



**City of Sherwood  
PLANNING COMMISSION  
Sherwood City Hall  
22560 SW Pine Street  
Sherwood, OR 97140**

**May 12, 2009 – 6 PM (work session)  
7 PM (business meeting)**

**Work Session – 6:00 PM**

- **Engineering Design Standards**
- **Update on Cannery project**
- **Adams Avenue Concept Plan**

**Business Meeting – 7:00 PM**

1. **Call to Order/Roll Call**
2. **Agenda Review**
3. **Consent Agenda**
4. **Staff Announcements**
5. **Council Announcements (Dave Heironimus, Planning Commission Liaison)**
6. **Community Comments** (*The public may provide comments on any non-agenda item*)
7. **New Business:**
  - a. **SP 08-13 / CUP 08-03 Villa Lucca** - The applicant requests preliminary site plan approval and a conditional use permit to construct two buildings: a 99-unit, four-story Independent Living Facility and 2,700 square foot mixed use building. The applicant will extend SW Cedar Brook Way along the western property line and northward from SW Meinecke Parkway just northeast of 99W. Forty-eight above ground and forty-six below grade parking spaces will be created on site as well as a pathway to connect with the residential properties to the west. The total site area is approximately 5.77 acres.
8. **Comments from Commission**
9. **Next Meeting: May 26, 2009** – Currently on the schedule: Continuation of Claus Appeal (ADM 09-01) and Adams Avenue Concept Plan (PA 09-02)
10. **Adjourn**

Villa Lucca aka Avamere at Cedar Brook Way

TO: Planning Commission

Pre-App. Meeting: June 17, 2008  
App. Submitted: November 17, 2008  
App. Complete: April 9, 2009  
120-Day Deadline: August 7, 2009  
Hearing Date: **May 12, 2009**

FROM: Planning Department

Michelle Miller  
Associate Planner

**Proposal:** The applicant requests site plan approval and a conditional use permit to construct two structures: a ninety-nine unit independent living facility, approximately 124,675 square feet and a 2,700 square foot mixed use building to be used for two live/work units. The applicant proposes forty-eight surface parking spaces and forty-six underground spaces on the nearly six acre parcel. The applicant proposes to use two on site and five on street parking spaces for the live-work building. The applicant proposes to extend SW Cedar Brook Way from the roundabout northward on SW Meinecke Parkway around the western edge of the site to the multifamily development adjacent to the site just off of 99W. A southern portion of the site will remain undeveloped and is not part of this application. The applicant's submittal packet is attached as Exhibit A.

**I. BACKGROUND**

- A. Applicant/Owner: J. Patrick Lucas  
Cedar Brook Way, LLC  
20512 SW Roy Rogers Road, #150  
Sherwood OR 97140
- Applicant's Representative AKS Engineering & Forestry, LLC  
13910 SW Galbreath Drive, Suite 100  
Sherwood OR 97140
- Contact: Monty Hurley and Chris Goodell  
(503)-925-8799
- B. Location: 2S130CD13400 SW Cedar Brook Way and Meinecke Parkway
- C. Parcel Sizes: 5.77 acres total, including area for Cedar Brook Way extension
- D. Existing Development and Site Characteristics: The site is vacant with a vegetated corridor along the western and northern edges of the property line. The vegetated corridor is approximately fifty feet in most places and slopes to the western edge of the site into the vegetated corridor. Nine trees are to remain within this corridor. The rest of the site is vacant and level. SW

Meinecke Parkway, a fully developed roadway extends to the roundabout at the intersection of SW Meinecke Parkway and SW Cedar Brook Way with curb tight sidewalks to the roundabout.

- E. Site History: Initially, part of a three lot minor land partition Cedar Brook Way MLP (05-05), approved in 2005. When the Oregon Department of Transportation (ODOT), in cooperation with the City constructed the western extension of SW Meinecke Parkway terminating in a traffic roundabout at SW Cedar Brook Way, tax lots 100 and 101 were physically created with the road separating them. The three lots were zoned General Commercial. Two of those lots have office buildings currently constructed or under construction. This third lot is the subject of the land use application.
- F. Zoning Classification and Comprehensive Plan Designation: The site is zoned General Commercial (GC) for commercial purposes.
- G. Adjacent Zoning and Land Use: Land to the east is zoned High Density Residential (HDR) with multifamily housing. Land to the south and across SW Meinecke is also zoned GC, developed with two separate office buildings. To the west and across the vegetated corridor buffer, is a residential subdivision with single family homes zoned low density residential, planned unit development (LDR-PUD), Wydham Ridge. See Exhibit I.
- H. Review Type: Due to the size of the building and site, the site plan and conditional permit requires a Type IV review with a public hearing and decision made by the Planning Commission after consideration of public comment. An appeal would be heard by the City Council.
- I. Public Notice and Hearing: Notice of the application was mailed to property owners within 100 feet, posted on the property and in five locations throughout the City on April 21, 2009. The notice was published in the Tigard/Tualatin Times on April 30, and May 7, 2009 in accordance with Section 16.72.020 of the SZCDC.
- J. Review Criteria: Sherwood Zoning and Community Development Code, 16.22 (General Commercial), 16.36 (Institutional and Public), 16.58.010 (Clear Vision), 16.58.030 (Fences, Walls and Hedges), 16.62 (Chimneys, Spires, Antennas, and Similar Structures) 16.82 (Conditional Uses), 16.90 (Site Planning), 16.92 (Landscaping), 16.94 (Off-Street Parking), 16.96 (On-Site Circulation), 16.98 (On-Site Storage), Division VI 16.104-16.118 (Public Improvements), 16.142 (Parks and Open Space), 16.48 (Vibrations), 16.150 (Air Quality), 16.52 (Odors), 16.154 (Heat and Glare), and 16.156 (Energy Conservation).

## II. PUBLIC COMMENTS

Public notice was mailed, posted on the property and in five locations throughout the City on April 21, 2009. Staff has received two written comments as of the date of this report that are marked as Exhibit B and C.

### III. AGENCY COMMENTS

Staff sent e-notice to affected agencies on April 9, 2009. The following is a summary of the comments received. Copies of full comments are included in the record unless otherwise noted.

#### Sherwood Engineering Department:

##### Grading and Erosion Control:

Retaining walls within public easements or the public right-of-way shall require engineering approval. Retaining walls with a height of 4 feet or higher located on private property will require a permit from the building department.

##### Other Engineering Issues:

Public easements are required over all public utilities outside the public right-of-way. Easements dedicated to the City of Sherwood are exclusive easements unless otherwise authorized by the City Engineer.

An eight-foot wide public utility easement is required adjacent to the right-of-way of all street frontages. (Reference code 16.118.020.B).

All existing and proposed utilities shall be placed underground.

Obtain a right-of-way permit for any work required in the public right-of-way, (reference City Ordinance 2006-20).

All public easements must be in submitted to the City for review, signed by the City and Applicant, recorded by the applicant with the original recorded easements on file at the City prior to the release of public improvement plans.

##### Miscellaneous:

At the City's discretion Applicant may be required to install infrastructure for Sherwood Broadband as noted in City Ordinances 2005-17 and 2005-74.

Clean Water Services: Jackie Humphreys provided comments on the noting that Service Provider Letters were granted for this development and the applicant is required to meet the conditions as set forth in that letter. Her detailed comments are attached as Exhibit D.

### IV. CONDITIONAL USE REVIEW– REQUIRED FINDINGS (SECTION 16.82)

The use of the site for an independent living facility (facility) requires conditional use approval under the general commercial zone. The following addresses this portion of the land use application submittal.

- A. **All public facilities and services to the proposed use, including but not limited to sanitary sewers, water, transportation facilities, and services, storm drains, electrical distribution, park and open space and public safety are adequate; or that the construction of improvements**

**needed to provide adequate services and facilities is guaranteed by binding agreement between the applicant and the City.**

The applicant proposes to extend the sanitary sewer, water, storm and electrical system to the site and provide adequate services to the development. The applicant will construct a storm water quality treatment facility on City of Sherwood property but adjacent to the site to the west within the vegetated corridor buffer. The public improvements will be discussed within the applicable code criteria sections in further detail later within this report.

The applicant plans to extend SW Cedar Brook Way from the roundabout to the property to the north where the Creekview Crossing, a multi-family development is under construction. This will provide adequate circulation and serve as a frontage road along 99W through the adjoining properties. The applicant proposes a pedestrian connection to an existing trail system to the west. Tract A, owned by the City and approximately 6.12 acres provides adequate open space and separation of the independent living facility (ILF) and subdivision. Coupled with the 1.22 acres of open space within the site along SW Cedar Brook Way there is adequate buffering. The applicant also proposes a landscaped courtyard within the development to provide an open space area for the residents to congregate.

**FINDING:** Based on the above discussion, the applicant meets this criterion.

**B. Proposed use conforms to other standards of the applicable zone and is compatible with abutting land uses in regard to noise generation and public safety.**

The dimensional standards for the GC zone including setbacks and height elements are met and will be discussed in further detail under the appropriate section. The surrounding property to the east is also a multifamily type of development and thus will generate similar noises associated with residential uses. The office buildings operate during general business hours and will be not in conflict with the facility use as office noise is relatively quiet. Adequate sidewalks exist throughout the perimeter of the site to support safe pedestrian connectivity with the adjoining properties.

**FINDING:** As discussed above, this standard has been met.

**C. The granting of the proposal will provide for a facility or use that meets the overall needs of the community and achievement of the goals and/or policies of the Comprehensive Plan, the adopted City of Sherwood Transportation System Plan and this Code.**

The Comprehensive Plan calls for a variety of housing types and this particular facility accommodates the segment of the senior citizen community wishing to reside in a more independent-type of facility, but not requiring assisted living. Residents looking to relocate to this facility may be relatives of Sherwood residents looking to be closer to family or existing Sherwood residents moving from single family homes. An independent living facility is not currently available as a specific housing type for the City; however it is most similar to an assisted living facility in that there is a common open eating area large food preparation area.

The applicant has provided site plans that indicate completion of a segment of SW Cedar Brook Way which complies with the City of Sherwood Transportation System Plan (TSP). Also, the

applicant proposes a trail connection the development to the west, also in compliance with the TSP.

**FINDING:** Based on the above discussion, the applicant meets this criterion.

**D. Surrounding property will not be adversely affected by the use, or that the adverse effects of the use on the surrounding uses, the neighborhood, or the City as a whole are sufficiently mitigated by the conditions proposed.**

The use is similar to the multi-family development adjacent to the site and is in compliance with the height requirements of the general commercial zone. Where the building is within 100 feet of the HDR zone, the applicant proposes the building height to be 40 feet. The applicant's proposal situates the building away from the adjoining properties thereby lessening the impact of the size of the structure. A parking area, perimeter landscaped buffers also mitigate some of the intensity of this use.

The applicant proposes the addition of another small commercial mixed use building along the western border of the site, near the location of the other commercial buildings along 99W. Natural buffers separate the Wydham Ridge subdivision due the vegetated corridor and proposed SW Cedar Brook Way.

**FINDING:** Based on the above discussion, the applicant meets this criterion.

**E. The impacts of the proposed use of the site can be accommodated considering size, shape, location, topography and natural features.**

The site is 5.77 acres and irregularly shaped. Other commercial property surrounds the property to the south. The applicant proposes to leave a southern portion of the site vacant for now, but plans three commercial buildings to be located nearby. Site plan compliance will be considered at the time of that land use action, but by illustrating the approximate location and size, it shows conceptually that the ILF can be accommodated. The applicant has located the building on the flattest portion of the site where little natural vegetation is occurring. The residents will be able to view the preserved natural area. Although the building is relative large, it will be heavily landscaped with open space and half of the parking will be underground.

**FINDING:** Based on the above discussion, this criterion is met.

**F. The use as proposed does not pose likely significant adverse impacts to sensitive wildlife species or the natural environment.**

The applicant proposes to locate the facility across the street from the natural area and SW Cedar Brook Way. This proposed separation and mitigation measures serve to protect the natural area by providing an adequate buffer from the development. The mixed use building is also located outside of the buffered area. The site plan for this project has been reviewed by Clean Water Services (CWS) who approved of the preliminary design.

**FINDING:** Based on the above discussion, the applicant meets this criterion.

- G. For a proposed conditional use permit in the Neighborhood Commercial (NC), Office Commercial (OC), Office Retail (OR), Retail Commercial (RC), General Commercial (GC), Light Industrial (LI), and General Industrial (GI) zones, except in the Old Town Overlay Zone, the proposed use shall satisfy the requirements of Section 16.108.080 Highway 99W Capacity Allocation Program, unless excluded herein.**

The proposal must satisfy the requirements of the Highway 99W Capacity Allocation program. The applicant submitted a CAP and traffic analysis which has been reviewed by DKS Engineering, the City's traffic consultants. DKS provided comments and recommendations which indicate the project complies subject to potential mitigation. Their CAP analysis is discussed and conditions imposed if needed further within this report.

**FINDING:** Based on the above discussion, the applicant meets this criterion.

**V. SITE PLAN REVIEW– REQUIRED FINDINGS (SECTION 16.90)**

- A. The proposed development meets applicable zoning district standards and design standards in Division II, and all provisions of Divisions V, VI, VIII and IX.**

As discussed above, the ILF conditionally meets the applicable zoning requirements. The dimensional setbacks will be discussed further within this report.

**FINDING:** Based on the above discussion, the applicant meets this criterion.

- B. The proposed development can be adequately served by services conforming to the Community Development Plan, including but not limited to water, sanitary facilities, storm water, solid waste, parks and open space, public safety, electric power, and communications.**

The applicant submitted utility plans that have been reviewed and commented on by City Engineer. His recommendations are discussed further within this report.

**FINDING:** Based on the above discussion, the applicant meets this criterion.

- C. Covenants, agreements, and other specific documents are adequate, in the City's determination, to assure an acceptable method of ownership, management, and maintenance of structures, landscaping, and other on-site features.**

No covenants, agreements or other documents are specifically required for on-site features.

**FINDING:** Based on the above discussion, the applicant meets this standard.

- D. The proposed development preserves significant natural features to the maximum extent feasible, including but not limited to natural drainage ways, wetlands, trees, vegetation, scenic views, and topographical features, and conforms to the applicable provisions of Division VIII of this Code and Chapter 5 of the Community Development Code. (Ord. 2006-021; 91-922 § 3; 86-851)**

The Metro inventory of regionally significant habitat lists the western portion of this property as having a sensitive wildlife habitat. This is a high value vegetation corridor will be protected via a buffer. The vegetated corridor buffer will be protected via a tract that will not be developed. Additionally, the applicant proposed a pathway that will connect the corridor with the existing development which has been provisionally approved by CWS through the Service Provider letter submitted with the application materials.

**FINDING:** Based on the discussion above, the proposed development fully complies with this standard.

- E. For a proposed site plan in the Neighborhood Commercial (NC), Office Commercial (OC), Office Retail (OR), Retail Commercial (RC), General Commercial (GC), Light Industrial (LI), and General Industrial (GI) zones, except in the Old Town Overlay Zone, the proposed use shall satisfy the requirements of Section 16.108.080 Highway 99W Capacity Allocation Program, unless excluded herein. (Ord. 2005-009 § 8)**

The applicant submitted a traffic analysis and CAP documentation that has been reviewed by DKS Engineering and their analysis and recommendations are discussed further within this report.

**FINDING:** Based on the above discussion, the applicant meets this criterion.

- F. For developments that are likely to generation more than 400 average daily trips (ADTs), or at the discretion of the City Engineer, the applicant shall provide adequate information, such as a traffic impact analysis or traffic counts, to demonstrate the level of impact to the surrounding street system. The developer shall be required to mitigate for impacts attributable to the project. The determination of impact or effect and the scope of the impact study shall be coordinated with the provider of the affected transportation facility.**

The applicant has submitted a traffic impact study (TIS) prepared by Charbonneau Engineering for the proposed site. This traffic study was analyzed by the City's transportation consultants, DKS Engineering. The study showed that the impacts of the ILF will require some mitigation, but the proposed project does not add significant traffic volume to the failing movements of the existing intersections of 99W/Meinecke Parkway and Hwy 99W/Sherwood Blvd. Specifically the right and left turn lane warrants were analyzed for two-way stop controlled study intersections. The left turn lane warrants were not met based on the analysis. Right turn lane warrants were triggered with the proposed development, although the added right turn traffic is less than five vehicles per hour. The traffic signal warrants were reviewed, but none of the unsignalized study intersections met the warrants due to low traffic volumes. DKS did make recommendations based on the impacts to the transportation system of the proposed development.

**FINDING:** The applicant has not met the criterion, but could be met with the conditions discussed under the street section of this report based on the impact to the transportation system.

- G. The proposed commercial, multi-family development, and mixed use development is oriented to the pedestrian and bicycle, and to existing and planned transit facilities. Urban design standards shall include the following:**



1. **Primary, front entrances shall be located and oriented to the street, and have significant articulation and treatment, via facades porticos, arcades, porches, portal, forecourt, or stoop to identify the entrance for pedestrians. Additional entrance/exit points for buildings, such as a postern, are allowed from secondary streets or parking areas.**
2. **Buildings shall be located adjacent to and flush to the street, subject to landscape and setback standards of the underlying zone.**

The plans indicate that there is an entrance along SW Cedar Brook Way which is oriented to the street. This entry way is well defined with stone accents and a covered area. A drop off and loading area is specifically defined for access to the building. A wide walkway differentiated with tiled pavers leads the pedestrian to the street. There is a massive entry located in the arcade with another covered entry located near the parking area. The entire building wraps closely along SW Cedar Brook Way, is flush with the street and provides an adequate entry for pedestrians.

The mixed use building also has a distinctive entry point along SW Cedar Brook Way with a similar design that blends in with the ILF. The size of the building is less than 3,000 square feet. The building will have no setbacks in the front which is typical of commercial buildings. A seating area will be provided in the entry plaza located at the front of the building. An attached two-car garage will be located on the northern side of the building.

**FINDING:** Based on the above discussion, the applicant meets this criterion.

3. **The architecture of buildings shall be oriented to the pedestrian and designed for the long term and be adaptable to other uses. Aluminum, vinyl, and T-111 siding, metal roofs, and artificial stucco material shall be prohibited. Street facing elevations shall have windows, transparent fenestration, and division to break up the mass of any window. Roll up and sliding doors are acceptable. Awnings that provide a minimum three feet of shelter from rain shall be installed unless other architectural elements are provided for similar protection, such as an arcade.**

The architecture of the ILF and the live work building can be characterized as in the "Tuscan style." The buildings are oriented to the pedestrian through the distinctive entry plaza with benches and landscaping throughout the side facing SW Cedar Brook Way and around the building. Other architectural elements include distinctive pavers at the entryway, bicycle racks, terra cotta roofing material, several different colors of paint and stone along the ground floor. Additional architectural details include balconies, shutters, awnings and different sizes of windows. Both the different types of building materials used and the various architectural details provide the distinctive breaks in the façade.

The live-work units are comprised of similar materials and design. The articulation of the building is also facing SW Cedar Brook Way. The building entrances have awnings that provide shelter from the rain.

**FINDING:** Based on the above discussion, the applicant meets this criterion.

**VI. APPLICABLE CODE PROVISIONS**

**A. 16.30 .030 Conditional Uses-General Commercial**

The following uses are permitted as conditional uses, provided such uses meet the applicable environmental performance standards contained in Division VIII, and are approved in accordance with Chapter 16.82:

**A. Special care facilities, including but not limited to hospitals, sanitariums, convalescent homes, correctional institutions, and residential care facilities.**

**J. Residential apartments when located on the upper floors, in the rear of, or otherwise clearly secondary to a commercial building as defined in section 16.30.030(B).**

The conditional use criteria are discussed above and this use, although not a residential care facility will operate in the same manner as a special care or residential care facility in that a senior community will reside together in an apartment-like setting. For the smaller building, the applicant has proposed residential living quarters located on the upper floors of a commercial office building.

**FINDING:** Based on the above discussion, the applicant meets this criterion.

**16.30.050 Dimensional Standards**

No lot area, setback, yard, landscaped area, open space, off-street parking or loading area, or other site dimension or requirement, existing on, or after, the effective date of this Code shall be reduced below the minimum required by this Code. Nor shall the conveyance of any portion of a lot, for other than a public use or right-of-way, leave a lot or structure on the remainder of said lot with less than minimum Code dimensions, area, setbacks or other requirements, except as permitted by Chapter 16.84.

**16.30.050.A. Lot Dimensions**

Except as otherwise provided, required minimum lot areas and dimensions shall be:

1.	Lot area:	10,000 sq ft
2.	Lot width at front property line:	70 feet
3.	Lot width at building line:	70 feet

**FINDING:** The lot width is approximately 100 feet at the front at the building line. The site is 5.77 acres, well above the minimum lot area dimensions. The applicant meets this criterion.

**16.30.050.B. Setbacks**

Except as otherwise provided, required minimum setbacks shall be:

1.	Front yard:	None, except when the lot abuts a residential zone, the front yard shall be that required in the residential zone.
2.	Side yard:	None, except when abutting a residential zone, then there shall be a minimum of ten (10) feet.

3.	Rear yard:	None, except twenty (20) when abutting a residential zone
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The east side yard of the ILF abuts a residential zone and thus the standard of twenty feet applies. The proposed ILF is situated so that it is at least twenty feet from the residential zone as the parking area separates the buildings from the multifamily development. No other setbacks are required for this building.

In regard to the live-work building, the rear yard abuts City-owned property, zoned residential. This area separates the single family residential area with approximately 6 acres of vegetated buffer and the tax lot 13700. No residences are located within these tax lots. The pedestrian pathway is located through this open area. This area is well over the twenty feet of require rear yard setback.

**FINDING:** Based on the above discussion, the applicant meets this criterion.

**16.30.050.C. Height**

**Except as otherwise provided, the maximum height of structures shall be fifty (50) feet, except that structures within one-hundred (100) feet of a residential zone shall be limited to the height requirements of that residential area. Structures over fifty (50) feet in height may be permitted as conditional uses, subject to Chapter 16.82.**

The height of the proposed building is approximately 40 feet where it is within 100 feet of the abutting multi family development. The portion of the building outside of the 100 foot limitation will be 50 feet. The elevator towers are located on the roof of the building. The applicant proposes to extend the tower five feet over the height limit of 50 feet. This is discussed further within this report under the applicable code section.

**FINDING:** Based on the above discussion, the applicant meets this criterion except for the elevator tower which falls under the exception discussed later within this report.

**16.30.060 Community Design**

**2. The residential portion of a mixed use can be considered clearly secondary to commercial uses in mixed use developments when traffic trips generated, dedicated parking spaces, signage, and the road frontage of residential uses are exceeded by that of the commercial component, and the commercial portion of a site is located primarily on the ground floor.**

The live-work building will have commercial activities on the ground floor with the living component on the second floor, denoting the secondary residential use.

**FINDING:** Based on the above discussion, the applicant meets this criterion.

**16.58.010 Clear Vision Areas**

**A clear vision area shall be maintained on the corners of all property at the intersection of two (2) streets, intersection of a street with a railroad, or intersection of a street with an alley or private driveway. (Ord. 96-1014 § 1; 86-851)**

**A clear vision area shall consist of a triangular area, two (2) sides of which are lot lines measured from the corner intersection of the street lot lines for a distance specified in this regulation; or,**

where the lot lines have rounded corners, the lot lines extended in a straight line to a point of intersection, and so measured, and the third side of which is a line across the corner of the lot joining the non-intersecting ends of the other two (2) sides. (Ord. 86-851 § 3)

A clear vision area shall contain no planting, sight obscuring fence, wall, structure, or temporary or permanent obstruction exceeding two and one-half (2-1/2) feet in height, measured from the top of the curb, or where no curb exists, from the established street center line grade, except that trees exceeding this height may be located in this area, provided all branches and foliage are removed to the height of seven (7) feet above the ground.

The following requirements shall govern clear vision areas:

A. In a residential zone, the minimum distance shall be thirty (30) feet, or at intersections including an alley, ten (10) feet.

B. In commercial and industrial zones, the minimum distance shall be fifteen (15) feet, or at intersections including an alley, ten (10) feet, except that when the angle of intersection between streets, other than an alley, is less than thirty (30) degrees, the distance shall be twenty-five (25) feet.

C. Where no yards are required, buildings may be constructed within the clear vision area.

**FINDING:** The site plans show that there is no obstruction to the clear vision area. On a recent site visit, it is clear that no obstructions exist on the site. Staff cannot confirm this standard has been fully met until the final inspection of the site, but it is possible to demonstrate compliance with this standard if the applicant meets the condition below.

**RECOMMENDED CONDITION:** Prior to final inspection approval, submit plans for verification that the clear vision areas of the access drive are in compliance with § 16.58.010.

**B. Division V- Community Design**

The applicable provisions of Chapter 5 include: 16.90 (Site Planning), 16.62 (Chimneys, Spires, Antennas, and Similar Structures), 16.92 (Landscaping), 16.94 (Off-street parking and Loading), and 16.96 (On-site Circulation). 16.98 Compliance with the standards in these sections is discussed below:

**16.62 Chimneys, Spires, Antennas, and Similar Structures**

**16.62.010 Heights**

Except as otherwise provided the height limits established by this Code shall not apply to chimneys, stacks, water towers radio or television antennas, towers windmills, grain elevators, silos, elevator penthouses, monuments, domes spires belfries, hangars, solar heating devices, and to wireless communication facilities two hundred (200) feet in height or less.

The applicant proposes to extend the elevator tower approximately five feet above the roof amounting to a building height of 55 feet where the towers are located. This is a specific exemption to the height requirement as outlined in this code section.

**FINDING:** Based on the above discussion, the five feet extension of the building height at this location for the elevator tower meets this criterion.

**16.92.010 Landscape Plan**

All proposed developments for which a site plan is required pursuant to Section 16.90.020 shall submit a landscaping plan which meets the standards of this chapter. All areas not occupied by structures, paved roadways, walkways, or patios shall be landscaped or maintained according to an approved site plan. Maintenance of existing not-invasive native vegetation is encouraged within a development and required for portions of the property not being developed.

**16.92.020 Landscaping Materials**

**16.92.020.1 Varieties** - Required landscaped areas shall include an appropriate combination of evergreen or deciduous trees and shrubs, evergreen ground cover, and perennial plantings. Trees to be planted in or adjacent to public rights-of-way shall meet the requirements of this Chapter.

**16.92.020.2 Establishment of Healthy Growth and Size** - Required landscaping materials shall be established and maintained in a healthy condition and of a size sufficient to meet the intent of the approved landscaping plan. Specifications shall be submitted showing that adequate preparation of the topsoil and subsoil will be undertaken.

**16.92.020.4 Existing Vegetation** - All developments subject to site plan review as per Section 16.90.020 and required to submit landscaping plans as per Section 16.92.020 shall preserve existing trees, woodlands and vegetation on the site to the maximum extent possible, as determined by the Commission, in addition to complying with the provisions of Section 16.142.060.

The applicant submitted a landscape plan that shows landscaping throughout the site with a variety of plants. The applicant proposes a variety of street and site trees with shrubs and groundcovers. The applicant proposes over 28,000 square feet of landscaping around the surface parking area and buildings to meet this requirement. The plans indicate that this landscape design is preliminary, and therefore the final landscape plan cannot be verified for the exact composition or the size of the plants to be planted and maintained.

**FINDING:** Based on the above discussion, the applicant has not met the criterion, but can with the following condition.

**RECOMMENDED CONDITION:** Prior to final site plan approval, submit a detailed landscape plan along with certification that the plants are native or are the most appropriate plants given the location and soils or modify the plant list to provide the required native plants.

**16.92.030.01 Perimeter Screening and Buffering** - A minimum six (6) foot high sight-obscuring wooden fence, decorative masonry wall, or evergreen screen shall be required along property lines separating single and two-family uses from multi-family uses, and along property lines separating residential zones from commercial or industrial uses. In addition, plants and other landscaping features may be required by the Commission in locations and sizes necessary to protect the privacy of residences and buffer any adverse effects of adjoining uses.

The applicant proposes a combination of fencing and landscaping along the eastern border of the site where the property line separates the multi-family development. The applicant has proposed a fence as well as additional landscaping to separate these developments. The location and type of landscaping will provide adequate screening between the developments. Also, the applicant has situated the building to provide adequate privacy between the developments.

**FINDING:** As described above, the applicant satisfies this criterion.

**16.92.030.2 – Parking and Loading Areas:**

**16.92.030.2.A - Total Landscaped Area**

**A minimum of ten percent (10%) of the lot area used for the display or parking of vehicles shall be landscaped in accordance with Section 16.92. In addition, all areas not covered by buildings, required parking, and/or circulation drives shall be landscaped with plants native to the Pacific Northwest in accordance with Section 16.92.020.**

The parking lot landscaping is 5,747 square feet. The surface parking area consists of forty-eight (48) parking spots totaling 17,760 square feet which includes the circulation drives. The amount of landscaping proposed is approximately 32 %.

**FINDING:** Based on the above analysis, the applicant meets this criterion.

**16.92.030.2.B - Adjacent to Public Rights-of-Way**

**A landscaped strip at least ten (10) feet in width shall be provided between rights-of-way and any abutting off street parking, loading, or vehicle use areas. Landscaping shall include any combination of evergreen hedges, dense vegetation, earth berm, grade, change in grade, wall or fence, forming a permanent year-round screen, excepting clear vision areas as per Section 16.58.030.**

**FINDING:** The applicant proposes the boundary of the parking area includes a landscaped area. The applicant has illustrated adequate landscaping for the parking area and thus meets this criterion.

**16.92.030.2.C - Perimeter Landscaping**

**A ten (10) foot wide landscaped strip shall be provided between off-street parking, loading, or vehicular use areas on separate abutting properties or developments. A minimum six (6) foot high sight-obscuring fence or plantings shall also be provided, except where equivalent screening is provided by intervening buildings or structures.**

**FINDING:** An existing perimeter landscape area is outlined to the east of the site which separates the parking area from the Creekview Crossing. The applicant has submitted a preliminary plan that provides for adequate screening that meets this criterion.

**16.92.030.D - Interior Landscaping**

**A minimum of fifty percent (50%) of required parking area landscaping shall be placed in the interior of the parking area. Landscaped areas shall be distributed so as to divide large expanses of pavement, improve site appearance, improve safety, and delineate pedestrian walkways and traffic lanes. Individual landscaped areas shall be no less than sixty-four (64) square feet in area and shall**

be provided after every fifteen (15) parking stalls in a row. Storm water bio-swales may be used in lieu of the interior landscaping standard.

The applicant proposes interior landscaped area between parking stalls so that there are no stalls with over ten stalls in a row between landscaped islands. These islands are over sixty four feet in area.

**FINDING:** Based on the above discussion, the applicant meets this criterion.

**16.92.030.E Landscaping at Points of Access**

**When a private access way intersects a public right-of-way or when a property abuts the intersection of two (2) or more public rights-of-way, landscaping shall be planted and maintained so that minimum sight distances shall be preserved pursuant to Section 16.58.010.**

Two entrances are located along SW Cedar Brook Way for the ILF. Both of these drives have landscaping on both sides. The applicant has shown on the plans that there will no sight obstructions at these entrances, but has not delineated the clear vision triangles or provided sight distance verifications.

**FINDING:** The applicant appears to comply with this standard at this time, but it cannot fully be complied without the following condition.

**RECOMMENDED CONDITON:** Prior to final site plan approval, submit revised plans that clearly show no vegetation growing taller than 2 ½ feet will be located within the required 30 foot vision clearance area, unless trees proposed in this area have no limbs or leaves lower than 7 feet above the ground.

**16.92.030.3 - Visual Corridors**

**New developments shall be required to establish landscaped visual corridors along Highway 99W and other arterial and collector streets, consistent with the Natural Resources and Recreation Plan Map, Appendix C of the Community Development Plan, Part II, and the provisions of Section 16.142.**

**FINDING:** The site abuts a local street, SW Cedar Brook Way and thus this section is not applicable.

**16.94.010 – General Off-street parking and loading**

**16.94.020 Off-street parking standards**

**16.94.020.02 – Minimum parking spaces**

**16.94.020.02 provides the required minimum and maximum parking spaces for uses permitted by the SZCDC.**

The applicant has provided parking for the ILF consisting of approximately 46 garage spaces, 48 surface spaces with 18 on street spaces along SW Cedar Brook Way. The Code does not specifically address the minimum number of required spaces for this type of facility. The Code allows for a use not specifically listed could be determined based upon the requirements of comparable uses. The ILF use could be characterized as either a multi-family facility or a nursing home. The multi-family provides for the number of spaces based upon number of bedrooms in each unit. Based on that calculation, 1.3 spaces are provided per unit. Nursing homes do not provide for any minimum

number of parking spaces. While some residents are anticipated to drive, it is expected that many will not drive or own a vehicle. It is likely that the number of required spaces will fall somewhere in between. The residents will likely have more visitors and there will be a staff working on site as well who will probably drive to the site creating an additional parking need.

The applicant provided information on parking studies conducted on similar senior housing facilities that is persuasive. In their experience in developing these types of properties, only 55% of the residents owned a car, and those that did own a car, drove infrequently. The amount of one space per unit adequately satisfied the parking need. Other jurisdictions also provide for a ratio of one space per unit. Since the applicant provides for a ratio of 1.3 spaces per unit, this surpasses the amount established in other jurisdictions.

In regard to the live work building, the applicant shows a covered parking garage for two vehicles. The applicant proposes that seven total parking spaces are required for this type of building. It is difficult to determine whether that is adequate or not based on the information provided. The applicant does not outline the residential space from the office or commercial space to know how much parking should be required. The applicant believes that the five other spaces could be provided on street, but does not show that on the plans.

**FINDING:** Based on the above discussion, the applicant meets this criterion with respect to the ILF. The applicant has not met this criterion with respect to the live work building.

**RECOMMENDED CONDITION:** Prior to final site plan approval, provide sufficient detail of the uses and allocation of use within the building to show that the parking requirements can be met on site or show that the parking spaces exist on the street as it relates to the live work building .

#### **16.94.020.1 Miscellaneous Standards**

##### **16.94.020.A – Dimensional Standards**

For the purpose of Section 16.94, a "parking space" generally means a minimum stall nine (9) feet in width and twenty (20) feet in length. Up to twenty five percent (25%) of required parking spaces may have a minimum dimension of eight (8) feet in width and eighteen (18) feet in length so long as they are signed as compact car stalls.

**FINDING:** The applicant proposes 96 onsite parking spaces without distinguishing the compact spaces or whether the applicant will utilize the compact stalls. If the applicant proposes compact spaces, the applicant will need to clearly mark those spots on the plans. The applicant's standard stall width and length are in compliance with this section. The applicant has not met this criterion, but may with the following condition.

**RECOMMENDED CONDITION:** Prior to final site plan approval, submit plans that show that any compact parking stalls are clearly marked on the plans.

##### **16.94.020. B – Parking Layout**

Parking space configuration, stall and access aisle size shall be of sufficient width for all vehicle turning and maneuvering. Groups of more than four (4) parking spaces shall be served by a driveway so that no backing movements or other maneuvering within a street, other than an alley, will be required. All parking areas shall meet the minimum standards shown in Appendix G.



**FINDING:** The applicant proposes access drives that are clearly defined and do not require backing into the street. The drive is approximately 24 feet wide and thus meets the requirements of Appendix G.

**16.94.020.C – Wheel stops**

Parking spaces along the boundaries of a parking lot or adjacent to interior landscaped areas or sidewalks shall be provided with a wheel stop at least four (4) inches high, located three (3) feet back from the front of the parking stall as shown in Appendix G.

**FINDING:** The site plan for the site show wheel stops within the parking spaces appropriately. The applicant meets this criterion.

**16.94.020.02. - Bicycle Parking Facilities**

1. **Location and Design.** Bicycle parking shall be conveniently located with respect to both the street right-of-way and at least one building entrance (e.g., no farther away than the closest parking space). Bike parking may be located inside the main building or protected or otherwise covered near the main entrance. If the first two options are unavailable, a separate shelter provided on-site is appropriate as long as it is coordinated with other street furniture. Street furniture includes benches, street lights, planters and other pedestrian amenities. Bicycle parking in the Old Town Overlay District can be located on the sidewalk within the right-of-way. A standard inverted “U shaped” design is appropriate. Alternative, creative designs are strongly encouraged.
2. **Visibility and Security.** Bicycle parking shall be visible to cyclists from street sidewalks or building entrances, so that it provides sufficient security from theft and damage; Bicycle parking requirements for long-term and employee parking can be met by providing a bicycle storage room, bicycle lockers, racks, or other secure storage space inside or outside of the building;
3. **Options for Storage.** Bicycle parking requirements for long-term and employee parking can be met by providing a bicycle storage room, bicycle lockers, racks, or other secure storage space inside or outside of the building.
4. **Lighting.** Bicycle parking shall be least as well lit as vehicle parking for security.
5. **Reserved Areas.** Areas set aside for bicycle parking shall be clearly marked and reserved for bicycle parking only.
6. **Hazards.** Bicycle parking shall not impede or create a hazard to pedestrians. Parking areas shall be located so as to not conflict with vision clearance standards.

The applicant proposes four bicycle parking spaces near the front entrance and by the existing parking area. According to the Code, the number of bicycle parking spaces corresponds to the number of allocated parking spaces. There is no specific requirement for an independent living facility, but the community service category allocates for one bike parking per twenty auto spaces. This would mean that four bike spaces are required. The applicant shows four spaces. The applicant proposes that the bicycle parking will be located in the garages of the live-work building. The applicant has not indicated whether this area will be clearly marked and reserved for bike parking. Additionally, it is difficult to determine if customers will be able to find the bicycle area in the garage.

**FINDING:** Based on the above discussion the applicant meets this criterion with respect to the independent living facility. The applicant has not met this criterion with respect to the live work building. The applicant could meet the requirement with the following condition.

**RECOMMENDED CONDITION:** Prior to final site plan approval, submit revised plans that show the bicycle racks in compliance with §16.94.2. The bicycle racks must be covered, well lit and well marked to identify their location.

#### **16.94.030 Off-Street Loading Standard**

**16.94.030.1.B** indicates that the minimum standards for a loading area for non-residential uses shall not be less than ten (10) feet in width by twenty-five (25) feet in length and shall have an unobstructed height of fourteen (14) feet. In addition, for buildings 20,000 square feet or greater in size, an additional minimum of 500 square feet of loading area is required.

**16.94.030.2** states that any area to be used for the maneuvering of delivery vehicles and the unloading or loading of materials shall be separated from designated off-street parking areas and designed to prevent the encroachment of delivery vehicles onto off-street parking areas or public streets. Off-street parking areas used to fulfill the requirements of this Chapter shall not be used for loading and unloading operations. (Ord. 86-851 § 3)

The applicant indicates the loading area is to be located on the northern side of the building. The applicant proposes the loading area to be separated from the off-street parking area away from the public streets.

Pride Disposal has provided comments that are attached as Exhibit G. The location appears to be adequate, but does not meet some of these specific requirements.

**FINDING:** Based on the above discussion, the applicant has not fully met this criterion, but can with the following condition.

**RECOMMENDED CONDITION:** Prior to final site plan approval, submit verification from Pride Disposal that the location of the trash and recycling receptacles and design can be serviced by their trucks.

#### **16.96 On-Site Circulation**

##### **16.96.010 – On-site pedestrian and bicycle circulation**

On-site facilities shall be provided that accommodate safe and convenient pedestrian access within new subdivisions, multi-family developments, planned unit developments, shopping centers and commercial districts, and connecting to adjacent residential areas and neighborhood activity centers within one half mile of the development. Neighborhood activity centers include but are not limited to existing or planned schools, parks, shopping areas, transit stops or employment centers. All new development, (except single family detached housing), shall provide a continuous system of private pathways/sidewalks at least 6 feet wide.

The applicant proposes a pathway to connect the site with the existing pathway along the perimeter of the subdivision to the west. There are sidewalks on both sides of the street that extend connecting to SW Meinecke to 99W. Parking is available on both sides of the street. Based

on the cross section provided and in compliance with the City standards, bicycle lanes are provided along SW Cedar Brook Way.

**FINDING:** Based on the above discussion, the applicant meets this criterion.

**16.96.010.02 – Joint Access**

**Two (2) or more uses, structures, or parcels of land may utilize jointly the same ingress and egress when the combined ingress and egress of all uses, structures, or parcels of land satisfied the other requirements of this Code, provided that satisfactory legal evidence is presented to the City in the form of deeds, easements, leases, or contracts to clearly establish the joint use.**

The applicant proposes two entrance drives: one on the northern side of the development to SW Cedar Brook Way and the other along the southern portion of the development connecting to the roundabout. Ultimately, the applicant will develop the southern portion of the site and will utilize this drive as well for that portion of the development. The applicant proposes the live work to share a driveway onto the site.

**FINDING:** Based on the above discussion the applicant meets this criterion.

**16.96.010.03 - Connection to Streets**

**A. Except for joint access as per 16.96.010, all ingress and egress to a use or parcel shall connect directly to a public street, excepting alleyways.**

**FINDING:** The applicant proposes sidewalks on both sides of the street, with connections to the entryways of both buildings and thus meets this criterion.

**B. Required private sidewalks shall extend from the ground floor entrances or the ground floor landing of stairs, ramps or elevators to the public sidewalk or curb of the public street which provides required ingress and egress.**

**FINDING:** The applicant proposes sidewalks on both sides of the street, with connections to the entryways of both buildings and thus meets this criterion.

**16.96.030 Minimum Non-Residential Standards**

**2. Sidewalks and Curbs**

**C. Private Pathway/Sidewalk Design. Private pathway surfaces shall be concrete, brick/masonry pavers, or other durable surface, at least 6 feet wide and conform to ADA standards. Where the system crosses a parking area, driveway or street, it shall be clearly marked with contrasting paving materials or raised crosswalk (hump). At a minimum all crosswalks shall include paint striping.**

The live work building will have commercial purposes so it would need to meet this non-residential standard. The applicant proposes a pathway that will extend from the development to the existing trail located on the City tract located along the western portion of the site. This will provide a connection to the existing trail and is part of the TSP trail plan. This plan is attached as Exhibit G.

**FINDING:** The applicant may be able to meet this condition with respect to the gravel pathway, but it will be difficult to determine the durability of the surface and ADA accessibility until the final inspection. Based on this discussion the applicant has not met this criterion, but may with the following condition.

**RECOMMENDED CONDITION:** Prior to final occupancy, provide a pathway that is ADA accessible and meets their surface requirements.

**C. Division VI - Public Improvements**

**16.108– Streets**

**16.108.030.01 – Required Improvements**

**Except as otherwise provided, all developments containing or abutting an existing or proposed street, that is either unimproved or substandard in right-of-way width or improvement, shall dedicate the necessary right-of-way prior to the issuance of building permits and/or complete acceptable improvements prior to issuance of occupancy permits.**

Cedar Brook Way is to be extended through the site adjacent to and east of the vegetated corridor. The street section is to conform to the existing Cedar Brook Way street section, except in that section where encroachment into the vegetated corridor is being avoided. In that section of the roadway, the applicant has requested a design modification to the standard street section.

An additional width street section is shown on the east side of Cedar Brook Way between street station 13+50 and 14+50. This area is suggested as being a drop-off/pick-up zone for the building. Since the street is configured for on-street parking the addition of this area is not needed, and creates additional issues with portions of public sidewalk being located outside the public right-of-way, and within a proposed easement. A drop-off/pick-up zone of this nature can be created by street signage limiting parking to drop-off and pick-up only.

The street modification request includes:

1. Omitting the street tree planter area along the west side of Cedar Brook Way between street station 10+00 and street station 14+50.
2. Reducing the sidewalk width from 8' to 6' along the west side of Cedar Brook Way from street station 10+00 to street station 14+50.
3. Providing an additional street width drop-off/pick-up zone between street station 13+50 and 14+50.

The City Engineer reviewed the request and determined that the requested modification to be the minimum necessary to avoid encroachment into the vegetated buffer. He determined that the modification will continue to result in a street a street system that will function to accommodate the anticipated traffic and demand provided that certain criteria are met.

**FINDING:** Based on the above discussion, and in consideration of the comments attached, the plans provided do not fully comply with the standards but could with compliance with the following conditions.

**RECOMMENDED CONDITIONS:**

1. The applicant shall comply with the recommended conditions of approval listed in TIS Technical Review, performed by DKS Associates, dated April 21, 2009, and modified as follows:
  - a. Construct full street improvement along the site fronting Cedar Brook Way, as required by the City.
  - b. Restrict and maintain landscaping, signs, monuments, and other obstructions in the site access sight distance triangles to provide adequate sight distance at access locations.
  - c. Final sight distance verification shall be provided by the project's stamping engineer.
2. Omit the street tree planter area along the west side of Cedar Brook Way between street station 10+00 and street station 14+50.
3. Reduce the sidewalk width from 8' to 6' along the west side of Cedar Brook Way from street station 10+00 to street station 14+50.
4. Cedar Brook Way pavement section shall be a minimum of 4" of Level 2, ½" Dense HMAC pavement, over 10" of crushed aggregate base rock.
5. No on-street parking will be permitted on either side of Cedar Brook Way between the driveway accesses, approximate street station 14+50, and the roundabout on Cedar Brook Way.
6. A drop-off/pick-up zone may be created along the east side parking lane of Cedar Brook Way between street stations 13+50 and 14+50, by use of street signage. If created, then the zone will be shown on the street signage and striping plan.

**16.108.050.14.B.**- Roadway Access No use will be permitted to have direct access to a street or road except as specified below. Access spacing shall be measured from existing or approved accesses on either side of a street or road. The lowest functional classification street available to the legal lot, including alleys within a public easement, shall take precedence for new access points.

**4. Principal Arterials, Arterials, and Highway 99W - Points of ingress or egress to and from Highway 99W, principal arterials, and arterials designated on the Transportation Plan Map, attached as Figure 1 of the Community Development Plan, Part II, shall be limited as follows:**

- a. Single and two-family uses and manufactured homes on individual residential lots developed after the effective date of this Code shall not be granted permanent driveway ingress or egress from Highway 99W, principal arterials, and arterials. If alternative public access is not available at the time of development, provisions shall be made for temporary access which shall be discontinued upon the availability of alternative access.
- b. Other private ingress or egress from Highway 99W, principal arterials, and arterial roadways shall be minimized. Where alternatives to Highway 99W, principal arterials, or arterials exist or are proposed, any new or altered uses developed after the effective date of this Code shall be required to use the alternative ingress and egress. Alternatives include shared or crossover access agreement between properties, consolidated access points, or frontage or backage road. When alternatives do not exist, access shall comply with the following standards:

**FINDING:** The applicant proposes access onto SW Cedar Brook Way, a local street and therefore this section is not applicable.

**16.108.070 HWY. 99W CAPACITY ALLOCATION PROGRAM (CAP)**

**A. Purpose - The purpose of the Highway 99W Capacity Allocation Program is to:**

- 1. Prevent failure of Highway 99W through Sherwood.**
- 2. Preserve capacity on Highway 99W over the next 20 years for new development within Sherwood.**
- 3. Preserve land values in Sherwood by preventing failure of one of the City's key transportation links.**
- 4. Insure improvements to Highway 99W and adjacent primary roadways are constructed at the time development occurs.**
- 5. Minimize the regulatory burden on developments that have minimal impact on Highway 99W**

**F. Trip Allocation Certificate**

**1. General**

- a. Trip Allocation Certificates shall be issued by the City Engineer.**
- b. Trip Allocation Certificates shall be valid for the same period as the land use or other city approval for the regulated activity.**
- c. The City Engineer may invalidate a Trip Allocation Certificate when, in the City Engineer's judgment, the Trip Analysis that formed the basis for award of the Trip Allocation Certificate no longer accurately reflects the activity proposed under the base application.**

**2. Approval Criteria**

**a. Upon receipt of a Trip Analysis, the City Engineer shall review the analysis. The Trip Analysis shall meet both of the following criteria to justify issuance of a Trip Allocation Certificate for the regulated activity:**

- 1. Adequacy of analysis; and**
- 2. Projected net trips less than the site trip limit.**

**b. Adequacy of Analysis**

**The City Engineer shall judge this criterion based on the following factors:**

- 1. Adherence to the Trip Analysis format and methods described in this chapter.**
- 2. Appropriate use of data and assumptions; and**
- 3. Completeness of the Trip Analysis.**

**FINDING:** This site is subject to the CAP. The applicant's traffic study has indicated that the site will generate an increase in trips that does not warrant mitigation. The site will generate approximately twenty one new PM peak hour trips with Phase 1 of the assumed development and an additional 135 to 140 new PM peak hour trips in Phase 2. Although phase 2 is not part of this application, DKS reviewed its feasibility so as to not go over the CAP trip requirement. The site trip limit is 248 PM peak hour trips and thus this application will not go over that amount. The City Engineer preliminarily reviewed this development and indicated that a CAP Trip Allocation Certificate could be issued for the proposed development. (See Exhibit E, DKS Associates Memorandum). This criterion cannot be met until the following condition is met.

**RECOMMENDED CONDITION:** Obtain a Final Highway 99W CAP Trip Allocation Certificate from the City Engineer.

**16.110 - Sanitary Sewers**

**Sanitary sewers shall be installed to serve all new developments and shall connect to existing sanitary sewer mains. Sanitary Sewers shall be constructed, located, sized and installed at standards consistent 16.110.**

On preliminary review by the City Engineer, the applicant's sewer design appears to be of adequate size for the proposed use. Once the applicant submits for engineering review, the plans will specifically address the construction standards required by the engineering staff. The on-site sanitary sewer system extends across the east side of the site and will serve the future lot development area on the southern portion of the lot. If in the future this undeveloped portion of the lot is partitioned off, then the sanitary sewer mainline that serves the partitioned lot will need to be placed within a public utility easement. There is no indication that the undeveloped portion of the overall lot is being partitioned and that the sanitary sewer service for the lot is a private system.

**FINDING:** Based on the preliminary review, the applicant appears to meet this criterion.

**16.112– Water Supply**

**Water lines and fire hydrants conforming to City and Fire District standards shall be installed to serve all building sites in a proposed development in compliance with 16.112.**

The on-site water system extends across the south side of the currently developed portion of the site and will serve the future lot development area on the southern portion of the lot. If in the future this undeveloped portion of the lot is partitioned off, then the water system that serves both lots will need to be placed within a public utility easement.

There are existing 8 inch public water mains in both streets that sub into the property. The project will connect these water mains through the connection of SW Cedar Brook Way. Both buildings will connect to this main.

**FINDING:** The applicant meets criterion.

**16.114 Storm Water**

**Storm water facilities, including appropriate source control and conveyance facilities, shall be installed in new developments and shall connect to the existing downstream drainage system consistent with the Comprehensive Plan, the requirements of the Clean Water Services water quality regulations and section 16.114.**

The on-site storm water system extends across the east side of the currently developed portion of the site and will serve the future lot development area on the southern portion of the lot. If in the future this undeveloped portion of the lot is partitioned off, then the storm water system mainline that serves the both lots will need to be placed within a public utility easement.

A stormwater quality treatment swale is proposed to treat storm water runoff from the site. The stormwater quality swale is located between the back of sidewalk and the vegetated corridor, between street station 10+00 and 11+00. The stormwater quality treatment swale design

includes a retaining wall along the street frontage side. A safety railing will need to be installed along the length of the retaining wall.

The applicant's engineer will provide the City with an operations and maintenance (O&M) manual at the completion of the project. The owner shall be required to submit the City a yearly report on any maintenance performed on the facility in compliance with the O&M manual.

The owner shall be required to sign an access and maintenance agreement which gives the City permission to enter onto the site and inspect the stormwater facility, and if needed perform necessary maintenance in compliance with the O&M manual, in the event of the owners failure to provide maintenance.

**FINDING:** Based on the above discussion, the applicant has not met this criterion, but could with the following conditions.

**RECOMMENDED CONDITIONS:**

1. Install a pedestrian safety rail along the entire length of the retaining wall fronting the sidewalk.
2. The applicant's engineer will provide the City with an operations and maintenance (O&M) manual at the completion of the project. The owner shall be required to submit the City a yearly report on any maintenance performed on the facility in compliance with the O&M manual.
3. The owner shall be required to sign an access and maintenance agreement which gives the City permission to enter onto the site and inspect the stormwater facility, and if needed perform necessary maintenance in compliance with the O&M manual, in the event of the owners failure to provide maintenance.

**16.116.010 - Fire Protection**

**When land is developed so that any commercial or industrial structure is further than 250 feet or any residential structure is further than 500 feet from an adequate water supply for fire protection, as determined by the Fire District, the developer shall provide fire protection facilities necessary to provide adequate water supply and fire safety. In addition capacity, fire flow, access to facilities and number of hydrants shall be consistent with 16.116.020 and fire district standards.**

Karen Mohling, Deputy Fire Marshall from Tualatin Valley Fire and Rescue provided verbal comments in a telephone conversation on May 5, 2009. In her initial assessment, the project appears to meet general guidelines of the building height and access to the building. However, the applicant will need to conduct fire flow calculations and show that an adequate number of hydrants for the development and ensure that the building meets the setbacks required by the fire official.

**FINDING:** All Tualatin Valley Fire and Rescue (TVF&R) requirements apply to this development. Compliance with the standard TVF&R requirements will be required throughout the development of this project. The applicant has not fully complied with this criterion, but can do so with the following condition.



**RECOMMENDED CONDITION:** Prior to final site plan approval, provide written approval from TVF &R that adequately addresses the fire department's requirements including a fire flow calculation, radius turns, and the number of required hydrants.

**16.118.030 Underground Facilities**

Except as otherwise provided, all utility facilities, including but not limited to, electric power, telephone, natural gas, lighting, cable television, and telecommunication cable, shall be placed underground, unless specifically authorized for above ground installation, because of the points of connection to existing utilities make underground installation impractical, or for other reasons deemed acceptable by the City.

**FINDING:** The applicant proposes that all utilities will be placed underground, and therefore meets this criterion.

**D. Division VIII – Environmental Resources-16.142 – Parks and Open Space**

**16.142.030.A Visual Corridors**

**A. Corridors Required**

New developments with frontage on Highway 99W, or arterial or collector streets designated on the Transportation Plan Map, attached as Appendix C, or in Section 5 of the Community Development Plan Part 2, shall be required to establish a landscaped visual corridor according to the following standards:

	Category	Width
1.	Highway 99W	25 feet
2.	Arterial	15 feet
3.	Collector	10 feet

In residential developments where fences are typically desired adjoining the above described major street the corridor may be placed in the road right-of-way between the property line and the sidewalk. (Ord. 2006-021)

**FINDING:** The applicant is not located major streets or corridors and thus this section is not applicable.

**16.142.050. Trees along Public Streets or on Other Public Property**

Trees are required to be planted consistent with the standards in 16.142.050.A by the land use applicant. These standards require a minimum of one (1) tree for every twenty-five (25) feet of public street frontage within any new development. Planting of such trees shall be a condition of development approval. The trees must be a minimum of two (2) inches DBH and minimum height of six (6) feet.

Street trees have been planted along the property's frontage of SW Meinecke. Street trees will be planted along the proposed extension of SW Cedar Brook Way. The applicant proposes additional plantings along the vegetated corridor buffer. The applicant proposes 15 street trees along the ILF

side of SW Cedar Brook Way and nine trees along the other side of the street that is not in the vegetated corridor. The applicant has not delineated the size of the street trees or the height.

**FINDING:** Based on the above discussion the applicant has not met this criterion, but could meet it with the following condition.

**RECOMMENDED CONDITION:** Submit public improvement plans to the Engineering Department, with a copy of the landscaping plan to the Planning Department, for review and approval that show 25 street trees a minimum of two inches DBH and minimum height of six feet.

**16.142.060 - Trees on Property Subject to Certain Land Use Applications**

All site developments subject to Section 16.92.020 shall be required to preserve trees or woodlands to the maximum extent feasible within the context of the proposed land use plan and relative to other policies and standards of the City Comprehensive Plan, as determined by the City. Review and mitigation shall be consistent with 16.142.060 A, B, C and D.

The site contains nine trees that will remain on site. The applicant recently removed one tree from the site prior to this current land use application, so that tree will require mitigation. The applicant provided the information that the tree removed was 17 inches DBH. The applicant plans to mitigate for that amount with some of the landscaping planned for the site. This will be sufficient to mitigate for the cut tree. The applicant will be required to install tree protection fencing as it relates to the development within the vegetated corridor buffer.

**RECOMMENDED CONDITION:** Prior to issuance of grading or corrosion control permits from the Building Department, submit a tree protection plan showing how the trees to be retained will be protected throughout the construction of the site.

**16.146 .020- Noise Sensitive Uses**

When proposed commercial and industrial uses do not adjoin land exclusively in commercial or industrial zones, or when said uses adjoin special care, institutional, or parks and recreational facilities, or other uses that are, in the City's determination, sensitive to noise impacts, then:

- A. The applicant shall submit to the City a noise level study prepared by a professional acoustical engineer. Said study shall define noise levels at the boundaries of the site in all directions.
  - B. The applicant shall show that the use will not exceed the noise standards contained in OAR 340-35-035, based on accepted noise modeling procedures and worst case assumptions when all noise sources on the site are operating simultaneously.
  - C. If the use exceeds applicable noise standards as per subsection B of this Section, then the applicant shall submit a noise mitigation program prepared by a professional acoustical engineer that shows how and when the use will come into compliance with said standards.
- (Ord. 91-922 § 3)

**FINDING:** Although there will be a large quantity of people residing on the site, it will generate the normal type of noise associated with residential use rather than commercial uses and thus not necessitate a special compliance response to this standard.

**16.148 – Vibrations**

All otherwise permitted commercial, industrial, and institutional uses shall not cause discernible vibrations that exceed a peak of 0.002 gravity at the property line of the originating use, except for vibrations that last five (5) minutes or less per day, based on a certification by a professional engineer. (Ord. 91-922 § 3)

**FINDING:** The use of the property as an independent living facility is not likely to generate any vibrations that would warrant a special certification and thus this section is not applicable.

**16.150 – Air Quality**

All otherwise permitted commercial, industrial, and institutional uses shall comply with applicable State air quality rules and statutes:

- A. All such uses shall comply with standards for dust emissions as per OAR 340-21-060.
  - B. Incinerators, if otherwise permitted by Section 16.140.020, shall comply with the standards set forth in OAR 340-25-850 through 340-25-905.
  - C. Uses for which a State Air Contaminant Discharge Permit is required as per OAR 340-20-140 through 340-20-160 shall comply with the standards of OAR 340-220 through 340-20-276.
- (Ord. 91-922 § 3)

**FINDING:** The use of the property as an independent living facility is not likely to generate any air quality issues that would lead to special permitting requirements and thus this section is not applicable.

**16.152.020 - Odors**

The applicant shall submit a narrative explanation of the source, type and frequency of the odorous emissions produced by the proposed commercial, industrial, or institutional use. In evaluating the potential for adverse impacts from odors, the City shall consider the density and characteristics of surrounding populations and uses, the duration of any odorous emissions, and other relevant factors. (Ord. 91-922 § 3)

**FINDING:** The ILF is very unlikely to emit any harmful odors and thus this section is not applicable.

**16.154 - Heat and Glare**

Except for exterior lighting, all other permitted commercial, industrial, and institutional uses shall conduct any operations producing excessive heat or glare entirely within enclosed buildings. Exterior lighting shall be directed away from adjoining properties, and the use shall not cause such glare or lights to shine off site in excess of one-half (0.5) foot candle when adjoining properties are zoned for residential uses.

**FINDING:** The applicant has submitted a photometric plan that shows that the site will not exceed the heat and glare standards and thus the applicant meets this criterion.

**RECOMMENDATION**

Based upon review of the applicant’s submittal information, review of the code, agency comments and consideration of the applicant’s revised submittal, staff finds that the proposed site plan does not fully comply with the standards but can be conditioned to comply. Therefore, staff recommends **approval with conditions**.

## VI. CONDITIONS OF APPROVAL

### A. General Conditions

1. Compliance with the Conditions of Approval is the responsibility of the developer or its successor in interest.
2. This land use approval shall substantially comply with the submitted preliminary site plans dated March 19, 2009 prepared by AKS Engineering and Ankron Moisan Architecture except as indicated in the following conditions of the Notice of Decision. Additional development or change of use may require a new development application and approval.
3. The owner/applicant is responsible for all costs associated with private/public facility improvements.
4. **This approval is valid for a period of two (2) years from the date of the decision notice.** Extensions may be granted by the City as afforded by the Sherwood Zoning and Community Development Code.
5. Noise shall be kept to the minimum level possible during construction. The applicant shall agree to aggressively ensure that all vehicles working on the site shall have adequate and fully functioning sound suppression devices installed and maintained at all times.
6. The continual operation of the property shall comply with the applicable requirements of the Sherwood Zoning and Community Development Code and Municipal Code.
7. A temporary use permit must be obtained from the Planning Department prior to placing a construction trailer on-site.
8. This approval does not negate the need to obtain permits, as appropriate from other local, state or federal agencies even if not specifically required by this decision.

### B. Prior to issuance of grading or erosion control permits from the Building Department:

1. Obtain City of Sherwood Building Department approval of grading plans.
2. Submit a tree protection plan showing how the trees to be retained will be protected throughout the construction of the site.
3. The applicant's engineer is required to provide a site specific erosion control and drainage plan to temporarily collect, route, and treat surface water and ground water runoff during each phase of construction. The construction plans shall specifically identify how the storm drainage system and erosion and sediment control measures will be phased during construction, such that at any time during construction the approved plans shall be capable of providing full erosion and sediment control collection and treatment of storm water and ground water runoff. No site construction will be allowed to take place if the storm drainage system and erosion sediment control measures are not installed per plan and functioning properly.
4. The applicant's contractor shall arrange for the City's erosion and sediment control inspector to perform a site inspection of the installed erosion and sediment control measures. Acceptance by the

City's erosion and sediment control inspector of the installed ESC measures is mandatory prior to any construction activity occurring on site.

5. The Erosion and Sediment Control Plan shall include a plan to implement and maintain wet weather measures within 14 days of final site grading and between the months of October 1<sup>st</sup> and April 30<sup>th</sup>.

**C. Prior to approval of the public improvement plans:**

1. Submit engineering plans for all public improvements and/or connections to public utilities (water, sewer, storm water, and streets) **to the Sherwood Engineering Department**. The engineering plans shall conform to the design standards of the City of Sherwood's Engineering Department, , Clean Water Services, Tualatin Valley Water District, Tualatin Valley Fire & Rescue and other applicable requirements and standards. The plans shall be in substantial conformance with the utility plans dated March 18, 2009 and prepared by AKS Engineering with the following modifications.
2. The applicant shall comply with the recommended conditions of approval listed in TIS Technical Review, performed by DKS Associates, dated April 21, 2009, and modified as follows:
  - a. Construct full street improvement along the site fronting Cedar Brook Way, as required by the City.
  - b. Restrict and maintain landscaping, signs, monuments, and other obstructions in the site access sight distance triangles to provide adequate sight distance at access locations.
  - c. Final sight distance verification shall be provided by the project's stamping engineer.
3. Omit the street tree planter area along the west side of Cedar Brook Way between street station 10+00 and street station 14+50.
4. Reduce the sidewalk width from 8' to 6' along the west side of Cedar Brook Way from street station 10+00 to street station 14+50.
5. Cedar Brook Way pavement section shall be a minimum of 4" of Level 2, ½" Dense HMAC pavement, over 10" of crushed aggregate base rock.
6. No on-street parking will be permitted on either side of Cedar Brook Way between the driveway accesses, approximate street station 14+50, and the roundabout on Cedar Brook Way.
7. A drop-off/pick-up zone may be created along the east side parking lane of Cedar Brook Way between street stations 13+50 and 14+50, by use of street signage. If created, then the zone will be shown on the street signage and striping plan.
8. All public easements dedication documents must be submitted to the City for review signed by the City and the applicant and recorded by the applicant with a certified copy of the easements.
9. Submit public improvement plans to the Engineering Department, with a copy of the landscaping plan to the Planning Department, for review and approval that show 25 street trees a minimum of two inches DBH and minimum height of six feet.

**D. Prior to Final Site Plan Approval:**

1. Submit the required final site plan review fee along with a brief narrative and supporting documents demonstrating how each of the final site plan conditions are met.

2. Submit a detailed landscape plan along with certification that the plants are native and/or are the most appropriate plants given the location and soils or modify the plant list to provide the required native plants.
3. Submit plans that show the pathway on the western edge of the property to be of hard, durable surface at least six feet wide and conform to ADA standards.
4. Provide written approval from TVF &R that adequately addresses the fire department's requirements including a fire flow calculation, radius turns, and the number of required hydrants.
5. Submit revised plans that clearly show no vegetation growing taller than 2.5 feet will be located within the required 30 foot vision clearance area, unless trees proposed in this area have no limbs or leaves lower than seven feet above ground.
6. Submit revised plans that provide sufficient detail of the uses and allocation of use within the building to show that the parking requirements can be met on site or show that the parking spaces exist on the street as it relates to the live work building.
7. Submit plans that show that any compact parking stalls are clearly marked on the plans.
8. Submit revised plans that show the bicycle racks in compliance with §16.94.2. The bicycle rack must be covered, well lit and well marked to identify their location.
9. Submit verification from Pride Disposal that approves of the location and design of the trash and recycling receptacles and that it can be serviced from their trucks.
10. Submit a Final CAP certificate issued by the City Engineer.

**E. Prior to Issuance of a Building Permit:**

1. Install tree protection fencing surrounding the drip-line of the existing trees on the site that may be impacted by construction.
2. Obtain final site plan approval from the Planning Department.
3. Obtain a right-of-way permit for any work required in the public right-of-way, (reference City Ordinance 2006-20) including plans that show street trees, undergrounding of utilities, public storm water improvements and public utility easements.
4. Install a pedestrian safety rail along the entire length of the retaining wall fronting the sidewalk.
5. The applicant's engineer will provide the City with an operations and maintenance (O&M) manual at the completion of the project. The owner shall be required to submit the City a yearly report on any maintenance performed on the facility in compliance with the O&M manual.

The owner shall be required to sign an access and maintenance agreement which gives the City permission to enter onto the site and inspect the stormwater facility, and if needed perform necessary maintenance in compliance with the O&M manual, in the event of the owners failure to provide maintenance

**F. Prior to Issuance of a Final Certificate of Occupancy for the site:**

1. Request a final site inspection from the Planning Department.
2. Prior to final inspection approval, submit plans for verification that the clear vision areas of the access drive onto the alley are in compliance with this Code Section.
3. The applicant's engineer will provide the City with an operations and maintenance (O&M) manual at the completion of the project. The owner shall be required to submit the City a yearly report on any maintenance performed on the facility in compliance with the O&M manual.
4. The owner shall be required to sign an access and maintenance agreement which gives the City permission to enter onto the site and inspect the stormwater facility, and if needed perform necessary maintenance in compliance with the O&M manual, in the event of the owners failure to provide maintenance

**G. On-going Conditions:**

1. An on-going condition of the approval is that the site be maintained in accordance with the approved site plan. In the event that landscaping is not maintained, in spite of the assurances provided, this would become a code compliance issue.

**VII. Exhibits**

- A. Applicant's submittal with narrative and supporting documents dated and March 19, 2009
- B. Public Comments from Pamela Wolf dated April 29, 2009
- C. Public Comments from Sherrie Halter and Dale Halter dated April 22, 2009
- D. Letter from CWS dated, April 28, 2009
- E. DKS Engineering Memo dated March 10, 2009
- F. DKS Engineering Memo dated April 21, 2009
- G. Pride Disposal Company Comments dated April 30, 2009
- H. TSP Pedestrian Master Plan Figure 5-1
- I. Wyndham Ridge Phase I Preliminary Site Plan dated November 7, 1995
- J. Cedar Brook Way MLP 05-05 Preliminary Plat dated July 26-2005

A copy of the applicant's submittal with narrative and supporting documents for SP 08-13/CUP 08-03 dated March 19, 2009 are available at Sherwood City Hall (22560 SW Pine Street).

Exhibit A





Home of the Tualatin River National Wildlife Refuge

**MAILED NOTICE – PUBLIC COMMENTS  
SP 08-13/ CUP 08-03 Villa Lucca**

The Planning Department has received an application for approval for a 99- unit independent living facility. The applicable criteria are identified on the front page of this notice. This request is a Type IV land use application, requiring review and approval by the Sherwood Planning Commission.

The submitted materials will be available at the Sherwood City Hall and may be able to be provided via email depending on size. If you would like to obtain additional information, please contact Michelle Miller, Associate Planner in the Planning Department at (503) 625-4242 or via email at [millerm@ci.sherwood.or.us](mailto:millerm@ci.sherwood.or.us)

- No comment.
- We encourage approval of this request.
- Please address the following concerns should this application be approved:

\_\_\_\_\_

We encourage denial of this request for the following reasons:

*Believe that the 2700 sq ft mixed use building will affect privacy & home value. Don't want path connected to our existing one. More noise, people affects privacy*  
Please feel free to attach additional sheets as needed to complete your comments.

Comments by: Pamela J. Wolf Date: 4-29-09  
Address: 21780 SW Roelich Tel.: 503 625-9090 (optional)  
Sherwood OR 97140 Email: \_\_\_\_\_ (optional)

**Exhibit B**

Notice to mortgagee, lien holder, vendor or seller: The City of Sherwood requests that you promptly forward this notice to the purchaser if this notice is received.

*The 99 unit independent living building - what's that? The condo project @ 91W was condo now rezoned to apartments. Too ify. rezoning seems to be too easy maybe due to economy. With new school already will have much congestion with roads. need no more.*  
For comments to be addressed in the staff report please submit comments by **May 1, 2009** to:  
*Don't believe a mixed used building is necessary in this area. Way to much added traffic. Paid a premium for this lot for the privilege of privacy. Believe trouble teens, etc. would increase in the Wetlands / Path area promotes insecurity to myself as homeowner.*

Planning Department  
Sherwood City Hall  
22560 SW Pine Street  
Sherwood, OR 97140



**MAILED NOTICE – PUBLIC COMMENTS**  
**SP 08-13/ CUP 08-03 Villa Lucca**

The Planning Department has received an application for approval for a 99- unit independent living facility. The applicable criteria are identified on the front page of this notice. This request is a Type IV land use application, requiring review and approval by the Sherwood Planning Commission.

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- No comment.
- We encourage approval of this request.
- Please address the following concerns should this application be approved:  
\_\_\_\_\_  
\_\_\_\_\_

We encourage denial of this request for the following reasons:

*We do not want the smaller building or connecting pathway to interfere with our already established properties!*

*Please feel free to attach additional sheets as needed to complete your comments.*

Comments by: Sherrrie Halter and Dale Halter Date: 4-22-09  
Address: 21888 SW Roellich Tel.: 503-625-0540 (optional)  
Sherwood, OR, Email: \_\_\_\_\_ (optional)  
97140

Notice to mortgagee, lien holder, vendor or seller: The City of Sherwood requests that you promptly forward this notice to the purchaser if this notice is received.

For comments to be addressed in the staff report please submit comments by **May 1, 2009** to:

Planning Department  
Sherwood City Hall  
22560 SW Pine Street  
Sherwood, OR 97140

Exhibit C

MEMORANDUM

**Date:** April 28, 2009  
**To:** Michelle Miller, Associate Planner, City of Sherwood  
**From:** Jackie Sue Humphreys, Clean Water Services (the District)  
**Subject:** Villa Lucca, SP 08-13 and CUP 08-03, 2S130CD13400

Please include the following comments when writing your conditions of approval:

**PRIOR TO ANY WORK ON THE SITE**

A Clean Water Services (the District) Storm Water Connection Permit Authorization must be obtained prior to plat approval and recordation. Application for the District's Permit Authorization must be in accordance with the requirements of the Design and Construction Standards, Resolution and Order No. 07-20, (or current R&O in effect at time of Engineering plan submittal), and is to include:

- a. Detailed plans prepared in accordance with Chapter 2, Section 2.04.2.b-1.
- b. Detailed grading and erosion control plan. An Erosion Control Permit will be required. Area of Disturbance must be clearly identified on submitted construction plans. If site area and any offsite improvements required for this development exceed one-acre of disturbance, project will require a 1200-C Erosion Control Permit.
- c. Detailed plans showing each lot within the development having direct access by gravity to public storm and sanitary sewer.
- d. Provisions for water quality in accordance with the requirements of the above named design standards. Water Quality is required for all new development and redevelopment areas per R&O 07-20, Section 4.05.5, Table 4-1. Access shall be provided for maintenance of facility per R&O 07-20, Section 4.02.4.
- e. If use of an existing offsite or regional Water Quality Facility is proposed, it must be clearly identified on plans, showing its location, condition, capacity to treat this site and, any additional improvements and/or upgrades that may be needed to utilize that facility.

Exhibit D

- f. If private lot LIDA systems proposed, must comply with the current CWS Design and Construction Standards. A private maintenance agreement, for the proposed private lot LIDA systems, needs to be provided to the City for review and acceptance.
- g. Show all existing and proposed easements on plans. Any required storm sewer, sanitary sewer, and water quality related easements must be granted to the City.
- h. A "Sensitive Area" is in the vicinity of the site. Applicant shall comply with the conditions as set forth in the Service Provider Letter No. 08-003594, dated April 6, 2009.
- i. Developer may be required to preserve a corridor separating the sensitive area from the impact of development. The corridor must be set aside in a separate tract, not part of any buildable lot and, shall be subject to a "Storm Sewer, Surface Water, Drainage and Detention Easement over its entirety", or its equivalent.
- j. Detailed plans showing the sensitive area and corridor delineated, along with restoration and enhancement of the corridor.
- k. Any proposed offsite construction activities or significant changes to the original plans submitted for review, will require an update or amendment to the current Service Provider Letter for this project.

## CONCLUSION

This Land Use Review does not constitute the District's approval of storm or sanitary sewer compliance to the NPDES permit held by the District. The District, prior to issuance of any connection permits, must approve final construction plans and drainage calculations.

## MEMORANDUM

**DATE:** March 10, 2009  
**TO:** Michelle Miller, City of Sherwood  
**FROM:** Chris Maciejewski, P.E.  
Garth Appanaitis  
**SUBJECT:** Sherwood Cedar Brook Way ILF – TIA Completeness Review #2

P007233-018-000

We have reviewed the revised Capacity Analysis Program (CAP)<sup>1</sup> and Transportation Impact Analysis (TIA)<sup>2</sup> materials submitted by Charbonneau Engineering LLC for the proposed Cedar Brook Way Independent Living Facility (ILF) site. These materials were submitted in response to our review comments dated December 15, 2008 that found the previous CAP<sup>3</sup> and TIA<sup>4</sup> submittals incomplete. This review again focused on determining if adequate information and methods were included to deem the CAP and TIA analyses complete.

This memorandum summarizes our review comments and identifies that both the CAP and the TIA are considered complete. With these updated materials, we will begin our technical review and develop recommendations for the land use application.

### CAP Review

The following section summarizes the CAP analysis. The items that were requested in our prior review dated December 15, 2008 have been added to the analysis.

- The proposed mixed use site of five structures would consist of two phases with the following land uses:
  - Phase 1 (Included in current application) – Year 2010
    - General office (2,700 sq ft)
    - Apartment (2 units)
    - Independent living facility (100 units)

<sup>1</sup> Site Trip Analysis for Cedar Brook Way, prepared by Charbonneau Engineering LLC, January 22, 2009.

<sup>2</sup> Traffic Analysis Report for Cedar Brook Way, prepared by Charbonneau Engineering LLC, January 22, 2009.

<sup>3</sup> Site Trip Analysis for Cedar Brook Way, prepared by Charbonneau Engineering LLC, October 21, 2008.

<sup>4</sup> Traffic Analysis Report for Cedar Brook Way, prepared by Charbonneau Engineering LLC, October 22, 2008.

- Phase 2 (Future uses for ultimate site buildout) – Year 2013
  - General office (30,667 sq ft)
  - Medical/dental office (15,333 sq ft)
  - Specialty retail (wine and floral) (3,000 sq ft)
  - Sit down restaurant (3,000 sq ft)
  - Independent living facility (30 units)
- The development would occupy the 5.77 acres of tax lot 2S130CD13400. The lot is currently vacant, and is zoned as General Commercial (GC). It is anticipated that Phase 1 buildout would be year 2010 while Phase 2 would be completed in 2013.
- Residential trips were included in the site trip calculation as requested.
- Institute of Transportation Engineers (ITE) trip generation procedures consistent with CAP requirements were utilized for ITE land use codes 710 (general office), 220 (apartment) and 252 (senior adult housing - attached) for Phase 1. Phase 2 included 710 (general office), 720 (medical-dental office), 814 (specialty retail), 931 (quality restaurant) and 252 (senior adult housing – attached). The analysis used trip rates listed in *Trip Generation, 8<sup>th</sup> Edition*<sup>5</sup>.
- The site would generate approximately 21 new PM peak hour trips with Phase 1 of the assumed development, and an additional 135 to 140 new PM peak hour trips in Phase 2. A total of 1 site trip was assumed to be a pass-by trip during the PM peak hour. Based on the internal trip reduction calculations provided, there are no internal trip reductions for the site.
  - *Table 1b indicates 100 new AM trips and 140 new PM trips, though the individual land uses sum to 95 and 135 trips, respectively. However, this difference in calculated trips does not significantly change the findings of the CAP analysis (both cases do not exceed the site trip limit). The higher trip totals shown in Table 1b will be assumed for Phase 2 unless additional documentation is submitted.*
- The “site trip limit” is 248 PM peak hour trips (5.77 acres \* 43 trips/acre).
- The trip distribution for site trips is based on existing traffic patterns and engineering judgment, and is provided for the senior housing trips and the combined office/apartment trips.
- Figures 11a and 11b show the total site traffic using each study intersection or “full access intersection”<sup>6</sup>, the trip assignment for each land use is shown in Figure 8a, 8b, 10a and 10b. The trip assignment indicates that only two of the five “full access intersections” on Highway 99W (Highway 99W/Meinecke Road and Highway 99W/Edy Road) will be impacted by 10 or more PM peak hour site trips during the proposed Phase 1 of development. A traffic impact analysis was provided to address the potential impacts to these and other locations.

<sup>5</sup> *Trip Generation, 8<sup>th</sup> Edition*, published by Institute of Transportation Engineers, Washington DC, 2008.

<sup>6</sup> City of Sherwood Municipal Code 16.108.070 C 3 designates the following locations on Highway 99W as “full access intersections”: Sunset, Meinecke, Edy/N. Sherwood, Tualatin-Sherwood/Scholls-Sherwood (Roy Rogers Road, and Home Depot (Adams Street).

- Phase 1 of the development would provide approximately 6 PM peak hour trips per acre (21 trips/3.547 acres) and Phase 2 would have approximately 28 PM peak hour trips per acre (160 trips/5.767 acres). Neither phase would exceed the site trip limit of 43 trips/acre.

### **TIA Completeness Review**

The size of the development assumed during the scoping process for the TIA and the previous submittal for the TIA indicated that the site would generate approximately 130 PM peak hour trips. The most recently submitted materials clarify the size of the proposed development as follows:

*The Cedar Brook Way site will be developed in two phases. This report will only consider the impacts of Phase 1; the Capacity Allocation Program (CAP) worksheet will consider both Phase 1 and Phase 2 to verify that the ratio of the site's new trips and the site's acreage will not exceed the site's 43 trips/acre CAP threshold.*

The land use assumptions for Phase 1 indicate that the site will generate approximately 21 PM peak hour trips, reducing the impacts and necessary analysis scope from what was originally assumed for 130 PM peak hour trips. The CAP analysis indicates that only two of the five "full access intersections" on Highway 99W (Highway 99W/Meinecke Road and Highway 99W/Edy Road) will be impacted by 10 or more PM peak hour site trips during the proposed Phase 1 of development.

Based on the revised intensity of this specific land use application (for Phase I), we reviewed the TIA for completeness and found that all required items are complete. The TIA should also be forwarded to ODOT for review.

If you have any questions, please feel free to call.

## MEMORANDUM

**DATE:** April 21, 2009

**TO:** Michelle Miller, City of Sherwood

**FROM:** Chris Maciejewski, P.E.  
Garth Appanaitis

**SUBJECT:** Sherwood Cedar Brook Way ILF – TIS Technical Review P07233-018-000

We have reviewed the Traffic Impact Study (TIS)<sup>1</sup> submitted by Charbonneau Engineering LLC for the proposed Cedar Brook Way Independent Living Facility (ILF) site. This memorandum summarizes our review comments, including the recommendation to issue a Trip Allocation Certificate to the applicant based on the fulfillment of the CAP analysis requirements<sup>2</sup>. This memorandum also summarizes the review of the impacts to Sherwood facilities included in the TIS and recommendations for conditions of approval. ODOT should perform a review of the impacts to state facilities and we recommend that the Conditions of Approval for the site also include the findings provided in the ODOT review.

While two phases of development are documented in the analysis, only Phase 1 (approximately 20 PM peak hour trips) is included in the application and considered in the TIS. Some Phase 2 information (approximately 140 PM peak hour trips) is provided for ultimate development potential considerations in the CAP analysis. Although the original TIS scope and study intersections for the analysis were based on the Phase 2 level of development, only the Phase 1 portion of the TIS is being reviewed. For that reason, some materials/locations contained in the analysis may not have been considered in this review.

Highlights of the TIS include:

- Phase 1, assumed to be completed in 2010, includes a mix of uses on the site zoned as General Commercial:
  - 100 unit independent living facility
  - 2,700 SF general office
  - 2 apartment units
- Access to the site will be provided by two driveways located on Cedar Brook Way, approximately 540 feet apart. The driveways would be located 180 feet from Meinecke Parkway and 760 feet from Highway 99W.

<sup>1</sup> Traffic Analysis Report for Cedar Brook Way, prepared by Charbonneau Engineering LLC, January 22, 2009.

<sup>2</sup> A full review and summary of the CAP analysis was previously completed: *Sherwood Cedar Brook Way ILF – TIA Completeness Review #2*, prepared by DKS Associates, March 10, 2009.



- Sight distance recommendations were provided based on the applicant's expected motor vehicle operating speeds on Cedar Brook Way. Speeds of 20 and 25 miles per hour were assumed in each direction, resulting in sight distance recommendations of 225 and 280 feet. While it is expected that the street would be posted at 25 miles per hour, 20 miles per hour was the assumed exit speed from the adjacent roundabout. At both future access locations, building setbacks allow for adequate sight distance (although landscaping restrictions and maintenance within the sight distance triangles will be required to maintain adequate sight distance over time). In addition to the sight distance measurements provided in the TIS, the distance between the exit of the roundabout and the proposed access point was reviewed and found to meet the necessary stopping sight distance of 155 feet (based on 25 miles per hour).
- In addition to the proposed access points on Cedar Brook Way, the project includes a connection to the adjacent Creekview Condominiums.
- Existing conditions for the site were documented. Cedar Brook Way is classified as a Local Street by the City of Sherwood, which has no access spacing restrictions.
- Meinecke Road has bicycle lanes and sidewalks on both sides in the vicinity of the site that provide further connection to areas to the south and east of Highway 99W.
- The nearest transit service to the site is provided by Tri-Met routes 12 and 94, and the nearest stop (approximately ¼ mile) is located near the Langer Drive/Sherwood Boulevard intersection.
- A 2% background growth was applied to existing intersection traffic counts to project 2010 (assumed build out year) traffic volumes at study intersections.
- Trip generation and distribution are consistent with those provided in the CAP analysis. With the proposed Phase I development, the site would generate 391 daily trips, including 18 and 21 during the AM and PM peak hour, respectively.
- The intersection performance analysis indicates that all City of Sherwood study intersections would meet operational performance standards under existing and future 2010 build conditions. Highway 99W/Meinecke Parkway currently operates with a v/c ratio in excess of 1.0 during the AM peak hour. The future analysis indicates that the intersection would degrade to a v/c of 1.26 in 2010, though the addition of site traffic would not further degrade the performance beyond the background traffic operations.
- Peak hour queuing analysis consistent with ODOT Analysis Procedures Manual was performed for the study intersections.
  - While not documented in the title, Table 3 appears to combine and summarize the queuing results from both the AM and PM peak hours.
  - The analysis indicates that 95<sup>th</sup> percentile vehicle queues do not exceed available vehicle storage at City of Sherwood intersections.
  - The analysis indicates that the 95<sup>th</sup> percentile queues for some movements during future conditions will extend beyond available storage at ODOT intersections (Hwy 99W/Meinecke Parkway and Hwy 99W/Sherwood Blvd). Several potential improvements at these locations are listed in the TIS and may be needed based on ODOT discretion. However, the proposed project does not add significant traffic volume to the failing movements.

- Right and left turn lane warrants were analyzed for two-way stop controlled study intersections. Left turn lane warrants were not met based on the analysis. Right turn lane warrants were triggered with the proposed development, although the added right turn traffic is less than 5 vehicles per hour. Washington County should review the TIS and determine if the construction of a right turn lane is required (however, the added traffic does not meet Washington County's impact threshold).
- Traffic signal warrants were reviewed, but none of the unsignalized study intersections meet warrants due to low traffic volumes.

**Recommended Conditions of Approval**

The following conditions of approval would adequately address impacts to the transportation system by the proposed development:

- Complete half-street improvements along the site frontage, as required by the City of Sherwood.
- Restrict and maintain landscaping, signs, monuments, and other obstructions in the site access sight distance triangles to provide adequate sight distance at access locations. Final sight distance verification should be provided by a registered Oregon professional engineer.
- Recommendations as provided by ODOT review of the TIS.
- Recommendations as provided by Washington County review of the TIS.

If you have any questions, please feel free to call.



**P•R•I•D•E**  
**DISPOSAL COMPANY**  
P.O. Box 820 Sherwood, OR 97140  
Phone: (503) 625-6177 Fax: (503) 625-6179

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April 30, 2009

Michelle Miller  
Associate Planner  
City of Sherwood  
503-625-4242

Re: Villa Lucca Agency Notice for Avamere at Cedar Brook

We have reviewed the site plan for the Villa Lucca Agency/Avamere at Cedar Brook. According to this site plan we will have straight on access to the enclosure at the end of the loading dock.

The enclosure is shown to have inside measurements of 20' wide and 10' deep. The gates are shown to be hinged in front of, not inside, the enclosure walls, which is required to ensure our access. The gates have an opening angle of 120 degrees.

There are a couple of requirements not clear on the site plan but as long as the following stipulations are met we can service the enclosure as designed:

- There should be no center post at access point.
- The enclosure is shown to have cane bolts, there need to be holes put in place so the gates can be held in the open and closed position allowing for the opening angle needed.

The roof on the enclosure will need to be removed or the height needs to be increased. It is our preference that the roof be removed completely. If it's necessary to keep the roof, then the height of the bottom of the roof needs to be at least 25' from the ground.

If you have any questions, feel free to contact me.

Sincerely,

Kristin Leichner  
Pride Disposal Co.  
(503) 625-6177 ext: 124  
[kristinl@pridedisposal.com](mailto:kristinl@pridedisposal.com)

Exhibit G

**City of Sherwood  
Transportation System Plan**

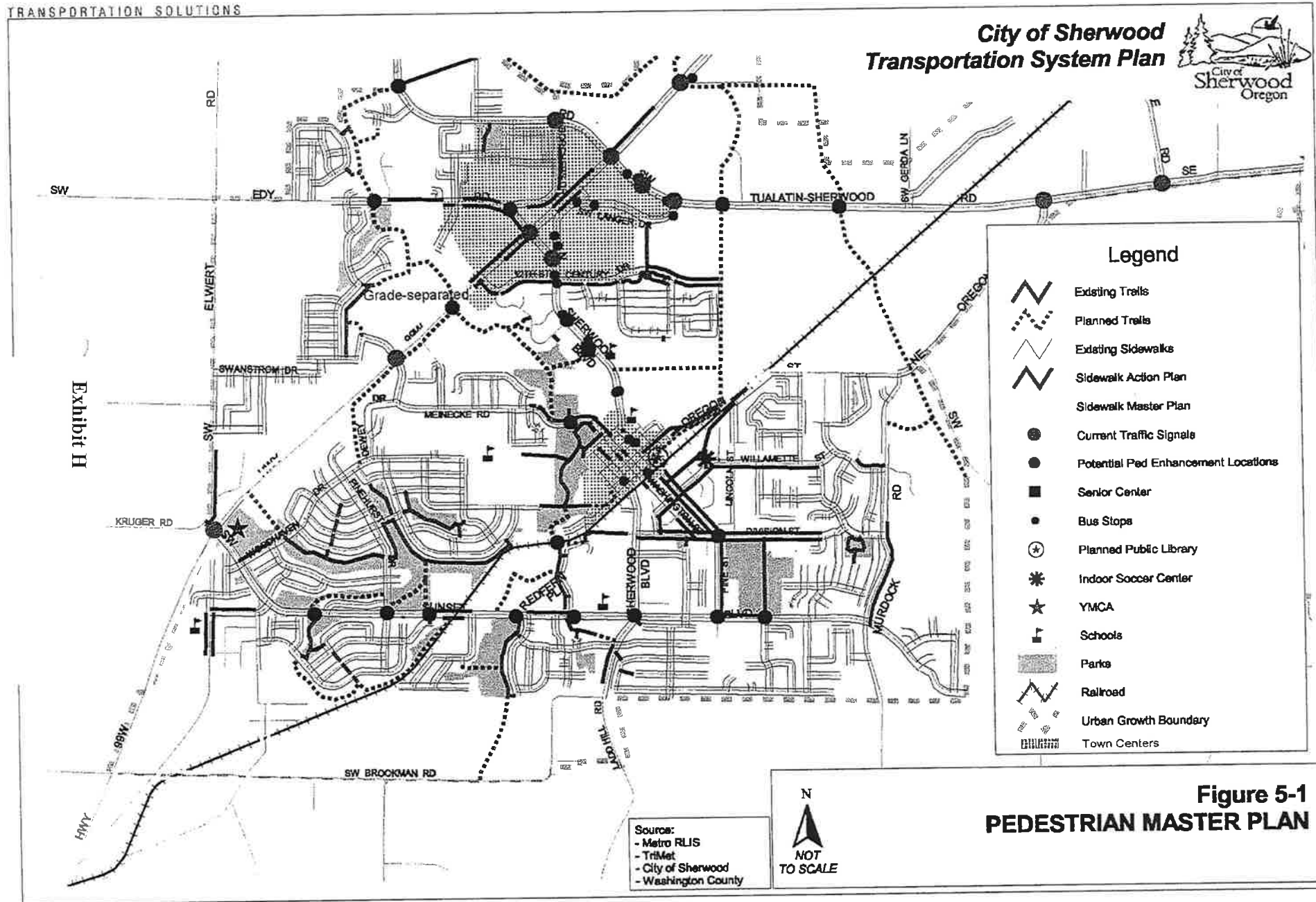
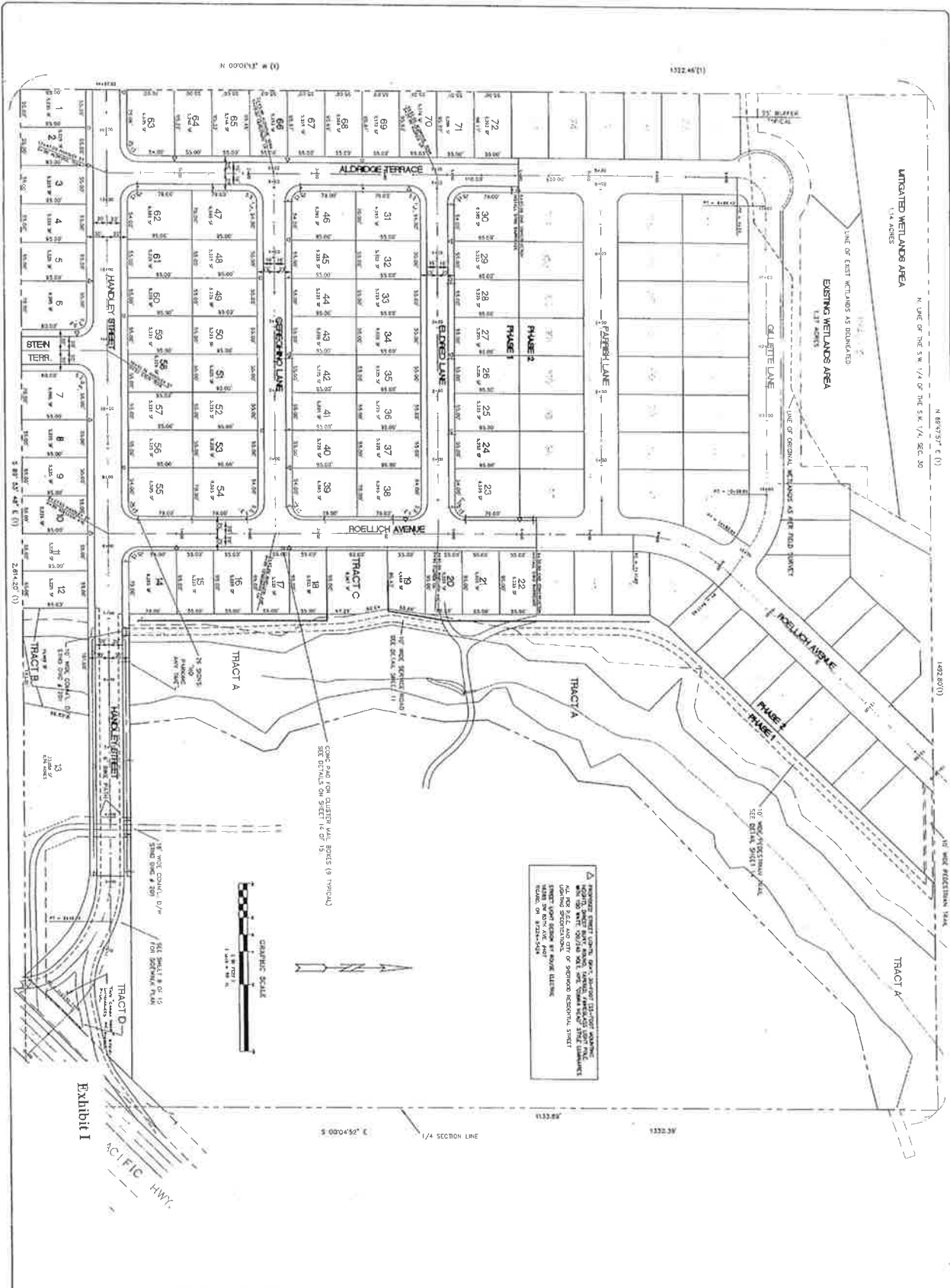


Exhibit H



CASE NO. PUD 93 - 2

**WYNDHAM RIDGE  
PHASE 1  
SITE + STREET LIGHT PLAN**



DESIGNED BY: [NAME] DATE: JAN 95  
 DRAWN BY: [NAME] DATE: JAN 95  
 REVIEWED BY: [NAME] DATE: JAN 95  
 PROJECT NO. 93-001  
 SCALE: 1" = 50'

NO.	DATE	REVISION	BY

**ALPHA ENGINEERING INC.**  
 ENGINEERING • SURVEYING SERVICES • SURVEYING  
 OFFICE: 503-452-8000 • FAX: 503-452-8041  
 PLAZA WEST • SUITE 210 • 8900 SW OAK • PORTLAND, OR 97223

SHEET 2 of 15  
 EXHIBIT I

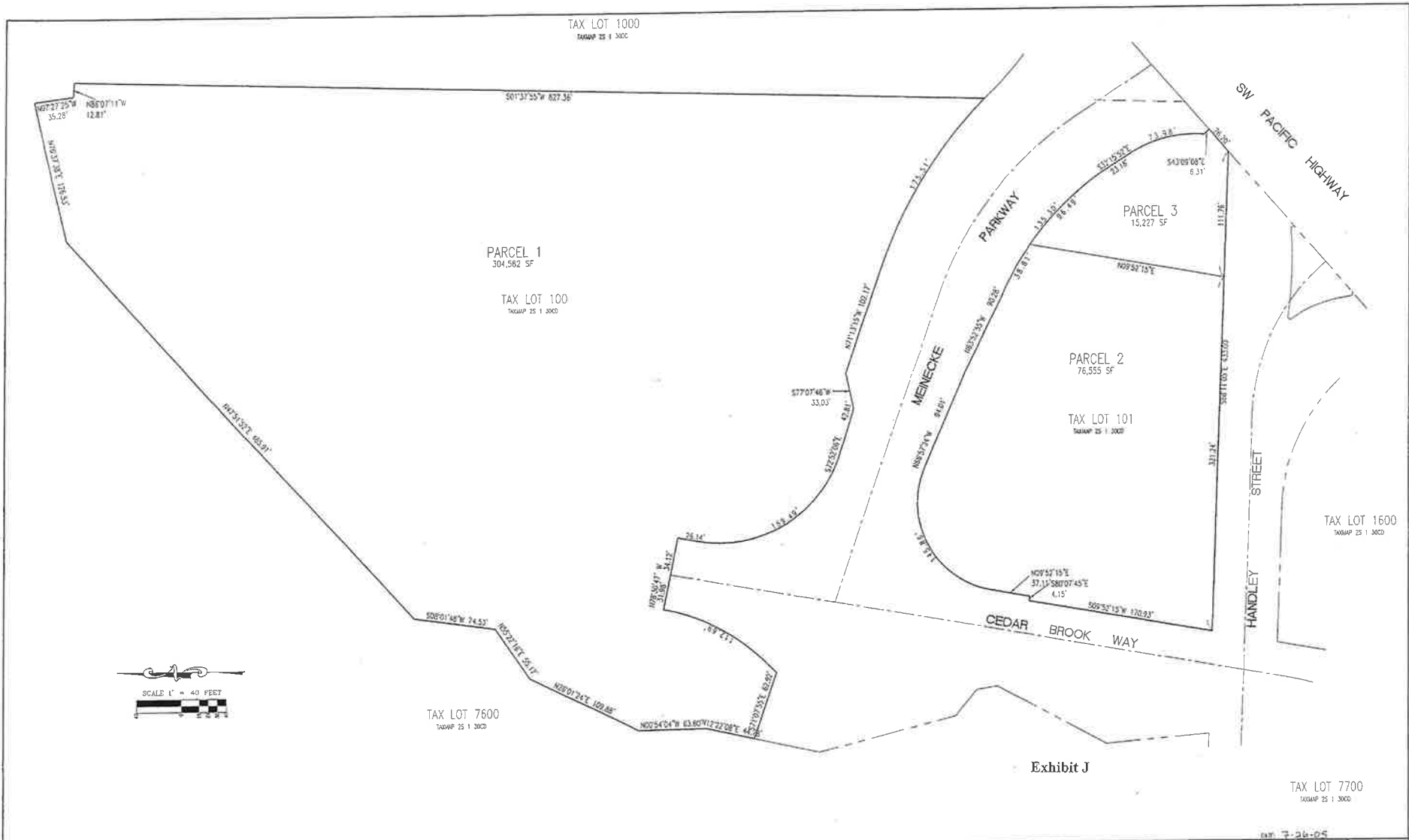


Exhibit J

REVISIONS:

**PRELIMINARY PARTITION PLAT**

**AKS**  
ENGINEERING • PLANNING • SURVEYING • FORESTRY  
LICENSED IN OR, WA & AK  
13910 SW GALBREATH DRIVE, SUITE 100  
SHERWOOD, OR 97140  
PHONE: (503) 925-8795 FAX: (503) 925-8988

DESIGNED BY:	AKS/JAM	PROJECT NO.:	PL-03
DRAWN BY:	AKS	DATE:	05-14-2005
CHECKED BY:	AKS	PREPARED FOR:	CEDAR BROOK WAY, LLC 17400 SW UPPER BOOKER FERRY RD SUITE 230, GURHAU, OR 97224 FAX: 503-443-8818

**CEDAR BROOK WAY**  
MINOR PARTITION  
SHERWOOD OREGON  
TAX LOTS 100 AND 101  
WASHINGTON COUNTY TAX MAP 25 1 300C

DATE: 5-24-05	PRELIMINARY	JOB NUMBER	1292
NOT FOR CONSTRUCTION		SHEET	3 OF 4



To: Sherwood Planning Committee  
From: Jennifer Lekas, Vineyards Resident

Re: Application for case file No. SP08-13/ CAP 08-03 Villa Lucca

This letter is response to the inquiry regarding land use by applicant J. Patrick Lucas of Cedar Brook Way, LLC. The proposal to construct the 99 unit, four-story facility, with its neighbor, a 2700 sq. ft mixed use facility is not a welcomed addition to the area nor a good idea. It is met with the strongest opposition for a number of reasons. The recent construction surrounding the Vineyards, that include medical facilities completed and non completed, as well as the new apartments, and additionally, the development of two new schools in the neighborhood, has shifted the face of the community and rapidly. With the projected idea of closely building other facilities that will increase the local population to potentially large numbers, would, in my opinion, have a negative impact on the sustainability and livability of the Vineyards residents and their right and desire to maintain a quiet, contained and modest neighborhood community.

The addition of the proposed site is also very close, **too** close to the green space and walking path that offer Vineyards residents serenity and a barrier if you will, to the bustling and burgeoning growth of Sherwood. The opportunity to have such allure in the middle of suburbia cannot be articulated suitably with words. Any changes made to the area, even if **one** tree is moved, cut or the property line nearing the creek and its natural inhabitants are altered or compromised, it would be a very disappointing and impertinent act at the councils (*potential*) discretion and tact.

With having discussed the pleasing aspects of the area, it is not without burden to mention recent questionable activity and eyesores that have given reason to question the safety and candor of the neighborhood. Empty liquor bottles, cigarettes and containers and surprisingly even vehicle traffic have been witnessed on the pathway, all of which is essentially in my backyard (a crushed alcohol bottle was recently found in my **driveway**). I fully intend to address these concerns to our HOA and it's newly appointed board, but I understand that the city of Sherwood is responsible for this piece of property and feel that you as a city should be aware of its present state. Likely, and assumable, though not for certain, it may be the actions of youth in the area, but even potentially adult misconduct or worse yet, transient trespass, seeking safe haven from the showing town. These issues, not consistent with the precedence or desired integrity of the neighborhood can potentially be a temporary and limited situation, though not without involvement of the council and the Vineyards HOA. If construction of the complex is to be allowed as well as its proposed adjacent entry to the existing walkway, the results of an influx of apartment residents using the neighborhood path could potentially aggravate our present situation. How do you avoid additional harmful activity should it arise, and what measures would you seek to impede it? How do you govern and monitor such an issue?

If the construction of the projected outline succeeds, and there is no stopping the units and commercial addition from being built, let it be strongly noted, not my desired outcome, I would then most respectfully ask you to consider the above statements and opinions.

**Exhibit K**



In summary, please allow the wild area to remain as is: No altering, no destruction and least of all, no additional access to the already established property. Let us continue to retain our portion of the community, the neighborhood we feel affection for and to keep what is currently, our own sense of privacy and sought after safety. Shouldn't every homeowner be afforded that comfort and feeling of assurance?

As the city considers these many logistical plans, please be accessible and supportive of our need to further address the recent boost in off-putting litter and dodgy behaviors presently taking place. I look forward to assisting you in any way I am capable.

Thank you most sincerely for reviewing my comments and I hope you will come to an agreeable and promising conclusion to this proposal.

Respectfully,  
Jennifer Lekas

Vineyards Resident  
21704 SW Roellich Avenue  
Sherwood, OR 97140



# Oregon

Theodore R. Kulongoski, Governor

## Department of Transportation

Region 1 Land Use Planning

123 NW Flanders

Portland, Oregon 97209-4012

Telephone (503) 731-8200

Fax (503) 731-8259

Date: 5/6/09

### ODOT Response to Local Land Use Notification

<b>Project Name:</b> Villa Lucca	<b>Applicant:</b> Cedar Brook Way, LLC
<b>Jurisdiction:</b> City of Sherwood	<b>Case #:</b> CUP08-03, SP08-13
<b>Site Address:</b> No Situs - Pacific Hwy W (OR 99W) @ Meineke, Sherwood, OR	<b>Legal Description:</b> T02SR01WS30CD <b>Tax Lot(s)</b> 13400
<b>State Highway:</b> 99W	<b>Mileposts:</b> 15.9

The site is adjacent to the referenced state highway. ODOT has permitting authority for the state highway and an interest in ensuring that the proposed land use is compatible with its safe and efficient operation. **Please direct the applicant to the District Contact indicated below to determine permit requirements and obtain application information.**

#### ODOT RECOMMENDED LOCAL CONDITIONS OF APPROVAL

Curb, sidewalk, bikeways and road widening shall be constructed as necessary to be consistent with the local Transportation System Plan and ODOT/ADA standards.

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.

#### ADDITIONAL COMMENTS:

While the current proposal is a low traffic generator, the traffic study provided by the applicant shows that the second phase of this development will contribute significantly more traffic to highway intersections that are already over capacity. At the time that the application for the second phase is submitted, ODOT will require a more detailed traffic study in order to identify the appropriate highway improvements that will mitigate the additional traffic impacts. Please contact Doug Baumgartner at the phone number below to scope the traffic study for the second phase.

**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

Exhibit L

<b>Development Review Planner</b> Seth Brumley	<b>Phone:</b> (503) 731-8234
<b>Traffic Contact:</b> Doug Baumgartner	<b>Phone:</b> (503) 731-8225
<b>District 2A Contact:</b> Steve Schalk	<b>Phone:</b> (503) 229-5267



**TUALATIN VALLEY FIRE & RESCUE - SOUTH DIVISION**  
COMMUNITY SERVICES • OPERATIONS • FIRE PREVENTION

May 15, 2009

Michelle Miller  
Associate Planner  
City of Sherwood  
22560 SW Pine Street  
Sherwood, OR 97140

**Re: SP 08 – 13 CUP 08-03 Villa Lucca**

Dear Ms. Miller;

Thank you for the opportunity to review the proposed site plan surrounding the above named development project. Tualatin Valley Fire & Rescue endorses this proposal predicated on the following criteria and conditions of approval:

- 1) **AERIAL FIRE APPARATUS ACCESS:** Buildings or portions of buildings or facilities exceeding 30 feet in height above the lowest level of fire department vehicle access shall be provided with approved fire apparatus access roads capable of accommodating fire department aerial apparatus. Overhead utility and power lines shall not be located within the aerial fire apparatus access roadway. Fire apparatus access roads shall have a minimum unobstructed width of 26 feet in the immediate vicinity of any building or portion of building more than 30 feet in height. At least one of the required access routes meeting this condition shall be located within a minimum of 15 feet and a maximum of 30 feet from the building, and shall be positioned parallel to one entire side of the building. (IFC D105) ***If building exceeds 30 feet in height, please designate where aerial apparatus road will be located.***
- 2) **NO PARKING SIGNS:** Where fire apparatus roadways are not of sufficient width to accommodate parked vehicles and 20 feet of unobstructed driving surface, "No Parking" signs shall be installed on one or both sides of the roadway and in turnarounds as needed. Roads 26 feet wide or less shall be posted on both sides as a fire lane. Roads more than 26 feet wide to 32 feet wide shall be posted on one side as a fire lane. Signs shall read "NO PARKING - FIRE LANE" and shall be installed with a clear space above grade level of 7 feet. Signs shall be 12 inches wide by 18 inches high and shall have red letters on a white reflective background. (IFC D103.6) ***Show "No Parking" signs locations for approval.***
- 3) **PAINTED CURBS:** Where required, fire apparatus access roadway curbs shall be painted red and marked "NO PARKING FIRE LANE" at approved intervals. Lettering shall have a stroke of not less than one inch wide by six inches high. Lettering shall be white on red background. (IFC 503.3) ***Provide painted curbs where needed.***
- 4) **GATES:** Gates securing fire apparatus roads shall comply with all of the following: (IFC D103.5)
  - Minimum unobstructed width shall be 16 feet, or two 10 foot sections with a center post or island.
  - Gates shall be set back at minimum of 30 feet from the intersecting roadway.
  - Gates shall be of the swinging or sliding type
  - Manual operation shall be capable by one person
  - Electric gates shall be equipped with a means for operation by fire department personnel
  - Locking devices shall be approved.
- 5) **COMMERCIAL BUILDINGS - REQUIRED FIRE FLOW:** The required fire flow for the building shall not exceed 3,000 gallons per minute (GPM) or the available GPM in the water delivery system at 20

**Exhibit M**

psi, whichever is less as calculated using IFC, Appendix B. A worksheet for calculating the required fire flow is available from the Fire Marshal's Office. (IFC B105.2) **Please provide a current fire flow test of the nearest fire hydrant demonstrating available fire flow at 20 psi residual pressure, as well as fire flow calculation worksheets. Fire Flow calculation worksheets and instructions are available on our website: [www.tvfr.com](http://www.tvfr.com).**

- 6) **FIRE HYDRANT NUMBER AND DISTRIBUTION:** The minimum number and distribution of fire hydrants available to a building shall not be less than that listed in Appendix C, Table C 105.1. **Number and distribution of fire hydrants will be determined from fire flow worksheet.**

**Considerations for placing fire hydrants may be as follows:**

- Existing hydrants in the area may be used to meet the required number of hydrants as approved. Hydrants that are up to 600 feet away from the nearest point of a subject building that is protected with fire sprinklers may contribute to the required number of hydrants.
  - Hydrants that are separated from the subject building by railroad tracks shall not contribute to the required number of hydrants unless approved by the fire code official.
  - Hydrants that are separated from the subject building by divided highways or freeways shall not contribute to the required number of hydrants. Heavily traveled collector streets only as approved by the fire code official.
  - Hydrants that are accessible only by a bridge shall be acceptable to contribute to the required number of hydrants only if approved by the fire code official.
- 7) **FIRE HYDRANT DISTANCE FROM AN ACCESS ROAD:** Fire hydrants shall be located not more than 15 feet from an approved fire apparatus access roadway. (IFC C102.1)
- 8) **REFLECTIVE HYDRANT MARKERS:** Fire hydrant locations shall be identified by the installation of reflective markers. The markers shall be blue. They shall be located adjacent and to the side of the centerline of the access road way that the fire hydrant is located on. In case that there is no center line, then assume a centerline, and place the reflectors accordingly. (IFC 508.5.4)
- 9) **ACCESS AND FIRE FIGHTING WATER SUPPLY DURING CONSTRUCTION:** Approved fire apparatus access roadways and fire fighting water supplies shall be installed and operational prior to any combustible construction or storage of combustible materials on the site. (IFC 1410.1 & 1412.1)
- 10) **KNOX BOX:** A Knox Box for building access is required for this building. For gates securing an emergency access road a Knox box or Knox padlock will be required; a Knox switch will be required for electrically operated gates. Please contact the Fire Marshal's Office for an order form and instructions regarding installation and placement. (IFC 506)
- 11) Complete the Building Survey Form prior to the issuance of the Building Permit:  
[http://www.tvfr.com/Dept/fm/brochures/document\\_files/building\\_survey\\_form\\_ifc.pdf](http://www.tvfr.com/Dept/fm/brochures/document_files/building_survey_form_ifc.pdf)
- 12) Resubmit plans for final approval.

If you have questions, please call me at (503) 612-7012.

Sincerely,

*Karen Mohling*

Karen Mohling  
Deputy Fire Marshal