applicable criteria listed.

You have been notified of this proposal because County records indicate that you own property within 500 feet of the site located at tax lots 1100, 1200, and 1500 of Clackamas County Assessor's Map 2-1E-14DB as required by Chapter 99 of the West Linn Community Development Code.

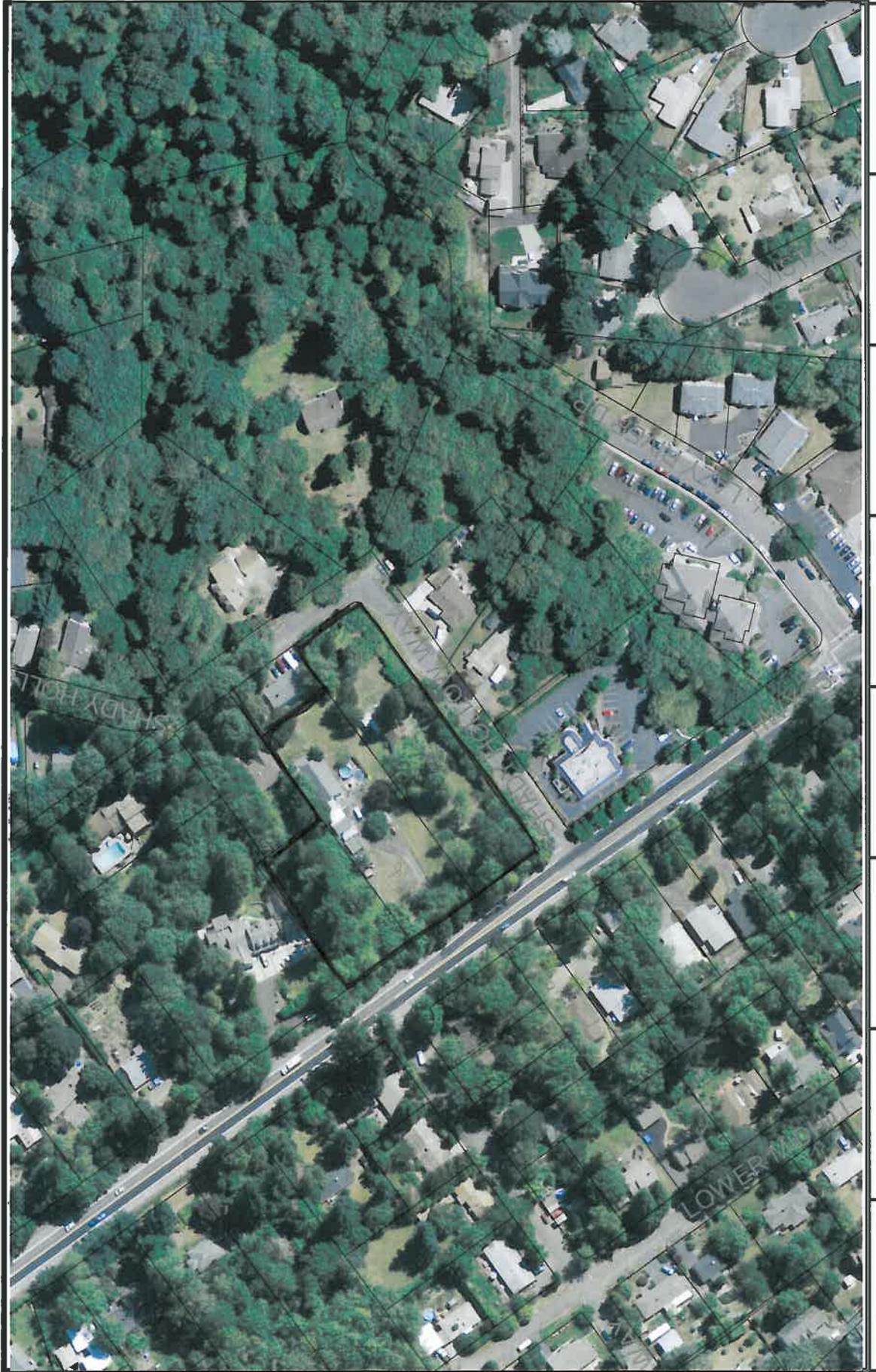
The complete application in the above noted file is available for inspection at no cost, or copies can be obtained for a minimal charge per page. At least ten days prior to the hearing, a copy of the staff report will be available for inspection. For further information, please contact Peter Spir, Associate Planner, at City Hall, 22500 Salamo Road, West Linn, OR 97068. For fastest response email at [pspir@westlinnoregon.gov](mailto:pspir@westlinnoregon.gov). Alternately, you may telephone at 503-656-4211.

The hearing will be conducted in accordance with the rules of Section 99.170 of the Community Development Code, adopted December 14, 1987, Ordinance 1129. Anyone wishing to present written testimony on this proposed action may do so in writing prior to, or at the public hearing. Oral testimony may be presented at the public hearing. At the public hearing, the Planning Commission will receive a staff report presentation from the City Planner; and invite both oral and written testimony. The Planning Commission may continue the public hearing to another meeting to obtain additional information, or close the public hearing and take action on the application. If a person submits evidence in support of the application, any party is entitled to request a continuance of the hearing. If there is no continuance granted at the hearing, any participant in the hearing may request that the record remain open for at least seven days after the hearing. Failure to raise an issue in person or by letter at some point prior to the close of the hearing, or failure to provide sufficient specificity to afford the decision maker an opportunity to respond to the issue, precludes an appeal to the Land Use Board of Appeals (LUBA) based on that issue.

TERESA ZAK  
Planning Administrative Assistant



# WEST LINN GIS



Scale: 214 Feet

City of West Linn SnapMap, Geographic Information System, Date: 8/26/2008

**MAP DISCLAIMER:**

This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

# WEST LINN GIS

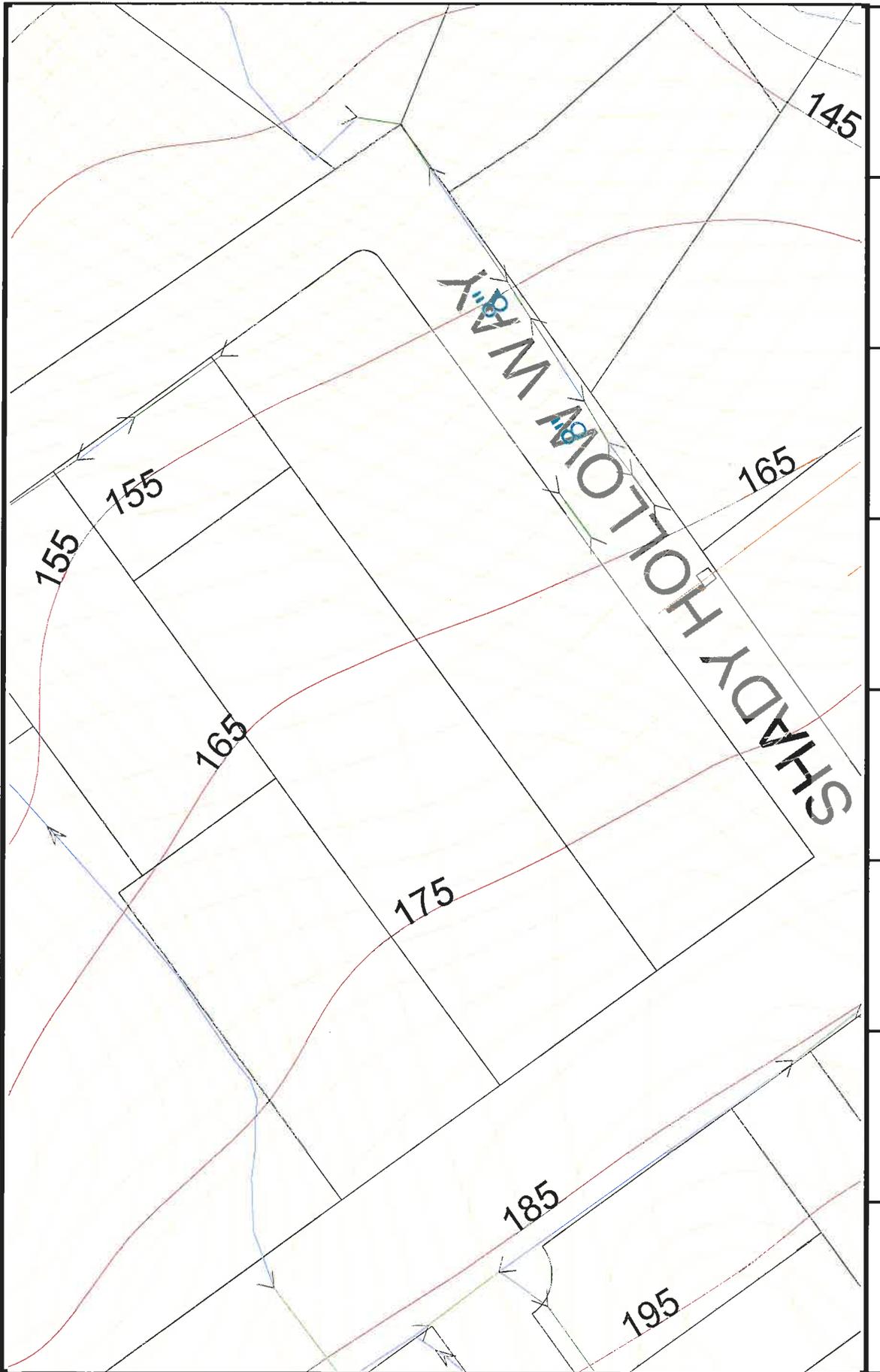


Scale: 087 Feet

City of West Linn SnapMap, Geographic Information System, Date: 8/26/2008

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WEST LINN GIS

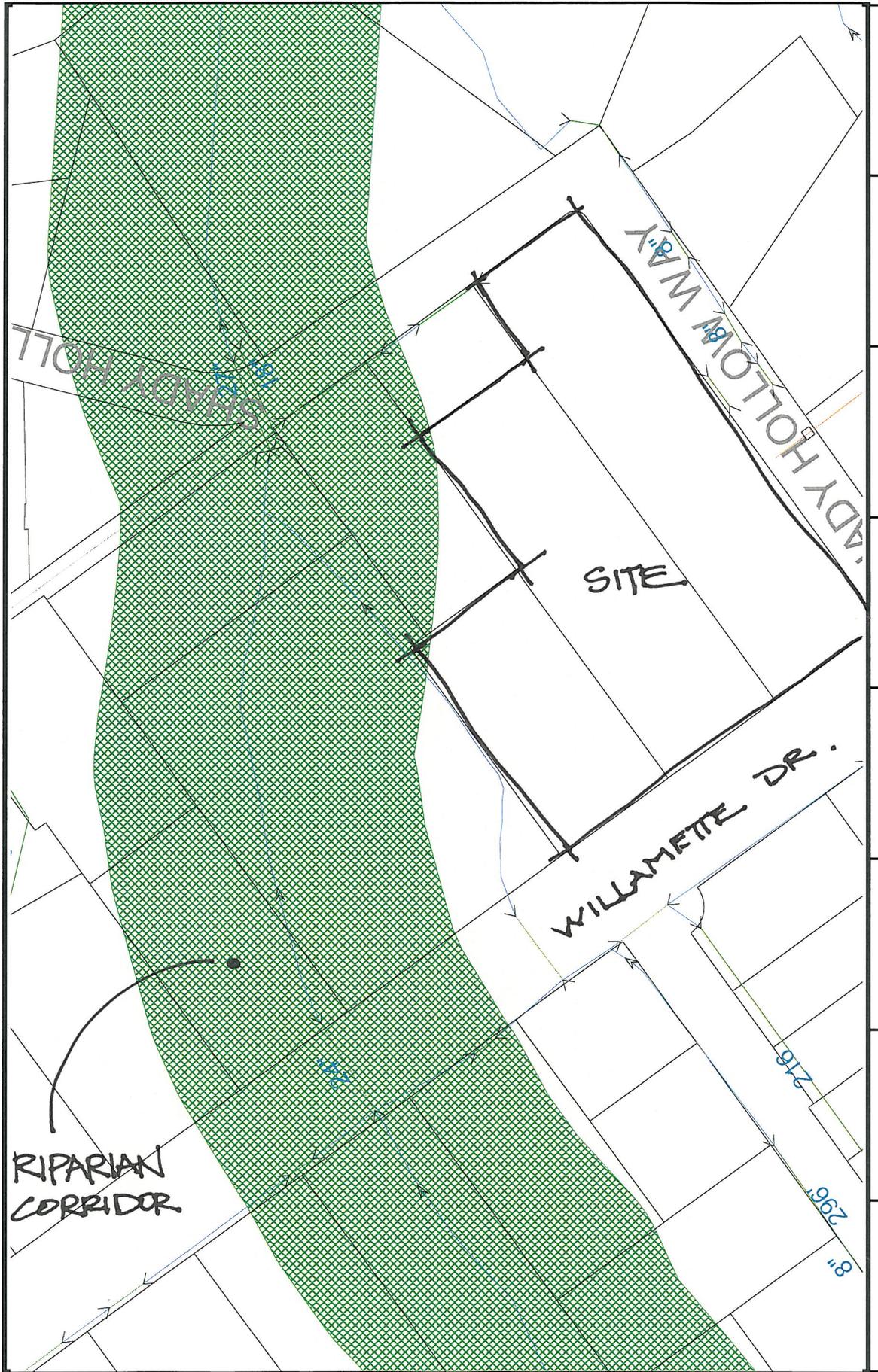


Scale: 0.87 Feet

City of West Linn SnapMap, Geographic Information System, Date: 8/26/2008

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WEST LINN GIS



Scale: 129 Feet

City of West Linn SnapMap, Geographic Information System, Date: 8/26/2008

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VIEWS OF PROPERTY FROM DRIVEWAY OFF WILLAMETTE DR



INTERIOR OF SITE LOOKING EAST



INTERIOR OF SITE LOOKING EAST  
24

LOOKING UP DRIVEWAY TO  
WILLAMETTE DR.



LOOKING WEST ON  
SHADY HOLLOW TOWARDS  
WILLAMETTE DR.

LOOKING NORTH ON  
SHADY HOLLOW



SE. CORNER OF PROPERTY  
CURVE OF SHADY HOLLOW 26

PC-4



**Oregon**  
Theodore R. Kulongoski, Governor

**Oregon Department of Transportation**  
ODOT Region 1  
123 NW Flanders St  
Portland, OR 97209 - 4037  
Telephone (503) 731-8200  
FAX (503) 731-8259

File code: PLA9-2A -3  
ODOT Case No: 2957

8/25/2008

City of West Linn  
Planning Dept  
22500 Salamo Rd #1000  
West Linn, OR 97068

Attn: Peter Spir, Senior Planner  
Re: ZC08-01; PLN08-06: Willamette Commons Zone Change  
Highway 43 and Shady Hollow Way

Dear Mr. Spir,

We have reviewed the applicant's proposal for a zone change and comprehensive plan map amendment from R-10, single family to R-4.5, single family residential detached and attached/duplex to develop up to 10 housing units. Detailed comments from the ODOT engineering review are attached. We have no objections to the proposal but recommend certain conditions of approval.

The site is adjacent to Highway 43. ODOT has permitting authority for this facility<sup>1</sup> and an interest in ensuring that the proposed land use is compatible with its safe and efficient operation. Highway 43 is classified a Statewide Urban highway according to the Oregon Highway Plan (1999). Based on 35 mile per hour speed and classification, the access spacing standard is 720 feet. This standard means that no direct access to Highway 43 can be achieved unless an exception is granted due to problems with Shady Hollow Way or other alternative access.

Because Highway 43 will provide access to the site via Shady Hollow Way, highway frontage improvements should be a condition of development approval. Right of way dedication shall be consistent with the local transportation system plan (TSP). The applicable cross-section is shown in the West Linn OR 43 Conceptual Design Plan (locally adopted December 10, 2007) as an element of the TSP. Also, please note that the applicable highway cross-section shows a raised bike lane. As noted in the plan, this detail has not been accepted by ODOT. Therefore, the highway frontage plans should show a traditional painted bike lane unless the developer wants to pursue an exception to the highway standard which is not expected.

Recommended Local Conditions of Approval

ODOT recommends the land use decision include the following Conditions of Approval to address applicable state and local approval criteria and ODOT permit requirements:

1. Site access shall be via Shady Hollow Way with no direct access from Highway 43.

<sup>1</sup> OAR 734-051 website: [http://arcweb.sos.state.or.us/rules/OARS\\_700/OAR\\_734/734\\_051.html](http://arcweb.sos.state.or.us/rules/OARS_700/OAR_734/734_051.html)

2. Curb, sidewalk and bikeways shall be constructed consistent with the local Transportation System Plan and to current local, ODOT/ADA standards to provide pedestrian and bicycle access to the site.
3. Right of way dedication as necessary to accommodate the planned cross section identified in the local Transportation System Plan shall be provided through deed to the Oregon Department of Transportation. The dedication must be to the State of Oregon, Oregon Department of Transportation. Contact the ODOT District contact for assistance in coordinating the dedication. ODOT should provide verification to the local jurisdiction that the dedication requirement has been fulfilled. The property owner must be the signatory for the dedication and will be responsible for a certified environmental assessment of the site prior to transfer of property to the Department.
4. An ODOT Miscellaneous Permit must be obtained for all work in the highway right of way.
5. To install trees within the highway right of way, the applicant must submit an application for a *design exception* through the ODOT District office. If approved, the applicant must obtain an ODOT permit to install the trees.
6. An ODOT Drainage Permit is required for connection to state highway drainage facilities. Connection will only be considered if the site's drainage naturally enters ODOT right of way. The applicant must provide ODOT District with a preliminary drainage plan showing impacts to the highway right of way. A drainage study prepared by an Oregon Registered Professional Engineer is usually required by ODOT if:
  1. Total peak runoff entering the highway right of way is greater than 1.77 cubic feet per second; or
  2. The improvements create an increase of the impervious surface area greater than 10,758 square feet.

ODOT Contact Information

- Contact Doug Baumgartner, ODOT Region 1 Traffic at (503) 731-8225 for information regarding the traffic analysis review.
- Contact Sam Hunaidi, ODOT District 2A, at (503) 229-5002 for information on the written permit application process.

**Please send a copy of the Notice of Decision including conditions of approval to:  
ODOT Region 1 Planning, Development Review  
123 NW Flanders St  
Portland, OR 97209**

Thank you for providing ODOT the opportunity to participate in this land use review. If you have any questions regarding this matter, please contact me at: (503) 731-8206.

Sincerely,



Gail Curtis, AICP, Senior Planner

C: Sam Hunaidi, ODOT District 2A  
Doug Baumgartner, ODOT Region 1 Traffic



**Oregon**

Theodore R. Kulongoski, Governor

**Oregon Department of Transportation**

ODOT Region 1

123 NW Flanders St

Portland, OR 97209 - 4037

Telephone (503) 731-8200

FAX (503) 731-8259

**TO:** Gail Curtis – Planner  
Region 1 Planning

**FROM:** Doug Baumgartner, E.I.T.  
Development Review Traffic Analyst  
Region 1 Traffic

**DATE:** August 25, 2008

**RE:** **Willamette Commons Zone Change  
HWY 3 (OR 43)  
Washington County, Oregon**

---

### **Introduction**

I have reviewed the Transportation Impact Analysis (TIS) for the proposed Willamette Commons Zone Change in West Linn, Oregon. The TIS is dated July 9, 2008 and was submitted by the applicant, Willamette Commons, LLC.

The zone change proposal is for three adjacent parcels on Highway 43 currently zoned R-10 zoning (Low Density Residential) and proposed to be zoned R-4.5 zoning (Medium Density Residential). The three parcels comprise a total of 2.08 acres and currently contain single family residences on two of the three parcels. Highway 43 (Highway 3, MP 8.31) is classified as a Statewide Highway with a maximum volume to capacity ratio of 0.99.

Based on the technical review of the TIS ODOT has the following comments and concerns regarding the findings of the TIS.

### **Trip Generation**

The existing zoning on the three parcels would allow for three houses to be built on each lot for a total of 9 single-family homes and the proposed zoning would allow 22 single-family units. ITE Code 210, Single-Family Detached Housing, was used to calculate trip generation for all analysis scenarios. The trip generation for build out of the existing zoning would be 86 daily trips with 7 AM peak hour trips and 9 PM peak hour trips. The trip generation for build out of the proposed zoning would be 211 daily trips with 17 AM peak hour trips and 22 PM peak hour trips.

### **Volume Development and Capacity Analysis**

The traffic count data (raw volumes) was not seasonally adjusted to reflect the 30<sup>th</sup> Highest Hour volume (30HV) which would have increased the volumes at the Highway

43 and Shady Hollow Way intersection by 5%. However, regardless of this discrepancy the analysis shows that the intersection will perform within the standard maximum volume to capacity ratio with the build out of the proposed zoning through the 2023 planning year.

### **Access Management**

The TIS was based on the assumption that all three of the parcels would share a single access to Shady Hollow Way opposite of Burgerville's access. However, the TIS also included the statement that "*a site plan is not available for either development scenario as no development is proposed at this time*". On the contrary, the TIS also included the statement that under the existing zoning it is "*expected that the nine homes would have potentially up to three Accesses.*" Based on the information provided in the TIS it is unclear as to what access is proposed for the three parcels to the transportation system. Shady Hollow Way appears to front all of the specified properties and thereby is a viable access alternative to the highway and so ODOT recommends that any access to these properties be to Shady Hollow Way and not Highway 43. If the three parcels share one access to Shady Hollow Way, then ODOT's access spacing standards would not have to be addressed, but if access to the highway is proposed for any of the parcels with their development, then the applicant will have to apply for an access permit and go through the permitting process according to OAR 734-051.

### **Sight Distance**

The TIS only addressed the sight distance at the location of the proposed single access for the proposed development. ODOT standards for sight distance do not apply to accesses on facilities that do not belong to the department. A site plan was not provided to verify the distances that were reported and so the traffic safety assumptions of the TIS cannot be verified without supporting data.

### **Traffic Safety**

The intersection of Shady Hollow Way and Highway 43 has a low accident rate of .06 accidents per MEV according to the recent crash history and so mitigations were not recommended in the TIS. ODOT does not recommend any safety mitigations for this intersection based on the accident records.

### **Turning Lane Warrants and Signal Warrants**

The TIS included an analysis of turning lane and signal warrants and concludes that a signal is not warranted at the site access or at the Shady Hollow Way and Highway 43 intersection, a left turn lane is not warranted on Highway 43, and that construction of a roadway shoulder is recommended from the right turn lane warrants for peak hour traffic under the current and proposed zoning but that the construction of a roadway shoulder is not recommended because it is not needed for intersection capacity. Further traffic analysis of site access is warranted at time of development in order to analyze the safety and operational impacts on the Shady Hollow Way and Highway 43 intersection.

### **Conclusion**

Based on the trip generation increase resulting from the proposed zone change and map amendment, there will be no significant effect on the transportation system. Frontage improvements to Highway 43 should be required as a condition of the zone change and/or development approval because of the vicinity access that Highway 43 provides. Further traffic analysis is warranted at time of development. The purpose of

the analysis would be to analyze the safety and operational impacts of the proposed accesses and the impacts on the area traffic operations and safety.

If there are any questions regarding the contents of this memorandum, please contact me at (503) 731-8225.

**Spir, Peter**

---

**From:** CURTIS Gail E [Gail.E.CURTIS@odot.state.or.us]  
**Sent:** Tuesday, August 26, 2008 1:43 PM  
**To:** Spir, Peter  
**Subject:** RE: Willamette Commons comments

That's fine. I understand.

*Gail Curtis, AICP  
Senior Transportation Planner  
ODOT - Region 1  
123 NW Flanders  
Portland, OR 97209-4037  
Phone: 503-731-8206  
FAX: 503-731-8259*

-----Original Message-----

**From:** Spir, Peter [mailto:PSpir@ci.west-linn.or.us]  
**Sent:** Tuesday, August 26, 2008 1:11 PM  
**To:** CURTIS Gail E  
**Subject:** RE: Willamette Commons comments

Thanks Gail

Since this application is for just the zone change and plan amendment I was not planning on imposing conditions of approval (COA) that include ROW dedications or physical improvements at this time. At such time that the applicant submits a development proposal then the COAs would be imposed. I will be forwarding this to the applicant and including it in the staff report so all parties, including the public, fully understand what will be required. Does that work for you?  
Peter

---

**From:** CURTIS Gail E [mailto:Gail.E.CURTIS@odot.state.or.us]  
**Sent:** Tuesday, August 26, 2008 1:01 PM  
**To:** Spir, Peter  
**Cc:** BAUMGARTNER Douglas G; HUNAJDI Sam H  
**Subject:** Willamette Commons comments

<<dst.pdf>> Please let me know if you have any questions. Thanks.

*Gail Curtis, AICP  
Senior Transportation Planner  
ODOT - Region 1  
123 NW Flanders  
Portland, OR 97209-4037  
Phone: 503-731-8206  
FAX: 503-731-8259*

8/26/2008

32

# APPLICANT'S SUBMITTAL

## EXHIBIT PC-5

---

**FILE NO.:** ZC-08-01/ PLN-08-06

**REQUEST:** ZONE CHANGE FROM MEDIUM DENSITY  
RESIDENTIAL R-10 TO R-4.5 AND  
COMPREHENSIVE PLAN MAP CHANGE  
FROM LOW TO MEDIUM DENSITY  
RESIDENTIAL AT 18270 AND 18340  
WILLAMETTE DRIVE AND 18395 SHADY  
HOLLOW ROAD

# CITY OF WEST LINN

## COMPREHENSIVE PLAN AMENDMENT AND ZONE CHANGE

18395 Shady Hollow Way and  
18270 & 18430 Willamette Drive, West Linn, Oregon



**Submitted By:**  
Willamette Commons, LLC

July 9, 2008

**Prepared By:**  
STIVEN Planning & Development Services, LLC  
148 B Avenue, Suite 100 □ Lake Oswego, Oregon 97034  
Phone: 503.607.0677 □ Fax: 503.607.0686

A-1

CITY OF WEST LINN, OREGON

**COMPREHENSIVE PLAN AMENDMENT  
AND  
ZONE CHANGE REQUEST**

18270 & 18430 Willamette Drive (Hwy 43), West Linn, Oregon and  
18395 Shady Hollow Way, West Linn, Oregon

Comprehensive Plan Amendment from Low Density  
Residential to Medium Density Residential,  
and  
Zone Change from Single Family Residential (R-10) to  
Single Family Residential Detached and Attached/Duplex  
(R-4.5)

Submitted By:  
Willamette Commons, LLC

July 9, 2008

Prepared by:  
STIVEN Planning & Development Services, LLC  
148 B Avenue, Suite 100 ▪ Lake Oswego, Oregon 97034  
Phone: 503.607.0677 ▪ Fax: 503.607.0686

A-2

**SUMMARY OF FACTS**

**Applicant & Owner:** Willamette Commons, LLC  
3380 Barrington Drive  
West Linn, OR 97068

**Request:** Comprehensive Plan Amendment from Low Density Residential to Medium Density Residential,  
  
Zone Change from Single Family (R-10) to Single Family Residential Detached and Attached/Duplex (R-4.5)

**Location:** 18270 and 18430 Willamette Drive (Hwy 43), West Linn, Oregon and 18395 Shady Hollow Way, West Linn, Oregon

**Legal:** Map 2 1E 14DB Tax Lots 1100, 1200 and 1500

**Site Size:** Tax Lot 1100 – 38,978 square feet  
Tax Lot 1200 – 32,000 square feet  
Tax Lot 1500 – 19,500 square feet  
**Total: 90,478 square feet (2.08 acres)**

**Existing Zoning:** Single Family Residential (R-10)

**Existing Comprehensive Plan Designation:** Low Density Residential

**DEVELOPMENT TEAM:**

**Land Planners:**                   **Martha F. Stiven**  
**Stacey Sacher Goldstein**  
**Stiven Planning and Development Services LLC**  
148 B Avenue, Suite 100  
Lake Oswego, OR 97034  
Telephone: 503.607.0677  
Fax: 503.607.0686  
Email: mstiven@stivenplanning.com

**Traffic Engineering:**           **Frank Charbonneau**  
**Charbonneau Engineering**  
9370 SW Greenburg Road, Suite 411  
Portland, OR 97223  
Telephone: 503.293.1118  
Fax: 503.293.1119  
Email: frank@charbonneauengineer.com

**Land Use Attorney:**           **Michael C. Robinson**  
Perkins Coie  
1120 N.W. Couch Street 10<sup>th</sup> Floor  
Portland, OR 97209  
Telephone: 503.727.2264  
Fax: 503.227.2222  
Email: mrobinson@perkinscoie.com

**Arborist:**                           **Walter Knapp**  
**Silviculture and Forest Management**  
7615 SW Dunsmuir  
Beaverton, OR 97007  
Telephone: 503.646.4349  
Fax: 503.265.8117  
Email: waltknapp@comcast.net

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**APPENDIX:**

Appendix A: Comprehensive Map, Zoning Map, Aerial Photo and Assessor Map

Appendix B: Pre-Application Meeting Notes

Appendix C: Tree Inventory

Appendix D: Neighborhood Meeting Materials

- June 10, 2008
- July 8, 2008

Appendix E: Maps of Similar Development Patterns Along Hwy 43 in the Bolton Neighborhood

Appendix F: Traffic Impact Study

Appendix G: Site Photos

## I. INTRODUCTION AND APPLICANT'S PROPOSAL

This application requests amendments to the City of West Linn Comprehensive Plan Map from Low Density Residential to Medium Density Residential and Zoning Map from R-10 Single Family Residential (R-10) to Single Family Residential Detached and Attached/Duplex (R-4.5). Appendix A illustrates the existing Comprehensive Plan Map and Zoning Map designations for the site.

As will be demonstrated in the following text, the proposed map amendments are consistent with all applicable policies and standards of the City of West Linn Community Development Code, Comprehensive Plan, Statewide Planning Goals, the Metro Functional Plan, the Robinwood Neighborhood Plan and the Oregon Transportation Planning Rule. In general, the proposed Plan and Zoning Map amendments would promote an efficient land use and circulation pattern by providing medium density housing near transit, shopping and employment opportunities. In addition, there are tangible environmental benefits to allowing increased density on the subject site as residents will have the option of walking, cycling or using transit to surrounding retail, jobs and service uses along Willamette Drive, thereby minimizing traffic impact and relieving congestion and air pollution. The proposed land use pattern mimics what is already located on Willamette Drive in several locations south of the site, namely in the Bolton neighborhood, on the west side of Willamette Drive.

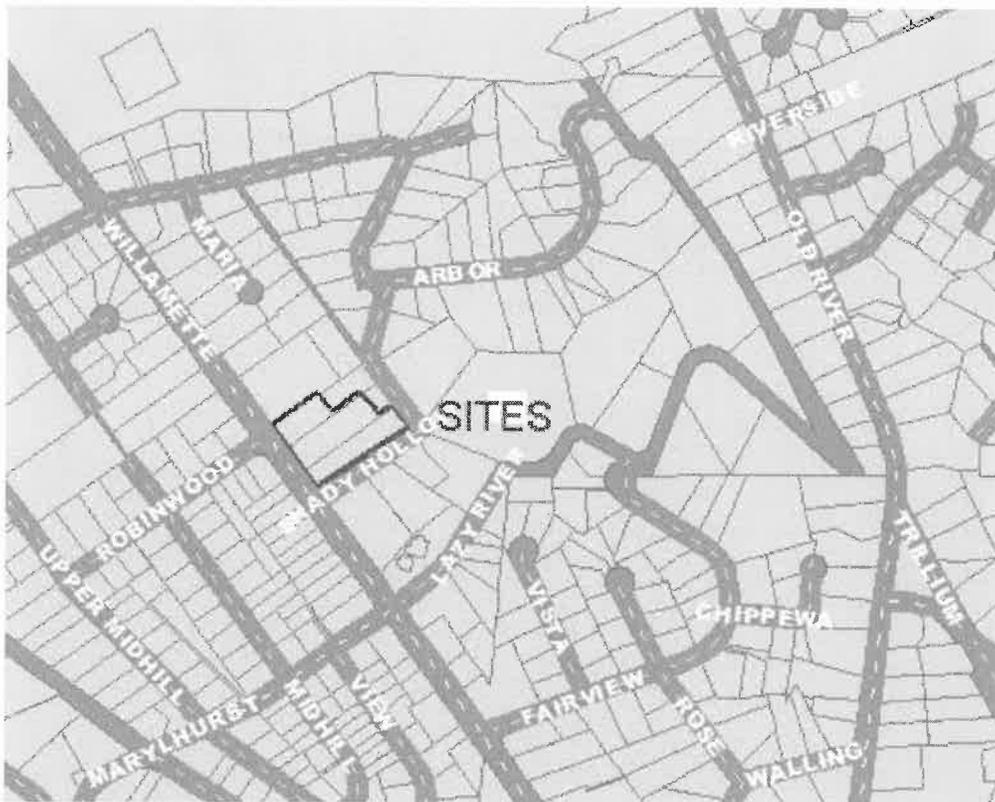
To ensure the site can be developed consistent with the City of West Linn development standards, the Applicant assembled three (3) parcels for this proposal. Together the three (3) properties total 2.08 acres. The proposed site is ideal for increased density because together they are large enough to allow for site amenities and necessary buffering to be a good neighbor to the Lower Density Residential development that is located east of the site. In addition, the site meets the locational criteria for medium density residential as outlined in *Goal 2, Land Use Planning, Section 1, Residential Development*, of the Comprehensive Plan. Allowing sites that so clearly meet the locational criteria for higher density reduces the pressure to increase density on sites that are less suitable.

The proposed amendments would allow for increased housing opportunities for a maximum of 13 dwelling units beyond what may currently develop under the existing R-10 designation. The site is located within close walking distance of commercial and employment opportunities along Willamette Drive. Rezoning the sites to R-4.5 would provide an effective transition and buffer between the existing single family residential zone north of the site and the commercial uses to the south. Further, any new development on the site will act as a buffer between the traffic along Willamette Drive and the lower density single family development located east of the site along Shady Hollow Way.

## II. PROJECT BACKGROUND

### *Project Location*

The subject site contains three (3) parcels assembled by the Applicant. The addresses are 18270 Willamette Drive, 18340 Willamette Drive and 18395 Shady Hollow Way. The total acreage is 2.08 acres (90,478 SF) and fronts on both Willamette Drive and Shady Hollow Way. All three (3) sites have access on State Hwy 43, also known as Willamette Drive.



Source: Portland Maps

The site is in an area with a mix of uses. Single family residential uses zoned R-10 exist north and west of the site, across Willamette Drive. On the east side of Willamette Drive, directly south of the site, across Shady Hollow Way, commercial uses include Burgerville, Marylhurst Medical Clinic, Kindercare Learning Center, and additional medical uses all zoned General Commercial (GC). On the west side of Willamette Drive, commercial uses include The Dog Club dog wash, Edward Jones Financial, the mixed commercial building containing Allstate Insurance. East of the site is a large single family residential lot and Robinwood Community Park.

As previously stated, there are similar land use patterns on Willamette Drive in several locations south of the site, in the Bolton neighborhood. These are R-4.5 zoned lands fronting Willamette Drive with R-10 single family uses surrounding the sites. See Appendix E for detailed land use patterns.

***Site History, Site Characteristics and Natural Features***

Appendix A provides an aerial photo of the site. The sites slope gently to the northeast. There are no known significant natural features on site other than possibly one white oak tree. An arborist report is included in this narrative. The report indicates that there is one white oak tree that may be deemed significant pursuant to the City of West Linn City Code, located close to the frontage along Willamette Drive. (See Appendix)

Tax Lots 1100 and 1200 contain single family residences. Tax lot 1500 is currently vacant. A designated bike lane is present along the Willamette Drive frontage. Currently, the Willamette Drive (Hwy 43) and Shady Hollow Way intersection and the Burgerville access and Shady Hollow Way intersection are unsignalized.

Willamette Drive (Hwy 43) is classified by the City of West Linn as a principal arterial and is classified by ODOT as a State Highway on the National Highway System (NHS). North of Shady Hollow Way, Willamette Drive (Hwy 43) is a 46-foot wide two-lane roadway with a 10-foot wide center area that separates northbound and southbound traffic flows. South of Shady Hollow Way, Willamette Drive (Hwy 43) is 49-foot wide three-lane roadway with a center left turn lane. Bicycle lanes are provided on both sides of Willamette Drive (Hwy 43). A sidewalk is provided along the south side of Willamette Drive (Hwy 43) along the Burgerville frontage. No sidewalks exist along the site's Willamette Drive frontage.

Shady Hollow Way is classified by the City of West Linn as a local street. Shady Hollow Way is a 25-28-foot wide, two-lane roadway with a sidewalk provided along the Burgerville frontage (on the south side of the road). The double-yellow line that separates westbound and eastbound traffic flows is extremely faded and should be re-stripped with development of the site. Bicycle lanes are not provided.

Willamette Drive (Hwy 43) and Shady Hollow Way is a tee-shaped intersection. On the north approach a shared left-through lane is provided. On the east approach, a shared left right lane is provided. On the south approach, a shared through-right lane is provided. Crosswalks are not provided.

The Burgerville access and Shady Hollow Way is a tee-shaped intersection. On the east approach a shared left-through lane is provided. On the south approach a shared left-right lane is provided. On the west approach a shared through-right lane is provided. Crosswalks are not provided. With development of the site this intersection will become a four-legged intersection with a shared left-through-right lane on each approach.

The subject site is located in the Robinwood neighborhood. In 2003, responding to goals and policies within the West Linn Comprehensive Plan, City Council directed preparation of a neighborhood plan for the Robinwood neighborhood. The plan was adopted by the West Linn City Council in early June.

The subject sites are zoned R-10 Single Family and contain a Low Density Residential Comprehensive Plan designation. Parcels directly north on Willamette Drive are also zoned R-10 Single Family with the same Comprehensive Plan designation. Directly south is the Robinwood commercial area along Willamette Drive containing Burgerville Restaurant, zoned General Commercial with a Comprehensive Plan designation Commercial. East of Burgerville is parcels zoned R-10 Single Family and R-4.5 Single Family Detached and Attached/Duplex, with Comprehensive Plan designations Low Density Residential and Medium Density Residential, respectively. Across Willamette Drive, west of the site are parcels zoned R-10 Single Family Residential, with a Low Density Residential Comprehensive Plan designation.

The Applicant originally proposed two tax lots with mixed uses including commercial uses. The neighborhood rejected the idea of commercial and also of all medium high density residential uses on the site. In response to the neighborhood concerns, the Applicant is now proposing all medium density residential uses. Furthermore, the Applicant has added a third tax lot to allow for additional design flexibility. The three lots provide ample square footage for a well-designed, attractive and compatible project, ensuring adequate buffering and provision for site amenities.

***Existing Zoning and Comprehensive Plan Designations***

As previously stated, the site is currently zoned R-10 Single Family Residential and contains a Low Density Residential comprehensive plan designation. The purpose of this zone is to provide for urban development at levels which relate to the site development limitations, proximity to commercial development and to public facilities and public transportation. This zone is intended to implement the Comprehensive Plan policies and locational criteria, and is applicable to areas designated as Low Density Residential on the Comprehensive Plan Map and Type I and Type II lands identified under the Buildable Lands Policy.” (Purpose statement CDC Chapter 11.010.) The R-10 zoning allows single family detached residential uses outright with a minimum lot size of 10,000 square feet. Under the current zoning, the site would yield approximately 9 units.

***Proposed Zoning and Comprehensive Plan Designations***

The Applicant is requesting the R-4.5 Single Family Residential Detached and Attached/Duplex District and a Medium Density comprehensive plan designation. The purpose of this zone is to provide for urban development at levels which relate to the site development limitations, proximity to commercial development and public facilities and public transportation, and to the surrounding development pattern.

This zone is intended to carry out the intent of the Comprehensive Plan which is to provide for a choice in housing types, and is intended to implement the policies and locational criteria in the Comprehensive Plan for medium density residential housing. (Purpose statement CDC Chapter 14.010.) The R-4.5 zone allows single family attached and detached units, and duplex units outright. The minimum lot sizes are 4,500 square feet for a single family detached unit, 4,000 square feet for each single family attached unit, and 8,000 square feet for a duplex. Under the proposed zoning, maximum gross density for the site is 22 units.

***Existing Utilities***

The subject site is fully served in terms of existing facilities. The property is located in the Robinwood water pressure zone. Preliminary comments from city engineering staff indicate that system capacity exists to serve the site. Storm sewer service exists in the Shady Hollow Way frontage. Storm sewer can be provided with detention systems and discharge to the storm culvert located at the northeast corner of the site, or into the natural drainageway located in 18292 Shady Hollow Way. Sanitary sewer service exists in Shady Hollow Way.

### III. TRANSPORTATION IMPACT ANALYSIS

Under its current land use designation the site has the potential for a maximum development of nine (9) single-family homes which would generate an estimated 86 daily trips, 7 AM peak hour trips, and 9 PM peak hour trips. It is expected that the nine homes would have potentially up to three accesses. Under the proposed land use designation the site has the potential for development of up to 22 single-family units which would generate an estimated 211 daily trips, 17 AM peak hour trips, and 22 PM peak hour trips. The single-family units would have a single access (to Shady Hollow Way, opposite of Burgerville's access).

Sight distance at the proposed site access location was reviewed in the field in accordance with American Association of State Highway and Transportation Officials ("AASHTO") standards. Sight lines from 8 feet back from the travel lane identified that the sight line from the proposed access to the west is clear through to the west side of Willamette Drive (Hwy 43) at Shady Hollow Way. Looking east the sight line is clear to a distance of 270 feet which corresponds to the point at which Shady Hollow Way curves to the north. While this sight distance does not meet AASHTO's recommendation of 280 feet for a 25 mph design speed, it is anticipated that vehicles traveling around the corner toward Willamette Drive (Hwy 43) will be traveling at a rate of 10-20 mph (the curve has an 10 mph advisory speed). Based on these travel speeds AASHTO recommends a minimum sight distance of 115 feet (for 10 mph) and 225 feet (for 20 mph). Based on these sight distances the sight line to the east meets the AASHTO recommendation. With development of Willamette Commons the site access to Shady Hollow Way should be designed such that AASHTO's minimum sight distance recommendation is met or exceeded. Obstruction by landscaping, signing, parking, buildings, or other objects would be unsafe.

The Oregon Department of Transportation ("ODOT") turn lane warrants were reviewed at both study intersections. A roadway shoulder is recommended with the site's current zoning during the PM peak hour and with the site's proposed zoning during both peak hours. However, construction of a shoulder or a right turn lane is not recommended for this project as it is not needed for intersection capacity.

At the Willamette Drive (Hwy 43) and Shady Hollow Way intersection the ODOT left turn lane criteria is not met with the site's current or proposed zoning; however, the criteria does advise that 'careful consideration be given to installing a left turn lane due to the increased potential for accidents in through lanes'. Based on the intersection's low accident rate (0.064 per million entering vehicles "MEV"), the acceptable levels of service and volume-to-capacity ratios, and the low peak hour volumes (making a southbound left turn) installation of a southbound left turn lane is not recommended.

The Manual on Uniform Traffic Control Devices (“MUTCD”) peak hour signal warrant was reviewed at both study intersections under the site’s current zoning and proposed zoning. Neither intersection meets the peak hour signal warrant, thus installation of a traffic signal is not recommended.

The intersection capacity and level of service analysis for the Willamette Drive (Hwy 43) and Shady Hollow Way intersection and the site access/Burgerville access and Shady Hollow Way intersection identified that through the year 2023 planning horizon, the Shady Hollow Way and Willamette Drive (Hwy 43) intersection will operate at level of service “D” or better during the AM and PM peak hours with the level of development corresponding to the proposed R-4.5 zoning. The intersection’s volume-to-capacity ratio will be 0.22 or less during both peak hours. The site access/Burgerville access and Shady Hollow Way intersection will operate at level of service “A” during both peak hours with a v/c of 0.01.

Based on the analysis results the proposed change in zoning and the associated change to the comprehensive plan map and the zoning map will not reduce the performance of the study intersections below the minimum acceptable performance standards of the City of West Linn’s Transportation System Plan (“TSP”) and the State of Oregon’s Highway Plan. Intersection improvements are not necessary.

Based on the responses to the Transportation Planning Rule Section (1)(B) and Section (1)(C), the proposed Zone Change (from R-10 to R-4.5) will not have a significant effect on the transportation facility.

#### IV. COMPLIANCE WITH CITY OF WEST LINN CRITERIA

The following section addresses the approval criteria found in the city of West Linn Community Development Code (“CDC”) and is identified below in bold typeface and italics. Following each approval criteria is a finding demonstrating compliance with each criterion.

##### *City of West Linn CDC Chapter 11 Single Family/Residential Detached R-10 District*

##### ***11.010 PURPOSE***

***The purpose of this zone is to provide for urban development at levels which relate to the site development limitations, proximity to commercial development and to public facilities and public transportation. This zone is intended to implement the Comprehensive Plan policies and locational criteria, and is applicable to areas designated as Low Density Residential on the Comprehensive Plan Map and Type I and Type II lands identified under the Buildable Lands Policy.***

**Finding:** The R-10 zone is intended for large lot single family detached development. The locational criteria listed in the Comprehensive Plan are as follows:

*“The following are criteria that shall be used when designating residential areas. This list is not exhaustive, but helps determine what types of residential densities are appropriate, given topographical constraints, available public facilities, etc.*

- a. *Low density residential lands will meet the following criteria:*
  - i) *Areas with limited capacity for development in terms of the existing facilities such as sewer, water, and drainage; and/or,*
  - ii) *Areas having development limitations due to the topography, soil characteristics, drainage, high water table, and flooding.”*

The subject sites do not have any known development limitations as the site is relatively flat, has adequate access from Willamette Drive or Shady Hollow Lane, has no significant natural features and is not located in any known hazard areas. There are no limited public facility capacities serving the site. Sewer, water and storm drainage facilities can be made available to the site as described in the Existing Utilities section, above. As demonstrated here, the subject site does not meet the locational criteria for low density residential lands.

### ***11.020 PROCEDURES AND APPROVAL PROCESS***

***A. A use permitted outright, Section 11.030, is a use which requires no approval under the provisions of this Code. If a use is not listed as a use permitted outright, it may be held to be a similar unlisted use under the provisions of Chapter 80.***

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application.

### ***11.030 PERMITTED USES***

***The following are uses permitted outright in this zone:***

- 1. Single-family detached residential unit.***
- 2. Community recreation.***
- 3. Family day care. (ORD. 1226)***
- 4. Residential Home. (ORD. 1500)***
- 5. Utilities, minor.***

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. The Applicant is requesting a Zone Change to R-4.5, Single Family Residential Detached and Attached/Duplex. This section is not applicable.

### ***11.040 ACCESSORY USES***

***Accessory uses are allowed in this zone as provided by Chapter 34.***

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. The Applicant is requesting a Zone Change to R-4.5, Single Family Residential Detached and Attached/Duplex. This section is not applicable.

### ***11.050 USES AND DEVELOPMENT PERMITTED UNDER PRESCRIBED CONDITIONS***

***The following uses are allowed in this zone under prescribed conditions.***

- 1. Home occupations, Type I, subject to the provisions of Chapter 37.***
- 2. Sign, subject to the provisions of Chapter 52.***
- 3. Temporary uses, subject to the provisions of Chapter 35.***
- 4. Water dependent uses, subject to the provisions of Chapters 28, 30 and 34. (ORD. 1308)***

5. *Agricultural or horticultural use, provided that no retail or wholesale business sales office is maintained on the premises, and provided that poultry or livestock, other than normal household pets, shall not be permitted within 100 feet of any residence other than a dwelling on the same lot, nor on a lot of less than one acre or which has less than 20,000 feet per head of livestock.*
6. *Manufactured homes subject to the provision of Section 36.020, Manufactured Home Standards. (ORD. 1298)*
7. *Wireless Communication Facilities, subject to the provisions of Chapter 57. (ORD. 1408)*

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. The Applicant is requesting a Zone Change to R-4.5, Single Family Residential Detached and Attached/Duplex. This section is not applicable.

#### **11.060 CONDITIONAL USES**

*The following are conditional uses which may be allowed in this zone subject to the provisions of Chapter 60, Conditional Use.*

1. *Cultural exhibits and library services.*
2. *Home occupations, Type II, subject to the provisions of Chapter 37.*
3. *Lodges, fraternal and civic assembly. (ORD. 1378)*
4. *Public safety facilities.*
5. *Public support facilities. (ORD. 1377)*
6. *Recycle collection center. (ORD. 1172)*
7. *Religious institution. (ORD. 1378)*
8. *Schools.*
9. *Senior center. (ORD. 1411)*
10. *Utilities, major.*

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. The Applicant is requesting a Zone Change to R-4.5, Single Family Residential Detached and Attached/Duplex. This section is not applicable.

#### **11.070 DIMENSIONAL REQUIREMENTS, USES PERMITTED OUTRIGHT AND USES PERMITTED UNDER PRESCRIBED CONDITIONS**

*Except as may be otherwise provided by the provisions of this Code, the following are the requirements for uses within this zone:*

1. *The minimum lot size shall be 10,000 square feet for a single-family detached unit.*
2. *The minimum front lot line length or the minimum lot width at the front lot line shall be 35 feet.*
3. *The average minimum lot width shall be 50 feet. (ORD. 1298)*
4. *The lot depth comprising non-Type I and II lands shall be less than two and one-half times the width, and more than an average depth of 90 feet. (See diagram below.) (ORD. 1377)*
5. *The minimum yard dimensions or minimum building setback area from the lot line shall be:*
  - a. *For the front yard, 20 feet; except for steeply sloped lots where the provisions of Section 41.010 shall apply; and as specified in Section 26.040(D) for the Willamette Historic District. (ORD. 1175)*
  - b. *For an interior side yard, 7-1/2 feet; except as specified in Section 26.040(D) for the Willamette Historic District.*
  - c. *For a side yard abutting a street, 15 feet.*
  - d. *For a rear yard, 20 feet.*
6. *The maximum building height shall 35 feet, except for steeply sloped lots in which case the provisions of Section 41.000 shall apply. (ORD. 1538)*
7. *The maximum lot coverage shall be 35 percent.*
8. *The minimum width of an accessway to a lot which does not abut a street or a flag lot, shall be 15 feet.*
9. *The floor area ratio shall be .45. Type I and II lands shall not be counted toward lot area when determining allowable floor area ratio, except that a minimum floor area ratio of .30 shall be allowed regardless of the classification of lands within the property. That 30 percent shall be based upon the entire property including Type I and II lands. Existing residences in excess of this standard may be replaced to their prior dimensions when damaged without the requirement that the homeowner obtain a "non-conforming structures" permit under CDC Chapter 66. (ORD 1538)*
10. *The sidewall provisions of CDC Chapter 43 shall apply. (ORD 1538)*

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. The Applicant is requesting a Zone Change to R-4.5, Single Family Residential Detached and Attached/Duplex. This section is not applicable.

#### ***11.080 DIMENSIONAL REQUIREMENTS, CONDITIONAL USES***

***Except as may otherwise be established by this Code, the appropriate lot size for a conditional use shall be determined by the approval authority at the time of consideration of the application based upon the criteria set forth in Section 60.070(1) and (2).***

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. This application does not request a Conditional Use. However, if this application is approved, the Applicant does not anticipate developing the site with conditional uses. If conditional uses are proposed, the Applicant will comply with the requirements of this section.

#### ***11.090 OTHER APPLICABLE DEVELOPMENT STANDARDS***

***A. The following standards apply to all development including permitted uses:***

- 1. Chapter 34, Accessory Structures.***
- 2. Chapter 36, Temporary Uses.***
- 3. Chapter 38, Additional Yard Area Required, Exceptions to Yard Requirements, Storage in Yards and Projections into Yards.***
- 4. Chapter 40, Building Height Limitations and Exceptions.***
- 5. Chapter 41, Structures on Steep Lots, Exceptions.***
- 6. Chapter 42, Clear Vision Areas.***
- 7. Chapter 44, Fences and Screening of Storage Areas.***
- 8. Chapter 46, Off-street Parking and Loading.***
- 9. Chapter 48, Access.***
- 10. Chapter 52, Signs.***
- 11. Chapter 54, Installation and Maintenance of Landscaping.***

***B. The provisions of Chapter 55, Design Review, apply to all uses except detached single-family dwellings, residential homes and residential facilities.***

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. The Applicant is requesting a Zone Change to R-4.5, Single Family Residential Detached and Attached/Duplex. The above listed sections will be addressed with a future land development application. It is likely the Applicant can comply with the above provisions under the R-4.5 or the R-10 zoning. Refer to the findings under Section 14.070 for a detailed discussion.

***City of West Linn CDC Chapter 14 Single Family Residential Detached and Attached/Duplex R-4.5 District***

***14.010 PURPOSE***

***The purpose of this zone is to provide for urban development at levels which relate to the site development limitations, proximity to commercial development and public facilities and public transportation, and to the surrounding development pattern. This zone is intended to carry out the intent of the Comprehensive Plan which is to provide for a choice in housing types, and is intended to implement the policies and locational criteria in the Comprehensive Plan for medium density residential housing.***

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. However, if this application is approved, the Applicant intends on constructing housing consistent with the R-4.5 development standards. This application demonstrates that the site can support development at a level consistent with the increased density, that is, 22 units. It also demonstrates that the zoning pattern proposed is consistent with the zoning pattern that exists elsewhere along Willamette Drive.

***14.020 PROCEDURES AND APPROVAL PROCESS***

***A. A use permitted outright, Section 14.030, is a use which requires no approval under the provisions of this Code. If a use is not listed as a use permitted outright, it may be held to be a similar unlisted use under the provisions of Chapter 80.***

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. However, if this application is approved, the Applicant will develop the site in the future with outright permitted uses listed in this section. This section is met.

***14.030 PERMITTED USES***

***The following are uses permitted outright in this zone:***

- 1. Single-family detached residential unit. (ORD. 1180)***
- 2. Duplex residential units.***
- 3. Family day care. (ORD. 1226)***
- 4. Single-family attached residential units.***

5. *Community recreation.*
6. *Residential home. (ORD. 1248)*
7. *Utilities, minor.*
8. *Manufactured housing.*

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. However, if this application is approved, the Applicant will develop the site in the future with outright permitted uses listed in this section. The application is consistent with this request.

#### ***14.040 ACCESSORY USES***

*Accessory uses are allowed in this zone as provided by Chapter 34.*

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. However, if this application is approved, the Applicant does not anticipate developing the site with accessory uses. The application is consistent with this request.

#### ***14.050 USES AND DEVELOPMENT PERMITTED UNDER PRESCRIBED CONDITIONS***

*The following uses are allowed in this zone under prescribed conditions:*

1. *Manufactured home park, subject to the provisions of Chapters 36 and 55.*
2. *Home occupations, subject to the provisions of Chapter 37. (ORD. 1565)*
3. *Sign, subject to the provisions of Chapter 52.*
4. *Temporary uses, subject to the provisions of Chapter 35. (ORD. 1226)*
5. *Water dependent uses, subject to the provisions of Chapters 28, 30 and 34. 14-3*
6. *Wireless Communication Facilities, subject to the provisions of Chapter 57.*

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. However, if this application is approved, the Applicant does not anticipate developing the site with prescribed uses listed in this section. The application is consistent with this request.

#### ***14.060 CONDITIONAL USES***

*The following are conditional uses which may be allowed in this zone subject to the provisions of Chapter 60, Conditional Uses:*

1. *Children's day care center.*
2. *Cultural exhibits and library services.*
3. *Lodge, fraternal and civic assembly. (ORD. 1378)*
4. *Medical and dental offices or clinic.*

5. *Nursing home.*
6. *Postal services.*
7. *Professional and administrative services.*
8. *Public safety facilities.*
9. *Public support facilities. (ORD. 1377)*
10. *Recycle collection center. (ORD. 1172)*
11. *Religious institution. (ORD. 1378)*
12. *Schools.*
13. *Senior center. (ORD. 1411)*
14. *Utilities, major.*
15. *Senior citizen/handicapped housing facilities with a maximum number of units 50 percent above the allowed density for the property provided that, in addition to the provisions of Chapter 60, the following conditions shall apply:*
  - a. *Facilities intended for senior citizens shall be restricted to persons 60 years and older. In the case of couples, one member of the couple shall be 60 years or older.*
  - b. *Building height restrictions shall be the same as the subject zoning district.*
  - c. *Community space and related equipment shall be required to provide social and recreational opportunities for project occupants. Included may be such facilities as game rooms, meeting rooms, music or craft rooms. At least one community room within a project shall include a service area with a kitchen sink, counter top and storage cabinets, and shall have easy access to a storage area sized to store tables, chairs and janitorial supplies. All complexes shall have a minimum of 15 square feet of community space per occupant, based on one person per bedroom.*
  - d. *Congregate dining facilities providing regular daily meals for residents shall be provided.*
  - e. *A minimum of 10 square feet of general storage area other than regular kitchen, bedroom and linen storage shall be provided within each unit. Complexes which do not include laundry facilities in the units shall have adequate laundry facilities accessible to all tenants.*
  - f. *The maximum number of units allowed in a senior citizens or handicapped housing facility shall be as follows:*
    - 1) *Medium-high density district (R-2.1). The base density shall be 50 percent above the allowed density for the property.*
    - 2) *Medium density district (R-4.5). The density shall be 50 percent above the allowed density for the property.*
  - g. *The design of the building(s) and the site and landscaping plans shall be subject to Design Review, Chapter 55. Special considerations for this use are the following:*
    - 1) *Structures shall be compatible in style, color, materials, and scale with the general character of the neighborhood.*
    - 2) *The building design and site layout shall define recognizable semi-public, semi-private and private spaces; insure a sense of protection and community identity; and minimize barriers to handicapped or elderly persons.*

3) *A minimum of 25 percent of the property shall be in landscaping. The landscaping shall include areas for outdoor recreation, pedestrian access and amenities, and adequate site and sound buffering of adjacent properties.*

4) *No more than 25 percent of the total number of units may be used for nursing care patients.*

5) *Minimum front, rear and side yard setbacks shall be the same as the underlying district unless the approval authority board finds that a greater setback is indicated by uses and structures on surrounding properties or unique circumstances of the site. (ORD. 1500)*

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. However, if this application is approved, the Applicant does not anticipate developing the site with conditional uses. The application would be subject to additional Conditional Use approval if these uses are considered in the future. This application does not allow for any of the Conditional Uses.

#### ***14.070 DIMENSIONAL REQUIREMENTS, USES PERMITTED OUTRIGHT AND USES PERMITTED UNDER PRESCRIBED CONDITIONS***

*Except as may be otherwise provided by the provisions of this Code, the following are requirements for uses within this zone:*

***1. The minimum lot size shall be:***

***a. For a single-family detached unit, 4,500 square feet.***

***b. For each attached single-family unit, 4,000 square feet.***

***c. For a Duplex, 8,000 square feet, or 4,000 square feet for each unit.***

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. However, if this application is approved, the Applicant anticipates developing the site consistent with the minimum lot size requirements listed in this section. The application has evaluated impact of the higher density allowed for the site, 22 units, in the absence of a specific development plan.

***2. The minimum front lot line length or the minimum lot width at the front lot line shall be 35 feet.***

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. The frontage along Willamette Drive is 290 feet and is in excess of the required minimum width.

If the application is approved, the Applicant anticipates developing the site consistent with the minimum front lot line width requirements listed in this section.

***3. The average minimum lot width shall be 50 feet.***

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. The 290 foot width of the site allows this standard to be met. If this application is approved, the Applicant anticipates developing the site consistent with the average minimum lot width requirements listed in this section.

***4. The minimum average lot depth shall be 90 feet.***

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. The site ranges in depth from 205 – 400 feet, well in excess of the minimum acreage lot depth. However, if this application is approved, the Applicant anticipates developing the site consistent with the minimum average lot depth requirements listed in this section.

***5. The minimum yard dimensions or minimum building setback area from the lot line shall be:***

- a. For a front yard, 20 feet; except for steeply sloped lots where the provisions of Section 41.010 shall apply.***
- b. For an interior side yard, 5 feet.***
- c. For a side yard abutting a street, 15 feet.***
- d. For a rear yard, 20 feet, except that in the case of an apartment structure in this district, an additional yard area may be required between the structure in this district and any adjacent low density residential uses.***

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. However, if this application is approved, the Applicant anticipates developing the site consistent with the minimum yard dimension and setback requirements listed in this section.

***6. The maximum building height shall be 35 feet except for steeply sloped lots when the provisions of Chapter 41.000 shall apply. (ORD. 1538)***

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. However, if this application is approved, the Applicant anticipates developing the site consistent with the maximum building height requirements listed in this section. The application is consistent with this request.

**6. The maximum lot coverage shall be 40 percent.**

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. However, if this application is approved, the Applicant anticipates developing the site consistent with the maximum lot coverage requirements listed in this section.

**7. The floor area ratio for single-family homes shall be .45. Type I and II lands shall not be counted toward lot area when determining allowable floor area ratio, except that a minimum floor area ratio of .30 shall be allowed regardless of the classification of lands within the property. That 30 percent shall be based upon the entire property including Type I and II lands. Existing residences in excess of this standard may be replaced to their prior dimensions when damaged without the requirement that the homeowner obtain a “non-conforming structures” permit under CDC Chapter 66. (ORD. 1538)**

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. However, if this application is approved, the Applicant anticipates developing the site consistent with the floor area ratio requirements listed in this section. There are no Type I or Type II lands as defined in CDC Section 2.030. The site does not contain the development constraints listed in CDC Section 2.030. This section is met.

**8. The sidewall provisions of CDC Chapter 43 shall apply. (ORD. 1538)**

**Finding:** The purpose of the sidewall provisions in CDC Chapter 43 are to ensure compatibility between new, larger homes and existing smaller homes in the community. The sidewall provisions ensure are required to avoid a monolithic and overbearing sidewall.

The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. However, the Applicant does not anticipate developing the site with single family residences or Duplexes. Therefore, this section would not be applicable.

**14.080 DIMENSIONAL REQUIREMENTS, CONDITIONAL USES**

**Except as may otherwise be established by this Code, the appropriate lot size for a conditional use shall be determined by the approval authority at the time of consideration of the application, based upon the criteria set forth in Section 60.070(1) and (2).**

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. This application does not include a request for a Conditional Use. However, if this application is approved, the Applicant does not anticipate developing the site with conditional uses. If conditional uses are proposed, the Applicant shall comply with the requirements of this section. The application is consistent with this request.

#### ***14.090 OTHER APPLICABLE DEVELOPMENT STANDARDS***

***A. The following standards apply to all development including permitted uses:***

- 1. Chapter 34, Accessory Structures.***
- 2. Chapter 36, Temporary Uses.***
- 3. Chapter 38, Additional Yard Area Required, Exceptions to Yard Requirements, Storage in Yards and Projections into Yards.***
- 4. Chapter 40, Building Height Limitations and Exceptions.***
- 5. Chapter 41, Structures on Steep Lots, Exception.***
- 6. Chapter 42, Clear Vision Areas.***
- 7. Chapter 44, Fences and Screening of Storage Area.***
- 8. Chapter 46, Off-street Parking and Loading.***
- 9. Chapter 48, Access.***
- 10. Chapter 52, Signs.***
- 11. Chapter 54, Installation and Maintenance of Landscaping.***

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. However, if this application is approved, the Applicant anticipates developing the site consistent with the CDC chapters listed in this section. As previously stated, the Applicant has assembled three parcels with the goal of providing a development consistent with the City of West Linn development standards and be a compatible addition to the community.

The site is relatively flat, contains 2.08 acres, and ranges in lot depth from 205 to 400 feet. It is likely that the site size and configuration can allow for adequate setback and buffering areas, clear vision areas, landscaping, off-street parking and signage. The site frontage of 290 feet can also provide for adequate access points. There it is reasonable to assume that the application will be consistent with these sections.

***B. The provisions of Chapter 55, Design Review, apply to all uses except detached single-family dwellings.***

**Finding:** The Applicant does not propose a specific development plan as part of this Comprehensive Plan Amendment and Zone Change application. However, if this application is approved, the Applicant will follow the requirements of this section, should it be found applicable during the review of a future development plan.

*West Linn CDC Chapter 99 Procedures for Quasi-Judicial Decision Making*

**99.030 THE APPLICATION PROCESS: WHO MAY APPLY, THE PREAPPLICATION CONFERENCE, THE REQUIREMENTS, REFUSAL OF THE APPLICATION, FEES**

**A. Who may apply.**

**1. Applications for approval required under this chapter may be initiated by:**

- a. The owner of the property that is the subject of the application or his duly authorized representative;**
- b. The purchaser of such property who submits a duly executed written contract or copy thereof, which has been recorded with the Clackamas County Clerk;**
- c. A lessee in possession of such property who submits written consent of the owner to make such application; or,**
- d. Motion by the Planning Commission or City Council.**

**Finding:** The property owner/purchaser is the Applicant for this land use application, consistent with this section.

**2. Any person authorized by this chapter to submit an application for approval may be represented by an agent who is authorized in writing by such a person to make the application.**

**Finding:** All of the property is owned by Willamette Commons, LLC who are the Applicants.

**B. Pre-application conference required.**

**1. The applicant shall be required to meet with the Planning Director, or designee of the Director, or any other governmental agency 99-2 representative deemed appropriate by the Director, for a pre-application conference, unless the requirement for a pre-application conference is specifically waived by another section of this code. (ORD. 1568)**

**2. At such conference, the Planning Director or designee shall:**

- a. Cite the applicable federal and state laws and rules and the Comprehensive Plan policies and map designation;**
- b. Cite the applicable substantive and procedural ordinance provisions;**
- c. Provide technical data and assistance, which will aid the applicant;**
- d. Identify other policies and regulations that relate to the application; and,**

- e. Identify other pertinent factors that relate to the application.*
- f. provide the applicant with a written description of all rights for appeal and provide access to all administrative procedures. (ORD. 1568)*
- 3. The failure of the Director to provide any of the information required by this section shall not constitute a waiver of the standards, criteria, or requirements to the application.*
- 4. At least 10 days prior to the scheduled date of the conference, the City shall make the pre-application conference schedule available to the public. Within 10 days following the conference, the City shall make staff-prepared written notes summarizing the contents of the meeting available to the public. Failure to comply with this section due to technical or administrative problems is not a procedural defect entitling any party to a delay in the hearing process. (ORD. 1568)*
- 5. The Planning Director shall prepare administrative procedures designed to allow representatives from recognized Neighborhood Association to attend and participate in pre-application conferences for applications within the Neighborhood Association boundaries. Failure of a Neighborhood Association to participate in the pre-application conference despite being invited to attend is not a procedural defect entitling any party to a delay in the hearing process. (ORD. 1568)*

**Finding:** A pre-application conference was held on May 15, 2008 consistent with this section. The pre-application notes are located in the Appendix of this report.

**C. The requirements for making an application:**

- 1. The application shall be made on forms provided by the Director as provided by Section 99.040(A)(1) of this Code;*
- 2. The application shall be complete and shall contain the information requested on the form, shall address the appropriate submittal requirements and approval criteria in sufficient detail for review and action, and shall be accompanied by the deposit or fee required by Section 99.033. No application will be accepted if not accompanied by the required fee or deposit. In the event an additional deposit is required by Section 99.033 and not provided within the time required, the application shall be rejected without further processing or deliberation and all application materials shall be returned to the applicant, notwithstanding any determination of completeness. (ORD 1527)*

**Finding:** This application includes the requirements listed in this section including the narrative, application form and required fees. The application is consistent with this request.

**99.033 FEES**

*The Council shall adopt a schedule of fees reasonably calculated to defray the expenses of the administrative process. The Council may establish either a set fee or a deposit system in which the applicant pays a deposit and the City determines the total administrative cost at the end of the process and refunds any 99-4 unused amount of the deposit of the applicant. When a deposit rather than a set fee is required, the City shall periodically estimate the anticipated administrative cost for the application and determine whether the deposit is sufficient. If the deposit is insufficient, the City shall inform the applicant that an additional deposit is required and establish the amount to 110 percent of the City's anticipated costs that will not be covered by all previous deposits. The additional deposit shall be paid within 10 days of the demand for the additional deposit. No additional deposit shall be required for additional costs that are incurred because the matter is referred to or called up by a higher decision-making authority. The Council shall charge no fees for City-initiated land use applications or appeals filed by a recognized neighborhood association pursuant to the provisions of CDC Section 99.240. (ORD 1527)*

**Finding:** This application includes the requirements listed in this section including the narrative, application form and required fees. The application is consistent with this request.

**99.035 ADDITIONAL INFORMATION REQUIRED, WAIVER OF REQUIREMENTS AND REPORT REQUIRED**

*A. The Planning Director may require information in addition to that required by a specific chapter in the Community Development Code provided that:*

- 1. The chapter expressly authorizes that additional information may be required;*
- 2. The information is needed to properly evaluate the proposed site plan or proposal;*
- and,*
- 3. The need can be justified on the basis of a special or unforeseen circumstance.*

**Finding:** The Applicant is aware that the Planning Director may require additional information and will comply with a reasonable request. The Tree Survey was requested by the staff and the Applicant retained Walt Knapp to assess and inventory the existing trees. A copy of the inventory is located in the Appendix of this report.

*B. The Planning Director may waive a specific requirement for information or a requirement to address a certain approval standard subject to the provisions of (C) below provided:*

- 1. The chapter expressly authorizes that a requirement may be waived;*
- and,*

2. *The Planning Director finds that specific information is not necessary to properly evaluate the application; or,*
3. *The Planning Director finds that a specific approval standard is not applicable to the application.*

*C. Where a requirement is waived, the Director shall:*

1. *Prepare a memorandum to the record and to the applicant citing the grant of authority, and the specific requirements waived and the reasons;*
2. *Advise the applicant in writing that the waiver may be challenged at the hearing on the matter or on appeal and may be denied by the approval authority or the appeal authority;*
3. *Cite in the staff report on the application, the specific requirement waived, the reasons for the waiver, and the specific grant of authority. (ORD. 1474)*

**Finding:** No waivers are requested as part of this application. This section is therefore not applicable to the request.

#### ***99.038 NEIGHBORHOOD CONTACT REQUIRED FOR CERTAIN APPLICATIONS***

*Prior to submittal of an application for any subdivision, conditional use permit, multi-family project, planned unit development, commercial, office, or industrial development of over 1,500 square feet, or a zone change that requires a Comprehensive Plan Amendment, the applicant shall contact and discuss the proposed development with any affected neighborhood as provided in this section. Although not required for other or smaller projects, contact with neighbors is highly recommended. The Planning Director may require neighborhood contact pursuant to this section prior to the filing of an application for any other development permit if the Director deems neighborhood contact to be beneficial. (ORD. 1425)*

*1. Purpose. The purpose of neighborhood contact is to identify potential issues or conflicts regarding a proposed application so that they may be addressed prior to filing. This contact is intended to result in a better application and to expedite and lessen the expense of the review process by avoiding needless delays, appeals, remands, or denials. The City expects an applicant to take the reasonable concerns and recommendations of the neighborhood into consideration when preparing an application. The City expects the neighborhood association to work with the applicant to provide such input.*

*2. The applicant shall contact by letter all recognized neighborhood associations whose boundaries contain all or part of the site of the proposed development and all property owners within 500 feet of the site.*

**3. The letter shall be sent by certified mail, return receipt requested, to the Chair of the neighborhood association, and shall be sent by regular mail to the other officers of the association and the property owners within 500 feet. The letter shall briefly describe the nature and location of the proposed development, and invite the association and interested persons to a meeting to discuss the proposal in more detail. The meeting shall be scheduled at the association's regularly scheduled monthly meeting, or at the discretion of the association, and not less than 20 days from the date of mailing of the notice. If the neighborhood association does not want to meet within a reasonable amount of time, or if there is no neighborhood association, the applicant may hold a public meeting during the evening after 6 p.m., or on the weekend no less than 20 days from the date of mailing of the notice. All meetings shall be held at a location open to the public within the boundaries of the association or at a public facility within the City of West Linn. If the meeting is held at a private residence or business, it shall be posted at the time of the meeting as the meeting place and shall note that the meeting is open to the public and all interested persons may attend.**

**4. On the same date the letters described in subsection 1 through 3 of this section are mailed, the applicant shall provide and post notice on the property subject to the proposed application. The notice shall be posted at a location visible from the public right-of-way. If the site is not located adjacent to a through street, then an additional sign shall be posted on the nearest through street. The sign notice shall be at least 11" X 17" in size on durable material and in clear, legible writing. The notice shall state that the site may be subject to a proposed development (e.g., subdivision, variance, conditional use) and shall set forth the name of the applicant and a telephone number where the applicant can be reached for additional information. The sign shall remain posted until the conclusion of the meeting.**

**5. An application shall not be accepted as complete unless and until the applicant demonstrates compliance with this section by including with the application:**

- a. A copy of the certified letter to the neighborhood association with a copy of return receipt.**
- b. A copy of the letter to officers of the association and to property owners within 500 feet, including an affidavit of mailing and a copy of the mailing list containing the names and addresses of such owners and residents.**
- c. A copy of the required posted notice, along with an affidavit of posting; and,**
- d. A copy of the minutes of the meetings, produced by the neighborhood association, which shall include a record of any verbal comments received, and copies of any written comments from property owners, residents, and neighborhood association members. If there are no minutes, the applicant may provide a summary of the meeting comments. The applicant shall also send a copy of the summary to the Chair of the neighborhood association. The Chair shall be allowed to supplement the summary with any additional comments regarding the content of the meeting, as long as such comments are filed before the record is closed.**
- e. An audiotape of the meeting.**

*f. In the event that it is discovered by staff that the aforementioned procedures of this section were not followed, or that a review of the audio tape and meeting minutes show the applicant has made a material misrepresentation of the project at the neighborhood meeting, the application shall be deemed incomplete until the applicant demonstrates compliance with CDC Section 99.038.*

**Finding:** A neighborhood meeting was held on June 10, 2008 to present the Robinwood Neighborhood with a proposal to amend the Plan and change the zoning to R-2.1. When the proposal was met with opposition, the Applicant presented the R-4.5 zoning request. The neighborhood met again on July 8, 2008 to discuss the revised request. Included in the Appendix are the submittal requirements listed in Subsection 5, above.

*City of West Linn CDC Chapter 105 Amendment to the Code and Map*

**105.010 PURPOSE**

*The purpose of this chapter is to set forth the standards and procedures for legislative amendments to this Code and to the map and for the quasi-judicial changes to the map as provided by the Code chapters setting forth the procedures and by the Comprehensive Plan. Amendments may be necessary from time to time to reflect changing community conditions, needs and desires, to correct mistakes or to address changes in the law.*

**Finding:** A change has occurred in the community that warrants a change to the plan map and zoning map. A full discussion of this change is provided in Section 105.050.B.1 below. In sum, with less land available combined with high home prices, developers are looking to sites for higher density residential development on sites that may not be suitable for lower densities. The proposed sites were assembled to allow for adequate buffering and amenities and clearly meets the locational criteria for medium density residential development as required under Goal 2 of the West Linn Comprehensive Plan.

**105.040 QUASI-JUDICIAL AMENDMENTS AND PROCEDURES**

*Quasi-judicial amendments to this Code and to the map shall be in accordance with the procedures set forth in this Code and the following:*

*A. The Planning Commission shall decide zone change applications which do not involve Comprehensive Plan Map amendments as provided by Section 99.060(B). A petition for review by the Council may be filed as provided by Section 99.280(B).*

*B. The Planning Commission shall make a recommendation to the Council on an application for a Comprehensive Plan Map amendment. The Council shall decide the application on the record as provided by Section 99.280(C).*

*C. The Planning Commission shall make a recommendation to the Council on a zone change application which also involves a concurrent application for a Comprehensive Plan Map amendment. The Council shall decide the applications on the record as provided by Section 99.280(C).*

**Findings to 105.040.A, B and C:** This submittal involves a Zone Change application and a Comprehensive Plan Amendment; therefore the City Council will decide the outcome of the proposal and the Planning Commission will make a recommendation to the City Council.

*D. A pre-requisite to the filing of an application for development proposals that include greater than 10 multi-family units or commercial/industrial buildings greater than 1500 square feet in size, a 4-lot or more planned unit development, a 10-lot or greater subdivision, or a zone change that requires a Comprehensive Plan amendment, is a meeting with the respective City recognized neighborhood association, per CDC Section 99.038, at which time the applicant will present their proposal and receive comments. (ORD. 1401)*

**Finding:** Neighborhood meetings were held on June 10, 2008 and July 8, 2008. Included in the Appendix are the submittal requirements listed in Subsection 5, above.

#### ***105.050 QUASI-JUDICIAL AMENDMENTS AND STANDARDS FOR MAKING THE DECISION***

*A decision to approve, approve with conditions, or to deny an application for a quasi-judicial amendment shall be based on all of the following standards:*

*A. The standards set forth in Section 99.110(A); which provide that the decision shall be based on consideration of the following factors:*

*1. The applicable Comprehensive Plan policies as identified in sub-section "3" of this section and map designation.*

**Finding:** The applicable Comprehensive Plan policies are addressed in Chapter V of this narrative. The application is consistent with this request.

*2. The applicable standards of any provision of this Code or other applicable implementing ordinance.*

**Finding:** The following chapters of the CDC are found to apply:

- **Chapter 11 Single Family Detached Residential R-10**
- **Chapter 14 Single Family Residential Detached and Attached/Duplex R-4.5**
- **Chapter 99 Quasi Judicial Procedures for Decision Making**
- **Chapter 105 Amendments to the Code and Map**

In addition, the Metro Functional Plan, Statewide Planning Goals and the Oregon Transportation Planning Rule are also found to apply to this application. Findings are provided in this report.

***B. The standards set forth in Section 99.110(B) which provide that in making the decision, consideration may also be given to the following:***

***1. Proof of change in the neighborhood or community or a mistake or inconsistency in the Comprehensive Plan or Zoning Map as it relates to the property which is the subject of the development application.***

**Finding:** The City of West Linn and Metro have been tracking vacant and developed land in the City of West Linn since the adoption of the Metro Functional Plan in 1996, to assess its ability to achieve adequate residential needs. A review of vacant lands in the City of West Linn reveals a change has occurred in the community, that being the diminishing land supply for higher density residential development. Dennis Yee, Metro Research Manager and Chief Regional Economist provided vacant land data highlighting single family and multi family residential land supply in the City of West Linn for 1996 and 2006 as follows:

**Table One  
Comparison of SF & MF Land Supply**

	<b>1996 Buildable Vacant Lands Estimate. (ac.)</b>	<b>1996 Percentage of Total Vacant Lands</b>	<b>1996 Percentage of Total Residential Vacant Lands</b>	<b>2006 Buildable Vacant Lands Estimate (ac.)</b>	<b>2006 Percentage of Total Vacant Lands</b>	<b>2006 Percentage of Total Residential Vacant Lands</b>	<b>Percent Reduction of Total Vacant Lands Between 1996 and 2006</b>
<b>Single Family</b>	663 acres	53%	94%	436	65%	96%	34%
<b>Multi- Family</b>	41	3%	6%	16	2%	4%	61%
<b>Other</b>	539	44%		218	33%		
	1243	100%		670	100%		46%

*Source: Metro Data Resource Center, Dennis Yee, Chief Regional Economist*

***Total Vacant Lands Analysis***

The data reveals that the percentage of vacant buildable land for single family residential has increased between 1996 and 2006. Although the single family vacant acreage decreased from 663 to 436 acres, the percentage of vacant land for single family land actually increased from 94% to 96% of the vacant residential land. This does not hold true for vacant multi-family lands, which shows a decrease from 3% to 2%, of the total residential supply of vacant land, or 41 acres to 16 acres within the City. Twenty-four acres of multi-family land were absorbed during the ten (10) year span, thereby assuming an absorption rate of 2.4 acres per year. If only 16 acres of vacant buildable land are left in supply in year 2006, it can be assumed that multi-family residential lands will be completely absorbed in approximately seven (7) years. Further, when viewing the percentage reduction of the total vacant lands from 1996 to 2006, the data shows that multi-family vacant land had a greater percentage reduction at 61%. This finding demonstrates that the City of West Linn is losing it's supply of multi-family lands faster than single family lands and that increased density on appropriate parcels is warranted.

***Total Vacant Residential Lands Analysis***

When comparing multi-family lands to the percentage of total vacant residential lands, the table reveals that multi-family land was reduced from six (6) percent in 1996 to four (4) percent in 2006. Single family lands actually increased by two (2) percent from 94% of the total residential lands in 1996 to 96% of the total residential lands in 2006. This demonstrates an overall reduction in multi-family land supply when viewing the overall residential land supply.

To increase density and make up for lost multi family housing supply, housing can be increased on select existing parcels that are appropriate for increased density, as is the subject property. This will be discussed in more detail below.

The following table shows existing residential units in the City of West Linn:

**Table Two  
Existing and Proposed Residential Units**

<b>Current Land Use</b>	<b>Number of Units as of 12/31/07</b>	<b>Percentage of Existing Units</b>	<b>Number of Units with Proposed Change</b>	<b>Percentage of Units with Proposed Change</b>
<b>Low Density Residential (LDR)</b>	7,497	74.7%	7,488	74.4%
<b>Medium Density Residential Units (MDR)</b>	240	2.3%	262	2.6%
<b>Other</b>	2,292	22.8%	2,292	22.8%
<b>Total Current Residential Units inside the City</b>	10,029	100%	10,063	100%

*Source: City of West Linn Existing Residential Units and Buildable Lands Report, April 2008*

Year 2008 tracking data shows that there are a total of 7,497 single family units in the City of West Linn, and 240 medium density units. Seventy-five (75) percent of the total residential units are Low Density Residential and 2.3% of the total units are Medium Density Residential. In this case, the existing R-10 zoning on the property will allow for a maximum density of nine (9) units on the 2.08 acres. If the 2.08 acres are removed, approximately nine (9) units area removed from the single family residential land supply. However, if the proposed Zone Change and Comprehensive Plan Amendment is approved, approximately 22 units can be added to the supply of medium density housing. This leaves a very small change in the single family supply, while increasing the medium density supply.

In West Linn, average home costs for single family detached units are \$468,732, compared to \$217,000 for single family attached units, compared to condominiums prices at \$173,225. (Source: April 2008 RMLS). In order to provide more competitively priced housing stock, allowing smaller lot or attached dwelling development would help to reduce the land component price of housing, in turn, helping to reduce overall housing costs. Approval of the proposed amendments would therefore provide opportunities for the development of competitively priced housing.

As land becomes less available as shown above, and a need for more varied housing choices are present, more difficult sites are chosen for higher density development. Some of these sites are not suitable for higher density development if they are subject to development limitations such as topography or natural resources, areas where existing services and facilities do not have the capacity for additional development or areas that are not close to transportation, shopping centers, or office business centers.

As previously stated, the Applicant assembled three parcels for this proposal. The proposed site is ideal for increased density because it is large enough to allow for site amenities and necessary buffering to be a good neighbor. In addition, the site meets the locational criteria for medium density residential as outlined in *Goal 2, Land Use Planning, Section 1, Residential Development*, of the Comprehensive Plan. Allowing sites that so clearly meet the locational criteria for higher density reduces the pressure on sites that are unsuitable for increased densities.

The proposed amendments would allow for increased housing opportunities for approximately 13 dwelling units beyond what may currently develop under the existing R- 10 designation. The site is located within close walking distance of commercial and employment opportunities along Willamette Drive, in addition to parks and Marylhurst University. It also supports the public investment made in Robinwood Park, located east of the site, in that it increases the potential number of residents that have access to the park. Furthermore, rezoning the sites to R-4.5 would provide an effective transition and buffer between the single family residential zone north of the site and the commercial uses to the south.

***2. Factual oral testimony or written statements from the parties, other persons and other governmental agencies relevant to the existing conditions, other applicable standards and criteria, possible negative or positive attributes of the proposal or factors in sub-section "A" or "B-1" above.***

**Finding:** During the application review process, the public as well as other governmental agencies will have the opportunity to review the subject proposal and comment consistent with West Linn and ORS standards. This section is met.

***C. The Comprehensive Plan, Plan and Ordinance Revision Process, and Specific Policy No. 4, which provides that the decision shall be based on consideration of the following criteria:***

***1. Conformance with the Comprehensive Plan policies and criteria.***

**Finding:** Section V identifies the applicable Comprehensive Plan policies and criteria. Findings are provided that respond to each applicable criteria.

***2. There is a public need for the change or that the change can be demonstrated to be in the interest of the present and future community.***

**Finding:** As discussed above, a change has occurred in the community that is in the interest of present and future homeowners.

Multifamily residential land supply is diminishing which is putting pressure to develop sites that may not be as suitable for higher density residential development. It is in the interest of public safety and neighborhood preservation that sites for higher density development meet the locational criteria as outlined in Goal 2, Section 1 of the Comprehensive Plan. Sites should not have development limitations such as topography or natural resources, should have existing services and facilities with capacity for additional development and should be located close to transportation, shopping centers, or office business centers. The assembled sites clearly meet these criteria.

The other public need is providing a range of housing types to meet the Comprehensive Plan Goal 3 and Policy 2 of the Comprehensive Plan, which calls for encouraging a variety of housing types to meet the needs of West Linn residents. As previously stated, average home costs in West Linn for single family detached units are \$468,732, compared to single family attached prices at \$217,000. (Source: April 2008 RMLS). The supply of multifamily land is diminishing at a faster rate than single family land, and increasing its supply will allow for a greater variety of housing types.

The existing R-10 zone only allows single family detached dwellings as an outright permitted use. The proposed R-4.5 zone allows outright single family attached units, multifamily attached units, group residential and Duplexes. Because the requested R-4.5 zoning plan designation provides for development of a wider range of housing types and allows a greater density per equivalent area of land than does the R-10 designation currently applied to the site, the R-4.5 can provide less per housing unit costs, increased opportunities for for-sale attached dwellings, and ultimately provide for a more diversified housing supply for the City.

***3. The changes will not adversely affect the health, safety and welfare of the community.***

**Finding:** As previously stated, the site is currently zoned R-10 Single Family Residential and contains a Low Density Residential comprehensive plan designation. The purpose of this zone is to provide for urban development at levels which relate to the site development limitations. The Applicant is requesting the R-4.5 Single Family Residential Detached and Attached/Duplex District and a Medium Density comprehensive plan designation. The purpose of this zone is also to provide for urban development at levels which relate to the site development limitations. Under the current zoning, the site would yield a maximum of nine (9) units. Under the proposed zoning the site would yield a maximum of 22 units. As demonstrated here, the proposed zone and comprehensive plan change results in the site remaining as residential lands, yet a gain of 22 gross units into the land supply.

As previously stated, the site is well located to provide an efficient land use and circulation pattern by providing multi-family housing near transit, shopping, educational and employment opportunities.

There are similar development patterns of R-4.5 sites fronting on Willamette Drive, adjacent to R-10 zoning, located on Hwy 43. Similar development patterns are shown in Appendix E. In addition, there are tangible environmental benefits to allowing multi-family housing on the subject site as residents will have the option of walking, cycling or using transit to surrounding retail, jobs and service uses along Willamette Drive, thereby minimizing traffic, relieving congestion and air pollution.

A traffic study is included in this application demonstrating the proposed change in zoning and the associated change to the comprehensive plan map and the zoning map will not reduce the performance of the study intersections below the minimum acceptable performance standards of the City of West Linn's TSP and the State of Oregon's highway plan. The traffic study concluded that intersection improvements are not necessary. A full discussion of the findings are provided in Section III above, or in the full study provided in the Appendix.

Therefore, the health, safety and welfare of the community is not adversely affected by the approval of this Plan Amendment and Zone Change. This criterion is satisfied.

**V. COMPLIANCE WITH CITY OF WEST LINN COMPREHENSIVE PLAN GOALS AND POLICIES AND ROBINWOOD NEIGHBORHOOD PLAN**

In order for the City to approve a quasi-judicial Comprehensive Plan Map and Zoning Map Amendment, the proposed amendment must be shown to be consistent with all applicable Comprehensive Plan policies. The following responses are provided to the applicable policies of the Comprehensive Plan for the proposal to redesignate the subject site from Low Density Residential/R 10 to Medium Density Residential/R-4.5. Direct citations from the Comprehensive Plan are shown in *italics* and **bold type**. In some cases, the proposed finding relative to a Plan policy refers to the response of another applicable policy.

It is noted that several of the policies addressed below are not directly applicable to the Plan Map and Zoning Map amendment request, but instead would be directly applicable to any later proposal to develop the property after redesignation. Nevertheless, these policies are addressed to assure the City that these policies will be able to be satisfied with future development of the site.

***Goal 1: Citizen Involvement***

***Goals***

1. ***Provide the opportunity for broadly based, ongoing citizen participation, including opportunities for two-way dialogue between citizens and City elected and appointed officials.***
2. ***Provide opportunities for citizens to shape City government and other West Linn institutions into exemplary organizations that foster trust, respect, courage, and honor.***
4. ***Provide clear, simple, user-friendly information about how the planning process works and how citizens can be involved in land use and other City policy decisions.***

***Policies***

1. ***Provide a process for evaluating the ongoing citizen involvement programs to be certain that citizens are given an opportunity to participate in planning decisions.***
4. ***Provide timely and adequate notice of proposed land use matters to the public to ensure that all citizens have an opportunity to be heard on issues and actions that affect them.***

- 5. Communicate with citizens through a variety of print and broadcast media early in and throughout the decision-making process.***

**Finding to Goal 1, 2 and 4 and Policies 1, 4 and 5:** This request has been modified in response to input received from the Robinwood Neighborhood. The initial request was for a Comprehensive Plan Amendment and Zoning change that would have allowed commercial and multi-family components. The neighborhood reviewed a proposal at a public meeting in April of 2006. The neighbors expressed concern about the impact commercial development would have on the residential character of the neighborhood.

The Applicant heard the concerns and has altered the plan to remove the commercial request. The Applicant went back to the neighborhood association on June 10, 2008 to present the new plan. The neighborhood still expressed concern about the residential component of higher density residential. In response to the concerns, the Applicant has reduced the density request to medium density from medium - high density and presented the current proposal to the neighborhood on July 8, 2008. The proposal was much better received by the neighborhood. Summaries of both neighborhood meetings are located in the appendix of this document. In addition, the Applicant has obtained an additional tax lot allowing for greater exposure to Willamette Drive, greater flexibility in design, landscaping and buffering opportunities.

Two (2) pre-application conferences were held, the first in 2006 and the second on May 15, 2008.

Based on the neighborhood involvement, the pre-application conference and consistency with the City's process this standard is satisfied.

This application is being processed in accordance with the adopted public hearings and public notice requirements for the City of West Linn. The proposal will be part of public hearings, allowing further public participation for West Linn citizens. Therefore this Comprehensive Plan Amendment and Zone Change is consistent with Goals 1, 2 and 4 and Policies 1, 4 and 5.

## ***Goal 2: Land Use Planning***

### ***Section 1 Residential Development Goals***

- 2. Allow mixed residential and commercial uses in existing commercial areas only in conjunction with an adopted neighborhood plan designed to ensure compatibility and maintain the residential character of existing neighborhoods.***

**Finding:** The proposal does not include mixed residential and commercial development. Therefore, this policy is not applicable.

***Policies***

7. ***The following are criteria that shall be used when designating residential areas. This list is not exhaustive, but helps determine what types of residential densities are appropriate, given topographical constraints, available public facilities, etc.***
  - a. ***Low density residential lands will meet the following criteria:***
    - i) ***Areas with limited capacity for development in terms of the existing facilities such as sewer, water, and drainage; and/or,***
    - ii) ***Areas having development limitations due to the topography, soil characteristics, drainage, high water table, and flooding.***

**Finding:** The subject site is not limited in terms of existing facilities. The property is located in the Robinwood water pressure zone. Preliminary comments from city engineering staff indicate that system capacity exists. Storm sewer service exists in the Shady Hollow Way frontage. Storm sewer can be provided with detention systems and discharge to the storm culvert located at the northeast corner of the site, or into the natural drainageway located in 18292 Shady Hollow Way. Furthermore, the site does not contain any known development limitations as it is not located in a high water table area, flood plain or other unsuitable topographic constraints. As such, the site does not meet the criteria listed in 7a above and as discussed in b and c below, is better designated as either medium density land or medium - high density lands. Refer to the findings in b and c below.

The traffic study for the subject site has been prepared by Charbonneau Engineering to determine the potential impacts of the proposed comprehensive plan map amendment and the corresponding Zone Change (from the site's current Low Density Residential (R-10) zoning to the proposed Medium Density Residential (R-4.5) zoning. Based on the analysis results, the proposed change in zoning and the associated change to the comprehensive plan map and the zoning map will not reduce the performance of the study intersections below the minimum acceptable performance standards of the City of West Linn's TSP and the State of Oregon's highway plan. Intersection improvements are not necessary. In addition, based on the responses to the Transportation Planning Rule Section (1)(B) and Section (1)(C), the proposed Zone Change (from R-10 to R-4.5) will not have a significant effect on the transportation facility. Refer to Section III above for a discussion of the traffic impact analysis report.

b. *Medium density residential lands will meet all of the following criteria:*

- i) *Areas that are not subject to development limitations such as topography, flooding, or poor drainage;*
- ii) *Areas where the existing services and facilities have the capacity for additional development;*
- iii) *Areas within one half mile of public transportation.*

**Finding:** Discussions with city staff indicate that existing public facilities are available to the site or can be adequately sized to serve the future development. Refer to the findings in 7.a. above which conclude that system capacity exists. In addition, as previously stated there are no known development limitations. The site is located within one-quarter of a mile of Tri-Met line #35 bus stop. As previously stated, the traffic study for the subject site has been prepared by Charbonneau Engineering to determine the potential impacts of the proposed comprehensive plan map amendment and the corresponding Zone Change (from the site's current Low Density Residential (R-10) zoning to the proposed Medium Density Residential (R-4.5) zoning. Based on the analysis results, the proposed change in zoning and the associated change to the comprehensive plan map will not reduce the performance of the study intersections below the minimum acceptable performance standards of the City of West Linn's TSP and the State of Oregon's highway plan. Intersection improvements are not necessary. In addition, based on the responses to the Transportation Planning Rule Section (1)(B) and Section (1)(C), the proposed Zone Change (from R-10 to R-4.5) will not have a significant effect on the transportation facility. Refer to Section III above for a discussion of the traffic impact analysis report.

The evidence presented in this section reveals that medium density land is an appropriate designation for the site as all the criteria listed in subsection 7b are met.

The *Sustainable West Linn* Plan states that West Linn needs to make it easier for people to get around without automobiles. This includes encouraging the use of public transportation, and emphasizing transit-friendly, pedestrian-friendly, mixed-use developments along major arterials. The proposed amendment directly supports this goal as the site is located less than a block away of Tri-Met Line #35.

Within a half a mile of the site there are numerous commercial and office uses conveniently located within walking distance. On the east side of Willamette Drive, directly south of the site, across Shady Hollow Way, commercial uses include Burgerville, Marylhurst Medical Clinic, Kindercare Learning Center, and additional medical uses. On the west side of Willamette Drive, commercial uses include The Dog Club dog wash, Edward Jones Financial, the mixed commercial building containing Allstate Insurance.

Further south is the Starbucks shopping center, and the Bales Marketplace, both containing numerous retail and service uses.

Educational facilities are also located within less than a mile. Kindercare Learning Center is located within 500 feet. Marylhurst University is located .35 of a mile from the site. CedarOak Primary is also located within one mile of the site.

Lastly, the site is located within walking distance to the Robinwood Community Park. The park is currently in the first phase of improvements. Adjacent to the subject site, across Shady Hollow Way at the northeast corner is a pathway providing direct access to the park.

As evidence shows in this section, a medium- density designation is more appropriate for the subject sites than the existing lot density designation.

## ***Goal 6: Land Water and Air Resources Quality***

### ***Section 1: Air Quality***

#### ***Goal***

***Maintain or improve West Linn's air quality.***

- 3. Reduce pollution from vehicle emissions by pursuing an energy efficient urban form that provides for connectivity and reduces the number of vehicle miles traveled.***
- 4. Encourage the use of alternative modes of transportation, including mass transit, walking, and bicycling.***

**Finding:** Energy efficient urban forms are typically mixed use, in close proximity to mass transit. The Applicant is proposing a medium density residential designation in an area with a mix of uses, including shopping and employment opportunities. There are numerous stores, medical facilities, and offices located within a quarter mile. Refer to the attached photos in Appendix G. The site also has convenient access to transit within one-quarter of a mile of the site (Tri-Met Line #35 is within 500 feet) as required by the Locational Criteria outlined in the comprehensive plan for medium density residential lands. Sidewalks will be provided along site frontages as necessary and the site has a designated bike-lane along the Willamette Drive frontage. This convenient location can encourage site residents to walk, bike or take transit. This section is met.

## ***Goal 10: Housing***

- 3. Encourage the development of affordable housing for West Linn residents of all income levels.***
- 2. Provide the opportunity for development of detached and attached single-family units, Duplexes, garden apartments, town houses, row houses, multiplex units and boarding houses, lodging or rooming houses, and manufactured housing.***

**Finding to Goal 10:** The proposed plan map change and Zone Change can provide an opportunity for an additional 43 dwelling units beyond what is allowed under the current Plan and Zoning designation. If developed with attached units, the entry of competitively priced single family attached units could help diversify the housing stock available to existing and future residents of West Linn.

Because the requested R-4.5 plan designation provides for development of a wider range of housing types and allows a greater density per equivalent of land than does the R-10 designation currently applied to the site, the R-4.5 can provide less per housing unit costs to meet the housing needs of the City. Average housing costs in the West Linn market are considerably higher than the median housing costs for the Portland region, with West Linn costs at \$468,732, compared to the metropolitan region average home cost of \$332,600. (Source: RMLS data 2006 and 2008.) In order to provide more competitively priced housing stock, allowing smaller lot or attached dwelling development would help to reduce the land component price of housing, in turn, helping to reduce overall housing costs. Approval of the proposed amendments would therefore provide opportunities for the development of competitively priced housing, consistent with this policy.

## ***Goal 11: Public Facilities and Services***

***Require that essential public facilities and services (transportation, storm drainage, sewer, and water service) be in place before new development occurs and encourage the provision of other public facilities and services.***

### ***Policy***

- 2. Development shall not be approved unless:***
  - a. the proposal has adequate access to the transportation ,storm drainage, potable water, and sewer systems; and,***
  - b. these infrastructures have adequate capacity to serve the development.***

3. ***Development shall not be delayed or prohibited in an area where these public facilities and services that are provided in response to the proposed development are not in place at the time of development review.***
  - a. ***Police***
  - b. ***Fire protection***
  - c. ***Parks and recreation***
  - d. ***Schools***
  - e. ***Solid waste collection***
  - f. ***Library***

**Finding to Goal 11, Policy 2 and 3:** These policies are not approval standards for a plan map or Zone Change but applies instead to development actions. Nevertheless, the subject site is not limited in terms of existing facilities. The property is located in the Robinwood water pressure zone. Preliminary comments from city engineering staff indicate that system capacity exists. Storm sewer service exists in the Shady Hollow Way frontage. Storm sewer can be provided with detention systems and discharge to the storm culvert located at the northeast corner of the site, or into the natural drainageway located in 18292 Shady Hollow Way. Sanitary sewer service exists in Shady Hollow Way.

Police, fire, parks, schools, solid waste collection and the library will all have the opportunity to comment on a future land development application as part of the citizen involvement program provided by the City of West Linn.

As previously stated, a traffic study for the subject site has been prepared by Charbonneau Engineering to determine the potential impacts of the proposed comprehensive plan map amendment and the corresponding Zone Change (from the site's current Low Density Residential (R-10) zoning to the proposed Medium Density Residential (R-4.5) zoning. Based on the analysis results, the proposed change in zoning and the associated change to the comprehensive plan map and the zoning map will not reduce the performance of the study intersections below the minimum acceptable performance standards of the City of West Linn's TSP and the State of Oregon's highway plan. Intersection improvements are not necessary. In addition, based on the responses to the Transportation Planning Rule Section (1)(B) and Section (1)(C), the proposed Zone Change (from R-10 to R-4.5) will not have a significant effect on the transportation facility. Refer to Section III above for a discussion of the traffic impact analysis report.

11. ***Assure that costs for new infrastructure and the maintenance of existing infrastructure are borne by the respective users except when it is determined that improvements are of benefit to the whole community, or that a different financing mechanism is more appropriate.***

## ***Section 1: Sewer System***

### ***Policy***

- 2. Require the installation of new sanitary sewer collection facilities to be the responsibility of property owners who will receive direct benefit from those facilities. The City may participate in the development of those facilities to the extent that they benefit residents or businesses in addition to those directly involved.***

**Finding to Goal 11, Section 1, Policy 2:** This policy is not an approval standard for a plan map or Zone Change but applies instead to development actions. Nevertheless, response from city staff indicate that there is adequate sanitary sewer service available to serve future development of the site at maximum allowable density.

Service is available in Shady Hollow Way. All future development on site will be connected to the public sanitary sewer system. In addition, the site developer will be responsible for paying a sanitary sewer SDC. The site developer will therefore be responsible for paying an equitable share of the costs of extending service to the sites.

## ***Section 2: Water System***

### ***Policy***

- 3. Require funding for the installation of new water storage and distribution facilities to be the responsibility of the property owners/developers or those receiving direct benefit from those facilities. Where appropriate, the City may participate in the development of those facilities to the extent that they benefit residents or businesses in addition to those directly involved, or if they improve the overall efficiency of the system.***

**Finding to Section 2, Policy 3:** This policy is not an approval standard for a plan map or Zone Change but applies instead to development actions. Nevertheless, it is understood that the developer will install public water supply lines, necessary fire hydrants and other necessary facilities with site development to provide water at adequate pressure to meet consumption and fire flow needs. Future developers of the site will pay a water system development fee at building permit issuance.

## ***Goal 12: Transportation***

- 3. Assess and collect Systems Development Charges (SDCs) to assure that new development pays its "fair share" of needed improvements to transportation facilities of City-wide importance.***

**Finding:** This policy is not an approval standard for a plan map or Zone Change but applies instead to development actions. Nevertheless, the site developer will be responsible for paying required SDC. Therefore the developer will pay for an equitable share of costs for needed improvements.

*Streets*

2. *Protect neighborhoods from excessive through traffic and travel speeds while providing reasonable access to and from residential areas.*
3. *Establish a minimum intersection level of service standard for the City of West Linn and design all public facilities to meet or exceed the standard.*

**Finding to Policies 2 and 3:** The proposed site is located at the northeast corner of the Willamette Drive (Hwy 43) and Shady Hollow Way intersection. The site would be developed on three parcels (tax lots 1100, 1200, and 1500) on which two homes are currently located. The current proposal includes a change to the site's current zoning, Low Density Residential (R-10), to Medium Density Residential (R-4.5) zoning. Changing the site's zoning from R-10 to R-4.5 would require a concurrent change to both the comprehensive plan map and to the zoning map.

Under its current land use designation the site has the potential for a maximum development of nine (9) single-family homes which would generate an estimated 86 daily trips, 7 AM peak hour trips, and 9 PM peak hour trips. It is expected that the nine homes would have potentially up to three accesses. Under the proposed land use designation the site has the potential for development of up to 22 single-family units which would generate an estimated 211 daily trips, 17 AM peak hour trips, and 22 PM peak hour trips. The single-family units would have a single access (to Shady Hollow Way, opposite of Burgerville's access).

Regardless of the increase in trip generation, between the levels of development of the existing zoning and proposed zoning, the Shady Hollow Way local street sole function (of providing access to adjacent land) will not be adversely affected. The trip generation estimates in the traffic study show that nearly all of traffic generated from the site will flow towards Hwy 43 and not east into the neighborhood.

The Oregon Department of Transportation ("ODOT") turn lane warrants were reviewed at both study intersections. A roadway shoulder is recommended with the site's current zoning during the PM peak hour and with the site's proposed zoning during both peak hours. Construction of a shoulder or a right turn lane is not recommended as it is not needed for intersection capacity.

At the Willamette Drive (Hwy 43) and Shady Hollow Way intersection the ODOT left turn lane criteria is not met with the site's current or proposed zoning; however, the

criteria does advise that ‘careful consideration be given to installing a left turn lane due to the increased potential for accidents in through lanes’. Based on the intersection’s low accident rate (0.064 per MEV), the acceptable levels of service and volume-to-capacity ratios, and the low peak hour volumes (making a southbound left turn) installation of a southbound left turn lane is not recommended.

The MUTCD peak hour signal warrant was reviewed at both study intersections under the site’s current zoning and proposed zoning. Neither intersection meets the peak hour signal warrant, thus installation of a traffic signal is not recommended.

The intersection capacity and level of service analysis for the Willamette Drive (Hwy 43) and Shady Hollow Way intersection and the site access/Burgerville access and Shady Hollow Way intersection identified that through the year 2023 planning horizon, the Shady Hollow Way and Willamette Drive (Hwy 43) intersection will operate at level of service “D” or better during the AM and PM peak hours with the level of development corresponding to the proposed R-4.5 zoning. The intersection’s volume-to-capacity ratio will be 0.22 or less during both peak hours. The site access/Burgerville access and Shady Hollow Way intersection will operate at level of service “A” during both peak hours with a v/c of 0.01.

Based on the analysis results the proposed change in zoning and the associated change to the comprehensive plan map and the zoning map will not reduce the performance of the study intersections below the minimum acceptable performance standards of the City of West Linn’s TSP and the State of Oregon’s highway plan. Intersection improvements are not necessary.

Based on the responses to the Transportation Planning Rule Section (1)(B) and Section (1)(C), the proposed Zone Change (from R-10 to R-4.5) will not have a significant effect on the transportation facility.

### ***Goal 13: Energy Conservation***

#### ***Policy***

5. ***Promote location of housing, shopping, and employment uses in close proximity to each other and well connected by transit consistent with policies included in Chapter 2 of this Plan.***

**Finding:** As previously stated, the site is conveniently located in an area with a mix of uses and intensities of residential uses, including employment and shopping opportunities.

The site is also within walking distance to Robinwood Park and is close to Marlyhurst University. The photos provided in Appendix G illustrate the mix of uses within quarter mile of the site. Tri-met route #35 is currently available within close proximity to the site, less than one block away, providing a reasonable distance for future residents to walk to transit. Building higher density housing near transit is one of the most effective ways to reduce road congestion, improve air quality, increase transit ridership and ultimately conserve energy.

### ***Goal 14: Urbanization***

#### ***Policy***

9. ***Ensure that new development pays for needed new infrastructure and impacts to existing infrastructure.***

**Finding:** This policy is not an approval standard for a plan map or Zone Change but applies instead to development actions. Nevertheless, the site developer will be responsible for paying for needed new infrastructure and the required SDC. Therefore the developer will pay for an equitable share of costs for needed improvements.

### **Robinwood Neighborhood Plan**

The Robinwood Neighborhood Plan was adopted by City Council on May 12<sup>th</sup> 2008. The Applicant has reviewed the plan and found the following goals and policies to apply to the proposal:

#### ***Goal 3: Preserve the character of existing single-family residential neighborhoods in Robinwood.***

**Finding:** The Applicant has taken neighborhood preservation into account for this site by assembling three parcels to ensure a site large enough to accommodate amenities on site and adequate buffering. Design of the site will be approached responsibly during the design phase, if this plan and Zone Change is approved. A tree survey has been prepared illustrating trees on site and the Applicant will preserve significant trees where practicable. New buildings can be designed to blend with existing single family residences and commercial development along Willamette Drive.

#### ***Policy 3.6 Maintain and enhance affordable housing opportunities as part of a diverse Robinwood neighborhood.***

**Finding:** This policy has been addressed in Section 105.050.C.2 and Goal 10, above. In sum, the proposed change allows for development of a wider range of housing types and allows a greater density per equivalent of land than does the R-10 designation currently applied to the site. The greater range of housing contributes to a diverse neighborhood.

Attached housing is often a preferred living solution for many people at different stages in their lives, for a variety of reasons. It provides a housing option for young people just starting out in a career or saving for a home, as well as for senior citizens who no longer care to maintain a single family home, yet want to remain in the community.

The R-4.5 zone can provide less per housing unit costs with attached units which translates into more affordable housing for the community. Under the current plan and zoning designation, the site would yield nine (9) units as a maximum density. Under the proposed plan and zoning designation, a maximum of 22 units can be achieved.

The site is better suited for medium density units rather than single family. It can provide multi-family housing near transit, shopping and employment opportunities which give the residents the option of walking, cycling or using transit to surrounding retail, jobs and service uses along Willamette Drive, thereby minimizing traffic, relieving congestion and air pollution. The proposed land use pattern mimics what is already located on Willamette Drive in several locations south of the site, namely in the Bolton neighborhood.

Rezoning the sites to R-4.5 would provide an effective transition and buffer between the existing single family residential zone north of the site and the commercial uses to the south. Further, any new development on the site will act as a buffer between the traffic along Willamette Drive and the lower density single family development located east of the site along Shady Hollow Way.

### **Highway 43 Conceptual Design Plan**

The Applicant reviewed the Highway 43 Conceptual Design Plan. The subject sites fall within Segment A of the plan. Segment A describes an 80 foot cross section, with two twelve foot travel lanes, 6 foot bike lanes, 8 foot sidewalks and 14 foot planter strips. The plan does not suggest any specific intersection improvements for Shady Hollow Way and Hwy 43.

## VI. COMPLIANCE WITH THE METRO FUNCTIONAL PLAN

The subject site is located within the Metro Urban Growth Boundary and subject to the requirements of any applicable Metro Functional Plan (“MFP”).

### *Title 1 Housing and Employment Accommodation.*

*This section of the Functional Plan facilitates efficient use of land within the Urban Growth Boundary (UGB). Each city and county has determined its capacity for providing housing and employment which serves as their baseline and if a city or county chooses to reduce capacity in one location, it must transfer that capacity to another location. Cities and counties must report changes in capacity annually to Metro.*

**Finding:** Title 1 of the Urban Growth Management Functional Plan (“UGMFP”) is applicable to this proposal. Title 1 of the UGMFP outlines requirements for Housing and Employment Accommodations. It is intended to ensure efficient use of land within the UGB by increasing capacity to accommodate housing and employment.

The findings under Goal 10 of the Statewide Planning Goals demonstrate that this proposal will only increase the potential for additional housing units. Therefore this proposal will reduce the housing capacity in the City. Conversely, the proposed Medium Density plan designation will increase the amount of medium density residential land in the City. Therefore the proposal is consistent with the Metro Functional Plan.

### *Title 2 Regional Parking Policy*

*The Metro 2040 Growth Concept calls for more compact development to encourage more efficient use of land, promote non-auto trips and protect air quality. In addition, the federally mandated air quality plan adopted by the state relies on the 2040 Growth Concept fully achieving its transportation objectives. This title establishes regionwide parking policies that set the minimum number of parking spaces that can be required by local governments for certain types of new development. It does not affect existing development. Parking maximums are also specified. By not creating an over supply of parking, urban land can be used most efficiently.*

**Finding:** This title regulates the amount of parking permitted by use for jurisdictions in the Metro region. Any future development plan for the site will be required to be consistent with the parking standards of the West Linn CDC.

***Title 3 Water Quality, Flood Management and Fish and Wildlife Conservation***  
***The goal of the Stream and Floodplain Protection Plan (Title 3) is to protect the region's health and public safety by reducing flood and landslide hazards, controlling soil erosion and reducing pollution of the region's waterways. Title 3 specifically implements the Oregon Statewide Land Use Goals 6 and 7 by protecting streams, rivers, wetlands and floodplains by avoiding, limiting or mitigating the impact on these areas from development.***

**Finding:** This title is not applicable to the proposal because the site is not in a designated Metro Water Quality and Flood Management Area.

***Title 4 Industrial and Employment Areas***

***Title 4 places restrictions of certain uses in three designations on the 2040 Growth Concept Map.***

***In Regionally Significant Industrial Areas, non-industrial uses are limited to:***

- ***Retail uses less than 20,000 square feet and amounting to only 5 percent of the contiguous Regionally Significant Industrial Area***
- ***Commercial office uses that are not accessory to the industrial uses with the exception of large corporate headquarters, and;***
- ***Uses necessary to serve the needs of businesses and employees of the Regionally Significant Industrial Area.***

***In Industrial Areas, non-industrial uses are limited to less than 20,000 square feet and amount to 10 percent of the Industrial Area.***

***In Employment Areas, retail uses are limited to less than 60,000 square feet. This can be increased if it is demonstrated that transportation facilities are adequate to serve the retail use and to serve other planned uses in the Employment Area.***

**Finding:** The sites are not located in any designated industrial or employment areas. Therefore this Title does not apply.

***Title 5 Neighbor Cities and Rural Reserves***

***This section of the Functional Plan directs Metro to work with its neighbor cities to protect common locations for green corridors along transportation corridors connecting the Metro region and each neighboring city. The intent is to protect the land along these corridors from continuous strip development to maintain their rural character and agricultural economy. Metro's neighboring cities are Canby, Sandy and North Plains.***

**Finding:** This Title defines Metro's policy regarding areas outside the Urban Growth Boundary. This site is within the Urban Growth Boundary; therefore, this Title does not apply.

***Title 6 Central City, Regional Centers, Town Centers and Station Communities***  
***The intention of Title 6 is to enhance the Centers designated on 2040 Growth Concept Map by encouraging development in these Centers. Metro will work with cities and counties to implement development strategies which will include an analysis of the barriers to development, an accelerated review process for preferred types of development, an analysis of incentives to encourage development and a program to adopt the incentives. Cities and counties are encouraged to site government offices in Centers and are required to report on the progress made in their Centers to Metro every two years.***

**Finding:** The subject site is not located in a designated Central City, Regional Center, Town Center or Station Community. Therefore Title 6 does not apply.

***Title 7 Affordable Housing***

***This section of the functional plan will ensure that all cities and counties in the region are providing opportunities for affordable housing for households of all income levels.***

***The intent of Title 7 is to provide a choice of housing types, reduce barriers to sufficient and affordable housing for all income levels in the region, create housing opportunities commensurate with the wage rates of jobs available across the region, initiate a process for addressing current and future needs for affordable housing, and reduce concentrations of poverty.***

**Finding:** This Title recommends that local jurisdictions implement tools to facilitate development of affordable housing. This application involves a quasi-judicial comprehensive plan and Zone Change and does not involve legislative action by West Linn affecting affordable housing.

However, it is relevant that the proposed change from R-10 to R-4.5 provides a wider range of housing types and allows a greater density per equivalent of land than does the R-10 district. The existing zoning, R-10, allows single family detached units only as an outright permitted use. The proposed zone, R-4.5 allows outright single family attached and detached, and duplex units. Under the current R-10 zoning, the maximum density is approximately nine single family detached (9) units. Under the proposed R-4.5 zoning, the maximum density is 22 units, which can be a mix of residential housing types allowable under the R-4.5 zone.

The rezone can provide a less per housing unit cost to meet the affordable housing needs of West Linn. In order to provide a competitively priced housing stock, allowing smaller lot or attached dwelling development could help to reduce the land component price of housing, in turn, helping to reduce overall housing costs.

Title 8, 9 and 10 require compliance, performance measures and definitions for implementation of the Functional Plan, and are not applicable to this request.

In summary, the proposal is supportive of all applicable titles of the Urban Growth Management Functional Plan.

## VII. COMPLIANCE WITH OREGON STATEWIDE PLANNING GOALS

**Finding:** The Statewide Planning Goals are satisfied when a community's Comprehensive Plan is acknowledged. The statewide policies articulated through the goals are incorporated into the community's Comprehensive Plan goals and policies, along with implementing measures such as zoning and subdivision ordinances that are designed to accomplish the goals and policies. Any action that is consistent with the Comprehensive Plan, then, is also consistent with the goals.

The statewide goals have been addressed in the findings for the City Goals, as follows:

- Statewide Goal 1 (Citizen Involvement) is met through City Goal 1 (Citizen Involvement). The statewide goal is implemented through the notification and public review process adopted in the City of West Linn code, as noted in the finding for City goals 1, 2, 4 and Policies 1, 4 and 5, above.
- Statewide Goal 2 (Land Use Planning) is met through compliance with City Goal 2, Section 1, Policies 7.a.i, ii and 7.b.i, ii, and iii. and is discussed in the findings for that City goal, above.
- Statewide Goals 3 (Agricultural Lands) and 4 (Forest Lands) are not applicable to lands within the City of West Linn and so do not apply to this site.
- Statewide Goal 5 (Open Spaces, Scenic and Historic Areas, and Natural Resources) is met through historic, scenic and environmental plans that have been adopted as a part of the Comprehensive Plan and implemented through special overlay zones and design districts and through the Open Space base zone. None of the elements of this statewide goal or of these adopted plans or implementing zones apply to this site.
- Statewide Goal 6 (Air, Water and Land Resources Quality) is met through City Goal 6, Section 1, goals 3 and 4 (Air Quality) and is addressed in the findings for that City Goal.
- Statewide Goal 7 (Areas Subject to Natural Disasters and Hazards) is not applicable to this site because there are no identified hazards in this location.
- Statewide Goal 8 (Recreational Needs) is met through City Goal 11 (Public Facilities and Services) and Policy 3.c. This proposal does not include any plans for the provision of recreational land or activities, so this statewide goal does not apply to this proposal.
- State Goal 9 (Economic Development) is met by City Goal 9 (Economic Development) and does not apply to this proposal because the proposed change does not impact economic activities.

- State Goal 10 (Housing) is met through City Goal 10 (Housing), which is addressed in the findings for that city goal, above;
- State Goal 11 (Public Facilities and Services) is addressed in City Goal 11 (Public Facilities) and is discussed in the findings for that city goal and in the findings for the City goal, above.
- State Goal 12 (Transportation) is met through City Goal 11 (Public Facilities and Services), Policies 2 and 3 and City Goal 12 (Transportation) and is discussed in the findings for that city goal, above.
- State Goal 13 (Energy Conservation) is met through City Goal 13 (Energy) and is addressed in the findings for that city goal, above.
- State Goal 14 (Urbanization) is addressed through City Goal 14, Policy 9 (Urbanization). The issues of this statewide goal are addressed in the findings for these city goals, above.
- The following State Goals do not apply to this site because they are geographically specific and this property is not within the identified boundaries of the resources that these goals are intended to protect:

State Goal 15 (Willamette River Greenway);  
State Goal 16 (Estuarine Resources)  
State Goal 17 (Coastal Shorelands)  
State Goal 18 (Beaches and Dunes)  
State Goal 19 (Ocean Resources)

**VIII. COMPLIANCE WITH OREGON TRANSPORTATION PLANNING  
RULE CHAPTER 660, DIVISION 12**

**Finding:** This Oregon Administrative rule applies to amendments to comprehensive plans, functional plan and land use regulations (OAR 660-12-060). The rule is applicable because the application requests amendment to the City of West Linn Comprehensive Plan.

*OAR 660-12-060 (1), (2) and (3) provide as follows:*

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

*(a) Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan);*

*(b) Change standards implementing a functional classification system;*

**Finding to a and b:** No changes are proposed to the existing or planned functional classifications, nor the functional classification standards. Therefore this section does not apply.

*(c) As measured at the end of the planning period identified in the adopted transportation system plan:*

*(A) Allow land uses or levels of development that would result in types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;*

**Finding:** The proposed site will develop on three separate parcels (Tax lot 1100, 1200, and 1500) which are currently zoned residential (R-10). Under the current zoning the site has the potential for a development maximum of nine (9) single-family homes which will generate an estimated 86 daily trips, 7 AM peak hour trips, and 9 PM peak hour trips. Under the proposed land use designation the site has the potential for development of up to 22 single-family units which would generate an estimated 211 daily trips, 17 AM peak hour trips, and 22 PM peak hour trips.

Regardless of the increase in trip generation, between the levels of development of the existing zoning and proposed zoning, the Shady Hollow Way local street sole function (of providing access to adjacent land) will not be adversely affected.

Willamette Drive (Hwy 43) is classified as a principal arterial. Based on the proposed site's access to Shady Hollow Way, the lower classified street, the proposed site is consistent with the functional classification of the existing and planned transportation facility.

***(B) Reduce the performance of an existing or planned transportation facility below the minimum acceptable performance standard identified in the TSP or comprehensive plan; or***

**Finding:** The City of West Linn's Transportation System Plan (TSP) identifies level of service "E" as the minimum standard for principal arterials. For local streets the TSP identifies level of service "D" as the minimum standard. Table 7 (in Policy 1F) in the 1999 Oregon Highway Plan identifies the maximum volume to capacity ratio for Statewide (NHS) Non-Freight Routes within Metro as 1.01.

As identified in Table 2c, of the traffic analysis, through the year 2023 planning horizon, the Shady Hollow Way and Willamette Drive (Hwy 43) intersection will operate at level of service "D" or better during the AM and PM peak hours with the level of development corresponding to the proposed R-4.5 zoning. The intersection's volume-to-capacity ratio will be 0.22 or less during both peak hours. The site access/Burgerville access and Shady Hollow Way intersection will operate at level of service "A" during both peak hours with a v/c of 0.01. Based on the analysis results the proposed Zoning and Plan Amendment will not reduce the performance of the study intersections below the minimum acceptable performance standards of the City of West Linn's TSP and the State of Oregon's highway plan.

***(C) Worsen the performance of an existing or planned transportation facility that is otherwise projected to perform below the minimum acceptable performance standard identified in the TSP or comprehensive plan.***

**Finding:** Both study intersections are projected to operate at acceptable levels of service with acceptable volume-to-capacity ratios in the 2023 planning horizon traffic scenario. Based on these results the study intersections will not perform below the minimum acceptable performance standard of the City of West Linn's TSP or the Oregon Highway Plan.

Based on the information presented here, development of the site will not have a significant effect on the transportation facility.

***(2) Where a local government determines that there would be a significant effect, compliance with section (1) shall be accomplished through one or a combination of the following:***

*(a) Adopting measures that demonstrate allowed land uses are consistent with the planned function, capacity, and performance standards of the transportation facility.*

*(b) Amending the TSP or comprehensive plan to provide transportation facilities, improvements or services adequate to support the proposed land uses consistent with the requirements of this division; such amendments shall include a funding plan or mechanism consistent with section (4) or include an amendment to the transportation finance plan so that the facility, improvement, or service will be provided by the end of the planning period.*

*(c) Altering land use designations, densities, or design requirements to reduce demand for automobile travel and meet travel needs through other modes.*

*(d) Amending the TSP to modify the planned function, capacity or performance standards of the transportation facility.*

*(e) Providing other measures as a condition of development or through a development agreement or similar funding method, including transportation system management measures, demand management or minor transportation improvements. Local governments shall as part of the amendment specify when measures or improvements provided pursuant to this subsection will be provided.*

*(3) Notwithstanding sections (1) and (2) of this rule, a local government may approve an amendment that would significantly affect an existing transportation facility without assuring that the allowed land uses are consistent with the function, capacity and performance standards of the facility where:*

*(a) The facility is already performing below the minimum acceptable performance standard identified in the TSP or comprehensive plan on the date the amendment application is submitted;*

*(b) In the absence of the amendment, planned transportation facilities, improvements and services as set forth in section (4) of this rule would not be adequate to achieve consistency with the identified function, capacity or performance standard for that facility by the end of the planning period identified in the adopted TSP;*

*(c) Development resulting from the amendment will, at a minimum, mitigate the impacts of the amendment in a manner that avoids further degradation to the performance of the facility by the time of the development through one or a combination of transportation improvements or measures;*

*(d) The amendment does not involve property located in an interchange area as defined in paragraph (4)(d)(C); and*

*(e) For affected state highways, ODOT provides a written statement that the proposed funding and timing for the identified mitigation improvements or measures are, at a minimum, sufficient to avoid further degradation to the performance of the affected*

*state highway. However, if a local government provides the appropriate ODOT regional office with written notice of a proposed amendment in a manner that provides ODOT reasonable opportunity to submit a written statement into the record of the local government proceeding, and ODOT does not provide a written statement, then the local government may proceed with applying subsections (a) through (d) of this section.*

**Finding:** As stated in the attached traffic analysis report, the proposed changes will not have a significant effect as defined in this section. Therefore, subsection 2 is not applicable to this application.

## **IX. CONCLUSION**

The applicant has presented three different alternatives to the neighborhood and has elected to move forward with the plan that is the lowest density presented and has received the greatest level of support from the Robinwood Neighborhood Association.

The site is well suited and located for the redevelopment opportunity created by the proposed land use change given its proximity to commercial development and transit. It's exposure to the traffic volumes along Willamette Drive, make it less than ideal for large lot, single family development. Together with the city's diminishing supply of residential land, the ability to add additional units to the city's inventory creates a timely opportunity for the City..

As demonstrated throughout this narrative, the Applicant has met the applicable criteria for a Comprehensive Plan Amendment and Zone Change and respectfully requests approval from the City of West Linn.

**X. APPENDIX**

Appendix A: Comprehensive Map, Zoning Map, Aerial Photo and Assessor Map

Appendix B: Pre-Application Meeting Notes

Appendix C: Tree Inventory

Appendix D: Neighborhood Meeting Materials

- June 10, 2008
- July 8, 2008

Appendix E: Maps of Similar Development Patterns Along Hwy 43 in the Bolton Neighborhood

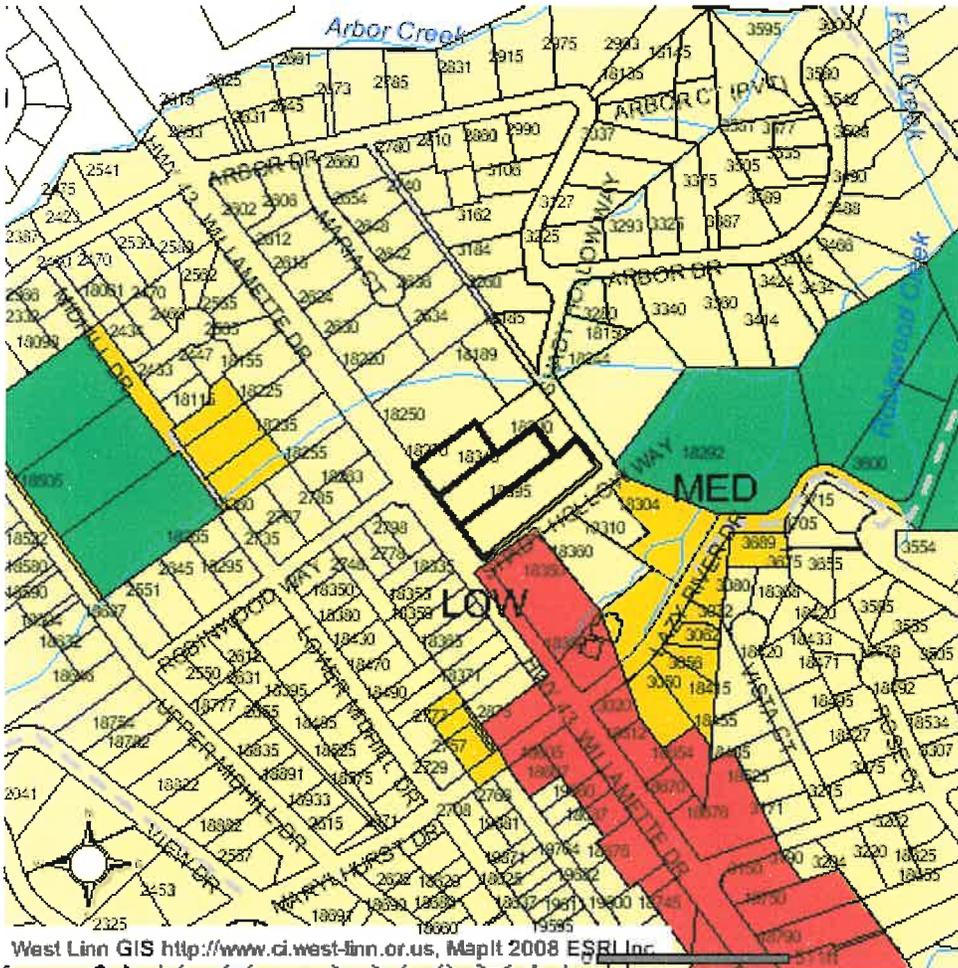
Appendix F: Traffic Impact Study

Appendix G: Site Photos

**Appendix A**  
Comprehensive Map, Zoning Map, Aerial Photo and Assessor Map

# COMPREHENSIVE MAP

## 18395 Shady Hollow Way and 18270 & 18430 Willamette Drive, West Linn, Oregon

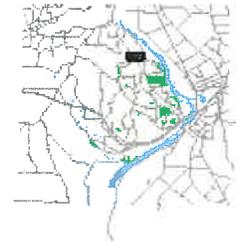
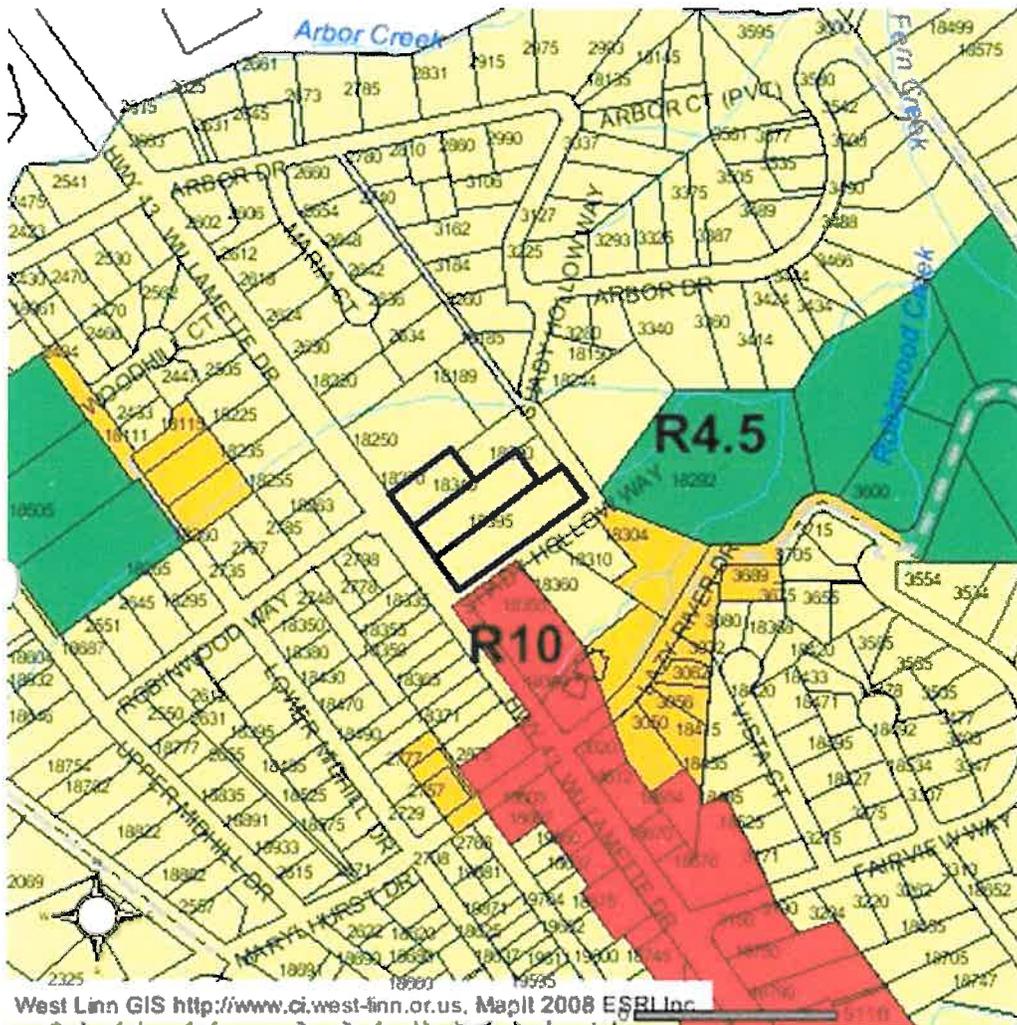


- Legend**
- Address Numbers
  - Taxlot Base, Co. GIS
  - Prelim. Taxlots
  - Unimp. ROW
  - Freeway
  - Private Access
  - Ponds
  - Creeks
  - Rivers
  - Parks
  - Openspace
  - Camp Plan**
  - COMM, Commercial
  - IND, Industrial
  - LOW, Low Density
  - MED, Medium Density
  - MEDHIGH, Medium High Density
  - MU, Mixed Use
  - City Limits**

A-66

# ZONING MAP

18395 Shady Hollow Way and  
18270 & 18430 Willamette Drive, West Linn, Oregon

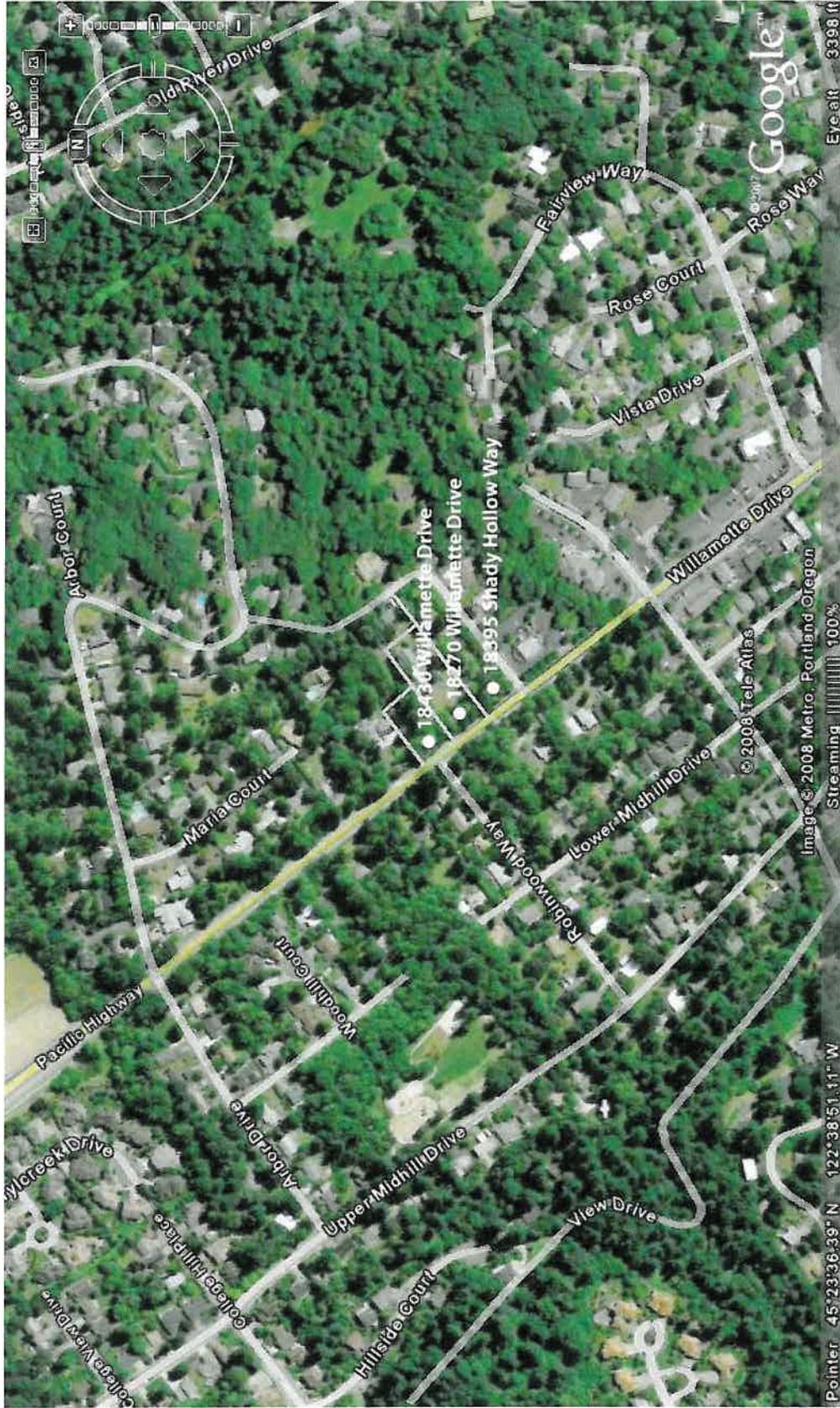


- Legend**
- Address Numbers**
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  - Prelim. Taxlots
  - Unimp. ROW
  - Freeway
  - Private Access
  - Ponds
  - Creeks
  - Rivers
  - Parks
  - Openspace
- Zoning**
- CI, Campus Industrial
  - FU-10, Future Urban
  - GC, General Commercial
  - GI, General Industrial
  - M.U., Mixed Use
  - NC, Neighborhood Commercial
  - OBC, Office Business Center
  - R-10, Single Family Residential Detached
  - R-15, Single Family Residential Detached
  - R-2.1, Single Family and Multiple Family Residential
  - R-20, Single Family Residential Detached
  - R-3, Single Family and Multiple Family Residential
  - R-4.5, Single Family Residential Detached and Attached/Duplex
  - R-40, Single Family Residential Detached
  - R-5, Single Family Residential Detached and Detached/Duplex
  - R-7, Single Family Residential Detached and Attached
- City Limits**

West Linn GIS <http://www.ci.west-linn.or.us>, MapIt 2008 ESRI Inc

**AERIAL PHOTO**

**18395 Shady Hollow Way and  
18270 & 18430 Willamette Drive, West Linn, Oregon**





**Appendix B**  
**Pre-Application Meeting Notes**

City of West Linn  
**PRE-APPLICATION CONFERENCE MEETING**  
**SUMMARY NOTES**  
May 15, 2008

SUBJECT: Zone change from R-10 to R-2.1 and Comprehensive Plan Amendment from Low Density Residential to High Density at 18270 Willamette Drive plus two adjacent lots.

ATTENDEES: Applicant: Martha Stivens, Michael Robinson  
Staff: Peter Spir, (Planning Department); Khoi Le, Boris Piatski (Engineering)

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*The following is a summary of the meeting discussion provided to you from staff meeting notes. Additional information may be provided to address any "follow-up" items identified during the meeting. These comments are PRELIMINARY in nature. Please contact the Planning Department with any questions regarding approval criteria, submittal requirements, or any other planning-related items. Please note disclaimer statement below.*

### **Project Details**

The site comprises three properties at 18270, 18340 and 18395 Willamette Drive at the north-east corner of Shady Hollow Way and Willamette Drive. It can also be identified as the property across the street to the north of Burgerville. The two southern lots have small single family homes on them. The north lot is vacant. In total, these lots comprise 90,479 square feet or 2.07 acres.

The property is zoned R-10 single family residential (10,000 square foot minimum lot size). The applicant is proposing a zone change from R-10 to R-2.1 Multi-Family/High Density Residential. The R-2.1 zone requires at least 2,100 square feet per multi-family unit. A comprehensive plan amendment and map change from low density residential to high density residential is also required.

All other properties north of Shady Hollow Way are zoned R-10 as are the properties to the east and properties to the west on the opposite side of Willamette Drive. Burgerville restaurant, to the south, represents the northern edge of the General Commercial (GC) zone district. There are well established homes on all contiguous lots to the north and east. Shady Hollow Way has a very quiet intimate residential quality that should be preserved. If this zone change and proposed use were to be approved, the challenge would be to maintain these positive qualities on Shady Hollow Way with the development requirements of the engineering department and mitigate the increased density at the development site and the associated impacts.

In deciding the appropriateness of a zone change and plan change, staff first referenced the newly adopted Robinwood Neighborhood Plan document. Staff noted that the plan includes numerous references to supporting affordable housing opportunities. For this area, between the existing commercial zone and the northern city limits, the plan proposes no rezones to commercial. It does not identify any specific areas where multi-family zoning may be appropriate although it references mixed use zoning (housing above commercial use) as acceptable in the commercial zone.

Meanwhile, the City's Comprehensive Plan has goals and policies encouraging a variety of living environments and densities.

Land Use element policy 7(C) offers the locational criteria for medium-high density residential:

1. *Areas that do not rely solely on local streets for the provision of access.*
2. *Areas not subject to development limitations such as topography, flooding or poor drainage.*
3. *Areas where the existing facilities have the capacity for additional development*
4. *Within ¼ mile of public transit*
5. *Areas within short distance of general commercial shopping center or business center.*
6. *Areas in close proximity to parks and schools.*

Staff finds that the proposed location meets all aspects of the locational criteria.

Housing element goals 1-3 state:

1. *Preserve the character and identity of established neighborhoods.*
2. *Assure good functional design of multi-family and clustered single family developments*
3. *Encourage the development of affordable housing for West Linn residents of all income levels.*

Staff finds that goals 2 and 3 can be met at this location assuming a good design.

Goal 1 ties into good design. So long as the perimeter units transition to homes on adjacent lots in terms of scale and height per code then they should not detract from the neighborhood identity.

Policy 3 states: *“Provide the opportunity for development of detached and attached single family units, duplexes, garden apartments, townhouses, row houses, multiplex units and boarding houses....”*

Staff finds that the Robinwood Neighborhood has a cluster of multi family housing near Hidden Springs Road and Willamette Drive. There are none further north along Willamette Drive where it seems that additional housing opportunities would be welcomed by that market, particularly given the proximity of this site to Marylhurst University and northbound bus service to jobs in Portland.

Policy 4 requires design review for multi-family housing which we have already as a requirement.

Meanwhile CDC Chapter 105.050 offers approval criteria for a zone change.

*Staff is mindful that the change in zoning from R-10 to R-2.1 can result in significant change for the immediate area. Low density housing will presumably be replaced by attached townhomes or similar configurations. This can raise concerns about reduced property values, loss of privacy, increased localized traffic as well as other issues. Although it is easy for staff to say that these issues can be addressed in design review later, the public concerns in such cases are legitimate and immediate. Also, the rezone could encourage other zone changes or a “domino effect” whereby all the properties on this side of Willamette Drive north towards Arbor Drive could be rezoned to R-2.1. The applicant should fully address these concerns in the appropriate criteria.*

If the applicant is able to make good case with this criterion, staff can support the zone and plan change.

# Engineering Comments

## **STREET**

Willamette Drive is currently classified as a major Arterial. Right-of-way for an Arterial varies from 60', 72' to 102'. Width of roadway pavement section varies between 36', 48' and 76' depend upon whether or not parking and median is required.

From the City GIS map, Willamette Drive current right-of-way is approximately 84' wide and roadway pavement section is approximately 48' wide. However Willamette Drive is ODOT right-of-way. Improvement requirements along Willamette Drive shall be subject to ODOT review and approval

Shady Hollow Way is currently classified as a local route. Current right-of-way of this roadway is 46 feet wide and pavement section is 24 feet wide. Right-of-way for a local route varies from 48', 52' to 56'. Width of roadway pavement section varies between 24', 28' and 32' depend upon whether or not parking is required. Access must be off Shady Hollow with no left turn into neighborhood.



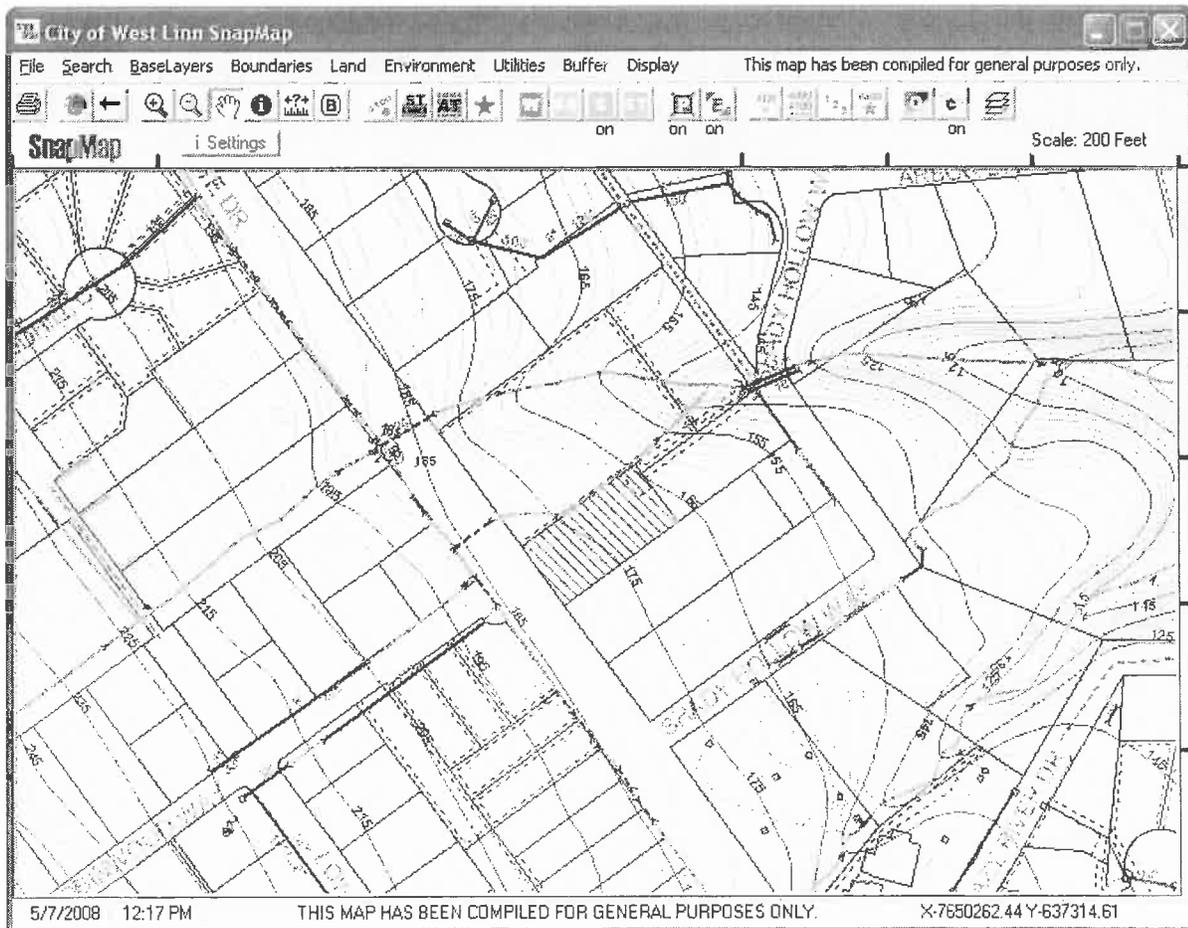
Half-street improvement shall be provided. Fee-in-lieu of street frontage improvement is no longer an option. The actual infield implementation of half-street improvement shall be determined by the City Engineer.

Current curve radius on Shady Hollow around the Northeast corner of the property is very sharp. Applicant shall be required to exam the current conditions of the curve radius at this location and provide the City of West Linn Engineering Department recommendations for improvement of this curve radius. (Planning Department note: Improving the curve radius could have a negative effect (higher speeds) as far as preserving the quiet character of Shady Hollow Way. While planning staff would support improving the clear vision area at that corner, Planning would prefer that the street be kept to the minimum width possible in order to encourage slower speeds, discourage people using it as a short cut and preserve the street's character.)

Provide traffic impact study. This would allay concerns re: impact to neighborhood which is part of zone change criteria.

Development shall be subject to Street SDC charge. Street SDC charge shall be based upon trip generation.

## STORM DRAINAGE



From the City GIS snap map, stormwater run-off from the property flows from Willamette Drive toward the back of the property into Shady Hollow Way.

From city record indicates that there is no onsite water quality treatment or detention facility designated to treat and detain run-off from the existing house. Street run-off along property front is also untreated. Street run-off is conveyed through a series of ditches along Shady Hollow Way and discharged into the natural channel located northeast of the property.

In case the property going to be developed, street run-off along the project frontage shall be captured and treated before discharging to the existing public storm system. Stormwater treatment facilities designed in according to the City of Portland Stormwater Management Manual. The City of West Linn Public Works is in the process of developing and implementing

the use of rain garden as a stormwater treatment facility. Detail of rain garden will be handed out during the pre-app meeting if needed.

Developments that create 500 square feet of new impervious shall provide treatment for stormwater run-off.

Developments that create 5,000 square feet of impervious area shall provide detention for stormwater run-off.

Onsite stormwater facilities such as water quality swale or detention pond shall be located in designate areas such as public easements or tracts to provide City employees access to the facilities for annual maintenance.

All private stormwater treatment facilities shall be subject to maintenance agreement with the City of West.

Storm drainage service connection shall be subject to Storm SDC charge.

## **SANITARY SEWER**

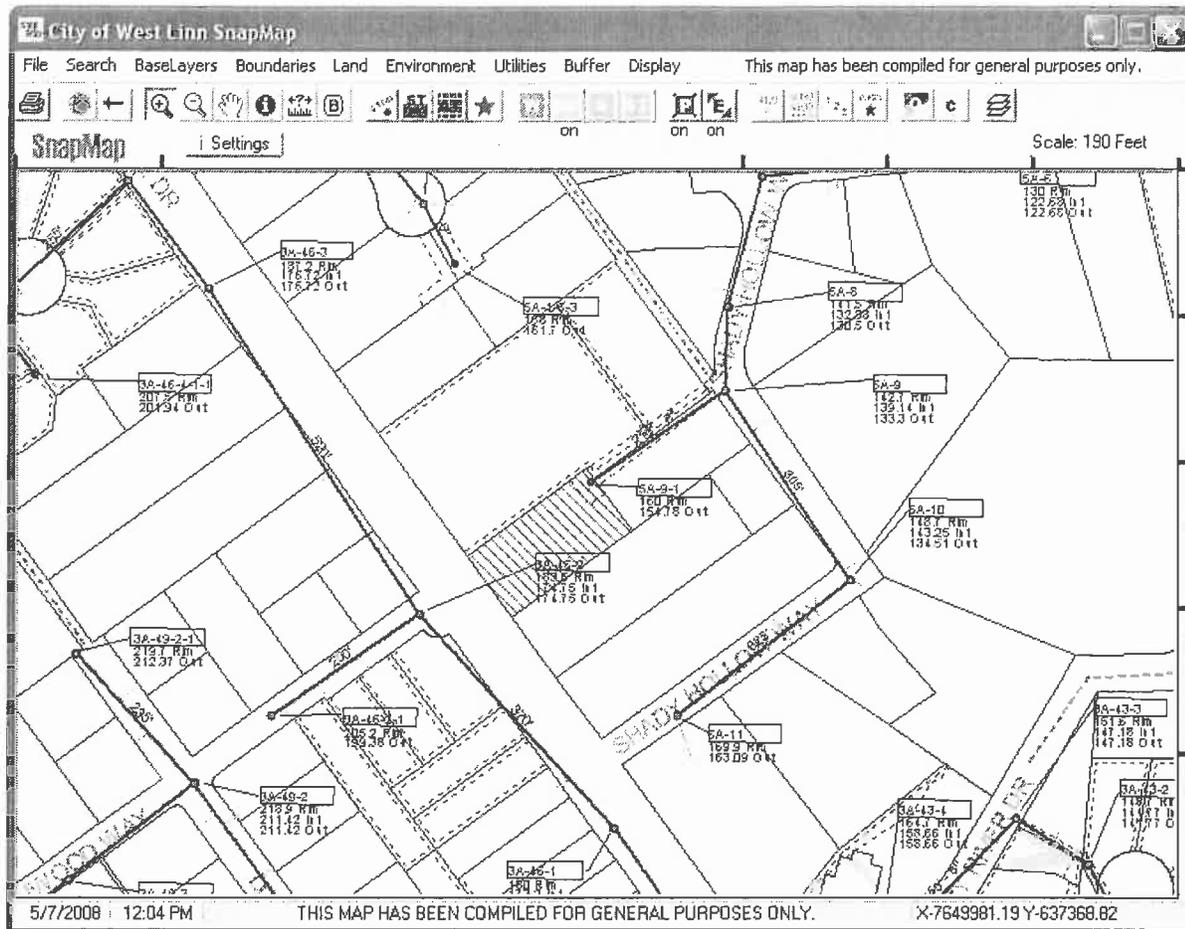
From the City GIS snap map, the existing properties have already got services from the existing sanitary sewer system along Shady Hollow Way as well as sanitary sewer system located in the an easement from the back of the property.

City of West Linn Sanitary Sewer Master Plan indicates that current sanitary sewer system along Willamette Drive is currently deficient. Master Plan also indicates that sanitary sewers downstream of the property on Old River Drive and Cherokee Ct are deficient.

Both of these deficient pipes are listed under the City of West Linn Capital Improvement projects and they are 100% SDC funded. Therefore, no additional charge is required from applicant.

For multiple-family residential unit, sanitary sewer service line shall be sized based on number of fixtures.

Sanitary sewer service connection however shall be still subject to Sanitary Sewer SDC charge.



## WATER

This project site is located within the Robinwood pressure zone.

From the City GIS snap map, the existing properties have already got services from the existing 6" AC public water line in Willamette Drive. The GIS map also indicates that there is about 90 feet of 6" DI and 46 feet of 3" galvanize water pipe along Shady Hollow Way. In addition there is also a 24" supply main to Lake Oswego along Willamette Drive.

City of West Linn Water Master Plan indicates that current water system along Willamette Drive and Shady Hollow Way is adequate.

Since water line is available on both streets, additional connection(s) shall not be an issue. Since existing water line along Willamette Drive is AC line, new water service to this line shall be done by the City Water Crew and the developer shall pay for the cost of installation.

For multiple-family residential unit, water meter shall be sized based on number of fixtures. 1-1/2" water meter or greater shall require backflow prevention devices.



The minimum required fire flow for one and two-family dwellings served by a municipal water supply shall be 1,000 gallon per minute. If structure(s) is (are) 3,600 square feet or larger, the required fire flow shall be determined according to OFC Appendix B.

The minimum fire flow and flow duration for buildings others than one and two-family dwellings shall be determined according to OFC Appendix B. The required fire flow for a building shall not exceed the available GPM in the water delivery system at 20 psi.

Within the boundaries of Lake Oswego Fire Department and TVF&R the maximum allowed fire flow is 3,000 gpm at 20 psi.

Access roads shall be within 150 feet of all portions of the exterior wall of the first story of the building as measured by an approved route around the exterior of the building. Access roads that is measured greater than 150 feet shall provide a fire turnaround.

Fire apparatus access roadway grades shall not exceed 10 percent. Intersection and turnarounds shall be level (maximum 5 percent) with the exception of crowing for water run-off. When fire sprinklers are installed, a maximum grade of 15% may be allowed.

**Fire comments above are general comments. All designs and constructions related to fire shall be reviewed and approved by TVF&R Fire Marshal.**

## **FRANCHISED UTILITIES**

All new franchised utilities shall be underground.

### **Other issues**

One of the requirements in Design Review (CDC 55.100(F)) is that the applicant provides 200-300 square feet per unit towards a consolidated shared open space area. Staff noted that the site size may make it difficult to fit that space in so one idea was to have the applicant pay for similarly dimensioned improvements at Robinwood Park across the street on Shady Hollow Drive. Ken Worcester, Parks Director, later stated support for this concept/idea.

### **Process**

In the event that the applicant wishes to proceed, a neighborhood meeting with the Robinwood Neighborhood Association is required per CDC Section 99.038. Contact Kevin Bryck at 675-7301 to set up a meeting date per code. **Follow the instructions of that Code section explicitly.** The submittal requirements and approval criteria of Community Development Code Chapter 105 must be addressed on a point-by-point basis for a zone change and plan amendment. The approval criteria also ask that the applicant discuss applicable Comprehensive Plan goals that may be relevant to the plan change request. Policies and Action Measures may be applicable and should be addressed.

Prepare the application and submit to the Planning Department with deposit fees. Deposit fees are \$3,000 for a zone change and \$3,000 for a Plan Map amendment. Staff bills hours against the deposits.

(Class II Design Review is required only at such time that the applicant has prepared a design. Another pre-app would be needed along with another neighborhood meeting. Design Review entails a Planning Commission hearing and decision. The cost is based on valuation of the project. The approval criteria contained in CDC Chapter 55.100.)

The City has 30 days to determine if the application is complete or not (most applications are incomplete). The applicant has 180 days to make it complete, although usually it is complete within three months of the original submittal. Once complete, the City has 120 days to exhaust all local review and appeals.

Staff prepares public notice and schedules the hearing. The first hearing is usually four weeks from the date the application is deemed complete. The Planning Commission holds a hearing and renders a recommendation. This recommendation is then forwarded to City Council for the final decision. Subsequent appeals go to the State Land Use Board of Appeals.

*Typical zone and plan change applications take 3-4 months from date of submittal.*

**DISCLAIMER:** This summary discussion covers issues identified to date. It does not imply that these are the only issues. The burden of proof is on the applicant to demonstrate that all approval criteria have been met. These notes do not constitute an endorsement of the proposed application. Staff responses are based on limited material presented at this pre-application meeting. New issues, requirements, etc. could emerge as the application is developed. Please also note that these notes have a limited shelf life and as new codes are introduced the ability to develop per these provisions may no longer be possible.

:/devrvw/preapps/pre app sumry2008-5-21-08-Shady HollowZC-to R-2.1

**Appendix C**  
**Tree Inventory**

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Walter H. Knapp & Associates, LLC  
*Consultants in Silviculture, Arboriculture and Urban Forestry*

January 30, 2008

David and Diana Emami  
3380 Barrington Drive  
West Linn, OR 97068

Dear Mr. and Mrs. Emami:

On January 23, I visited tax lots 1100, 1200, and 1500 in West Linn to evaluate trees for potential classification as "significant" under City code. The final decision on significant trees is made by the City Arborist. However, based on species, size, and condition, I believe that the 40-inch diameter Oregon white oak located near the front of tax lot 1100 meets the criteria for significant.

In our earlier discussion at City Hall, I had suggested locating any significant trees, using a GPS receiver. Because of the obvious location of the trees, this is not necessary. Instead, I am forwarding a tax lot map that shows the location of the oak tree (refer to tree #5 on the map).

There may be a need for further dialogue with the City Arborist regarding significant trees, but that will probably not take place until later. In the meantime, please let me know if you have any questions.

Sincerely,



Walter H. Knapp  
*Certified Forester, SAF 406*  
*Certified Arborist, ISA PN-0497A*

Cc: Martha Stiven  
Cc: Mike Robinson

Transmitted via e-mail



Tree #	Species	DBH*	Condition	Recommendation
1	western redcedar	36	decay at base extending to 14 ft.	not significant due to condition
2	western redcedar	26	decay throughout trunk	not significant due to condition
3	western redcedar	30	decay at base	not significant due to condition
4	western redcedar	34	tree is growing adjacent to house - within 1 ft. roots may be compromised by foundation.	may not be significant if roots are damaged or restricted
5	Oregon white oak	40	heavy lean - lower trunk.	tree meets criteria for significant

\* DBH: estimated diameter at 4.5 feet above grade.

**Appendix D**  
**Neighborhood Meeting Materials**

- June 10, 2008
- July 8, 2008

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# STIVEN

Planning and Development Services, LLC.

May 21, 2008

**NEIGHBORHOOD MEETING -  
Comprehensive Plan Amendment and Zone Change Request at 18270 & 18430  
Willamette Drive, West Linn, Oregon and 18395 Shady Hollow Way, West Linn,  
Oregon.**

Dear Resident,

Willamette Commons, LLC owns the following properties, 18270 & 18430 Willamette Drive, West Linn, Oregon (Lot 1100, 1200 on attached Tax Map 21E 14DB) and 18395 Shady Hollow Way, West Linn, Oregon (Lot 1500 on attached Tax Map 21E 14DB). The owners are proposing to change the Comprehensive Plan Designation from Low Density Residential to Medium High Density Residential and the Zoning Map from Single Family Residential Detached, R-10 to Single Family/Multiple Family Residential, R-2.1.

Pursuant to West Linn Community Development Code Section 99.038, you are invited to attend a presentation at the regularly scheduled Robinwood Neighborhood Association meeting on:

Tuesday, June 10, 2008  
7:00 PM  
Emmanuel Presbyterian Church  
19200 Willamette Drive  
West Linn, Oregon 97068

This meeting will provide a forum for you and others to review the request and identify issues that the applicant should consider before submitting its application to the City. You may share with us any special information that you have about the location and surrounding area. We will respond to any questions that you have, particularly as they relate to the West Linn Community Development Code.

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Robinwood Neighborhood Association  
May 21, 2008  
Page Two

We look forward to discussing the proposal with you. Please feel free to call me at 503.607.0677 or email me at [mstiven@stivenplanning.com](mailto:mstiven@stivenplanning.com) with questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Marty Stiven", with a long horizontal flourish extending to the right.

Marty Stiven  
STIVEN Planning & Development Services, LLC

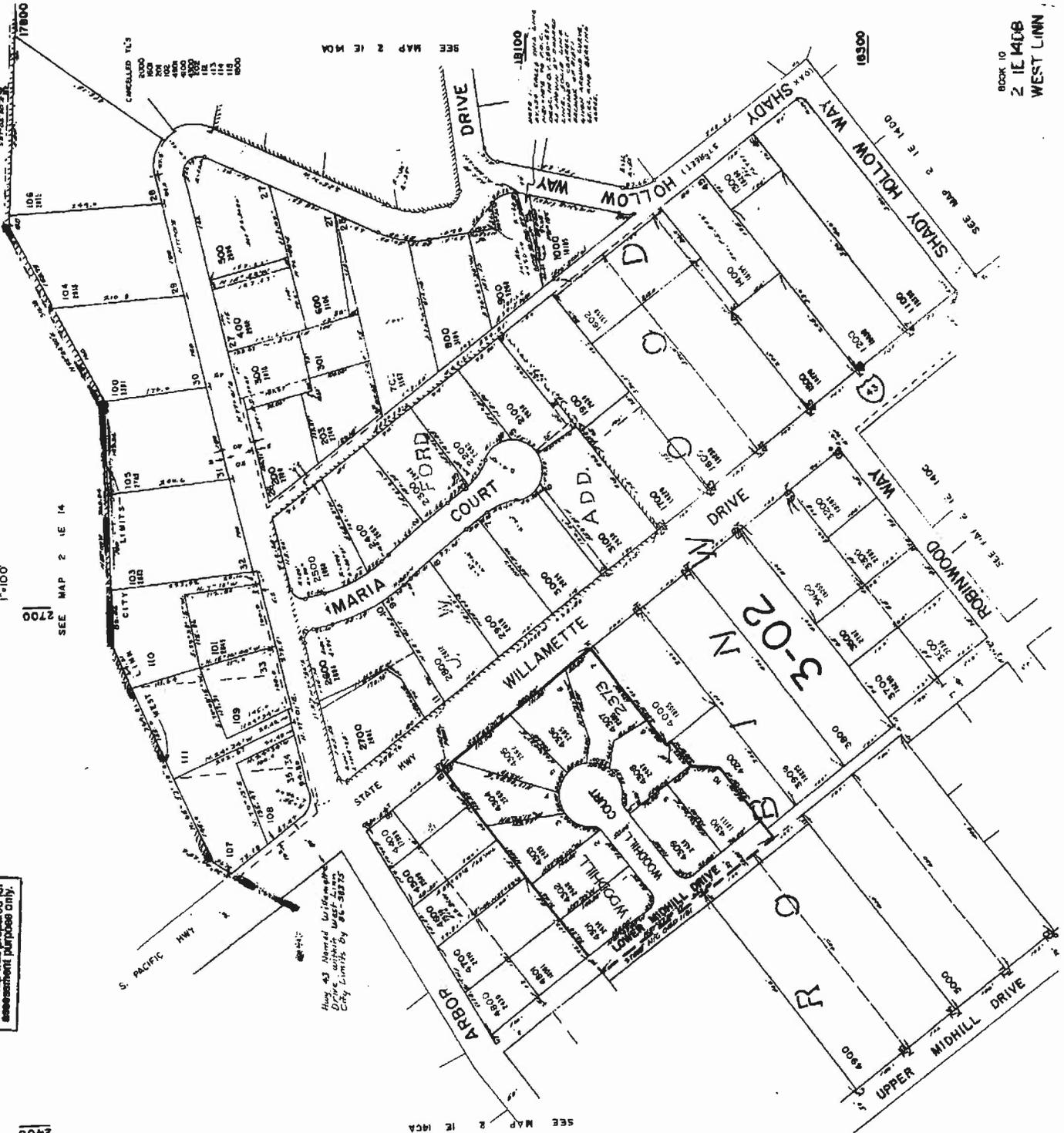
Attachment:  
Assessor Map

A-86

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 CLACKAMAS COUNTY  
 GABRIEL WALLING NO. 63  
 D.L.C.  
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 WEST LINN

This map was prepared for assessment purposes only.

2400



CANCELLED T.L.S.

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**STIVEN**

Planning and Development Services, LLC.  
148 'B' Avenue, Suite 100  
Lake Oswego, Oregon 97034

Mr. Kevin Bryck  
Robinwood Neighborhood Association  
18840 Nixon Avenue  
West Linn, OR 97068

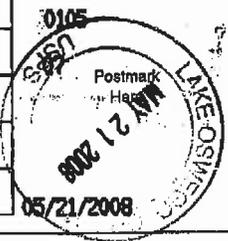
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Sent To  
 Mr. Kevin Bryce  
 Street, Apt. No.,  
 or PO Box No. 1840 Nixon Avenue  
 City, State, ZIP+4  
 West Linn, OR 97068

PS Form 3800, August 2006 See Reverse for Instructions

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> <li>Complete Items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>		<p>A. Signature  </p> <p><input type="checkbox"/> Agent  <input checked="" type="checkbox"/> Addressee</p>	
<p>1. Article Addressed to:</p> <p>Mr. Kevin Bryce                  Robinwood Neighborhood Assn                  1840 Nixon Avenue                  West Linn, OR 97068</p>		<p>B. Received by (Printed Name)                  Kevin Bryce</p>	<p>C. Date of Delivery                  5/20</p>
<p>2. Article Number</p> <p>7006 2760 0004 2084 0585</p>		<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes                  If YES, enter delivery address below: <input checked="" type="checkbox"/> No</p>	
		<p>3. Service Type</p> <p><input type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail  <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise  <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p>	
		<p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>	

A-89

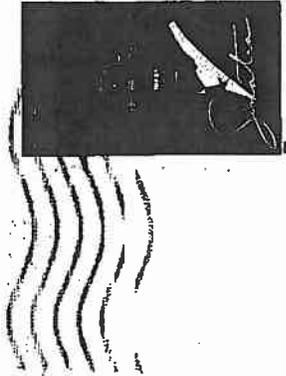


**STIVEN**

Planning and Development Services, LLC.  
148 'B' Avenue, Suite 100  
Lake Oswego, Oregon 97034

PORTLAND OR 972

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Franklin Coale  
Po Box 163  
West Linn, OR 97068-0163

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A-91



21E14DA00600  
Donald Raymond & Erlene Annette  
Grove  
25 Arbor Dr  
West Linn, OR 97068-1113

21E14DA00700  
Michael & Helene Callagan  
3293 Arbor Dr  
West Linn, OR 97068-1113

21E14DA02500  
Larry Jones  
3360 Arbor Dr  
West Linn, OR 97068-1118

21E14DA02501  
Dale & Sherry Fortuna  
3360 Arbor Dr  
West Linn, OR 97068-1118

21E14DA02600  
Matthew & Amy Kirby  
3280 Arbor Dr  
West Linn, OR 97068-1116

21E14DA02700  
Kenneth & Kelly Bean  
18140 Shady Hollow Way  
West Linn, OR 97068-1133

21E14DA02800  
Mike Lawson  
18150 Shady Hollow Way  
West Linn, OR 97068-1133

21E14DA02900  
Shan Arnold  
8640 SE 33rd Ave  
Milwaukie, OR 97222-5516

21E14DA03000  
City Of West Linn  
22825 Willamette Dr  
West Linn, OR 97068-3339

21E14DA03100  
Susan Senger  
18310 Shady Hollow Way  
West Linn, OR 97068-1137

21E14DA03101  
Nancy Daum  
18304 Shady Hollow Way  
West Linn, OR 97068-1137

21E14DB00700  
James & Jeannette Mcquay  
3162 Arbor Dr  
West Linn, OR 97068-1111

21E14DB00800  
David James & Keri Ann Archer  
3184 Arbor Dr  
West Linn, OR 97068-1111

21E14DB00900  
John & Janine Markell  
3260 Arbor Dr  
West Linn, OR 97068-1114

21E14DB01000  
Donald & Lillian Aasen  
18185 Shady Hollow Way  
West Linn, OR 97068-1126

21E14DB01100  
Willamette Commons Llc  
3380 Barrington Dr  
West Linn, OR 97068-3631

21E14DB01200  
Willamette Commons Llc  
3380 Barrington Dr  
West Linn, OR 97068-3631

21E14DB01300  
Vito & Yvonne Debellis  
18200 Shady Hollow Way  
West Linn, OR 97068-1128

21E14DB01400  
Lawrence & Dianne Koran  
18194 Shady Hollow Way  
West Linn, OR 97068-1126

21E14DB01500  
Willamette Commons Llc  
3380 Barrington Dr  
West Linn, OR 97068-3631

21E14DB01600  
Linda Quinn  
2105 Peregrine Ct  
West Linn, OR 97068-2825

21E14DB01602  
Edna Co-e Gaston  
18189 Shady Hollow Way  
West Linn, OR 97068-1126

21E14DB01700  
Linda Kane  
18220 Willamette Dr  
West Linn, OR 97068-1210

21E14DB01900  
Mary Smitley  
2634 Maria Ct  
West Linn, OR 97068-1127

21E14DB02100  
Roger Cherry  
2636 Maria Ct  
West Linn, OR 97068-1127

21E14DB02200  
Charles & Alice Gail Lavin  
2642 Maria Ct  
West Linn, OR 97068-1127

21E14DB02300  
Margaret Bell  
2648 Maria Ct  
West Linn, OR 97068-1127

21E14DB03000  
Benjamin & Christi Mckinley  
24 Maria Ct  
West Linn, OR 97068-1127

21E14DB03100  
Christopher & Angela Kleips  
2630 Maria Ct  
West Linn, OR 97068-1127

21E14DB03200  
Carl & Judith Owens  
5885 Skyline Dr  
West Linn, OR 97068-3122



21E14DB03300  
Carl & Judith Owens  
5885 Skyline Dr  
West Linn, OR 97068-3122

21E14DB03400  
Carl & Judith Owens  
5885 Skyline Dr  
West Linn, OR 97068-3122

21E14DB03500  
Stanley Cassell  
2767 Robinwood Way  
West Linn, OR 97068-1332

21E14DB03600  
Michael & Rochelle Meyers  
2735 Robinwood Way  
West Linn, OR 97068-1368

21E14DB03700  
Mark Lee Goddard  
18260 Lower Midhill Dr  
West Linn, OR 97068-1327

21E14DB03800  
Victor Destefanis  
18225 Willamette Dr  
West Linn, OR 97068-1217

21E14DB03900  
Victor Destefanis  
18225 Willamette Dr  
West Linn, OR 97068-1217

21E14DB04000  
Dan Mcallister  
18155 Willamette Dr  
West Linn, OR 97068-1215

21E14DB04200  
Amy Cook  
18115 Lower Midhill Dr  
West Linn, OR 97068-1361

21E14DC00100  
Susan Buckley Co-e Watson  
2786 Robinwood Way  
West Linn, OR 97068-1329

21E14DC00102  
George Covic & C D Lisa  
16869 65th Ave #263  
Lake Oswego, OR 97035-7865

21E14DC00103  
Ala Bazzaz  
17661 Woodhurst Pl  
Lake Oswego, OR 97034-4010

21E14DC00200  
Thomas & Sommer Popham  
18335 Willamette Dr  
West Linn, OR 97068-1219

21E14DC00201  
Susan Buckley Watson  
18345 Willamette Dr  
West Linn, OR 97068-1219

21E14DC00300  
Dustin & Theresa Schlitt  
18355 Willamette Dr  
West Linn, OR 97068-1219

21E14DC00400  
Michael Webber  
1598 Skye Pkwy  
West Linn, OR 97068-1806

21E14DC00500  
S Eric & Julie Underwood  
18361 Willamette Dr  
West Linn, OR 97068-1219

21E14DC00600  
Jerry & Susan Teeter  
18365 Willamette Dr  
West Linn, OR 97068-1219

21E14DC00700  
Jennifer & James Sandoval  
18369 Willamette Dr  
West Linn, OR 97068-1219

21E14DC00800  
Ruth Rusk  
18375 Willamette Dr  
West Linn, OR 97068-1219

21E14DC00900  
Ruth Rusk  
18375 Willamette Dr  
West Linn, OR 97068-1219

21E14DC01000  
Oxford Investment Corp  
2875 Marylhurst Dr  
West Linn, OR 97068-1304

21E14DC01200  
Cathy Nusbaum  
2777 Marylhurst Dr  
West Linn, OR 97068-1355

21E14DC01201  
William Shepherd  
2757 Marylhurst Dr  
West Linn, OR 97068-1355

21E14DC01202  
Janusz & Barbara Bogdan  
16872 Cherry Crest Dr  
Lake Oswego, OR 97034-5973

21E14DC01400  
John Schlunegger  
18560 Lower Midhill Dr  
West Linn, OR 97068-1325

21E14DC01501  
Joy Harns Kent  
18490 Lower Midhill Dr  
West Linn, OR 97068-1362

21E14DC01502  
Tori Chambers  
1810 Lower Midhill Dr  
West Linn, OR 97068-1325

21E14DC01600  
Angela Meeuws  
18470 Lower Midhill Dr  
West Linn, OR 97068-1362

21E14DC01700  
David & Donna Knaebel  
18430 Lower Midhill Dr  
West Linn, OR 97068-1362



21E14DC01800  
Richard & Grace Ann Holt  
18380 Lower Midhill Dr  
West Linn, OR 97068-1358

21E14DC01900  
Nani Stuckman  
18350 Lower Midhill Dr  
West Linn, OR 97068-1358

21E14DC02000  
David & Donna Knaebel  
18430 Lower Midhill Dr  
West Linn, OR 97068-1362

21E14DC02101  
Harry Hvostov  
2748 Robinwood Way  
West Linn, OR 97068-1329

21E14DC02200  
Anthony Michael & Anne Marie  
Bracco  
2716 Robinwood Way  
West Linn, OR 97068-1365

21E14DD00802  
Frederick & Lisa Mabie  
3689 Fairview Way  
West Linn, OR 97068-1149

21E14DD01901  
Ian Chane & M McMurtrey  
Marjorie  
18325 Vista Dr  
West Linn, OR 97068-1139

21E14DD01902  
Eric & Wendy Kay Gewiss  
18368 Vista Dr  
West Linn, OR 97068-1139

21E14DD03500  
Boyer Family Ptshp  
3020 Lazy River Dr  
West Linn, OR 97068-1125

21E14DD03601  
Housing Authrty Co Clack  
Po Box 1510  
Oregon City, OR 97045-0510

21E14DD03700  
Lazy River Devlp Llc  
3056 Lazy River Dr  
West Linn, OR 97068-1125

21E14DD03701  
Daniel & Shannon Richards  
3080 Lazy River Dr  
West Linn, OR 97068-1125

21E14DD03702  
Bruce Jervis  
206 Andover St  
San Francisco, CA 94110-5610

21E14DD03703  
Julie Lane & S Howarth William  
6157 Merriewood Dr  
Oakland, CA 94611-0000

21E14DD03800  
Eldora Groves  
18360 Shady Hollow Way  
West Linn, OR 97068-1137

21E14DD03900  
Holland Inc  
109 W 17th St  
Vancouver, WA 98660-2932

21E14DD90000  
Franklin Coale  
Po Box 163  
West Linn, OR 97068-0163

21E14DD90001  
Franklin Coale  
18380 Willamette Dr #201  
West Linn, OR 97068-1200

21E14DD90002  
Willamette Prop Ltd Prtnshp  
18380 Willamette Dr #202  
West Linn, OR 97068-1200

A-94



# MEETING NOTICE

**PROPOSAL:** Comprehensive Plan Map Change:  
Existing: Low Density  
Proposed: Medium High Density

**Zoning Map Change:**  
Existing: Single Family Res Detached, R-10  
Proposed: Single Family/Multiple Family Res, R-2.1

**PROPERTY:** 18395 Shady Hollow Way / 18270 & 18430 Willamette Drive

A-96

**MEETING DATE:** Tuesday, June 10, 2008

**MEETING TIME:** 7:00 PM

**PLACE:** Emmanuel Presbyterian Church  
19200 Willamette Drive, West Linn

**CONTACT PERSON:** Marty Stiven/STIVEN Planning / 503.607.0677

Please note:  
The Sign was  
printed at 18 x 24  
on a Corrugated  
Plastic material.



**APPLICANT PLEASE NOTE:**  
**This is to be submitted as part of your Land Development application**

**NEIGHBORHOOD MEETING  
AFFIDAVIT OF POSTING NOTICE**

Name of Applicant Willamette Commons, LLC  
Subject Property: Tax Lot(s) 1100, 1200 & 1500 Tax Map(s) 21E 14DB  
Address or General Location: 18395 Shady Hollow Way; 18270; 18430  
Willamette Drive, West Linn

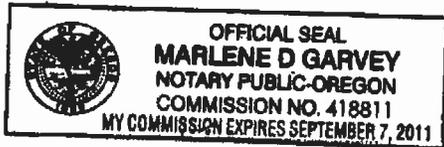
I, Jennifer Oliver, do swear or affirm that I am (represent) the party initiating interest in a proposed Comprehensive Plan map change; Zone map change affecting the land located at 18395 Shady Hollow Way; 18270; 18430 Willamette Drive and that pursuant to City of West Linn Code No 99.038, did on the 21<sup>st</sup> day of May, 2008 personally post the notice indicating that the site may be proposed for a Comprehensive Plan Map change; Zone map change application.

The sign was posted at corner of Willamette Drive  
(state location of sign on property)

This 29<sup>th</sup> day of May, 2008.

Jennifer Oliver  
Signature

Subscribed and sworn to, or affirmed, before me this 29<sup>th</sup> day of May, 2008.



Marlene D. Garvey  
Notary Public for the State of Oregon  
County of Clackamas  
My Commission expires: 9/7/2011

# ROBINWOOD NEIGHBORHOOD MEETING SUMMARY

PROJECT DISCUSSED:	WILLAMETTE COMMONS, LLC
MEETING DATE:	TUESDAY, JUNE 10, 2008
MEETING TIME:	7:00 PM – 8:30 PM

## **In Attendance:**

Development Team:

Marty Stiven, Stiven Planning & Development Services, LLC  
Jennifer Oliver, Stiven Planning & Development Services, LLC  
Frank Charbonneau, Charbonneau Engineering  
David and Diana Emami, Willamette Commons, LLC

## **Neighborhood Members:**

Thirty one (31) members of the community were present. (See attached sign in sheet)

## **Presentation:**

Mr. David Emami thanked the group for having them at the meeting and then introduced himself and his wife, Diana.

Mr. Emami spoke about the history of the property and how long they have owned it, which is approximately nine years. He mentioned they had attended a previous Robinwood Neighborhood Meeting with another group of planners and discussed the plans to design the land as Commercial and Residential Mixed Use. During the meeting he heard a lot of opposition to the project. After nine years, and speaking to the President of the Neighborhood Association and to others, they have come back with a different plan. They have decided to develop a Townhouse project modeled after the first addition to Lake Oswego.

He mentioned the limit the City has on the development of Shady Hollow Way and how it could not allow for apartments. It is too expensive of land to develop apartments, but the revised zoning would allow for condos/townhomes.

Mr. Emami said the four buildings would be constructed to look like million dollar home that will not have the "apartment" feel. And will not have the "row" feel.

Mr. Emami introduced Marty Stiven, Planner and Frank Charbonneau, Traffic Engineer. David thanked the group for having them at the meeting

A woman who knows David and Diana added a comment about the Emami's, that he has lived in West Linn for 15 years, is a good tax payer and they are good residents. Mr. Emami thanked her and mentioned his family lives in the West Linn area.

Marty Stiven introduced herself, the applicants representative, to the group and spoke about how Mr. Emami came to her to introduce the concept of increasing the density of the property after the mixed use development project was not well received. During the meeting with Mr. Emami, he suggested moving forwarding with a Residential Development only.

Marty spoke about what she would like to present at the meeting; the site, the process and the purpose of the meeting.

Marty presented the project which is Comprehensive Plan Amendment and Zoning Map Change to change the density from low density to medium/high density. At this time that is all that is being requested. This process can be a little awkward as there is no development proposed at this time. This Comprehensive Plan and Zone Change will not allow for building at this time. If successful in getting the first step accomplished, the applicant will then go back and ask the City for the Design Review and meet with you to discuss the next step.

Marty spoke of the drawings that were brought to help show what might be developed on the property and how it might look. She emphasized there is no development proposed at this time and they are only getting the land prepared for possible development. Marty stated this is a two step process of getting the land into place. The second step would be to move onto the design and development.

Marty started to give the background of the project and a comment/question was made.

**Q: Because it is a concept it doesn't mean this is what we will see the next time around. This is just what they are thinking about, so please don't think this is what you saw last time it isn't the same.**

A: Marty agreed with the comment and another follow up question was asked.

**Q: Are you guys preparing to at least say it won't be more than so many units?**

A: Yes we are, and let me explain we are here to listen. We want to hear your questions and answer them as best a possible. If we hear something that is contradictory, please give us some time to think that over.

**Q: What stops you from changing your mind after you get the zone change? What stops you from saying now that we have the zone change we will put whatever the City will allow?**

A: Kevin Bryck, of the Robinwood Neighborhood Association answered, once zoning gets approved, they can do what ever the City allows including asking for a variance to allow more. When someone come to us with a plan and shows us drawing before their application is submitted, that doesn't mean the development will be the same as what they showed us once they are approved.

Marty commented to Kevin and group, one of the things the state allows is add conditions of approval to the zone change. We will listen to your concerns regarding maximum units, etc or if you have comments of things you like. We can work with City to put Conditions of Approval that pass with the land. Meaning if the Emami's sell those conditions will go with the land and will add conditions to the development. There are things that can be conditions so you are assured that the things are being said can pass along with land. Example: number of units, street improvements, etc.

Marty showed the first photo which was of an Aerial Photo of the property and surrounding area. She asked that as questions were asked for residents to please come up and show where their home was located. She then showed the group where the property was on the photo. The Emami's have three properties with three different tax lots along Hwy 43 and Shady Hollow.

**Q: The group asked if Marty could show landmarks.**

A: Marty showed them Burgerville, Robinwood Park and Marylhurst.

Marty continued to give details about the property. It is a little over 2 acres with the current zoning of R-10 for low density. There are 3 existing lots. The max potential of development the City would allow at the current zoning is 9 single family homes. Under the proposed zoning, which is R-2.1 med-high zoning, the City will allow the maximum of up to 43 units. This is what is allowed by zoning but that doesn't mean that is what is going to be developed.

**Q: What sized lots?**

A: They are not single family lots they would be condos.

**Q: The condo would fit on what sized piece of property?**

A: The zoning and plan designation would allow up to 43 units. There are also limitations on developments. Example, lot coverage, set backs, open space requirements. We have encouraged the Emami's to look at this from the worst case possible, in terms of impact, utilities. This is what is required and by law.

**Q: You are going from lowest to highest density, what is in between?**

A: There are a few options in between. This allows for maximum density of 2,100 sq ft per unit max, the City has two other zones, 3,000 sq ft per lot and 4,500 sq ft per lot.

**Q: There is a R-7 as well.**

A: There is but that is single family

Marty continued by showing another drawing. She explained the drawing by showing the Hwy access and Shady Hollow Way and Burgerville. This is a concept of what the Emami's are thinking of. The pink buildings are the consolidated units and the drawing shows the parking in between buildings, which are located on the interior of the site allowing for buffering. The two acre site will allow buffering near the residential homes. This drawing helps to show where the units can go and where parking could be accommodated.

**Q: How many units will be within each building?**

A: 10 to 12 units within each building

**Q: What if the height?**

A: The max height of the each building is 3 ½ stories, (45 feet).

Marty showed the next photo of what the units may look like. This project has been examined assuming maximum density. We are willing to put restrictions on the site, but we are here to show what the maximum is for the site. We are just trying to get the land in place.

**Q: You mentioned that each building would have 10 to 12 units per building. That adds up to 48 units.**

A: That is a combination of each building not all buildings will be the same. For example ten units in four buildings equals 40 units.

**Q: Is it typically to ask for a zone change first and then come back with the development? And that is okay?**

A: Yes, it is very common. I have done this in several jurisdictions. It is a lot of design work to go through if the land is not in place. The threshold for changing zoning is the adequacy of services.

**Q: In my opinion , if there are risks to be taken I understand there would be expenses with development, but the neighborhood is taking a risk with you coming back with something that isn't good. The zoning will be in place for someone else to coming and develop something we may not like. I sympathize with the expense, but I won't support someone coming in to development something we didn't like.**

**Q: What is the zoning surrounding the area?**

A: Bugerville is Commercial as well as up Hwy 43. There is low density single family near the property. Adjacent to the property is single family and to the North and South is Commercial.

David spoke about the construction of the inside of the buildings, with the bathroom, bedrooms, etc. He is willing to show the group those photos from the designer as a later time.

**Q: Traffic situation is bad right now of the main Hwy? Kevin Bryck asked about the contact with the State and ODOT regarding an access driveway out of Hwy 43.**

A: Frank Charbonneau will answer those questions.

Marty continued to show the photo with the view from Hwy 43 and Burgeville on the right. This concept shows the building aggregated together instead of lined in a row. This would help to make them look like single family homes. They would each have garages.

The owner, Vito, spoke up and commented that he would have a 3 story building looking into his back yard he will never have a bit of privacy in his back yard.

Marty spoke up that we were not talking about a subdivision we are presenting a Comp Plan and Zone Change. There are things we can commit to such as having two stories adjacent to your property.

**Q: You are taking value away from my home and you are asking me to approve a development like this?**

A: We are asking the City to approve this.

The group started to openly discussion the question and the scenarios of the building placement.

**Q: We can request that we make what Mr. Emami just said as a condition of the zone change?**

A: What Mr. Emami said was without zoning this site would accommodate nine single family homes and those home could be 3 stories tall looking into the back yard of other homes and there would be no opportunity to comment on the design or placement of the homes.

**Q: If we wanted to request a condition so that the buildings can only be so high?**

A: Or the buffering or design items that can minimize the effect.

**Q: This is a planning questions, it is a two step process I think. You need the comprehensive plan change before you need the zone change correct?**

A: The steps will be done together. We will do the Comp Plan and Zone Change now. Then come back and do the Development Design Review.

**Q: Across from McDonalds, the owner wanted to put up a 3 story facility and the Neighborhood behind said no. What makes you think they are going to accept this? It wasn't okay 1 block down the street at McDonald's why would it be okay here?**

A: We are trying to show you what the zoning will allow. We will be back to show you the specific design during the Design Review Process.

**Q: This is a major transition for the Robinwood area and you are talking like it will be done like "swish". But I am concerned about this major development.**

**Q: Why don't you consider something less? Why go with the max that is allowed.**

A: That is why we are here tonight. To listen to your concerns.

More discussion was made regarding going with less and not necessary going with max.

Kevin asked if we could hear the transportation piece. (7:45 PM)

Frank Charbonneau introduced himself to the group and gave a little about his background. He stated that he was not here to speak on behalf of ODOT or the County, etc.

The applicants study focused on two land use issues. They are; traffic related to the maximum number of units and the proposed zoning. The traffic study is based on a maximum of 43 multifamily units.

The study was done on Hwy 43, Shady Hollow Way and the access to Burgerville.  
The traffic counts include 2008 volumes. As required we looked at future traffic (year 2013). With a two percent per year growth rate. This growth rate came from the TSP report and was applied to the project.

Major elements of the Traffic Study called for an inventory of the existing street system, the number of lanes, traffic control, level of service analysis which showed traffic delay, safety issues which showed crash history, and traffic circulation and distribution.

Existing traffic at the Hwy intersection was 17 vehicles approaching Hwy during the AM peak hour, and 10 vehicles approaching the Hwy during the PM peak hour.

At the Burgerville intersection/access during the AM Peak hour (7:50 to 8:50 AM) there was 1 trip in/1 trip out. During the PM Peak hour there were no trips in or out.

**Q: When a study is done is it over a one day/snap shot or over several days with an average trip count?**

A: It is a one day count on Tuesday, Wednesday, Thursday on a regular commuting work day.

**Q: But it is still a snap shot.**

A: Yes, but that is typical with doing studies in the Metro area.

**Q: Did you study projected future entrance to Shady Hollow?**

A: No, we just used the two percent growth rate.

**Q: Did you measure traffic coming out of Burgerville going onto Hwy 43?**

A: No

**Q: We live in the neighborhood and are a group of retired folks. I am assuming the people living in the condos will be working class. Is there a comparison of trips based on the retired people verses those likely to live on the site?**

A: The trip rates came from the ITE Trip Manual. It averages case histories into a data set that provides average trip rates for a variety of land uses. We used the multifamily/condo/townhome rate.

Frank gave the average number of trips to the site. With the current zone (single family) during the AM Peak Hour it was 7 trips and 9 in PM Peak Hour. In the proposed zone (R-2.1) during the AM Peak Hour it would just about triple. AM Peak Hour went from 7 trips to 22; PM Peak Hour went from 9 trips to 27.

The existing Level of Service (LOS) results are at Level C averaging a 21 second delay per vehicle in the AM Peak Hour. The PM Peak Hour is also Level of Service C with the delay being slightly less. Level C is a good level today.

**Q: What does Level of Service C mean?**

A: In our profession it defines the level of service category. It starts at Level A averaging less than 10 seconds per vehicle. The worst is Level F which is failure, which means you are exceeding 50 seconds per delay. Level C is in the middle, it is considered good with moderate delay.

Marty commented to Frank to speak about the AM peak hours and the PM peak hours and how it would feel to the group and the neighborhood.

**Q: Did the study consider delay if the delay was too long, people would drive down Shady Hollow and come out to Hwy 43 the other way?**

A: There could be drivers that may go that way. But we did take a look and we felt there was no purpose to drive around that way because it was a long way. And once they got to Hwy 43 at the other end they still would face the same delay, as this intersection is also unsignalized..

**Q: I thought there would be an entrance on Hwy 43 as well as Shady Hollow?**

A: According to ODOT, the policy is to reduce access along Hwy 43. When there is an alternative access possibility they won't necessarily approve an access to an from the Highway.

**Q: Even if there is already an access?**

A: The existing access doesn't carry any weight with them when the site is changed or redeveloped. During a preliminary evaluation they would not open up access or approve access.

**Q: Even if it was single family?**

A: We did not present that. We presented the current scenarios. The access spacing is over 700 feet and the frontage dimension is 280 to 300 feet, which does not meet access spacing standards. I am not saying there would not be an access, but during the preliminary evaluation ODOT said no they would not consider it.

**Q: If the access along Hwy is 700 feet ODOT would consider it?**

A: Yes

Kevin Bryck commented on the ODOT standard, and how they were ridiculous for the City of West Linn. He continued to comment on the signal at Marylhurst and how there is a political way to convince ODOT to change the standards, Lake Oswego did it.

**Q: Do you have an ITE average for an area similar to ours with Burgerville/retail that serves as many people as they do?**

A: ITE does study trip generation rates for shopping centers and specific types of commercial establishments, including Fast Food with a take out drive through. We have used those figures and studied other locations if they want to add a fast food restaurant. We did measure the trip on the Shady Hollow access. In the PM Peak there were 10 trip using the Burgerville access and 9 in the AM Peak Hour.

We completed a Level of Service analysis under max build out of the site and the delay is 26 seconds which is Level of Service D. But it still meets the City and State criteria.

**Q: How up to date is that?**

A: That is current practice.

**Q: What makes us want to approve this when we are moving to a worse condition?**

A: Level D is longer, but it is not near failure.

**Q: But why would we want to get nearer to failure?**

A: Unless the property is never developed, it won't get closer to failure (Level F).

**Q: Did you do any traffic counts on Hwy 43? I can't understand how Hwy 43 is Level C.**

A: Yes and I am presenting the facts.

The group discussed the Level of Service and the seconds they wait getting out into Hwy 43.

Marty spoke about a re-classification of Willamette Drive/ Hwy 43 that allows driveways closer together. The Hwy plan proposes the re-classification of the highway.

If this is a concern of yours, that is, taking access from Shady Hollow Way as opposed to Hwy 43, the applicant will go back to ODOT and see if that is something we can get. Marty asked the group if that would make a difference.

The group answered with a no and several comments where made.

**Q: Why are we considering this in general? This is a lovely residential area.**

Kevin Bryck asked the group to keep the comments/question to quick and easy. If they had a long drawn out question or concern to take it to the hallway as they needed to get the meeting going and onto other items.

**Q: Could there be a traffic light at Shady Hollow and Hwy 43?**

A: No, we are not in charge of that. ODOT is in charge of that and there need to be a certain amount of traffic to warrant that.

**Q: Have you considered anything other than this?**

A: Not until now

**Q: This seems to be a lot of information and trouble to go through, can we email or write to you after this meeting and we think about the information?**

A: Absolutely. I will leave my cards for everyone and if you have more questions or concerns we will be happy to take those.

**Q: Did I hear Frank correctly, the traffic will triple if we did the maximum build out allowed?**

A: The trip generation numbers will triple during the peak hours.

**Q: This question was for Kevin. What is the resolution of this? Are we voting to support it?**

A: We don't have to take any position on this tonight at all. We can also decide whether we wait until next month after everyone has a change to express their concerns and questions.

Marty made a further comment on the previous traffic questions. The traffic would not triple over what is there today. If the were nine single family home or compared to the additional 34 units, there is a 300% difference. Marty suggested speaking out side of the meeting regarding this issue.

**Q: What are we trying to accomplish here this evening?**

A: Kevin answered that the requirement is to come and present this to the Neighborhood Associations, and supply a written summary, and when they submit they supply the neighborhood meeting summary.

**Q: When the applicant submits the application, will we have the opportunity to weigh in? We don't have to make a decision tonight. It would be nice to have a deadline to entertain questions.**

A: We would be happy to entertain answering question throughout the process. We could take question and come back to the next meeting to discuss this further

**Q: If I agreed to this and you got approval, you can forget the 29 units and go for 43 unit. There is no guarantee.**

A: We will work with you and add a Condition of Approval

Mr. Emami spoke briefly to the group his thoughts and what he would like to do for the site and future. He spoke about the changing times we are in.

**Q: Why did you buy the property zoned single family residential?**

A: Because I believe there is the potential for anything. Mr. Emami continued to speak about what he would like to do.

**Q: Hwy 43 has many home for sale and they have all had a lot of work put in them, so don't tell us you can't sell a house there.**

The group discussed the apartment potential, height requirements, etc.

Kevin asked if there was a motion that needed to be put on the table. One neighbor made the motion to move onto the next item. It was seconded. The question came up of doing a straw poll and there was a discussion of why it was not appropriate. There was nothing to go on. There is not a firm proposal. A vote was made to move onto the next item on the agenda. There were 18 for and 4 against.

Kevin said he felt that we got what we needed and hopefully we could come back to the next meeting to discuss this project more in less detail an depth.

Marty asked that we get a copy of the sign in sheet for our requirements.

**Q: Are you planning to come back to the group before the submittal of the application?**

A: Marty asked if they would you like us to come back.

**Q: There are a lot of people assuming you are coming back and if not we need to know that.**

A: David said they could be involved in a public meeting. For every step they can be involved.

**Q: By your vote he can move ahead and once he starts moving ahead your time starts to be restricted and is governed by planning departments, etc. They will put us into a bad spot and we are moving forward not in our own best interest.**

Marty stated she has left her cards and most everyone has her contact information. We would be happy to address your concerns and questions. She will get back with Kevin about coming back to the next meeting.

A motion was on the table to invite us back to the July Neighborhood Meeting. Motion seconded and approved.

We left the meeting at 8:30 PM

Meeting Notes prepared by Jennifer Oliver

# ROBINWOOD NEIGHBORHOOD ASSOCIATION

SIGN IN SHEET

DATE: 06/10/08

	NAME	PHONE #	E-MAIL
1	KS BRUCK		
2	Mary Hill	636-5373	
3	Maria Norrath	636-2025	
4	Larry Gaston	635-7195	
5	Edna Gaston	635-7195	ednagaston@hotmail.com
6	Lawrence Kovsn	675-9530	
7	Theresa & Dustin Schlitt	975-1089	
8	Donna Woodard	636-7941	
9	Bob Jaworski	636-3915	
10	Maria & Les Coull	636-0181	
11	Art Somare	685-2682	
12	Vito DeBellis	636-8523	
13	Lamont King	636-0189	
14	James Andrews	635-1130	
15	Dave Froode		
16	Ruth N Rusik	635-4643	
17	Eldora Shaver	636-7959	
18	Jennifer Wulfin	503-804-9019	
19	Susan Senger	503-636-6323	
20	Kelly Rothgeb	503-636-6323	

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	NAME	PHONE #	E-MAIL
21	David Emani	503-557-3350	
22	Diana Emani	503-557-3350	
23	Nancy Baum	503-636-1795	
24	Jennifer Oliver	503-607-0677	
25	Marty Stiven	503-607-0677	
26	<del>Ilse R. [unclear]</del>	636-0143	
27	Mary Jean McRumel	636-205	
28	Lora Hecht	636-6244	
29	Tina Decker	635-2385	
30	Karen Pomington	636-0143	
31	Jerry Pomington	636-0143	
32	GARY HITESMAN	503-333-7466	
33	RANUCC FASIBEND	503-635-0830	ranaround@hotmail.com
34	DAN HARTUNG	503-706-9192	
35	SLATT SHORE	503-373-2161	
36			
37			
38			
39			

# ROBINWOOD NEIGHBORHOOD MEETING SUMMARY

PROJECT DISCUSSED:	WILLAMETTE COMMONS, LLC
MEETING DATE:	TUESDAY, JULY 9, 2008
MEETING TIME:	7:00 PM – 8:30 PM

## **In Attendance:**

Development Team:  
David and Diana Emami, Willamette Commons, LLC  
Marty Stiven, Stiven Planning & Development Services, LLC  
Jennifer Oliver, Stiven Planning & Development Services, LLC

## **Presentation:**

The applicant was called to present at 7:20 PM

David and Marty introduced each other to the group.

Marty spoke briefly about the proposed Comprehensive Plan Amendment and Zone Change from the existing R-10 Low Density to an R-2.1 Medium Density that was presented last month at the Neighborhood Meeting.

Marty stated that after last month's meeting the Emami's reevaluated their proposal and have decided to go the City with a Comprehensive Plan Map Amendment and Zone Change Amendment of R-10 to R-4.5. The R-4.5 zoning will allow detached single family homes, duplexes and attached single family homes.

The R-4.5 zone would allow a maximum of 22 homesites and the current zoning would allow a maximum of 9 homesites. Access from Willamette Drive will be eliminated and the development would access the homesites from Shady Hollow Way.

There is no design for the site yet. Mr. & Mrs. Emami are asking for the zoning to be changed to allow for the possibility for more homes. The development would go through the City as a subdivision and would come back through the neighborhood for review and the City for approval.

We have redone the traffic study to reflect the 9 home to the 22 homes, which is a significant reduction of what was proposed at the last month meeting.

## **Q: What is the height limitation?**

A: The maximum building height is 35 feet in the R-4.5 zone and the R-2.1 zone would have been a maximum of 45 feet, which is similar to other single family homes. The average lot size for detached is 4,500 square feet and if the homes are attached the lot size could be as small as 4,000 square feet.

Average lot width must be 50 feet wide, which is an average Portland City lot. Front setback is 20 feet, maximum height is 35 feet. Lot coverage is 40%. This allows for smaller lots and more density.

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**Q: 35 feet is the average height for a single family home, but I don't see too many homes with that average height. Are you planning to build to that height?**

A: It is the same height restriction as a single family home. Mr. & Mrs. Emami don't have a plan at this time; I am stating is the maximum height

**Q: What are the side setbacks?**

A: The side setback is 5 feet for an interior lot and if it abuts the street it is 15 feet.

**Q: Why should we approve a development like this?**

A: This property has a lot of unique characteristics, the property fronts on Willamette (Hwy 43), is next to Burgerville. It is adjacent to Commercial zoning and a high traffic street. This property also has good transit access. The City needs to accommodate growth and the City will benefit if it can accommodate growth on sites that are conducive to increased density.

**Q: People with access to Shady Hollow turning left will have a hard time turning. Who says that when the City says okay to your project they will not say okay to every other project.**

A: There are still several characteristics that are different to those if it were located in the middle of a residential neighborhood. This is a good site for high density.

**Q: What is the benefit to the neighborhood to such a development?**

A: The benefit is to the City of West Linn. The City is growing and there needs to be site to accommodate for the growth. This site can be development with twice as many units with very little impact to the neighborhood.

The traffic study has been updated and the double of the number of units will not significantly increase the delay time or the amount of time to get out onto Willamette Drive (Hwy 43). Marty offered to review the traffic study after the meeting but no neighbors were interested in doing so.

**Q: This has the potential to have 22 single family units to be built? You are also referring to duplexes; there can be 22 duplexes as well? What would keep you from building a whole neighborhood of duplexes?**

A: The site can accommodate 22 units, whether they are attached or detached. The site allows 22 units based on the size of the site. The maximum development could include 22 units or 11 duplexes.

**Q: This could turn out to be 11 duplexes, instead of 22 nice homes?**

A: That is correct.

This allows for attached homes as well. 11 town homes could be built. The City calculated the maximum density based on square footage of the area divided by 4,500 square feet or 4,000 square foot, depending on the unit type. Because we don't have a development proposed, we are showing you the maximum of what could be developed.

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**Q: I was very adamant of this project at the last meeting, but I am very impressed with what is being presented and feel it is a reasonable solution. I am in support of the project.**

A: Marty thanked the lady who spoke.

**Q: What will happen to the Tree Buffer area that is along the Hwy? The trees are very nice to see when driving up the Hwy. I am opposed to taking down the greener as it would allow for too much noise.**

A: Kevin Bryck answered, we could ask for the trees along the Hwy to be maintained as part of this development

**Q: How long will it be until you submit to the City of West Linn?**

A: We would like to submit the application this week. The city will have 30 days to deem the application complete and then will schedule the Planning Commission public hearing.

Kevin spoke to the group regarding not making a decision today. Kevin has spoken to Bob Stowell who will coordinate the responses and is the lead representative for the neighborhood.

**Q: Can you speak a little about the Traffic Study?**

A: Kevin interrupted and wanted to keep the meeting on track. Marty offered to stay after the meeting to address the traffic study or to have contact at a later time. No one took Marty up on her offer

The neighborhood took no action.  
The presentation concluded at 7:45 PM

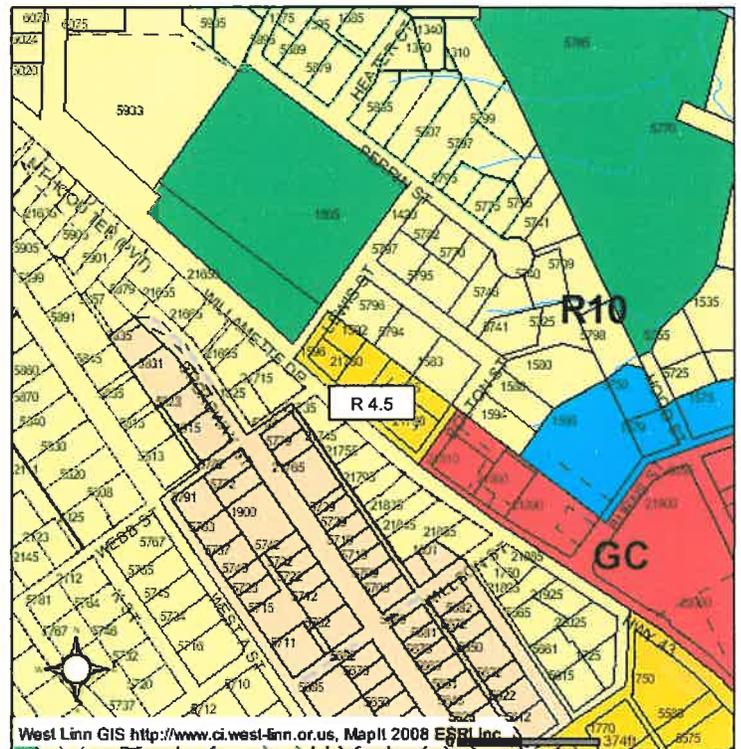
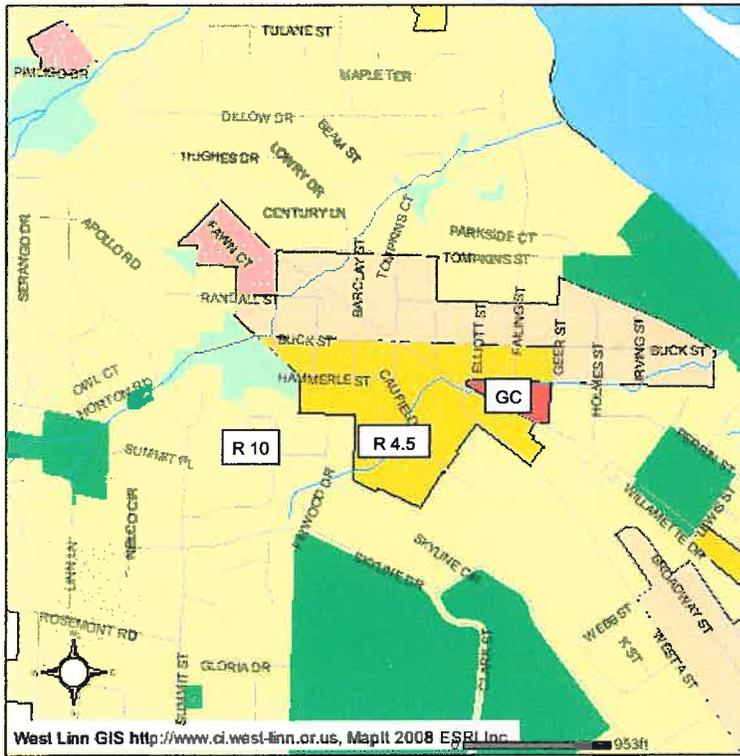
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**Appendix E**  
Maps of **Similar Development Patterns** Along Hwy 43 in the Bolton Neighborhood

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# Similar Land Use Patterns in the Bolton Neighborhood

## R 4.5 Lands Along Hwy 43, Adjacent to R 10 Lands



**Appendix F**  
**Traffic Impact Study**

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# TRAFFIC ANALYSIS REPORT

FOR A

## COMPREHENSIVE PLAN MAP AMENDMENT AND ZONE CHANGE

Willamette Drive (Highway 43)

CITY OF WEST LINN

PREPARED BY



JULY 2008

PROJECT 08-16

*A-115*

# TRAFFIC ANALYSIS REPORT

FOR A

## COMPREHENSIVE PLAN MAP AND ZONE CHANGE

Willamette Drive (Highway 43)

CITY OF WEST LINN

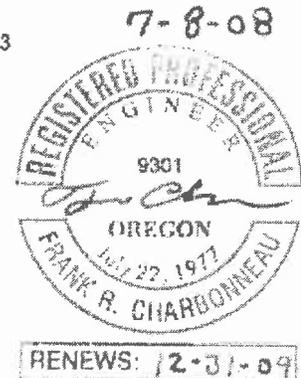
PREPARED BY

**Charbonneau Engineering LLC**

9370 SW Greenburg Rd., Suite 411, Portland, OR 97223  
(503) 293-1118 • FAX (503) 293-1119

JULY 2008

PROJECT 08-16



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Figure 5a-5b	2013 Total Traffic
Figure 6a-6b	2023 Planning Horizon Traffic

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## INTRODUCTION

This traffic study has been prepared to document and evaluate the traffic operation and safety conditions that may result from the proposed comprehensive plan map and corresponding zone change on property in West Linn, Oregon. This site is owned by Willamette Commons LLC. This analysis will include the evaluation of the site considering the current R-10 zoning with the existing Low Density Residential Comprehensive Plan designation; and the proposed R-4.5 zoning with the proposed Medium Density Residential Comprehensive Plan designation. Changing the site's zoning from R-10 to R-4.5 would require a concurrent change to both the comprehensive plan map and to the zoning map.

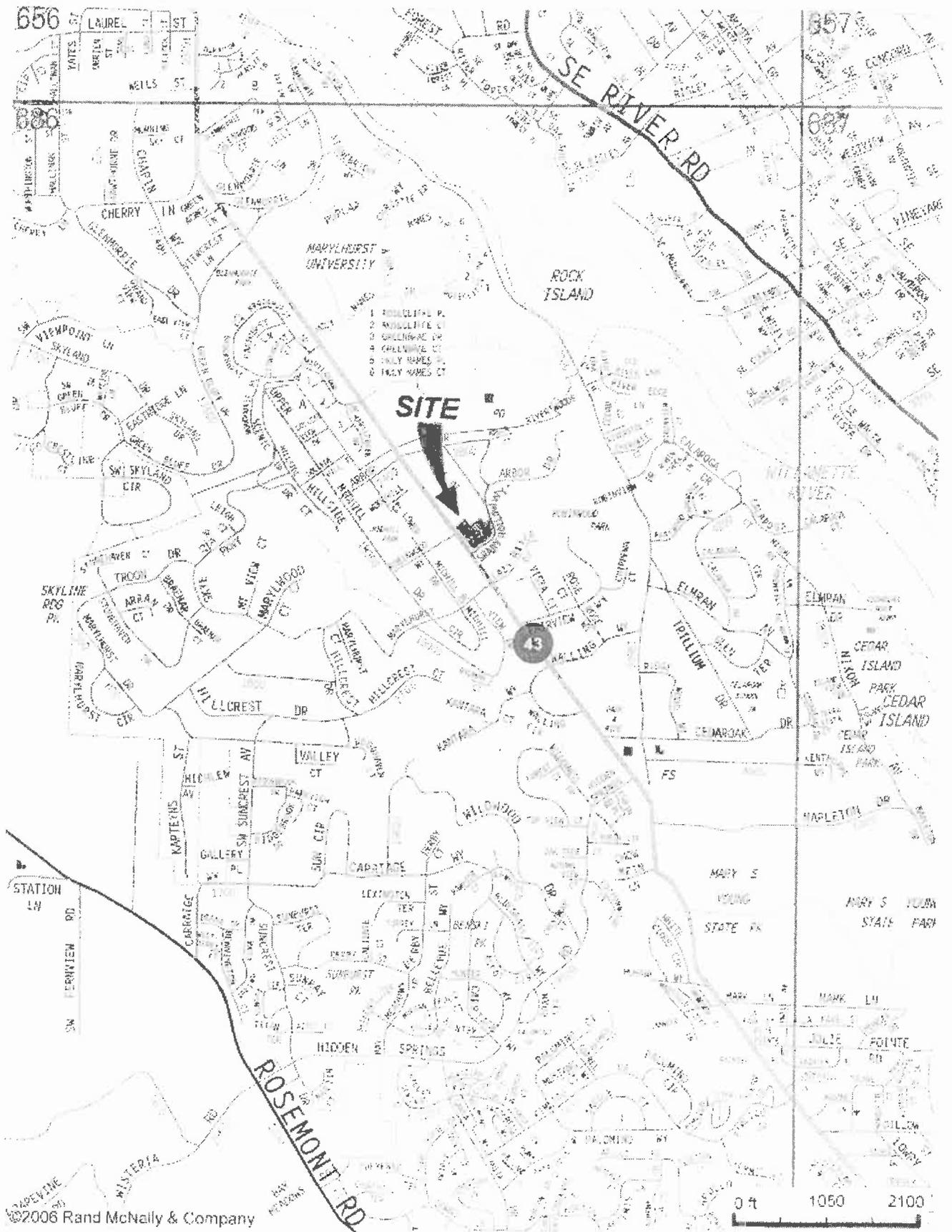
Under its current zoning the site has the potential for a development maximum of nine (9) single-family homes. Under the proposed zoning the site has the potential for development of up to 22 single-family detached units, which may include townhomes, single-family, duplexes, or condominiums. For purposes of analysis the impacts of the single-family detached units will be evaluated with the Institute of Transportation Engineers (ITE) Single-Family Residential (ITE 210) trip generation rates.

The study area is defined as the surrounding neighborhood, including Willamette Drive (Highway 43) and Shady Hollow Way. The site consists of three separate parcels (Taxlot 1100, 1200, and 1500) on which a total of two single-family homes (house #18395 on taxlot 1100 and house #18340 on taxlot 1200) are located. The site is highlighted on the vicinity map (Figure 'a').

The Oregon Highway Plan (Action 1F.2.) identifies that highway mobility standards should be applied over a 20-year planning horizon in local transportation system plans (TSP) or a planning horizon of 15 years from the proposed date of amendment adoption, whichever is greater. The City of West Linn's TSP was adopted in year 1991 which corresponds to a 2011 planning horizon year. The proposed amendment adoption date (year 2008) for the Willamette Commons site corresponds to a 2023 planning horizon. For this reason, in addition to evaluating the site's buildout (in year 2013) this analysis will include evaluation of the site in the required planning horizon (in year 2023).

FILE NAME: 0816flow.dwg

PLOT DATE: 04.15.08



 **CHARBONNEAU ENGINEERING LLC**  
 PROJECT: 08-16

NOTES:  
 NO SCALE



VICINITY MAP  
 WILLAMETTE COMMONS

FIGURE  
 a

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## TRAFFIC ANALYSIS CONSIDERATIONS

In the project scope established with Oregon Department of Transportation (ODOT) staff and City of West Linn 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 and PM peak traffic hours.
- Conduct traffic counts at the Willamette Drive (Highway 43) and Shady Hollow Way intersection and the Burgerville access onto Shady Hollow Way during the AM and PM peak hours.
- Level of service (LOS) analysis of the study intersections to measure the approach delays for comparison to City of West Linn and ODOT standards.
- Inclusion of the Transportation Planning Rule (TPR) response and a proposal to change both the comprehensive plan map and the zoning map.
- Verification of intersection sight distance at the site's proposed access location.
- Review of traffic accident data furnished ODOT and determination of the intersection crash rates at the study intersections.
- Consideration of traffic circulation.

## SITE DESCRIPTION, STREETS, AND CRITICAL INTERSECTIONS

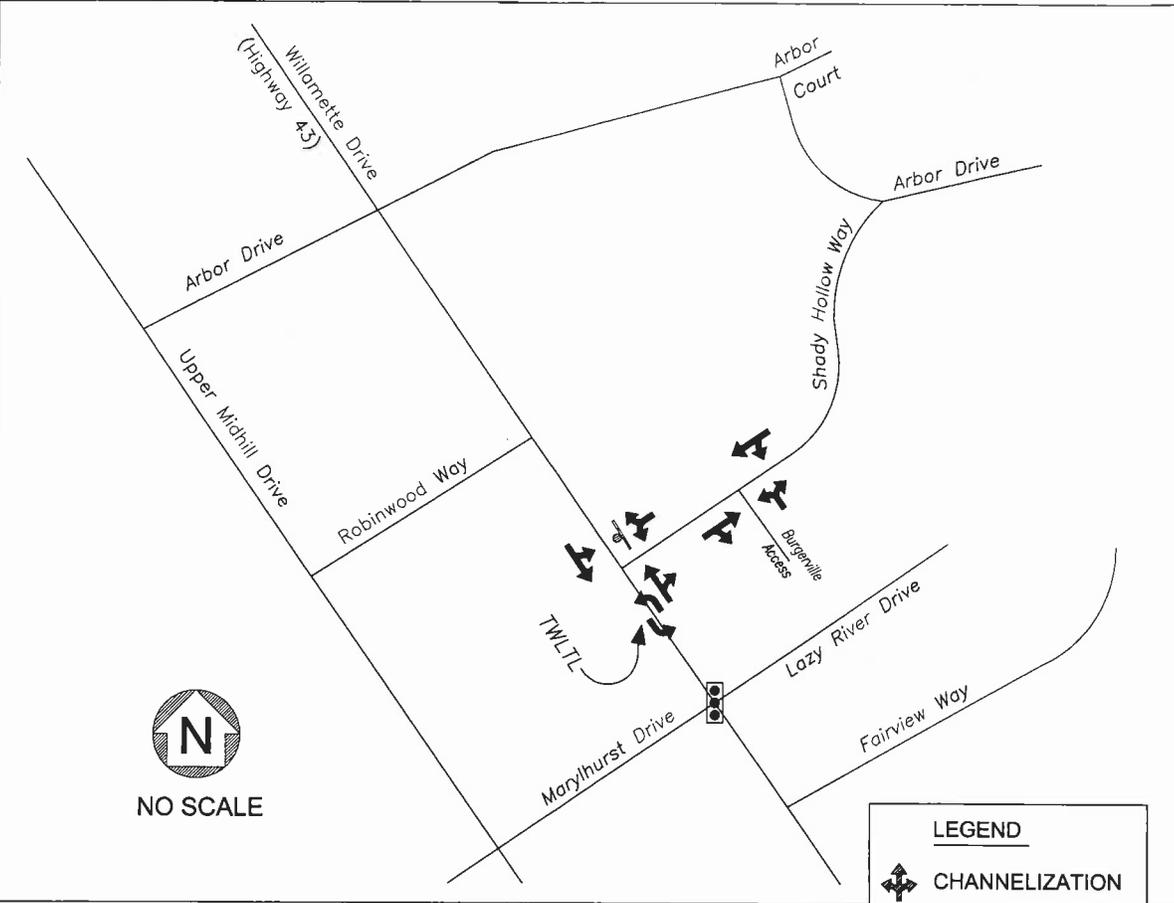
The Willamette Commons site is located at the northeast corner of the Willamette Drive (Highway 43) and Shady Hollow Way intersection. The site would be developed on three parcels (taxlots 1100, 1200, and 1500) on which two homes are currently located. The current proposal includes a change to the site's current zoning, Low Density Residential (R-10), to Medium Density Residential (R-4.5) zoning. Changing the site's zoning from R-10 to R-4.5 would require a concurrent change to both the comprehensive plan map and to the zoning map.

Under its current zoning the site has the potential for a maximum development of nine (9) single-family homes. It is expected that the nine homes would have potentially up to three accesses. Under the proposed zoning the site has the potential for development of up to 22 single-family units. The site would have a single access (to Shady Hollow Way). The access would be located approximately 160 feet east of Willamette Drive (Highway 43) and opposite of the Burgerville access to Shady Hollow Way. A site plan is not available for either development scenario as no development is proposed at this time.

Currently, the Willamette Drive (Highway 43) and Shady Hollow Way intersection and the Burgerville access and Shady Hollow Way intersection are unsignalized. The existing and proposed lane configurations and traffic control are presented in Figure 'b'.

FILE NAME: 0816flow.dwg

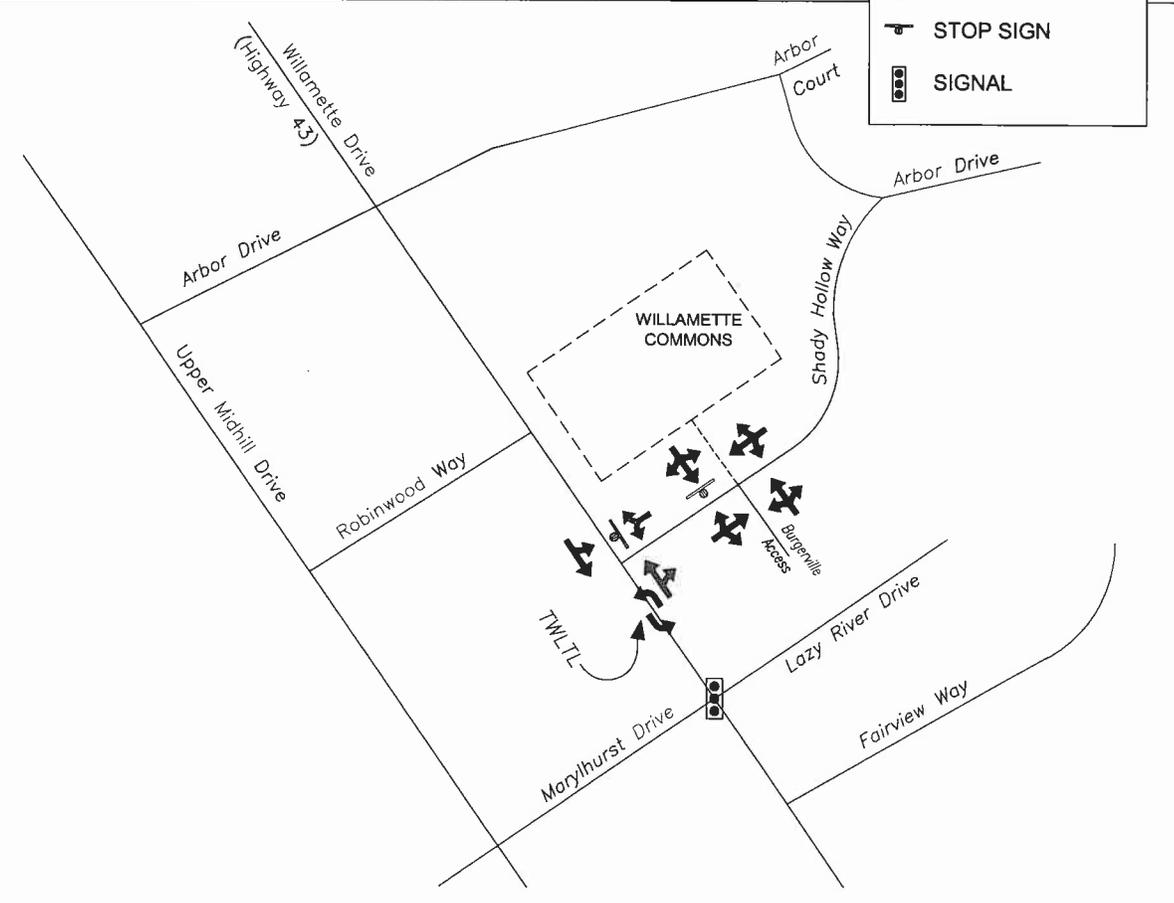
PLOT DATE: 04.09.08



EXISTING

**LEGEND**

- CHANNELIZATION
- STOP SIGN
- SIGNAL



PROPOSED

**CHARBONNEAU ENGINEERING LLC**  
PROJECT: 08-16

NOTES: TWLTL =  
Two-way left turn lane.

**LANE CONFIGURATIONS  
AND TRAFFIC CONTROL  
WILLAMETTE COMMONS**

FIGURE  
**b**

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**Willamette Drive (Highway 43)** is classified by the City of West Linn as a principal arterial and is classified by ODOT as a State Highway on the National Highway System (NHS). North of Shady Hollow Way, Willamette Drive (Highway 43) is a 46-foot wide two-lane roadway with a 10-foot wide center gore area that separates northbound and southbound traffic flows. South of Shady Hollow Way, Willamette Drive (Highway 43) is 49-foot wide three-lane roadway with a center left turn lane. Bicycle lanes are provided on both sides of Willamette Drive (Highway 43). A sidewalk is provided along the south side Willamette Drive (Highway 43) along the Burgerville frontage.

**Shady Hollow Way** is classified by the City of West Linn as a local street. Shady Hollow Way is a 25-28-foot wide, two-lane roadway with a sidewalk provided along the Burgerville frontage (on the south side of the road). The double-yellow line that separates westbound and eastbound traffic flows is extremely faded and should be re-stripped with development of the site. Bicycle lanes are not provided.

**Willamette Drive (Highway 43) and Shady Hollow Way** is a tee-shaped intersection. On the north approach a shared left-through lane is provided. On the east approach a shared left-right lane is provided. On the south approach a shared through-right lane is provided. Crosswalks are not provided.

**Burgerville access and Shady Hollow Way** is a tee-shaped intersection. On the east approach a shared left-through lane is provided. On the south approach a shared left-right lane is provided. On the west approach a shared through-right lane is provided. Crosswalks are not provided. With development of the site this intersection will become a four-legged intersection with a shared left-through-right lane on each approach.

## TRAFFIC OPERATIONAL ANALYSIS

The Oregon Highway Plan (Action 1F.2.) identifies that highway mobility standards should be applied over a 20-year planning horizon in local transportation system plans (TSP) or a planning horizon of 15 years from the proposed date of amendment adoption, whichever is greater. The City of West Linn's TSP was adopted in year 1991 which corresponds to a 2011 planning horizon year. The proposed amendment adoption date (year 2008) for the Willamette Commons site corresponds to a 2023 planning horizon. For this reason, in addition to evaluating the site's buildout (in year 2013) this analysis will include evaluation of the site in the required planning horizon (in year 2023).

In order to evaluate traffic flow and delay in the area the Shady Hollow Way intersections with Willamette Drive (Highway 43) and the Burgerville access were analyzed for level of service (LOS) conditions and safety. LOS analyses were completed in the AM and PM peak hour periods for the following scenarios:

- 2008 Existing Traffic
- 2013 Background Traffic
- 2013 Total Traffic
- 2023 Planning Horizon Traffic

In order to perform the LOS analysis at the critical intersections manual traffic counts were conducted during the AM peak (7:00-9:00 AM) and PM peak (4:00-6:00 PM) traffic hours. The AM and PM peak period traffic counts at the Willamette Drive (Highway 43) and Shady Hollow Way intersection were conducted on Wednesday, April 2<sup>nd</sup>, 2008 and Tuesday, April 1<sup>st</sup>, 2008, respectively. The AM and PM peak period traffic counts at the Burgerville access and Shady Hollow Way intersection were conducted on Friday, April 4<sup>th</sup>, 2008 and Thursday, April 3<sup>rd</sup>, 2008, respectively. Figure 1 illustrates the existing volume data for the weekday peak hours.

The City of West Linn's website was used to confirm that there are not currently any in-process projects that will affect the study area intersections.

Background growth is comprised of the existing traffic factored with a traffic growth rate established by the City of West Linn's TSP. The analysis for this project will use a growth rate of 2.0% per year over the five-year buildout scenario. This growth rate will also be used to evaluate the growth estimated to occur through the 2023 planning horizon. Year 2013 background traffic volumes, the sum of existing traffic and background growth, are illustrated in Figure 2.

The 2013 total traffic is the summation of background traffic volumes and site generated traffic. The peak hour volumes with the site's current R-10 zoning are presented in Figure 5a. The peak hour volumes with the site's proposed R-4.5 zoning are presented in Figure 5b.

The 2023 planning horizon traffic is the summation of 2013 total traffic and 10 years of traffic growth (occurring between year 2013 and year 2023). The year 2023 planning horizon peak hour volumes with the site's current and proposed zoning are presented in Figure 6a and Figure 6b, respectively.

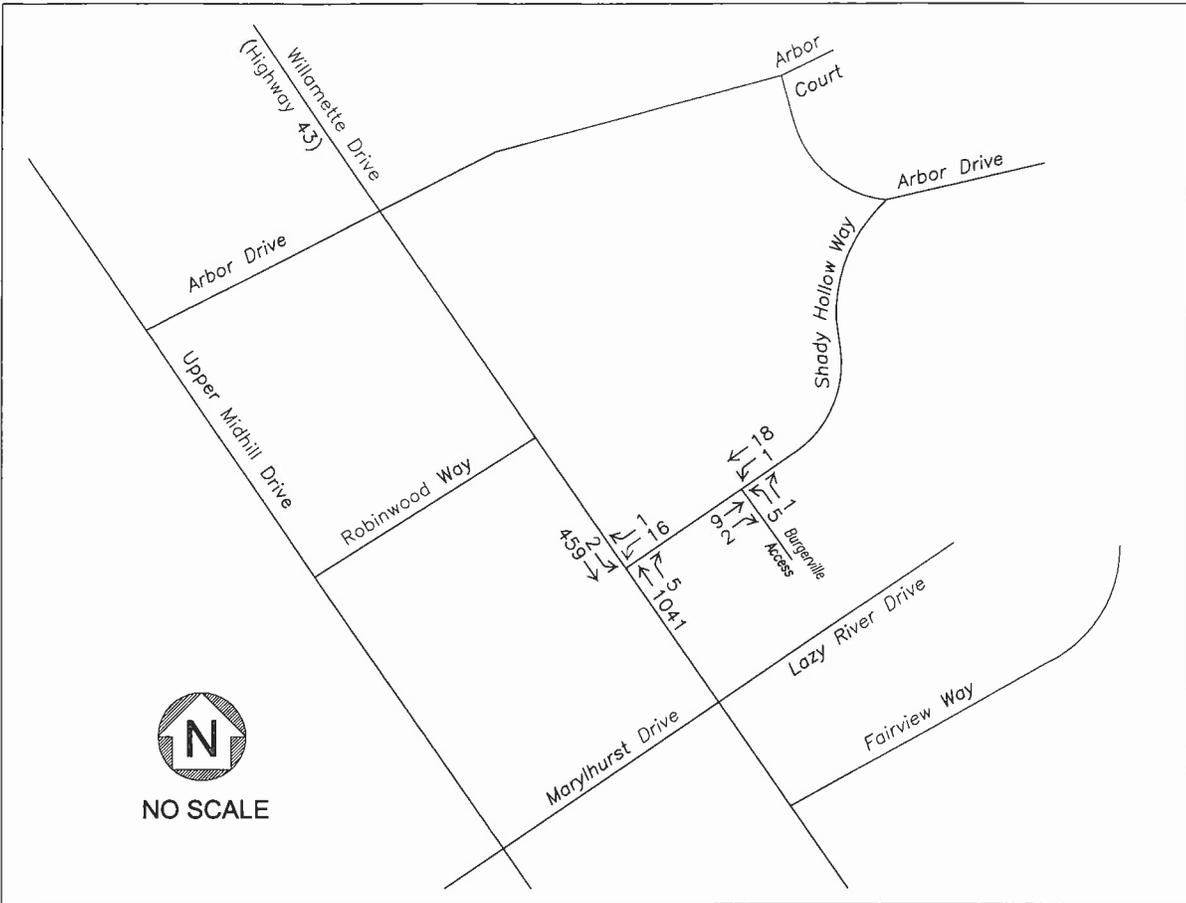
## VEHICULAR TRIP GENERATION

Trip rates presented in the Institute of Transportation Engineers (ITE) *Trip Generation* Manual, Seventh Edition, were utilized to estimate the site's trip generation. Specifically, Single-Family Residential (ITE 210) trip rates were applied to estimate the trips generated by the site for the current R-10 zoning and the proposed R-4.5 analysis scenarios. A credit for the trips generated by the existing two homes on the site has not been taken at this time.

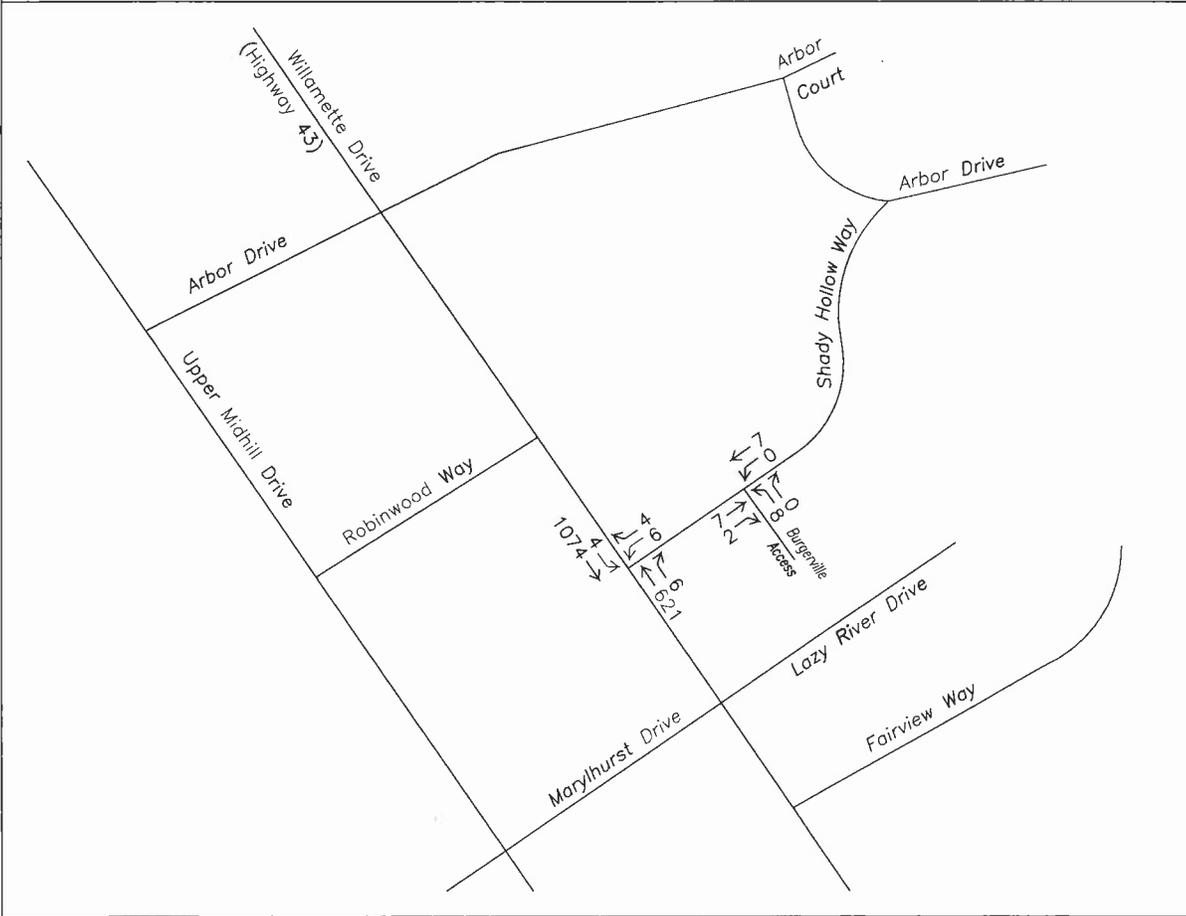
Table 1a presents the trip generation estimate for the current R-10 zoning analysis scenario. Table 1b presents the trip generation estimate for the proposed R-4.5 zoning analysis scenario.

FILE NAME: 0816flow.dwg

PLOT DATE: 04/04/08



AM  
PEAK  
HOUR



PM  
PEAK  
HOUR



CHARBONNEAU  
ENGINEERING LLC

PROJECT: 08-16

NOTES:

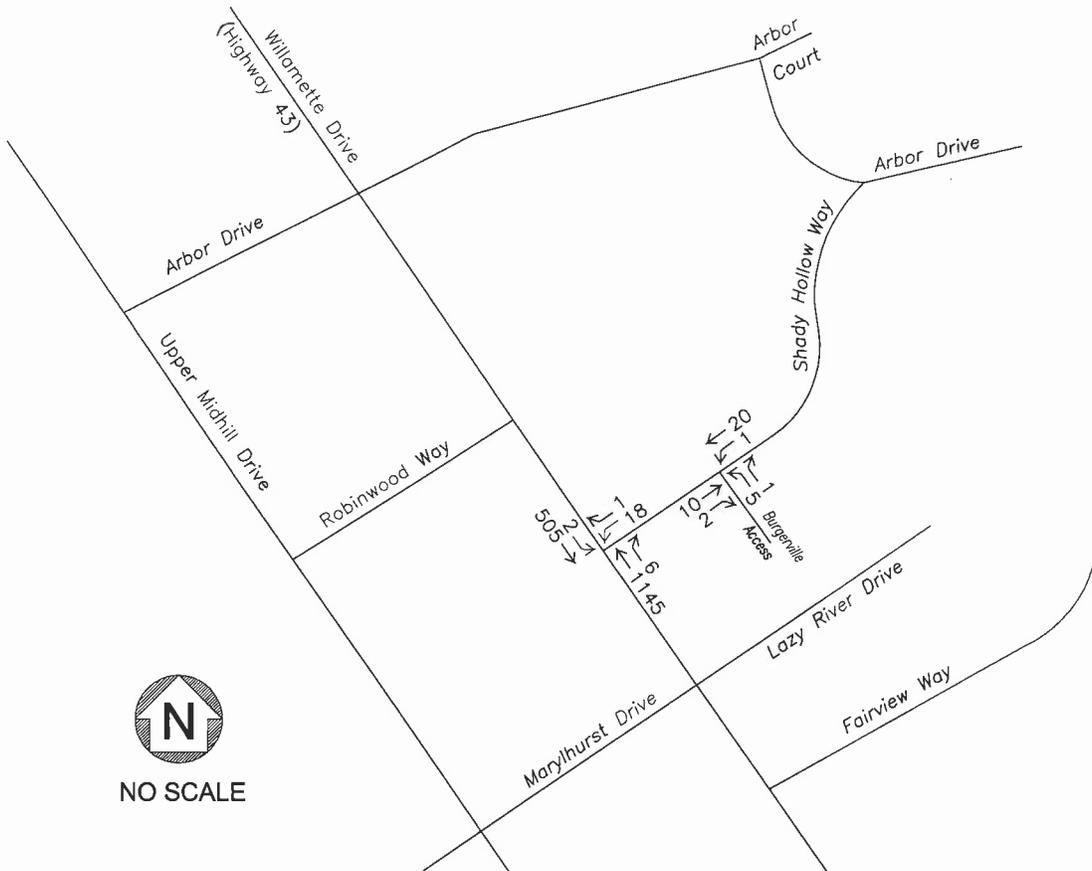
2008 EXISTING TRAFFIC  
WILLAMETTE COMMONS

FIGURE

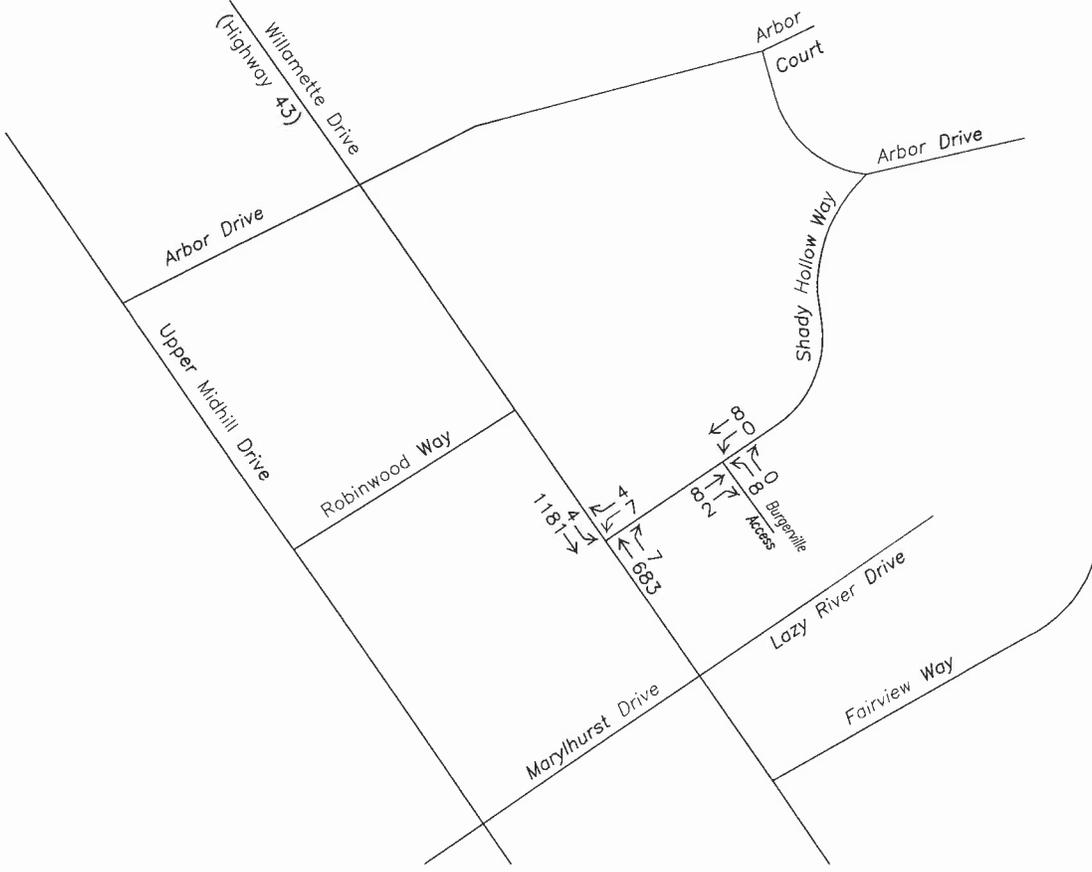
1

A-124

AM  
PEAK  
HOUR



PM  
PEAK  
HOUR



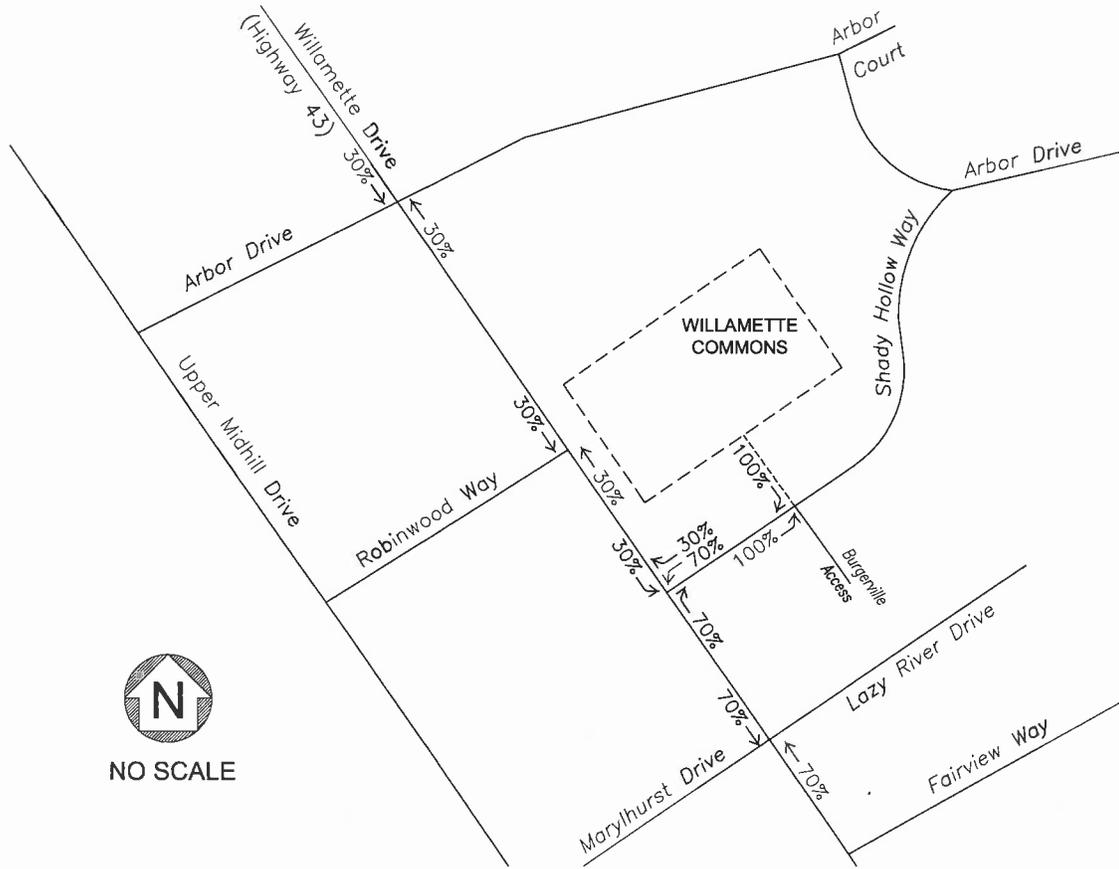
FILE NAME: 0816flow.dwg

PLOT DATE: 04/04/08

A-125

FILE NAME: 0816flow.dwg

PLOT DATE: 04.04.08



AM PEAK HOUR & PM PEAK HOUR

A-126

AM  
PEAK  
HOUR



PM  
PEAK  
HOUR



FILE NAME: 0816flow.dwg

PLOT DATE: 04.04.08

 **CHARBONNEAU  
ENGINEERING LLC**  
PROJECT: 08-16

NOTES: Trip generation based on Single-Family Residential (ITE 210) trip rates.

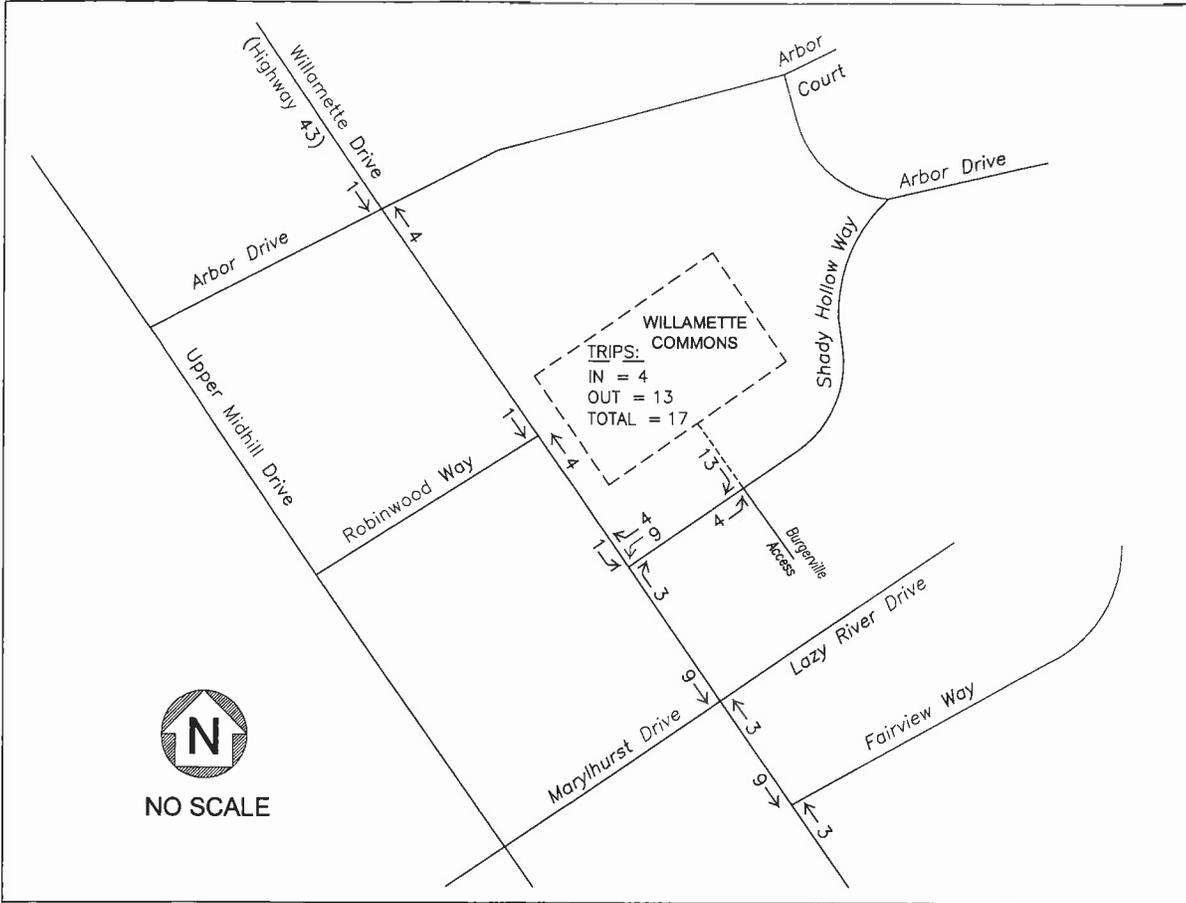
**TRIP ASSIGNMENT  
CURRENT (R-10) ZONING  
WILLAMETTE COMMONS**

FIGURE  
**4a**

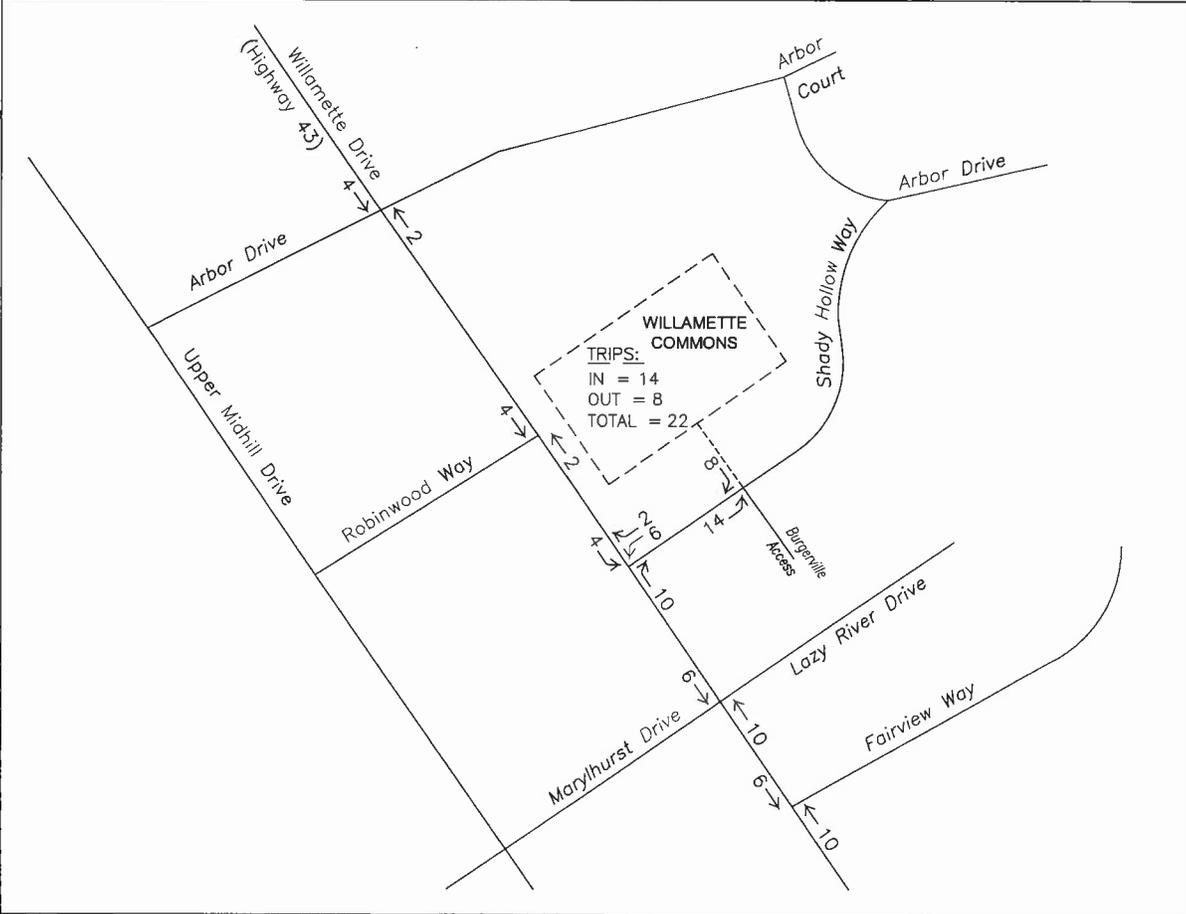
A-127

FILE NAME: 0816flow2.dwg

PLOT DATE: 06.23.08



AM  
PEAK  
HOUR

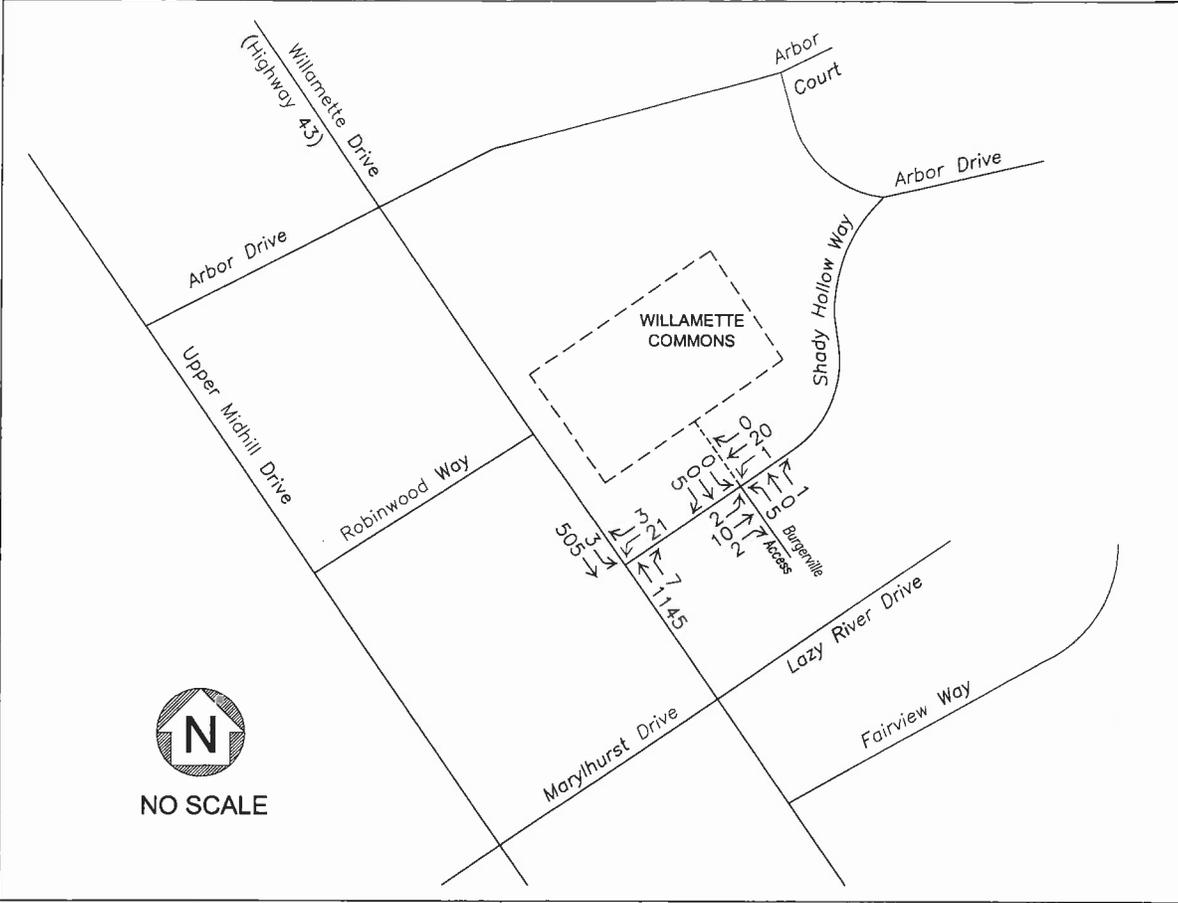


PM  
PEAK  
HOUR

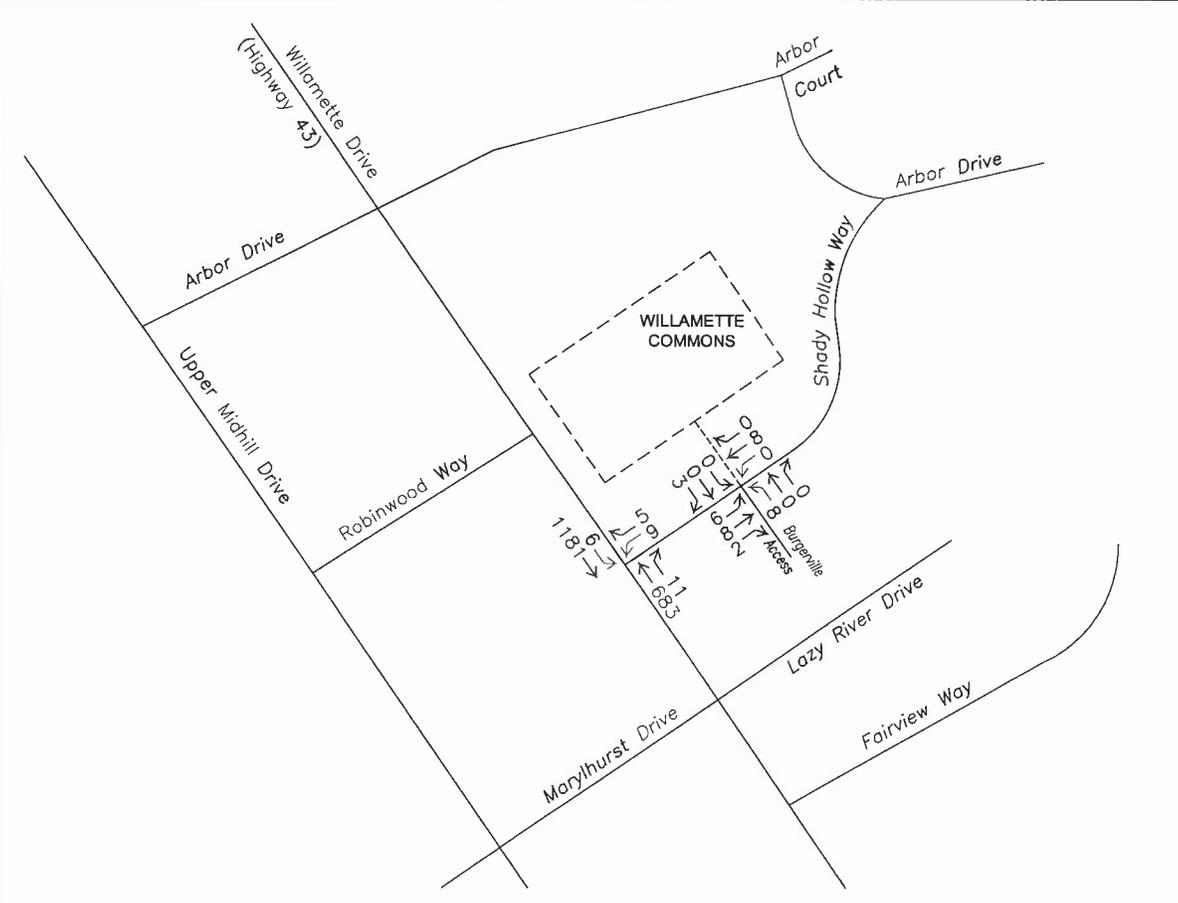
A-128

FILE NAME: 0816flow.dwg

PLOT DATE: 04.04.08



AM  
PEAK  
HOUR



PM  
PEAK  
HOUR

 **CHARBONNEAU  
ENGINEERING LLC**  
PROJECT: 08-16

NOTES: 2013 Total Traffic =  
2013 Background Traffic + Trip  
Assignment (Current Zoning).

**2013 TOTAL TRAFFIC  
CURRENT (R-10) ZONING  
WILLAMETTE COMMONS**

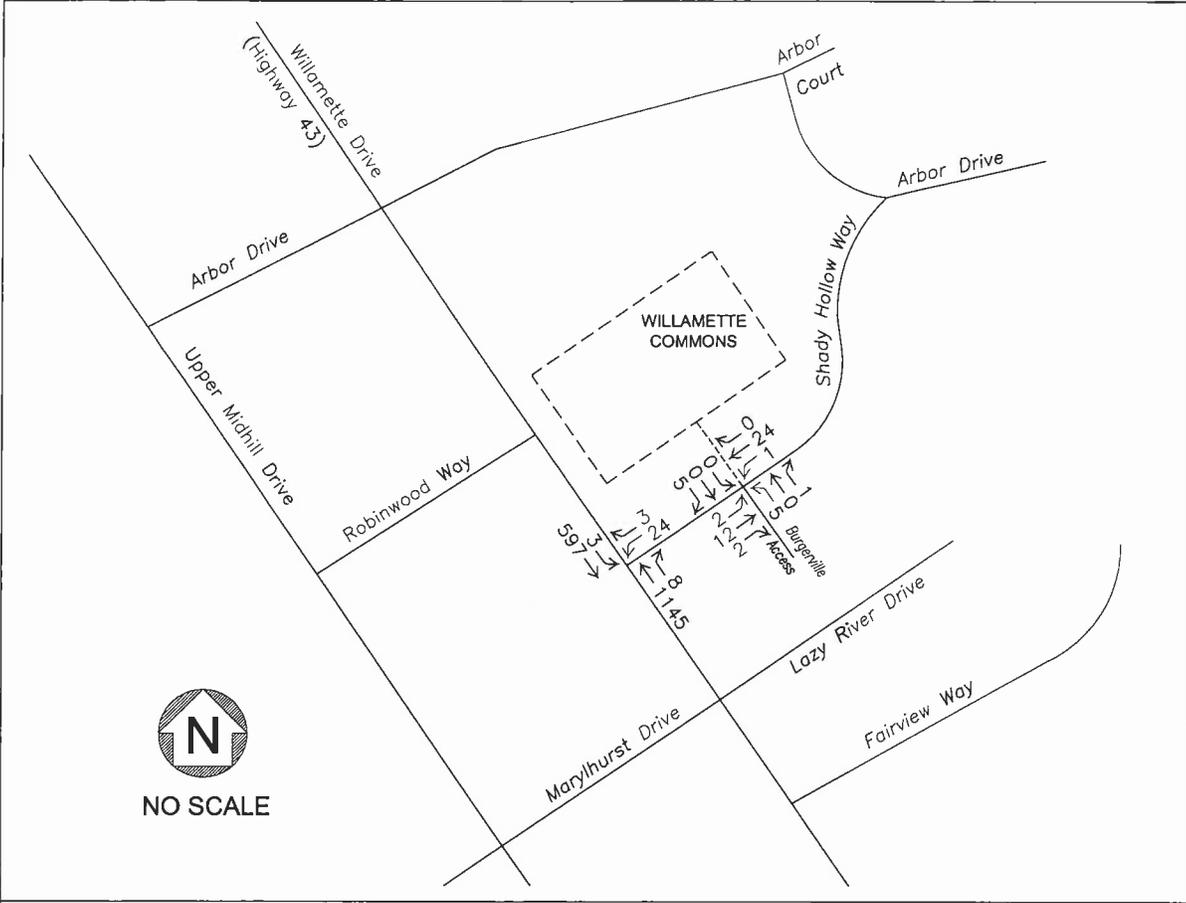
FIGURE  
**5a**

A-129

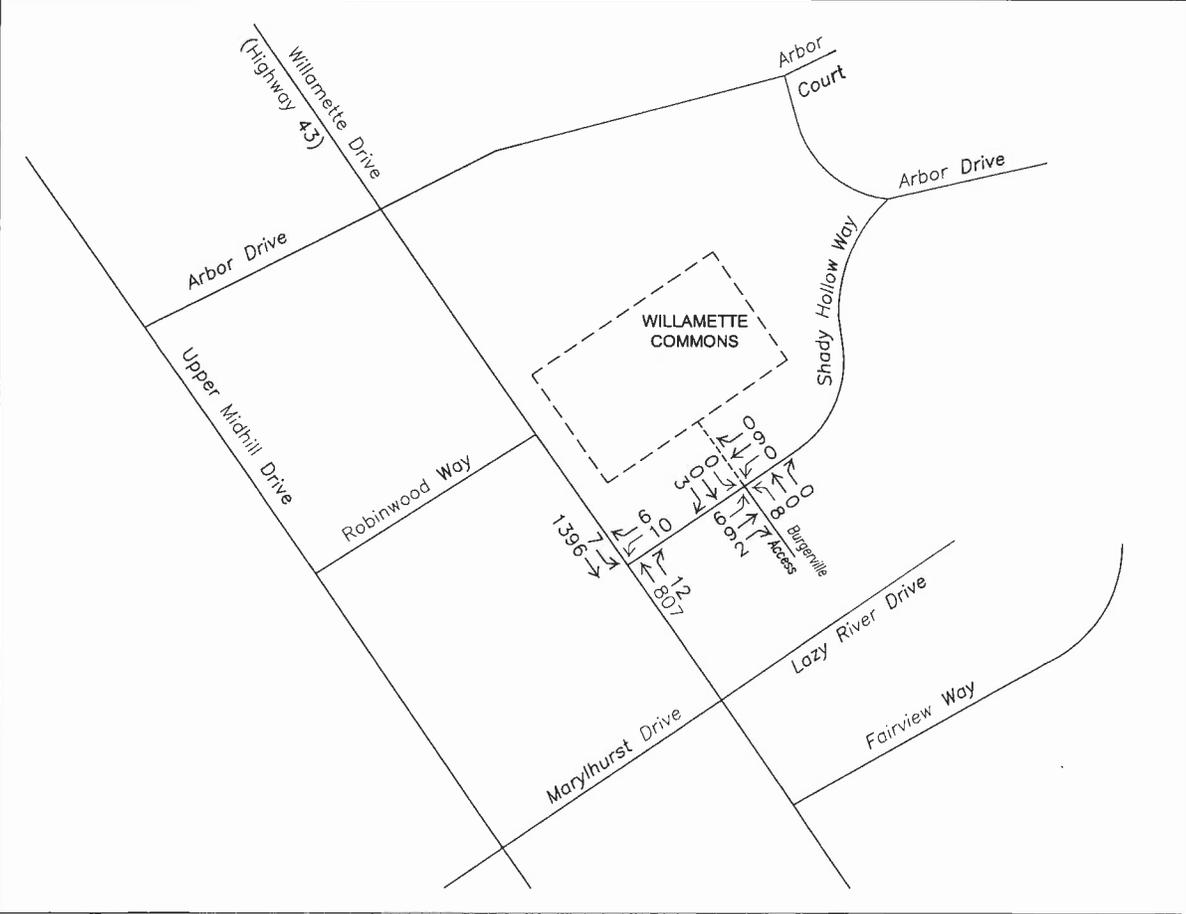


FILE NAME: 0816flow.dwg

PLOT DATE: 04.14.08



AM  
PEAK  
HOUR



PM  
PEAK  
HOUR

 **CHARBONNEAU  
ENGINEERING LLC**  
PROJECT: 08-16

NOTES: 2023 Planning Horizon  
= 2013 Total Traffic (current  
R-10 zoning) + growth (2% per  
year for 10 years).

**2023 PLANNING HORIZON TRAFFIC  
CURRENT (R-10) ZONING  
WILLAMETTE COMMONS**

FIGURE  
**6a**

A-131



**Table 1a. Projected trip generation for site with the existing (R-10) zoning.**

ITE Land Use	Units (#)	Weekday						
		ADT	AM Peak Hour			PM Peak Hour		
			Total	Enter	Exit	Total	Enter	Exit
<i>Single-Family (#210)</i>	9							
Generation Rate <sup>1</sup>		9.57	0.75	25%	75%	1.01	63%	37%
Site Trips		<b>86</b>	<b>7</b>	<b>2</b>	<b>5</b>	<b>9</b>	<b>6</b>	<b>3</b>

<sup>1</sup> Source: *Trip Generation*, 7th Edition, ITE, 2003, average rates.

**Table 1b. Projected trip generation for the site with the proposed (R-4.5) zoning.**

ITE Land Use	Units (#)	Weekday						
		ADT	AM Peak Hour			PM Peak Hour		
			Total	Enter	Exit	Total	Enter	Exit
<i>Single-Family (#210)</i>	22							
Generation Rate <sup>1</sup>		9.57	0.75	25%	75%	1.01	63%	37%
Site Trips		<b>211</b>	<b>17</b>	<b>4</b>	<b>13</b>	<b>22</b>	<b>14</b>	<b>8</b>

<sup>1</sup> Source: *Trip Generation*, 7th Edition, ITE, 2003, average rates.

Under the current R-10 zoning the site's trip generation is estimated as 86 daily trips, 7 AM peak hour trips, and 9 PM peak hour trips. Under the proposed R-4.5 zoning the site would generate an estimated 211 daily trips, 17 AM peak hour trips, and 22 PM peak hour trips.

Trip distribution is based on existing traffic patterns and engineering judgement. Figure 3 illustrates the AM and PM peak hour trip distribution under the site's current zoning and proposed zoning. Figure 4a illustrates the trip assignments that correspond to the level of development with the site's current zoning. Figure 4b illustrates the trip assignments that correspond to the proposed zoning.

## CAPACITY ANALYSIS

Capacity analyses were performed to determine the levels of service for the weekday peak hours. Highway Capacity Software (HCS) was used to determine the level of service for each scenario considered. The program is based on the 2000 Highway Capacity Manual methodology. Table 2a summarizes the existing and background traffic analysis results. Table 2b summarizes the year 2013 total traffic analysis results under the site's current zoning and the site's proposed zoning. Table 2c summarizes the year 2023 planning horizon traffic results under the site's current zoning and the site's proposed zoning. Copies of the capacity analysis calculations are included in the appendix.

The City of West Linn’s Transportation System Plan (TSP) identifies level of service “E” as the minimum standard for principal arterials. For local streets the TSP identifies level of service “D” as the minimum standard. Table 7 (in Policy 1F) in the 1999 Oregon Highway Plan identifies the maximum volume to capacity ratio for Statewide (NHS) Non-Freight Routes within Metro as 1.0<sup>1</sup>.

Table 2b indicates that with the site’s current plan designation zoning, the Willamette Drive (Highway 43) and Shady Hollow Way intersection will operate at level of service “C” during the AM and PM peak hours. The intersection’s volume-to-capacity (v/c) ratio (with the current zoning) will be 0.12 or less during both peak hours. With the site’s proposed zoning and plan designation, the Willamette Drive (Highway 43) and Shady Hollow Way intersection will operate at level of service “D” during the AM peak hour and level of service “C” during the PM peak hour. The intersection’s v/c ratio (with the proposed zoning) will be 0.16 or less during both peak hours. The site access/Burgerville access and Shady Hollow Way intersection will operate at level of service “A” during both peak hours with the site’s current zoning and proposed zoning.

Table 2c indicates that with either the current or proposed zoning designation the Willamette Drive (Highway 43) and Shady Hollow Way intersection will operate at level of service “D” during the AM and PM peak hours. The v/c ratio will be 0.17 or less with the current zoning and 0.22 or less with the proposed zoning. The site access/Burgerville access and Shady Hollow Way intersection will continue to operate at level of service “A” during both peak hours with the site’s current zoning and proposed zoning.

Through year 2023 (the planning horizon period) both study intersections will meet the City of West Linn’s level of service standard and ODOT’s v/c standard with the site’s proposed zoning and plan designation.

**Table 2a. Summary of capacity analysis for study intersections (without site).**

Intersection	Type of Control	Peak Hour	Traffic Scenario							
			2008 Existing				2013 Background			
			Crit. Mov't	LOS	Delay	v/c	Crit. Mov't	LOS	Delay	v/c
Willamette Drive (Highway 43) and Shady Hollow Way	Two-way Stop	AM	WB	C	21.3	0.08	WB	C	23.9	0.10
		PM	WB	C	19.3	0.04	WB	C	21.9	0.05
Burgerville Driveway and Shady Hollow Drive	Two-way Stop	AM	NB	A	8.7	0.01	NB	A	8.7	0.01
		PM	NB	A	8.6	0.01	NB	A	8.6	0.01

*Notes:* 2000 *Highway Capacity Manual* methodology used in analysis. NB - Northbound, WB - Westbound, Crit. Mov't - Critical movement or critical approach.

<sup>1</sup> Oregon Highway Plan. Table 7 – Maximum volume to capacity ratios within Metro

**Table 2b. Summary of capacity analysis for study intersections (with site).**

Intersection	Type of Control	Peak Hour	Traffic Scenario							
			2013 Total with current zoning				2013 Total with proposed zoning			
			Crit. Mov't	LOS	Delay	v/c	Crit. Mov't	LOS	Delay	v/c
Willamette Drive (Highway 43) and Shady Hollow Way	Two-way Stop	AM	WB	C	24.4	0.12	WB	D	25.2	0.16
		PM	WB	C	22.4	0.06	WB	C	23.9	0.10
Site Access/Burgerville Driveway and Shady Hollow Drive	Two-way Stop	AM	NB	A	8.9	0.01	NB	A	9.0	0.01
		PM	NB	A	8.8	0.01	NB	A	9.0	0.01

Notes: 2000 *Highway Capacity Manual* methodology used in analysis. NB - Northbound, WB - Westbound, Crit. Mov't - Critical movement or critical approach.

**Table 2c. Summary of capacity analysis for study intersections (with site).**

Intersection	Type of Control	Peak Hour	Traffic Scenario							
			2023 Planning Horizon with current zoning				2023 Planning Horizon with proposed zoning			
			Crit. Mov't	LOS	Delay	v/c	Crit. Mov't	LOS	Delay	v/c
Willamette Drive (Highway 43) and Shady Hollow Way	Two-way Stop	AM	WB	D	31.6	0.17	WB	D	33.5	0.22
		PM	WB	D	28.7	0.10	WB	D	31.4	0.14
Site Access/Burgerville Driveway and Shady Hollow Drive	Two-way Stop	AM	NB	A	8.9	0.01	NB	A	9.0	0.01
		PM	NB	A	8.8	0.01	NB	A	9.0	0.01

Notes: 2000 *Highway Capacity Manual* methodology used in analysis. NB - Northbound, WB - Westbound, Crit. Mov't - Critical movement or critical approach.

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

## TRANSPORTATION PLANNING RULE (TPR)

The proposed zone change warrants a response to the State of Oregon's Administrative Rules which require that 'the local government shall put in place measures to assure that allowed land uses are consistent with the identified function, capacity, and performance standards (e.g. level of service, volume to capacity ratio, etc.) of the facility'.

The Plan and Land Use Regulation Amendments (OAR Section 660-012-0060) are used to determine if a *plan or land use regulation amendment significantly affects a transportation facility*. The Oregon Administrative Rules identify many measures of how a plan or land use "significantly affects" a transportation facility. The measures used and how the Willamette Commons site relates to them are addressed below.

- (1)(a) *Change the functional classification of an existing or planned transportation facility;*  
 (1)(b) *Change standards implementing a functional classification system; or*

Development of the Willamette Commons site does not propose changes to the existing or planned functional classification, nor the functional classification standards.

- (1)(c) *As measured at the end of the planning period identified in the adopted transportation system plan:*  
 (1)(A) *Allow land uses or levels of development that would result in types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;*

The Willamette Commons site will develop on three separate parcels (Taxlot 1100, 1200, and 1500) which are currently zoned residential (R-10). Under the current zoning the site has the potential for a development maximum of nine (9) single-family homes which will generate an estimated 86 daily trips, 7 AM peak hour trips, and 9 PM peak hour trips. Under the proposed R-4.5 zoning the site has the potential for development of up to 22 single-family units which will generate an estimated 211 daily trips, 17 AM peak hour trips, and 22 PM peak hour trips.

Regardless of the increase in trip generation, between the levels of development of the existing zoning and proposed zoning, the Shady Hollow Way local street sole function (of providing access to adjacent land) will not be adversely affected.

Willamette Drive (Highway 43) is classified as a principal arterial. Based on the proposed site's access to Shady Hollow Way, the lower classified street, the Willamette Commons site is consistent with the functional classification of the existing and planned transportation facility.

- (1)(B) *Reduce the performance of an existing or planned transportation facility below the minimum acceptable performance standard identified in the TSP or comprehensive plan; or*

The City of West Linn's Transportation System Plan (TSP) identifies level of service "E" as the minimum standard for principal arterials. For local streets the TSP identifies level of

service “D” as the minimum standard. Table 7 (in Policy 1F) in the 1999 Oregon Highway Plan identifies the maximum volume to capacity ratio for Statewide (NHS) Non-Freight Routes within Metro as 1.0<sup>1</sup>.

As identified in Table 2c, through the year 2023 planning horizon, the Shady Hollow Way and Willamette Drive (Highway 43) intersection will operate at level of service “D” or better during the AM and PM peak hours with the level of development corresponding to the proposed R-4.5 zoning and proposed medium density residential comprehensive plan designation. The intersection’s volume-to-capacity ratio will be 0.22 or less during both peak hours. The site access/Burgerville access and Shady Hollow Way intersection will operate at level of service “A” during both peak hours. The intersection’s volume-to-capacity ratio will be 0.01 during both peak hours. Based on the analysis results the proposed zoning and plan amendment will not reduce the performance of the study intersections below the minimum acceptable performance standards of the City of West Linn’s TSP and the State of Oregon’s highway plan.

*(1)(C) Worsen the performance of an existing or planned transportation facility that is otherwise projected to perform below the minimum acceptable performance standard identified in the TSP or comprehensive plan.*

Both study intersections are projected to operate at acceptable levels of service with acceptable volume-to-capacity ratios in the 2023 planning horizon traffic scenario. Based on these results the study intersections will not perform below the minimum acceptable performance standard of the City of West Linn’s TSP or the Oregon Highway Plan.

Based on the information presented in Section (1)(B) or Section (1)(C) development of the site will not have a significant effect on the transportation facility. Approval of the proposed zone change (from R-10 to R-4.5) and comprehensive plan amendment (from Low Density Residential to Medium Density Residential) should be approved.

## QUEUING ANALYSIS

Queue lengths at the study intersections were taken from the Highway Capacity Software (HCS) analysis reports. Copies of the reports are included in the appendix.

Through the year 2023 Planning Horizon Traffic scenario the peak hour queue lengths are not expected to exceed 25 feet, or 1 vehicle-length.

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<sup>1</sup> Oregon Highway Plan, Table 7 – Maximum volume to capacity ratios within Metro

## SIGHT DISTANCE

Sight distance at the proposed site access location was reviewed in the field in accordance with AASHTO standards. Based on a posted speed of 25 miles per hour, AASHTO recommends a minimum sight distance of 280 feet should be available from the access (in both directions).

Dense shrubbery and bushes along the site's Shady Hollow Way frontage limited the point at which the sight lines could be reviewed to a distance equal to 8 feet from the travel lane. From the 8-foot back position, looking west the sight line is clear through to the west side of Willamette Drive (Highway 43) at Shady Hollow Way.

Similarly, looking east the sight line is clear to a distance of 270 feet which corresponds to the point at which Shady Hollow Way curves to the north. While this sight distance does not meet AASHTO's recommendation it is anticipated that vehicles traveling around the corner toward Willamette Drive (Highway 43) will be traveling at a rate of 10-20 mph (the curve has an 10 mph advisory speed). Based on these travel speeds AASHTO recommends a minimum sight distance of 115 feet (for 10 mph) and 225 feet (for 20 mph). Based on these sight distances the sight line to the east meets the AASHTO recommendation. With development of Willamette Commons the site access to Shady Hollow Way should be designed such that AASHTO's minimum sight distance recommendation is met or exceeded.

## TURN LANE WARRANTS

ODOT's right turn lane criteria was reviewed for the northbound approach of Willamette Drive (Highway 43) at Shady Hollow Way. ODOT's left turn lane criteria was reviewed at the southbound approach of Willamette Drive (Highway 43) at Shady Hollow Way and at the eastbound approach of Shady Hollow Way at the site access/Burgerville access.

The review of the ODOT right turn lane criteria (for northbound traffic on Willamette Drive at Shady Hollow Way) identified that a roadway shoulder is recommended during the AM peak hour with the site's current zoning and during both peak hours with the site's proposed zoning. The right turn lane criteria is not met in the PM peak hour with the site's current zoning. (ODOT's right turn lane criteria volume thresholds are identified as an advancing volume of 700 vehicles and a right turn volume of 20 vehicles.) Construction of a roadway shoulder or a right turn lane (on the northbound approach) is not recommended as it is not needed for intersection capacity.

The ODOT left turn lane criteria is not met (for southbound traffic on Willamette Drive at Shady Hollow Way or for eastbound traffic on Shady Hollow Way at the site access/Burgerville access) with the site's current or proposed zoning as the left turn volumes (through the planning horizon) do not exceed 10 vehicles; however, the criteria does advise that 'careful consideration be given to installing a left turn lane due to the increased potential for accidents in through lanes'. Construction of a left turn lane is not recommended at either intersection. The right and left turn lane criterias and warrant nomographs are included in the report's appendix.

## TRAFFIC SIGNAL WARRANTS

The peak hour signal warrant presented in the *Manual on Uniform Traffic Control Devices* (MUTCD) was reviewed at the study intersections. Based on the low peak hour traffic volumes, signalization is not warranted at either intersection regardless of the site's zoning. A copy of the peak hour signal warrant is included.

## ACCIDENT HISTORY

Accident data for the Shady Hollow Way and Willamette Drive (Highway 43) intersection was obtained from ODOT staff and was reviewed to help identify any traffic safety problems. A copy of the accident data is included in the appendix.

**Table 3. Accident rate results for study intersections.**

Intersection	Accident History (Years)	Number of Accidents	Accidents per year	Annual Traffic Entering (veh/yr)	Accident rate per M.E.V.*
Shady Hollow Way and Willamette Drive (Highway 43)	5	2	0.4	6263866	<b>0.064</b>

\* M.E.V. - million entering vehicles.

The Shady Hollow Way and Willamette Drive (Highway 43) intersection accident rate does not exceed the 1.0 accidents per MEV threshold, and thus mitigation is not necessary.

## PEDESTRIANS, BICYCLES, & BUSES

Sidewalks are provided along the Burgerville frontage to Willamette Drive (Highway 43) and Shady Hollow Way. Regardless of whether the site develops under the current zoning or proposed zoning sidewalks will be constructed along the site's frontage to Willamette Drive (Highway 43) and Shady Hollow Way.

Bicycle lanes are provided along both sides of Willamette Drive (Highway 43). Additional bicycle lanes are not proposed.

Transit service is provided by C-Tran. Route #35, Macadam, travels along Willamette Drive and Macadam Avenue, between the Oregon City Transit Center and downtown Portland.

## SUMMARY AND RECOMMENDATIONS

The traffic study for the Willamette Commons site has been prepared to determine the potential impacts of the proposed comprehensive plan map amendment and the corresponding zone change (from the site's current Low Density Residential (R-10) zoning to the proposed Medium Density Residential (R-4.5) zoning).

Under its current land use designation the site has the potential for a maximum development of nine (9) single-family homes which would generate an estimated 86 daily trips, 7 AM peak hour trips, and 9 PM peak hour trips. It is expected that the nine homes would have potentially up to three accesses. Under the proposed land use designation the site has the potential for development of up to 22 single-family units which would generate an estimated 211 daily trips, 17 AM peak hour trips, and 22 PM peak hour trips. The single-family units would have a single access (to Shady Hollow Way, opposite of Burgerville's access).

Sight distance at the proposed site access location was reviewed in the field in accordance with AASHTO standards. Sight lines from 8 feet back from the travel lane identified that the sight line from the proposed access to the west is clear through to the west side of Willamette Drive (Highway 43) at Shady Hollow Way. Looking east the sight line is clear to a distance of 270 feet which corresponds to the point at which Shady Hollow Way curves to the north. While this sight distance does not meet AASHTO's recommendation (280 feet for a 25 mph design speed) it is anticipated that vehicles traveling around the corner toward Willamette Drive (Highway 43) will be traveling at a rate of 10-20 mph (the curve has an 10 mph advisory speed). Based on these travel speeds AASHTO recommends a minimum sight distance of 115 feet (for 10 mph) and 225 feet (for 20 mph). Based on these sight distances the sight line to the east meets the AASHTO recommendation. With development of Willamette Commons the site access to Shady Hollow Way should be designed such that AASHTO's minimum sight distance recommendation is met or exceeded. Obstruction by landscaping, signing, parking, buildings, or other objects would be unsafe.

The ODOT left and right turn lane criteria were reviewed at both study intersections. A roadway shoulder is warranted (for northbound traffic on Willamette Drive at Shady Hollow Way) during the AM peak hour with the site's current zoning and during both peak hours with the site's proposed zoning; however, construction of a shoulder or a right turn lane (on Willamette Drive at Shady Hollow Way) is not recommended as it is not needed for intersection capacity.

On Willamette Drive (Highway 43) at Shady Hollow Way the ODOT left turn lane criteria (for southbound traffic) is not met with the site's current or proposed zoning; however, the criteria does advise that 'careful consideration be given to installing a left turn lane due to the increased potential for accidents in through lanes'. Based on intersection's low accident rate (0.064 per MEV), the acceptable levels of service and volume-to-capacity ratios, and the low peak hour volumes (making a southbound left turn) installation of a southbound left turn lane is not recommended.

The MUTCD peak hour signal warrant was reviewed at both study intersections under the site's current zoning and proposed zoning. Neither intersection meets the peak hour signal warrant, thus installation of a traffic signal is not recommended.

The intersection capacity and level of service analysis for the Willamette Drive (Highway 43) and Shady Hollow Way intersection and the site access/Burgerville access and Shady Hollow Way intersection identified that through the year 2023 planning horizon, the Shady Hollow Way and Willamette Drive (Highway 43) intersection will operate at level of service "D" or better during the AM and PM peak hours with the level of development corresponding to the

proposed R-4.5 zoning. The intersection's volume-to-capacity ratio will be 0.22 or less during both peak hours. The site access/Burgerville access and Shady Hollow Way intersection will operate at level of service "A" during both peak hours with a v/c of 0.01.

Based on the analysis results the proposed change in zoning and the associated change to the comprehensive plan map and the zoning map will not reduce the performance of the study intersections below the minimum acceptable performance standards of the City of West Linn's TSP and the State of Oregon's highway plan. Intersection improvements are not necessary.

Based on the responses to the Transportation Planning Rule Section (1)(B) and Section (1)(C), the proposed zone change (from R-10 to R-4.5) will not have a significant effect on the transportation facility. Based on the information presented in this traffic analysis report approval of the proposed zone change and concurrent change to the comprehensive plan map and the zoning map should be approved.

## APPENDIX

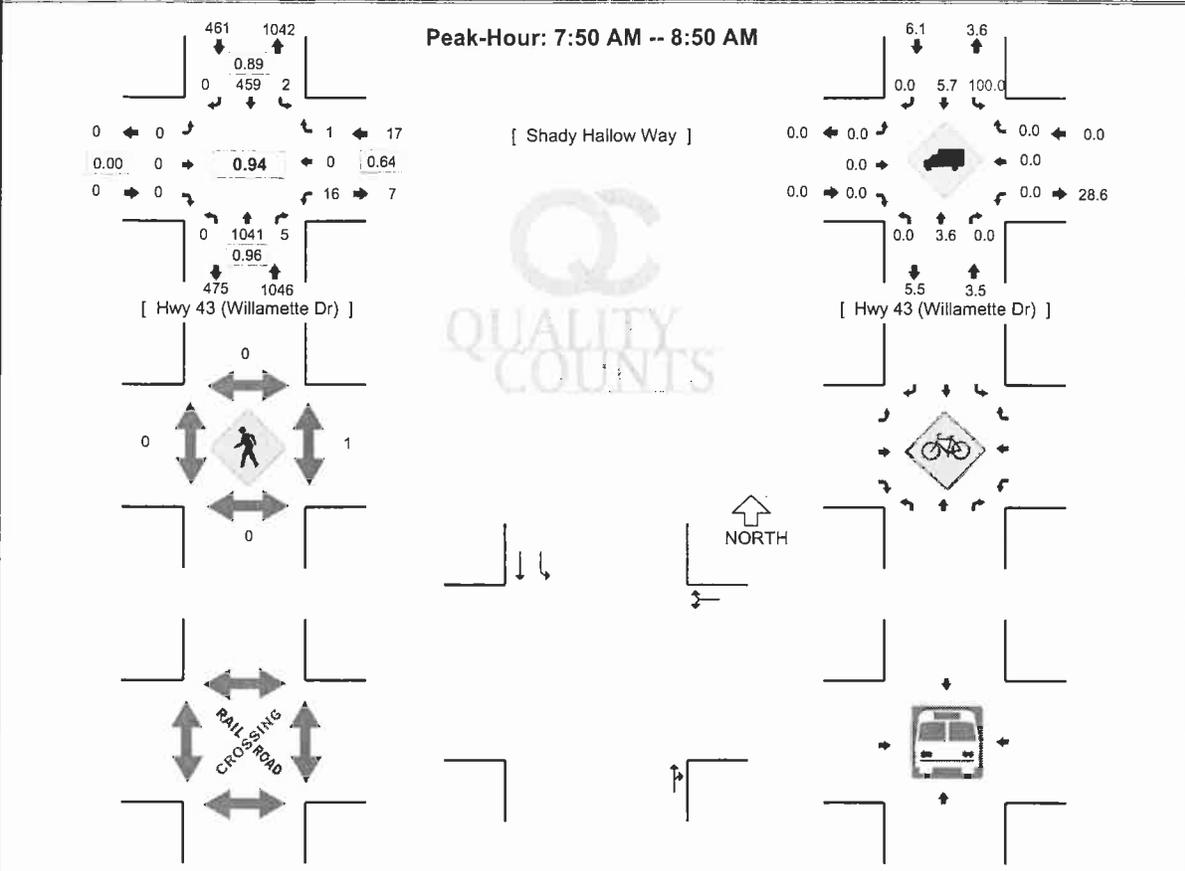
- Traffic Count Data
- Turn Lane Warrants
- Peak Hour Signal Warrant
- Accident History Summary (furnished by the Oregon Department of Transportation)
- Highway Capacity Software (HCS) Analysis Worksheets

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Figure 5a-5b	2013 Total Traffic
Figure 6a-6b	2023 Planning Horizon Traffic

INTERSECTION: Hwy 43 (Willamette Dr)--Shady Hallow Way  
 WEATHER:

QC JOB #: 10342101  
 DATE: 4/2/2008



\*SEE LEGEND SHEET

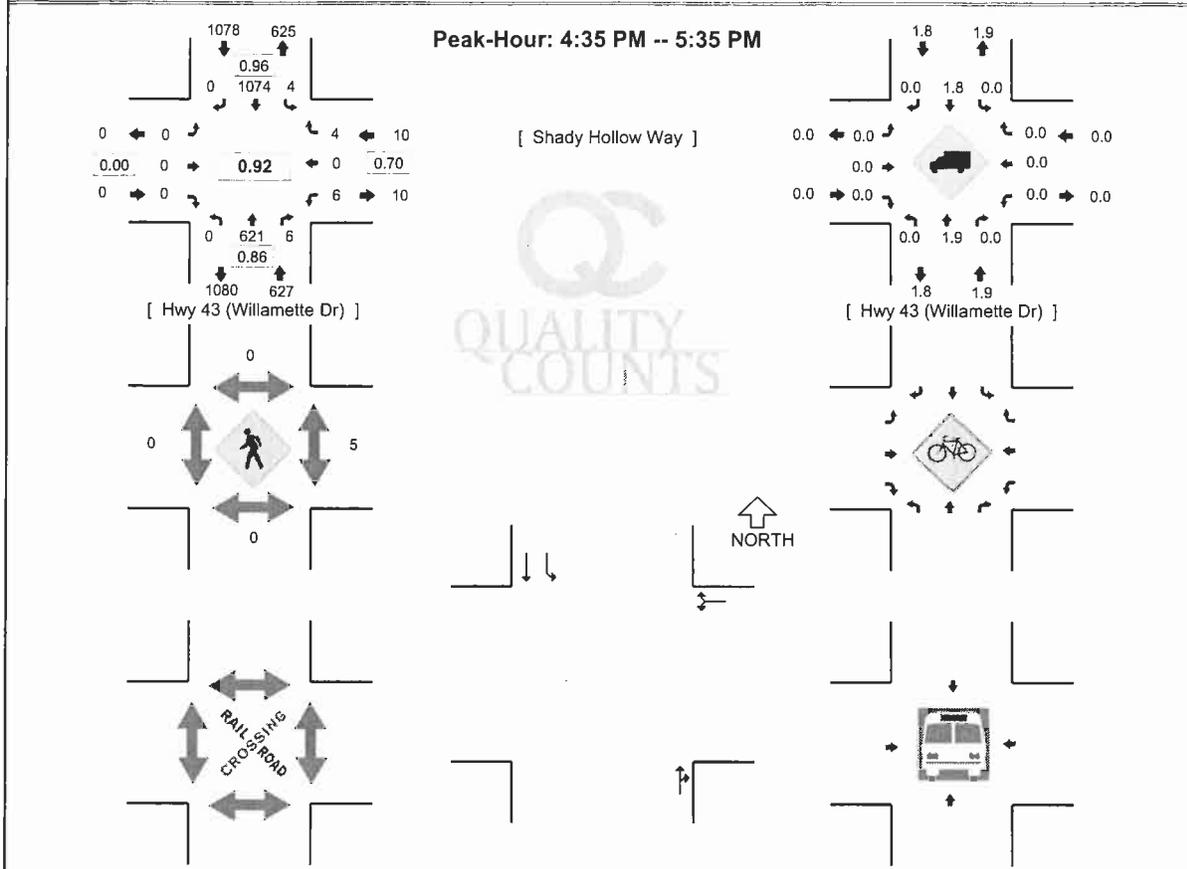
5-MIN COUNT PERIOD BEGINNING AT	Hwy 43 [Willamett... (Northbound)]				Hwy 43 [Willamett... (Southbound)]				Shady Hallow Way (Eastbound)			Shady Hallow Way (Westbound)			TOTAL	HOURLY TOTALS		
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru			Right	U
7:00 AM	0	87	0		1	22	0		0	0	0		0	0	0		110	
7:05 AM	0	61	0		0	28	0		0	0	0		0	0	1		90	
7:10 AM	0	107	0		0	25	0		0	0	0		0	0	0		132	
7:15 AM	0	67	0		0	28	0		0	0	0		0	0	0		95	
7:20 AM	0	98	0		0	33	0		0	0	0		0	0	0		131	
7:25 AM	0	94	0		1	19	0		0	0	0		1	0	1		116	
7:30 AM	0	81	0		0	33	0		0	0	0		0	0	1		115	
7:35 AM	0	88	1		0	33	0		0	0	0		0	0	0		122	
7:40 AM	0	84	0		0	31	0		0	0	0		1	0	0		116	
7:45 AM	0	98	0		0	23	0		0	0	0		2	0	0		123	
7:50 AM	0	84	1		0	43	0		0	0	0		2	0	0		130	
7:55 AM	0	87	0		1	32	0		0	0	0		0	0	0		120	1400
8:00 AM	0	73	0		0	40	0		0	0	0		1	0	0		114	1404
8:05 AM	0	81	0		0	44	0		0	0	0		4	0	0		129	1443
8:10 AM	0	94	0		0	45	0		0	0	0		2	0	0		141	1452
8:15 AM	0	81	0		0	40	0		0	0	0		1	0	0		122	1479
8:20 AM	0	95	0		0	45	0		0	0	0		1	0	0		141	1489
8:25 AM	0	92	0		0	33	0		0	0	0		0	0	0		125	1498
8:30 AM	0	74	2		0	31	0		0	0	0		0	0	0		107	1490
8:35 AM	0	105	2		0	33	0		0	0	0		2	0	1		143	1511
8:40 AM	0	85	0		1	35	0		0	0	0		2	0	0		123	1518
8:45 AM	0	90	0		0	38	0		0	0	0		1	0	0		129	1524
8:50 AM	0	81	0		1	34	0		0	0	0		1	0	1		118	1512
8:55 AM	0	77	0		0	39	0		0	0	0		0	0	0		116	1508
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	1080	0		0	520	0		0	0	0		16	0	0		1616	
Heavy Trucks	0	24	0		0	40	0		0	0	0		0	0	0		64	
Pedestrians		0				0					0				0		0	
Bicycles																		
Railroad																		
Stopped Buses																		

Counter Comments:

A-142

INTERSECTION: Hwy 43 (Willamette Dr)--Shady Hollow Way  
 WEATHER:

QC JOB #: 10342102  
 DATE: 4/1/2008



\*SEE LEGEND SHEET

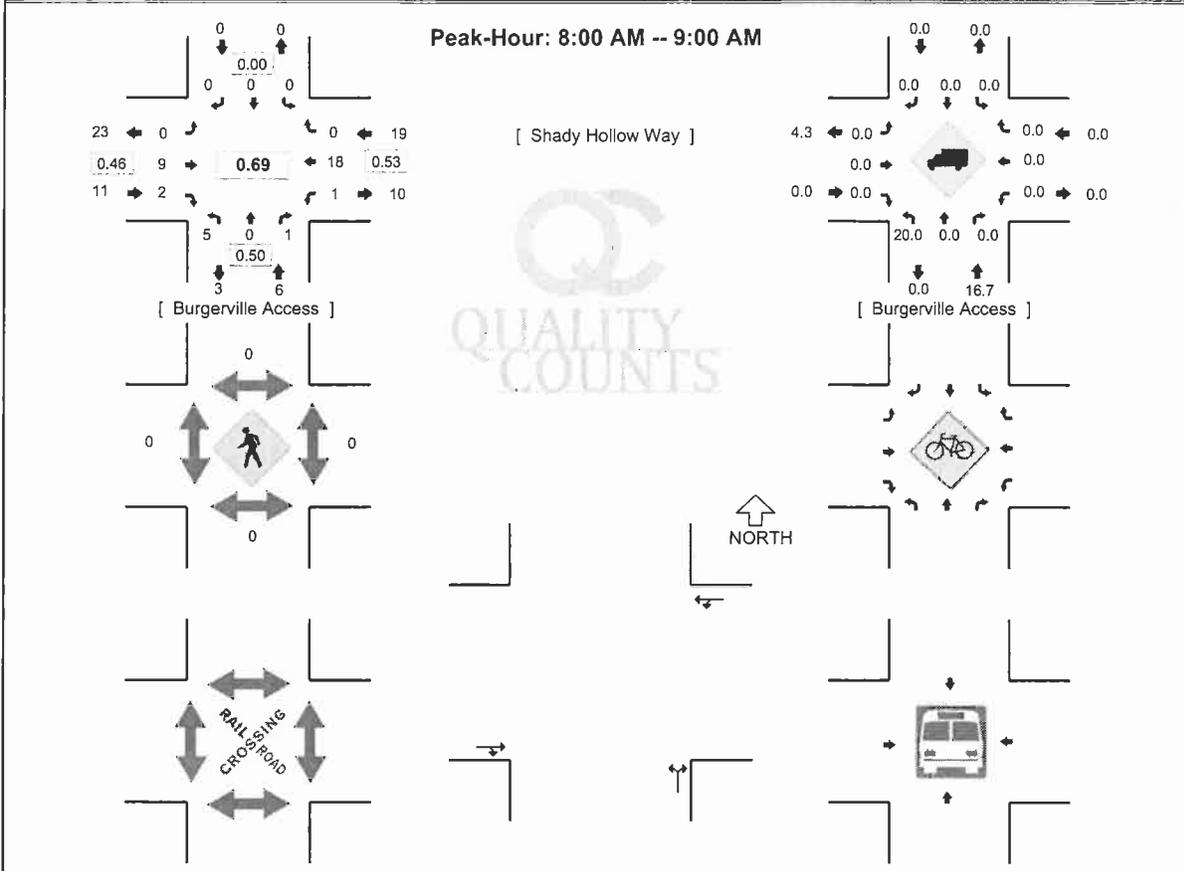
5-MIN COUNT PERIOD BEGINNING AT	Hwy 43 (Willamette... Northbound)				Hwy 43 (Willamette... Southbound)				Shady Hollow Way (Eastbound)				Shady Hollow Way (Westbound)				TOTAL	HOURLY TOTALS
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	41	3		0	75	0		0	0	0		1	0	0		120	
4:05 PM	0	45	1		0	87	0		0	0	0		0	0	0		133	
4:10 PM	0	48	2		1	86	0		0	0	0		0	0	0		137	
4:15 PM	0	50	2		0	80	0		0	0	0		0	0	0		132	
4:20 PM	0	55	1		0	81	0		0	0	0		1	0	0		138	
4:25 PM	0	36	2		0	78	0		0	0	0		1	0	0		117	
4:30 PM	0	40	3		0	84	0		0	0	0		1	0	0		128	
4:35 PM	0	54	0		0	94	0		0	0	0		0	0	0		148	
4:40 PM	0	63	1		1	84	0		0	0	0		0	0	0		149	
4:45 PM	0	51	2		0	85	0		0	0	0		1	0	0		139	
4:50 PM	0	41	0		0	85	0		0	0	0		0	0	1		127	
4:55 PM	0	39	0		0	85	0		0	0	0		0	0	0		124	
5:00 PM	0	42	2		0	86	0		0	0	0		3	0	0		133	1605
5:05 PM	0	58	0		1	90	0		0	0	0		0	0	1		150	1622
5:10 PM	0	45	0		1	87	0		0	0	0		0	0	1		134	1619
5:15 PM	0	63	1		1	97	0		0	0	0		1	0	0		163	1650
5:20 PM	0	70	0		0	87	0		0	0	0		1	0	1		159	1671
5:25 PM	0	48	0		0	95	0		0	0	0		0	0	0		143	1697
5:30 PM	0	47	0		0	99	0		0	0	0		0	0	0		146	1715
5:35 PM	0	48	1		1	82	0		0	0	0		0	0	1		133	1700
5:40 PM	0	48	1		0	94	0		0	0	0		0	0	0		143	1694
5:45 PM	0	48	0		0	87	0		0	0	0		2	0	0		137	1692
5:50 PM	0	45	0		0	62	0		0	0	0		0	0	0		107	1672
5:55 PM	0	52	1		0	83	0		0	0	0		2	0	1		139	1687
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	724	4		4	1116	0		0	0	0		8	0	4		1860	
Heavy Trucks	0	12	0		0	12	0		0	0	0		0	0	0		24	
Pedestrians	0				0				0				0				0	
Bicycles																		
Railroad																		
Stopped Buses																		

Counter Comments:

A-143

INTERSECTION: Burgerville Access--Shady Hollow Way  
 WEATHER:

QC JOB #: 10342901  
 DATE: 4/4/2008



\*SEE LEGEND SHEET

5-MIN COUNT PERIOD BEGINNING AT	Burgerville Access (Northbound)				Burgerville Access (Southbound)				Shady Hollow Way (Eastbound)			Shady Hollow Way (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	0		0	0	0		0	0	0		0	0	0		0	
7:05 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	
7:10 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	
7:15 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	
7:20 AM	0	0	0		0	0	0		0	0	0		1	0	0		1	
7:25 AM	0	0	0		0	0	0		0	1	0		0	2	0		3	
7:30 AM	0	0	0		0	0	0		0	0	0		0	2	0		2	
7:35 AM	1	0	0		0	0	0		0	0	0		0	1	0		2	
7:40 AM	0	0	0		0	0	0		0	0	0		0	1	0		1	
7:45 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	
7:50 AM	0	0	0		0	0	0		0	1	0		0	1	0		2	
7:55 AM	0	0	0		0	0	0		0	0	0		0	1	0		1	12
8:00 AM	0	0	0		0	0	0		0	0	0		0	3	0		3	15
8:05 AM	1	0	0		0	0	0		0	1	0		0	1	0		3	18
8:10 AM	0	0	0		0	0	0		0	0	0		0	1	0		1	19
8:15 AM	0	0	0		0	0	0		0	0	0		0	1	0		1	20
8:20 AM	1	0	0		0	0	0		0	3	1		0	0	0		5	24
8:25 AM	1	0	0		0	0	0		0	1	0		0	1	0		3	24
8:30 AM	0	0	0		0	0	0		0	1	0		0	3	0		4	26
8:35 AM	0	0	0		0	0	0		0	0	0		0	1	0		1	25
8:40 AM	1	0	1		0	0	0		0	1	0		1	4	0		8	32
8:45 AM	0	0	0		0	0	0		0	1	0		0	0	0		1	33
8:50 AM	1	0	0		0	0	0		0	0	0		0	1	0		2	33
8:55 AM	0	0	0		0	0	0		0	1	1		0	2	0		4	36

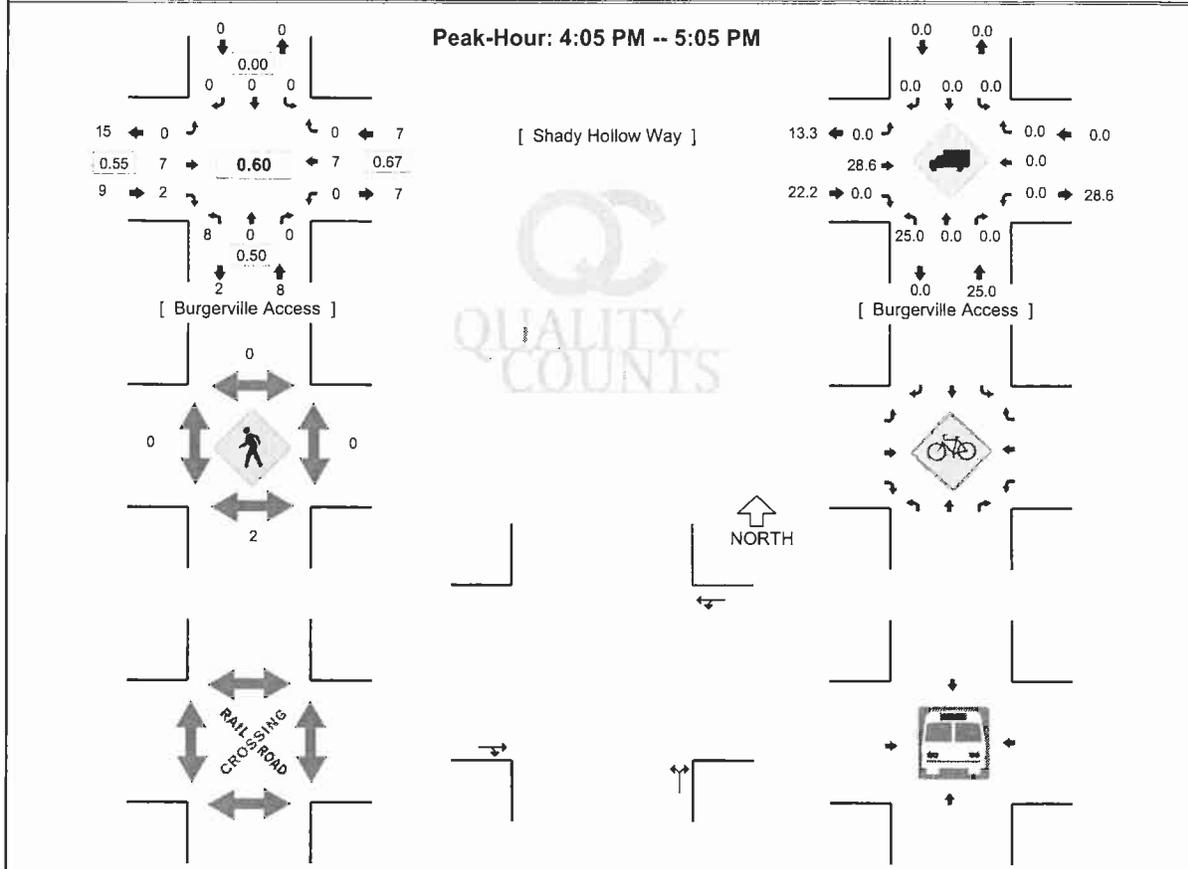
PEAK 15-MIN FLOW RATES	Northbound				Southbound				Eastbound			Westbound			TOTAL		
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru		Right	U
All Vehicles	4	0	4		0	0	0		0	8	0		4	32	0		52
Heavy Trucks	4	0	0		0	0	0		0	0	0		0	0	0		4
Pedestrians		0				0				0				0			0
Bicycles																	
Railroad																	
Stopped Buses																	

Counter Comments:

A-144

INTERSECTION: Burgerville Access--Shady Hollow Way  
 WEATHER:

QC JOB #: 10342902  
 DATE: 4/3/2008



\*SEE LEGEND SHEET

5-MIN COUNT PERIOD BEGINNING AT	Burgerville Access (Northbound)				Burgerville Access (Southbound)				Shady Hollow Way (Eastbound)			Shady Hollow Way (Westbound)			TOTAL	HOURLY TOTALS		
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru			Right	U
4:00 PM	0	0	0		0	0	0		0	0	0		0	1	0		1	
4:05 PM	3	0	0		0	0	0		0	1	0		0	1	0		5	
4:10 PM	1	0	0		0	0	0		0	2	0		0	0	0		3	
4:15 PM	0	0	0		0	0	0		0	1	0		0	1	0		2	
4:20 PM	1	0	0		0	0	0		0	0	0		0	2	0		3	
4:25 PM	1	0	0		0	0	0		0	1	0		0	0	0		2	
4:30 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	
4:35 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	
4:40 PM	1	0	0		0	0	0		0	1	0		0	0	0		2	
4:45 PM	1	0	0		0	0	0		0	0	0		0	1	0		2	
4:50 PM	0	0	0		0	0	0		0	0	1		0	0	0		1	
4:55 PM	0	0	0		0	0	0		0	0	1		0	0	0		1	22
5:00 PM	0	0	0		0	0	0		0	1	0		0	2	0		3	24
5:05 PM	1	0	0		0	0	0		0	0	0		0	1	0		2	21
5:10 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	18
5:15 PM	0	0	0		0	0	0		0	2	0		0	0	0		2	18
5:20 PM	0	0	0		0	0	0		0	1	0		0	0	0		1	16
5:25 PM	0	0	0		0	0	0		0	0	1		0	0	0		1	15
5:30 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	15
5:35 PM	1	0	0		0	0	0		0	0	0		0	2	0		3	18
5:40 PM	0	0	0		0	0	0		0	1	0		0	0	0		1	17
5:45 PM	1	0	0		0	0	0		0	1	0		0	1	0		3	18
5:50 PM	0	0	0		0	0	0		0	0	2		0	1	0		3	20
5:55 PM	0	0	0		0	0	0		0	2	0		1	0	0		3	22
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	16	0	0		0	0	0		0	16	0		0	8	0		40	
Heavy Trucks	8	0	0		0	0	0		0	8	0		0	0	0		16	
Pedestrians	0				0				0				0				0	
Bicycles																		
Railroad																		
Stopped Buses																		

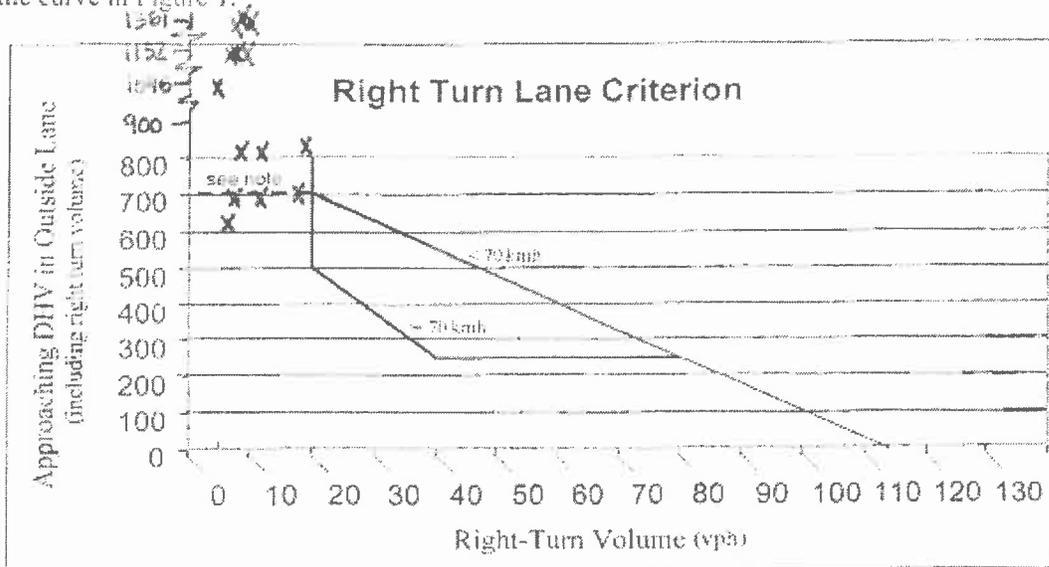
Counter Comments:

A-145

# Oregon Department of Transportation - Right Turn Lane Criteria

## I. Criterion 1: Vehicular Volume

The vehicular volume criterion is intended for application where the volume of the intersection traffic is the principal reason for considering installation of a right turn lane. The vehicular volume criteria is determined using the curve in Figure 1.



Note: If there is no right turn lane, a shoulder needs to be provided.  
 If this intersection is in a rural area and is a connector to a public street, a right turn lane is needed.

Figure 1

Intersection	Mov't	Analysis Period	Speed	Advancing Volume (vph)	Right Turns in Advancing Volume (vph)	Storage Req'd (ft)		
Willamette Drive (Highway 43) & Shady Hollow Way	NB RT	2008 Extg Traffic, AM Peak	35 mph (56 kmh)	1046	5	No <sup>1</sup>		
		2008 Extg Traffic, PM Peak		627	6	No		
		2013 Bkgd Traffic, AM Peak		1151	6	No <sup>1</sup>		
		2013 Bkgd Traffic, PM Peak		690	7	No		
		2023 Bkgd Traffic <sup>2</sup> , AM Peak		1360	7	No <sup>1</sup>		
		2023 Bkgd Traffic <sup>2</sup> , PM Peak		815	8	No <sup>1</sup>		
		<u>Current (R-10) Zoning</u>						
		2013 Total Traffic, AM Peak		1152	7	No <sup>1</sup>		
		2013 Total Traffic, PM Peak		694	11	No		
		2023 Planning Horizon, AM Peak		1361	8	No <sup>1</sup>		
		2023 Planning Horizon, PM Peak		819	12	No <sup>1</sup>		
		<u>Proposed (R-4.5) Zoning</u>						
		2013 Total Traffic, AM Peak		1154	9	No <sup>1</sup>		
		2013 Total Traffic, PM Peak		700	17	No <sup>1</sup>		
2023 Planning Horizon, AM Peak	1363	10	No <sup>1</sup>					
2023 Planning Horizon, PM Peak	825	18	No <sup>1</sup>					

<sup>1</sup> If redevelopment occurs on the Burgerville site a right turn lane or roadway shoulder should be constructed

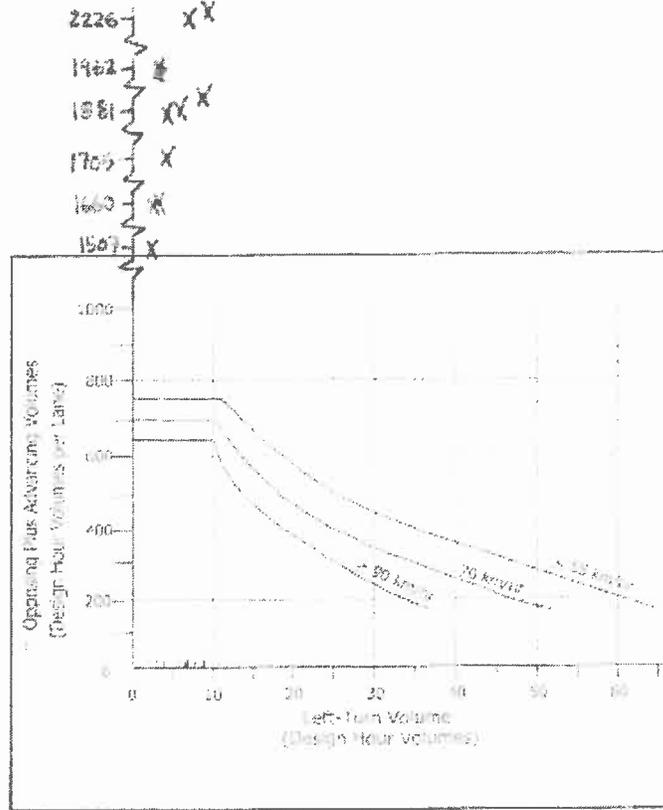
<sup>2</sup> 2023 Background Traffic = 2008 Existing Traffic + growth (15 years at 2% per year)

**Oregon Department of Transportation - Left Turn Lane Criteria**

**I. Criterion I: Vehicular Volume**

The vehicular volume criterion is intended for application where the volume of intersecting traffic is the principal reason for considering installation of a left turn lane. The volume criteria is determined by the Texas Transportation Institute (TTI) curves in Figure 1.

The criteria is not met from zero to ten left turn vehicles per hour, but indicates that careful consideration be given to installing a left turn lane due to the increased potential for accidents in the through lanes. While the turn volumes are low, the adverse safety and operations impacts may require installation of a left turn lane. The final determination will be based on a field study.



\* (Advancing volume) number of advancing through lanes + opposing volume/ number of opposing through lanes.

**FIGURE 1**

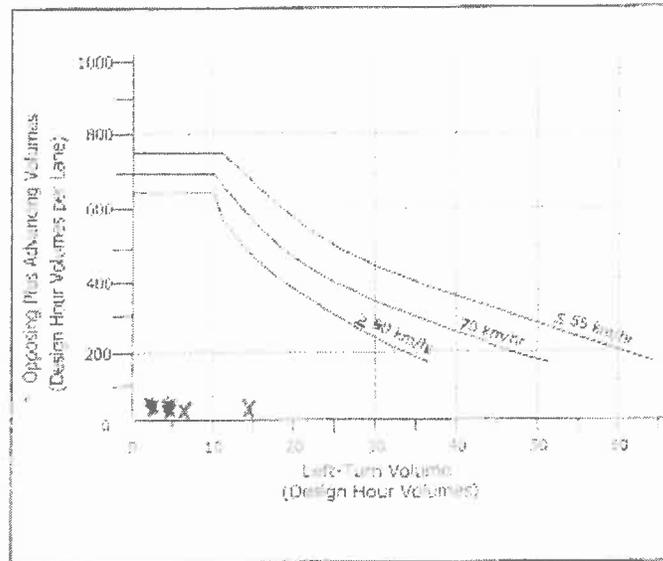
Intersection	Mov't	Analysis Period	Speed	Opposing plus Advancing Volume (vph per lane)	Left Turns in Advancing Volume (vph)	Storage Req'd?		
Willamette Drive (Highway 43) & Shady Hollow Way	SB LT	2008 Extg Traffic, AM Peak	35 mph (56 km/h)	1507	2	No		
		2008 Extg Traffic, PM Peak		1705	4	No		
		2013 Bkgd Traffic, AM Peak		1658	2	No		
		2013 Bkgd Traffic, PM Peak		1875	4	No		
		<u>Current (R-10) Zoning</u>						
		2013 Total Traffic, AM Peak		1660	3	No		
		2013 Total Traffic, PM Peak		1881	6	No		
		2023 Planning Horizon, AM Peak		1961	3	No		
		2023 Planning Horizon, PM Peak		2222	7	No		
		<u>Proposed (R-4.5) Zoning</u>						
		2013 Total Traffic, AM Peak		1662	3	No		
		2013 Total Traffic, PM Peak		1889	8	No		
		2023 Planning Horizon, AM Peak		1963	3	No		
		2023 Planning Horizon, PM Peak		2230	9	No		

# Oregon Department of Transportation - Left Turn Lane Criteria

## I. Criterion 1: Vehicular Volume

The vehicular volume criterion is intended for application where the volume of intersecting traffic is the principal reason for considering installation of a left turn lane. The volume criteria is determined by the Texas Transportation Institute (TTI) curves in Figure 1.

The criteria is not met from zero to ten left turn vehicles per hour, but indicates that careful consideration be given to installing a left turn lane due to the increased potential for accidents in the through lanes. While the turn volumes are low, the adverse safety and operations impacts may require installation of a left turn lane. The final determination will be based on a field study.

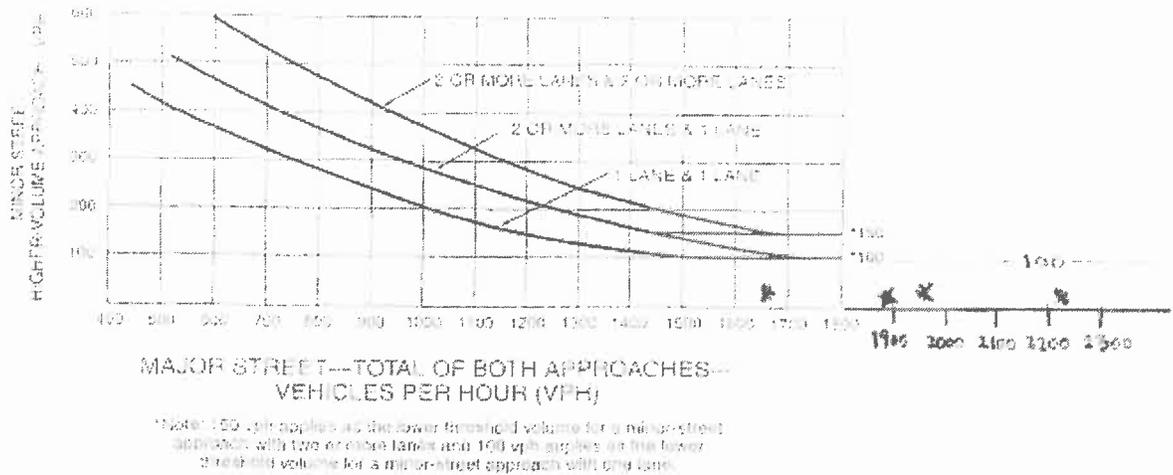


\* (Advancing volume/number of advancing through lanes) + (opposing volume/number of opposing through lanes)

FIGURE 1

Intersection	Mov't	Analysis Period	Speed	Opposing plus Advancing Volume (vph per lane)	Left Turns in Advancing Volume (vph)	Storage Req'd?						
Shady Hollow Way & Site Access/ Burgerville Access	EB LT	<u>Current (R-10) Zoning</u>		25 mph (40 km/h)								
		2013 Total Traffic, AM Peak					35	2	No			
		2013 Total Traffic, PM Peak					24	6	No			
		2023 Planning Horizon, AM Peak					41	2	No			
		2023 Planning Horizon, PM Peak					26	6	No			
		<u>Proposed (R-4.5) Zoning</u>										
		2013 Total Traffic, AM Peak								37	4	No
		2013 Total Traffic, PM Peak								32	4	No
		2023 Planning Horizon, AM Peak								43	4	No
		2023 Planning Horizon, PM Peak								34	14	No

Figure 4C-3. Warrant 3, Peak Hour



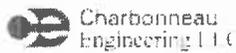
MAJOR STREET--TOTAL OF BOTH APPROACHES--  
VEHICLES PER HOUR (VPH)

Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Peak hour volume warrant for signalization data.

Intersection	Analysis Period	Major Street Speed (mph)	Major Street		Minor Street High Volume Approach		Signal Warranted?
			Volume (vph)	Lanes (#)	Volume (vph)	Lanes (#)	
<u>Current (R-10) Zoning</u>							
Willamette Drive (Highway 43) & Shady Hollow Way	2013 Total Traffic, AM Peak	35	1660	1	24	1	No
	2013 Total Traffic, PM Peak		1881		14		No
	2023 Planning Horizon, AM Peak		1961		27		No
	2023 Planning Horizon, PM Peak		2222		16		No
Burgerville Access/ Proposed Access & Shady Hollow Way	2013 Total Traffic, AM Peak	25	35	1	6	1	No
	2013 Total Traffic, PM Peak		24		8		No
	2023 Planning Horizon, AM Peak		41		6		No
	2023 Planning Horizon, PM Peak		26		9		No
<u>Proposed (R-4.5) Zoning</u>							
Willamette Drive (Highway 43) & Shady Hollow Way	2013 Total Traffic, AM Peak	35	1662	1	32	1	No
	2013 Total Traffic, PM Peak		1889		19		No
	2023 Planning Horizon, AM Peak		1963		35		No
	2023 Planning Horizon, PM Peak		2230		21		No
Burgerville Access/ Proposed Access & Shady Hollow Way	2013 Total Traffic, AM Peak	25	37	1	13	1	No
	2013 Total Traffic, PM Peak		32		8		No
	2023 Planning Horizon, AM Peak		43		13		No
	2023 Planning Horizon, PM Peak		34		8		No

Source: Manual on Uniform Traffic Control Devices (MUTCD), 2003 Edition



**Mary Kate**

**From:** "RIFE Christina M" <Christina.M.RIFE@odot.state.or.us>  
**To:** "Mary Kate" <MaryKate@charbonneauengineer.com>  
**Cc:** "RIFE Christina M" <Christina.M.RIFE@odot.state.or.us>  
**Sent:** Wednesday, April 09, 2008 1:56 PM  
**Attach:** CR.Rt 43@Maryhurst&LazyRvr, +500'(WestLinn)\_CDS380.pdf; CR.Rt 43@ShadyHollowWay, +500'(WestLinn)\_CDS150.pdf; CR.Rt 43@ShadyHollowWay, +500'(WestLinn)\_CDS380.pdf; CR.Rt 43@Maryhurst&LazyRvr, +500'(WestLinn)\_CDS150.pdf  
**Subject:** Crashes in West Linn at Willamette Drive and Shady Hollow Way & Maryhurst Drive/Lazy River Drive

Mary Kate,

Attached are detailed and summary reports for Willamette Drive at Shady Hollow Way and Willamette Drive at Maryhurst Drive/Lazy River Drive, plus 500' in all directions of the intersections, for 1-1-2002 through 12-31-2006 that you requested. Some West Linn city street numbers showed up. These numbers and their names are.

1. #412 refers to CedarOak Drive
2. #1006 refers to Hollowell Street
3. #803 refers to Fairview Way
4. #1509 refers to Maryhurst Drive
5. #2109 refers to Robinwood Way
6. #2209 refers to Shady Hollow Way
7. #2605 refers to Willamette Drive

<<CR.Rt 43@Maryhurst&LazyRvr, +500'(WestLinn)\_CDS380.pdf>> <<CR.Rt  
 43@ShadyHollowWay, +500'(WestLinn)\_CDS150.pdf>> <<CR.Rt 43@ShadyHollowWay, +500'(WestLinn)\_CDS380.pdf>>  
 <<CR.Rt 43@Maryhurst&LazyRvr, +500'(WestLinn)\_CDS150.pdf>>

Christina "Chris" Rife  
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GENERAL INFORMATION ON TRANSPORTATION - TRANSPORTATION EQUIPMENT SECTION  
INVENTORY DATA SHEET - TRUCK ACQUISITION AND PURCHASES  
CONTINUING SYSTEM DATA SHEET

PAGE 1

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REVISIONS: (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48) (49) (50) (51) (52) (53) (54) (55) (56) (57) (58) (59) (60) (61) (62) (63) (64) (65) (66) (67) (68) (69) (70) (71) (72) (73) (74) (75) (76) (77) (78) (79) (80) (81) (82) (83) (84) (85) (86) (87) (88) (89) (90) (91) (92) (93) (94) (95) (96) (97) (98) (99) (100)

YEAR	MAKE	MODEL	TYPE	PLANT	CHASSIS	ENGINE	DRIVE	TRANSMISSION	VEHICLE	PRICE	DATE	STATUS	REMARKS
1978	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
1979	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
1980	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
1981	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
1982	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
1983	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
1984	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
1985	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
1986	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
1987	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
1988	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
1989	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
1990	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
1991	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
1992	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
1993	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
1994	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
1995	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
1996	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
1997	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
1998	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
1999	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
2000	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
2001	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
2002	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
2003	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
2004	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
2005	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
2006	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
2007	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
2008	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
2009	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
2010	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
2011	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
2012	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
2013	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
2014	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
2015	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
2016	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
2017	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
2018	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
2019	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	
2020	RAM	3500	TRUCK	RAM	RAM	RAM	RAM	RAM	RAM	10000	01/01/80	ACTIVE	

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GENERAL INFORMATION OF PERSONS DETAINED - TRANSPORTATION OF PERSONS DIVISION  
TRANSPORTATION STATE SECTION - CLERK ASSISTANT AND REPORTING UNIT  
CONTINUOUS SYSTEM OF CARE LISTING

Michigan State Dept of Corrections, Lansing, Michigan

STATE	DEPT	UNIT	NAME	DOB	SEX	RACE	HT	WT	HAIR	EYES	RELIGION	EDUCATION	EMPLOYMENT	CRIMINAL RECORD	ADDITIONAL INFO
MI	115	115	THOMAS J. BROWN	05-15-1945	M	W	5-10	150	B	B	C	HS	UNEMPLOYED	MI 115 115	MI 115 115
MI	115	115	JOHN W. SMITH	03-22-1948	M	W	5-11	160	B	B	C	HS	UNEMPLOYED	MI 115 115	MI 115 115
MI	115	115	MICHAEL D. JONES	07-10-1952	M	W	5-9	145	B	B	C	HS	UNEMPLOYED	MI 115 115	MI 115 115
MI	115	115	ROBERT L. GARCIA	01-18-1955	M	W	5-10	155	B	B	C	HS	UNEMPLOYED	MI 115 115	MI 115 115
MI	115	115	DAVID E. MILLER	09-05-1958	M	W	5-11	165	B	B	C	HS	UNEMPLOYED	MI 115 115	MI 115 115
MI	115	115	CHRISTOPHER A. WALKER	04-12-1960	M	W	5-10	150	B	B	C	HS	UNEMPLOYED	MI 115 115	MI 115 115
MI	115	115	ANDREW S. HARRIS	06-20-1962	M	W	5-9	140	B	B	C	HS	UNEMPLOYED	MI 115 115	MI 115 115
MI	115	115	ANTHONY J. MARTINEZ	08-01-1965	M	W	5-11	160	B	B	C	HS	UNEMPLOYED	MI 115 115	MI 115 115
MI	115	115	STEPHEN R. THOMPSON	02-14-1968	M	W	5-10	155	B	B	C	HS	UNEMPLOYED	MI 115 115	MI 115 115
MI	115	115	KEVIN M. ANDERSON	05-28-1970	M	W	5-11	160	B	B	C	HS	UNEMPLOYED	MI 115 115	MI 115 115
MI	115	115	BRANDON L. NELSON	07-15-1972	M	W	5-10	150	B	B	C	HS	UNEMPLOYED	MI 115 115	MI 115 115
MI	115	115	JUSTIN D. KING	09-03-1975	M	W	5-11	165	B	B	C	HS	UNEMPLOYED	MI 115 115	MI 115 115
MI	115	115	ADAM P. WRIGHT	11-10-1978	M	W	5-10	155	B	B	C	HS	UNEMPLOYED	MI 115 115	MI 115 115
MI	115	115	LOGAN K. GREEN	01-25-1980	M	W	5-11	160	B	B	C	HS	UNEMPLOYED	MI 115 115	MI 115 115
MI	115	115	RYAN T. BAKER	03-18-1982	M	W	5-10	150	B	B	C	HS	UNEMPLOYED	MI 115 115	MI 115 115
MI	115	115	COLTON H. ADAMS	05-07-1985	M	W	5-11	165	B	B	C	HS	UNEMPLOYED	MI 115 115	MI 115 115
MI	115	115	ISAAC M. HAYES	07-22-1988	M	W	5-10	155	B	B	C	HS	UNEMPLOYED	MI 115 115	MI 115 115
MI	115	115	OSCAR J. COOPER	09-15-1990	M	W	5-11	160	B	B	C	HS	UNEMPLOYED	MI 115 115	MI 115 115
MI	115	115	WILLIAM R. PERKINS	11-01-1992	M	W	5-10	150	B	B	C	HS	UNEMPLOYED	MI 115 115	MI 115 115

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WORLD WIDE TRANSPORTATION & TRANSPORTATION SERVICES COMPANY  
MANAGEMENT INFORMATION SYSTEM - TRUCK ANALYSIS AND REPORTING UNIT  
FOR THE MONTH OF FEBRUARY 2001

WORLD WIDE TRANSPORTATION & TRANSPORTATION SERVICES COMPANY  
MANAGEMENT INFORMATION SYSTEM - TRUCK ANALYSIS AND REPORTING UNIT  
FOR THE MONTH OF FEBRUARY 2001

TRUCK #	TRUCK TYPE	TRUCK CLASS	TRUCK MAKE	TRUCK MODEL	TRUCK YEAR	TRUCK COLOR	TRUCK WEIGHT	TRUCK COUNTRY	TRUCK STATUS	TRUCK REGISTRATION	TRUCK LICENSE	TRUCK INSURANCE	TRUCK MAINTENANCE	TRUCK REPAIRS	TRUCK TIRE	TRUCK OIL	TRUCK FLUIDS	TRUCK PARTS	TRUCK ACCESSORIES	TRUCK TOTAL	TRUCK COST	TRUCK VALUE
1001	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK
1002	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK
1003	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK
1004	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK
1005	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK
1006	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK
1007	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK
1008	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK
1009	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK
1010	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK

## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MEO	Intersection	Shady Hollow & Willamette Dr
Agency/Co.	Charbonneau Engineering	Jurisdiction	City of West Linn
Date Performed	4/9/2008	Analysis Year	2008 Existing Traffic
Analysis Time Period	AM Peak Hour		
Project Description #08-16 Willamette Commons			
East/West Street: Shady Hollow Way		North/South Street: Willamette Drive (Hwy 43)	
Intersection Orientation: North-South		Study Period (hrs): 0.25	

### Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound			
	Movement	1	2	3	4	5	6
		L	T	R	L	T	R
Volume	0	1041	5	2	459	0	
Peak-Hour Factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly Flow Rate, HFR	0	1107	5	2	488	0	
Percent Heavy Vehicles	0	--	--	0	--	--	
Median Type	Two Way Left Turn Lane						
RT Channelized			0			0	
Lanes	0	1	0	0	1	0	
Configuration			TR	LT			
Upstream Signal		0			0		

Minor Street	Westbound			Eastbound			
	Movement	7	8	9	10	11	12
		L	T	R	L	T	R
Volume	16	0	1	0	0	0	0
Peak-Hour Factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly Flow Rate, HFR	17	0	1	0	0	0	0
Percent Heavy Vehicles	0	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	0
Configuration		LR					

### Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound			
	Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR					
v (vph)		2		18					
C (m) (vph)		635		239					
v/c		0.00		0.08					
95% queue length		0.01		0.24					
Control Delay		10.7		21.3					
LOS		B		C					
Approach Delay	--	--		21.3					
Approach LOS	--	--		C					

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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MEO	Intersection	Shady Hollow & Burgerville acc
Agency/Co.	Charbonneau Engineering	Jurisdiction	City of West Linn
Date Performed	4/9/2008	Analysis Year	2008 Existing Traffic
Analysis Time Period	AM Peak Hour		

Project Description #08-16 Willamette Commons	
East/West Street: Shady Hollow Way	North/South Street: Burgerville access
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	9	2	1	18	0
Peak-hour factor, PHF	0.60	0.60	0.60	0.60	0.60	0.60
Hourly Flow Rate (veh/h)	0	14	3	1	29	0
Proportion of heavy vehicles, P <sub>HV</sub>	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)	5	0	1	0	0	0
Peak-hour factor, PHF	0.60	0.60	0.60	0.60	0.60	0.60
Hourly Flow Rate (veh/h)	8	0	1	0	0	0
Proportion of heavy vehicles, P <sub>HV</sub>	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	12
Lane Configuration		LT		LR				
Volume, v (vph)		1		9				
Capacity, c <sub>m</sub> (vph)		1613		977				
v/c ratio		0.00		0.01				
Queue length (95%)		0.00		0.03				
Control Delay (s/veh)		7.2		8.7				
LOS		A		A				
Approach delay (s/veh)	--	--	8.7					
Approach LOS	--	--	A					

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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MEO	Intersection	Shady Hollow & Willamette Dr
Agency/Co.	Charbonneau Engineering	Jurisdiction	City of West Linn
Date Performed	4/9/2008	Analysis Year	2008 Existing Traffic
Analysis Time Period	PM Peak Hour		
Project Description #08-16 Willamette Commons			
East/West Street: Shady Hollow Way		North/South Street: Willamette Drive (Hwy 43)	
Intersection Orientation: North-South		Study Period (hrs): 0.25	

### Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	621	6	4	1074	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Hourly Flow Rate, HFR	0	674	6	4	1167	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Two Way Left Turn Lane					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	6	0	4	0	0	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Hourly Flow Rate, HFR	6	0	4	0	0	0
Percent Heavy Vehicles	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				

### Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (vph)		4		10				
C (m) (vph)		922		261				
v/c		0.00		0.04				
95% queue length		0.01		0.12				
Control Delay		8.9		19.3				
LOS		A		C				
Approach Delay	--	--	19.3					
Approach LOS	--	--	C					

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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MEO	Intersection	Shady Hollow & Burgerville acc
Agency/Co.	Charbonneau Engineering	Jurisdiction	City of West Linn
Date Performed	4/9/2008	Analysis Year	2008 Existing Traffic
Analysis Time Period	PM Peak Hour		

Project Description #08-16 Willamette Commons	
East/West Street: Shady Hollow Way	North/South Street: Burgerville access
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	7	2	0	7	0
Peak-hour factor, PHF	0.69	0.69	0.69	0.69	0.69	0.69
Hourly Flow Rate (veh/h)	0	10	2	0	10	0
Proportion of heavy vehicles, P <sub>HV</sub>	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	0	0	0	0
Peak-hour factor, PHF	0.69	0.69	0.69	0.69	0.69	0.69
Hourly Flow Rate (veh/h)	11	0	0	0	0	0
Proportion of heavy vehicles, P <sub>HV</sub>	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	12
Lane Configuration		LT		LR				
Volume, v (vph)		0		11				
Capacity, c <sub>m</sub> (vph)		1620		1001				
v/c ratio		0.00		0.01				
Queue length (95%)		0.00		0.03				
Control Delay (s/veh)		7.2		8.6				
LOS		A		A				
Approach delay (s/veh)	--	--	8.6					
Approach LOS	--	--	A					

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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MEO	Intersection	Shady Hollow & Willamette Dr
Agency/Co.	Charbonneau Engineering	Jurisdiction	City of West Linn
Date Performed	4/9/2008	Analysis Year	2013 Background Traffic
Analysis Time Period	AM Peak Hour		
Project Description #08-16 Willamette Commons			
East/West Street: Shady Hollow Way		North/South Street: Willamette Drive (Hwy 43)	
Intersection Orientation: North-South		Study Period (hrs): 0.25	

Vehicle Volumes and Adjustments						
Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	1145	6	2	505	0
Peak-Hour Factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Hourly Flow Rate, HFR	0	1218	6	2	537	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Two Way Left Turn Lane					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	
Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	18	0	1	0	0	0
Peak-Hour Factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Hourly Flow Rate, HFR	19	0	1	0	0	0
Percent Heavy Vehicles	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				

Delay, Queue Length, and Level of Service							
Approach	NB	SB	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11
Lane Configuration		LT		LR			
v (vph)		2		20			
C (m) (vph)		577		210			
v/c		0.00		0.10			
95% queue length		0.01		0.31			
Control Delay		11.3		23.9			
LOS		B		C			
Approach Delay	--	--	23.9				
Approach LOS	--	--	C				

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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MEO	Intersection	Shady Hollow & Burgerville acc
Agency/Co.	Charbonneau Engineering	Jurisdiction	City of West Linn
Date Performed	4/9/2008	Analysis Year	2013 Background Traffic
Analysis Time Period	AM Peak Hour		
Project Description #08-16 Willamette Commons			
East/West Street: Shady Hollow Way		North/South Street: Burgerville access	
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	10	2	1	20	0
Peak-hour factor, PHF	0.60	0.60	0.60	0.60	0.60	0.60
Hourly Flow Rate (veh/h)	0	16	3	1	33	0
Proportion of heavy vehicles, P <sub>HV</sub>	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)	5	0	1	0	0	0
Peak-hour factor, PHF	0.60	0.60	0.60	0.60	0.60	0.60
Hourly Flow Rate (veh/h)	8	0	1	0	0	0
Proportion of heavy vehicles, P <sub>HV</sub>	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	12
Lane Configuration		LT		LR				
Volume, v (vph)		1		9				
Capacity, c <sub>m</sub> (vph)		1611		970				
v/c ratio		0.00		0.01				
Queue length (95%)		0.00		0.03				
Control Delay (s/veh)		7.2		8.7				
LOS		A		A				
Approach delay (s/veh)	--	--	8.7					
Approach LOS	--	--	A					

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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MEO	Intersection	Shady Hollow & Willamette Dr
Agency/Co.	Charbonneau Engineering	Jurisdiction	City of West Linn
Date Performed	4/9/2008	Analysis Year	2013 Background Traffic
Analysis Time Period	PM Peak Hour		

Project Description #08-16 Willamette Commons	
East/West Street: Shady Hollow Way	North/South Street: Willamette Drive (Hwy 43)
Intersection Orientation: North-South	Study Period (hrs): 0.25

### Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	683	7	4	1181	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Hourly Flow Rate, HFR	0	742	7	4	1283	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Two Way Left Turn Lane					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	7	0	4	0	0	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Hourly Flow Rate, HFR	7	0	4	0	0	0
Percent Heavy Vehicles	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				

### Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (vph)		4		11				
C (m) (vph)		869		224				
v/c		0.00		0.05				
95% queue length		0.01		0.15				
Control Delay		9.2		21.9				
LOS		A		C				
Approach Delay	--	--	21.9					
Approach LOS	--	--	C					

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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MEO	Intersection	Shady Hollow & Burgerville acc
Agency/Co.	Charbonneau Engineering	Jurisdiction	City of West Linn
Date Performed	4/9/2008	Analysis Year	2013 Background Traffic
Analysis Time Period	PM Peak Hour		

Project Description #08-16 Willamette Commons	
East/West Street: Shady Hollow Way	North/South Street: Burgerville access
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	8	2	0	8	0
Peak-hour factor, PHF	0.69	0.69	0.69	0.69	0.69	0.69
Hourly Flow Rate (veh/h)	0	11	2	0	11	0
Proportion of heavy vehicles, P <sub>HV</sub>	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	0	0	0	0
Peak-hour factor, PHF	0.69	0.69	0.69	0.69	0.69	0.69
Hourly Flow Rate (veh/h)	11	0	0	0	0	0
Proportion of heavy vehicles, P <sub>HV</sub>	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	12
Lane Configuration		LT		LR				
Volume, v (vph)		0		11				
Capacity, c <sub>m</sub> (vph)		1619		998				
v/c ratio		0.00		0.01				
Queue length (95%)		0.00		0.03				
Control Delay (s/veh)		7.2		8.6				
LOS		A		A				
Approach delay (s/veh)	--	--	8.6					
Approach LOS	--	--	A					

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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MEO	Intersection	Shady Hollow & Willamette Dr
Agency/Co.	Charbonneau Engineering	Jurisdiction	City of West Linn
Date Performed	4/9/2008	Analysis Year	2013 Total Traffic
Analysis Time Period	AM Peak Hour		
Project Description #08-16 Willamette Commons - with existing (R-10) zoning			
East/West Street: Shady Hollow Way		North/South Street: Willamette Drive (Hwy 43)	
Intersection Orientation: North-South		Study Period (hrs): 0.25	

### Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	1145	7	3	505	0
Peak-Hour Factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Hourly Flow Rate, HFR	0	1218	7	3	537	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Two Way Left Turn Lane					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	21	0	3	0	0	0
Peak-Hour Factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Hourly Flow Rate, HFR	22	0	3	0	0	0
Percent Heavy Vehicles	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				

### Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (vph)		3		25				
C (m) (vph)		576		210				
v/c		0.01		0.12				
95% queue length		0.02		0.40				
Control Delay		11.3		24.4				
LOS		B		C				
Approach Delay	--	--	24.4					
Approach LOS	--	--	C					

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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MEO	Intersection	Shady Hollow & accesses
Agency/Co.	Charbonneau Engineering	Jurisdiction	City of West Linn
Date Performed	4/9/2008	Analysis Year	2013 Total Traffic
Analysis Time Period	AM Peak Hour		

Project Description #08-16 Willamette Commons - with existing (R-10) zoning	
East/West Street: Shady Hollow Way	North/South Street: Burgerville access/site access
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)	2	10	2	1	20	0
Peak-hour factor, PHF	0.60	0.60	0.60	0.60	0.60	0.60
Hourly Flow Rate (veh/h)	3	16	3	1	33	0
Proportion of heavy vehicles, P <sub>HV</sub>	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)	5	0	1	0	0	5
Peak-hour factor, PHF	0.60	0.60	0.60	0.60	0.60	0.60
Hourly Flow Rate (veh/h)	8	0	1	0	0	8
Proportion of heavy vehicles, P <sub>HV</sub>	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			LTR		
Volume, v (vph)	3	1	9			8		
Capacity, c <sub>m</sub> (vph)	1592	1611	941			1046		
v/c ratio	0.00	0.00	0.01			0.01		
Queue length (95%)	0.01	0.00	0.03			0.02		
Control Delay (s/veh)	7.3	7.2	8.9			8.5		
LOS	A	A	A			A		
Approach delay (s/veh)	--	--	8.9			8.5		
Approach LOS	--	--	A			A		

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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MEO	Intersection	Shady Hollow & Willamette Dr
Agency/Co.	Charbonneau Engineering	Jurisdiction	City of West Linn
Date Performed	4/9/2008	Analysis Year	2013 Total Traffic
Analysis Time Period	PM Peak Hour		
Project Description #08-16 Willamette Commons - with existing (R-10) zoning			
East/West Street: Shady Hollow Way		North/South Street: Willamette Drive (Hwy 43)	
Intersection Orientation: North-South		Study Period (hrs): 0.25	

### Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	683	11	6	1181	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Hourly Flow Rate, HFR	0	742	11	6	1283	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Two Way Left Turn Lane					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	9	0	5	0	0	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Hourly Flow Rate, HFR	9	0	5	0	0	0
Percent Heavy Vehicles	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				

### Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (vph)		6		14				
C (m) (vph)		866		221				
v/c		0.01		0.06				
95% queue length		0.02		0.20				
Control Delay		9.2		22.4				
LOS		A		C				
Approach Delay	--	--	22.4					
Approach LOS	--	--	C					

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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MEO	Intersection	Shady Hollow & accesses
Agency/Co.	Charbonneau Engineering	Jurisdiction	City of West Linn
Date Performed	4/9/2008	Analysis Year	2013 Total Traffic
Analysis Time Period	PM Peak Hour		

Project Description #08-16 Willamette Commons - with existing (R-10) zoning	
East/West Street: Shady Hollow Way	North/South Street: Burgerville access/site access
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)	6	8	2	0	8	0
Peak-hour factor, PHF	0.69	0.69	0.69	0.69	0.69	0.69
Hourly Flow Rate (veh/h)	8	11	2	0	11	0
Proportion of heavy vehicles, P <sub>HV</sub>	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)	8	0	0	0	0	3
Peak-hour factor, PHF	0.69	0.69	0.69	0.69	0.69	0.69
Hourly Flow Rate (veh/h)	11	0	0	0	0	4
Proportion of heavy vehicles, P <sub>HV</sub>	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)	8	0	11			4		
Capacity, c <sub>m</sub> (vph)	1621	1619	961			1076		
v/c ratio	0.00	0.00	0.01			0.00		
Queue length (95%)	0.01	0.00	0.03			0.01		
Control Delay (s/veh)	7.2	7.2	8.8			8.4		
LOS	A	A	A			A		
Approach delay (s/veh)	--	--	8.8			8.4		
Approach LOS	--	--	A			A		

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## TWO-WAY STOP CONTROL SUMMARY

General Information			Site Information	
Analyst	MEO		Intersection	Shady Hollow & Willamette Dr
Agency/Co.	Charbonneau Engineering		Jurisdiction	City of West Linn
Date Performed	6/23/2008		Analysis Year	2013 Total Traffic
Analysis Time Period	AM Peak Hour			
Project Description #08-16 Willamette Commons - with proposed (R-4.5) zoning				
East/West Street: Shady Hollow Way			North/South Street: Willamette Drive (Hwy 43)	
Intersection Orientation: North-South			Study Period (hrs): 0.25	

### Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
	1	2	3	4	5	6
Movement	L	T	R	L	T	R
Volume	0	1145	9	3	505	0
Peak-Hour Factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Hourly Flow Rate, HFR	0	1218	9	3	537	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Two Way Left Turn Lane					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
	7	8	9	10	11	12
Movement	L	T	R	L	T	R
Volume	27	0	5	0	0	0
Peak-Hour Factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Hourly Flow Rate, HFR	28	0	5	0	0	0
Percent Heavy Vehicles	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				

### Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
	1	4	7	8	9	10	11	12
Movement								
Lane Configuration		LT		LR				
v (vph)		3		33				
C (m) (vph)		575		211				
v/c		0.01		0.16				
95% queue length		0.02		0.54				
Control Delay		11.3		25.2				
LOS		B		D				
Approach Delay	--	--	25.2					
Approach LOS	--	--	D					

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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MEO	Intersection	Shady Hollow & accesses
Agency/Co.	Charbonneau Engineering	Jurisdiction	City of West Linn
Date Performed	06/23/2008	Analysis Year	2013 Total Traffic
Analysis Time Period	AM Peak Hour		

Project Description #08-16 Willamette Commons - with proposed (R-4.5) zoning	
East/West Street: Shady Hollow Way	North/South Street: Burgerville access/site access
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)	4	10	2	1	20	0
Peak-hour factor, PHF	0.60	0.60	0.60	0.60	0.60	0.60
Hourly Flow Rate (veh/h)	6	16	3	1	33	0
Proportion of heavy vehicles, P <sub>HV</sub>	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)	5	0	1	0	0	13
Peak-hour factor, PHF	0.60	0.60	0.60	0.60	0.60	0.60
Hourly Flow Rate (veh/h)	8	0	1	0	0	21
Proportion of heavy vehicles, P <sub>HV</sub>	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			LTR	
Volume, v (vph)	6	1		9			21	
Capacity, c <sub>m</sub> (vph)	1592	1611		913			1046	
v/c ratio	0.00	0.00		0.01			0.02	
Queue length (95%)	0.01	0.00		0.03			0.06	
Control Delay (s/veh)	7.3	7.2		9.0			8.5	
LOS	A	A		A			A	
Approach delay (s/veh)	--	--		9.0			8.5	
Approach LOS	--	--		A			A	

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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MEO	Intersection	Shady Hollow & Willamette Dr
Agency/Co.	Charbonneau Engineering	Jurisdiction	City of West Linn
Date Performed	06/23/2008	Analysis Year	2013 Total Traffic
Analysis Time Period	PM Peak Hour		
Project Description #08-16 Willamette Commons - with proposed (R-4.5) zoning			
East/West Street: Shady Hollow Way		North/South Street: Willamette Drive (Hwy 43)	
Intersection Orientation: North-South		Study Period (hrs): 0.25	

### Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound			
	Movement	1	2	3	4	5	6
		L	T	R	L	T	R
Volume	0	683	17	8	1181	0	
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly Flow Rate, HFR	0	742	18	8	1283	0	
Percent Heavy Vehicles	0	--	--	0	--	--	
Median Type	Two Way Left Turn Lane						
RT Channelized			0			0	
Lanes	0	1	0	0	1	0	
Configuration			TR	LT			
Upstream Signal		0			0		

Minor Street	Westbound			Eastbound			
	Movement	7	8	9	10	11	12
		L	T	R	L	T	R
Volume	13	0	6	0	0	0	
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly Flow Rate, HFR	14	0	6	0	0	0	
Percent Heavy Vehicles	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					

### Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
			7	8	9	10	11	12
Movement	1	4						
Lane Configuration		LT		LR				
v (vph)		8		20				
C (m) (vph)		861		210				
v/c		0.01		0.10				
95% queue length		0.03		0.31				
Control Delay		9.2		23.9				
LOS		A		C				
Approach Delay	--	--		23.9				
Approach LOS	--	--		C				

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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MEO	Intersection	Shady Hollow & accesses
Agency/Co.	Charbonneau Engineering	Jurisdiction	City of West Linn
Date Performed	06/23/2008	Analysis Year	2013 Total Traffic
Analysis Time Period	PM Peak Hour		

Project Description #08-16 Willamette Commons - with proposed (R-4.5) zoning	
East/West Street: Shady Hollow Way	North/South Street: Burgerville access/site access
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)	14	8	2	0	8	0
Peak-hour factor, PHF	0.69	0.69	0.69	0.69	0.69	0.69
Hourly Flow Rate (veh/h)	20	11	2	0	11	0
Proportion of heavy vehicles, P <sub>HV</sub>	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)	8	0	0	0	0	8
Peak-hour factor, PHF	0.69	0.69	0.69	0.69	0.69	0.69
Hourly Flow Rate (veh/h)	11	0	0	0	0	11
Proportion of heavy vehicles, P <sub>HV</sub>	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			LTR	
Volume, v (vph)	20	0		11			11	
Capacity, c <sub>m</sub> (vph)	1621	1619		912			1076	
v/c ratio	0.01	0.00		0.01			0.01	
Queue length (95%)	0.04	0.00		0.04			0.03	
Control Delay (s/veh)	7.2	7.2		9.0			8.4	
LOS	A	A		A			A	
Approach delay (s/veh)	--	--		9.0			8.4	
Approach LOS	--	--		A			A	

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## TWO-WAY STOP CONTROL SUMMARY

General Information			Site Information					
Analyst	MEO		Intersection	Shady Hollow & Willamette Dr				
Agency/Co.	Charbonneau Engineering		Jurisdiction	City of West Linn				
Date Performed	4/14/2008		Analysis Year	2023 Planning Horizon Traffic				
Analysis Time Period	AM Peak Hour							
Project Description #08-16 Willamette Commons - with existing (R-10) zoning								
East/West Street: Shady Hollow Way			North/South Street: Willamette Drive (Hwy 43)					
Intersection Orientation: North-South			Study Period (hrs): 0.25					
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	0	1353	8	3	597	0		
Peak-Hour Factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94		
Hourly Flow Rate, HFR	0	1439	8	3	635	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Two Way Left Turn Lane							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration			TR	LT				
Upstream Signal		0			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	24	0	3	0	0	0		
Peak-Hour Factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94		
Hourly Flow Rate, HFR	25	0	3	0	0	0		
Percent Heavy Vehicles	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						
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (vph)		3		28				
C (m) (vph)		474		163				
v/c		0.01		0.17				
95% queue length		0.02		0.60				
Control Delay		12.6		31.6				
LOS		B		D				
Approach Delay	--	--	31.6					
Approach LOS	--	--	D					

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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MEO	Intersection	Shady Hollow & accesses
Agency/Co.	Charbonneau Engineering	Jurisdiction	City of West Linn
Date Performed	4/14/2008	Analysis Year	2023 Planning Horizon Traffic
Analysis Time Period	AM Peak Hour		

Project Description #08-16 Willamette Commons - with existing (R-10) zoning	
East/West Street: Shady Hollow Way	North/South Street: Burgerville access/site access
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)	2	12	2	1	24	0
Peak-hour factor, PHF	0.60	0.60	0.60	0.60	0.60	0.60
Hourly Flow Rate (veh/h)	3	19	3	1	39	0
Proportion of heavy vehicles, P <sub>HV</sub>	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)	5	0	1	0	0	5
Peak-hour factor, PHF	0.60	0.60	0.60	0.60	0.60	0.60
Hourly Flow Rate (veh/h)	8	0	1	0	0	8
Proportion of heavy vehicles, P <sub>HV</sub>	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			LTR	
Volume, v (vph)	3	1		9			8	
Capacity, c <sub>m</sub> (vph)	1584	1607		930			1038	
v/c ratio	0.00	0.00		0.01			0.01	
Queue length (95%)	0.01	0.00		0.03			0.02	
Control Delay (s/veh)	7.3	7.2		8.9			8.5	
LOS	A	A		A			A	
Approach delay (s/veh)	--	--		8.9			8.5	
Approach LOS	--	--		A			A	

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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MEO	Intersection	Shady Hollow & Willamette Dr
Agency/Co.	Charbonneau Engineering	Jurisdiction	City of West Linn
Date Performed	4/14/2008	Analysis Year	2023 Planning Horizon Traffic
Analysis Time Period	PM Peak Hour		
Project Description #08-16 Willamette Commons - with existing (R-10) zoning			
East/West Street: Shady Hollow Way		North/South Street: Willamette Drive (Hwy 43)	
Intersection Orientation: North-South		Study Period (hrs): 0.25	

### Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	807	12	7	1396	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Hourly Flow Rate, HFR	0	877	13	7	1517	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Two Way Left Turn Lane					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	10	0	6	0	0	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Hourly Flow Rate, HFR	10	0	6	0	0	0
Percent Heavy Vehicles	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				

### Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (vph)		7		16				
C (m) (vph)		770		168				
v/c		0.01		0.10				
95% queue length		0.03		0.31				
Control Delay		9.7		28.7				
LOS		A		D				
Approach Delay	--	--	28.7					
Approach LOS	--	--	D					

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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MEO	Intersection	Shady Hollow & accesses
Agency/Co.	Charbonneau Engineering	Jurisdiction	City of West Linn
Date Performed	4/14/2008	Analysis Year	2023 Planning Horizon Traffic
Analysis Time Period	PM Peak Hour		

Project Description #08-16 Willamette Commons - with existing (R-10) zoning	
East/West Street: Shady Hollow Way	North/South Street: Burgerville access/site access
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)	6	9	2	0	9	0
Peak-hour factor, PHF	0.69	0.69	0.69	0.69	0.69	0.69
Hourly Flow Rate (veh/h)	8	13	2	0	13	0
Proportion of heavy vehicles, P <sub>HV</sub>	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)	8	0	0	0	0	3
Peak-hour factor, PHF	0.69	0.69	0.69	0.69	0.69	0.69
Hourly Flow Rate (veh/h)	11	0	0	0	0	4
Proportion of heavy vehicles, P <sub>HV</sub>	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)	8	0	11			4		
Capacity, c <sub>m</sub> (vph)	1619	1616	955			1073		
v/c ratio	0.00	0.00	0.01			0.00		
Queue length (95%)	0.01	0.00	0.03			0.01		
Control Delay (s/veh)	7.2	7.2	8.8			8.4		
LOS	A	A	A			A		
Approach delay (s/veh)	--	--	8.8			8.4		
Approach LOS	--	--	A			A		

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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MEO	Intersection	Shady Hollow & Willamette Dr
Agency/Co.	Charbonneau Engineering	Jurisdiction	City of West Linn
Date Performed	06/23/2008	Analysis Year	2023 Planning Horizon Traffic
Analysis Time Period	AM Peak Hour		
Project Description #08-16 Willamette Commons - with proposed (R-4.5) zoning			
East/West Street: Shady Hollow Way		North/South Street: Willamette Drive (Hwy 43)	
Intersection Orientation: North-South		Study Period (hrs): 0.25	

### Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	1353	10	3	597	0
Peak-Hour Factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Hourly Flow Rate, HFR	0	1439	10	3	635	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Two Way Left Turn Lane					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	30	0	5	0	0	0
Peak-Hour Factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Hourly Flow Rate, HFR	31	0	5	0	0	0
Percent Heavy Vehicles	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					

### Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (vph)		3		36				
C (m) (vph)		474		162				
v/c		0.01		0.22				
95% queue length		0.02		0.81				
Control Delay		12.6		33.5				
LOS		B		D				
Approach Delay	--	--	33.5					
Approach LOS	--	--	D					

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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MEO	Intersection	Shady Hollow & accesses
Agency/Co.	Charbonneau Engineering	Jurisdiction	City of West Linn
Date Performed	06/23/2008	Analysis Year	2023 Planning Horizon Traffic
Analysis Time Period	AM Peak Hour		

Project Description #08-16 Willamette Commons - with proposed (R-4.5) zoning	
East/West Street: Shady Hollow Way	North/South Street: Burgerville access/site access
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)	4	12	2	1	24	0
Peak-hour factor, PHF	0.60	0.60	0.60	0.60	0.60	0.60
Hourly Flow Rate (veh/h)	6	19	3	1	39	0
Proportion of heavy vehicles, P <sub>HV</sub>	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)	5	0	1	0	0	13
Peak-hour factor, PHF	0.60	0.60	0.60	0.60	0.60	0.60
Hourly Flow Rate (veh/h)	8	0	1	0	0	21
Proportion of heavy vehicles, P <sub>HV</sub>	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)	6	1	9			21		
Capacity, c <sub>m</sub> (vph)	1584	1607	904			1038		
v/c ratio	0.00	0.00	0.01			0.02		
Queue length (95%)	0.01	0.00	0.03			0.06		
Control Delay (s/veh)	7.3	7.2	9.0			8.5		
LOS	A	A	A			A		
Approach delay (s/veh)	--	--	9.0			8.5		
Approach LOS	--	--	A			A		

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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MEO	Intersection	Shady Hollow & Willamette Dr
Agency/Co.	Charbonneau Engineering	Jurisdiction	City of West Linn
Date Performed	06/23/2008	Analysis Year	2023 Planning Horizon Traffic
Analysis Time Period	PM Peak Hour		
Project Description #08-16 Willamette Commons - with proposed (R-4.5) zoning			
East/West Street: Shady Hollow Way		North/South Street: Willamette Drive (Hwy 43)	
Intersection Orientation: North-South		Study Period (hrs): 0.25	

### Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	807	18	9	1396	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Hourly Flow Rate, HFR	0	877	19	9	1517	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Two Way Left Turn Lane					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	14	0	7	0	0	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Hourly Flow Rate, HFR	15	0	7	0	0	0
Percent Heavy Vehicles	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				

### Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (vph)		9		22				
C (m) (vph)		766		158				
v/c		0.01		0.14				
95% queue length		0.04		0.47				
Control Delay		9.8		31.4				
LOS		A		D				
Approach Delay	--	--	31.4					
Approach LOS	--	--	D					

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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MEO	Intersection	Shady Hollow & accesses
Agency/Co.	Charbonneau Engineering	Jurisdiction	City of West Linn
Date Performed	06/23/2008	Analysis Year	2023 Planning Horizon Traffic
Analysis Time Period	PM Peak Hour		

Project Description #08-16 Willamette Commons - with proposed (R-4.5) zoning	
East/West Street: Shady Hollow Way	North/South Street: Burgerville access/site access
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)	14	9	2	0	9	0
Peak-hour factor, PHF	0.69	0.69	0.69	0.69	0.69	0.69
Hourly Flow Rate (veh/h)	20	13	2	0	13	0
Proportion of heavy vehicles, P <sub>HV</sub>	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)	8	0	0	0	0	8
Peak-hour factor, PHF	0.69	0.69	0.69	0.69	0.69	0.69
Hourly Flow Rate (veh/h)	11	0	0	0	0	11
Proportion of heavy vehicles, P <sub>HV</sub>	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			LTR	
Volume, v (vph)	20	0		11			11	
Capacity, c <sub>m</sub> (vph)	1619	1616		906			1073	
v/c ratio	0.01	0.00		0.01			0.01	
Queue length (95%)	0.04	0.00		0.04			0.03	
Control Delay (s/veh)	7.3	7.2		9.0			8.4	
LOS	A	A		A			A	
Approach delay (s/veh)	--	--		9.0			8.4	
Approach LOS	--	--		A			A	

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**Appendix G**  
**Site Photos**

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**Photo 1: Shady Hollow Way Looking East.**



**Photo 2: Shady Hollow Way Looking West**

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**Photo 3: Tri-Met stop #35, on the southeast corner of Shady Hollow Way and Highway 43**



**Photo 4: Burgerville Restaurant adjacent to the site, across Shady Hollow Way.**

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**Photo 5: Mix of commercial uses within quarter-mile of the site.**



**Photo 6: Mix of commercial uses within quarter-mile of the site.**

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**Photo 7: Mix of commercial uses within quarter-mile of the site.**



**Photo 8: Mix of commercial uses within quarter-mile of the site.**

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**Photo 9: Mix of commercial uses within quarter-mile of the site.**



**Photo 10: Mix of commercial uses within quarter-mile of the site.**

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**Photo 10: Mix of commercial uses within quarter-mile of the site.**



**Photo 11: Mix of commercial uses within half-mile of the site.**

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**Photo 12: Existing Highway 43 right of way in front of the site.**



**Photo 13: Mix of commercial uses within half-mile of the site.**

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**Photo 14: Mix of commercial uses within half-mile of the site.**



**Photo 15: Mix of commercial uses within half-mile of the site.**

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**Photo 16: Mix of commercial uses within half-mile of the site.**



**Photo 17: Mix of commercial uses within half-mile of the site.**

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