Pre-Application Conference Notes

PA 15-03: Master Plan Amendment, Detailed Development Plan and Applicable Overlay Districts for the Cove

Pre-Application Conference Date: **2/25/2015**

Proposed Project:

- Construction of multi-family on Lot 2.
- Construction of Main Street Adjacent to Lot 2.
- Construction of temporary (gravel) trailhead parking on Lot 3 and a trail connection.
- Water Quality Resource mitigation.
- Exporting 65,850 cy of material from the North Park and 51,050 cy from Tri-City to Lot 2.
- Seeding the North Park.
- Construct temporary access to the Baker property.
- Amendments to the Cove Master Plan.

General Information:

- Zoning: "MUD" Mixed Use Downtown District
- Applicable overlay districts:
  - Natural Resource Overlay District
  - Floodplain management Overlay District
  - Geologic Hazards Overlay District
- Previous Approvals
  - Concept Development Plan: CP 08-05 (Valid for 10 Years)
  - Detailed Development Plan: DP 08-13 (Expired)
  - Water Resource: WR 08-21(Valid/Expired)
  - Subdivision: TP 08-11 (Valid)
  - Geologic Hazards: US 08-03 (Expired)
  - Concept Development Plan Amendment: CP 09-02 (Valid)
  - Detailed Development Plan Amendment: DP 09-01 (Expired)
  - DP 10-01: Detailed Development Plan (Expired)
- Applications anticipated:
  - Type III Master Plan Amendment ($3,384 application + $1,341 traffic for multi-family + $2,680 traffic for non-residential + 2,010 traffic study for master plan)
  - Natural Resource Overlay District (see fee sheet)
  - Geologic Hazard Overlay District ($853 + pass thru fee)
  - Detailed Development Plan (see fee sheet)
  - Note we can provide mailing labels for $15
- Applicable Code:
  You may choose between the code that was in place when something was added into the Master Plan and the current code.
  - Garden Apartments. – The multi-family was added to the Master Plan on August 27, 2009 with CP 09-02. Minor amendments to the code have been made since this time.

- The Temporary Gravel Trailhead Parking Lot – The permanent or temporary trailhead parking lot is not within the approved Master Plan and thus the master plan will have to be amended. The design of the parking lot and the associated trail are subject to today's current code.

- Summary of Previous Master Plan Approvals:

Type of Use	2008 Approval	2009 Approval	2015 Proposal
Dwellings	224 Units – Condos 0 Units – Apts.	180 Units – Condos 220 Units – Apts.	195 Units – Condos 244 Units – Apts.
Retail Sales	0	≤3,520 Sq. Ft.	6,072 Sq. ft. Commercial? (Phase 1)
Restaurant	8,000 Sq. Ft. – High Turnover 8,000 Sq. Ft. - Quality	≤6,750 Sq. Ft. – High Turnover ≤6,800 Sq. Ft. - Quality	No Change
Office	42,300 – General 80,000 - Medical	≤131,920 Sq. Ft. (80,000 can be medical)	70,000 Sq. Ft. Office (Phase 3) 57,000 Sq. Ft. MU Office (Phase 4) Total 127,000 Sq. Ft.

*The proposed maximums are for the entire site and are not dedicated to a single location.

Timing and Process:
If multiple applications are processed together, they are generally processed as the highest level of review of any of the applications. For example, if you concurrently submit an application for a Master Plan (Type III) and Detailed Development Plan (Type II), they are processed together as a Type III. An explanation of the application processes is provided in OCMC 17.50.

Transportation Impacts:
The applicant will need to have a traffic engineer conduct a transportation study in conformance with the City's *Guidelines for Transportation Impact Analyses* available on the Oregon City website.

Based on the information provided by the applicant, it appears the trip generation exceeds the level at which the project's transportation analysis requirements can be satisfied by submittal of a Transportation Analysis Letter (TAL). A full Transportation Impact Analysis (TIA) will be required. Among other requirements, a full TIA includes conducting traffic counts and operational analysis of impacted intersections will be required. Intersections to be analyzed include the site access and intersections of collector/collector and higher where traffic volumes from the development exceed 20 peak hour trips.

The applicant and his traffic engineer should review the *Guidelines for Transportation Impact Analyses* and the most recent mobility standards as specified in Oregon City Municipal Code section 12.04.205. Note that the mobility standards have changed since the applicant's last land use submittal related to this property.

Because the proposal includes a master plan, the applicant will need to address the requirements of OCMC Chapter 17.65. Among other things, the applicant will need to specify a phasing plan if more than one phase is proposed. The applicant will need to define what is included in each phase and the year by which it will be implemented. Multiple phases may require that the transportation impacts are assessed for each phase of the development while taking into account the regional traffic growth that is expected during each phase of the applicant's master plan. The mitigation required to accommodate the applicant's traffic from each phase must be specified if the applicant proposes phased implementation of transportation improvements in connection this project.

With regard to the proposed roundabout, the burden is on the applicant to assure that the design is appropriate for functional classification of the streets and satisfies the long-term transportation system needs identified in the Transportation System Plan (TSP). The applicant should use the traffic volumes for full build-out of his site and traffic volumes consistent with the horizon year associated with the TSP for the design of the roundabout. The applicant should provide his rationale for the size and design features of the

proposed roundabout. The applicant should base his analysis of traffic operations for the roundabout on Sidra or another approved traffic analysis software product.

The applicant's traffic engineer is welcome to contact the city's traffic engineering consultant, John Replinger, at Replinger-Associates@comcast.net or at 503-719-3383.

Master Plan/ Detailed Development Plan:
The pre-application materials lack the specificity and the scale of the drawings was too small to determine compliance with a majority of the applicable standards of the Oregon City Municipal Code. Please include details for all structures, parking lots, pavement, development, etc. The applicant is required to demonstrate compliance with all applicable criteria. The applicant may request adjustments to the criteria in OCMC 17.65.070, though adequate mitigation is required.

The following standards appear to not be met:

- 17.62.050.A.9.a, 17.62.055.D.2, 17.62.057.F – A direct pedestrian connection between each building fronting the street and the street is required.
- 17.62.057.D, 17.62.055.D.3 – Each building abutting a street shall have a street facing façade.
- 17.62.057.H. – The diversity among buildings (differentiation) does not appear to be significant.
- 17.62.057.H – The diversity of unit types does not appear to be met.
- 17.52 – The design, landscaping, material, etc of the gravel parking lot and gravel trail does not comply with the standards in the code. The development will need to comply with the Code or an adjustment is needed with sufficient mitigaiton.

Additional items to provide:

- A detailed phasing plan with the dates for which each phase will be constructed.
- A specific description of the 6,072 square feet of non-residential on lot 2. What will the commercial use be? The retail store/shopping center standard was used to calculate the parking. Is the square footage new to the Master Plan or has it been relocated from another lot?
- Information as to if the number of multi-family is increasing or if it is being relocated from another lot.
- Verification that the landscaping complies with the municipal code and approved landscaping plan in the approved Master Plan.
- Verification that the community center is similar in appearance to the recreational facility in the 2008 Master Plan. The recreational facility was relocated with the 2009 Master Plan amendment to the apartment site.
- Number each parking stall on the site plan.
- An analysis of how the street design complies with the approved Master Plan.
- Details of the trailhead parking lot and the connection to the right-of-way.
- Details of the connection to the Baker property.
- Changes at Tri-Cities, the park area and all locations where development will be occurring.

Other Planning Notes:

- Within the multi-family site, the community center shall comply with the standards for commercial and institutional buildings in OCMC 17.62.055. Building type D shall comply with the institutional and commercial building standards in OCMC 17.62.055 for the Main Street façade in addition to the multi-family standards in OCMC 17.62.057.
- Access is required to be provided to the Oregon City Shopping Center. Please provide the details for each accessway and discuss all on and off-site construction needed to accommodate the accessways. Note that the shopping center has recorded an easement for access.
    - An emergency flood access is required near the southernmost portion of the property with Oregon City Shopping Center. Construction may need to occur on the OCSC side to make this accessway usable.

    - An automobile, bike and pedestrian access is to be provided from the street to the Oregon City Shopping center near the northernmost portion of the property with the Oregon City Shopping Center. The access on the OCSC side will be provided upon future redevelopment.
- A public easement is required for the temporary public parking lot and trail.
- The City does not have parking minimums and maximums for trailhead parking. Please provide example standards from other jurisdictions to justify the size of the temporary trailhead parking lot.

Expected Amendments to the Approved Master Plan:
Though the City has not been presented with the official Master Plan, from my understanding the applicant would need to amend the Master Plan for at least the following reasons:

- Changes to the Phasing Plan
- Construction of the Parking Lot on Tract A- The Master Plan currently includes landscaping on Tract A.
- Construction of a temporary parking lot and trail head on the condo lot.
- Increase the square footage of commercial for Lot 2.
- Increase the number of dwelling units.
- Changes to the Water Resource Overlay District, Flood Management Overlay and Geologic Hazards Overlay.

Development Services Division (Utilities/Public Improvements/SDC's, etc):
See separate notes from Public Works Development Services Division. Contact Todd Martinez at 503.496.1508 or email tmartinez@orcity.org.

Natural Resource Overlay District (NROD) / Water Quality Resources Overlay District (WR):
The Natural Resource Overlay District (formally the Water Quality Resources Overlay District) protects natural resources through the use of a vegetated corridor. For the locations in which development is proposed, a study and associated mitigation is required. It is the responsibility of the applicant to receive additional review from all other applicable agencies such as the Department of State Lands (DSL) and the Army Corps of Engineers.

Geologic Hazards Overlay District (US):
The applicant shall submit a geologic hazards review application with all applicable studies for development within the overlay. Prior to submission of an application, please arrange a meeting with Development Services to discuss the requirements of the geotech. Once submitted, at the applicant's expense, the City will send the geotech report to our consultant to review.

Flood Management Overlay District:
The applicant shall demonstrate compliance with the Flood Management Overlay District for development within the overlay.

Building Division:
You may contact Mike Roberts, our Building Official at 503.496.1517 or by email at mroberts@orcity.org.

Clackamas Fire District:
Questions can be directed to Mike Boumann, Lieutenant Deputy Fire Marshal of Clackamas Fire District #1. You may contact Mr. Boumann at (503)742-2660 or michaelbou@ccfd1.com.

Notes:

- A Neighborhood Association meeting is required prior to a complete application. The site is in the Two Rivers Neighborhood Association.
    - Chair: Bryon Boyce, bryony@birdlink.net, 503-655-4457
    - Secretary: Margie Hughes, margiehughes1@aol.com, 503-312-1111
    - Meeting Information: Fourth Wednesday of January, April, July, and October

- Location TBD
- 2015 Estimated General Meeting Dates: January 28th, April 22nd, July 22nd and October 28th

- Signs must comply with the sign code - OCMC 15.28. Note that the City is currently in the process of updating the sign code.
- System Development Charges (SDC) shall be due and payable upon building permit issuance.
- OCMC 17.41. A tree removal, protection and mitigation plan is required.
- Show any walls, fences or retailing walls proposed to be in accordance with OCMC 17.54.100.
- The City does not have a parking standard associated with parks or trails. Please provide parking standards for other jurisdictions to use as a comparison which can be incorporated into the approval.

Approved Phases-

The approved phasing includes:

Phase I (2010)-

- Mass Grading including the Multifamily Apartment Area, North Park, Mixed Use Building and parcel south of Main Street and the Water Quality Resource Area (Main Street and the Mixed Use Building)
- Infrastructure including fully improving Main Street, half street improvements for Agnes Avenue to north park, 20-foot paved to Washington and utilities in Agnes to north park
- North Park Landscaped
- Water Quality Area Landscaped around Mixed Use Building

Phase II (2010 to 2011)-

- Grading the Water Quality Resource Area and Esplanade
- Esplanade & Water Quality Resource Plantings/Restoration

Phase III (2010 to 2013)-

- Apartment Complex
- Medical Office / General Office Building
- Off-Street Parking Area
- Infrastructure including full Frontages improvements to Agnes (up to Building 5)

Phase IV (2011 to 2013)-

- Grading for Condo Buildings 3 & 4
- Condo Buildings 3 & 4
- Landscaped Monument at Main St. Entrance

Phase V (2012 to 2014)-

- Final Grading for Condo's 1 & 2
- Condo Buildings 1 & 2

Phase VI (2013 to 2015)-

- Final Grading for Condo's 5 & 6
- Infrastructure including full street improvement to Agnes
- Condo Buildings 5 & 6

Phase VII (2014 to 2016)-

- Mixed Use Building

Phase VIII (2011 to 2019)-

- In-water improvements (excluding Sheriffs facility)

Adjustments to Development standards

As part of the 2008 Concept Development Plan, nine (9) adjustments to the Oregon City Municipal Code were requested.

1) 16.12.290.A Building Site – Setbacks and building locations.
   All lots located on a neighborhood collector, collector or minor arterial shall be orientated to front the street. Corner lots may have a side facing the street.

Proposed adjustment: All lots located on a neighborhood collector, collector or minor arterial should be oriented to front the street when practicable. Corner lots may have a side yard facing the street.

Decision: Approved

2) 17.62.055.E.2 Variation in massing.

Horizontal masses shall not exceed a height:width ratio of 1:3 without substantial variation in massing that includes a change in height and projecting or recessed elements.

Proposed adjustment: Horizontal massing of the proposed Mixed-use building may exceed a height:width ratio of 1:3 due to the provisions of variation in massing and materials.

Decision: Approved

3) 17.52.040.A Carpool and vanpool parking.

New retail, office, commercial and industrial developments with twenty-five or more parking spaces, and new hospitals, government offices, nursing and retirement homes, schools and transit park and ride facilities with twenty-five or more parking spaces, shall identify the spaces available for employee, student and commuter parking and designate at least five percent, but not fewer than two, of those spaces for exclusive carpool and vanpool parking. Carpool and vanpool parking spaces shall be located closer to the main employee, student or commuter entrance than all other employee, student or commuter parking spaces with the exception of handicapped parking spaces. The carpool/vanpool spaces shall be clearly marked "Reserved/Vanpool Only."

Proposed adjustment: New retail, office, commercial and industrial development with twenty-five or more parking spaces shall designate at least two carpool and vanpool parking spaces. Carpool and vanpool parking spaces shall be located closer to the main employee or commuter entrance than all other employee parking spaces with the exception of handicapped parking spaces. The carpool/vanpool spaces shall be clearly marked "Reserved-Carpool/Vanpool Only."

Decision: Approved

4) 17.34 and 17.62 Maximum Building Setbacks.

Proposed adjustment: No maximum setbacks shall apply to the Concept Development Plan boundary provided that actual development substantially conforms to the concept Development Plan.

Decision: Approved

5) 17.49.050.H.5(c) Water Quality Resource Area.

Development Standards. Applications for provisional uses in the water quality resource area shall satisfy the following standards:

Walkway and bike paths: A walkway or bike path shall not exceed twelve feet in width.

Proposed adjustment: A walkway or bike path shall not exceed twenty (20) feet in width.

Decision: Approved

6) 17.52.010 Number of spaces required.

Medical or Dental Clinic: Maximum of 3.33 parking spaces per 1,000 square feet of gross leasable area.

Proposed adjustment: The maximum parking ratio for a medical or dental clinic or office use shall be 5.0 spaces per 1,000 square feet of gross leasable area.

Decision: The requested adjustment to increase the medical office building parking from 3.33 to 5.0 parking spaces per 1,000 square feet shall be allowed. The applicant of the phase 3 development of the site shall provide the City with a shared parking agreement prior to the approval of the phase 3 Detailed Development Plan. The agreement will allow public use of at least the difference in the number of spaces allowed between the office standard of 3.33 and the maximum of 5.0 per 1,000 square feet. The time of the shared parking shall be determined by the applicant and City during the phase 3 Detailed Development Plan approval.

7) 17.52.090.2 Parking lot landscaping.

Perimeter Parking Lot Landscaping and Parking Lot Entryway / Right-of-way Screening. Parking lot entryways and perimeter parking lot landscaping areas not abutting the building or where access/parking is shared between adjoining land owners shall be bordered by a minimum five-foot wide landscaped planter strip with:

a. Trees spaced a maximum of thirty-five feet apart (minimum of one tree on either side of the entryway is required). When the parking lot is adjacent to a public right-of-way, the parking lot trees shall be offset from the street trees;

b. Ground cover, such as wild flowers, covering one hundred percent of the exposed ground. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees; and

c. An evergreen hedge screen of thirty to forth-two inches high or shrubs spaced no more than four feet apart on average. The hedge/shrubs shall be parallel to and not nearer than two feet from the right-of-way line. The required screening shall be designed to allow for free access to the site and sidewalk by pedestrians. Visual breaks, no more than five feet in width, shall be provided.

Proposed adjustment: The applicant shall provide perimeter parking lot landscaping in conformance with the Landscaping Plan as submitted.

Decision: The requested adjustment to the perimeter and interior landscaping requirements shall not apply to the above grade parking lots for the medical office building, North Park and the mixed-use building. There will be substantial above grade parking at the medical office-building site (266 spaces), the North Park Parking Lot (28 spaces) and the mixed-use building site (19 spaces), which shall meet the parking lot landscaping requirements of the OCMC.

8) 17.52.090.4 Parking lot landscaping.

Interior Parking Lot Landscaping. In addition to perimeter parking lot landscaping, surface parking lots shall have a minimum ten percent of the interior of the gross area of the parking lot devoted to landscaping to improve the water quality, reduce storm water runoff and provide pavement shade. Pedestrian walkways or any impervious surface in the landscaped areas are not to be counted in the percentage. In addition, the perimeter parking lot landscaping shall not be included in the ten percent requirement.

a. A minimum of one tree per six parking spaces.

b. Ground cover, such as wild flowers, covering one hundred percent of the exposed ground. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees; and

c. Shrubs shall be spaced no more than four feet apart on average.

d. No more than eight contiguous parking spaces shall be created without providing an interior landscape strip between them. Landscape strips provided between rows of parking shall be a minimum of six feet in width to accommodate:

1. Pedestrian walkways shall have shade trees spaced a maximum of every thirty-five feet in minimum three-foot by five-foot tree wells; or

2. Trees spaced every thirty-five feet, shrubs spaced no more than four feet apart on average, and ground cover covering one hundred percent of the exposed ground. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees.

Proposed adjustment: The applicant shall provide perimeter parking lot landscaping in conformance with the Landscaping Plan as submitted.

Decision: The requested adjustment to the perimeter and interior landscaping requirements shall not apply to the above grade parking lots for the medical office building, North Park and the mixed-use building. There will be substantial above grade parking at the medical office-building site (266 spaces), the North Park Parking Lot (28 spaces) and the mixed-use building site (19 spaces), which shall meet the parking lot landscaping requirements of the OCMC.

9) 17.62.055.F.2 Institutional and commercial building standards. Façade Treatment.

Façade Transparency. The main front elevation of shall provide at least sixty percent windows or transparency at the pedestrian level. The side elevation shall provide at least thirty percent transparency. The transparency is measured in linear fashion (For example, a one-hundred foot long building elevation shall have at least sixty feet (60% of 100 feet) of transparency in length).
Proposed adjustment: The applicant shall develop the Recreational Facility consistent with the proposed building design included in the concept master plan.
Decision: Approved

Oregon City Municipal Code Criteria:
The following chapters of the Oregon City Municipal Code (OCMC) may be applicable to this proposal:
OCMC 12.04 - Streets, Sidewalks and Public Places
OCMC 12.24 – If using 2009 Code
OCMC 12.08 - Public and Street Trees
OCMC 13.12 – Stormwater Management
OCMC 15.48 – Grading, Filling and Excavating
OCMC 17.34 – "MUD" Mixed Use Downtown District
OCMC 17.41- Tree Protection Standards
OCMC 17.42 – Flood Management Overlay District
OCMC 17.44- Geologic Hazards
OCMC 17.49 – Natural Resource Overlay District
OCMC 17.50 – Administrative Processes
OCMC 17.52 – Off-Street parking and Loading
OCMC 17.62 – Site Plan and Design Review
OCMC 17.54 – Supplemental Zoning Regulations and Exceptions
OCMC 17.65 - Master Plans

MS-Word versions of the code are available for download on-line from the municipal code website.

Pre-application conferences are required by Section 17.50.050 of the City Code, as follows:
A. Preapplication Conference. Prior to submitting an application for any form of permit, the applicant shall schedule and attend a preapplication conference with City staff to discuss the proposal. To schedule a preapplication conference, the applicant shall contact the Planning Division, submit the required materials, and pay the appropriate conference fee. At a minimum, an applicant should submit a short narrative describing the proposal and a proposed site plan, drawn to a scale acceptable to the City, which identifies the proposed land uses, traffic circulation, and public rights-of-way and all other required plans. The purpose of the preapplication conference is to provide an opportunity for staff to provide the applicant with information on the likely impacts, limitations, requirements, approval standards, fees and other information that may affect the proposal. The Planning Division shall provide the applicant(s) with the identity and contact persons for all affected neighborhood associations as well as a written summary of the preapplication conference. Notwithstanding any representations by City staff at a preapplication conference, staff is not authorized to waive any requirements of this code, and any omission or failure by staff to recite to an applicant all relevant applicable land use requirements shall not constitute a waiver by the City of any standard or requirement.
B. A preapplication conference shall be valid for a period of six months from the date it is held. If no application is filed within six months of the conference or meeting, the applicant must schedule and attend another conference before the City will accept a permit application. The community development director may waive the preapplication requirement if, in the Director's opinion, the development does not warrant this step. In no case shall a preapplication conference be valid for more than one year.

NOTICE TO APPLICANT: A property owner may apply for any permit they wish for their property. HOWEVER, THERE ARE NO GUARANTEES THAT ANY APPLICATION WILL BE APPROVED. No decisions are made until all reports and testimony have been submitted. This form will be kept by the Community Development Department.

A copy will be given to the applicant. IF the applicant does not submit an application within six (6) months from the Pre-application Conference meeting date, a NEW Pre-Application Conference will be required.

OREGON CITY

Public Works – Development Services

625 Center Street | Oregon City OR 97045
Ph (503) 657-0891 | Fax (503) 657-7829

PRE-APPLICATION MEETING NOTES

Date: 2-19-15

Planning Project Number: PA 15-03
Address: 415 Center Street
Map Number: 2-2E-29 02900
Tax Lot: 02900
Project Name: The Cove
Meeting Date: 2-25-15
Reviewer: Gordon Munro

GENERAL COMMENTS

1. The Applicant is responsible for this project's compliance with Engineering Policy 00-01. The policy pertains to any land use decision requiring the Applicant to provide any public improvements.

2. The Applicant shall sign a Non-Remonstrance Agreement for the purpose of making sanitary sewer, storm sewer, water or street improvements in the future that benefit the Property and assessing the cost to benefited properties pursuant to the City's capital improvement regulations in effect at the time of such improvement.

3. The Applicant shall provide an Erosion Prevention and Sedimentation Control Plan to the City for approval.

4. All applicable System Development Charges (SDC) shall be due and payable upon building permit issuance.

5. A grading permit shall be obtained for the onsite work with the approval of the complete construction plans for the development from Public Works Engineering Development Services.

ENGINEERING - UTILITIES

Streets

1. The street sections for Main Street and Agnes Avenue were approved previously through the master plan application in 2008 and the subsequent amendment in 2009. Two sections for Main Street were identified:

   Crown section of Main Street included a 60' ROW, two 11' travel lanes, two 6' bike lanes, two 6.5' planter strip and two 6' sidewalk. Per the grading plan this appears to be the section of the street south of Agnes Avenue. However, the current plan sheets do not appear to match this section on the east side of the street where there does not appear to be a sidewalk or planter strip.

It is not clear that this section extends to the property line. If not, it would need to be.

Shed section of Main Street included a 60' ROW, two 11' travel lanes, two 6' bike lanes, a 12.5' swale, a 4.5' planter strip and an 8' sidewalk. Per the grading plan this appears to be the section of the street west of Agnes Avenue. However, the current plan sheets do not appear to match this section on the east side of the street where there does not appear to be a sidewalk along the length of the street. Further, per the section provided the sidewalk appears to be on the side of the lake. Again, this does not match the plan sheets.

It is not clear that there is sufficient room between the street and the lake for the sidewalk.

2. The roundabout at the intersection of Main Street and South Agnes Avenue was approved through the master planning process. There is no design standard for round-abouts in the Oregon City code. The proposed section includes 170' diameter improvements with, 10' sidewalks, 4.5' planter strip, 20' travel lane, 30' mountable truck apron and a 40'diameter central landscape island.

   It is recommended that the landscape strip be 6.5' wide to match the Main Street crown section. The 10' sidewalk is sufficient as a shared pedestrian/bikeway.

3. It is assumed that the internal streets within the proposed development will be private streets. However, there are two locations that serve as access points connecting this property to the shopping center. A public access easement would be required over the private street from Main Street to the two access points and shall coordinated with the existing access easements on the shopping center property. Improvements on the shopping center site are required for connection to the emergency flood route.

4. Per the original master plan COA #6, the applicant shall provide ODOT $100,000 for future McLoughlin Blvd enhancements.

5. The applicant has proposed a temporary crushed rock parking lot off the end of Agnes Avenue. The City would not support a crushed rock surface adjacent to the round about. There would also need to be a trail from the parking lot to the existing trail system. The width and construction could match the existing trail. There would need to be a public access easement for these improvements.

6. The applicant appears to propose a crosswalk and connection between sidewalks/trails in the proposed development and the end of the Clackamas River Trail. However, the location of this connection point is located south of the existing trailhead. It is assumed that the crosswalk is located to connect to the future esplanade. A connecting trail should be constructed as required.

7. Under the original master plan the phase 1 improvements included the construction of Main Street out to McLoughlin Blvd. The current proposal does not include the entire street. This is a modification to the master plan. The application should provide an updated phasing plan. The completion of Main Street should consider both the adjacent improvements and the traffic from the development.

8. The initial material sent showed a sidewalk connection from the round-about to the commercial area, and a connection from Main Street to the commercial area at the south end. However, the most recent grading plan does not show either connection. This does not meet the spacing standards per code section 12.04.195. If the block length is over 550', then there shall be a pedestrian connection at least every 330'.

Stormwater

9. The proposed development will create more than 8,000 sf of new impervious area, and will be subject to quality control requirements.

10. The site meets the exemption requirements for detention as the discharge would be to the Clackamas River and it is within the 100 year floodplain. Therefore, detention is not required.

11. There is a 40" Oregon City storm drain pipe in Main Street which flows northwest from the intersection with South Agnes Avenue and discharges to the Clackamas River on the north side of Main Street. The outfall is 36". In addition, there is a 12" Oregon City storm drain that collects stormwater from the parcel to be developed and flows directly across Main Street to a separate outfall to the Clackamas River.

12. The storm line on Main Street is proposed to be increased to a 48" pipe. The outfall should also be increased to a 48" pipe. The applicant would need to obtain associated permits for the in-water work.

13. The applicant has proposed a series of swales on the western leg of Main Street that discharge to the new proposed 48" storm pipe in Main Street. There is no water quality facilities shown for the southern leg of Main Street (crowned section), or Agnes Avenue. Water quality facilities will be required.

14. The applicant proposes to build a private stormwater collection system within the proposed development that appears to consist of three swales and two optional water quality vaults. This would discharge to the new proposed 48" storm drain pipe in Main Street. The vaults are acceptable only if they are private. The City will need a maintenance covenant and access easement to access all the facilities.

15. It appears that at least one of the private swales will be parallel with the public swale. Alternative can be discussed with the City.

16. A preliminary storm report is required for the land use application. Refer to the City Storm Water and Grading Design Manual for requirements of the report.

Water

17. There is a 10" ductile iron (City to verify) water main installed in Main Street north of the intersection with South Agnes Avenue, owned by Oregon City.

18. The applicant does not propose to use the existing 6" water service to the property, located just north of the intersection with South Agnes Avenue. Instead, the applicant proposes to connect a new 8" service to the 10" ductile iron main in Main Street at the north end of the proposed development. It is not clear if the applicant is proposing a second proposal for an 8" fire service, a 2-inch domestic water metered service and a 2-inch irrigation metered service?

19. Due to the substantial earthwork proposed and grade changes proposed for Main Street, the 10" water line will need to be replaced. At finished grade there will need to be 3' of cover over the water line, and meeting the City's typical utility placement parallel alignment with the new curb to the maximum extent practicable.

20. One fire hydrant is located near the proposed development. The hydrant is located on the east side of Main Street approximately 130' north of the intersection with South Agnes Avenue and is supplied by the 10" ductile iron main in Main Street. In addition, three private fire hydrants located behind the Oregon City Shopping Center are located less than 50' from the property line with the proposed development. However, access to these hydrants is likely to be limited by existing vegetation. Six new fire hydrants are included within the proposed development. New fire hydrants shall be located per the fire department. If the domestic water supply and fire protection flow are to be from one master metered water service, then the applicant shall size the master meter appropriately to meet the requirements of fire flow and domestic flow per the applicable building and plumbing codes, and other requirements as applicable including backflow prevention assemblies. If a separate fire service and separate domestic water service are proposed, then both shall meet the applicable building and plumbing codes including the backflow prevention assemblies.

Sanitary Sewer

21. There is a 30" gravity sanitary sewer pipe installed in Main Street north of the intersection with South Agnes Avenue, and a 54" gravity sanitary sewer pipe in Main Street south of the intersection with South Agnes Avenue. Both pipes ultimately flow north on South Agnes to the Tri-City Service District (TCSD) wastewater plant. An 84" gravity sanitary sewer pipe carrying treated effluent from the TCSD wastewater plant to the Willamette River is located in Main Street north of the intersection with South Agnes Avenue. All pipes are owned by TCSD.

22. The applicant proposes to connect to the 30" gravity sanitary sewer in Main Street at the existing manhole (#10004) at the north end of the proposed development. A private sanitary sewer system within the proposed development will collect sanitary flows. The sanitary sewer drawings provided show 8" and 6" sanitary sewer pipes within the development but no sanitary sewer manholes. For access and maintenance purposes, manholes are recommended at the intersection point of sewer pipes. A manhole will be required in the public section of proposed road at the north end of the development.

23. The applicant will need to coordinate with TCSD with regard to connection to their pipe.

625 Center Street | Oregon City OR 97045
Ph (503) 657-0891 | Fax (503) 657-7829

24. It appears that there is significant cut in the road grade in some locations. It is unclear if this will cause issues with the sanitary sewer line and required cover. The applicant will need to coordinate with TCSD with regard to requirements. The road grades may need to be modified.

25. The on-site sanitary sewer should be private. The private system will need to be constructed to Plumbing Code standards.

Other

26. The entirety of the proposed development is located within the 100 year floodplain as determined by FEMA. The majority of the area was flooded by the 1996 flood inundation. The applicant will need to address this part of the code (17.42) and show that there will be no net cut/fill in the floodplain. This would include all three areas involved in the earthwork: the development site, the north park site and the Tri-City site.

27. It appears that some of the material for the site will come from the north park area. There will need to be a grading, restoration and erosion control plan for this area. The application should detail what condition this facility will be left in, and how the existing uses of the area will be maintained. The temporary access road for construction into the park area will also need to be planned for including grading, restoration and erosion control.

28. It appears that some of the material for the site will come from the Tri-City WWTP site. The applicant will need to coordinate with Tri-City to obtain permission and to determine the requirements with regard to grading, restoration and erosion control. There may also be restrictions on access. The applicant shall provide copies of documents and agreements for cut and fill materials from the Tri-City WWTP site as is applicable to address the OCMC 17.42 for the Flood Management Overlay District.

29. The proposed development includes areas with slopes greater than 25%, which is categorized as a geologic hazard. The applicant will need to address the applicable code sections from OCMC Chapter 17.44 US-Geologic Hazards in the application. A geotechnical report will be required.

30. While the grading plan does not show any retaining walls, there are several locations where improvements over-lap slopes. It appears that retaining walls would be required. If so, provide the information required per the code and applicable City standards, and indicate the height of the walls.

From: Wes Rogers
To: Laura Terway
Subject: RE: Oregon City Pre-Application Conference for the Cove
Date: Tuesday, February 10, 2015 5:33:00 PM

Laura, schools in this attendance area are getting towards capacity. We MAY have to bus students to another school to accommodate this development. We won't know for sure until we get closer to the exact project timeline for occupancy.

..wes

Wes Rogers, Director of Operations
Oregon City SD
503-785-8426

-----Original Appointment-----
From: Laura Terway [mailto:lterway@ci.oregon-city.or.us]
Sent: Thursday, February 05, 2015 1:57 PM
To: Aleta Froman-Goodrich; baldwinb@tri-met.org; 'Betty Johnson'; Bob George; 'Boll, Heather'; Boumann, Mike; Carla Morgan (carla.morgan@pgn.com); Chris Wadsworth; Dawn Hickson; Deana Mulder (deanam@co.clackamas.or.us); Denise Kai; Don Kemp (donk@co.clackamas.or.us); Eric Underwood; Grant O'Connell (o'connelg@trimet.org); James Band; Jennifer Stephen (jennifer.stephens@pgn.com); John Collins; John M. Lewis; John Replinger (replinger-associates@comcast.net); Kent, Ken; Martin Montalvo; Mike Roberts; Munro, Gordon; odot.state.or.us; Scott Archer; Tim Finlay (timfin@co.clackamas.or.us); Todd Martinez; Ugo DiLullo (ugodil@co.clackamas.or.us); Wes Rogers
Subject: Oregon City Pre-Application Conference for the Cove
When: Wednesday, February 25, 2015 10:00 AM-10:30 AM (UTC-08:00) Pacific Time (US & Canada).
Where: OC Planning, 221 Molalla Avenue, Suite 200

Please see the attached materials for a Pre-Application Conference for a Master Plan Amendment and Detailed Development Plan for the property behind the Oregon City Shopping Center within the Cove development. The meeting will be at 10am at the Planning Division Office on February 25, 2015. Please send me your comments by February 23, 2015. Thanks

Meeting Materials: https://orcity.sharefile.com/f/foc2f5c7-83c2-4ad2-a68a-b23f7f5f0084

<< File: ATT47363 1.jpg >>

Laura Terway, AICP
Planner
Planning Division
City of Oregon City
PO Box 3040
221 Molalla Avenue, Suite 200
Oregon City, Oregon 97045
Direct - 503.496.1553
Planning Division - 503.722.3789
Fax 503.722.3880

City of Oregon City
Pre-Application Conference
Public Works Engineering Development Services

OTHER REFERENCE MEETING NOTES

Planning File: PA 15-03
Project Name: The Cove
Tax Map and Taxlot: Clackamas County Map 2-2E-32CB, Tax Lot(s) 5300, 5400, 5401
Meeting Date: 2/25/2015

Proposed Project:

- Construction of multi-family on Lot 2.
- Construction of Main Street Adjacent to Lot 2.
- Construction of temporary (gravel) trailhead parking on Lot 3 and a trail connection.
- Water Quality Resource mitigation.
- Exporting 65,850 cy of material from the North Park and 51,050 cy from Tri-City to Lot 2.
- Seeding the North Park.
- Construct temporary access to the Baker property.
- Amendments to the Cove Master Plan.

General Information:

- Zoning: "MUD" Mixed Use Downtown District
- Applicable overlay districts:
  - Natural Resource Overlay District
  - Floodplain
  - Geologic Hazards
- Previous Approvals
  - Concept Development Plan: CP 08-05 (Valid for 10 Years)
  - Detailed Development Plan: DP 08-13 (Expired)
  - Water Resource: WR 08-21(Valid/Expired)
  - Subdivision: TP 08-11 (Valid)
  - Geologic Hazards: US 08-03 (Expired)
  - Concept Development Plan Amendment: CP 09-02 (Valid)
  - Detailed Development Plan Amendment: DP 09-01 (Expired)
  - DP 10-01: Detailed Development Plan (Expired)
- Applications anticipated:
  - Type III Master Plan Amendment
  - Natural Resource Overlay District
  - Geologic Hazard Overlay District
  - Flood Management Overlay District
  - Detailed Development Plan

Additional - PUBLIC WORKS ENGINEERING COMMENTS

System Development Charges (SDCs)

1. At this time there is no certainty on SDC credits and/or reductions prior to a development agreement and the land use approval process.
2. Stormwater SDCs:
    a. The 48-inch Stormwater pipe shown in the pre-application packet is not on a SDC list for Stormwater.
    b. This project is not a "qualified" capital improvement project for SDCs, and the SDC formula does not include an estimate for this needed improvement.
    c. Further consideration for credits and/or reduction of Stormwater SDCs associated with Lot 2 shall require a written request from the applicant and in compliance with Oregon City Municipal Code (OCMC) Chapter 13.20 System Development Charge for Capital Improvements.
3. Transportation SDCs:
    a. At this time there is no certainty on transportation SDC credits and/or reductions prior to a development agreement and the land use approval process.
    b. SDCs funding is for capacity related improvements.
    c. Further consideration for credits and/or reduction of Transportation SDC associated with Lot 2 shall require a written request from the applicant and in compliance with OCMC Chapter 13.20 System Development Charge for Capital Improvements.
4. SDC Estimate for proposed development may be assessed through applicant completing a SDCs Request Form and submitting to the Public Works Engineering Group, Development Services, Todd Martinez, Project Engineer.

5. SDC Estimate provided June of 2013:
   IMPORTANT TO NOTE: The following estimates are based on 2013 SDC base charges. The estimates will need updating based on 2015 SDC base charges.

   The Applicant made submittal for The Cove's SDC Estimates for City review. Based on City staff review of the Applicant's SDC estimates for PHASE 1 - Lot 2: Residential and Lot 2: Commercial, we find the Applicant is correctly interpreting the methodology for SDCs and calculating the various SDC types for Lot 2. The Applicant's SDC estimates for Lot 2 are approximately the same as City Staff's estimate for Lot 2, for both the residential and commercial portions of Lot 2.

   The items to note are:
    1. Water SDCs are not owed for Fire Services
    2. Water SDCs do not include the installation cost of the water meters. Water meter installation cost is a separate cost that is collected when building permits/plumbing permits are applied for and should not be included as an SDC amount.
    3. The Parks SDC cost per unit for non-residential is $231.92 rounded up $232.00. The applicant assumed $154.00 per unit.

   Below are the City's estimates for Phase 1 – Lot 2 (Residential + Commercial). Again, these SDC estimates are approximately the same as the Applicant's SDC estimates for Lot 2 – Residential and Commercial (see attached Applicant Submittal).

Phase 1 - LOT 2 - Commercial

Schedule of Charges	
Transportation, Vehicles	$66,129.08
Transportation, Bike/Ped	$2,602.88
Sanitary Sewer, Oregon City	$5,792.67
Sanitary Sewer, Tri-City Sanitary District	$6,342.80
Stormwater, Oregon City	$0.00
Water, Oregon City	$8,435.47
Water, South Fork Water Board	$3,664.34
Parks, Oregon City	$1,976.18
Total System Development Charges – Lot 2 Commercial	**$94,943.42**

Phase 1 - LOT 2 - Residential

Schedule of Charges	
Transportation, Vehicles	$1,026,634.69
Transportation, Bike/Ped	$31,937.12
Sanitary Sewer, Oregon City	$360,023.10
Sanitary Sewer, Tri-City Sanitary District	$394,304.00
Stormwater, Oregon City	$61,164.55
Water, Oregon City	$62,422.45
Water, South Fork Water Board	$27,116.13
Parks, Oregon City	$683,686.50
Total System Development Charges – Lot 2 Residential	**$2,647,288.55**

Chapter 17.42 - FLOOD MANAGEMENT OVERLAY DISTRICT

17.42.010 - Purpose—Findings.

A. There is established in the city a flood management overlay district. The flood management overlay district is an overlay zone classification defining areas subject to periodic flooding or inundation which can result in property harm or loss, disruption of public services, hazards for public health, or added expense for public services. All conditions and restrictions of land use established by this chapter of the city's zoning ordinance shall be in addition to such restrictions and conditions as may be imposed and established in underlying zoning districts.

B. It is the purpose of this chapter to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas.

17.42.040 - Compliance.

No structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the terms of these floodplain regulations and other applicable regulations. Violations of the provisions of this chapter by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a civil infraction. Any person who violates this chapter or fails to comply with any of its requirements shall be subject to the enforcement procedures of this code per OCMC Civil Infractions and Code Enforcement. Nothing herein contained shall prevent the city from taking such other lawful action as is necessary to prevent or remedy.

Chapter 17.44 - US—GEOLOGIC HAZARDS

17.44.050 Development permit--Application--Information.

Review Criteria

A written response that completely addresses the following sections of Chapter 17.44 and any other applicable chapter identified in the Oregon City Municipal Code:

- *17.44.050 – Application Requirements* (A)(1) through (11)
- *17.44.060 – Development Standards* (A) through (L)
- *17.44.070 – Access to Property*

The following plans/reports shall be required of all development proposals subject to this chapter:

1. **Site Plan - scaled-drawing(s)** of the property, showing:
    a. All natural physical features
    b. Topography at two or five- foot contour intervals
    c. Steepness of slopes
    d. Location of all test excavations or borings
    e. Watercourses both perennial and intermittent
    f. Ravines and all existing and manmade structures or features all fully dimensioned
    g. Trees six- inch caliper or greater measured four feet from ground level
    h. Rock outcroppings
    i. Drainage facilities

2. **Preliminary Grading Plan – scaled drawing(s)**, including:
    a. All of the features and detail required for the site plan above
    b. Preliminary finished grades
    c. Cubic yards of net increase or loss of soil
3. **Architectural site plan** of proposed development, showing:
    a. Location, height and width of proposed structures other than detached single-family dwellings and duplexes, including all important dimensions such as property lines, easement locations, setbacks and other appurtenances related to the development such as, but not limited to, parking and circulation.
    b. Architectural site plan shall identify the location of areas proposed to be stripped of topsoil, paved or covered by structures (including impermeable surfaces or embankments).
4. **Cross-section diagram**, drawn to scale and indicating depth, extent and approximate volume of all excavation and fills.
5. **Preliminary Erosion & Sedimentation Control Plan**, based on the Oregon City Public Works Standards for Erosion and Sedimentation Control (Ordinance 99-1013) and containing:
    a. Description of existing topography and soil characteristics
    b. Specific descriptions or drawings of the proposed development and changes to the site which may affect soils and create an erosion problem
    c. Specific methods of soil erosion and sediment control, incorporating the following features, to be used before, during and after construction
    d. Land area to be grubbed, stripped, used for temporary placement of soil, or to otherwise expose soil shall be confined to the immediate construction site
    e. Duration of exposure of soils to erosion shall be kept to the minimum practicable
    f. Wet weather measures, such as those in the Oregon City Public Works Standards for Erosion and Sedimentation Control (Ordinance 99-1013).
    g. Prior to grading, clearing, excavating or construction, temporary diversions, sediment basins, barriers, check dams or other methods shall be provided as necessary to hold sediment and erosion.
    h. During construction, water runoff from the site shall be controlled, and sediment resulting from soil removal or disturbance shall be retained on site per the Oregon City Public Works Standards for Erosion and Sedimentation Control (Ordinance 99-1013).
6. **Preliminary Hydrology Report (<u>for all properties greater than one acre</u>)** prepared by a suitably qualified and experienced hydrology expert, containing a description of and addressing:
    a. The effect upon the watershed in which the proposed development is located;
    b. The effect upon the immediate area's stormwater drainage pattern of flow;
    a. The impact of the proposed development upon downstream areas and upon wetlands;
    b. Water resources and the effect upon the groundwater supply.
7. **Preliminary engineering geologic assessment report**, prepared by a suitably qualified and experienced engineering geologist who is registered in the state of Oregon and who derives his or her livelihood principally from that profession, containing a description of:

a. Geologic formations, bedrock and surficial materials including artificial fill;
b. Location of any faults, folds, etc.;
c. Structural data including bedding, jointing, and shear zones;
d. Off-site geologic conditions that may pose a hazard to the site or that may be affected by on-site development;
e. Cross sections showing subsurface structure, logs of subsurface explorations and analysis if necessary to evaluate the site; and
f. Signature and certification number of the engineering geologist.
g. Report shall also contain a statement as to whether any hazard areas should not be disturbed because of the potential for damage to the site or neighboring properties.

8. **Preliminary engineering geotechnical report**, prepared by a suitably qualified and experienced geotechnical engineer who is licensed in Oregon and who derives his or her livelihood principally from that profession, discussing:
    a. Engineering feasibility of the proposed development and addressing strength properties of surface and subsurface soils with regard to stability of slopes
    b. Appropriate types of foundations together with bearing values and settlement criteria for foundation design, soil erosion potential, permeability and infiltration rates
    c. Excavation, filling and grading criteria including recommended final slopes
    d. Surface and subsurface drainage
    e. Planting and maintenance of slopes
    f. Other identified soil or subsurface constraints together with geotechnical remediation and other recommendations to alleviate or minimize their effects
    g. Signature and seal of the geotechnical engineer.
    h. The report shall also contain a statement as to whether the proposed development, constructed in accordance with the recommended methods, is reasonably likely to be safe and prevent landslide or other damage to other properties over the long term, and whether any specific areas should not be disturbed by construction.

General Notes:

1. The proposed development is located in an identified geologic hazard area.
2. The proposed development requires an Engineering Geologic Assessment, Engineering Geotechnical Report and Hydrology Report addressing the hazard and the municipal code requirements in 17.44 as applicable.
3. The report(s) will be peer reviewed (OCMC 17.44.060 K, L) by the City's Geotechnical Engineer. Comments from the City's Geotechnical Engineer will be addressed by the applicant's engineering geologist and geotechnical engineer. Costs for City's geotechnical review and consultation shall be paid by the applicant.
4. The Applicant's geotechnical engineer shall review the final construction plans as applicable for this development and provide confirmation to the City that the plans are in conformance with their recommendations.

Oregon Fire Code Applications Guide

CLACKAMAS FIRE DISTRICT #1

Revised 3/21/12

Notes to Users

Local Development Codes

Check the local city or county development code to determine the applicability of roadway standards as it relates to conflicts with this guide and/or the adopted fire code.

ORS 368.039 Road standards adopted by local government supersede standards in fire codes: Consultation with fire agencies.

(1) When the governing body of a county or city adopts specifications and standards, including standards for width, for roads and streets under the jurisdiction of the governing body, such specifications and standards shall supersede and prevail over any specifications and standards for roads and streets that are set forth in a uniform fire code adopted by the State Fire Marshal, a municipal fire department or a county firefighting agency.

(2) This section applies to specifications and standards for roads and streets adopted by the governing body of a county or city in a charter, acknowledged comprehensive plan or ordinance adopted pursuant to ORS chapter 92, 203, 221 or 368.

(3) Before adopting or amending any comprehensive plan, land use regulation or ordinance that establishes specifications and standards for roads and streets, a governing body of a county or city shall consult with the municipal fire department or other local firefighting agency concerning the proposed specifications and standards. The county or city governing body shall consider the needs of the fire department or firefighting agency when adopting the final specifications and standards.

Dispute Resolution Process

The Office of State Fire Marshal's (OSFM), Dispute Resolution Process allows an aggrieved party to dispute inspection findings of the local fire marshal. This process allows the aggrieved party to ask for a "second opinion" but does not supersede the local or State Fire Marshal's appeal process. The local fire marshal, through the OSFM, arranges a conference call with the aggrieved party and on-call code experts from other jurisdictions and industry. The on-call group discusses the case and the local fire marshal takes the group's second opinion into consideration when rendering a decision in writing to the aggrieved party. The goal of the OSFM is to conduct the conference call within 48 hours (two business days) for new construction and no more than seven business days for maintenance issues of the notice of dispute. Aggrieved parties who are not satisfied with the findings can appeal the decision to a local appeals board, if available, otherwise to the OSFM.

Preamble/Authority and Scope

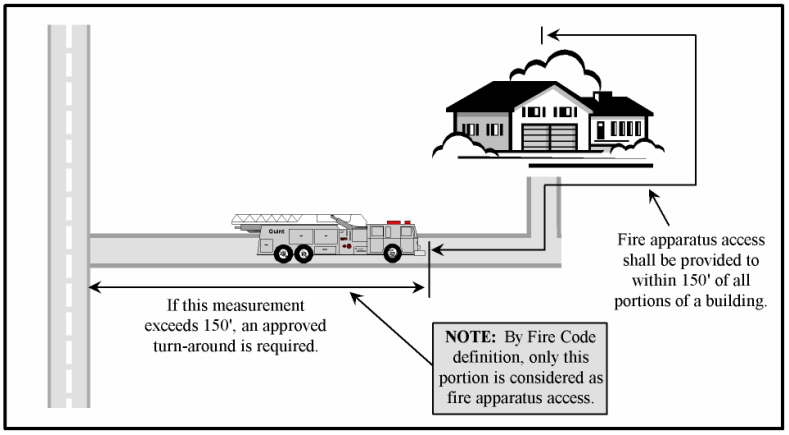
The above jurisdictions have elected to administer and enforce the Oregon Fire Code under the authority granted to them by ORS 476.030 or ORS 476.060. The Oregon Fire Code is the International Fire Code, 2010 Edition, as published and copyrighted by the International Code Council, which has been amended and adopted by the Oregon State Fire Marshal's Office. In order to further the Oregon State Fire Marshal's goal of promoting fire code consistency throughout the state, the above jurisdictions have agreed to reduce local amendments.

This Applications Guide was created to provide good faith guidance to building officials, contractors, business owners, the public, and fire marshals on local interpretations and practices that are considered to be in compliance with the Oregon Fire Code. The intent is to clarify aspects of the code that are vague or non-specific by addressing selected issues under normal conditions. This Applications Guide does not create or replace code provisions, and is not an adopted policy of Clackamas Fire District #1. The reader is cautioned that the guidance detailed in this Applications Guide may or may not apply to their specific situation, and that the designated authority for each jurisdiction retains final authority to determine compliance.

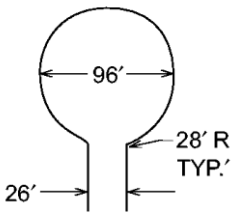
Table of Contents

Fire Apparatus Access

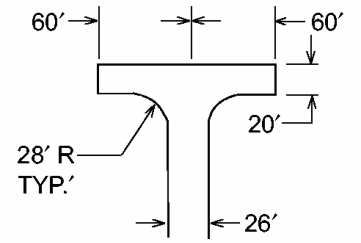
FIRE APPARATUS ACCESS ROAD DISTANCE FROM BUILDING AND TURNAROUNDS: Access roads shall be within 150 feet of all portions of the exterior wall of the first story of the building as measured by an approved route around the exterior of the building. An approved turnaround is required if the remaining distance to an approved intersecting roadway, as measured along the fire apparatus access road, is greater than 150 feet. (OFC 503.1.1)



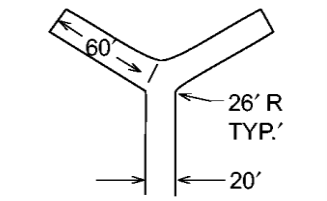
DEAD END ROADS: Dead end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved turnaround. Dead end fire apparatus access roads in excess of 500 in length shall have a driving surface width of not less than 26 feet. Diagrams of approved turnarounds are shown below: (OFC 503.2.5)



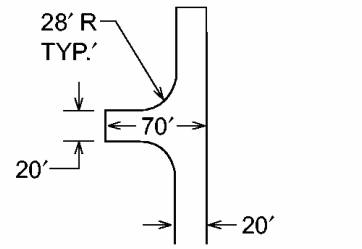
96′ DIAMETER CUL-DE-SAC



120′ HAMMERHEAD

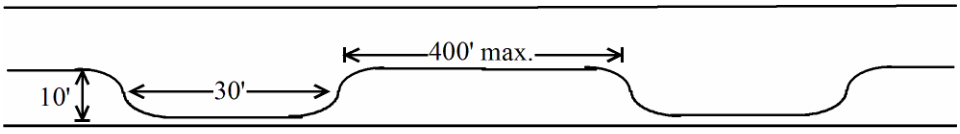


ACCEPTABLE ALTERNATIVE T0 120′ HAMMERHEAD



ACCEPTABLE ALTERNATIVE TO 120′ HAMMERHEAD

TURNOUTS: When any fire apparatus access road exceeds 400 feet in length, turnouts 10 feet wide and 30 feet long shall be provided in addition to the required road width and shall be placed no more than 400 feet apart, unless otherwise approved by the fire code official. These distances may be adjusted based on visibility and light distances.

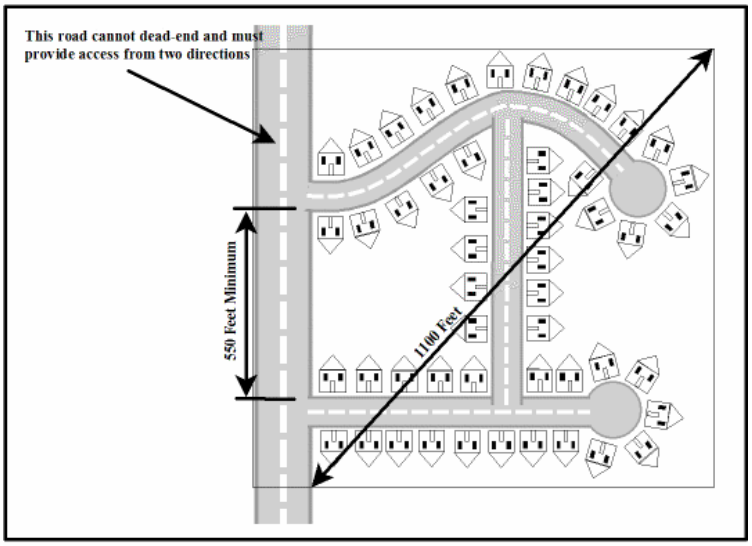


FIRE APPARATUS ACCESS ROAD EXCEPTION FOR AUTOMATIC SPRINKLER PROTECTION: When buildings are completely protected with an approved automatic fire sprinkler system, the requirements for fire apparatus access may be modified as approved by the fire code official. The approval of this alternate method of construction shall be accomplished in accordance with the provisions of OFC 503.1.1 Exception.

MULTIPLE ACCESS ROADS: Developments of one- and two-family dwellings where the number of dwelling units exceeds 30, multiple-family residential projects having more than 100 dwelling units and where vehicle congestion, adverse terrain conditions or other factors that could limit access, as determined by the fire code official, shall be provided with not less than two approved means of access. Exceptions may be allowed for approved automatic sprinkler system. The approval of fire sprinklers as an alternate shall be accomplished in accordance with the provisions of OFC D106 & D107.

GRADE: Fire apparatus access roadway grades shall not exceed 12 percent. Intersections and turnarounds shall be level (maximum 5%) with the exception of crowning for water run-off. When fire sprinklers are installed, a maximum grade of 15% may be allowed. Grades over 15% will not be approved. The approval of fire sprinklers as an alternate shall be accomplished in accordance with the provisions of OFC 503.1.1Exception (2).

MULTIPLE ACCESS ROADS SEPARATION: Where two access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses. (OFC D104.3 & D107.1)



FIRE APPARATUS ACCESS ROAD WIDTH AND VERTICAL CLEARANCE: Fire apparatus access roads shall have an unobstructed driving surface width of not less than 20 feet (26 feet adjacent to fire hydrants (OFC D103.1)) and an unobstructed vertical clearance of not less than 13 feet 6 inches. (OFC 503.2.1 & D103.1)

> Note: When serving three or less dwelling units and accessory buildings, the driving surface may be reduced to 12 feet, although the unobstructed width shall be 20 feet. Turning radii for curves and turnarounds on 12' wide roads shall be not less than 44 feet and 56 feet respectively, measured from the same center point.

AERIAL FIRE APPARATUS ROAD WIDTH: Buildings more than 30 feet in height shall have fire apparatus access roads constructed for use by aerial apparatus with an unobstructed driving surface width of not less than 26 feet and comply with OFC D105.

SURFACE AND LOAD CAPACITIES: Fire apparatus access roads shall be of an all-weather surface that is easily distinguishable from the surrounding area and is capable of supporting not less than 12,500 pounds point load (wheel load) and 75,000 pounds live load (gross vehicle weight). Documentation from a registered engineer that the finished construction is in accordance with the approved plans or the requirements of the Fire Code may be requested.

BRIDGES: Private bridges shall be designed and constructed in accordance with the State of Oregon Department of Transportation and American Association of State Highway and Transportation Officials Standards *Standard Specification for Highway Bridges.* A building permit shall be obtained for the construction of the bridge if required by the building official of the jurisdiction where the bridge is to be built. The design engineer shall prepare a special inspection and structural observation program for approval by the building official. The design engineer shall give in writing final approval of the bridge to the fire district after construction is completed. Maintenance of the bridge shall be the responsibility of the party(ies) that use(s) the bridge for access to their property(ies). The fire district may at any time, for due cause, ask that a registered engineer inspect the bridge for structural stability and soundness at the expense of the property owner(s) the bridge serves. (OFC 503.2.6)

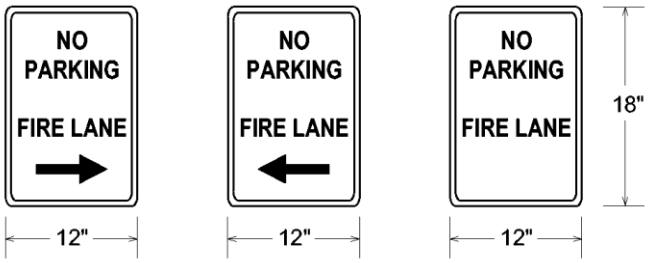
TURNING RADIUS: The inside turning radius and outside turning radius for a 20' wide road shall be not less than 28 feet and 48 feet respectively, measured from the same center point. (OFC 503.2.4 & Appendix D)

GATES: Gates securing fire apparatus roads shall comply with all of the following: (OFC D103.4)

- Minimum unobstructed width shall be 16 feet, or two 10 foot sections with a center post or island
- Gates serving one- or two-family dwellings shall be a minimum of 12 feet in width
- 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

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. (OFC D103.6)



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. (OFC 503.3)

Firefighting Water Supplies

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

SINGLE FAMILY DWELLINGS - REQUIRED FIRE FLOW: The minimum available fire flow for single family dwellings and duplexes served by a municipal water supply shall be 1,000 gallons per minute. If the structure(s) is (are) 3,600 square feet or larger, the required fire flow shall be determined according to OFC Appendix B. (OFC B105)

RURAL BUILDINGS - REQUIRED FIRE FLOW: Required fire flow for rural and suburban areas in which adequate and reliable water supply systems do not exist may be calculated in accordance with ISO "Guide for Determination of Needed Fire Flow," when approved by the fire code official. Please contact the Fire Marshal's Office for special assistance and other requirements that may apply.

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. (OFC 501.4)

Fire Hydrants

FIRE HYDRANTS – COMMERCIAL BUILDINGS: Where a portion of the building is more than 400 feet from a hydrant on a fire apparatus access road, as measured in an approved route around the exterior of the building, on-site fire hydrants and mains shall be provided. (OFC 507.5.1)

Note: This distance may be increased to 600 feet for buildings equipped throughout with an approved automatic sprinkler system.

FIRE HYDRANTS – ONE- AND TWO-FAMILY DWELLINGS & ACCESSORY STRUCTURES: Where a portion of a structure is more than 600 feet from a hydrant on a fire apparatus access road, as measured in an approved route around the exterior of the structure(s), on-site fire hydrants and mains shall be provided. (OFC 507.5.1) Exception (1)

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 Table C 105.1. See page 9 for hydrant proximity to FDC. (OFC Appendix C)

TABLE C105.1
NUMBER AND DISTRIBUTION OF FIRE HYDRANTS

FIRE-FLOW REQUIREMENT (gpm)	MINIMUM NUMBER OF HYDRANTS	AVERAGE SPACING BETWEEN HYDRANTS[abc] (feet)	MAXIMUM DISTANCE FROM ANY POINT ON STREET OR ROAD FRONTAGE TO A HYDRANT[d]
1,750 or less	1	500	250
2,000-2,250	2	450	225
2,500	3	450	225
3,000	3	400	225
3,500-4,000	4	350	210
4,500-5,000	5	300	180
5,500	6	300	180
6,000	6	250	150
6,500-7,000	7	250	150
7,500 or more	8 or more	200	120

For SI: 1 foot = 304.8 mm, 1 gallon per minute = 3.785 L/m.

a. Reduce by 100 feet for dead-end streets or roads.
b. Where streets are provided with median dividers which can be crossed by fire fighters pulling hose lines, or where arterial streets are provided with four or more traffic lanes and have a traffic count of more than 30,000 vehicles per day, hydrant spacing shall average 500 feet on each side of the street and be arranged on an alternating basis up to a fire-flow requirement of 7,000 gallons per minute and 400 feet for higher fire-flow requirements.
c. Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants shall be provided at spacing not to exceed 1,000 feet to provide for transportation hazards.
d. Reduce by 50 feet for dead-end streets or roads.
e. One hydrant for each 1,000 gallons per minute or fraction thereof.

CONSIDERATIONS FOR PLACING FIRE HYDRANTS MAY BE AS FOLLOWS: (OFC C104)

- 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. (OFC C104.1)
- 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.
- When evaluating the placement of hydrants at apartment or industrial complexes the first hydrant(s) to be placed shall be at the primary access and any secondary access to the site. After these hydrants have been placed other hydrants shall be sited to meet the above requirements for spacing and minimum number of hydrants.

FIRE HYDRANT NON-THREADED QUICK CONNECTORS: Non-threaded quick connectors shall NOT be installed on newly installed fire hydrants Clackamas Fire District #1.

FIRE HYDRANT DISTANCE FROM AN ACCESS ROAD: Fire hydrants shall be located not more than 15 feet from an approved fire apparatus access roadway unless approved by the fire code official. (OFC C102.1)

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. (OFC 508.5.4)

FIRE HYDRANT/FIRE DEPARTMENT CONNECTION: A fire hydrant shall be located within 100 feet of a fire department connection (FDC). Fire hydrants and FDC's shall be located on the same side of the fire apparatus access roadway. (OFC C102.1 & NFPA 14)

FDCs shall normally be remote except when approved by the fire code official.

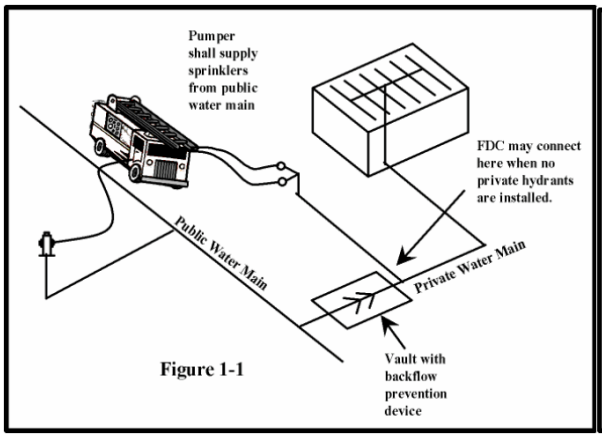


Figure 1-1

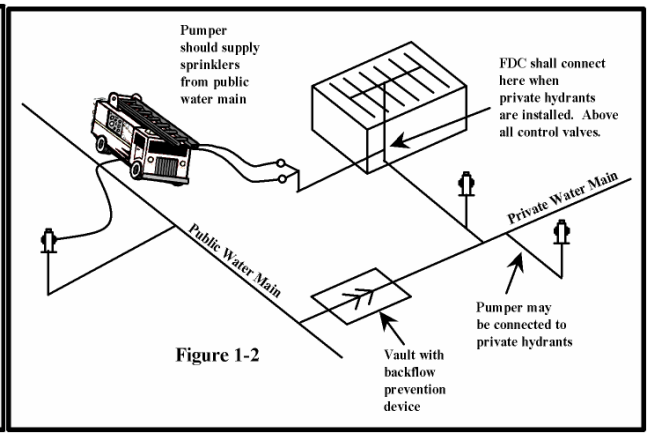


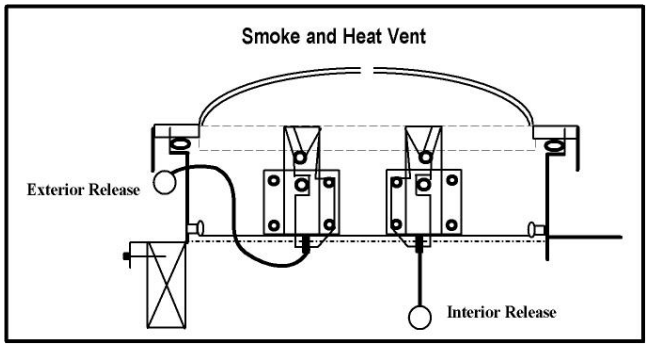
Figure 1-2

Key Boxes

KEY BOX: A key box for building access may be required. For details go to www.clackamasfire.com and find the lock box program in the Operations section.

Smoke and Heat Vents

MANUAL RELEASE: Manual releases shall be provided for use during fire suppression operations. Individual exterior release mechanisms shall be provided for each vent.



Fire Watch

FIRE WATCH: Whenever a *required* fire alarm, detection or suppression system is out-of-service and a life hazard and or distinct fire hazard is present, the fire code official and/or the property owner or manager shall initiate a fire watch. A fire watch is defined as a temporary measure intended to ensure continuous and systematic surveillance of a building or portion thereof by one or more qualified individuals for the purposes of identifying and controlling fire hazards, detecting early signs of unwanted fire, raising an alarm of fire and notifying the fire department. Each affected area or building must be patrolled hourly and documented on a written log. Individuals assigned to fire watch duty must be provided with a means of communication such as a cell phone or two-way radio and their only duties shall be to perform constant patrols. The watch must remain in effect until repairs are made and the system(s) are back in-service. *When in doubt if a system is required or if a fire watch is needed, contact the local Fire Marshal's Office for consultation and or response.* (OFC, Section 901.7, Section 202, and Appendix N)

EXAMPLES:

The automatic smoke detection system in the Family Birth Center at the local Hospital is taken off-line due to unwanted false alarms and an alarm technician has been dispatched to evaluate the system. This is a required detection system and the patients occupy the floor. A fire watch is required and could be conducted by nursing and or security personnel.

The manual fire alarm system at a local Elementary School is initiating false alarms and is taken off line by school district personnel; the automatic smoke detection and fire sprinkler system are operational. It's Saturday afternoon and the building is not occupied. Although this is a required system, a fire watch is not required as the building is vacant.

The water main that serves a local apartment complex is damaged in a construction accident rendering the fire hydrants and residential fire sprinkler systems out-of-service. It's Sunday night and nearly all of the apartments are occupied. Both systems are required and a continuous fire watch is needed.