



CITY FACILITIES STUDY

ALTERNATIVE ANALYSIS appendices

VOLUME 2 of 2



JUNE 17, 2015

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appendix A

EXISTING FACILITIES ASSESSMENT

The City of Tualatin retained Yost Grube Hall Architecture (YGH) to develop an Existing Facilities Assessment. YGH performed an assessment review of the following city facilities: Library/City Office building, Seneca Building (leased space), Lafky house, Community Services house, the portion of the Juanita Pohl Senior Center used for City Council meetings, Municipal Court facilities located in the Police facility and Information Services facilities located in at the Operations facility. The condition of the facilities were noted and photographed for reference. Following a review by the City, these documents were distributed to and reviewed by the City's Internal Design and Evaluation Advisors (IDEA) committee. YGH presented the document to the City's Facilities Task Force at their February meeting. The following pages contain a summary presented to the wider Tualatin Community during February 19th Community Open House, followed by the full Existing Facilities Assessment report.



Note: Building H is 1.5 miles away and is not shown on this diagram

COMMUNITY SERVICES

building

The building appears to have been constructed in the 1940's or 1950's and converted to its current use in the 1990's.



Recommendations:

- insulate basement walls as required per code for new or renovated construction.
- improve roof diaphragm strength; anchor wall framing and sill plates.
- minimize & distribute loads where they are in the middle of rooms.
- maintain cleaning and painting to ensure wood windows remain operational / rot-free.
- add extensions to ends of downspouts to transport stormwater away from foundations.
- remove leaves & debris from basement window wells.
- possible roof replacement.
- investigate flashings, vents, gutters, downspouts for replacement.
- accessibility improvements to restroom and kitchen.
- replace sink faucet & toilet & urinal flush valves with low-flow devices.
- monitor existing 19 year-old water heater for leaks on regular basis.
- monitor condensate pump and routing to mitigate risk from pump failure and potential for water damage.
- install programmable thermostat for more control of the HVAC system.
- add battery pack-powered emergency lighting features at appropriate locations.
- install small building-scale monitoring / notification system & security system.
- regular maintenance/replacement of smoke detectors.

INFORMATION SERVICES

space

The facility is a single-story structure originally built originally built in 1980 as a maintenance/ service garage. The facility was converted to Lunch Room, Classroom and Storage for Public Works use in 2004, and the Information Services Department was moved into the building in renovated former Storage space in 2011.



Recommendations:

- insulate basement walls as required per code for new or renovated construction.
- ongoing maintenance / monitoring of existing roofing and roof drainage system.
- review condition of exterior plywood siding on regular basis for rot, delamination, etc.
- renovations to improve fire resistance of the separation wall by adding layers of gypsum wallboard and insulation, fire caulk, and head closure insulation and sheathing.
- confirm adequate closure of louver from interior to avoid moisture damage. Remove disused louver and close the opening from exterior to prevent introduction of moisture into wall cavity or interior space.
- consider gravity-fed condensate drainage to avoid damage due to failure of condensate pump and reservoir overflow.
- re-stripe pavement in rear parking lot to provide an accessible parking space. Enlarge existing small concrete entry stoop to accommodate 60-inch turning radius.
- in lieu of relocating fuel dispensing island, remove plywood siding and replace with non-combustible finish material, e.g. metal siding.

LAFKY

house

Formerly a single-family residence, the building appears to have been constructed in the 1960's or 1970's and renovated in the 2000's.



Recommendations:

- improve roof diaphragm strength; anchor wall framing and sill plates.
- minimize & distribute loads where they are in the middle of rooms .
- add extensions to ends of downspouts to transport stormwater away from foundations.
- possible roof replacement and additional layer of plywood sheathing.
- investigate flashings, vents, gutters, downspouts for replacement.
- replacement of original galvanized steel piping with copper or PEX plumbing lines.
- monitor existing 31 year-old water heater for leaks on regular basis.
- paint lines on floor indicating clearances required for maintenance & ventilation.
- remove condensate pump and route condensate drainage line through crawl space to gravity-drain to exterior.
- potentially increase attic insulation
- set up programmable thermostat to provide more control of HVAC system.
- replace older, residential-grade circuit panel; disconnect disused circuits.
- add battery pack-powered emergency lighting features at appropriate locations.
- install small building-scale monitoring / notification system & security system.
- regular maintenance/replacement of smoke detectors.
- seismic restraint for water heater.
- removal of baseboard heating units and thermostats.
- clear soil and toppings from edge of building foundation walls.

LIBRARY city offices

The City offices portion of the building was constructed in 1985 and the Library was added in 2008.



Recommendations:

- maintain field-painted finishes at steel canopies.
- observe and maintain roof system.
- install Fat-Oil-Grease (FOG) trap system to meet Code requirements for food service.
- clean gas pipe well, removing corrosion and painting with appropriate exterior coating.
- occupancy sensors with time delays for energy savings.
- additional exhaust options for ventilation/odor issues (consider local exhaust fan in kitchenette).
- adjust system controls or dampers/louvers for hot/cool balancing issues.
- remove important materials or elevate to appropriate height above flood level due to flood risk. Ensure building staff are aware of flood control panels, storage location, protocol/plan for implementation, and procedures for proper installation.

POLICE building

The single-story, purpose-built Police Department was constructed in 2000. Municipal Court was moved here in 2014.



Recommendations:

- maintain field-painted finish at steel lintels; this finish may require refinishing every 5-7 years.
- maintain existing built-up roofing. Replacement with a similar system has been proposed in the City's Capital Improvement Plan.
- replace ceiling tile .
- replace 3 HVAC units over 3-year period.
- control HVAC systems to minimize energy use when space is not occupied.
- additional exhaust options for ventilation/odor issues (consider local exhaust fan in kitchenette).
- addition of cooling units for Data room.
- replace on-off switches with occupancy switches to save energy.
- remove important materials or elevate to appropriate height above flood level due to flood risk.

SENECA building

The building appears to have been constructed in the 1980's and renovated in 2008 when it appears that the City moved into this office in the building.



Recommendations:

- continue coordination with owner for regular roof maintenance.
- re-arrange furniture to meet Americans with Disabilities Act clearance requirements.
- travel distance to exit exceeds current code requirements.
- stair riser height does not meet current code.
- replace water stained ceiling tiles and monitor locations for roof leaks.
- control HVAC systems on an as-needed basis to minimize energy use when space is not occupied.
- additional exhaust options for ventilation/odor issues (consider local exhaust fan in kitchenette).
- replace on-off switches with occupancy switches to save energy.
- anchor water heater per code requirements.

POHL SENIOR center

The building constructed in 1982. An expansion in 1990 included the Activity Area at the northeast corner currently used as the City Council meeting space, and this area was further expanded and renovated in 2011.



Recommendations:

- maintain existing built-up roofing. Replacement with a similar system has been proposed in the City's Capital Improvement Plan.
- provide scald protection shielding at restroom sink drains.
- replace existing urinals with accessible versions.
- replacement of original galvanized steel piping with copper or PEX plumbing lines.
- set up programmable thermostat to provide greater control of the HVAC system.
- replace on-off switches with occupancy switches to save energy.
- remove important materials or elevate to appropriate height above flood level due to flood risk.
- soil and toppings should be cleared away from edge of building's foundation walls to maintain a minimum 4" gap between top-of-grade and the bottom of exterior wood sidings.

City of Tualatin
Community Services Building
Facility Condition Assessment

Yost Grube Hall Architecture

Community Services Building

8515 Southwest Tualatin Road, Tualatin, OR 97062



Field Review Team:
Michael Thrailkill, AIA CSI – Yost Grube Hall Architecture

Report Date: February 2, 2015 – FINAL



Front and Side Elevations (west and south, resp.)



Rear Elevation (east)



Side Elevation of Garage (north)

City of Tualatin
Community Services Building
Facility Condition Assessment

Yost Grube Hall Architecture

Date of Field Visit: 6 January 2015 Time of Day: 11:30 am
Weather: Partly sunny with fog, 47°F Site conditions: Inland, suburban, low-rise
Site Contacts: Sara Singer, City of Tualatin
Clayton Reynolds, City of Tualatin

General Building Description:

The facility is a single-story structure, formerly single-family residence. The facility's property is bound by a private access drive to the south, a City of Tualatin park to the north, with skateboarding park immediately adjacent, Southwest Tualatin Road to the west, and a parking lot for the City park to the east. The building appears to have been constructed in the 1940's or 1950's and converted to its current use in the 1990's or 2000's.

The building is a 1-story wood frame building on concrete foundation, over a basement. The façade is a wood-framed wall clad in wood shakes. Orientation is to the west but entry is from the east; 1 floor; no elevator; no fire suppression, adjacent street is Southwest Tualatin Road, adjacency is to other City of Tualatin properties (no adjacent buildings). General condition is good and well maintained; except roofing appeared to be near end of life cycle.

The City's GIS department and others use this building, utilizing previous living room, dining room and bedrooms as offices. Restrooms have been renovated to commercial standards but do not meet ADA requirements; accessible entry is available from the rear. The garage is used for storage of files and parking for a City vehicle.

The latest editions of the following codes were utilized in developing this assessment: Oregon Structural Specialty Code (OSSC), Oregon Mechanical Specialty Code, Oregon Plumbing Specialty Code, Oregon Electrical Specialty Code, Oregon Fire Code, National Fire Protection Association (NFPA) Codes and Standards, and American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) Standard 90.1.

A SUBSTRUCTURE

A10 – FOUNDATIONS (foundations, slab-on-grade, etc.)		
Item		Comments/Findings
A10.1	General condition	<ul style="list-style-type: none"> CIP concrete foundation walls appeared to be in good shape Some minor cracking was observed above grade at the south and west sides; refer to Figure A10.1; there was no apparent water intrusion observed in the basement at these same locations
Recommendations		
A10.1.1	Monitor basement walls for additional cracking, water intrusion, or other signs of settlement	

A20 – SUBGRADE ENCLOSURES (basements, etc)		
Item		Comments/Findings
A20.1	General condition	<ul style="list-style-type: none"> Basement was dry, clean, and in good condition A dehumidifier is in the space and the HVAC system provides some heating via a single register in-line with a duct to the floor above
Recommendations		
A20.1.1	The basement walls are not insulated, as would be required by Code for new or renovation construction	

B SHELL

B10 – SUPERSTRUCTURE (building frame, floors & roofs)		
Item		Comments/Findings
B10.1	Review documents (if available) and note: Structural System, Design Live Loads, Lateral System, and Design Code	<ul style="list-style-type: none"> As-built documents were not available
B10.2	Visible Gravity System	<ul style="list-style-type: none"> It is assumed that the building is wood-framed
B10.3	Visible Lateral System	<ul style="list-style-type: none"> It is assumed that shear forces are managed by diagonal wood-framing and/ or sheathing and by the roof diaphragm. It was not observed that the building has adequate connection to the foundations; likely does not meet Code due to change of occupancy/ use

B10.4	Building Exterior	<ul style="list-style-type: none"> There was no evidence of rot or movement of exterior framed walls; exterior wood shake cladding is painted and has been maintained well. Attic vents were observed to be clean and insect free.
B10.5	If building has been remodeled, note the current use as compared to design loads.	<ul style="list-style-type: none"> Original function was as single-family residence; current function is as office space. It was observed that at several locations, storage and shelving may be imposing loads that could be in excess of design loads; the crawlspace was not accessed in order to confirm locations of structure.
Recommendations		
B10.1	None	
B10.2	None	
B10.3.1	It should be confirmed whether Code required anchorage of wall framing and sill plates was required for the change of occupancy/ use from single-family residential to commercial office; this could be added.	
B10.3.2	It should be confirmed whether during previous re-roofings additional plywood sheathing was added to improve diaphragm strength; this could be provided in upcoming re-roofing (refer to B30.1).	
B10.4	None	
B10.5.1	It should be confirmed that locations currently bearing large furniture or file storage loads are adequately supported on structure below.	
B10.5.2	It is recommended that loads be minimized and distributed where they are in the middle of rooms or not adjacent to major structural support below the floor.	

B20 – EXTERIOR VERTICAL ENCLOSURES (walls, windows, exterior doors, etc.)		
Item		Comments/Findings
B20.1	Type and condition of exterior wall	<ul style="list-style-type: none"> Exterior wood shake cladding is painted and has been maintained well.
B20.2	Type and condition of window system	<ul style="list-style-type: none"> Double-hung wood windows appear to be original, single-glazed residential quality No evidence of rot or moisture intrusion was observed at the main building Window sills at the Garage building are dirty and may retain moisture, leading to rot
B20.3	Other issues	<ul style="list-style-type: none"> Overhangs are deep and appropriate for local climate. Gutters and downspouts appear to be clean and removing water appropriately, however downspout outlets adjacent to the foundation walls do not function to carry water away from the structure, potentially leading to basement moisture problems.

		<ul style="list-style-type: none"> The building's original foundation drainage system, if it ever existed, is likely non-functional now Leaves have collected within basement window wells; refer to Figure B20.3
Recommendations		
B20.1	None	
B20.2.1	Maintain proper cleaning and painting regimen to ensure wood windows remain operational and rot-free	
B20.3.1	It is recommended to add extensions to the ends of downspouts to transport stormwater away from the foundations.	
B20.3.2	Leaves and debris should be removed from basement window wells and adequate drainage confirmed	

B30 – EXTERIOR HORIZONTAL ENCLOSURES (roofing, horizontal openings, etc.)		
Item		Comments/Findings
B30.1	Type and condition of roofing system	<ul style="list-style-type: none"> Roofing is three-tab asphalt shingles, which may be near the end of its life-span (10-15 years) It was observed that moss has grown on the east side. Refer to Figure B30.1
B30.2	Other issues	<ul style="list-style-type: none"> Flashings, vents, etc. all appear in acceptable condition Access to the roof was not available; observations were made from the ground level The roof at the Garage north of the building appeared to have been recently damaged, possibly by the early December windstorm or from actions by users of the skateboard park adjacent; Staff reported that the damage had been repaired (skateboard park users have sometimes accessed the roof by climbing on the power meter stanchions adjacent to the garage); several old skateboard decks had been thrown onto the roof of the garage; refer to Figure B30.2
Recommendations		
B30.1.1	Confirm age and life-span remaining for existing roofing; replace if necessary, possibly adding a layer of plywood sheathing if required to improve the structure's lateral force resistance (refer to B10.3). Replacement roofing with metal roofing system has been proposed in the City's Capital Improvement Plan.	
B30.2.1	Monitor conditions of flashings, vents, gutters, downspouts, etc.; recommend investigation for replacement as necessary at next reroofing. Staff indicated that following the inspection, the observed damage at the Garage roof had been repaired.	

Consider means to avoid access to the Garage roof, and inspect roof regularly for recurring damage.

C INTERIORS

C10 – LIFE SAFETY AND ACCESSIBILITY		
Item		Comments/Findings
C10.1	Integrity of floor separation	• N/A
C10.2	Adequate fire resistive construction	• N/A
C10.3	Atrium	• N/A
C10.4	Building accessibility (ADA)	<ul style="list-style-type: none"> Building is accessible at main entry (east); rear entry at Kitchen is not accessible. Refer to Figure C10.4A. The single restroom has been converted from residential to commercial use by the addition of a urinal; the restroom is not accessible. Refer to Figures C10.4B & C. Kitchen sink is not accessible Turning radius restrictions at several locations (60-inch diameter circle required)
C10.5	Other issues	• None
Recommendations		
C10.1	None	
C10.2	None	
C10.3	None	
C10.4.1	Consider improvements to the restroom and kitchen to provide accessibility. Consider means to provide a minimum of one or two workstations that are accessible.	
C10.5	None	

C20 – EGRESS		
Item		Comments/Findings
C20.1	Travel distance to exit stair	• N/A
C20.2	Exit stair continuity and integrity	• N/A
C20.3	Exit corridor continuity and integrity	• Continuity adequate; integrity N/A
C20.4	(High Rise) Stairway door operation	• N/A
C20.5	Other issues	• None
Recommendations		
C20.1	None	
C20.2	None	
C20.3	None	
C20.4	None	
C20.5	None	

C30 – INTERIOR FINISHES		
Item		Comments/Findings
C30.1	General type and condition of finishes	<ul style="list-style-type: none"> Wall finishes are painted GWB or possibly plaster on lathe Floor finishes are carpet, except at kitchen and restrooms flooring is sheet vinyl; all flooring is in good condition Ceiling finishes are painted GWB or possibly plaster on lathe Cabinetry in kitchens is plastic laminate, possibly installed at time of renovation to commercial use
C30.2	Locations and cause of water intrusion/ leaks	<ul style="list-style-type: none"> None were observed
C30.3	Other issues	<ul style="list-style-type: none"> None
Recommendations		
C30.1	None	
C30.2	None	
C30.3	None	

D SERVICES

D10 – CONVEYING		
Item		Comments/Findings
D10.1	Overall condition of elevator	<ul style="list-style-type: none"> N/A
D10.2	Status of inspections, who maintains the elevator	<ul style="list-style-type: none"> N/A
D10.3	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D10.1	None	
D10.2	None	
D10.3	None	

D20 - PLUMBING		
Item		Comments/Findings
D20.1	Potable water service	<ul style="list-style-type: none"> Municipal water service Provision of bottled water was not observed
D20.2	Distribution piping material	<ul style="list-style-type: none"> It appeared from observation in Basement that original piping has been replaced with PEX tubing throughout
D20.3	Drain and vent system	<ul style="list-style-type: none"> It appeared from observation in Basement that original piping has been replaced with PVC and ABS tubing throughout
D20.4	Fixture condition	<ul style="list-style-type: none"> Single restroom appears to have original porcelain sink and toilet and appear to be in

		good condition; urinal added at conversion to commercial use is porcelain and appears to be in good condition <ul style="list-style-type: none"> Low-flow fixtures are not provided
D20.5	Water pressure	<ul style="list-style-type: none"> Not observed
D20.6	Storm drain and overflow drains	<ul style="list-style-type: none"> Not observed
D20.7	Water heater system	<ul style="list-style-type: none"> Located in Basement Electric Staff noted that the water heater was installed in 1996; nearly 19 years old
D20.8	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D20.1	None	
D20.2	None	
D20.3	None	
D20.4.1	Consider replacement of sink faucet and toilet and urinal flush valves with low-flow devices compatible with the original fixtures.	
D20.5	None	
D20.6	None	
D20.7.1	Due to storage of furniture and equipment in Basement, monitor existing 19 year-old water heater for leaks on a regular basis. Alternately, consider replacement with new smaller or on-demand unit that will be sufficient for office hot water needs while reducing overhead and removing danger of a leak damaging other property, or a leak detection system could be added, though this may be cost-prohibitive.	

D30 - HVAC		
Item		Comments/Findings
D30.1	Fire smoke dampers	<ul style="list-style-type: none"> None
D30.2	Duct smoke detectors	<ul style="list-style-type: none"> None
D30.3	Smoke control (high-rise/atrium)	<ul style="list-style-type: none"> N/A
D30.4	Air Handler Unit	<ul style="list-style-type: none"> Located in Basement Carrier air handler model FK4CNF002; staff noted that the unit was installed in 1998; nearly 17 years old
D30.5	Air filtration	<ul style="list-style-type: none"> Filtration is at return air duct in Basement; was not observed
D30.6	Equipment accessibility	<ul style="list-style-type: none"> Good, though storage at Basement impedes somewhat on area adjacent to unit; refer to Figure D30.6
D30.7	Drain pans and condensate traps	<ul style="list-style-type: none"> Condensate is pumped away; disposal location not observed With pumped systems, there is risk of pump failure and leak of condensate into garage area, threatening storage of furniture and equipment

D30.8	Fan coil drain pans	<ul style="list-style-type: none"> Refer to D30.7
D30.9	Mold issues	<ul style="list-style-type: none"> Not observed
D30.10	Air distribution / ventilation	<ul style="list-style-type: none"> Supply is ducted through Basement; single register also provides minimal heat (for drying) to Basement Return is ducted through floor register
D30.11	Plenum return (rated materials)	<ul style="list-style-type: none"> N/A
D30.12	OSA/ EXA separation	<ul style="list-style-type: none"> No mechanical outside air provision is made Windows are operable
D30.13	Restroom ventilation	<ul style="list-style-type: none"> Not observed; operable window; staff indicated that restroom has ventilator fan
D30.14	Custodial ventilation	<ul style="list-style-type: none"> N/A
D30.15	Kitchen ventilation	<ul style="list-style-type: none"> None except operable windows
D30.16	Duct Insulation (vapor barrier)	<ul style="list-style-type: none"> Not provided
D30.17	Duct materials	<ul style="list-style-type: none"> Rectangular and round sheet metal duct is uninsulated in partially climatized Basement
D30.18	HVAC controls	<ul style="list-style-type: none"> Single thermostat is located in office space (former living room)
D30.19	Generator exhaust radiator intake / exhaust	<ul style="list-style-type: none"> N/A
D30.20	Cooling system	<ul style="list-style-type: none"> AHU provides cooling with electric heat pump system Heat pump outdoor unit is located at east side of building Refrigerant lines are insulated and routed through Basement in joist space
D30.21	Water cooled / air cooled chiller	<ul style="list-style-type: none"> N/A
D30.22	Refrigerant monitoring in place	<ul style="list-style-type: none"> None
D30.23	Exhaust fans in place	<ul style="list-style-type: none"> Not observed; refer also to D30.13, 14 & 15
D30.24	Heating System	<ul style="list-style-type: none"> AHU provides heating with electric heat pump system; refer to D30.20 Supply registers were providing conditioned air at 75 degrees F.
D30.25	Computer Room units	<ul style="list-style-type: none"> N/A
D30.26	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D30.1	None	
D30.2	None	
D30.3	None	
D30.4	None	
D30.5.1	Ensure continued regular maintenance	
D30.6.1	Consider application of painted lines on the floor indicating clearances required for maintenance and adequate ventilation	

D30.7.1	Regularly monitor condensate pump and routing to help mitigate risk from pump failure and potential for water damage.
D30.8.1	Refer to D30.7
D30.9	None
D30.10	None
D30.11	None
D30.12	None
D30.13	None
D30.14	None
D30.15	None
D30.16	None
D30.17	None
D30.18.1	Consider installing a programmable thermostat to take advantage of ability to provide automatic, time- and day-of-week-based control of the HVAC system.
D30.19	None
D30.20	None
D30.21	None
D30.22	None
D30.23	None
D30.24.1	For future replacements, it is recommended to review the procedures for procurement to include life cycle cost- and performance-based criteria alongside unit cost-based criteria.
D30.25	None
D30.26	None

D40 – FIRE PROTECTION		
Item		Comments/Findings
D40.1	Fire suppression system	<ul style="list-style-type: none"> None
D40.2	Water service, backflow prevention	<ul style="list-style-type: none"> N/A
D40.3	System pressure	<ul style="list-style-type: none"> N/A
D40.4	Standpipes	<ul style="list-style-type: none"> N/A
D40.5	Fire pump	<ul style="list-style-type: none"> N/A
D40.6	Fire sprinkler pipe condition	<ul style="list-style-type: none"> N/A
D40.7	FDC	<ul style="list-style-type: none"> N/A
D40.8	Fire sprinkler zoning	<ul style="list-style-type: none"> N/A
D40.9	Flow monitoring and alarm	<ul style="list-style-type: none"> N/A
D40.10	On-site water source	<ul style="list-style-type: none"> N/A
D40.11	Test records	<ul style="list-style-type: none"> N/A
D40.12	Condition of fire hose or fire extinguishers	<ul style="list-style-type: none"> Fire hose is not provided (not required by Code; not encouraged by Fire Dept.) Fire extinguisher was not observed
D40.13	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D40.1	None	
D40.2	None	

D40.3	None
D40.4	None
D40.5	None
D40.6	None
D40.7	None
D40.8	None
D40.9	None
D40.10	None
D40.11	None
D40.12.1	Confirm fire extinguisher is provided
D40.13	None

D50 – ELECTRICAL (Part I)		
Item		Comments/Findings
D50.1	Grounding leakage	• Not observed
D50.2	Equipment grounding	• Not observed
D50.3	Lightning protection	• None
D50.4	Overcurrent protection	• None
D50.5	Ground fault interrupt/residual current devices	• Not observed; staff indicated that GFCI outlets are provided
D50.6	Rating of Panels	• Panel rating not known; panel was not opened
D50.7	Peak load	• Not known
D50.8	Overloading/overheating	• None observed; panel face temperature was similar to room temperature (62 degree F)
D50.9	Conductor insulation	• Variety of wiring was observed at the Basement, including canvas/ cloth jacketed and plastic jacketed, as well as enclosed conduit (conductor unknown)
D50.10	Conductor material	• Not known; due to age of building, some conductor may be aluminum
D50.11	Main distribution equipment	• None except residential-grade panel
D50.12	Equipment clearance	• Good, though storage at Basement could impede on area adjacent to unit
D50.13	Disconnects	• None except at residential-grade panel
D50.14	Transformers	• None
D50.15	Data Center/UPS	• None
D50.16	Wiring plenum and fire resistive wall penetrations	• None
D50.17	Receptacles/Sockets	• Receptacles were observed to have been upgraded to grounded devices • It was not confirmed that grounded receptacles are actually connected to earth

D50.18	Lighting	• Original incandescent bulb ceiling fixtures have been replaced with 4-foot fluorescent tube fixtures
D50.19	Lighting Controls	• Switched at walls; standard on-off switches
D50.20	Back-up power	• None
D50.21	Generator	• None
D50.22	Battery packs	• None
D50.23	Inverter	• None
D50.24	Emergency wiring separated from normal building wiring	• None
D50.25	Emergency power system loads	• None
D50.26	Egress path lighting	• None
D50.27	Exit signage	• None
D50.28	Other issues	• None
Recommendations		
D50.1.1	Consider testing for grounding leakage.	
D50.2.1	Review requirements for necessary equipment to ensure proper grounding (e.g. photocopier)	
D50.3	None	
D50.4	None	
D50.5.1	Confirm presence of GFCI receptacles in restrooms and kitchen.	
D50.6	None	
D50.7.1	Assess peak load requirements and confirm panel meets needs. Confirm individual circuits, and consider providing a dedicated circuit for the photocopier.	
D50.8	None.	
D50.9.1	Conductor material and insulation should be reviewed; wiring with indications of deterioration, wear, overheating or pest damage should be replaced.	
D50.10.1	Refer to D50.9.	
D50.11.1	Refer to D50.6.	
D50.12.1	Consider application of painted lines on the floor indicating clearances required for maintenance.	
D50.13.1	Refer to D50.6.	
D50.14	None	
D50.15	None	
D50.16	None	
D50.17.1	Confirm grounded receptacles are indeed connected to earth; Review potential to route new wiring where required if ground is not provided.	
D50.18	None	
D50.19.1	Consider replacement of on-off switches with occupancy switches to save energy.	
D50.20	None	
D50.21	None	
D50.22	None	
D50.23	None	
D50.24	None	
D50.25	None	

D50.26.1 Consider addition of battery pack-powered emergency lighting fixtures, e.g. “bug-eye”-type at appropriate locations to adequately illuminate the egress path
D50.27.1 Consider addition of battery pack-powered emergency egress fixtures at appropriate locations to direct to exits
D50.28 None

D60 – FIRE DETECTION AND ALARM		
Item		Comments/Findings
D60.1	Fire alarm control panel	• None
D60.2	Smoke detectors	• Local, battery-operated residential type
D60.3	Pull stations	• None
D60.4	Annunciation	• None except by residential-type smoke detectors
D60.5	System is zoned or addressable	• No
D60.6	System monitoring	• No
D60.7	Elevator recall	• N/A
D60.8	Other issues	• None
Recommendations		
D60.1.1	If City intends long term ownership and use as offices, it is suggested that a small building-scale monitoring and notification system be installed	
D60.2.1	Ensure regular testing and maintenance of residential-type smoke detectors. New system would include hard-wired, monitored detection devices (refer to D60.1)	
D60.3	None, though new system could provide hard-wired, monitored pull-type notification devices (refer to D60.1)	
D60.4	None, though new system could provide annunciation devices (refer to D60.1)	
D60.5	None	
D60.6	None, though new system could provide fire department notification (refer to D60.1)	
D60.7	None	
D60.8	None	

E EQUIPMENT AND FURNISHINGS

E10 - EQUIPMENT		
Item		Comments/Findings
E10.1	Equipment anchorage	• Water heater is restrained for seismic forces
E10.2	Other issues	• None
Recommendations		
E10.1	None	
E10.2	None	

G SITework

G20 – SITE IMPROVEMENTS		
Item		Comments/Findings

G20.1	Building location prone to flooding	<ul style="list-style-type: none"> • Yes • Most recent high water event was 1996; marker at entry door indicates high water mark was above floor level by several inches
G20.2	Building accessibility (ADA)	<ul style="list-style-type: none"> • Site is accessible, with parking located near rear ramp to east-side entry door
G20.3	Site Security	<ul style="list-style-type: none"> • None
G20.4	Hurricane resistance	<ul style="list-style-type: none"> • N/A
G20.5	Access control	<ul style="list-style-type: none"> • None except standard door hardware • Building has security system
G20.6	Adjacent property risks	<ul style="list-style-type: none"> • None
G20.7	Separation / opening protection to adjacent property	<ul style="list-style-type: none"> • Distance is adequate for Code-required separation • Note issues due to adjacent skateboard park at B30.2
G20.8	Drainage issues	<ul style="list-style-type: none"> • None observed
G20.9	Other issues	<ul style="list-style-type: none"> • None

Recommendations		
G20.1	None beyond removal of important records and materials from this site due to flood risk.	
G20.2	None	
G20.3	None	
G20.4	None	
G20.5	None	
G20.6	None	
G20.7	None	
G20.8	None	
G20.9	None	

G30 – LIQUID AND GAS SITE UTILITIES		
Item		Comments/Findings
G30.1	Note any special amenities (irrigation systems, underground storage tanks, fountains, etc) and their condition	<ul style="list-style-type: none"> • There is an irrigation system; control panel is in Garage
Recommendations		
G30.1	None	

G40 – ELECTRICAL SITE IMPROVEMENTS		
Item		Comments/Findings
G40.1	Site electrical services	<ul style="list-style-type: none"> • None
Recommendations		
G40.1	None	

INDEX TO FIGURES

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Figure A10.1 Minor cracking observed at basement walls (this location at south side)



Figure B30.2 Damage at eave edge of Garage roof; Staff indicated that following the inspection, the observed damage at the Garage roof had been repaired; roof access may be possible by adjacent electrical equipment; abandoned skateboard decks on Garage roof



Figure B10.5A Office functions impose loads differently than residential use



Figure B10.5B Office functions impose loads differently than residential use



Figure B10.5C Office functions impose loads differently than residential use



Figure B10.5D Office functions impose loads differently than residential use



Figure B20.3 Window wells at Basement have collected leaves and debris at rear (east)



Figure B30.1 Moss at east side of roof



Figure C10.4A Main entry is accessible via ramp from parking area (south)

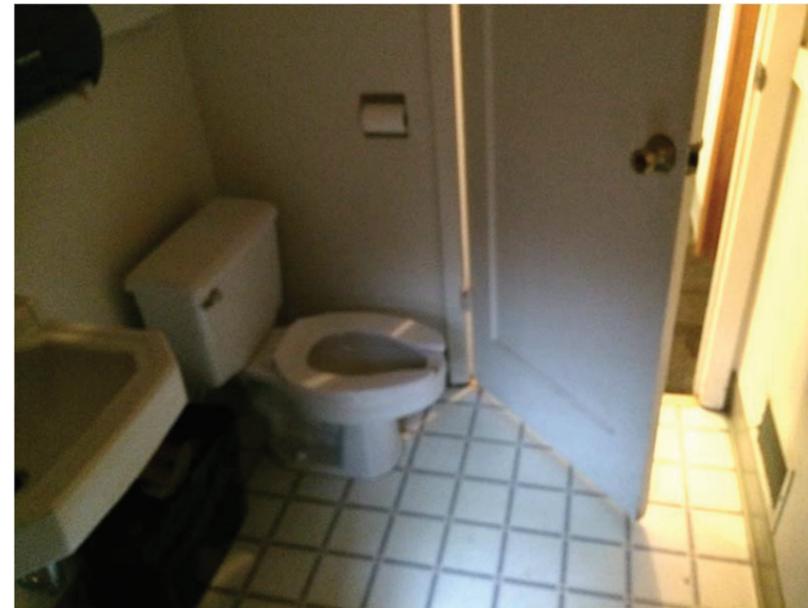


Figure C10.4B Restroom conversion from residential to commercial is not accessible

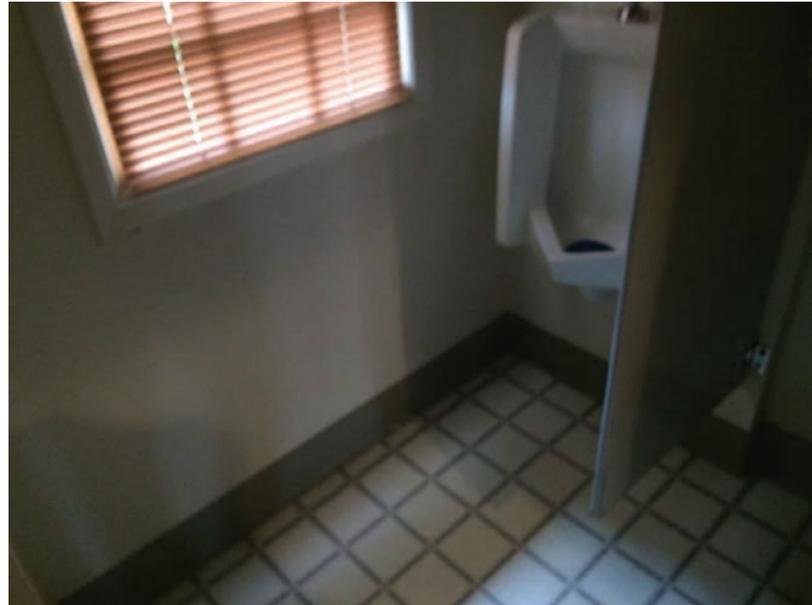


Figure C10.4C Restroom conversion from residential to commercial is not accessible



Figure D20.7 Water heater label

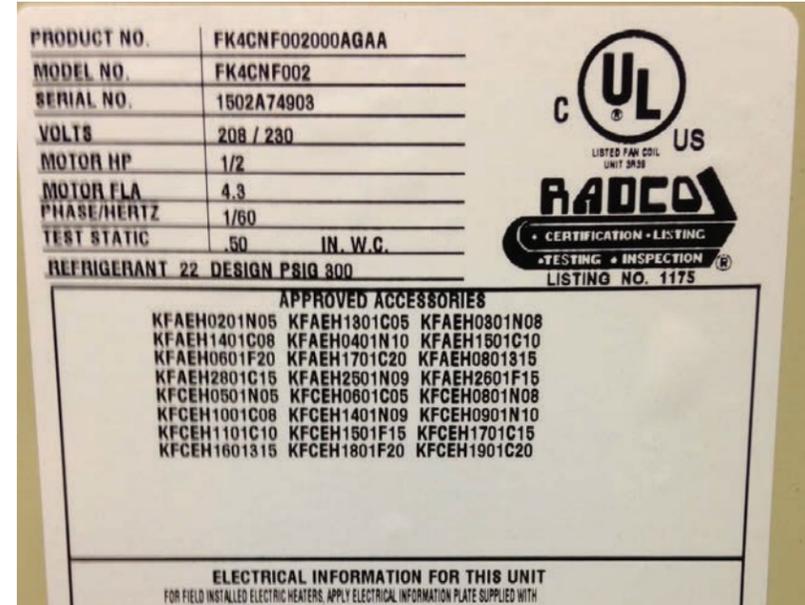


Figure D30.4 Air handler unit label





Figure D30.6 Air handler configuration and access at Basement



Figure D50.6 Electrical panel at Basement



Figure D60.2 - Local, battery-operated residential type smoke detectors



Figure E10.1 Water heater is restrained for seismic forces; clearances could be compromised

END OF REPORT

Information Services Department at Public Works Facility
10699 SW Herman Road, Tualatin, OR 97062



Field Review Team:
Michael Thrailkill, AIA CSI – Yost Grube Hall Architecture
Report Date: February 2, 2015 – FINAL



Side Elevation (south)



Rear and Side Elevations (west and south resp.)



Rear and Side Elevations (west and north resp.)



Floor plan; location of Information Services area

Date of Field Visit: 6 January 2015 Time of Day: 11:30 am
 Weather: Partly sunny with fog, 47°F Site conditions: Inland, suburban, low-rise
 Site Contacts: Sara Singer, City of Tualatin
 Clayton Reynolds, City of Tualatin

General Building Description:

The facility is a single-story structure originally built in 1980 as a maintenance/ service garage. The facility was converted to Lunch Room, Classroom and Storage for Public Works use in 2004, and the Information Services Department was moved into the building in renovated former Storage space in 2011. The facility is located in the southwest corner of a large property shared with other Public Works buildings, vehicle parking and storage lots. The overall Public Works property is bound by SW Herman Road to the south, a commercial, temporary storage facility to the north, SW 108th Avenue to the west, and a commercial warehouse facility to the east. This assessment is focused on only that area of the building currently hosting Information Services Department in the northern-most bay of the building.

The building is a 1-story building of concrete masonry unit walls at building corners and between the original maintenance bay entrances on concrete foundation and slab-on-grade. Infill walls are wood- or metal-framed with T1-11 pattern exterior plywood. A steel structural frame appears to have been added in a previous renovation (observed from within the Server area). Main entry orientation is to the south from parking lot; 1 floor; no elevator; fire suppression not provided, adjacent streets are Southwest Herman Road and Southwest 108th Avenue, adjacent buildings are other City of Tualatin Public Works facilities and commercial buildings. General condition is good and well maintained. Location of the Information Services space is the north end of the building, occupying the northern-most bay of the former maintenance garage.

The City has located the Information Services space to this building, with restrooms outside of the area used for Information Services. The building generally meets ADA (refer to comments); the main entry is accessible.

The latest editions of the following codes were utilized in developing this assessment: Oregon Structural Specialty Code (OSSC), Oregon Mechanical Specialty Code, Oregon Plumbing Specialty Code, Oregon Electrical Specialty Code, Oregon Fire Code, National Fire Protection Association (NFPA) Codes and Standards, and American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) Standard 90.1.

A SUBSTRUCTURE

A10 – FOUNDATIONS (foundations, slab-on-grade, etc.)		
Item		Comments/Findings
A10.1	General condition	<ul style="list-style-type: none"> CIP concrete foundation appeared to be in good shape
Recommendations		
A10.1.1	Monitor concrete foundations for cracking or other signs of settlement	

A20 – SUBGRADE ENCLOSURES (basements, etc)		
Item		Comments/Findings
A20.1	General condition	<ul style="list-style-type: none"> No basement or crawlspace
Recommendations		
A20.1	None	

B SHELL

B10 – SUPERSTRUCTURE (building frame, floors & roofs)		
Item		Comments/Findings
B10.1	Review documents (if available) and note: Structural System, Design Live Loads, Lateral System, and Design Code	<ul style="list-style-type: none"> Drawings indicate added steel structural frame, CMU pier upgrade/ enlargements, bracing at existing roof framing, and partial-height CMU infill in bay openings of west wall Drawings indicate that structure designed to the following: <ul style="list-style-type: none"> UBC 1997 with Oregon amendments; seismic zone III Roof load: 25 PSF snow load per OSSC Allowable soil bearing pressure: 1500 PSF Wind: 80 MPH, Exposure B
B10.2	Visible Gravity System	<ul style="list-style-type: none"> CMU corners and piers support glue-laminated timber beams and wood joists A steel structural frame and steel and glue-laminated wood roof framing were added in 2004 renovation
B10.3	Visible Lateral System	<ul style="list-style-type: none"> CMU corners and piers with partial CMU infill between piers at the rear (West) side provide lateral resistance. It is not known whether the CMU corners and piers are adequately connected, reinforced, or grouted to meet Code requirements for lateral resistance

B10.4	Building Exterior	<ul style="list-style-type: none"> Exterior walls are exposed CMU structure and infill at the original building, split-faced CMU piers and infill at the 2004 addition; original, exposed T1-11 exterior plywood is used for infill areas between CMU piers; all original building surfaces have painted finish; split-faced CMU (2004) may have a sealer applied There was no evidence of rot or movement of exterior walls Roof drainage system was not observed; appears to be internal as no exterior gutters, scuppers or leaders are visible Adjacent to the north side of the building there is an original wood-framed canopy over a refueling island, supported on CMU piers; this canopy slopes toward and is guttered at the side away from the building
B10.5	If building has been remodeled, note the current use as compared to design loads.	<ul style="list-style-type: none"> Original function was as maintenance garage; current function of offices is allowable due to the single-story, small footprint of the facility, and presence of multiple egresses
Recommendations		
B10.1	None	
B10.2	None	
B10.3	None	
B10.4.1	Confirm roof drainage system at the main building and ensure routine cleaning and review plan is in-place for on-going maintenance.	
B10.5	None	

B20 – EXTERIOR VERTICAL ENCLOSURES (walls, windows, exterior doors, etc.)		
Item		Comments/Findings
B20.1	Type and condition of exterior wall	<ul style="list-style-type: none"> Exterior CMU has been maintained well Exterior plywood siding is painted has been maintained relatively well Exterior metal flashings appear to be in good condition
B20.2	Type and condition of window system	<ul style="list-style-type: none"> Exterior windows at rear (west) facade are aluminum double-glazed windows installed in 2004 renovation; at the Information Services space these have been covered-over on the exterior side with rigid, foil-faced, extruded polystyrene insulation/sheathing held in place with wire

		<ul style="list-style-type: none"> Exterior windows at 2004 addition are commercial aluminum storefront systems with double-pane insulated glazing No evidence of rot or moisture intrusion was observed
B20.3	Other issues	<ul style="list-style-type: none"> Roof drainage appears to be internal; it appears that storm water is being removed from the roof top appropriately (no external signs of overflow were observed)
Recommendations		
B20.1.1	Observe and maintain field-painted finish at exterior surfaces; review condition of exterior plywood siding on regular basis for rot, delamination, etc.	
B20.2	None	
B20.3.1	Refer to B10.4	

B30 – EXTERIOR HORIZONTAL ENCLOSURES (roofing, horizontal openings, etc.)		
Item		Comments/Findings
B30.1	Type and condition of roofing system	<ul style="list-style-type: none"> Roof access was not available; City staff reported flat roof deck with new gypsum sheathing and single-ply PVC membrane, installed in 2004 Exterior metal roof edge, fascia and flashings appear to be in good condition
B30.2	Other issues	<ul style="list-style-type: none"> None
Recommendations		
B30.1.1	Continue observation and maintenance.	
B30.2	None	

C INTERIORS

C10 – LIFE SAFETY AND ACCESSIBILITY		
Item		Comments/Findings
C10.1	Integrity of floor separation	<ul style="list-style-type: none"> N/A
C10.2	Adequate fire resistive construction	<ul style="list-style-type: none"> Wall between Information Services and remainder of building was originally added in 2004 renovation to separate Storage area from Classroom and Lunch Room; indicated as 6-inch metal stud-framed/ GWB-sheathed 'Demising Wall' on Drawings While this wall meets code requirements, it may not provide the level of fire separation desired by the Owner for the sensitive equipment and operations handled by the facility
C10.3	Atrium	<ul style="list-style-type: none"> N/A

C10.4	Building accessibility (ADA)	<ul style="list-style-type: none"> Renovation in 2004 provided accessibility at front entry entry/ egress location Ramp added in 2004 provides accessible transition to adjacent building where restrooms and other functions are located Automatic door operator is not provided Restroom accessibility was not observed; Drawings indicate renovations were made for accessibility; stall appears to be 'ambulatory accessible' (standard width, with grab rails) rather than '(wheelchair) accessible' (60-inch width with grab rails) Kitchenette was not observed; Drawings indicate renovations were made for accessibility at sink and dishwasher
C10.5	Other issues	<ul style="list-style-type: none"> None
Recommendations		
C10.1	None	
C10.2.1	Consider renovations to improve the fire resistance of the separation wall, by the addition of layer(s) of gypsum wallboard and insulation, fire caulk, and head closure insulation and sheathing	
C10.3	None	
C10.4	None	
C10.5	None	

C20 – EGRESS		
Item		Comments/Findings
C20.1	Travel distance to exit stair	<ul style="list-style-type: none"> N/A
C20.2	Exit stair continuity and integrity	<ul style="list-style-type: none"> N/A
C20.3	Exit corridor continuity and integrity	<ul style="list-style-type: none"> Continuity adequate; integrity N/A Exit distances adequate
C20.4	(High Rise) Stairway door operation	<ul style="list-style-type: none"> N/A
C20.5	Other issues	<ul style="list-style-type: none"> None
Recommendations		
C20.1	None	
C20.2	None	
C20.3	None	
C20.4	None	
C20.5	None	

C30 – INTERIOR FINISHES		
Item		Comments/Findings
C30.1	General type and condition of finishes	<ul style="list-style-type: none"> Wall finishes in Information Services office space are painted gypsum wallboard; wall finishes in the Information Services Server

		space are painted gypsum wallboard and exposed CMU without apparent sealer <ul style="list-style-type: none"> Floor finishes in Information Services office space are carpet tile; flooring in the Information Services Server space appears to be electro-static dissipative-type (ESD) vinyl tile; flooring in the Lobby is vinyl tile; all flooring appears to be in good condition Ceiling finishes are acoustic ceiling tile, with exposed areas of roof deck in Server space
C30.2	Locations and cause of water intrusion/ leaks	<ul style="list-style-type: none"> There was no observed evidence of leakage An exterior louver at the north side does not appear to be used any longer; staff noted that it was capped on the inside
C30.3	Other issues	<ul style="list-style-type: none"> None
Recommendations		
C30.1	None	
C30.2.1	Confirm adequate closure of louver from the interior, to avoid damage from moisture in a rain storm or high wind event. It is recommended to remove the disused louver and close the opening from the exterior to avoid the introduction of moisture into the wall cavity or the interior space.	
C30.3	None	

D SERVICES

D10 – CONVEYING		
Item		Comments/Findings
D10.1	Overall condition of elevator	<ul style="list-style-type: none"> N/A
D10.2	Status of inspections, who maintains the elevator	<ul style="list-style-type: none"> N/A
D10.3	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D10.1	None	
D10.2	None	
D10.3	None	

D20 - PLUMBING		
Item		Comments/Findings
D20.1	Potable water service	<ul style="list-style-type: none"> Water service is not provided within the Information Services spaces; water service is provided for other areas accessory to Information Services area; service at other locations was not observed
D20.2	Distribution piping material	<ul style="list-style-type: none"> Not known
D20.3	Drain and vent system	<ul style="list-style-type: none"> Not known

D20.4	Fixture condition	<ul style="list-style-type: none"> Fixtures are not provided within the Information Services spaces Restrooms in the building are accessory to Information Services areas (not located in the spaces)
D20.5	Water pressure	<ul style="list-style-type: none"> Not observed
D20.6	Storm drain and overflow drains	<ul style="list-style-type: none"> Not observed; Drawings indicate roof drainage to scuppers and downspouts to grade
D20.7	Water heater system	<ul style="list-style-type: none"> Accessory to Information Services areas (not located in the space) New water heater unit indicated to be added in 2004 renovation Drawings was not observed
D20.8	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D20.1	None as assumed to meet Code at original construction (1980)	
D20.2	Refer to D20.1	
D20.3	Refer to D20.1	
D20.4	None	
D20.5	None	
D20.6	None	
D20.7.1	Review condition of 2004-installed water heater (10 years old)	

D30 - HVAC		
Item	Comments/Findings	
D30.1	Fire smoke dampers	<ul style="list-style-type: none"> None
D30.2	Duct smoke detectors	<ul style="list-style-type: none"> None
D30.3	Smoke control (high-rise/atrium)	<ul style="list-style-type: none"> N/A
D30.4	Air Handler Unit	<ul style="list-style-type: none"> Unit serving the Information Services office area was not observed; Drawings indicate RTU-3 added in 2004 renovation, rooftop-mounted on manufacturer's metal-framed curbs; additional unit above Information Services office area serves the entry Hallway area Unit serving the Information Services Server area is split system with variable speed compressor unit within the Server room; condenser unit is presumed to be rooftop-mounted
D30.5	Air filtration	<ul style="list-style-type: none"> Not observed for the roof top unit serving the Information Services office area

		<ul style="list-style-type: none"> Filtration is at the compressor unit within the Server room, but was not reviewed for cleanliness
D30.6	Equipment accessibility	<ul style="list-style-type: none"> Unit serving the Information Services office area was not observed; Drawings indicate access via external ladders Split system compressor unit serving the Information Services Server area is accessible with ladder; the rooftop condenser unit was not observed
D30.7	Drain pans and condensate traps	<ul style="list-style-type: none"> Unit serving the Information Services office area was not observed Split system unit serving the Information Services Server area has a collection reservoir and pump which sends condensate into the ceiling cavity; disposal location was not observed; refer to Figure D30.7
D30.8	Fan coil drain pans	<ul style="list-style-type: none"> Refer to D30.7
D30.9	Mold issues	<ul style="list-style-type: none"> No evidence seen
D30.10	Air distribution / ventilation	<ul style="list-style-type: none"> At the Information Services office area, supply is ducted through plenum; Return is open plenum At the Information Services Server area a split system compressor unit serves the room directly
D30.11	Plenum return (rated materials)	<ul style="list-style-type: none"> Not observed
D30.12	OSA/ EXA separation	<ul style="list-style-type: none"> It was not observed that the unit serving the Information Services office area provides fresh air/ outside air Fresh air/ outside air is not provided by the Server room split system; on day of observation, door to Server area was held open though it was not clear that this was done regularly
D30.13	Restroom ventilation	<ul style="list-style-type: none"> Accessory to Information Services areas (not located in the space) Fans and controls were not observed
D30.14	Custodial ventilation	<ul style="list-style-type: none"> N/A
D30.15	Kitchen ventilation	<ul style="list-style-type: none"> Accessory to Information Services areas (not located in the space) Drawings indicate residential-type range exhaust hood ducted to roof vent Fans and controls were not observed
D30.16	Duct Insulation (vapor barrier)	<ul style="list-style-type: none"> Not observed

D30.17	Duct materials	<ul style="list-style-type: none"> Not observed
D30.18	HVAC controls	<ul style="list-style-type: none"> At the Information Services office area, a programmable thermostat (non-zoned) is provided At the Information Services Server area, a programmable thermostat (non-zoned) is provided
D30.19	Generator exhaust radiator intake / exhaust	<ul style="list-style-type: none"> Engine-generator set is accessory to Information Services areas and shared with other Public Works buildings on the property It is not located near the building housing Information Services
D30.20	Cooling system	<ul style="list-style-type: none"> Refer to D30.4
D30.21	Water cooled / air cooled chiller	<ul style="list-style-type: none"> N/A
D30.22	Refrigerant monitoring in place	<ul style="list-style-type: none"> Not known
D30.23	Exhaust fans in place	<ul style="list-style-type: none"> Staff reported that there are exhaust fans in the restrooms that continuously operate and that there is a working range hood in the kitchen area
D30.24	Heating System	<ul style="list-style-type: none"> Refer to D30.4 At the Information Services Office area, supply registers were providing conditioned air at 73-74 degrees F.
D30.25	Computer Room units	<ul style="list-style-type: none"> At the Information Services Server area, the split system was providing conditioned air at 63 degrees F. Drawings indicate existing unit heater remained in the space following 2004 renovation (northwest corner of Server room); it is not clear what heat source is (gas or electric); the unit was not observed For other issues, refer to articles in this section for Information Services Server area
D30.26	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D30.1	None	
D30.2	None	
D30.3	None	
D30.4	None	
D30.5.1	Confirm condition and regular maintenance of filtration at all units	
D30.6	None	
D30.7.1	Consider review of potential for gravity-fed condensate drainage to avoid damage due to failure of condensate pump and overflow of reservoir	
D30.8	None	

D30.9	None
D30.10	None
D30.11	None
D30.12.1	Review HVAC system serving Information Services Office area for outside air delivery
D30.13	None
D30.14	None
D30.15	None
D30.16	None
D30.17	None
D30.18	None
D30.19	None
D30.20	None
D30.21	None
D30.22	None
D30.23	None
D30.24	None
D30.25.1	It is suggested that a secondary/ back-up cooling system be considered for the Server room
D30.26	None

D40 – FIRE PROTECTION		
Item		Comments/Findings
D40.1	Fire suppression system	<ul style="list-style-type: none"> Not provided
D40.2	Water service, backflow prevention	<ul style="list-style-type: none"> N/A
D40.3	System pressure	<ul style="list-style-type: none"> N/A
D40.4	Standpipes	<ul style="list-style-type: none"> N/A
D40.5	Fire pump	<ul style="list-style-type: none"> N/A
D40.6	Fire sprinkler pipe condition	<ul style="list-style-type: none"> N/A
D40.7	FDC	<ul style="list-style-type: none"> N/A
D40.8	Fire sprinkler zoning	<ul style="list-style-type: none"> N/A
D40.9	Flow monitoring and alarm	<ul style="list-style-type: none"> N/A
D40.10	On-site water source	<ul style="list-style-type: none"> N/A
D40.11	Test records	<ul style="list-style-type: none"> N/A
D40.12	Condition of fire hose or fire extinguishers	<ul style="list-style-type: none"> Fire hose is not provided (not required by Code; not encouraged by Fire Dept.) Fire extinguisher provided in space appears to be a Water Mist-type extinguisher, appropriate for type A (ordinary combustibles) and type C (energized electrical) fires; extinguisher was observed to have up-to-date inspection
D40.13	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D40.1	None	
D40.2	None	

D40.3	None
D40.4	None
D40.5	None
D40.6	None
D40.7	None
D40.8	None
D40.9	None
D40.10	None
D40.11	None
D40.12.1	Confirm extinguisher type is appropriate for Server room equipment and the City's data/information protection protocol
D40.13	None

D50 – ELECTRICAL (Part I)		
Item		Comments/Findings
D50.1	Grounding leakage	<ul style="list-style-type: none"> Not observed
D50.2	Equipment grounding	<ul style="list-style-type: none"> Not observed
D50.3	Lightning protection	<ul style="list-style-type: none"> Not provided
D50.4	Overcurrent protection	<ul style="list-style-type: none"> Not observed
D50.5	Ground fault interrupt/residual current devices	<ul style="list-style-type: none"> Not observed at Restrooms; accessory to Information Services areas (not located in the space)
D50.6	Rating of Panels	<ul style="list-style-type: none"> Drawings indicate electrical information Panels F and FA are indicated in 2004 renovation plans to serve the other spaces in this former maintenance garage (Classroom and Dining Room with kitchen); refer to Figure D50.6 <ul style="list-style-type: none"> It is not known whether circuits or panels were added and/or revised when the Information Services spaces were added in 2011 It appears that conduit was simply pulled from the bottom of panels F and FA to provide power to the server racks via wall outlets It is presumed that power and circuits are adequate for the new loads It is unclear that electrical fluctuations or other effects of machines or equipment in other spaces served by these panels could adversely affect the quality of power also provided to the server racks by these panels
D50.7	Peak load	<ul style="list-style-type: none"> Refer to D50.6 for power from panels F and FA

D50.8	Overloading/overheating	<ul style="list-style-type: none"> Not observed Temperature readings from faces and doors of panels did not show heat; panels were not opened for temperature readings of circuit breakers
D50.9	Conductor insulation	<ul style="list-style-type: none"> Not observed, but assumed that 2004 and 2011 installations met current Codes All wiring is conduited where exposed within the Server space
D50.10	Conductor material	<ul style="list-style-type: none"> Not observed, but assumed that 2011 installation meets current Code
D50.11	Main distribution equipment	<ul style="list-style-type: none"> Not observed
D50.12	Equipment clearance	<ul style="list-style-type: none"> Server rack-mounted equipment was observed to have good clearances for air flow and maintenance
D50.13	Disconnects	<ul style="list-style-type: none"> Panels serving the Information Services area are located within the Server room; main building disconnects were not observed
D50.14	Transformers	<ul style="list-style-type: none"> Not observed
D50.15	Data Center/UPS	<ul style="list-style-type: none"> On-site engine-generator set provides on-demand back-up power Internally rack-mounted UPS systems serve racks during power transfer events
D50.16	Wiring plenum and fire resistive wall penetrations	<ul style="list-style-type: none"> Electrical and other wiring was not observed above acoustic ceiling All electrical wiring is conduited where exposed within the Server space Data wiring within the Server space was observed to plenum-rated
D50.17	Receptacles/Sockets	<ul style="list-style-type: none"> Receptacles were observed be grounded devices It was not confirmed that grounded receptacles are actually connected to earth It was observed that 'zip-ties' were used to restrain power cords from server racks to wall outlets in the Server room, indicating potential for past occurrences of tripping or other unintentional removal of power cord from receptacles; refer to Figure D50.17
D50.18	Lighting	<ul style="list-style-type: none"> ACT recessed 2x4 fluorescent fixtures Lighting levels where adequate
D50.19	Lighting Controls	<ul style="list-style-type: none"> Switched at walls
D50.20	Back-up power	<ul style="list-style-type: none"> Refer to D50.15 and D50.21

D50.21	Generator	<ul style="list-style-type: none"> Exterior trailer-mounted engine-generator set is provided; seamless continuity of service at times of power-loss was attested-to by IT staff on-site day of observation Semi-permanent installation and connection at separate Public Works building on-site (northwest of reviewed building), from which other buildings are served; refer to Figure D50.21
D50.22	Battery packs	<ul style="list-style-type: none"> Rack-mounted UPS; refer to D50.15
D50.23	Inverter	<ul style="list-style-type: none"> Rack-mounted UPS; refer to D50.15
D50.24	Emergency wiring separated from normal building wiring	<ul style="list-style-type: none"> Not observed; assumed to have been provided with 2011 renovation
D50.25	Emergency power system loads	<ul style="list-style-type: none"> Not known
D50.26	Egress path lighting	<ul style="list-style-type: none"> Not observed; assumed to have been provided with 2011 renovation
D50.27	Exit signage	<ul style="list-style-type: none"> Provided and appropriately located
D50.28	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D50.1.1	Consider testing for grounding leakage.	
D50.2.1	Review requirements for necessary equipment to ensure proper grounding	
D50.3	None	
D50.4	None	
D50.5	None	
D50.6.1	The following should be reviewed for panels F and FA: Power draw for server racks and other connected devices is within limits; Quality of power provided to the server racks is not compromised by other connected devices	
D50.7.1	Review peak load requirements and confirm panels meet power needs.	
D50.8	None	
D50.9	None anticipated.	
D50.10	Refer to D50.9.	
D50.11	None	
D50.12	None	
D50.13	None	
D50.14	None	
D50.15	None	
D50.16	None	
D50.17.1	Confirm receptacles are connected to ground.	
D50.17.2	Consider other options to avoid tripping hazards, and if still necessary, to restrain power cords at wall outlets	
D50.18	None	
D50.19.1	Consider replacement of on-off switches with occupancy switches to save energy.	
D50.20	None	
D50.21	None	
D50.22	None	

D50.23	None
D50.24	Confirm provision of separate emergency circuits in 2011 renovation
D50.25	None
D50.26	Confirm provision of egress path lighting in 2011 renovation
D50.27	None
D50.28	None

D60 – FIRE DETECTION AND ALARM		
Item		Comments/Findings
D60.1	Fire alarm control panel	<ul style="list-style-type: none"> Provided; accessory to Information Services areas (not located in the space)
D60.2	Smoke detectors	<ul style="list-style-type: none"> Smoke and heat detection provided
D60.3	Pull stations	<ul style="list-style-type: none"> Provided appropriately
D60.4	Annunciation	<ul style="list-style-type: none"> Provided
D60.5	System is zoned or addressable	<ul style="list-style-type: none"> Yes
D60.6	System monitoring	<ul style="list-style-type: none"> Presumed to be monitored via control panel; control panel not observed
D60.7	Elevator recall	<ul style="list-style-type: none"> N/A
D60.8	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D60.1	None	
D60.2	None	
D60.3	None	
D60.4	None	
D60.5	None	
D60.6.1	Confirm system monitoring	
D60.7	None	
D60.8	None	

E EQUIPMENT AND FURNISHINGS

E10 - EQUIPMENT		
Item		Comments/Findings
E10.1	Equipment anchorage	<ul style="list-style-type: none"> Technology equipment is rack-mounted and appears to be properly secured Water heater added in 2004 renovation was not observed; it is indicated to be restrained in Drawings
E10.2	Other issues	<ul style="list-style-type: none"> None
Recommendations		
E10.1	None	
E10.2	None	

G SITEWORK

G20 – SITE IMPROVEMENTS		
Item		Comments/Findings
G20.1	Building location prone to flooding	<ul style="list-style-type: none"> Staff indicated site is not prone to flooding
G20.2	Building accessibility (ADA)	<ul style="list-style-type: none"> Site is accessible, though accessible parking is not provided adjacent to the entry to the building near the Information Services area; users requiring accessible parking need to pass through the building after parking in the visitor lot Accessible parking is provided at the visitor lot; delineated, direct path to entry is provided without traversing traffic lanes; dedicated van parking is provided Drawings indicate concrete pad at building accessible entry (southeast corner, from visitor lot) may be too small for turning radius needs
G20.3	Site Security	<ul style="list-style-type: none"> Site has perimeter fence at all sides, gates to two main roads
G20.4	Hurricane resistance	<ul style="list-style-type: none"> N/A
G20.5	Access control	<ul style="list-style-type: none"> Punch key-coded alarm system within Information Services Office space; refer to Figure G20.5
G20.6	Adjacent property risks	<ul style="list-style-type: none"> Adjacent properties do appear to provide risks Information Services is directly adjacent to on-site fuel dispensing pumps and tanks present fire or explosion risk; building exterior finish at this location is not fire resistant (T1-11 plywood sheathing) Shared occupancy with other Public Works may provide opportunity for incidents or attack
G20.7	Separation / opening protection to adjacent property	<ul style="list-style-type: none"> Distance is adequate for Code-required separation
G20.8	Drainage issues	<ul style="list-style-type: none"> No issues were observed
G20.9	Other issues	<ul style="list-style-type: none"> None
Recommendations		
G20.1	None	
G20.2.1	Consider re-striping pavement in the workers' parking lot near rear building entry (adjacent to Information Services) to provide an accessible parking space.	
G20.2.2	Consider enlarging existing small concrete entry stoop to accommodate 60-inch turning radius.	

G20.3	None
G20.4	None
G20.5	None
G20.6.1	In lieu of relocating the fuel dispensing island, consider removal of plywood siding and replacement with non-combustible finish material, e.g. metal siding
G20.7	None
G20.8	None.
G20.9	None

G30 – LIQUID AND GAS SITE UTILITIES		
Item		Comments/Findings
G30.1	Note any special amenities (irrigation systems, underground storage tanks, fountains, etc) and their condition	<ul style="list-style-type: none"> Irrigation system not observed; accessory to Information Services areas Underground fuel storage is present on the site for dispensing at pumps adjacent to the Information Services building; City staff noted the following: <ul style="list-style-type: none"> Two 10,000 gallon unleaded tanks and one 2000 gallon diesel were installed in 1980 The tanks were dug out, inspected and relined 4 years ago (~2010) The tanks have cathodic protection and a leak detection monitoring system Diesel fuel storage for engine-generator set is trailer-mounted base tank; no underground tank was observed
Recommendations		
G30.1	None	

G40 – ELECTRICAL SITE IMPROVEMENTS		
Item		Comments/Findings
G40.1	Site electrical services	<ul style="list-style-type: none"> Operation of site lighting was not observed due to time of on-site review
Recommendations		
G40.1.1	Review site lighting functionality when illuminated	

INDEX TO FIGURES

- Figure B30.1A CMU corners and between former maintenance bays; T1-11 exterior plywood infill at front of building; split-faced CMU and aluminum storefront windows added for lobby
- Figure B30.1B CMU corners and between former maintenance bays; T1-11 exterior plywood and CMU infill at rear of building; insulation added over west-facing windows (from Server room)
- Figure B30.1C Louver at north is disused, staff noted that capped at interior
- Figure C30.1 Interior finishes at IT space
- Figure D30.7 Split system HVAC at Server room; condensate pumped to disposal thru plenum
- Figure D40.12 Water mist extinguisher
- Figure D50.6 Panels F and FA for power to server racks and potentially devices/ loads in other spaces
- Figure D50.17 Potential trip hazard at power cords from server racks to wall outlets
- Figure D50.21 Trailer-mounted engine-generator set with base tank
- Figure G20.5 Punch key-coded alarm system within Information Services Office space



Figure B30.1A CMU corners and between former maintenance bays; T1-11 exterior plywood infill at front of building; split-faced CMU and aluminum storefront windows added for lobby



Figure B30.1B CMU corners and between former maintenance bays; T1-11 exterior plywood and CMU infill at rear of building; insulation added over west-facing windows (from Server room)



Figure B30.1C Louver at north is disused, staff noted that capped at interior



Figure C30.1 Interior finishes at IT space



Figure D30.7 Split system HVAC at Server room; condensate pumped to disposal thru plenum



Figure D40.12 Water mist extinguisher



Figure D50.6 Panels F and FA for power to server racks and potentially devices/ loads in other spaces

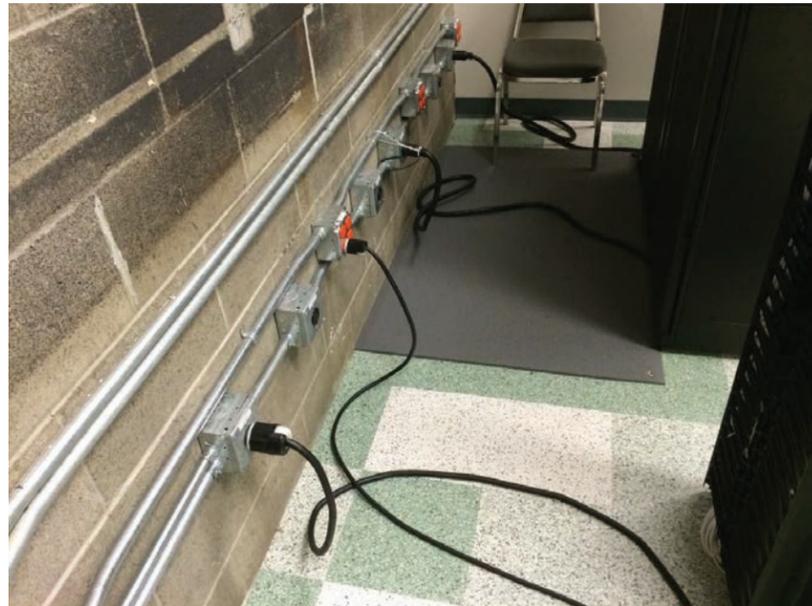


Figure D50.17 Potential trip hazard at power cords from server racks to wall outlets



Figure D50.21 Trailer-mounted engine-generator set with base tank



Figure G20.5 Punch key-coded alarm system within Information Services Office space

END OF REPORT

Lafky House
8511 Southwest Tualatin Road, Tualatin, OR 97062



Field Review Team:
Michael Thrailkill, AIA CSI – Yost Grube Hall Architecture
Report Date: February 2, 2015 – FINAL



Front Entry (south)



Rear Elevation (north)



Side Elevation (east)



Side Elevation (west)

Date of Field Visit: 6 January 2015 Time of Day: 10:00 am and 3:30 pm
 Weather: Partly sunny with fog, 47°F Site conditions: Inland, suburban, low-rise
 Site Contacts: Sara Singer, City of Tualatin
 Clayton Reynolds, City of Tualatin

General Building Description:

The facility is a single-story structure, formerly single-family residence. The facility's property is bound by a private access drive to the south, the Tualatin River to the north, another City building (former residence) to the west, and another City building, the Tualatin Senior Center to the east. The building appears to have been constructed in the 1960's or 1970's and renovated in the 2000's.

The building is a 1-story wood frame building on concrete foundation, over a crawl space. The façade is a wood-framed wall clad in wood shakes. Orientation is to the south; 1 floor; no elevator; no fire suppression, adjacent street is Southwest Tualatin Road, adjacent buildings are other City of Tualatin facilities. General condition is good and well maintained; except roofing appeared to be near end of life cycle.

Due to the demolition of the former City offices, the City relocated the finances department to this full building, utilizing previous bedrooms as offices. Staff is also located in the former living room and kitchen/ dining areas. Restrooms have not been renovated to meet ADA; accessible entry is available from the rear. The garage is used for storage of furniture and equipment for City Council meetings held in the adjacent Tualatin Senior Center/ Pohl Building

The latest editions of the following codes were utilized in developing this assessment: Oregon Structural Specialty Code (OSSC), Oregon Mechanical Specialty Code, Oregon Plumbing Specialty Code, Oregon Electrical Specialty Code, Oregon Fire Code, National Fire Protection Association (NFPA) Codes and Standards, and American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) Standard 90.1.

A SUBSTRUCTURE

A10 – FOUNDATIONS (foundations, slab-on-grade, etc.)		
Item		Comments/Findings
A10.1	General condition	<ul style="list-style-type: none"> CIP concrete foundation kneewalls appeared to be in good shape
Recommendations		
A10.1.1	Monitor kneewalls for cracking or other signs of settlement	

A20 – SUBGRADE ENCLOSURES (basements, etc)		
Item		Comments/Findings
A20.1	General condition	<ul style="list-style-type: none"> No basement; interior of crawlspace was not observed
Recommendations		
A20.1.1	Confirm crawlspace has been insulated to meet Code	

B SHELL

B10 – SUPERSTRUCTURE (building frame, floors & roofs)		
Item		Comments/Findings
B10.1	Review documents (if available) and note: Structural System, Design Live Loads, Lateral System, and Design Code	<ul style="list-style-type: none"> As-built documents were not available
B10.2	Visible Gravity System	<ul style="list-style-type: none"> It is assumed that the building is wood-framed
B10.3	Visible Lateral System	<ul style="list-style-type: none"> It is assumed that shear forces are managed by diagonal wood-framing and/ or sheathing and by the roof diaphragm. It was not observed that the building has adequate connection to the foundations; likely does not meet Code due to change of occupancy/ use
B10.4	Building Exterior	<ul style="list-style-type: none"> There was no evidence of rot or movement of exterior framed walls; exterior wood shake cladding is painted and has been maintained well. Attic vents were observed to be clean and insect free.
B10.5	If building has been remodeled, note the current use as compared to design loads.	<ul style="list-style-type: none"> Original function was as single-family residence; current function is as office space. It was observed that at several locations, storage and shelving may be imposing loads

		that could be in excess of design loads; the crawlspace was not accessed in order to confirm locations of structure.
Recommendations		
B10.1	None	
B10.2	None	
B10.3.1	It should be confirmed whether during previous re-roofings additional plywood sheathing was added to improve diaphragm strength; this could be provided in upcoming re-roofing (refer to B10.4).	
B10.3.2	It should be confirmed whether Code required anchorage of wall framing and sill plates was required for the change of occupancy/ use from single-family residential to commercial office; this could be added.	
B10.4	None	
B10.5.1	It should be confirmed that locations currently bearing large furniture or file storage loads are adequately supported on structure below. It is recommended that loads be minimized and distributed where they are in the middle of rooms or not adjacent to major structural support below the floor.	

B20 – EXTERIOR VERTICAL ENCLOSURES (walls, windows, exterior doors, etc.)		
Item		Comments/Findings
B20.1	Type and condition of exterior wall	<ul style="list-style-type: none"> Exterior wood shake cladding is painted and has been maintained well.
B20.2	Type and condition of window system	<ul style="list-style-type: none"> Horizontal sliding windows appear to be original aluminum-framed, single-glazed residential quality. No evidence of rot or moisture intrusion was observed.
B20.3	Other issues	<ul style="list-style-type: none"> Overhangs are deep and appropriate for local climate. Gutters and downspouts appear to be clean and removing water appropriately, however splash blocks adjacent to the foundation walls do not function to carry water away from the structure, potentially leading to crawlspace moisture problems. The building's original foundation drainage system, if it exists, is likely non-functional now (segmented concrete drain tiles common in 1960's and 1970's are prone to soil intrusion and clogging, breakage during back-filling, and damage due to plant and tree roots).
Recommendations		
B20.1	None	
B20.2	None	
B20.3.1	It is recommended to add extensions to the ends of downspouts to transport stormwater away from the foundations.	

B30 – EXTERIOR HORIZONTAL ENCLOSURES (roofing, horizontal openings, etc.)		
Item		Comments/Findings
B30.1	Type and condition of roofing system	<ul style="list-style-type: none"> Roofing is three-tab asphalt shingles, which may be near the end of its life-span (10-15 years). It was observed that moss has grown on the north side. Refer to Figure B30.1.
B30.2	Other issues	<ul style="list-style-type: none"> Flashings, vents, etc. all appear in acceptable condition. Access to the roof was not available; observations were made from the ground level.
Recommendations		
B30.1.1	Confirm age and life-span remaining for existing roofing; replace if necessary, possibly adding a layer of plywood sheathing if required to improve the structure's lateral force resistance (refer to B10.3). Replacement roofing with metal roofing system has been proposed in the City's Capital Improvement Plan.	
B30.2.1	Monitor conditions of flashings, vents, gutters, downspouts, etc.; recommend investigation for replacement as necessary at next reroofing.	

C INTERIORS

C10 – LIFE SAFETY AND ACCESSIBILITY		
Item		Comments/Findings
C10.1	Integrity of floor separation	<ul style="list-style-type: none"> N/A
C10.2	Adequate fire resistive construction	<ul style="list-style-type: none"> N/A
C10.3	Atrium	<ul style="list-style-type: none"> N/A
C10.4	Building accessibility (ADA)	<ul style="list-style-type: none"> Not accessible at front entry; rear entry is accessible, however storage of water bottles impedes clearance required for wheelchair access to door. Refer to Figure C10.4A. One restroom has been made accessible. Refer to Figure C10.4B. Turning radius restrictions at end of hallway to offices (former bedrooms)
C10.5	Other issues	<ul style="list-style-type: none"> None
Recommendations		
C10.1	None	
C10.2	None	
C10.3	None	
C10.4	Find alternate location for storage of water bottles to improve accessibility.	
C10.5	None	

C20 – EGRESS		
Item		Comments/Findings
C20.1	Travel distance to exit stair	• N/A
C20.2	Exit stair continuity and integrity	• N/A
C20.3	Exit corridor continuity and integrity	• Continuity adequate; integrity N/A
C20.4	(High Rise) Stairway door operation	• N/A
C20.5	Other issues	• None
Recommendations		
C20.1	None	
C20.2	None	
C20.3	None	
C20.4	None	
C20.5	None	

C30 – INTERIOR FINISHES		
Item		Comments/Findings
C30.1	General type and condition of finishes	<ul style="list-style-type: none"> • Wall finishes are painted GWB, except some locations are wood veneer paneling • Floor finishes are original oak wood T&G strip flooring with clear finish, except at kitchen and restrooms, flooring is sheet vinyl; all flooring is in good condition • Ceiling finishes are painted GWB • Cabinetry in kitchens and restrooms is original veneer plywood with clear finish
C30.2	Locations and cause of water intrusion/ leaks	• None were observed
C30.3	Other issues	• None
Recommendations		
C30.1	None	
C30.2	None	
C30.3	None	

D SERVICES

D10 – CONVEYING		
Item		Comments/Findings
D10.1	Overall condition of elevator	• N/A
D10.2	Status of inspections, who maintains the elevator	• N/A
D10.3	Other issues	• None
Recommendations		
D10.1	None	
D10.2	None	

D10.3	None	
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D20 - PLUMBING		
Item		Comments/Findings
D20.1	Potable water service	<ul style="list-style-type: none"> • It is likely that original galvanized steel piping is releasing lead into tap water • Provision of bottled water was observed
D20.2	Distribution piping material	• Original galvanized steel
D20.3	Drain and vent system	• Original galvanized steel and cast iron
D20.4	Fixture condition	<ul style="list-style-type: none"> • One restroom has original porcelain; good condition • Other restroom has newer fixtures to provide accessibility
D20.5	Water pressure	• Adequate
D20.6	Storm drain and overflow drains	• Not observed
D20.7	Water heater system	<ul style="list-style-type: none"> • Located in garage • Electric • Rheem-brand water heater appears to have been manufactured in September of 1983 (month 09, year 83; refer to Figure D20.7); over 31 years old
D20.8	Other issues	• None
Recommendations		
D20.1.1	Consider replacement of original galvanized steel piping with copper or PEX plumbing lines	
D20.2.1	Refer to D20.1	
D20.3	None	
D20.4	None	
D20.5	None	
D20.6	None	
D20.7.1	Due to storage of furniture and equipment in garage, monitor existing 31 year-old water heater for leaks on a regular basis. Alternately, consider replacement with new smaller or on-demand unit that will be sufficient for office hot water needs while reducing overhead and removing danger of a leak damaging other property. Alternately, a leak detection system could be added, though this may be cost-prohibitive.	

D30 - HVAC		
Item		Comments/Findings
D30.1	Fire smoke dampers	• None
D30.2	Duct smoke detectors	• None
D30.3	Smoke control (high-rise/atrium)	• N/A
D30.4	Air Handler Unit	• Located in garage

		<ul style="list-style-type: none"> Carrier-brand cooling coil component mounted above AHU is indicated to have been manufactured in February of 2011 (refer to Figure D30.4), suggesting similar age for the system; 4 years old
D30.5	Air filtration	<ul style="list-style-type: none"> Filtration is at return air grill in ceiling; appears to be clean suggesting regular maintenance
D30.6	Equipment accessibility	<ul style="list-style-type: none"> Good, though storage at garage could impede on area adjacent to unit
D30.7	Drain pans and condensate traps	<ul style="list-style-type: none"> Condensate is pumped away; disposal location not observed With pumped systems, there is risk of pump failure and leak of condensate into garage area, threatening storage of furniture and equipment
D30.8	Fan coil drain pans	<ul style="list-style-type: none"> Refer to D30.7
D30.9	Mold issues	<ul style="list-style-type: none"> Not observed
D30.10	Air distribution / ventilation	<ul style="list-style-type: none"> Supply is ducted through attic; likely this is an uninsulated space Return is ducted through attic; likely this is an uninsulated space
D30.11	Plenum return (rated materials)	<ul style="list-style-type: none"> N/A
D30.12	OSA/ EXA separation	<ul style="list-style-type: none"> No mechanical outside air provision is made Windows are operable
D30.13	Restroom ventilation	<ul style="list-style-type: none"> Electric recessed ceiling-mounted fans Controlled by users with wall switches
D30.14	Custodial ventilation	<ul style="list-style-type: none"> N/A
D30.15	Kitchen ventilation	<ul style="list-style-type: none"> None except operable windows
D30.16	Duct Insulation (vapor barrier)	<ul style="list-style-type: none"> Foil-facing
D30.17	Duct materials	<ul style="list-style-type: none"> Observed ducts within garage are foil-faced fiberglass round flexible duct; similar assumed for attic ductwork (not observed)
D30.18	HVAC controls	<ul style="list-style-type: none"> Single thermostat is located at end of hall near open office space (former living room) Thermostat appears to be a Honeywell 4-mode/ 7-day model, but appears to be used in single-mode function
D30.19	Generator exhaust radiator intake / exhaust	<ul style="list-style-type: none"> N/A
D30.20	Cooling system	<ul style="list-style-type: none"> AHU provides cooling by top-mounted coil in up-flow arrangement, for attic-routed supply ducts

		<ul style="list-style-type: none"> Heat pump outdoor unit is located at west end of building Coolant lines appear to be routed through crawl space for approximately 50-60 feet
D30.21	Water cooled / air cooled chiller	<ul style="list-style-type: none"> N/A
D30.22	Refrigerant monitoring in place	<ul style="list-style-type: none"> None; refrigerant is R-410A (contains only fluorine; does not contribute to ozone depletion)
D30.23	Exhaust fans in place	<ul style="list-style-type: none"> None except at restrooms
D30.24	Heating System	<ul style="list-style-type: none"> Heating is provided by gas fired burners internal to the AHU Carrier model gas furnace 58STX110 is a low efficiency unit (80% AFUE) compared to others available at the time of purchase (90% to 97% AFUE). Unit is installed in up-flow arrangement, for attic-routed supply ducts Original electric resistance baseboard heaters remain in place but are not used; locally thermostat-controlled Supply registers were providing conditioned air at between 70 and 74 degrees F.
D30.25	Computer Room units	<ul style="list-style-type: none"> N/A
D30.26	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D30.1	None	
D30.2	None	
D30.3	None	
D30.4	None	
D30.5.1	Ensure continued regular maintenance	
D30.6.1	Consider application of painted lines on the floor indicating clearances required for maintenance and adequate ventilation	
D30.7.1	Consider removing condensate pump and routing condensate drainage line through crawl space to gravity-drain to the exterior. This can avoid risk of pump failure and potential for water damage.	
D30.8.1	Refer to D30.7	
D30.9	None	
D30.10.1	Consider investigating insulation condition at attic and potential to increase insulation. Also consider draping new insulation over supply and return ductwork to maintain interior temperature conditions within ductwork to improve efficiency and avoid cold blast (winter) or hot blast (summer) at fan start-up.	
D30.11	None	
D30.12	None	
D30.13	None	
D30.14	None	

D30.15	None
D30.16	None
D30.17	None
D30.18.1	Consider setting-up the programmable thermostat to take advantage of ability to provide automatic, time- and day-of-week-based control of the HVAC system.
D30.19	None
D30.20	None
D30.21	None
D30.22	None
D30.23	None
D30.24.1	For future replacements, it is recommended to review the procedures for procurement to include life cycle cost- and performance-based criteria alongside unit cost-based criteria.
D30.25	None
D30.26	None

D40 – FIRE PROTECTION		
Item		Comments/Findings
D40.1	Fire suppression system	• None
D40.2	Water service, backflow prevention	• N/A
D40.3	System pressure	• N/A
D40.4	Standpipes	• N/A
D40.5	Fire pump	• N/A
D40.6	Fire sprinkler pipe condition	• N/A
D40.7	FDC	• N/A
D40.8	Fire sprinkler zoning	• N/A
D40.9	Flow monitoring and alarm	• N/A
D40.10	On-site water source	• N/A
D40.11	Test records	• N/A
D40.12	Condition of fire hose or fire extinguishers	• Fire hose is not provided (not required by Code; not encouraged by Fire Dept.) • Fire extinguisher is located in kitchen adjacent to rear entry/ egress; observed to have up-to-date inspection
D40.13	Other issues	• None
Recommendations		
D40.1	None	
D40.2	None	
D40.3	None	
D40.4	None	
D40.5	None	
D40.6	None	
D40.7	None	
D40.8	None	
D40.9	None	

D40.10	None	
D40.11	None	
D40.12	None	
D50 – ELECTRICAL (Part I)		
Item		Comments/Findings
D50.1	Grounding leakage	• Not observed
D50.2	Equipment grounding	• Not observed
D50.3	Lightning protection	• None
D50.4	Overcurrent protection	• None
D50.5	Ground fault interrupt/residual current devices	• Not observed
D50.6	Rating of Panels	• Panel rating not known • Pushmatic Load Center model panel is original 1960's or 1970's era push-button type • 20 circuits, though 14 have been combined for seven 220 volt circuits; four of these 220 volt circuits are assumed to be unused as originally provided for baseboard heat • Note that on this model of panel, the upper bus may remain energized even when the circuit breaker labeled "Main" is turned-off for circuits below
D50.7	Peak load	• Not known; it is likely that the original panel which was intended to manage multiple baseboard heat circuits is sufficient for current loads
D50.8	Overloading/overheating	• None observed; panel face temperature was similar to room temperature (65 degree F)
D50.9	Conductor insulation	• No access to attic, thus not observed
D50.10	Conductor material	• No access to attic, thus not observed
D50.11	Main distribution equipment	• None except residential-grade panel; refer to D50.6
D50.12	Equipment clearance	• Good, though storage at garage could impede on area adjacent to unit
D50.13	Disconnects	• None except at residential-grade panel; refer to D50.6 • Refer to D50.6 for note about caution for this type of panel
D50.14	Transformers	• None
D50.15	Data Center/UPS	• None
D50.16	Wiring plenum and fire resistive wall penetrations	• None

D50.17	Receptacles/Sockets	<ul style="list-style-type: none"> Receptacles were observed to have been upgraded to grounded devices It was not confirmed that grounded receptacles are actually connected to earth
D50.18	Lighting	<ul style="list-style-type: none"> Original incandescent bulb ceiling fixtures have been replaced with 4-foot fluorescent tube fixtures
D50.19	Lighting Controls	<ul style="list-style-type: none"> Switched at walls; standard on-off switches
D50.20	Back-up power	<ul style="list-style-type: none"> None
D50.21	Generator	<ul style="list-style-type: none"> None
D50.22	Battery packs	<ul style="list-style-type: none"> None
D50.23	Inverter	<ul style="list-style-type: none"> None
D50.24	Emergency wiring separated from normal building wiring	<ul style="list-style-type: none"> None
D50.25	Emergency power system loads	<ul style="list-style-type: none"> None
D50.26	Egress path lighting	<ul style="list-style-type: none"> None
D50.27	Exit signage	<ul style="list-style-type: none"> None
D50.28	Other issues	<ul style="list-style-type: none"> None

Recommendations

D50.1.1	Consider testing for grounding leakage.
D50.2.1	Review requirements for necessary equipment to ensure proper grounding (e.g. photocopier)
D50.3	None
D50.4	None
D50.5.1	Confirm presence of GFCI receptacles in restrooms and kitchen.
D50.6.1	It is suggested to replace older, push button-type, residential-grade with up-to-date panel; disconnect disused circuits (e.g. baseboard heaters, kitchen range).
D50.7.1	Assess peak load requirements and confirm panel meets needs. Confirm individual circuits, and consider providing a dedicated circuit for the photocopier.
D50.8	None.
D50.9.1	Conductor material and insulation should be reviewed; wiring with indications of deterioration, wear, overheating or pest damage should be replaced.
D50.10.1	Refer to D50.9.
D50.11.1	Refer to D50.6.
D50.12.1	Consider application of painted lines on the floor indicating clearances required for maintenance.
D50.13	Refer to D50.6.
D50.14	None
D50.15	None
D50.16	None
D50.17.1	Confirm grounded receptacles are indeed connected to earth; Review potential to route new wiring where required if ground is not provided.
D50.18	None
D50.19.1	Consider replacement of on-off switches with occupancy switches to save energy.
D50.20	None

D50.21	None
D50.22	None
D50.23	None
D50.24	None
D50.25	None
D50.26.1	Consider addition of battery pack-powered emergency lighting fixtures, e.g. "bug-eye"-type at appropriate locations to adequately illuminate the egress path
D50.27.1	Consider addition of battery pack-powered emergency egress fixtures at appropriate locations to direct to exits
D50.28	None

D60 – FIRE DETECTION AND ALARM

Item	Comments/Findings	
D60.1	Fire alarm control panel	<ul style="list-style-type: none"> None
D60.2	Smoke detectors	<ul style="list-style-type: none"> Local, battery-operated residential type
D60.3	Pull stations	<ul style="list-style-type: none"> None
D60.4	Annunciation	<ul style="list-style-type: none"> None except by residential-type smoke detectors
D60.5	System is zoned or addressable	<ul style="list-style-type: none"> No
D60.6	System monitoring	<ul style="list-style-type: none"> No
D60.7	Elevator recall	<ul style="list-style-type: none"> N/A
D60.8	Other issues	<ul style="list-style-type: none"> None

Recommendations

D60.1.1	If City intends long term ownership and use as offices, it is suggested that a small building-scale monitoring and notification system be installed, possibly combined with an intrusion/ security system
D60.2.1	Ensure regular testing and maintenance of residential-type smoke detectors. New system would replace new hard-wired, monitored detection devices (refer to D60.1)
D60.3	None, though new system could provide hard-wired, monitored pull-type notification devices (refer to D60.1)
D60.4	None, though new system could provide annunciation devices (refer to D60.1)
D60.5	None
D60.6	None, though new system could provide fire department notification (refer to D60.1)
D60.7	None
D60.8	None

E EQUIPMENT AND FURNISHINGS

E10 - EQUIPMENT

Item	Comments/Findings	
E10.1	Equipment anchorage	<ul style="list-style-type: none"> Water heater is not restrained for seismic forces as currently required by Code.
E10.2	Other issues	<ul style="list-style-type: none"> Baseboard heating units remain in place, along with thermostats, and potentially remain live.

Recommendations	
E10.1.1	Provide Code-required seismic restraint for water heater.
E10.2.1	Consider disconnection of baseboard heating circuits and labeling at the panel and removal of baseboard heating units and thermostats, or at a minimum disconnection of baseboard heating circuits and labeling at the panel and at the thermostat junction boxes.

G SITEWORK

G20 – SITE IMPROVEMENTS		
Item		Comments/Findings
G20.1	Building location prone to flooding	<ul style="list-style-type: none"> • Yes • Most recent high water event was 1996
G20.2	Building accessibility (ADA)	<ul style="list-style-type: none"> • Site is accessible, with parking located near rear door (accessible entry to building)
G20.3	Site Security	<ul style="list-style-type: none"> • None
G20.4	Hurricane resistance	<ul style="list-style-type: none"> • N/A
G20.5	Access control	<ul style="list-style-type: none"> • None except standard door hardware • Building has security system
G20.6	Adjacent property risks	<ul style="list-style-type: none"> • None
G20.7	Separation / opening protection to adjacent property	<ul style="list-style-type: none"> • Distance is adequate for Code-required separation
G20.8	Drainage issues	<ul style="list-style-type: none"> • It was observed that work to provide at-grade entry at the rear (north) side has resulted in soil and topping to be close or in contact with wood shake siding, which may be a route for moisture migration and rot. Refer to Figure B20.1.
G20.9	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
G20.1	None beyond removal of important records and materials from this site due to flood risk.	
G20.2	None	
G20.3	None	
G20.4	None	
G20.5	None	
G20.6	None	
G20.7	None	
G20.8.1	Soil and toppings should be cleared away from the edge of the buildings foundation walls to maintain a minimum 4 inch gap between the top-of-grade and the bottom of exterior wood sidings.	
G20.9	None	

G30 – LIQUID AND GAS SITE UTILITIES		
Item		Comments/Findings
G30.1	Note any special amenities (irrigation systems, underground storage tanks, fountains, etc) and their condition	<ul style="list-style-type: none"> • None
Recommendations		
G30.1	None	

G40 – ELECTRICAL SITE IMPROVEMENTS		
Item		Comments/Findings
G40.1	Site electrical services	<ul style="list-style-type: none"> • None
Recommendations		
G40.1	None	

INDEX TO FIGURES

- Figure B10.5A Office functions impose loads differently than residential use
- Figure B10.5B Office functions impose loads differently than residential use
- Figure B10.5C Office functions impose loads differently than residential use
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- Figure D20.7 Water heater label
- Figure D30.4 Air handler unit label
- Figure D30.6 Air handler configuration; access compromised by storage
- Figure D60.2 Local, battery-operated residential type smoke detectors
- Figure E10.1 Water heater is not restrained for seismic forces
- Figure G20.8 Soil and topping in contact with siding at rear (north)



Figure B10.5A Office functions impose loads differently than residential use



Figure B10.5B Office functions impose loads differently than residential use



Figure B10.5C Office functions impose loads differently than residential use



Figure B10.5D Office functions impose loads differently than residential use



Figure B30.1 Moss at north roof

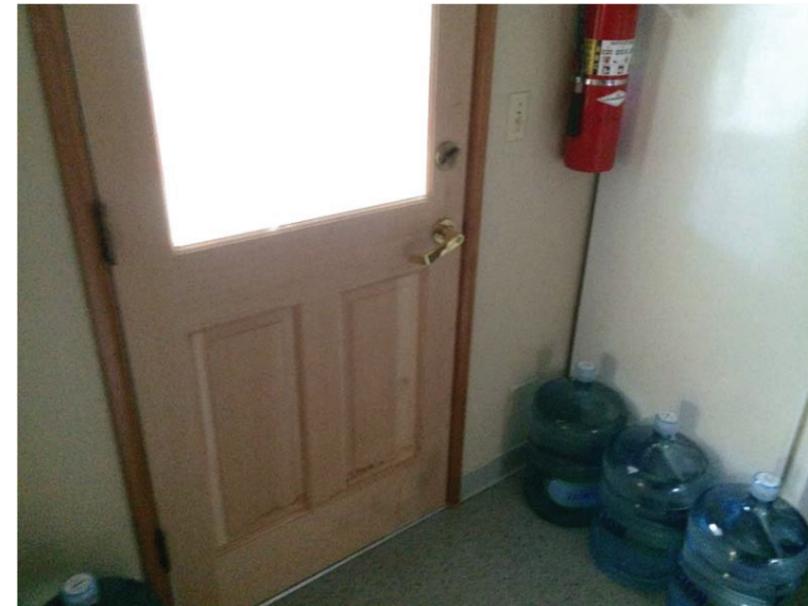


Figure C10.4A Storage of water bottles adjacent to accessible rear entry



Figure C10.4B Accessible restroom conversion from residential

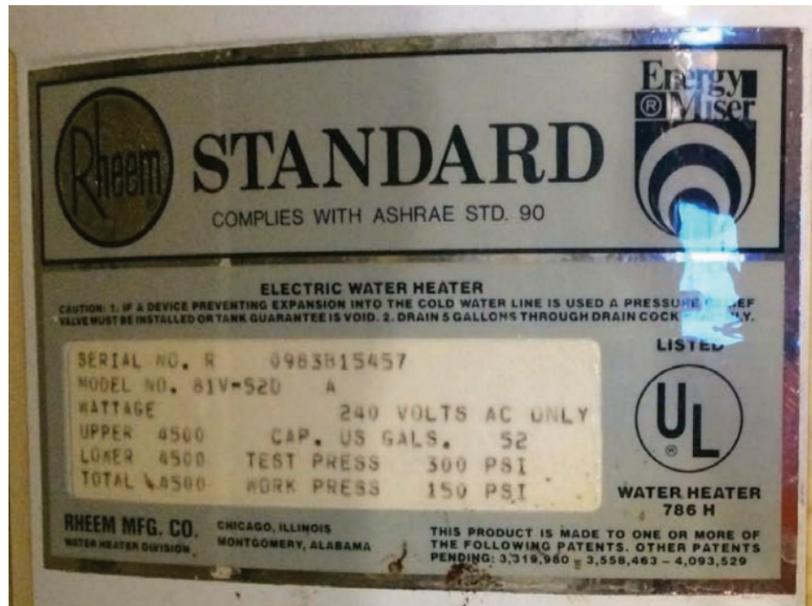


Figure D20.7 Water heater label

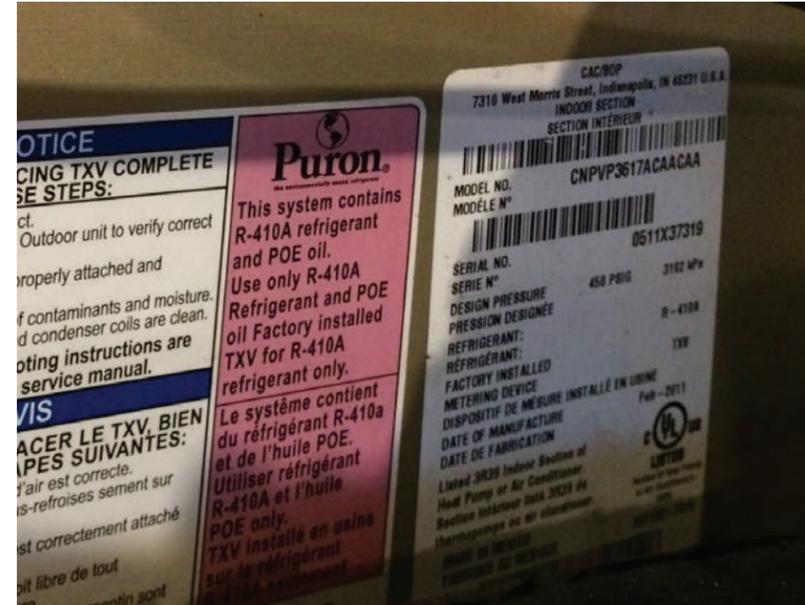


Figure D30.4 Air handler unit label



Figure D30.6 Air handler configuration; access compromised by storage



Figure D50.6 Original electrical panel with push button-type circuit breakers



Figure D60.2 - Local, battery-operated residential type smoke detectors



Figure E10.1 Water heater is not restrained for seismic forces



Figure G20.8 Soil and topping in contact with siding at rear (north)

END OF REPORT

City Offices Building and Tualatin Public Library
18878 Southwest Martinazzi Avenue, Tualatin, OR 97062



Field Review Team:
Michael Thrailkill, AIA CSI – Yost Grube Hall Architecture
Report Date: February 2, 2015 – FINAL



Front Elevation (south) and entry to City Offices



Side Elevation (west)



Side Elevation (northwest)

Date of Field Visit: 6 January 2015 Time of Day: 9:00 am and 2:30 pm
 Weather: Partly sunny with fog, 47°F Site conditions: Inland, suburban, low-rise
 Site Contacts: Sara Singer, City of Tualatin
 Clayton Reynolds, City of Tualatin

General Building Description:

The facility is comprised of one-story structure, housing the Tualatin Public Library and City offices for Legal, Information Services and Community Development. The facility's property is bound by SW Boones Ferry Road to the north, SW Martinazzi Avenue to the west, an newly added inter-block public/commercial circulation route to the south (the front of the building), and an inter-block public/commercial circulation route to the east (the rear of the building). The City offices portion of the building was constructed in 1985 and the Library was added in 2008. The addition of the Library required the demolition of the previous library structure in the same location. While no part of the original library remained in the new construction, significant portions of the City offices portion of the original building were retained and incorporated into the new facility, with renovations to most of those spaces.

The building is a one-story steel frame building. The façade is metal stud-framed wall clad in brick veneer and prefinished metal panel. Orientation is to the south for the entries of both the Library and City offices; no elevator is provided; fire suppression is provided. The building is well maintained and on good condition. This review was done for the entire building.

The latest editions of the following codes were utilized in developing this assessment: Oregon Structural Specialty Code (OSSC), Oregon Mechanical Specialty Code, Oregon Plumbing Specialty Code, Oregon Electrical Specialty Code, Oregon Fire Code, National Fire Protection Association (NFPA) Codes and Standards, and American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) Standard 90.1.

A SUBSTRUCTURE

A10 – FOUNDATIONS (foundations, slab-on-grade, etc.)		
Item		Comments/Findings
A10.1	General condition	<ul style="list-style-type: none"> CIP concrete foundation appeared to be in good shape
Recommendations		
A10.1.1	Monitor concrete foundations for cracking or other signs of settlement	

A20 – SUBGRADE ENCLOSURES (basements, etc)		
Item		Comments/Findings
A20.1	General condition	<ul style="list-style-type: none"> No basement or crawlspace
Recommendations		
A20.1	None	

B SHELL

B10 – SUPERSTRUCTURE (building frame, floors & roofs)		
Item		Comments/Findings
B10.1	Review documents (if available) and note: Structural System, Design Live Loads, Lateral System, and Design Code	<ul style="list-style-type: none"> City Offices (1985): As-built documents indicate that the structural system is brick masonry exterior bearing walls and wood framing on concrete foundation and slab-on-grade; some grouted, large-format cellular brick and steel frame elements are indicated. Roof structure is wood glue-laminated beam and wood joists with plywood roof deck. Canopies are structural steel-framed Library (2008): As-built documents indicate that the structural system is structural steel frame on concrete foundation and slab-on-grade. Roof structure is metal joists and metal roof deck. Canopies are structural steel-framed
B10.2	Visible Gravity System	<ul style="list-style-type: none"> Confirms systems indicated in drawings
B10.3	Visible Lateral System	<ul style="list-style-type: none"> City Offices (1985): As-built documents indicate that lateral system is combination of brick masonry walls, large-format cellular brick walls, and steel frame; while good connection details are indicated, they may not meet Code for current seismic category; efforts may have been made during the

		2008 renovation to improve seismic performance <ul style="list-style-type: none"> Library (2008): As-built documents indicate that lateral system is structural steel frame; good connection details are indicated that probably meet Code for current seismic category due to recent design
B10.4	Building Exterior	<ul style="list-style-type: none"> There was no evidence of rot or movement of exterior walls No evidence of overflow or ponding
B10.5	If building has been remodeled, note the current use as compared to design loads.	<ul style="list-style-type: none"> Functions have not changed from design
Recommendations		
B10.1	None	
B10.2	None	
B10.3.1	Review 2008 renovation details for the existing City Offices portion of the building to determine extent of upgrades to improve seismic performance	
B10.4	None	
B10.5	None	

B20 – EXTERIOR VERTICAL ENCLOSURES (walls, windows, exterior doors, etc.)		
Item		Comments/Findings
B20.1	Type and condition of exterior wall	<ul style="list-style-type: none"> Exterior finishes are brick veneer and metal panels It appears from the as-built drawings that with the 2008 renovation the original exterior insulation finish system (EIFS, aka Dryvit) has been replaced at the City Offices portion of the building with new brick veneer matching the new Library Exterior brick veneer cladding is has been maintained well Exterior metal canopies are painted; paint is showing evidence of aging; may require refinishing in near future
B20.2	Type and condition of window system	<ul style="list-style-type: none"> Exterior windows throughout are commercial aluminum storefront systems with double-pane insulated glazing No evidence of rot or moisture intrusion was observed
B20.3	Other issues	<ul style="list-style-type: none"> None
Recommendations		
B20.1.1	Observe and maintain field-painted finishes at steel canopies; other exterior finishes are long-term life cycle products (brick veneer, metal panel, aluminum storefront,	

		standing seam metal roofing) but this field-painted metal finish may require refinishing as often as once every 5-7 years.
B20.2	None	
B20.3	None	

B30 – EXTERIOR HORIZONTAL ENCLOSURES (roofing, horizontal openings, etc.)		
Item		Comments/Findings
B30.1	Type and condition of roofing system	<ul style="list-style-type: none"> Roof was observed to by single-ply PVC membrane with internal roof drainage; roof was well maintained, clean and debris free; walk surfaces are provided to minimize traffic Exterior metal roof edge, fascia and flashings appeared to be in good condition, Refer to Figure B30.1
B30.2	Other issues	<ul style="list-style-type: none"> Roof drainage is internal; appear to be removing water appropriately (no external signs of overflow were observed) Rooftop drains were observed to be clean and free of debris; refer to Figure B30.2
Recommendations		
B30.1.1	Continue observation and maintenance of roof system.	
B30.2	None	

C INTERIORS

C10 – LIFE SAFETY AND ACCESSIBILITY		
Item		Comments/Findings
C10.1	Integrity of floor separation	<ul style="list-style-type: none"> N/A
C10.2	Adequate fire resistive construction	<ul style="list-style-type: none"> As-built documents indicate that a 1-hour occupancy separation wall was provided during the Library addition in 2008
C10.3	Atrium	<ul style="list-style-type: none"> N/A
C10.4	Building accessibility (ADA)	<ul style="list-style-type: none"> Accessible at front entry and other entry/ egress locations Automatic door operators are provided at entry doors Restrooms are accessible It was observed that piping below sinks have been provided with protective covers
C10.5	Other issues	<ul style="list-style-type: none"> None
Recommendations		
C10.1	None	
C10.2	None	
C10.3	None	

C10.4	None
C10.5	None

C20 – EGRESS		
Item		Comments/Findings
C20.1	Travel distance to exit stair	• N/A
C20.2	Exit stair continuity and integrity	• N/A
C20.3	Exit corridor continuity and integrity	• Continuity adequate; integrity N/A
C20.4	(High Rise) Stairway door operation	• N/A
C20.5	Other issues	• None
Recommendations		
C20.1	None	
C20.2	None	
C20.3	None	
C20.4	None	
C20.5	None	

C30 – INTERIOR FINISHES		
Item		Comments/Findings
C30.1	General type and condition of finishes	<ul style="list-style-type: none"> • Wall finishes throughout both portions of the building are painted gypsum wallboard; some locations in the City Offices have original exposed brick veneer • Floor finishes throughout both portions of the building are a combination of broadloom carpet and carpet tile; flooring at kitchenettes and a portion of the Teen Room is linoleum; flooring in the Lobby is random pattern ceramic tile; all flooring appears to be in good condition • Ceiling finishes are acoustic ceiling tile, with soffits of painted gypsum wallboard • Other interior finishes provided: <ul style="list-style-type: none"> ○ Plastic laminate cabinetry at the kitchenette, with plastic laminate countertops ○ Tackable panel-and-white board presentation surfaces ○ Wood trim throughout ○ Interior wood veneer doors • Refer to Figures C30.1A thru G
C30.2	Locations and cause of water intrusion/ leaks	<ul style="list-style-type: none"> • Only observed evidence of leakage is stained ceiling tile in former Vending Room ceiling (now a cart storage area); Staff noted that

		the leak had been fixed; refer to Figure C30.2
C30.3	Other issues	• None
Recommendations		
C30.1	None	
C30.2	None	
C30.3	None	

D SERVICES

D10 – CONVEYING		
Item		Comments/Findings
D10.1	Overall condition of elevator	• N/A
D10.2	Status of inspections, who maintains the elevator	• N/A
D10.3	Other issues	• None
Recommendations		
D10.1	None	
D10.2	None	
D10.3	None	

D20 - PLUMBING		
Item		Comments/Findings
D20.1	Potable water service	<ul style="list-style-type: none"> • It is not indicated in the drawings what material plumbing piping is installed • Copper water supply line and PVC drain line were observed at one exposed location for water fountain; refer to Figure D20.1/8
D20.2	Distribution piping material	<ul style="list-style-type: none"> • Not observed; staff reported primarily copper, with some PVC extensions
D20.3	Drain and vent system	<ul style="list-style-type: none"> • Not observed; staff reported PVC • Staff noted that the coffee service area had not been in operation because there was not a fat/oils/grease trap (FOG) in-place to meet Code requirements
D20.4	Fixture condition	<ul style="list-style-type: none"> • Kitchenette has stainless steel sink, coffee service, residential dishwasher • Restroom fixtures were replaced in 2008 renovation; accessible where required • Coffee Bar has stainless steel sink, coffee service, commercial dishwasher, other food service equipment and fixtures; current this area is not used for food service due to Code requirements for grease trap, which is not provided; refer to Figure D20.4

D20.5	Water pressure	<ul style="list-style-type: none"> Not observed
D20.6	Storm drain and overflow drains	<ul style="list-style-type: none"> Not observed
D20.7	Water heater system	<ul style="list-style-type: none"> Water heater is located on wooden 'loft' platform in Janitor room; appears to be restrained; maintenance clearances are compromised by storage of materials around the fixture; limited access for maintenance; refer to Figure D20.7 Drawings indicate water heater is electric and provided with 2008 renovation
D20.8	Other issues	<ul style="list-style-type: none"> It was observed that straps of some kind were hung from exposed water supply line within the Book Drop room, at backside of location for water fountain; refer to Figure D20.1/8

Recommendations	
D20.1	None as assumed to meet Code at recent construction (2011)
D20.2	Refer to D20.1
D20.3.1	Consider installation of FOG trap system to meet Code requirements for food service; Installation of FOG trap system is included in the Capital Improvements Plan provided by staff
D20.4	None
D20.5	None
D20.6	None
D20.7	None
D20.8.1	Notify Library or housekeeping staff not to attach any devices to plumbing lines; consider placement of signage to this effect

D30 - HVAC		
Item		Comments/Findings
D30.1	Fire smoke dampers	<ul style="list-style-type: none"> None
D30.2	Duct smoke detectors	<ul style="list-style-type: none"> None
D30.3	Smoke control (high-rise/atrium)	<ul style="list-style-type: none"> N/A
D30.4	Air Handler Unit	<ul style="list-style-type: none"> Main units are located at rooftop, relatively above the spaces served; all are gas-fired Gas lines to units are unpainted and shows signs of corrosion; refer to Figure D30.4A Drawings indicate and staff confirmed that all units were provided new for 2008 renovation and expansion, except one unit (RTU-202) was relocated, as it had been recently replaced on the original building Additional space conditioning is provided by remote split systems at south-facing offices in the original City Offices portion of

		the building; installed prior to 2008 renovation/ expansion; refer to Figure D30.4B
D30.5	Air filtration	<ul style="list-style-type: none"> Not observed
D30.6	Equipment accessibility	<ul style="list-style-type: none"> At rooftop via internal ladder from IT Room Equipment clearances appeared to be adequate
D30.7	Drain pans and condensate traps	<ul style="list-style-type: none"> Drain pans were not observed Condensate drains to rooftop through PVC pipe
D30.8	Fan coil drain pans	<ul style="list-style-type: none"> Not observed
D30.9	Mold issues	<ul style="list-style-type: none"> No evidence seen
D30.10	Air distribution / ventilation	<ul style="list-style-type: none"> Supply is ducted through plenum Return is open plenum at acoustic ceiling areas; ducted return at GWB ceilings Staff noted that air supply/ quality at Community Room is sometimes not adequate when the room is used by large groups or for meetings
D30.11	Plenum return (rated materials)	<ul style="list-style-type: none"> Not observed
D30.12	OSA/ EXA separation	<ul style="list-style-type: none"> OSA/ EXA separation is adequate; outside air provided at rooftop unit Windows are operable in the Library via building controls system Windows are not operable in the City Offices
D30.13	Restroom ventilation	<ul style="list-style-type: none"> Two rooftop-mounted electric exhaust fans Controls not observed; assumed always on
D30.14	Custodial ventilation	<ul style="list-style-type: none"> Rooftop-mounted electric exhaust fans (same unit as for City Offices Restrooms) Controls not observed; assumed always on
D30.15	Kitchen ventilation	<ul style="list-style-type: none"> Kitchenette within Library Work Room does not have ventilation Kitchenette within Library between Children's Room and Community Room does not have ventilation Coffee Bar in Lobby of Library is ventilated by rooftop-mounted electric exhaust fan Kitchenette within City Offices does not have ventilation
D30.16	Duct Insulation (vapor barrier)	<ul style="list-style-type: none"> Not observed
D30.17	Duct materials	<ul style="list-style-type: none"> Not observed
D30.18	HVAC controls	<ul style="list-style-type: none"> Not observed
D30.19	Generator exhaust radiator intake / exhaust	<ul style="list-style-type: none"> N/A

D30.20	Cooling system	<ul style="list-style-type: none"> Rooftop unit provides cooling as well; refer to D30.4
D30.21	Water cooled / air cooled chiller	<ul style="list-style-type: none"> N/A
D30.22	Refrigerant monitoring in place	<ul style="list-style-type: none"> Staff reported that refrigerant monitoring is not provided
D30.23	Exhaust fans in place	<ul style="list-style-type: none"> Rooftop exhaust fan units provided for Restrooms and Janitor room Not provided at kitchenettes
D30.24	Heating System	<ul style="list-style-type: none"> Rooftop unit provides heating; refer to D30.4 Supply registers were providing conditioned air at between 71 and 74 degrees F.
D30.25	Computer Room units	<ul style="list-style-type: none"> No separate unit provided Supply registers were providing conditioned air at 56 degrees F.
D30.26	Other issues	<ul style="list-style-type: none"> Staff noted a hot/cool balancing issue between south and north open spaces

Recommendations

D30.1	None
D30.2	None
D30.3	None
D30.4.1	Consider cleaning gas pipe well, removing corrosion and painting piping with appropriate exterior coating.
D30.5.1	Confirm condition and regular maintenance
D30.6	None
D30.7	None
D30.8	None
D30.9	None
D30.10	None
D30.11	None
D30.12	None
D30.13.1	Review for controls; if always on, consider occupancy sensor with time delay for energy savings
D30.14.1	Refer to D30.13
D30.15.1	Review conditions with user group/ staff for adverse odors; consider additional exhaust options if odors are an issue
D30.16	None
D30.17	None
D30.18	None
D30.19	None
D30.20	None
D30.21	None
D30.22	None
D30.23.1	Determine with staff/ users whether there are ventilation/ odor issues due to the kitchenette, and consider addition of local exhaust fan if determined to be needed

D30.24	None
D30.25	None
D30.26.1	Inquire further regarding hot/cool balancing issues and adjust system controls or dampers/ louvers as necessary

D40 – FIRE PROTECTION

Item	Comments/Findings	
D40.1	Fire suppression system	<ul style="list-style-type: none"> Provided
D40.2	Water service, backflow prevention	<ul style="list-style-type: none"> Provided
D40.3	System pressure	<ul style="list-style-type: none"> ~75 psi
D40.4	Standpipes	<ul style="list-style-type: none"> N/A
D40.5	Fire pump	<ul style="list-style-type: none"> Not provided; relying on water pressure or FDC
D40.6	Fire sprinkler pipe condition	<ul style="list-style-type: none"> Not observed above acoustic ceiling Where observed at ceiling-less areas, appeared to be in good condition
D40.7	FDC	<ul style="list-style-type: none"> At southwest side of building, near Riser room
D40.8	Fire sprinkler zoning	<ul style="list-style-type: none"> Single zone
D40.9	Flow monitoring and alarm	<ul style="list-style-type: none"> Provided; electric fire alarm bell
D40.10	On-site water source	<ul style="list-style-type: none"> Not provided
D40.11	Test records	<ul style="list-style-type: none"> Not observed; Staff noted that fire suppression system and backflow valve are tested annually and records are available
D40.12	Condition of fire hose or fire extinguishers	<ul style="list-style-type: none"> Fire hose is not provided (not required by Code; not encouraged by Fire Dept.) Fire extinguishers provided; locations appeared to be appropriate; observed to have up-to-date inspection
D40.13	Other issues	<ul style="list-style-type: none"> None

Recommendations

D40.1	None
D40.2	None
D40.3	None
D40.4	None
D40.5	None
D40.6	None
D40.7	None
D40.8	None
D40.9	None
D40.10	None
D40.11	None
D40.12	None
D40.13	None

D50 – ELECTRICAL (Part I)		
Item		Comments/Findings
D50.1	Grounding leakage	<ul style="list-style-type: none"> Not observed Drawings indicate electrical requirements
D50.2	Equipment grounding	<ul style="list-style-type: none"> Building grounding in Electrical/ IDF rooms Drawings indicate electrical requirements
D50.3	Lightning protection	<ul style="list-style-type: none"> Not provided
D50.4	Overcurrent protection	<ul style="list-style-type: none"> Not observed Drawings indicate electrical requirements
D50.5	Ground fault interrupt/residual current devices	<ul style="list-style-type: none"> Provided at Kitchenettes Provided at Restrooms; accessory to Training Room and Municipal Court shared work space areas (not located in the space)
D50.6	Rating of Panels	<ul style="list-style-type: none"> Panel ratings not observed Drawings indicate electrical information
D50.7	Peak load	<ul style="list-style-type: none"> Drawings indicate electrical information
D50.8	Overloading/overheating	<ul style="list-style-type: none"> Not apparent from temperature readings at main electrical gear and various power and lighting control panels observed
D50.9	Conductor insulation	<ul style="list-style-type: none"> Not observed, but assumed that 2008 installation meets current Code At 1981
D50.10	Conductor material	<ul style="list-style-type: none"> Not observed, but assumed that 2008 installation meets current Code
D50.11	Main distribution equipment	<ul style="list-style-type: none"> Main distribution equipment serves both portions of the facility from Electrical room; refer to Figure D50.11 Main electrical equipment did not show signs of overheating based on temperature readings at faces of equipment and switches Drawings indicate electrical equipment information
D50.12	Equipment clearance	<ul style="list-style-type: none"> Clearances appeared to be appropriate
D50.13	Disconnects	<ul style="list-style-type: none"> Electrical panels did not show signs of overheating based on temperature readings at faces of panels; panels were not opened
D50.14	Transformers	<ul style="list-style-type: none"> Located outside building
D50.15	Data Center/UPS	<ul style="list-style-type: none"> Server racks are located in IDF room Equipment appeared to be connected properly Server rack electrical components did not show signs of overheating based on temperature readings

D50.16	Wiring plenum and fire resistive wall penetrations	<ul style="list-style-type: none"> Not observed above acoustic ceiling
D50.17	Receptacles/Sockets	<ul style="list-style-type: none"> Receptacles were observed be grounded devices It was not confirmed that grounded receptacles are actually connected to earth
D50.18	Lighting	<ul style="list-style-type: none"> Suspended up/down, 4-foot fluorescent tube fixtures; joined in 8-foot lengths at ACT ceiling at Training Room and Municipal Court shared work space areas ACT recessed 2x4 fluorescent fixtures at Records room Wall-mounted up/down, 4-foot fluorescent tube fixtures; joined in 8-foot lengths at GWB skylight well in Lobby Recessed can fixtures with compact fluorescent lamps throughout
D50.19	Lighting Controls	<ul style="list-style-type: none"> Controlled by building automation system from lighting control panels at Hall between Children's Room and Community Room in Library; refer to Figure D50.19 Occupancy sensor switching is indicated in the Drawings for many areas
D50.20	Back-up power	<ul style="list-style-type: none"> There are batteries, inverter and a transfer switch at the Electrical/ IDF room Drawings indicated that this back-up power is wired to one of the lighting control panels, to "Stack Lighting" and to egress signage
D50.21	Generator	<ul style="list-style-type: none"> N/A
D50.22	Battery packs	<ul style="list-style-type: none"> Refer to D50.20
D50.23	Inverter	<ul style="list-style-type: none"> Refer to D50.20
D50.24	Emergency wiring separated from normal building wiring	<ul style="list-style-type: none"> Emergency lighting provided Drawings indicate emergency circuits Note back-up power at Stacks per D50.20
D50.25	Emergency power system loads	<ul style="list-style-type: none"> Drawings indicate electrical information
D50.26	Egress path lighting	<ul style="list-style-type: none"> Indicated in plans; appears to be appropriately placed for Code-required coverage
D50.27	Exit signage	<ul style="list-style-type: none"> Provided and appropriately located; refer to Figure D50.27 for typical Refer to D50.20 for info about back-up power to egress lighting
D50.28	Other issues	<ul style="list-style-type: none"> None

Recommendations	
D50.1.1	Consider testing for grounding leakage.
D50.2.1	Review requirements for necessary equipment to ensure proper grounding
D50.3	None
D50.4	None
D50.5	None
D50.6	None
D50.7.1	Review peak load requirements and confirm panels meet needs.
D50.8	None
D50.9	None anticipated.
D50.10	Refer to D50.9.
D50.11	None
D50.12	None
D50.13	None
D50.14	None
D50.15	None
D50.16	None
D50.17.1	Confirm receptacles are connected to ground.
D50.18	None
D50.19	None
D50.20.1	Ensure regular testing and maintenance regimen for batteries and inverter
D50.21	None
D50.22	Refer to D50.20
D50.23	Refer to D50.20
D50.24	Refer to D50.20
D50.25	None
D50.26	None
D50.27	Refer to D50.20
D50.28	None

D60 – FIRE DETECTION AND ALARM		
Item		Comments/Findings
D60.1	Fire alarm control panel	<ul style="list-style-type: none"> Main control panel is located in the IDF room; refer to Figure D60.1 A remote annunciator is provided at the Library Lobby
D60.2	Smoke detectors	<ul style="list-style-type: none"> Smoke and heat detection provided throughout the building Duct detection is provided at rooftop units
D60.3	Pull stations	<ul style="list-style-type: none"> Provided appropriately; refer to Figure D60.3
D60.4	Annunciation	<ul style="list-style-type: none"> Provided
D60.5	System is zoned or addressable	<ul style="list-style-type: none"> Yes
D60.6	System monitoring	<ul style="list-style-type: none"> Not apparent on observation; presumed to be monitored via main control panel at IDF room; remote annunciator panel is located at Library Lobby

D60.7	Elevator recall	<ul style="list-style-type: none"> N/A
D60.8	Other issues	<ul style="list-style-type: none"> None

Recommendations	
D60.1	None
D60.2	None
D60.3	None
D60.4	None
D60.5	None
D60.6.1	Confirm remote system monitoring
D60.7	None
D60.8	None

E EQUIPMENT AND FURNISHINGS

E10 - EQUIPMENT		
Item		Comments/Findings
E10.1	Equipment anchorage	<ul style="list-style-type: none"> Audio visual, server, and data/ telecomm equipment is rack-mounted and appears to be properly secured
E10.2	Other issues	<ul style="list-style-type: none"> None
Recommendations		
E10.1	None	
E10.2	None	

G SITEWORK

G20 – SITE IMPROVEMENTS		
Item		Comments/Findings
G20.1	Building location prone to flooding	<ul style="list-style-type: none"> Yes Most recent high water event was 1996 Staff noted that flood panels are located in storage at the building and can be installed at building door openings during flood events Storage of zoning and building permit historical materials in Vault room within City Offices building may be prone to damage (room is not actually a vault; appears to be a room with 1-hour wall construction and 60-minute door; it was not confirmed that walls went to underside of structure, above acoustic ceiling)
G20.2	Building accessibility (ADA)	<ul style="list-style-type: none"> Site is accessible

		<ul style="list-style-type: none"> At rear (north) of building: Accessible parking is well delineated; direct path to entry is provided without traversing traffic lanes; dedicated van parking is provided At front (south) of building: It is assumed similar accessibility will be provided in new parking lot currently under construction (this was provided in the previous (2008) parking lot)
G20.3	Site Security	<ul style="list-style-type: none"> None for site perimeter Security alarm is provided at both Library and City Offices; refer to Figures G20.3A and G20.3B
G20.4	Hurricane resistance	<ul style="list-style-type: none"> N/A
G20.5	Access control	<ul style="list-style-type: none"> Keyed lock access at exterior doors After-hours access is controlled key pad entry control system Security system is provided; refer to G20.3
G20.6	Adjacent property risks	<ul style="list-style-type: none"> None
G20.7	Separation / opening protection to adjacent property	<ul style="list-style-type: none"> Distance is adequate for Code-required separation 1-hour rated Occupancy Separation wall between Library and City Offices is appropriate
G20.8	Drainage issues	<ul style="list-style-type: none"> No issues were observed
G20.9	Other issues	<ul style="list-style-type: none"> Library windows have experienced BB gun damage in past, requiring replacement
Recommendations		
G20.1.1	None beyond removal of important materials from this site or elevation at appropriate height above floor/ flood level due to flood risk. Ensure building staff are aware of flood control panels, storage location, condition of this equipment, protocol/ plan for implementation, and procedures for proper installation.	
G20.2	None	
G20.3	None	
G20.4	None	
G20.5	None	
G20.6	None	
G20.7	None	
G20.8	None	
G20.9	None	

G30 – LIQUID AND GAS SITE UTILITIES	
Item	Comments/Findings

G30.1	Note any special amenities (irrigation systems, underground storage tanks, fountains, etc) and their condition	<ul style="list-style-type: none"> Irrigation system is provided; control is located in Riser Room
Recommendations		
G30.1	None	

G40 – ELECTRICAL SITE IMPROVEMENTS		
Item		Comments/Findings
G40.1	Site electrical services	<ul style="list-style-type: none"> Operation of site lighting was not observed due to time of on-site review
Recommendations		
G40.1.1	Review site lighting functionality when illuminated	

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- Figure B30.2 Typical roof drain and overflow drain conditions
- Figure C30.1A Interior finishes at Library entry lobby
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- Figure C30.1C Interior finishes at main reading room within Library
- Figure C30.1D Interior finishes at children's room within Library
- Figure C30.1E Interior finishes teen room within Library
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- Figure C30.1G Interior finishes at kitchenette within Library
- Figure C30.2 Evidence of leak visible in acoustic ceiling tile in Library
- Figure D20.1/8 Copper water supply and PVC sanitary lines; note straps hung from plumbing
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- Figure G20.3A Security alarm remote keypad at Library Lobby adjacent to Electrical Room door
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Figure B30.1 Rooftop conditions observed



Figure B30.2 Typical roof drain and overflow drain conditions



Figure C30.1A Interior finishes at Library entry lobby



Figure C30.1B Interior finishes 'fire pit' in reading room within Library



Figure C30.1C Interior finishes at main reading room within Library



Figure C30.1D Interior finishes at children's room within Library



Figure C30.1E Interior finishes teen room within Library



Figure C30.1F Interior finishes in back-of-house space within Library



Figure C30.1G Interior finishes at kitchenette within Library



Figure C30.2 Evidence of leak visible in acoustic ceiling tile in Library



Figure D20.1/8 Copper water supply and PVC sanitary lines; note straps hung from plumbing

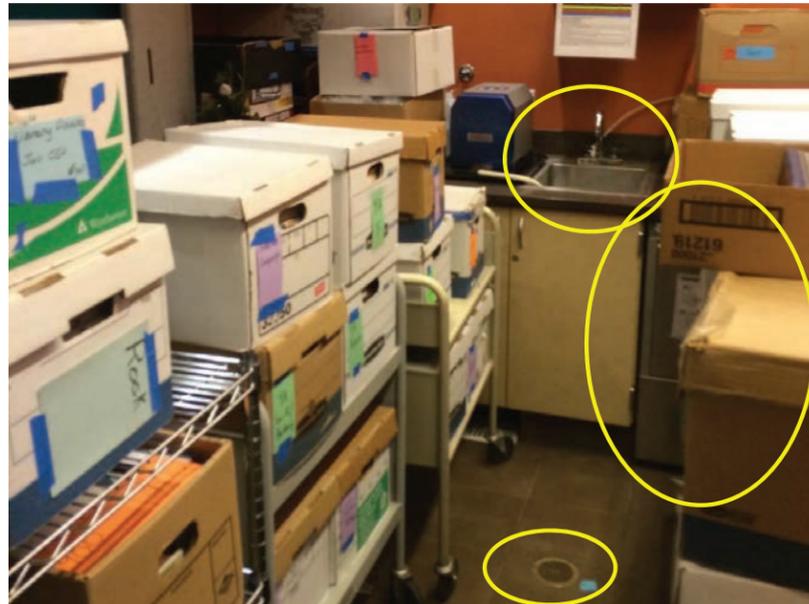


Figure D20.4 Disused sink, commercial dishwasher, other food service equipment at Coffee Bar



Figure D20.7 Water heater on wooden platform in Janitor room; appears to be seismically restrained; maintenance compromised by storage and limited access



Figure D30.4A Rooftop mechanical units are gas-fired; typical gas line is unpainted pipe, corroded



Figure D30.4B Remote split systems provided at south-facing offices in original portion of building



Figure D30.8 HVAC controls at Library

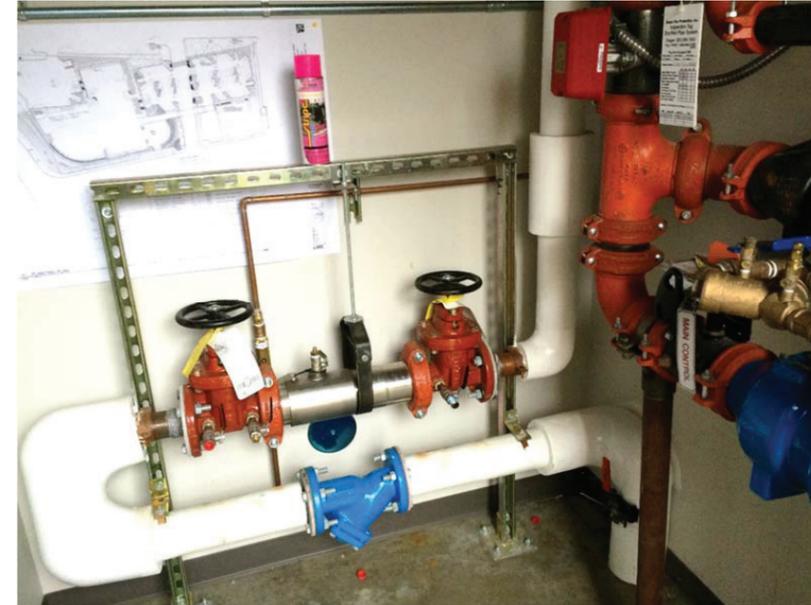


Figure D40.1 Fire suppression system at Riser Room



Figure D40.12 Fire alarm remote annunciator at Lobby



Figure D50.11 Main distribution equipment serves both portions of the facility from Electrical room



Figure D50.19 Lighting control panels at Hall in Library



Figure D50.27 Typical exit signage is appropriately placed



Figure D60.1 Main fire alarm panel in IDF room adjacent to Library Lobby



Figure D60.3 Typical fire alarm pull at building entrance/ egress doors



Figure G20.3A Security alarm remote keypad at Library Lobby adjacent to Electrical Room door



Figure G20.3B Security alarm remote keypad at City offices Lobby adjacent to door from City Offices Lobby to Library Work Room

END OF REPORT

Council Meeting Space at the Juanita Pohl Senior Center

8513 Southwest Tualatin Road, Tualatin, OR 97062



Field Review Team:
Michael Thrailkill, AIA CSI – Yost Grube Hall Architecture

Report Date: February 2, 2015 – FINAL



Front Entry (west)



Side Elevation (north)



Rear Elevation (east)



Side Elevation (south)

Date of Field Visit: 6 January 2015

Time of Day: 10:30 am and 3:45 pm

Weather: Partly sunny with fog, 47°F

Site conditions: Inland, suburban, low-rise

Site Contacts: Sara Singer, City of Tualatin

Clayton Reynolds, City of Tualatin

General Building Description:

The facility is a single-story structure, purpose-built senior center. The facility's property is bound by SW Boones Ferry Road to the south, the Tualatin River to the north, another City building (former residence) to the west, and an empty lot to the east. The building constructed in 1982. An expansion in 1990 included the Activity Area at the northeast corner currently used as the City Council meeting space, and this area was further expanded and renovated in 2011. This assessment is focused on only that area of the building currently hosting City Council meetings in the Activity Room space.

The building is a 1-story wood frame building on concrete foundation and slab-on-grade. The façade is a wood-framed wall clad in wood tongue-and-groove vertical flat boards. Main entry orientation is to the west; 1 floor; no elevator; no fire suppression, adjacent street is Southwest Tualatin Road, adjacent buildings are other City of Tualatin facilities. General condition is good and well maintained. Location of the Activity Room space is the northeast corner of the building.

Due to the demolition of the former City offices, the City relocated the City Council meeting space to this building, utilizing the Activity Area on a regular basis. Restrooms are outside of the area used for the City Council meetings, and have been renovated to meet ADA; the main entry is accessible entry as are several egress locations in the rear. A garage at the Lafky House, adjacent to the west, is used for storage of furniture and equipment for City Council meetings held in this building.

The latest editions of the following codes were utilized in developing this assessment: Oregon Structural Specialty Code (OSSC), Oregon Mechanical Specialty Code, Oregon Plumbing Specialty Code, Oregon Electrical Specialty Code, Oregon Fire Code, National Fire Protection Association (NFPA) Codes and Standards, and American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) Standard 90.1.

A SUBSTRUCTURE

A10 – FOUNDATIONS (foundations, slab-on-grade, etc.)		
Item		Comments/Findings
A10.1	General condition	<ul style="list-style-type: none"> CIP concrete foundation appeared to be in good shape
Recommendations		
A10.1.1 Monitor concrete foundations for cracking or other signs of settlement		

A20 – SUBGRADE ENCLOSURES (basements, etc)		
Item		Comments/Findings
A20.1	General condition	<ul style="list-style-type: none"> No basement or crawlspace
Recommendations		
A20.1 None		

B SHELL

B10 – SUPERSTRUCTURE (building frame, floors & roofs)		
Item		Comments/Findings
B10.1	Review documents (if available) and note: Structural System, Design Live Loads, Lateral System, and Design Code	<ul style="list-style-type: none"> As-built documents indicate that the structural system is wood framing over cast-in-place concrete footings and slab-on-grade
B10.2	Visible Gravity System	<ul style="list-style-type: none"> Confirms wood-framing indicated in drawings
B10.3	Visible Lateral System	<ul style="list-style-type: none"> Drawings indicate that lateral system is wood posts and wall framing with Simpson connectors and sheathing. Drawings indicate what appear to be adequate details of connections to the foundations; however may not meet current Code
B10.4	Building Exterior	<ul style="list-style-type: none"> There was no evidence of rot or movement of exterior framed walls Collector boxes and downspouts appear to be in good shape and well maintained
B10.5	If building has been remodeled, note the current use as compared to design loads.	<ul style="list-style-type: none"> Original function was as senior center with activity and meeting spaces; current function as City Council meeting space aligns with original occupancy Building had an addition in 1990 which included the Activity Room used for City Council meeting space Building had another addition in 2011 which included renovation and expansion of the

		Activity Room used for City Council meeting space
Recommendations		
B10.1	None	
B10.2	None	
B10.3	None	
B10.4	None	
B10.5	None	

B20 – EXTERIOR VERTICAL ENCLOSURES (walls, windows, exterior doors, etc.)		
Item		Comments/Findings
B20.1	Type and condition of exterior wall	<ul style="list-style-type: none"> Exterior wood board cladding is painted and has been maintained well Same exterior cladding is present at the additions from 1990 and 2011 as the original building
B20.2	Type and condition of window system	<ul style="list-style-type: none"> Additions from 1990 and 2011 have commercial aluminum storefront systems with double-pane insulated glazing No evidence of rot or moisture intrusion was observed
B20.3	Other issues	<ul style="list-style-type: none"> The building lacks roof overhangs, which for this climate would be more appropriate when using wood siding Scuppers, collector boxes and downspouts appear to be clean and removing water appropriately; downspouts are connected to stormwater leaders with cleanouts
Recommendations		
B20.1	None	
B20.2	None	
B20.3	None	

B30 – EXTERIOR HORIZONTAL ENCLOSURES (roofing, horizontal openings, etc.)		
Item		Comments/Findings
B30.1	Type and condition of roofing system	<ul style="list-style-type: none"> Roof access was not available, but in photo by staff, roofing appears to be built-up bituminous system with granular cap sheet In photo by staff, roofing appears to be clean and in good condition; Refer to Figure B30.1 Staff note: Hot-mopped system; two layers; scheduled for replacement in 4 years
B30.2	Other issues	<ul style="list-style-type: none"> None
Recommendations		
B30.1.1 Confirm age and life-span remaining for existing roofing. Replacement roofing with similar system has been proposed in the City's Capital Improvement Plan.		

B30.2	None
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C INTERIORS

C10 – LIFE SAFETY AND ACCESSIBILITY		
Item		Comments/Findings
C10.1	Integrity of floor separation	• N/A
C10.2	Adequate fire resistive construction	• N/A
C10.3	Atrium	• N/A
C10.4	Building accessibility (ADA)	<ul style="list-style-type: none"> • Accessible at front entry and rear egress locations • Automatic door operators are provided at front entry vestibule doors • Men’s Restroom observed; Refer to Figure C10.4: <ul style="list-style-type: none"> ○ Toilet is accessible ○ Urinal is floor recess-type and not accessible due to roll-in hazard ○ Sinks appear to be accessible except that leg protection is not provided at supply and drain lines below counter
C10.5	Other issues	• None
Recommendations		
C10.1	None	
C10.2	None	
C10.3	None	
C10.4.1	Provide scald protection shielding at restroom sink drains.	
C10.4.2	Replace existing urinals with accessible versions.	
C10.5	None	

C20 –EGRESS		
Item		Comments/Findings
C20.1	Travel distance to exit stair	• N/A
C20.2	Exit stair continuity and integrity	• N/A
C20.3	Exit corridor continuity and integrity	• Continuity adequate; integrity N/A
C20.4	(High Rise) Stairway door operation	• N/A
C20.5	Other issues	• None
Recommendations		
C20.1	None	
C20.2	None	
C20.3	None	
C20.4	None	
C20.5	None	

C30 – INTERIOR FINISHES		
Item		Comments/Findings
C30.1	General type and condition of finishes	<ul style="list-style-type: none"> • Wall finishes in Activity Room space are painted gypsum wallboard; movable wall panels with fabric-faced finish are used for sound control and to enclose the space for meeting activities • Floor finishes in Activity Room space are oak wood parquet flooring with clear finish; all flooring appears to be in good condition • Ceiling finishes are acoustic ceiling tile, with soffits of painted gypsum wallboard • Plastic laminate cabinetry and interior wood veneer doors are provided in the space
C30.2	Locations and cause of water intrusion/ leaks	• None were observed
C30.3	Other issues	• None
Recommendations		
C30.1	None	
C30.2	None	
C30.3	None	

D SERVICES

D10 – CONVEYING		
Item		Comments/Findings
D10.1	Overall condition of elevator	• N/A
D10.2	Status of inspections, who maintains the elevator	• N/A
D10.3	Other issues	• None
Recommendations		
D10.1	None	
D10.2	None	
D10.3	None	

D20 - PLUMBING		
Item		Comments/Findings
D20.1	Potable water service	• It is not indicated in the drawings what material plumbing piping is
D20.2	Distribution piping material	• Not known
D20.3	Drain and vent system	• Not known
D20.4	Fixture condition	<ul style="list-style-type: none"> • Accessory to Activity Room (not located in the space) • Restrooms have original porcelain fixtures; good condition • Refer to C10.4 for accessibility

D20.5	Water pressure	<ul style="list-style-type: none"> Not observed
D20.6	Storm drain and overflow drains	<ul style="list-style-type: none"> Not observed
D20.7	Water heater system	<ul style="list-style-type: none"> Accessory to Activity Room (not located in the space) Not observed
D20.8	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D20.1.1	Consider replacement of original if PVC or galvanized steel piping with copper or PEX plumbing lines	
D20.2.1	Refer to D20.1	
D20.3	None	
D20.4	None	
D20.5	None	
D20.6	None	
D20.7	None	

D30 - HVAC		
Item		Comments/Findings
D30.1	Fire smoke dampers	<ul style="list-style-type: none"> None
D30.2	Duct smoke detectors	<ul style="list-style-type: none"> None
D30.3	Smoke control (high-rise/atrium)	<ul style="list-style-type: none"> N/A
D30.4	Air Handler Unit	<ul style="list-style-type: none"> Unit serving the Activity Room space is located at rooftop above the space Carrier-brand gas-fired 7.5 ton rooftop unit installed in 2011 (refer to Figure D30.4)
D30.5	Air filtration	<ul style="list-style-type: none"> Not observed
D30.6	Equipment accessibility	<ul style="list-style-type: none"> At rooftop; good clearances
D30.7	Drain pans and condensate traps	<ul style="list-style-type: none"> Condensate drains to rooftop adjacent
D30.8	Fan coil drain pans	<ul style="list-style-type: none"> Not observed; presumed to be same as at D30.7
D30.9	Mold issues	<ul style="list-style-type: none"> Not observed
D30.10	Air distribution / ventilation	<ul style="list-style-type: none"> Supply is ducted through plenum Return is open plenum
D30.11	Plenum return (rated materials)	<ul style="list-style-type: none"> None visible
D30.12	OSA/ EXA separation	<ul style="list-style-type: none"> Outside air provision is made at the rooftop unit Windows are not operable
D30.13	Restroom ventilation	<ul style="list-style-type: none"> Accessory to Activity Room (not located in the space) Electric recessed ceiling-mounted fans Controls not observed
D30.14	Custodial ventilation	<ul style="list-style-type: none"> N/A
D30.15	Kitchen ventilation	<ul style="list-style-type: none"> Not observed; accessory to Activity Room (not located in the space)
D30.16	Duct Insulation (vapor barrier)	<ul style="list-style-type: none"> Not observed

D30.17	Duct materials	<ul style="list-style-type: none"> Not observed
D30.18	HVAC controls	<ul style="list-style-type: none"> Programmable thermostat is located in the space; Honeywell 4-mode/ 7-day model
D30.19	Generator exhaust radiator intake / exhaust	<ul style="list-style-type: none"> N/A
D30.20	Cooling system	<ul style="list-style-type: none"> Rooftop unit provides cooling as well; refer to D30.4
D30.21	Water cooled / air cooled chiller	<ul style="list-style-type: none"> N/A
D30.22	Refrigerant monitoring in place	<ul style="list-style-type: none"> Not known
D30.23	Exhaust fans in place	<ul style="list-style-type: none"> At restrooms; presumed to be at kitchen; accessory to Activity Room (not located in the space)
D30.24	Heating System	<ul style="list-style-type: none"> Rooftop unit provides heating; refer to D30.4 Supply registers were providing conditioned air at between 69 and 72 degrees F.
D30.25	Computer Room units	<ul style="list-style-type: none"> N/A
D30.26	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D30.1	None	
D30.2	None	
D30.3	None	
D30.4	None	
D30.5.1	Confirm condition and regular maintenance	
D30.6	None	
D30.7	None	
D30.8	None	
D30.9	None	
D30.10	None	
D30.11	None	
D30.12	None	
D30.13	None	
D30.14	None	
D30.15	None	
D30.16	None	
D30.17	None	
D30.18.1	Confirm set-up of the programmable thermostat to take advantage of ability to provide automatic, time- and day-of-week-based control of the HVAC system	
D30.19	None	
D30.20	None	
D30.21	None	
D30.22	None	
D30.23	None	
D30.24	None	
D30.25	None	

D30.26	None
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D40 – FIRE PROTECTION

Item	Comments/Findings
D40.1	Fire suppression system • None
D40.2	Water service, backflow prevention • N/A
D40.3	System pressure • N/A
D40.4	Standpipes • N/A
D40.5	Fire pump • N/A
D40.6	Fire sprinkler pipe condition • N/A
D40.7	FDC • N/A
D40.8	Fire sprinkler zoning • N/A
D40.9	Flow monitoring and alarm • N/A
D40.10	On-site water source • N/A
D40.11	Test records • N/A
D40.12	Condition of fire hose or fire extinguishers • Fire hose is not provided (not required by Code; not encouraged by Fire Dept.) • Fire extinguishers is located in space, adjacent to rear egress; observed to have up-to-date inspection
D40.13	Other issues • None

Recommendations

D40.1	None
D40.2	None
D40.3	None
D40.4	None
D40.5	None
D40.6	None
D40.7	None
D40.8	None
D40.9	None
D40.10	None
D40.11	None
D40.12	None

D50 – ELECTRICAL (Part I)

Item	Comments/Findings
D50.1	Grounding leakage • Not observed
D50.2	Equipment grounding • Not observed
D50.3	Lightning protection • None
D50.4	Overcurrent protection • None
D50.5	Ground fault interrupt/residual current devices • Not observed; would be accessory to Activity Room (not located in the space)
D50.6	Rating of Panels • Panel not observed; would be accessory to Activity Room (not located in the space)

D50.7	Peak load	• Not known
D50.8	Overloading/overheating	• Not observed
D50.9	Conductor insulation	• Not observed, but assumed that 1990 installation meets current Code
D50.10	Conductor material	• Not observed, but assumed that 1990 installation meets current Code
D50.11	Main distribution equipment	• Not observed
D50.12	Equipment clearance	• Good at audio-visual equipment in storage room; other equipment not observed
D50.13	Disconnects	• Not observed
D50.14	Transformers	• Not observed
D50.15	Data Center/UPS	• None
D50.16	Wiring plenum and fire resistive wall penetrations	• None
D50.17	Receptacles/Sockets	• Receptacles were observed be grounded devices • It was not confirmed that grounded receptacles are actually connected to earth
D50.18	Lighting	• Original 2 x 4-foot fluorescent tube fixtures at ACT ceiling
D50.19	Lighting Controls	• Switched at walls
D50.20	Back-up power	• None
D50.21	Generator	• None
D50.22	Battery packs	• None
D50.23	Inverter	• None
D50.24	Emergency wiring separated from normal building wiring	• None
D50.25	Emergency power system loads	• None
D50.26	Egress path lighting	• Indicated in plans; appears to be appropriately placed for Code-required coverage
D50.27	Exit signage	• Provided and appropriately located
D50.28	Other issues	• None

Recommendations

D50.1.1	Consider testing for grounding leakage.
D50.2.1	Review requirements for necessary equipment to ensure proper grounding
D50.3	None
D50.4	None
D50.5	None
D50.6	None
D50.7.1	Assess peak load requirements and confirm panel meets needs.
D50.8	None
D50.9	None anticipated.
D50.10	Refer to D50.9.
D50.11	None
D50.12	None

D50.13	None
D50.14	None
D50.15	None
D50.16	None
D50.17.1	Confirm receptacles are grounded.
D50.18	None
D50.19.1	Consider replacement of on-off switches with occupancy switches to save energy.
D50.20	None
D50.21	None
D50.22	None
D50.23	None
D50.24	None
D50.25	None
D50.26	None
D50.27	None
D50.28	None

D60 – FIRE DETECTION AND ALARM		
Item	Comments/Findings	
D60.1	Fire alarm control panel	<ul style="list-style-type: none"> • Provided; accessory to Activity Room (not located in the space)
D60.2	Smoke detectors	<ul style="list-style-type: none"> • Smoke and heat detection provided
D60.3	Pull stations	<ul style="list-style-type: none"> • Provided appropriately
D60.4	Annunciation	<ul style="list-style-type: none"> • Provided
D60.5	System is zoned or addressable	<ul style="list-style-type: none"> • Yes
D60.6	System monitoring	<ul style="list-style-type: none"> • Presumed to be monitored via control panel
D60.7	Elevator recall	<ul style="list-style-type: none"> • N/A
D60.8	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
D60.1	None	
D60.2	None	
D60.3	None	
D60.4	None	
D60.5	None	
D60.6	None	
D60.7	None	
D60.8	None	

E EQUIPMENT AND FURNISHINGS

E10 - EQUIPMENT		
Item	Comments/Findings	
E10.1	Equipment anchorage	<ul style="list-style-type: none"> • Audio visual equipment is rack-mounted and appears to be properly secured
E10.2	Other issues	<ul style="list-style-type: none"> • None
Recommendations		

E10.1	None
E10.2	None

G SITEWORK

G20 – SITE IMPROVEMENTS		
Item	Comments/Findings	
G20.1	Building location prone to flooding	<ul style="list-style-type: none"> • Yes • Most recent high water event was 1996
G20.2	Building accessibility (ADA)	<ul style="list-style-type: none"> • Site is accessible • Accessible parking does not appear to be well delineated; path to entry is not marked on pavement; dedicated van parking is not provided • Drop-off porte cochere adjacent to entry is provided
G20.3	Site Security	<ul style="list-style-type: none"> • None
G20.4	Hurricane resistance	<ul style="list-style-type: none"> • N/A
G20.5	Access control	<ul style="list-style-type: none"> • None except standard door hardware • Building appears to have after-hours security system
G20.6	Adjacent property risks	<ul style="list-style-type: none"> • Staff noted that the empty lot to east was raised as a concern by the local police department due to City Council meetings being held in the Activity Room. Due to this concern, window tinting film was added to minimize visibility during the evening meeting times and portable chain-link fencing is deployed around the exterior of the space during City Council meetings
G20.7	Separation / opening protection to adjacent property	<ul style="list-style-type: none"> • Distance is adequate for Code-required separation
G20.8	Drainage issues	<ul style="list-style-type: none"> • It was observed that landscape grading at the rear (east) and side (north) has resulted in soil and topping to be close or in contact with wood board siding, which may be a route for moisture migration and rot. Refer to Figure B20.1.
G20.9	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
G20.1.1	None beyond removal of important materials from this site due to flood risk.	
G20.2	None	
G20.3	None	
G20.4	None	
G20.5	None	
G20.6	None	

G20.7	None
G20.8.1	Soil and toppings should be cleared away from the edge of the building's foundation walls to maintain a minimum 4 inch gap between the top-of-grade and the bottom of exterior wood sidings.
G20.9	None

G30 – LIQUID AND GAS SITE UTILITIES		
Item		Comments/Findings
G30.1	Note any special amenities (irrigation systems, underground storage tanks, fountains, etc) and their condition	<ul style="list-style-type: none"> Grease trap at kitchen requires regular maintenance; accessory to Activity Room (not located in the space)
Recommendations		
G30.1	None	

G40 – ELECTRICAL SITE IMPROVEMENTS		
Item		Comments/Findings
G40.1	Site electrical services	<ul style="list-style-type: none"> Site lighting was not observed due to time of on-site review
Recommendations		
G40.1.1	Review site lighting functionality when illuminated	

INDEX TO FIGURES

- Figure C10.4 Sink and urinal are not accessible (Men's Room observed)
- Figure C30.1A Interior finishes at Activity Room space
- Figure C30.1B Interior finishes at Activity Room space, including movable wall system (at right)
- Figure B30.1 Staff photo of roof condition above Activity Room space
- Figure D30.6 Staff photo of air handler configuration and access above Activity Room space
- Figure D40.12 Fire extinguisher and fire alarm pull station adjacent to egress door
- Figure G20.8 Soil and topping in contact with siding at rear (northeast corner)

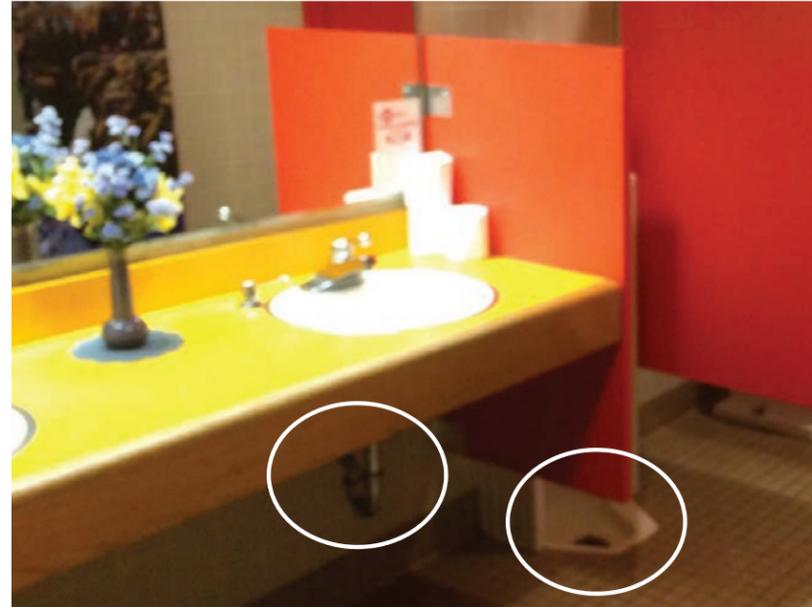


Figure C10.4 Sink and urinal are not accessible (Men's Room observed)



Figure C30.1A Interior finishes Activity Room space



Figure C30.1B Interior finishes Activity Room space, including movable wall system (at right)



Figure B30.1 Staff photo of roof condition above Activity Room space



Figure D30.6 Staff photo of air handler configuration and access above Activity Room space



Figure D40.12 Fire extinguisher and fire alarm pull station adjacent to egress door



Figure G20.8 Soil and topping in contact with siding at rear (northeast corner)

DRAFT

END OF REPORT

DRAFT

City of Tualatin Municipal Court at the Tualatin Police Department
8650 SW Tualatin Road, Tualatin, OR 97062



Field Review Team:
Michael Thrailkill, AIA CSI – Yost Grube Hall Architecture

Report Date: February 2, 2015 – FINAL



Front Elevation (north)

Date of Field Visit: 6 January 2015

Time of Day: 11:00 am and 4:00 pm

Weather: Partly sunny with fog, 47°F

Site conditions: Inland, suburban, low-rise

Site Contacts: Sara Singer, City of Tualatin

Clayton Reynolds, City of Tualatin

General Building Description:

The facility is a single-story structure, purpose-built police department. The facility's property is bound by a wetland to the south, the Southwest Tualatin Road to the north, Southwest Sweek Drive to the west, and a private, single-family residence to the east. The building was constructed in 2000.

This assessment is focused on only that areas of the building currently hosting Municipal Court in the Training Room (room number 101 in the Record Drawings provided) and the Municipal Court shared work space areas in Records (112), Prevention (117), Files (114), and Copy-Supply (113).

The building is a 1-story building of exterior concrete masonry unit walls with brick veneer on concrete foundation and slab-on-grade. Upper attic walls are metal-framed with portland cement plaster finish. Structural frame is steel with metal joists and roof deck. Main entry orientation is to the south from parking lot; 1 floor; no elevator; fire suppression provided, adjacent street is Southwest Tualatin Road, adjacent buildings are another City of Tualatin facility and a private residence. General condition is good and well maintained. Location of the Training Room space is the west end of the building, on opposite side of entry lobby from Reception and Police Station. The Municipal Court shared work space areas are in the northern end of the middle portion of the Police Building.

The City has located the Municipal Court meeting space to this building, utilizing the Training Area on a regular basis and utilizing additional office area for the Municipal Court shared work space areas. Restrooms are outside of the area used for the Municipal Court meetings, and meet ADA; the main entry is accessible as are other entry/ egresses located throughout the building.

The latest editions of the following codes were utilized in developing this assessment: Oregon Structural Specialty Code (OSSC), Oregon Mechanical Specialty Code, Oregon Plumbing Specialty Code, Oregon Electrical Specialty Code, Oregon Fire Code, National Fire Protection Association (NFPA) Codes and Standards, and American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) Standard 90.1.

A SUBSTRUCTURE

A10 – FOUNDATIONS (foundations, slab-on-grade, etc.)		
Item		Comments/Findings
A10.1	General condition	<ul style="list-style-type: none"> CIP concrete foundation appeared to be in good shape
Recommendations		
A10.1.1	Monitor concrete foundations for cracking or other signs of settlement	

A20 – SUBGRADE ENCLOSURES (basements, etc)		
Item		Comments/Findings
A20.1	General condition	<ul style="list-style-type: none"> No basement or crawlspace
Recommendations		
A20.1	None	

B SHELL

B10 – SUPERSTRUCTURE (building frame, floors & roofs)		
Item		Comments/Findings
B10.1	Review documents (if available) and note: Structural System, Design Live Loads, Lateral System, and Design Code	<ul style="list-style-type: none"> As-built documents indicate that the structural system is concrete masonry unit exterior bearing walls on concrete foundation and slab-on-grade. Upper attic walls are light gauge metal-framed. Internal structural frame is steel members. Roof structure is metal joists and metal roof deck. Canopies are structural steel-framed
B10.2	Visible Gravity System	<ul style="list-style-type: none"> Confirms systems indicated in drawings
B10.3	Visible Lateral System	<ul style="list-style-type: none"> Drawings indicate that lateral system is CMU exterior walls. Drawings indicate what appear to be adequate details of connections to the footings
B10.4	Building Exterior	<ul style="list-style-type: none"> There was no evidence of rot or movement of exterior walls Collector boxes and downspouts appear to be in good shape and well maintained
B10.5	If building has been remodeled, note the current use as compared to design loads.	<ul style="list-style-type: none"> Original function was as Police Station with meeting spaces; current function of Training Room for Municipal Court meeting space is consistent with the originally permitted occupancy

Recommendations	
B10.1	None
B10.2	None
B10.3	None
B10.4	None
B10.5	None

B20 – EXTERIOR VERTICAL ENCLOSURES (walls, windows, exterior doors, etc.)		
Item		Comments/Findings
B20.1	Type and condition of exterior wall	<ul style="list-style-type: none"> Exterior brick veneer cladding is has been maintained well Exterior cement plaster finish has been maintained well Exterior metal lintels are painted; paint is showing evidence of chalking and deterioration; may require refinishing in near future
B20.2	Type and condition of window system	<ul style="list-style-type: none"> Exterior windows throughout are commercial aluminum storefront systems with double-pane insulated glazing No evidence of rot or moisture intrusion was observed
B20.3	Other issues	<ul style="list-style-type: none"> Roof drainage is internal per drawings; appear to be removing water appropriately (no external signs of overflow were observed)
Recommendations		
B20.1.1	Observe and maintain field-painted finish at steel lintels; other exterior finishes are long-term life cycle products (brick veneer, cement plaster, aluminum storefront, standing seam metal roofing) but this field-painted metal finish may require refinishing as often as once every 5-7 years.	
B20.2	None	
B20.3	None	

B30 – EXTERIOR HORIZONTAL ENCLOSURES (roofing, horizontal openings, etc.)		
Item		Comments/Findings
B30.1	Type and condition of roofing system	<ul style="list-style-type: none"> Roof access is available with escort via ladder in Janitor Closet, though the roof was not observed; drawings indicate built-up bituminous system at flat, lower roofs; sloped roofs are pre-finished standing seam metal Exterior metal roof edge, fascia and flashings appear to be in good condition; recent windstorms had torn-off a portion of fascia

		at another location on the building (not near the Meeting Room/ west end); staff reported that precautionary strapping had been added to avoid further damage and to better secure the fascia
B30.2	Other issues	<ul style="list-style-type: none"> None

Recommendations		
B30.1.1	Confirm life-span remaining for existing built-up roofing and continue observation and maintenance. Staff noted that a solution has been implemented for metal fascia wind damage problem. Replacement roofing with similar system has been proposed in the City's Capital Improvement Plan.	
B30.2	None	

C INTERIORS

C10 – LIFE SAFETY AND ACCESSIBILITY		
Item		Comments/Findings
C10.1	Integrity of floor separation	<ul style="list-style-type: none"> N/A
C10.2	Adequate fire resistive construction	<ul style="list-style-type: none"> N/A
C10.3	Atrium	<ul style="list-style-type: none"> N/A
C10.4	Building accessibility (ADA)	<ul style="list-style-type: none"> Accessible at front entry and other entry/ egress locations Automatic door operators do not appear to be provided at entry doors Per drawings restrooms are accessible It was observed that piping below kitchenette sink within Training Room space was provided with protective covers Municipal Court shared work space areas are accessible
C10.5	Other issues	<ul style="list-style-type: none"> None
Recommendations		
C10.1	None	
C10.2	None	
C10.3	None	
C10.4	None	
C10.5	None	

C20 –EGRESS		
Item		Comments/Findings
C20.1	Travel distance to exit stair	<ul style="list-style-type: none"> N/A
C20.2	Exit stair continuity and integrity	<ul style="list-style-type: none"> N/A
C20.3	Exit corridor continuity and integrity	<ul style="list-style-type: none"> Continuity adequate; integrity N/A
C20.4	(High Rise) Stairway door operation	<ul style="list-style-type: none"> N/A

C20.5	Other issues	• None
Recommendations		
C20.1	None	
C20.2	None	
C20.3	None	
C20.4	None	
C20.5	None	

C30 – INTERIOR FINISHES		
Item		Comments/Findings
C30.1	General type and condition of finishes	<ul style="list-style-type: none"> • Wall finishes in Training Room space and the Municipal Court shared work space areas are painted gypsum wallboard, except some locations in Training Room and Lobby are exposed brick veneer as at exterior • Floor finishes in Training Room space and Municipal Court shared work space areas are broadloom carpet; flooring in the Lobby is random pattern stone with sealed finish; all flooring appears to be in good condition • Ceiling finishes are acoustic ceiling tile, with soffits of painted gypsum wallboard • Other interior finishes provided: <ul style="list-style-type: none"> ○ Plastic laminate cabinetry at the kitchenette, with solid surface countertops ○ Fabric-wrapped panel-and-white board presentation surfaces ○ Wood trim throughout ○ Interior wood veneer doors ○ Plastic vertical blinds
C30.2	Locations and cause of water intrusion/ leaks	• Only observed evidence of leakage is stained ceiling tile near middle of the Training Room ceiling; refer to Figure C30.2
C30.3	Other issues	• None
Recommendations		
C30.1	None	
C30.2.1	Staff confirmed that leak causing stained ceiling tile has been repaired; suggest to replace ceiling tile.	
C30.3	None	

D SERVICES

D10 – CONVEYING		
Item		Comments/Findings
D10.1	Overall condition of elevator	• N/A
D10.2	Status of inspections, who maintains the elevator	• N/A
D10.3	Other issues	• None
Recommendations		
D10.1	None	
D10.2	None	
D10.3	None	

D20 - PLUMBING		
Item		Comments/Findings
D20.1	Potable water service	• It is not indicated in the drawings what material plumbing piping is installed
D20.2	Distribution piping material	• Not known
D20.3	Drain and vent system	• Not known
D20.4	Fixture condition	<ul style="list-style-type: none"> • Kitchenette has stainless steel sink, coffee service adjacent • Restrooms in Lobby are accessory to Training Room and Municipal Court shared work space areas (not located in the spaces)
D20.5	Water pressure	• Not observed
D20.6	Storm drain and overflow drains	• Not observed
D20.7	Water heater system	<ul style="list-style-type: none"> • Accessory to Training Room and Municipal Court shared work space areas (not located in the space) • Not observed
D20.8	Other issues	• None
Recommendations		
D20.1	None as assumed to meet Code at recent construction (2011)	
D20.2	Refer to D20.1	
D20.3	None	
D20.4	None	
D20.5	None	
D20.6	None	
D20.7	None	

D30 - HVAC		
Item		Comments/Findings
D30.1	Fire smoke dampers	• None
D30.2	Duct smoke detectors	• None

D30.3	Smoke control (high-rise/atrium)	<ul style="list-style-type: none"> N/A
D30.4	Air Handler Unit	<ul style="list-style-type: none"> Units serving the Training Room space and Municipal Court shared work space areas are located at rooftop above the spaces Gas-fired 7.5 ton rooftop unit installed at construction in 2011
D30.5	Air filtration	<ul style="list-style-type: none"> Not observed
D30.6	Equipment accessibility	<ul style="list-style-type: none"> At rooftop; not observed
D30.7	Drain pans and condensate traps	<ul style="list-style-type: none"> Not observed
D30.8	Fan coil drain pans	<ul style="list-style-type: none"> Not observed
D30.9	Mold issues	<ul style="list-style-type: none"> No evidence seen
D30.10	Air distribution / ventilation	<ul style="list-style-type: none"> Supply is ducted through plenum Return is open plenum
D30.11	Plenum return (rated materials)	<ul style="list-style-type: none"> None visible
D30.12	OSA/ EXA separation	<ul style="list-style-type: none"> Not observed Windows are not operable
D30.13	Restroom ventilation	<ul style="list-style-type: none"> Accessory to Training Room and Municipal Court shared work space areas (not located in the space) Electric recessed ceiling-mounted fans Controls not observed
D30.14	Custodial ventilation	<ul style="list-style-type: none"> N/A
D30.15	Kitchen ventilation	<ul style="list-style-type: none"> Kitchenette within Training Room does not have ventilation; staff noted that kitchenette typically isn't used for food preparation; although a microwave has been installed, ventilation has not been an issue
D30.16	Duct Insulation (vapor barrier)	<ul style="list-style-type: none"> Not observed
D30.17	Duct materials	<ul style="list-style-type: none"> Not observed
D30.18	HVAC controls	<ul style="list-style-type: none"> Not observed
D30.19	Generator exhaust radiator intake / exhaust	<ul style="list-style-type: none"> Not observed; accessory to Training Room and Municipal Court shared work space areas (not located near the west end of the building)
D30.20	Cooling system	<ul style="list-style-type: none"> Rooftop unit provides cooling as well; refer to D30.4
D30.21	Water cooled / air cooled chiller	<ul style="list-style-type: none"> N/A
D30.22	Refrigerant monitoring in place	<ul style="list-style-type: none"> Staff reported that there is not refrigerant monitoring in place
D30.23	Exhaust fans in place	<ul style="list-style-type: none"> Provided at restrooms; accessory to Training Room and Municipal Court shared work space areas (not located in the space)

		<ul style="list-style-type: none"> Not provided at kitchenette within Training Room
D30.24	Heating System	<ul style="list-style-type: none"> Rooftop unit provides heating; refer to D30.4 Supply registers were providing conditioned air at 71 degrees F.
D30.25	Computer Room units	<ul style="list-style-type: none"> Data room was not observed; staff suggested that addition of cooling units for Data room may be a good idea
D30.26	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D30.1	None	
D30.2	None	
D30.3	None	
D30.4.1	City's Capital Improvements Plan includes line items for replacement of 3 HVAC units over 3-year period FY2017/18 thru FY 2019/20; 1 unit included in costs for Municipal Courts area	
D30.5.1	Confirm condition and regular maintenance	
D30.6	None	
D30.7	None	
D30.8	None	
D30.9	None	
D30.10	None	
D30.11	None	
D30.12	None	
D30.13	None	
D30.14	None	
D30.15.1	Confirm ventilation of food odors and humidity is not an issue in the space	
D30.16	None	
D30.17	None	
D30.18.1	Confirm HVAC systems are controlled on an as-needed basis to minimize energy use when the space is not occupied	
D30.19	None	
D30.20	None	
D30.21	None	
D30.22	None	
D30.23.1	Determine with staff/ users whether there are ventilation/ odor issues due to the kitchenette, and consider addition of local exhaust fan if determined to be needed	
D30.24	None	
D30.25.1	Review conditions and consider addition of cooling units for Data room	
D30.26	None	

D40 – FIRE PROTECTION		
Item		Comments/Findings
D40.1	Fire suppression system	<ul style="list-style-type: none"> • Provided
D40.2	Water service, backflow prevention	<ul style="list-style-type: none"> • Municipal water service; staff reported that backflow prevention is provided
D40.3	System pressure	<ul style="list-style-type: none"> • Not known
D40.4	Standpipes	<ul style="list-style-type: none"> • Not observed
D40.5	Fire pump	<ul style="list-style-type: none"> • Not provided, relying on water pressure or FDC
D40.6	Fire sprinkler pipe condition	<ul style="list-style-type: none"> • Not observed above acoustic ceiling
D40.7	FDC	<ul style="list-style-type: none"> • At west end of parking lot across drive from structure
D40.8	Fire sprinkler zoning	<ul style="list-style-type: none"> • Not observed; staff reported that fire suppression zoning is provided
D40.9	Flow monitoring and alarm	<ul style="list-style-type: none"> • Not observed; staff reported that flow monitoring and alarm is provided
D40.10	On-site water source	<ul style="list-style-type: none"> • Not provided
D40.11	Test records	<ul style="list-style-type: none"> • Staff reported that fire suppression system and backflow valve are tested annually and copies of records are available
D40.12	Condition of fire hose or fire extinguishers	<ul style="list-style-type: none"> • Fire hose is not provided (not required by Code; not encouraged by Fire Dept.) • Fire extinguishers is located in space; observed to have up-to-date inspection
D40.13	Other issues	<ul style="list-style-type: none"> • None
Recommendations		
D40.1	None	
D40.2	None	
D40.3	None	
D40.4	None	
D40.5	None	
D40.6	None	
D40.7	None	
D40.8	None	
D40.9	None	
D40.10	None	
D40.11.1	Confirm routine testing and status	
D40.12	None	
D40.13	None	

D50 – ELECTRICAL (Part I)		
Item		Comments/Findings
D50.1	Grounding leakage	<ul style="list-style-type: none"> • Not observed
D50.2	Equipment grounding	<ul style="list-style-type: none"> • Not observed • Drawings indicate electrical requirements
D50.3	Lightning protection	<ul style="list-style-type: none"> • Not provided
D50.4	Overcurrent protection	<ul style="list-style-type: none"> • Not observed • Drawings indicate Transient Voltage Surge Suppressor (TVSS) at Main Distribution Panel • Drawings indicate integral Transient Voltage Surge Suppressors (TVSS) at Panels 2R1 and 2R2
D50.5	Ground fault interrupt/residual current devices	<ul style="list-style-type: none"> • Provided at Kitchenette within Training Room • Provided at Restrooms; accessory to Training Room and Municipal Court shared work space areas (not located in the space)
D50.6	Rating of Panels	<ul style="list-style-type: none"> • Panel not observed; accessory to Training Room and Municipal Court shared work space areas (not located in the space) • Drawings indicate panel ratings
D50.7	Peak load	<ul style="list-style-type: none"> • Drawings indicate electrical information
D50.8	Overloading/overheating	<ul style="list-style-type: none"> • Not observed • Staff reported that a panel rating test was run 5 years ago when there was a lighting problem
D50.9	Conductor insulation	<ul style="list-style-type: none"> • Not observed, but assumed that 2011 installation meets current Code
D50.10	Conductor material	<ul style="list-style-type: none"> • Not observed, but assumed that 2011 installation meets current Code
D50.11	Main distribution equipment	<ul style="list-style-type: none"> • Not observed • Drawings indicate electrical equipment information
D50.12	Equipment clearance	<ul style="list-style-type: none"> • Audio-visual equipment was observed to be obstructed by furniture and other equipment at storage areas • Other equipment not observed
D50.13	Disconnects	<ul style="list-style-type: none"> • Not observed
D50.14	Transformers	<ul style="list-style-type: none"> • Not observed
D50.15	Data Center/UPS	<ul style="list-style-type: none"> • The Data room located adjacent to Municipal Court shared work space areas was not observed; voice and data service for the Municipal Court shared work space areas and the Training Room originate in

		the Data room; Data room has a battery backup to cover period of generator startup
D50.16	Wiring plenum and fire resistive wall penetrations	<ul style="list-style-type: none"> Not observed above acoustic ceiling
D50.17	Receptacles/Sockets	<ul style="list-style-type: none"> Receptacles were observed be grounded devices Staff reported that commissioning at the time of occupancy verified grounding for receptacles It was not confirmed that grounded receptacles are actually connected to earth
D50.18	Lighting	<ul style="list-style-type: none"> Suspended up/down, 4-foot fluorescent tube fixtures; joined in 8-foot lengths at ACT ceiling at Training Room and Municipal Court shared work space areas ACT recessed 2x4 fluorescent fixtures at Records room Wall-mounted up/down, 4-foot fluorescent tube fixtures; joined in 8-foot lengths at GWB skylight well in Lobby Recessed can fixtures with compact fluorescent lamps throughout
D50.19	Lighting Controls	<ul style="list-style-type: none"> Switched at walls and via occupancy sensors Staff reported occupancy sensors were in almost all spaces at time of construction; some areas changed to manual switching due to room configuration and inconsistency of lighting; in two cases the lights were going on and off and lighting ballasts couldn't manage the loads
D50.20	Back-up power	<ul style="list-style-type: none"> Not observed; accessory to Training Room and Municipal Court shared work space areas Drawings indicated separate Life-Safety and Standby automatic transfer switches from engine-generator set
D50.21	Generator	<ul style="list-style-type: none"> Exterior pad-mounted engine-generator set Drawings indicate 250 kW
D50.22	Battery packs	<ul style="list-style-type: none"> Not observed
D50.23	Inverter	<ul style="list-style-type: none"> Not observed
D50.24	Emergency wiring separated from normal building wiring	<ul style="list-style-type: none"> Emergency lighting provided by several standard fixtures in the Training Room space

		<ul style="list-style-type: none"> Not observed in Municipal Court shared work space areas Drawings indicate emergency circuits throughout the building
D50.25	Emergency power system loads	<ul style="list-style-type: none"> Drawings indicate electrical information
D50.26	Egress path lighting	<ul style="list-style-type: none"> Indicated in plans; appears to be appropriately placed for Code-required coverage
D50.27	Exit signage	<ul style="list-style-type: none"> Provided and appropriately located; refer to Figure D50.27 for typical
D50.28	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D50.1.1	Consider testing for grounding leakage.	
D50.2.1	Review requirements for necessary equipment to ensure proper grounding	
D50.3	None	
D50.4	None	
D50.5	None	
D50.6	None	
D50.7.1	Review peak load requirements and confirm panels meet needs.	
D50.8	None	
D50.9	None anticipated.	
D50.10	Refer to D50.9.	
D50.11	None	
D50.12	None	
D50.13	None	
D50.14	None	
D50.15	None	
D50.16	None	
D50.17.1	Confirm receptacles are connected to ground.	
D50.18	None	
D50.19.1	Consider replacement of on-off switches with occupancy switches to save energy.	
D50.20	None	
D50.21	None	
D50.22	None	
D50.23	None	
D50.24	None	
D50.25	None	
D50.26	None	
D50.27	None	
D50.28	None	

D60 –FIRE DETECTION AND ALARM		
Item		Comments/Findings
D60.1	Fire alarm control panel	<ul style="list-style-type: none"> Provided; accessory to Training Room and Municipal Court shared work space areas (not located in the spaces)

		<ul style="list-style-type: none"> A remote annunciator is provided adjacent to the egress doors at the Lobby
D60.2	Smoke detectors	<ul style="list-style-type: none"> Smoke and heat detection provided
D60.3	Pull stations	<ul style="list-style-type: none"> Provided appropriately
D60.4	Annunciation	<ul style="list-style-type: none"> Provided
D60.5	System is zoned or addressable	<ul style="list-style-type: none"> Yes
D60.6	System monitoring	<ul style="list-style-type: none"> Presumed to be monitored via control panel
D60.7	Elevator recall	<ul style="list-style-type: none"> N/A
D60.8	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D60.1	None	
D60.2	None	
D60.3	None	
D60.4	None	
D60.5	None	
D60.6	None	
D60.7	None	
D60.8	None	

E EQUIPMENT AND FURNISHINGS

E10 - EQUIPMENT		
Item		Comments/Findings
E10.1	Equipment anchorage	<ul style="list-style-type: none"> Audio visual equipment is rack-mounted and appears to be properly secured
E10.2	Other issues	<ul style="list-style-type: none"> None
Recommendations		
E10.1	None	
E10.2	None	

G SITEWORK

G20 - SITE IMPROVEMENTS		
Item		Comments/Findings
G20.1	Building location prone to flooding	<ul style="list-style-type: none"> Yes Most recent high water event was 1996
G20.2	Building accessibility (ADA)	<ul style="list-style-type: none"> Site is accessible Accessible parking is well delineated; direct path to entry is provided without traversing traffic lanes; dedicated van parking is provided
G20.3	Site Security	<ul style="list-style-type: none"> None
G20.4	Hurricane resistance	<ul style="list-style-type: none"> N/A

G20.5	Access control	<ul style="list-style-type: none"> Appears to be controlled by proximity card detection and electrified door hardware
G20.6	Adjacent property risks	<ul style="list-style-type: none"> Shared occupancy with Police Station may provide both deterrence and provocation for incidents or attack There is no security screening system in-place at the Lobby adjacent to the Training Room Access to the Municipal Court shared work space areas is controlled via a reception window managed by Police and/or Court staff Wet land along south edge of property presents flooding potential; well-designed site drainage installed during construction may mitigate this concern
G20.7	Separation / opening protection to adjacent property	<ul style="list-style-type: none"> Distance is adequate for Code-required separation
G20.8	Drainage issues	<ul style="list-style-type: none"> No issues were observed
G20.9	Other issues	<ul style="list-style-type: none"> None
Recommendations		
G20.1	None beyond removal of important materials from this site due to flood risk.	
G20.2	None	
G20.3	None	
G20.4	None	
G20.5	None	
G20.6	None	
G20.7	None	
G20.8	None.	
G20.9	None	

G30 - LIQUID AND GAS SITE UTILITIES

Item		Comments/Findings
G30.1	Note any special amenities (irrigation systems, underground storage tanks, fountains, etc) and their condition	<ul style="list-style-type: none"> Irrigation system is provided Fuel storage for engine-generator set is by 500-gallon skid base tank; no underground tank provided
Recommendations		
G30.1	None	

G40 – ELECTRICAL SITE IMPROVEMENTS		
Item		Comments/Findings
G40.1	Site electrical services	<ul style="list-style-type: none"> Operation of site lighting was not observed due to time of on-site review
Recommendations		
G40.1.1	Review site lighting functionality when illuminated	

INDEX TO FIGURES

- Figure B30.1 Clamp used to maintain connection of metal fascia panel following high wind event in early-December (northeast corner of Training room wing)
- Figure C30.1A Interior finishes at Training Room space
- Figure C30.1B Interior finishes at Training Room space, including movable wall system (at right)
- Figure C30.1C Interior finishes at kitchenette within Training Room space
- Figure C30.1D Interior finishes in Lobby outside Training Room space
- Figure C30.1E Interior finishes Municipal Court shared work space areas (Records room; Prevention room similar)
- Figure C30.2 Evidence of past leak visible in acoustic ceiling tile; Staff noted that leak was repaired
- Figure D40.12 Fire extinguisher and fire alarm pull station adjacent to entry door
- Figure D50.27 Typical exit signage; also typical fire detection and fire suppression



Figure C30.1A Interior finishes Training Room space



Figure C30.1B Interior finishes Training Room space



Figure C30.1C Interior finishes at kitchenette within Training Room space



Figure C30.1D Interior finishes in Lobby outside Training Room space



Figure C30.1E Interior finishes Municipal Court shared work space areas (Records room; Prevention room similar)



Figure C30.2 Evidence of past leak visible in acoustic ceiling tile; Staff noted that leak was repaired

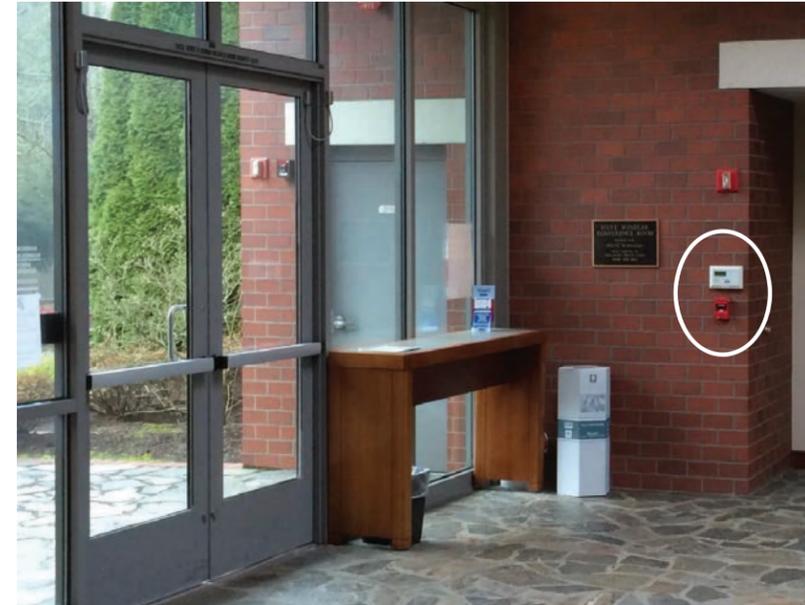


Figure D40.12 Fire alarm pull station and system panel adjacent to entry door



Figure D50.27 Typical exit signage; also typical fire detection and fire suppression

END OF REPORT

City of Tualatin Offices at the Seneca Building

18861 SW Martinazzi Ave, Tualatin, OR 97062



Field Review Team:
Michael Thrailkill, AIA CSI – Yost Grube Hall Architecture

Report Date: February 2, 2015 – FINAL



Building Entry (east)



Front of Building (east)



Side of Building (south)



Rear Elevation Detail (west)

Date of Field Visit: 6 January 2015 Time of Day: 9:00 am and 1:30 pm
 Weather: Partly sunny with fog, 47°F Site conditions: Inland, suburban, low-rise
 Site Contacts: Sara Singer, City of Tualatin
 Clayton Reynolds, City of Tualatin

General Building Description:

The facility is a two-story structure, lease-space office building. The facility's property is bound by SW Seneca Street to the south, a parking lot and additional lease office building to the north, parking lots to the west, and SW Martinazzi Ave to the east. The building appears to have been constructed in the 1980's and renovated in 2008 when it appears that the City moved into this office in the building. This assessment is focused on only that area of the building currently leased by the City at the second floor, south end and public areas of the building.

The building is a 2-story building of wood- or metal-framed construction with exterior cement plaster or EIFS and exterior brick masonry veneer on concrete foundation and slab-on-grade. Structural frame is not known, but assumed to be steel with wood or metal joists and plywood roof deck. Main entry orientation is to the east from SW Martinazzi Ave near the intersection with Seneca Street; City offices on only the second of two floors; hydraulic, accessible elevator; fire suppression is not provided, adjacent streets are SW Martinazzi Avenue and Seneca Street, adjacent buildings are other leasable office buildings of one and two floors. General condition is good and well maintained. Location of the City office space is the south end of the building at the second floor, on one side of second floor elevator lobby. Restrooms are outside of the area leased by the City and are common to the building, with keyed entry, they meet ADA; the main entry is accessible with an elevator; other entry/ egresses from the second floor are stairs only.

The latest editions of the following codes were utilized in developing this assessment: Oregon Structural Specialty Code (OSSC), Oregon Mechanical Specialty Code, Oregon Plumbing Specialty Code, Oregon Electrical Specialty Code, Oregon Fire Code, National Fire Protection Association (NFPA) Codes and Standards, and American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) Standard 90.1.

A SUBSTRUCTURE

A10 – FOUNDATIONS (foundations, slab-on-grade, etc.)		
Item		Comments/Findings
A10.1	General condition	<ul style="list-style-type: none"> CIP concrete foundation appeared to be in good shape
Recommendations		
A10.1.1 Monitor concrete foundations for cracking or other signs of settlement		

A20 – SUBGRADE ENCLOSURES (basements, etc)		
Item		Comments/Findings
A20.1	General condition	<ul style="list-style-type: none"> No basement or crawlspace
Recommendations		
A20.1 - None		

B SHELL

B10 – SUPERSTRUCTURE (building frame, floors & roofs)		
Item		Comments/Findings
B10.1	Review documents (if available) and note: Structural System, Design Live Loads, Lateral System, and Design Code	<ul style="list-style-type: none"> Drawings of the building were not available A lease-space drawing did not indicate building construction nor systems
B10.2	Visible Gravity System	<ul style="list-style-type: none"> Not observed; assumed to be wood- or light gauge metal-framed, possible with steel framing
B10.3	Visible Lateral System	<ul style="list-style-type: none"> Not observed
B10.4	Building Exterior	<ul style="list-style-type: none"> There was no evidence of rot or movement of exterior walls Collector boxes and downspouts appear to be in good shape and well maintained Roof drainpipes are routed back into building after leaving roof, providing the opportunity for unobserved failure and water damage
B10.5	If building has been remodeled, note the current use as compared to design loads.	<ul style="list-style-type: none"> Original function was as leasable commercial office space; current function of City office space is consistent with the originally permitted occupancy
Recommendations		
B10.1 None		
B10.2 None		
B10.3 None		
B10.4 None		
B10.5 None		

B20 – EXTERIOR VERTICAL ENCLOSURES (walls, windows, exterior doors, etc.)		
Item		Comments/Findings
B20.1	Type and condition of exterior wall	<ul style="list-style-type: none"> Exterior brick veneer cladding is has been maintained well Exterior cement plaster finish has been maintained well
B20.2	Type and condition of window system	<ul style="list-style-type: none"> Exterior windows throughout are commercial aluminum windows; appear to use double-pane insulated glazing No evidence of rot or moisture intrusion was observed
B20.3	Other issues	<ul style="list-style-type: none"> Roof drainage is a combination of external and internal; appear to be removing water appropriately (no external signs of overflow were observed)

Recommendations	
B20.1	None
B20.2	None
B20.3	None

B30 – EXTERIOR HORIZONTAL ENCLOSURES (roofing, horizontal openings, etc.)		
Item		Comments/Findings
B30.1	Type and condition of roofing system	<ul style="list-style-type: none"> Not observed as roof access was not available Where viewed from the ground, exterior metal roof edge, fascia and flashings appear to be in good condition; refer to Figure B30.1
B30.2	Other issues	<ul style="list-style-type: none"> None

Recommendations	
B30.1.1	Confirm life-span remaining for existing roofing and continue coordination with owner for regular maintenance.
B30.2	None

C INTERIORS

C10 – LIFE SAFETY AND ACCESSIBILITY		
Item		Comments/Findings
C10.1	Integrity of floor separation	<ul style="list-style-type: none"> Appropriate for building height and same occupancy type at each floor
C10.2	Adequate fire resistive construction	<ul style="list-style-type: none"> N/A
C10.3	Atrium	<ul style="list-style-type: none"> N/A
C10.4	Building accessibility (ADA)	<ul style="list-style-type: none"> Accessible at front entry via elevator; not accessible at rear entry due to stairs

		<ul style="list-style-type: none"> Automatic door operators are not provided Restrooms are accessible, however placement of garbage can adjacent to entry as requested by occupants obstructs required door edge clearance for exiting
C10.5	Other issues	<ul style="list-style-type: none"> None

Recommendations	
C10.1	None
C10.2	None
C10.3	None
C10.4.1	Consider provision of smaller garbage can that will fit under the counter near the door to restore adequate clearance
C10.5	None

C20 –EGRESS		
Item		Comments/Findings
C20.1	Travel distance to exit stair	<ul style="list-style-type: none"> Exit distance from the second floor lobby at the entrance to the City offices suite to the rear stair door at first floor was not measured on-site; for this un-sprinklered building the distance may be too long
C20.2	Exit stair continuity and integrity	<ul style="list-style-type: none"> It was not confirmed though it is likely that the walls at the open stair are required 1-hour rated construction It was noted by staff that the stairs at both front entry and rear access seem steep; it was confirmed that the risers at both stairs exceed the code maximum 7-inch height; refer to Figure C20.2
C20.3	Exit corridor continuity and integrity	<ul style="list-style-type: none"> It was not confirmed though it is likely that the walls at the lobby and along the egress corridor are required 1-hour rated construction; door to City offices suite is a 1-hour rated door; doors on other office suites were not observed
C20.4	(High Rise) Stairway door operation	<ul style="list-style-type: none"> N/A
C20.5	Other issues	<ul style="list-style-type: none"> None

Recommendations	
C20.1.1	Measure egress distance from the entrance to the City offices suite to the rear stair door at first floor; maximum allowable distance is 75 feet, including the distance down the exit stair. The only solutions if this distance proves to be too long is to add a rated door at the top of the stair or elsewhere along the exit path to break-up the egress distances, add an automatic fire sprinkler system to the building (to increase allowable distance to 100 feet), or vacating the building for another site.
C20.2.1	There is no recommendation for the stair riser height issue.
C20.3.1	Review ratings of other office suites to confirm

C20.4	None
C20.5	None

C30 – INTERIOR FINISHES		
Item		Comments/Findings
C30.1	General type and condition of finishes	<ul style="list-style-type: none"> Wall finishes in City offices area are painted gypsum wallboard Floor finishes in City offices area are broadloom carpet; all flooring appears to be in good condition Ceiling finishes are acoustic ceiling tile, with soffits of painted gypsum wallboard Other interior finishes provided: <ul style="list-style-type: none"> Plastic laminate cabinetry and countertops at the kitchenette Fabric-wrapped panel-and-white board presentation surfaces Wood trim throughout Interior wood veneer doors
C30.2	Locations and cause of water intrusion/ leaks	<ul style="list-style-type: none"> A few indications of leakage were observed in the City offices area ceilings; staff noted that these locations had been repaired by the building owner already
C30.3	Other issues	<ul style="list-style-type: none"> None
Recommendations		
C30.1	None	
C30.2.1	Replace ceiling tiles at leak locations from past	
C30.2.2	Maintain observation for new leaks causing stained ceiling tile, and repair.	
C30.3	None	

D SERVICES

D10 – CONVEYING		
Item		Comments/Findings
D10.1	Overall condition of elevator	<ul style="list-style-type: none"> Hydraulic, 2-stop, 2-sided commercial elevator; good condition
D10.2	Status of inspections, who maintains the elevator	<ul style="list-style-type: none"> On file with building owner
D10.3	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D10.1	None	
D10.2	None	
D10.3	None	

D20 - PLUMBING		
Item		Comments/Findings
D20.1	Potable water service	<ul style="list-style-type: none"> Municipal water Bottled water is made available as well
D20.2	Distribution piping material	<ul style="list-style-type: none"> Not known
D20.3	Drain and vent system	<ul style="list-style-type: none"> Not known
D20.4	Fixture condition	<ul style="list-style-type: none"> Kitchenette has stainless steel sink, coffee service adjacent Restrooms in second floor Lobby are accessory to City offices area (not located in the spaces)
D20.5	Water pressure	<ul style="list-style-type: none"> Not observed
D20.6	Storm drain and overflow drains	<ul style="list-style-type: none"> Not observed
D20.7	Water heater system	<ul style="list-style-type: none"> Accessory to City offices area (not located in the space) Not observed
D20.8	Other issues	<ul style="list-style-type: none"> None
Recommendations		
D20.1.1	None as assumed to meet Code at construction (1980's)	
D20.2.1	Refer to D20.1	
D20.3	None	
D20.4	None	
D20.5	None	
D20.6	None	
D20.7	None	

D30 - HVAC		
Item		Comments/Findings
D30.1	Fire smoke dampers	<ul style="list-style-type: none"> Not observed
D30.2	Duct smoke detectors	<ul style="list-style-type: none"> Not observed
D30.3	Smoke control (high-rise/atrium)	<ul style="list-style-type: none"> N/A
D30.4	Air Handler Unit	<ul style="list-style-type: none"> Units serving the City offices area are located at rooftop above the spaces Not observed
D30.5	Air filtration	<ul style="list-style-type: none"> Not observed
D30.6	Equipment accessibility	<ul style="list-style-type: none"> At rooftop; not observed
D30.7	Drain pans and condensate traps	<ul style="list-style-type: none"> Not observed
D30.8	Fan coil drain pans	<ul style="list-style-type: none"> Not observed
D30.9	Mold issues	<ul style="list-style-type: none"> No evidence seen
D30.10	Air distribution / ventilation	<ul style="list-style-type: none"> Supply appears to be ducted through plenum Return appears to be open plenum
D30.11	Plenum return (rated materials)	<ul style="list-style-type: none"> Not observed
D30.12	OSA/ EXA separation	<ul style="list-style-type: none"> Not observed for HVAC units Windows are not operable

D30.13	Restroom ventilation	<ul style="list-style-type: none"> Accessory to City offices area (not located in the space) Electric recessed ceiling-mounted fans Controls not observed
D30.14	Custodial ventilation	<ul style="list-style-type: none"> Accessory to City offices area (not located in the space); not observed
D30.15	Kitchen ventilation	<ul style="list-style-type: none"> Kitchenette does not have ventilation except return air grille
D30.16	Duct Insulation (vapor barrier)	<ul style="list-style-type: none"> Not observed
D30.17	Duct materials	<ul style="list-style-type: none"> Not observed
D30.18	HVAC controls	<ul style="list-style-type: none"> Two thermostats within the space, appear to be for east and west zones
D30.19	Generator exhaust radiator intake / exhaust	<ul style="list-style-type: none"> N/A
D30.20	Cooling system	<ul style="list-style-type: none"> Rooftop unit provides cooling as well; refer to D30.4
D30.21	Water cooled / air cooled chiller	<ul style="list-style-type: none"> N/A
D30.22	Refrigerant monitoring in place	<ul style="list-style-type: none"> Not known
D30.23	Exhaust fans in place	<ul style="list-style-type: none"> Provided at restrooms; accessory to City offices area (not located in the space) Not provided at kitchenette within City offices area
D30.24	Heating System	<ul style="list-style-type: none"> Rooftop unit provides heating; refer to D30.4 Supply registers were providing conditioned air at 73 degrees F.
D30.25	Computer Room units	<ul style="list-style-type: none"> N/A
D30.26	Other issues	<ul style="list-style-type: none"> None

Recommendations

D30.1	None
D30.2	None
D30.3	None
D30.4	None
D30.5.1	Confirm condition and regular maintenance
D30.6	None
D30.7	None
D30.8	None
D30.9	None
D30.10	None
D30.11	None
D30.12	None
D30.13	None
D30.14	None
D30.15	None
D30.16	None
D30.17	None

D30.18.1	Confirm HVAC systems are controlled on an as-needed basis to minimize energy use when the space is not occupied
D30.19	None
D30.20	None
D30.21	None
D30.22	None
D30.23.1	Determine with staff/ users whether there are ventilation/ odor issues due to the kitchenette, and consider addition of local exhaust fan if determined to be needed
D30.24	None
D30.25	None
D30.26	None

D40 – FIRE PROTECTION

Item	Comments/Findings
D40.1	Fire suppression system • Not provided
D40.2	Water service, backflow prevention • N/A
D40.3	System pressure • N/A
D40.4	Standpipes • N/A
D40.5	Fire pump • N/A
D40.6	Fire sprinkler pipe condition • N/A
D40.7	FDC • N/A
D40.8	Fire sprinkler zoning • N/A
D40.9	Flow monitoring and alarm • N/A
D40.10	On-site water source • N/A
D40.11	Test records • N/A
D40.12	Condition of fire hose or fire extinguishers • Fire hose is not provided (not required by Code; not encouraged by Fire Dept.) • Fire extinguishers is located in space; observed to have up-to-date inspection
D40.13	Other issues • None

Recommendations

D40.1	None
D40.2	None
D40.3	None
D40.4	None
D40.5	None
D40.6	None
D40.7	None
D40.8	None
D40.9	None
D40.10	None
D40.11	None
D40.12	None
D40.13	None

D50 – ELECTRICAL (Part I)		
Item		Comments/Findings
D50.1	Grounding leakage	• Not observed
D50.2	Equipment grounding	• Not observed
D50.3	Lightning protection	• Not provided
D50.4	Overcurrent protection	• Not observed
D50.5	Ground fault interrupt/residual current devices	• Provided at Kitchenette within City offices area • Provided at Restrooms; accessory to City offices area (not located in the space)
D50.6	Rating of Panels	• Panel not observed; accessory to City offices area (not located in the space)
D50.7	Peak load	• Not known
D50.8	Overloading/overheating	• Not observed
D50.9	Conductor insulation	• Not observed, but assumed that 1980's installation meets current Code
D50.10	Conductor material	• Not observed, but assumed that 1980's installation meets current Code
D50.11	Main distribution equipment	• Not observed
D50.12	Equipment clearance	• No issues observed
D50.13	Disconnects	• Not observed
D50.14	Transformers	• Not observed
D50.15	Data Center/UPS	• Data room not provided
D50.16	Wiring plenum and fire resistive wall penetrations	• Not observed above acoustic ceiling
D50.17	Receptacles/Sockets	• Receptacles were observed be grounded devices • It was not confirmed that grounded receptacles are actually connected to earth
D50.18	Lighting	• ACT recessed 2x4 fluorescent fixtures
D50.19	Lighting Controls	• Switched at walls
D50.20	Back-up power	• Not observed; would be accessory to City offices area
D50.21	Generator	• Not provided
D50.22	Battery packs	• Not observed
D50.23	Inverter	• Not observed
D50.24	Emergency wiring separated from normal building wiring	• Emergency lighting provided by several standard fixtures in the City offices area
D50.25	Emergency power system loads	• Not known
D50.26	Egress path lighting	• Emergency lighting was observed at several standard fixtures in the common area and egress corridor
D50.27	Exit signage	• Provided and appropriately located; refer to Figure D50.27 for typical
D50.28	Other issues	• None

Recommendations	
D50.1.1	Consider testing for grounding leakage.
D50.2.1	Review requirements for necessary equipment to ensure proper grounding
D50.3	None
D50.4	None
D50.5	None
D50.6	None
D50.7.1	Review peak load requirements and confirm panels meet needs.
D50.8	None
D50.9.1	None anticipated.
D50.10.1	Refer to D50.9.
D50.11	None
D50.12	None
D50.13	None
D50.14	None
D50.15	None
D50.16	None
D50.17.1	Confirm receptacles are connected to ground.
D50.18	None
D50.19.1	Consider replacement of on-off switches with occupancy switches to save energy.
D50.20	None
D50.21	None
D50.22	None
D50.23	None
D50.24	None
D50.25	None
D50.26	None
D50.27	None
D50.28	None

D60 – FIRE DETECTION AND ALARM		
Item		Comments/Findings
D60.1	Fire alarm control panel	• Provided; accessory to City offices area (not located in the spaces)
D60.2	Smoke detectors	• Smoke detection provided
D60.3	Pull stations	• Provided appropriately
D60.4	Annunciation	• Provided
D60.5	System is zoned or addressable	• Not known
D60.6	System monitoring	• Presumed to be monitored via control panel
D60.7	Elevator recall	• Not known
D60.8	Other issues	• None
Recommendations		
D60.1	None	
D60.2	None	
D60.3	None	
D60.4	None	

D60.5	None
D60.6	None
D60.7.1	Confirm elevator recall
D60.8	None

E EQUIPMENT AND FURNISHINGS

E10 - EQUIPMENT		
Item		Comments/Findings
E10.1	Equipment anchorage	<ul style="list-style-type: none"> Not observed
E10.2	Other issues	<ul style="list-style-type: none"> None
Recommendations		
E10.1	Confirm water heater is anchored per Code requirements	
E10.2	None	

G SITEWORK

G20 – SITE IMPROVEMENTS		
Item		Comments/Findings
G20.1	Building location prone to flooding	<ul style="list-style-type: none"> Yes Most recent high water event was 1996
G20.2	Building accessibility (ADA)	<ul style="list-style-type: none"> Site is accessible Accessible parking is well delineated; direct path to entry is provided without traversing traffic lanes; dedicated van parking is provided
G20.3	Site Security	<ul style="list-style-type: none"> Surveillance cameras were observed
G20.4	Hurricane resistance	<ul style="list-style-type: none"> N/A
G20.5	Access control	<ul style="list-style-type: none"> After-hours key coded building entry
G20.6	Adjacent property risks	<ul style="list-style-type: none"> None of note
G20.7	Separation / opening protection to adjacent property	<ul style="list-style-type: none"> Distance appears to be adequate for Code-required separation Directly adjacent office building to north may not have adequately rated separation wall
G20.8	Drainage issues	<ul style="list-style-type: none"> No issues were observed
G20.9	Other issues	<ul style="list-style-type: none"> None
Recommendations		
G20.1.1	None, as City offices at second floor appear to be above flood levels.	
G20.2	None	
G20.3	None	
G20.4	None	
G20.5	None	
G20.6	None	
G20.7.1	Confirm rating of separation wall at adjacent building to north	

G20.8	None.
G20.9	None

G30 – LIQUID AND GAS SITE UTILITIES		
Item		Comments/Findings
G30.1	Note any special amenities (irrigation systems, underground storage tanks, fountains, etc) and their condition	<ul style="list-style-type: none"> Not observed
Recommendations		
G30.1	None	

G40 – ELECTRICAL SITE IMPROVEMENTS		
Item		Comments/Findings
G40.1	Site electrical services	<ul style="list-style-type: none"> Operation of site lighting was not observed due to time of on-site review
Recommendations		
G40.1.1	Review site lighting functionality when illuminated	

INDEX TO FIGURES

- Figure B30.1 Metal roof edge, flashings and gutters appear to be in good condition
- Figure C20.2 Stairs are steeper than code required, exceeding 7 inches at risers
- Figure D50.27 Typical exit signage at common area corridor



Figure B30.1 Metal roof edge, flashings and gutters appear to be in good condition

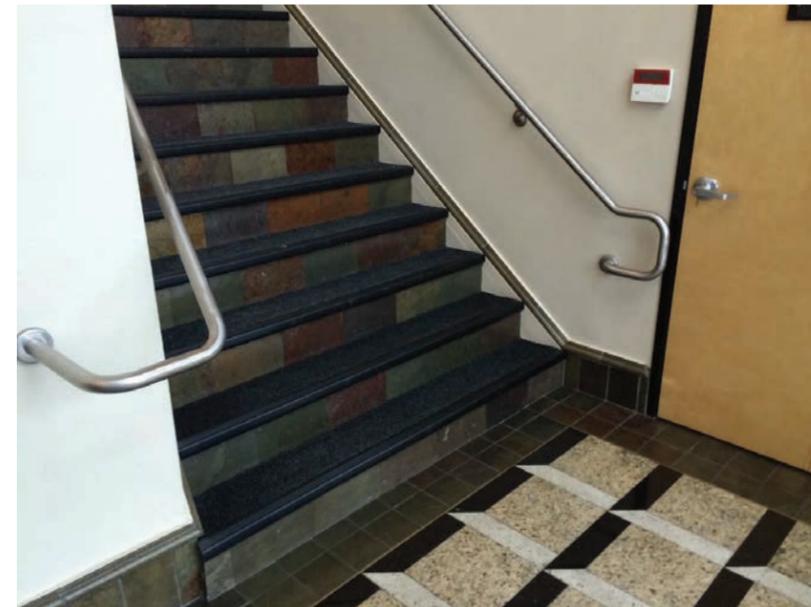


Figure C20.2 Stairs are steeper than code required, exceeding 7 inches at risers



Figure D50.27 Typical exit signage at common area corridor

END OF REPORT

Inspection Date(s):
 6 January 2015

City of Tualatin
 Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall Architecture

Office spaces for City of Tualatin

Summary

1	Community Services Building	\$ 47,300	20.1%
2	Information Services Department	\$ 12,600	5.4%
3	Lafky House	\$ 49,900	21.2%
4	City Offices Building and Public Library	\$ 40,000	17.0%
5	Council Meeting Space for City of Tualatin	\$ 30,000	12.8%
6	Municipal Court	\$ 51,500	21.9%
7	Seneca Building	\$ 3,800	1.6%
TOTAL		\$ 235,100	

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Summary

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall, Architecture

Facility: **Community Services Building**
Office space for City of Tualatin

Items	Projected Cost	Cost Description
A SUBSTRUCTURE		
A10 - FOUNDATIONS (foundations, slab-on-grade, etc.)		
None	\$ -	None
A20 - SUBGRADE ENCLOSURES (basements, etc)		
A20.1.1 Insulate basement foundation walls	\$ 5,246	R-19 batt; vapor barrier at walls
	\$ 5,246	
B SHELL		
B10 - SUPERSTRUCTURE (building frame, floors & roofs)		
B10.3.1 Provide diaphragm at roof	\$ 2,003	Add'l layer 1/2-inch plywood at time of re-roofing
B10.3.2 Provide anchorage of sill plates to foundation walls	\$ 1,727	Bolting at 48 inches o.c. at perimeter
B10.5.1 Provide add'l support below heavy loads above	\$ 768	Add'l floor framing, posts and bases; 6 locations
B20 - EXTERIOR VERTICAL ENCLOSURES (walls, windows, exterior doors, etc)		
B20.3.1 Provide downspout extensions	\$ 80	6 locations
B20.3.2 Remove debris from window wells	\$ 68	
B30 - EXTERIOR HORIZONTAL ENCLOSURES (roofing, horizontal openings, etc.)		
B30.1.1 Provide re-roofing	\$ 6,764 16,340	2-tab asphalt shingle; 20-year warranty, incl'g tear-off Utilize metal roofing per Capital Improvement Plan
	\$ 20,984	

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall, Architecture

Items	Projected Cost	Cost Description
C INTERIORS		
C10 - LIFE SAFETY AND ACCESSIBILITY		
C10.4.1 Renovate restroom for accessibility	\$ 2,035	Replace toilet and sink; remove urinal; add grab rails; reverse door swing
C10.4.2 Renovate kitchenette for accessibility	\$ 560	Reconfigure casework below sink to allow roll-in
C20 - EGRESS		
None	\$ -	None
C30 - INTERIOR FINISHES		
None	\$ -	None
	\$ 2,595	
D SERVICES		
D10 - CONVEYING		
None	\$ -	None
D20 - PLUMBING		
D20.4.1 Replace faucets with low-flow devices	\$ 140	Kitchenette only; restroom fixtures replaced due to C10.4
D20.7.1 Replace water heater	\$ 720	On-demand unit
D30 - HVAC		
D30.6.1 Mark stand-off distance	\$ 23	Painted lines
D30.18.1 Provide programmable thermostat	\$ 240	

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
D40 - FIRE PROTECTION		
None	\$ -	None
D50 - ELECTRICAL (Part I)		
D50.12.1 Mark stand-off distance	\$ 23	Painted lines
D50.19.1 Replacement of on-off switches with occupancy sensing	\$ 390	Switches with occ'y sensors
D50.26.1 Addition of emergency lighting	\$ 2,000	Battery pack-powered emergency lighting fixtures
D50.27.1 Addition of emergency egress signage	\$ 800	Battery pack-powered emergency egress fixtures
D60 - FIRE DETECTION AND ALARM		
D60.1.1 Provide centralized fire detection and alarm	\$ 3,200	Small building-scale monitoring and notification system
	\$ 7,535	
E EQUIPMENT AND FURNISHINGS		
E10 - EQUIPMENT		
None	\$ -	None
	\$ -	
F SPECIAL CONSTRUCTION AND DEMOLITION		
NOT USED		

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
G SITEWORK		
G10 - NOT USED		
G20 - SITE IMPROVEMENTS		
None	\$ -	None
G30 - LIQUID AND GAS SITE UTILITIES		
None	\$ -	None
G40 - ELECTRICAL SITE IMPROVEMENTS		
None	\$ -	None
	\$ -	
OTHER		
	\$ -	

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
TOTALS		
A SUBSTRUCTURE	\$ 5,246	
B SHELL	\$ 20,984	
C INTERIORS	\$ 2,595	
D SERVICES	\$ 7,535	
E EQUIPMENT AND FURNISHINGS	\$ -	
F SPECIAL CONSTRUCTION AND DEMOLITION	N/A	
G SITEWORK	\$ -	
OTHER	\$ -	
SUBTOTAL	\$ 36,400 <i>(rounded to nearest \$100)</i>	
Contingency	30%	
TOTAL	\$ 47,300 <i>(rounded to nearest \$100)</i>	

NOTES

- 1 Costs estimates are shown in US\$
- 2 Costs for recurring items, e.g. maintenance regimens, are indicated for first year

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Facility: **Information Services Department**
at the Public Works Facility

Items	Projected Cost	Cost Description
A SUBSTRUCTURE		
A10 - FOUNDATIONS <i>(foundations, slab-on-grade, etc.)</i>		
None	\$ -	None
A20 - SUBGRADE ENCLOSURES <i>(basements, etc.)</i>		
None	\$ -	None
	\$ -	
B SHELL		
B10 - SUPERSTRUCTURE <i>(building frame, floors & roofs)</i>		
None	\$ -	None
B20 - EXTERIOR VERTICAL ENCLOSURES <i>(walls, windows, exterior doors, etc.)</i>		
None	\$ -	None
B30 - EXTERIOR HORIZONTAL ENCLOSURES <i>(roofing, horizontal openings, etc.)</i>		
None	\$ -	None
	\$ -	

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
C INTERIORS		
C10 - LIFE SAFETY AND ACCESSIBILITY		
C10.2.1 Improve the fire resistance of the separation wall	\$ 2,660	Add insulation, layer of GWB, fire caulk, and head closure
C20 - EGRESS		
None	\$ -	None
C30 - INTERIOR FINISHES		
C30.2.1 Remove disused louver; close opening from the exterior	\$ 240	Remove louver; plywood closure; caulk; paint
	\$ 2,900	
D SERVICES		
D10 - CONVEYING		
None	\$ -	None
D20 - PLUMBING		
None	\$ -	None
D30 - HVAC		
D30.7.1 Reroute condensate drain to use gravity instead of pump	\$ 200	
D30.18.1 Program thermostat	\$ 45	

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
D40 - FIRE PROTECTION		
None	\$ -	None
D50 - ELECTRICAL (Part I)		
D50.19.1 Replacement of on-off switches with occupancy sensing	\$ 130	Switches with occ'y sensors
D60 - FIRE DETECTION AND ALARM		
None	\$ -	None
	\$ 375	
E EQUIPMENT AND FURNISHINGS		
E10 - EQUIPMENT		
None	\$ -	None
	\$ -	
F SPECIAL CONSTRUCTION AND DEMOLITION		
NOT USED		

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall^{Architecture}

Items	Projected Cost	Cost Description
G SITEWORK		
G10 - NOT USED		
G20 - SITE IMPROVEMENTS		
G20.2.1 Re-stripe pavement for accessible employee parking	\$ 135	Paint
G20.6.1 Replace T1-11 siding at north facade with non-combustible siding	\$ 6,300	Fabricated metal siding, prefinished
G30 - LIQUID AND GAS SITE UTILITIES		
None	\$ -	None
G40 - ELECTRICAL SITE IMPROVEMENTS		
None	\$ -	None
	\$ 6,435	
OTHER		
	\$ -	

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall^{Architecture}

Items	Projected Cost	Cost Description
TOTALS		
A SUBSTRUCTURE	\$ -	
B SHELL	\$ -	
C INTERIORS	\$ 2,900	
D SERVICES	\$ 375	
E EQUIPMENT AND FURNISHINGS	\$ -	
F SPECIAL CONSTRUCTION AND DEMOLITION	N/A	
G SITEWORK	\$ 6,435	
OTHER	\$ -	
SUBTOTAL	\$ 9,700	<i>(rounded to nearest \$100)</i>
Contingency	30%	
TOTAL	\$ 12,600	<i>(rounded to nearest \$100)</i>

NOTES

- 1 Costs estimates are shown in US\$
- 2 Costs for recurring items, e.g. maintenance regimens, are indicated for first year

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Facility: **Lafky House**
Office space for City of Tualatin

Items	Projected Cost	Cost Description
A SUBSTRUCTURE		
A10 - FOUNDATIONS (foundations, slab-on-grade, etc.)		
None	\$ -	None
A20 - SUBGRADE ENCLOSURES (basements, etc)		
A20.1.1 Insulate crawlspace foundation walls	\$ 3,705	R-19 batt; vapor barrier at kneewalls and on-grade
	\$ 3,705	
B SHELL		
B10 - SUPERSTRUCTURE (building frame, floors & roofs)		
B10.3.1 Provide diaphragm at roof	\$ 2,957	Add'l layer 1/2-inch plywood at time of re-roofing
B10.3.2 Provide anchorage of sill plates to foundation walls	\$ 2,656	Bolting at 48 inches o.c. at perimeter
B10.5.1 Provide add'l support below heavy loads above	\$ 464	Add'l floor framing, posts and bases; 4 locations
B20 - EXTERIOR VERTICAL ENCLOSURES (walls, windows, exterior doors, etc)		
B20.3.1 Provide downspout extensions	\$ 106	8 locations
B30 - EXTERIOR HORIZONTAL ENCLOSURES (roofing, horizontal openings, etc.)		
B30.1.1 Provide re-roofing	\$ 6,052	2-tab asphalt shingle, 20-year warranty, incl'g tear-off
	\$ 14,620	Utilize metal roofing per Capital Improvement Plan
	\$ 20,803	

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City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
C INTERIORS		
C10 - LIFE SAFETY AND ACCESSIBILITY		
None	\$ -	None
C20 - EGRESS		
None	\$ -	None
C30 - INTERIOR FINISHES		
None	\$ -	None
	\$ -	
D SERVICES		
D10 - CONVEYING		
None	\$ -	None
D20 - PLUMBING		
D20.1.1 Replace galvanized steel water supply piping	\$ 1,950	Replace with PEX
D20.7.1 Replace water heater	\$ 720	On-demand unit
D30 - HVAC		
D30.6.1 Mark stand-off distance	\$ 23	Painted lines
D30.7.1 Remove condensate pump; reroute condensate line for gravity drain	\$ 105	
D30.10.1 Increase insulation at attic	\$ 2,380	R-19 batt added
D30.18.1 Program thermostat	\$ 45	

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6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
D40 - FIRE PROTECTION		
None	\$ -	None
D50 - ELECTRICAL (Part I)		
D50.6.1 Replace existing panel	\$ 1,260	New panel adjacent
D50.12.1 Mark stand-off distance	\$ 23	Painted lines
D50.19.1 Replacement of on-off switches with occupancy sensing	\$ 390	Switches with occ'y sensors
D50.26.1 Addition of emergency lighting	\$ 2,500	Battery pack-powered emergency lighting fixtures
D50.27.1 Addition of emergency egress signage	\$ 800	Battery pack-powered emergency egress fixtures
D60 - FIRE DETECTION AND ALARM		
D60.1.1 Provide centralized fire detection and alarm	\$ 3,200	Small building-scale monitoring and notification system
	\$ 13,395	
E EQUIPMENT AND FURNISHINGS		
E10 - EQUIPMENT		
E10.1.1 Provide seismic restraint for water heater	\$ 63	
E10.2.1 Disconnect baseboard heat and label circuits	\$ 260	
	\$ 323	
F SPECIAL CONSTRUCTION AND DEMOLITION		
NOT USED		

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
G SITEWORK		
G10 - NOT USED		
G20 - SITE IMPROVEMENTS		
G20.8.1 Site grading at building	\$ 160	Soil and toppings cleared away
G30 - LIQUID AND GAS SITE UTILITIES		
None	\$ -	None
G40 - ELECTRICAL SITE IMPROVEMENTS		
None	\$ -	None
	\$ 160	
OTHER		
	\$ -	

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6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
TOTALS		
A SUBSTRUCTURE	\$ 3,705	
B SHELL	\$ 20,803	
C INTERIORS	\$ -	
D SERVICES	\$ 13,395	
E EQUIPMENT AND FURNISHINGS	\$ 323	
F SPECIAL CONSTRUCTION AND DEMOLITION	N/A	
G SITEWORK	\$ 160	
OTHER	\$ -	
SUBTOTAL	\$ 38,400	<i>(rounded to nearest \$100)</i>
Contingency	30%	
TOTAL	\$ 49,900	<i>(rounded to nearest \$100)</i>

NOTES

- 1 Costs estimates are shown in US\$
- 2 Costs for recurring items, e.g. maintenance regimens, are indicated for first year

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Facility: **City Offices Building and Public Library**

Items	Projected Cost	Cost Description
A SUBSTRUCTURE		
A10 - FOUNDATIONS <i>(foundations, slab-on-grade, etc.)</i>		
None	\$ -	None
A20 - SUBGRADE ENCLOSURES <i>(basements, etc)</i>		
None	\$ -	None
B SHELL		
B10 - SUPERSTRUCTURE <i>(building frame, floors & roofs)</i>		
None	\$ -	None
B20 - EXTERIOR VERTICAL ENCLOSURES <i>(walls, windows, exterior doors, etc)</i>		
B20.1.1 Maintain field-painted finish at steel lintels	\$ 3,456	Maintain field-painted finish at steel lintels
B30 - EXTERIOR HORIZONTAL ENCLOSURES <i>(roofing, horizontal openings, etc.)</i>		
None	\$ -	None
	\$ 3,456	

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
C INTERIORS		
C10 - LIFE SAFETY AND ACCESSIBILITY		
None	\$ -	None
C20 - EGRESS		
None	\$ -	None
C30 - INTERIOR FINISHES		
None	\$ -	None
	\$ -	
D SERVICES		
D10 - CONVEYING		
None	\$ -	None
D20 - PLUMBING		
D20.3.1 Install fats/pils/grease trap system	\$ 26,000	Per Capital Improvements Plan

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
D30 - HVAC		
D30.4.1 Maintain field-painted finish at rooftop gas lines to HVAC	\$ 280	Maintain field-painted finish at rooftop gas lines to HVAC
D30.13.1 Replacement of exhaust fan controls at restroom with occ'y sensing	\$ 440	Switches with occ'y sensors
D30.14.1 Replacement of exhaust fan controls at custodial with occ'y sensing	\$ 110	Switches with occ'y sensors
D30.15.1 Addition of local exhaust fan at kitchenette	\$ 490	Exhaust fan thru roof; 150 cfm with occ'y sensor
D30.23.1 Refer to D30.15		
D40 - FIRE PROTECTION		
None	\$ -	None
D50 - ELECTRICAL (Part I)		
None	\$ -	None
D60 - FIRE DETECTION AND ALARM		
None	\$ -	None
	\$ 27,320	
E EQUIPMENT AND FURNISHINGS		
E10 - EQUIPMENT		
None	\$ -	None
	\$ -	

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
F SPECIAL CONSTRUCTION AND DEMOLITION		
NOT USED		
G SITEWORK		
G10 - NOT USED		
G20 - SITE IMPROVEMENTS		
None	\$ -	None
G30 - LIQUID AND GAS SITE UTILITIES		
None	\$ -	None
G40 - ELECTRICAL SITE IMPROVEMENTS		
None	\$ -	None
	\$ -	
OTHER		
	\$ -	

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
TOTALS		
A SUBSTRUCTURE	\$ -	
B SHELL	\$ 3,456	
C INTERIORS	\$ -	
D SERVICES	\$ 27,320	
E EQUIPMENT AND FURNISHINGS	\$ -	
F SPECIAL CONSTRUCTION AND DEMOLITION	N/A	
G SITEWORK	\$ -	
OTHER	\$ -	
SUBTOTAL	\$ 30,800	(rounded to nearest \$100)
Contingency	30%	
TOTAL	\$ 40,000	(rounded to nearest \$100)

NOTES

- Costs estimates are shown in US\$
- Costs for recurring items, e.g. maintenance regimens, are indicated for first year

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Facility: Council Meeting Space for City of Tualatin
at Juanita Pohl Senior Center

Items	Projected Cost	Cost Description
A SUBSTRUCTURE		
A10 - FOUNDATIONS (foundations, slab-on-grade, etc.)		
None	\$ -	None
A20 - SUBGRADE ENCLOSURES (basements, etc)		
None	\$ -	None
	\$ -	
B SHELL		
B10 - SUPERSTRUCTURE (building frame, floors & roofs)		
None	\$ -	None
B20 - EXTERIOR VERTICAL ENCLOSURES (walls, windows, exterior doors, etc)		
None	\$ -	None
B30 - EXTERIOR HORIZONTAL ENCLOSURES (roofing, horizontal openings, etc.)		
B30.1.1 Provide re-roofing identified in Capital Improvement Plan	\$ 21,400	20% of reroofing per Capital Improvement Plan
D30.18.1 Program thermostat	\$ 45	
	\$ 21,445	

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Summary
Council Meeting Space at Pohl Center

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
C INTERIORS		
C10 - LIFE SAFETY AND ACCESSIBILITY		
C10.4.1 Provide scald protection shielding at restroom sink drains	\$ 230	4 sinks
C10.4.2 Replace existing urinals with accessible versions	\$ 1,050	1 urinal; remove, in-fill and retile floor and wall, add new
C20 - EGRESS		
None	\$ -	None
C30 - INTERIOR FINISHES		
None	\$ -	None
	\$ 1,280	
D SERVICES		
D10 - CONVEYING		
None	\$ -	None
D20 - PLUMBING		
None	\$ -	None
D30 - HVAC		
None	\$ -	None

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Summary
Council Meeting Space at Pohl Center

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
D40 - FIRE PROTECTION		
None	\$ -	None
D50 - ELECTRICAL (Part I)		
D50.19.1 Replacement of on-off switches with occupancy sensing	\$ 260	Switches with occ'y sensors
D60 - FIRE DETECTION AND ALARM		
None	\$ -	None
	\$ 260	
E EQUIPMENT AND FURNISHINGS		
E10 - EQUIPMENT		
None	\$ -	None
	\$ -	
F SPECIAL CONSTRUCTION AND DEMOLITION		
NOT USED		

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
G SITEWORK		
G10 - NOT USED		
G20 - SITE IMPROVEMENTS		
G20.8.1 Site grading at building	\$ 160	Soil and toppings cleared away
G30 - LIQUID AND GAS SITE UTILITIES		
None	\$ -	None
G40 - ELECTRICAL SITE IMPROVEMENTS		
None	\$ -	None
	\$ 160	
OTHER		
	\$ -	

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
TOTALS		
A SUBSTRUCTURE	\$ -	
B SHELL	\$ 21,445	
C INTERIORS	\$ 1,280	
D SERVICES	\$ 260	
E EQUIPMENT AND FURNISHINGS	\$ -	
F SPECIAL CONSTRUCTION AND DEMOLITION	N/A	
G SITEWORK	\$ 160	
OTHER	\$ -	
SUBTOTAL	\$ 23,100	<i>(rounded to nearest \$100)</i>
Contingency	30%	
TOTAL	\$ 30,000	<i>(rounded to nearest \$100)</i>

NOTES

- Costs estimates are shown in US\$
- Costs for recurring items, e.g. maintenance regimens, are indicated for first year

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Facility: **Municipal Court**
at Police Department

Items	Projected Cost	Cost Description
A SUBSTRUCTURE		
A10 - FOUNDATIONS (foundations, slab-on-grade, etc.)		
None	\$ -	None
A20 - SUBGRADE ENCLOSURES (basements, etc)		
None	\$ -	None
B SHELL		
B10 - SUPERSTRUCTURE (building frame, floors & roofs)		
None	\$ -	None
B20 - EXTERIOR VERTICAL ENCLOSURES (walls, windows, exterior doors, etc)		
B20.1.1	\$ 1,800	Maintain field-painted finish at steel lintels
B30 - EXTERIOR HORIZONTAL ENCLOSURES (roofing, horizontal openings, etc.)		
B30.1.1	\$ 7,750	25% of reroofing flat roofs per Capital Improvement Plan
	\$ 9,550	

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
C INTERIORS		
C10 - LIFE SAFETY AND ACCESSIBILITY		
None	\$ -	None
C20 - EGRESS		
None	\$ -	None
C30 - INTERIOR FINISHES		
C30.2.1 Replace ceiling tiles at leak locations from past	\$ 48	ACT tiles
	\$ 48	
D SERVICES		
D10 - CONVEYING		
None	\$ -	None
D20 - PLUMBING		
None	\$ -	None
D30 - HVAC		
D30.4.1 Provide replacement unit identified in Capital Improvement Plan	\$ 29,000	1 unit per Capital Improvement Plan
D30.23.1 Addition of local exhaust fan at kitchenette	\$ 490	Exhaust fan thru roof; 150 cfm with occ'y sensor

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26 January 2015

Summary
Municipal Court at Police Department

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
D40 - FIRE PROTECTION		
None	\$ -	None
D50 - ELECTRICAL (Part I)		
D50.19.1 Replacement of on-off switches with occupancy sensing	\$ 520	Switches with occ'y sensors
D60 - FIRE DETECTION AND ALARM		
None	\$ -	None
	\$ 30,010	
E EQUIPMENT AND FURNISHINGS		
E10 - EQUIPMENT		
None	\$ -	None
	\$ -	
F SPECIAL CONSTRUCTION AND DEMOLITION		
NOT USED		

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26 January 2015

Summary
Municipal Court at Police Department

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
G SITEWORK		
G10 - NOT USED		
G20 - SITE IMPROVEMENTS		
None	\$ -	None
G30 - LIQUID AND GAS SITE UTILITIES		
None	\$ -	None
G40 - ELECTRICAL SITE IMPROVEMENTS		
None	\$ -	None
	\$ -	
OTHER		
	\$ -	

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
TOTALS		
A SUBSTRUCTURE	\$ -	
B SHELL	\$ 9,550	
C INTERIORS	\$ 48	
D SERVICES	\$ 30,010	
E EQUIPMENT AND FURNISHINGS	\$ -	
F SPECIAL CONSTRUCTION AND DEMOLITION	N/A	
G SITEWORK	\$ -	
OTHER	\$ -	
SUBTOTAL	\$ 39,600	<i>(rounded to nearest \$100)</i>
Contingency	30%	
TOTAL	\$ 51,500	<i>(rounded to nearest \$100)</i>

NOTES

- 1 Costs estimates are shown in US\$
- 2 Costs for recurring items, e.g. maintenance regimens, are indicated for first year

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Facility: **Seneca Building**
Leased office space for City of Tualatin

Items	Projected Cost	Cost Description
A SUBSTRUCTURE		
A10 - FOUNDATIONS (<i>foundations, slab-on-grade, etc.</i>)		
None	\$ -	None
A20 - SUBGRADE ENCLOSURES (<i>basements, etc.</i>)		
None	\$ -	None
	\$ -	
B SHELL		
B10 - SUPERSTRUCTURE (<i>building frame, floors & roofs</i>)		
None	\$ -	None
B20 - EXTERIOR VERTICAL ENCLOSURES (<i>walls, windows, exterior doors, etc.</i>)		
None	\$ -	None
B30 - EXTERIOR HORIZONTAL ENCLOSURES (<i>roofing, horizontal openings, etc.</i>)		
None	\$ -	None
	\$ -	

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26 January 2015

Summary
Seneca Building

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
C INTERIORS		
C10 - LIFE SAFETY AND ACCESSIBILITY		
None	\$ -	None
C20 - EGRESS		
C10.1.1 Provide rated partition to reduce travel distance	\$ 1,900	1-hr rated partition; rated door and hardware
C30 - INTERIOR FINISHES		
C30.2.1 Replace ceiling tiles at leak locations from past	\$ 120	ACT tiles
	\$ 2,020	
D SERVICES		
D10 - CONVEYING		
None	\$ -	None
D20 - PLUMBING		
None	\$ -	None
D30 - HVAC		
D30.23.1 Addition of local exhaust fan at kitchenette	\$ 490	Exhaust fan thru roof; 150 cfm with occ'y sensor

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26 January 2015

Summary
Seneca Building

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
D40 - FIRE PROTECTION		
None	\$ -	None
D50 - ELECTRICAL (Part I)		
D50.19.1 Replacement of on-off switches with occupancy sensing	\$ 390	Switches with occ'y sensors
D60 - FIRE DETECTION AND ALARM		
None	\$ -	None
	\$ 880	
E EQUIPMENT AND FURNISHINGS		
E10 - EQUIPMENT		
None	\$ -	None
	\$ -	
F SPECIAL CONSTRUCTION AND DEMOLITION		
NOT USED		

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
G SITEWORK		
G10 - NOT USED		
G20 - SITE IMPROVEMENTS		
None	\$ -	None
G30 - LIQUID AND GAS SITE UTILITIES		
None	\$ -	None
G40 - ELECTRICAL SITE IMPROVEMENTS		
None	\$ -	None
	\$ -	
OTHER		
	\$ -	

Inspection Date(s):
6 January 2015

City of Tualatin
Priority Level Facilities Assessment Level 0 Cost Estimate

Yost Grube Hall_{Architecture}

Items	Projected Cost	Cost Description
TOTALS		
A SUBSTRUCTURE	\$ -	
B SHELL	\$ -	
C INTERIORS	\$ 2,020	
D SERVICES	\$ 880	
E EQUIPMENT AND FURNISHINGS	\$ -	
F SPECIAL CONSTRUCTION AND DEMOLITION	N/A	
G SITEWORK	\$ -	
OTHER	\$ -	
SUBTOTAL	\$ 2,900	<i>(rounded to nearest \$100)</i>
Contingency	30%	
TOTAL	\$ 3,800	<i>(rounded to nearest \$100)</i>

NOTES

- Costs estimates are shown in US\$
- Costs for recurring items, e.g. maintenance regimens, are indicated for first year

appendix B

SPACE REQUIREMENTS

The City of Tualatin retained Yost Grube Hall Architecture (YGH) to develop a City Facilities Study.

The main components of the study included an existing city facilities assessment, a space requirements study for existing city staff (excluding the Police, Operations and IT Server and support staff), workshops and community outreach presentations and a final summary planning document with costs and recommendations for City Council.

The following pages contain the Space Requirements Study portion of the project. YGH developed interview questionnaires relating specifically to the City of Tualatin and their space requirements.

Following a review by the City, these questionnaires were distributed at the December 3, 2014 meeting of the City's Internal Design and Evaluation Advisors (IDEA) committee. The IDEA Committee is comprised of internal stakeholders from various departments within the City.

Between January 4th and January 12th, 2015, YGH conducted one-on-one interview sessions with each stakeholder and representatives from their departments. Their completed questionnaires were reviewed and additional information provided. The document was given to each stakeholder at the IDEA committee meeting on January 28, 2015 for final review.

YGH presented the document to the City's Facilities Task Force at their February 4th Task Force meeting.

CITY of TUALATIN
SPACE REQUIREMENTS STUDY

DEPARTMENT: Administration

DIVISION: City Managers Office

PERSONNEL/STAFF DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
City Manager	1	1	1	1	Office	216	216	216	216	216	1		2.
Deputy City Manager	1	1	1	1	Office	120	120	120	120	120	2		
Office Assistant	1	1	1	1	Workstation	64	64	64	64	64	3	G	3.
Deputy City Recorder	1	1	1	1	Workstation	64	64	64	64	64	4	5 & 6	4., 5.
Temporary File Clerk	1	0	0	0	Workstation	48	48	0	0	0	5	4 & 6	4.
Records Coordinator	0	0	1	1	Workstation	64	0	0	64	64	6	4 & 5	4.
Communications Coordinator	0	1	1	1	Workstation	64	0	64	64	64	7		
Policy Analyst	0	0	0	1	Workstation	64	0	0	0	64	8		
							0	0	0	0			
							0	0	0	0			
SUBTOTAL STAFF	5	5	6	7	SUBTOTAL NET AREA		512	528	592	656			

NOTES:

- The City Manager stated that she didn't like the idea of being separate. It is like a message without a face. The department needs to feel welcomingly transparent and friendly.
- Part of the Administration group. Desired adjacency to City Attorney, Community Development and Economic Development.
- This position is the receptionist for the department.
- These 3 positions are all part of Records Management.
- Access to a secure vault is required for this position. The vault can be shared but needs to be reasonably adjacent.

ANCILLARY & SUPPORT SPACES DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Reception/ Waiting Area	1	1	1	1	Open	120	120	120	120	120	A		1.
Work Room	1	1	1	1	Enclosed	180	180	180	180	180	B		2.
Mail Area	1	1	1	1	Enclosed	100	100	100	100	100	C		7.
Small Conference Room	1	1	1	1	Enclosed	120	120	120	120	120	D		3.
Medium Conference Room	1	1	1	1	Enclosed	216	216	216	216	216	E		4.
Files & Storage	1	1	2	2	Open	40	40	40	80	80	F		5.
Records Management Workspace	1	1	1	1	Workstation	48	48	48	48	48	G	3	6.
Volunteer/ Intern	1	1	1	1	Workstation	48	48	48	48	48	H		8.
							0	0	0	0			
							0	0	0	0			
SUBTOTAL NET AREA							872	872	912	912			

NOTES:

- Reception/ Waiting Area need not be large if part of a larger building containing the balance of the City departments.
- Could be shared with other City departments. Contains copier, printers, supply storage, counter space for assembly of packets for City Council.
- Small office sized conference room for use by Mayor and City Council members as a "touch-down" area. When not utilized for this purpose it would function as a general purpose small 4-6 person conference room.
- Medium Conference Room sized for 10 - 12 people. Can be shared but should be adjacent to department. All conference rooms should have white boards, tack boards, projections screens and current technology for presentations and conferencing calls.
- Additional area to accommodate personal or shared file cabinets and shelving throughout the department.
- Open work area adjacent to the Office Assistant for scanning and processing.
- Mail area to be included in the work room- minimum area required. Should be located to allow for easy delivery of mail.
- Shared workstation for volunteers and temporary staff.

	2015	2017	2020	2025		2015	2017	2020	2025
					SUBTOTAL NET AREA	1,384	1,400	1,504	1,568
	2015	2017	2020	2025	EFFICIENCY FACTOR (30%)	415	420	451	470
TOTAL STAFF	5	5	6	7	TOTAL USABLE AREA	1,799	1,820	1,955	2,038

CITY of TUALATIN
SPACE REQUIREMENTS STUDY

DEPARTMENT: Administration

DIVISION: Human Resources

PERSONNEL/STAFF DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Human Resources Manager	1	1	1	1	Office	120	120	120	120	120	1	2 & 3	
Human Resources Analyst	1	2	2	2	Workstation	64	64	128	128	128	2	1 & 3	2.
Human Resources Specialist	1	2	2	2	Workstation	64	64	128	128	128	3	1 & 2	2.
Volunteer Specialist	0	0	1	1	Workstation	64	0	0	64	64	4		3.
Growth	0	0	0	1	Workstation	64	0	0	0	64	5		3.
							0	0	0	0			
							0	0	0	0			
SUBTOTAL STAFF	3	5	6	7	SUBTOTAL NET AREA		248	376	440	504			

NOTES:

- Human Resources ideal adjacency would be with Finance (Payroll) and Legal. They should be easily accessible to all City staff but not "on view" or a major circulation route. It would benefit Human Resources functionally to have the City staff consolidated into one location.
- These positions require direct adjacency to a small 2-4 person conference room for interviews and confidential employee conversations.
- There is currently a Volunteer Specialist located with the Library staff and a part-time Volunteer Specialist located with Operations. They should stay in those locations and their space requirements counted as part of those departments. A single position is counted here for growth.

ANCILLARY & SUPPORT SPACES DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
File Room	1	1	1	1	Enclosed	100	100	100	100	100	A	1,2 & 3	1.
Work Room	1	1	1	1	Enclosed	120	120	120	120	120	B		2.
ID Photo Area	1	1	1	1	Open	64	64	64	64	64	C		3.
Small Conference Room	1	1	1	1	Enclosed	100	100	100	100	100	D		4.
Volunteer/ Intern	1	1	1	1	Workstation	48	48	48	48	48	E		5.
							0	0	0	0			
							0	0	0	0			
							0	0	0	0			
SUBTOTAL NET AREA							432	432	432	432			

NOTES:

- File Room needs to be secure and fire resistant. High density filing would work. The space can be combined with Finance and Legal into a single larger room however each would need to have separate locking files.
- Work Room with built-in storage and counter space for assembly of packets and interview booklets. Can be shared with other department and be part of a larger shares Work Room. Copier and other required office support equipment would be located in this space.
- Area set-up with necessary lighting and equipment for taking ID Photos. This could be shared with the Passports section in Finance.
- Small Conference Room for 2-4 people for interviews and confidential employee conversations.
- Shared workstation for volunteers and temporary staff.

	2015	2017	2020	2025		2015	2017	2020	2025
					SUBTOTAL NET AREA	680	808	872	936
	2015	2017	2020	2025	EFFICIENCY FACTOR (30%)	204	242	262	281
TOTAL STAFF	3	5	6	7	TOTAL USABLE AREA	884	1,050	1,134	1,217

CITY of TUALATIN
SPACE REQUIREMENTS STUDY

DEPARTMENT: Finance

DIVISION: _____

PERSONNEL/STAFF DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Finance Director	1	1	1	1	Office	180	180	180	180	180	1		
Program Coordinator	1	1	1	1	Workstation	64	64	64	64	64	2		
Reception/Passports	1	1	1	1	Workstation	64	64	64	64	64	3		2.
Utility Clerk	1	1	1	1	Workstation	64	64	64	64	64	4		2.
Accounting Supervisor	1	1	1	1	Office	120	120	120	120	120	5		
Payroll	1	1	1	1	Workstation	64	64	64	64	64	6		
Receivables/Purchasing	1	1	1	1	Workstation	64	64	64	64	64	7		
Payables	1	1	1	1	Workstation	64	64	64	64	64	8		
Accountant	1	1	2	2	Workstation	64	64	64	128	128	9		
Accounting Technician	0	0	0	1	Workstation	64	0	0	0	64	10	3&4	2.
Accounting Technician	0	1	1	1	Workstation	64	0	64	64	64			
							0	0	0	0			
SUBTOTAL STAFF	9	10	11	12			748	812	876	940			

NOTES:

- Ideally the department should all be located together. The Reception/Passport and Utility Clerk positions should have direct public access with the balance of the staff. accessible to provide support but screened from the public. There does not need to be a direct visual connection but a close adjacency.
- These workstations are behind a counter where they service the public. The counter should either be increased or separated into 2 sections with labels for "Passports" and "Utility Billings". There should be locking drawers in the counter for cash. There should be a security button/buzzer to the police department at the counter. Also locked doors into the staff side/general work area from public side. This Accounting Technician position is a growth workstation at the counter.

ANCILLARY & SUPPORT SPACES DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
File Room	1	1	1	1	Enclosed	100	100	100	100	100	A		1.
Work Room	1	1	1	1	Enclosed	120	120	120	120	120	B		2.
Files and Storage	1	1	1	2	Open	60	60	60	60	120	C		4.
Small Conference Room	1	1	1	1	Enclosed	100	100	100	100	100	D		5.
Public Counter/ Waiting Area	1	1	1	1	Open	750	750	750	750	750	E		6.
Passport Photo Area	1	1	1	1	Open	64	64	64	64	64	F		3.
Volunteer/ Intern	1	1	1	1	Workstation	48	48	48	48	48	G		7.
							0	0	0	0			
SUBTOTAL NET AREA							1,242	1,242	1,242	1,302			

NOTES:

- File Room needs to be secure and fire resistant. High density filing would work. The space can be combined with HR and Legal into a single larger room however each would need to have separate locking files.
- Can be shared with other department and be part of a larger shared Work Room. Copier and other required office support equipment would be located in this space.
- Area set-up with necessary lighting and equipment for taking Passport Photos. This could shared with the HR for ID photos. Should be located adjacent to Passport area.
- Additional area to accommodate personal or shared file cabinets and shelving throughout the department.
- Small Conference Room for 2-4 people adjacent to the department.
- Counter and public waiting area for Passports and Utility Billing. There should be a small stand-up counter separate from the main counter for passport applicants to complete forms. On average 10 passports are processed per day. There can be as many as 10 people waiting during the passport process. This includes not only applicant but additional family members.
- Shared workstation for volunteers and temporary staff.

	2015	2017	2020	2025	2015	2017	2020	2025	
SUBTOTAL NET AREA	1,990	2,054	2,118	2,242					
EFFICIENCY FACTOR (30%)	597	616	635	673					
TOTAL STAFF	9	10	11	12	TOTAL USABLE AREA	2,587	2,670	2,753	2,915

CITY of TUALATIN
SPACE REQUIREMENTS STUDY

DEPARTMENT: Finance

DIVISION: Municipal Court

PERSONNEL/STAFF DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Court Administrator	1	1	1	1	Office	120	120	120	120	120	1		
Court Clerk	3	4	5	5	Workstation	64	192	256	320	320	2		
							0	0	0	0			
							0	0	0	0			
							0	0	0	0			
SUBTOTAL STAFF	4	5	6	6			SUBTOTAL NET AREA	312	376	440	440		

NOTES:

- Court is in session 1 day per week. There are on average 30 people present waiting to be checked-in and 100 in the actual court room.
- There is a preference for an open work environment with visual access to the front counter while maintaining privacy to the work space from the public.
- The staff prefers to stand at the front counter at the same level as the public.
- There is a staff concern about security in the Court Room. They would prefer a Court Room that is not used as the Council Chamber due to the amount of time spent by staff converting the room into what is needed for court.
- This is a stand alone group that does not require back-up or interaction with other City staff.
- Wherever The Municipal Court Room is located there needs to be additional parking available on the day court is held for the approximately 50 to 100 people.

ANCILLARY & SUPPORT SPACES DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Public Counter/ Waiting Area	1	1	1	1	Open	750	750	750	750	750	A	1&2	1.
File Area	1	1	1	1	Open	100	100	100	100	100	B		2.
Work Room	1	1	1	1	Enclosed	120	120	120	120	120	C		
Small Interview Room	1	1	1	1	Enclosed	100	100	100	100	100	D	A	3.
Volunteer/ Intern	1	1	1	1	Workstation	48	48	48	48	48	E		4.
Judge's Chamber	1	1	1	1	Enclosed	120	120	120	120	120	F	H&G	
Jury Room/ Executive Session Room	1	1	1	1	Enclosed	216	0	0	0	0	G	F&H	5.
Court Room/ Council Chamber	1	1	1	1	Enclosed	2,000	0	0	0	0	H	A,F&G	5.
							0	0	0	0			
							0	0	0	0			
SUBTOTAL NET AREA							1,238	1,238	1,238	1,238			

NOTES:

- This area needs to be physically and acoustically separate from the other City public counters- Passports, Utility Billings, Community Development. The counter is at standing height with two large windows to service the public. Each window should have a level of privacy for the public. There needs to be enough space for individuals to line up at each of the windows.
- Files do not need to be in a room as long as they are lockable. High density files would work well.
- Small 2-4 person Conference Room located off the Public Waiting Area for private conversations with the public.
- Shared workstation for volunteers and temporary staff.
- These spaces are listed here to establish adjacency requirements. The actual area required is listed on the program sheet labeled Common Area because they serve a dual purpose.

	2015	2017	2020	2025	2015	2017	2020	2025	
SUBTOTAL NET AREA	1,550	1,614	1,678	1,678					
EFFICIENCY FACTOR (30%)	465	484	503	503					
TOTAL STAFF	4	5	6	6	TOTAL USABLE AREA	2,015	2,098	2,181	2,181

CITY of TUALATIN
SPACE REQUIREMENTS PROGRAM

DEPARTMENT: Legal

DIVISION: _____

PERSONNEL/STAFF DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Attorney	1	1	1	1	Office	180	180	180	180	180	1		2.
Paralegal	1	1	1	1	Workstation	64	64	64	64	64	2		
							0	0	0	0			
							0	0	0	0			
							0	0	0	0			
SUBTOTAL STAFF	2	2	2	2		SUBTOTAL NET AREA	244	244	244	244			

NOTES:

1. There is no required adjacency to a specific department. Most work is done with Administration, Planning and HR. Close proximity to these would be advantages.
2. Office is sized for a small conference table to accommodate most conferencing needs. Sound attenuation to be provided in office for confidentiality.

ANCILLARY & SUPPORT SPACES DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
File Room	1	1	1	1	Enclosed	100	100	100	100	100	A		1.
Files and Storage	1	1	1	1	Open	60	60	60	60	60	B		2.
Equipment	1	1	1	1	Workstation	48	48	48	48	48	C		3.
Work Room	1	1	1	1	Enclosed		0	0	0	0	D		4.
Volunteer/ Intern	1	1	1	1	Workstation	48	48	48	48	48	E		5.
							0	0	0	0			
							0	0	0	0			
							0	0	0	0			
							0	0	0	0			
						SUBTOTAL NET AREA	256	256	256	256			

NOTES:

1. File Room needs to be secure and fire resistant. High density filing would work. The space can be combined with Finance and HR into a single larger room however each would need to have separate locking files.
2. Additional area to accommodate personal or shared file cabinets and shelving throughout the department.
3. Small workstation for additional shared equipment: scanner, printer, fax.
4. Can be shared with other department and be part of a larger shared Work Room. Copier and other required office support equipment would be located in this space.
5. Shared workstation for volunteers and temporary staff.

	2015	2017	2020	2025		2015	2017	2020	2025
					SUBTOTAL NET AREA	500	500	500	500
					EFFICIENCY FACTOR (30%)	150	150	150	150
TOTAL STAFF	2	2	2	2	TOTAL USABLE AREA	650	650	650	650

CITY of TUALATIN
SPACE REQUIREMENTS STUDY

DEPARTMENT: Information Services

DIVISION: _____

PERSONNEL/STAFF DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
IS Manager	1	1	1	1	Office	120	120	120	120	120	1		2.
GIS Coordinator	1	1	1	1	Workstation	64	64	64	64	64	2		
GIS Technician	1	2	2	2	Workstation	64	64	128	128	128	3		3.
Network Administrator	1	1	1	1	Workstation		0	0	0	0	4		4.
IS Technician	1	1	1	1	Workstation		0	0	0	0	5		4.
							0	0	0	0			
							0	0	0	0			
							0	0	0	0			
SUBTOTAL STAFF	3	4	4	4		SUBTOTAL NET AREA	248	312	312	312			

NOTES:

1. This information refers to the GIS staff that will be located with the Community Development department. The balance of the staff will remain at the Operations site with the server room. This information does not refer to the Operations site requirements.
2. The IS Manager would have an office with the balance of the City staff and not at the Operations location.
3. The growth projected for 2017 is a 1/2 time staff but is listed as full-time in this document as a workstation is required.
4. These positions are listed for reference only. They will remain at the Operations site and are not counted in this study.

ANCILLARY & SUPPORT SPACES DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Work Room	1	1	1	1	Enclosed	120	120	120	120	120	A		1.
Storage Room	1	1	1	1	Enclosed	120	120	120	120	120	B		2.
Volunteer/ Intern	1	1	1	1	Workstation	48	48	48	48	48	C		3.
Reference Table	1	1	1	1	Open	64	64	64	64	64	D		4.
							0	0	0	0			
							0	0	0	0			
							0	0	0	0			
							0	0	0	0			
						SUBTOTAL NET AREA	352	352	352	352			

NOTES:

1. Work room for large plotter, paper and supplies. Must be adjacent to GIS work group.
2. Small lockable room for storage of equipment and work area for equipment repairs.
3. Shared workstation for volunteers and temporary staff. Can also be used as a "touch-down work space for staff from Operations.
4. Work space to contain large- 8' x 3'- stand-up reference table for reviewing maps and other large documents. Recommendation would be to place storage below for rolled and flat maps. Wall space is also necessary for hanging and displaying the maps.

	2015	2017	2020	2025		2015	2017	2020	2025
					SUBTOTAL NET AREA	600	664	664	664
					EFFICIENCY FACTOR (30%)	180	199	199	199
TOTAL STAFF	3	4	4	4	TOTAL USABLE AREA	780	863	863	863

CITY of TUALATIN
SPACE REQUIREMENTS STUDY

DEPARTMENT: Community Services

DIVISION: Parks and Recreation

PERSONNEL/STAFF DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Community Services Director	1	1	1	1	Office	216	216	216	216	216	1		1.
Management Analyst	1	1	1	1	Workstation	64	64	64	64	64	2	1&3	1.
Parks & Recreation Manager	1	1	1	1	Office	120	120	120	120	120	3		1.
Recreation Supervisor	1	1	1	1	Workstation	64	64	64	64	64	4	5	2.
Recreation Program Specialist	1	1	2	3	Workstation	64	64	64	128	192	5	4	2.
Juanita Pohl Center Supervisor	1	1	1	1	Workstation	64	64	64	64	64	6		3.
Recreation Program Specialist	1	1	1	1	Workstation	64	64	64	64	64	7		
							0	0	0	0			
							0	0	0	0			
							0	0	0	0			
SUBTOTAL STAFF	7	7	8	9	SUBTOTAL NET AREA	656	656	720	784				

NOTES:

- There was discussion about these 3 positions located with the balance of the City staff. The Parks & Recreation Manager thought it was important for his position to be located in one of the City parks and preferred to stay in the current Community Services location.
- These 2 positions work together and need a larger work space to prepare for events. They need not be located in the current Community Services location.
- Juanita Pohl Center Supervisor will stay in the Pohl Center.

ANCILLARY & SUPPORT SPACES DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Work Room	1	1	1	1	Enclosed	120	120	120	120	120	A		
Conference Room	1	1	1	1	Enclosed	216	216	216	216	216	B		
Storage	1	1	1	1	Enclosed	400	400	400	400	400	C		1.
Storage	1	1	1	1	Enclosed	200	200	200	200	200	D		2.
Volunteer/ Intern	1	1	1	1	Workstation	64	64	64	64	64	E		3.
							0	0	0	0			
							0	0	0	0			
							0	0	0	0			
SUBTOTAL NET AREA						1,000	1,000	1,000	1,000				

NOTES:

- This is for the Pohl Center.
- Estimate of additional storage required in current location.
- Shared workstation for volunteers and temporary staff.

						2015	2017	2020	2025
SUBTOTAL NET AREA						1,656	1,656	1,720	1,784
EFFICIENCY FACTOR (30%)						497	497	516	535
TOTAL STAFF	7	7	8	9	TOTAL USABLE AREA	2,153	2,153	2,236	2,319

CITY of TUALATIN
SPACE REQUIREMENTS STUDY

DEPARTMENT: Community Services

DIVISION: Library

PERSONNEL/STAFF DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Library Manager	1	1	1	1	Office	120	120	120	120	120	1		
Access Services Supervisor	1	1	1	1	Office	120	120	120	120	120	2		
Public Services Supervisor	1	1	1	1	Office	120	120	120	120	120	3		2.
Librarian (Public Services)	3	5	6	6	Workstation	64	192	320	384	384	4		2.
Librarian (Access Services)	1	1	1	1	Workstation	64	64	64	64	64	5		
Program Specialist	1	1	1	1	Workstation	64	64	64	64	64	6		
Office Coordinator	1	1	1	1	Workstation	64	64	64	64	64	7		3.
Volunteer Specialist	1	1	1	1	Workstation	64	64	64	64	64	8		
Public Services Assistant	2	3	3	3	Workstation	64	128	192	192	192	9		
Library Assistant (Circulation)	4	5	6	6	Workstation	64	256	320	384	384	10		5.
Library Assistant (Technical Services)	2	2	2	2	Workstation	64	128	128	128	128	11		2., 5.
Library/ Public Services Assistant	1	1	1	1	Workstation	48	48	48	48	48	12		1.
Library Assistant	1	1	1	1	Workstation	48	48	48	48	48	13		1., 2.
Pages	2	2	2	2	Workstation	48	96	96	96	96	14		1.
Volunteers	5	5	5	5	Workstation	48	240	240	240	240	15		1.
							0	0	0	0			
SUBTOTAL STAFF	27	31	33	33	SUBTOTAL NET AREA	1,752	2,008	2,136	2,136				

NOTES:

- Volunteer staff positions.
- These positions could be located in a separate area away from the main part of the Library. They should be in close proximity to the delivery area.
- The Office Coordinator should be located near the copier and safe.
- If space is available, there would be additional programs offered at the Library for the community.
- These workstations require carts behind and beside their workstation. A minimum size of 7' workstation length and 8' depth is required.

ANCILLARY & SUPPORT SPACES DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Staff Work Area	1	1	1	1	Enclosed	350	350	350	350	350	A		1.
Circulation- Storage & carts	1	1	1	1	Open	200	200	200	200	200	B		2.
Technical Services- Storage & carts	1	1	1	1	Open	150	150	150	150	150	C		2.
Public Services- Storage & carts	1	1	1	1	Open	100	100	100	100	100	D		2.
Entry Lobby & Front Desk(s)	1	1	1	1	Open	1,000	1,000	1,000	1,000	1,000	E		
Adult Stacks & Reference	1	1	1	1	Open	5,700	5,700	5,700	5,700	5,700	F		
Public Computers	1	1	1	1	Open	850	850	850	850	850	G		
Adult Seating Area	1	1	1	1	Open	2,500	2,500	2,500	2,500	2,500	H		
Children Stacks & Reference	1	1	1	1	Open	1,350	1,350	1,350	1,350	1,350	I		
Program Area- Children	2	2	2	2	Open	700	1,400	1,400	1,400	1,400	J		3.
Program Storage Area- Children	1	1	1	1	Enclosed	250	250	250	250	250	K		
Teen Program Room	1	1	1	1	Enclosed	1,400	1,400	1,400	1,400	1,400	L		
Kitchenette & Storage	1	1	1	1	Enclosed	200	200	200	200	200	M		
Technology & Computer Training	1	1	1	1	Enclosed	650	650	650	650	650	N		4.
Program/ Project Rooms	2	2	2	2	Enclosed	350	700	700	700	700	O		
Small Focus Room	4	4	4	4	Enclosed	64	256	256	256	256	P		10.
Small Group Room	2	2	2	2	Enclosed	100	200	200	200	200	Q		5.
Medium Conference Room	1	1	1	1	Enclosed	200	200	200	200	200	R		6.
Large Conference Room	1	1	1	1	Enclosed	500	500	500	500	500	S		7.
Community/Multi-Purpose Room	1	1	1	1	Enclosed	1,500	1,500	1,500	1,500	1,500	T		8.
Storage Room	2	2	2	2	Enclosed	400	800	800	800	800	U		9.
Friends of the Library- Work Room	1	1	1	1	Enclosed	250	250	250	250	250	V	W	
Friends of the Library- Storage Room	1	1	1	1	Enclosed	150	150	150	150	150	W	V	11.
Additional Circulation- 10%	1	1	1	1	Open	2,000	2,000	2,000	2,000	2,000			
SUBTOTAL NET AREA						22,656	22,656	22,656	22,656	22,656			

CITY of TUALATIN
SPACE REQUIREMENTS STUDY

NOTES:

1. Equipment including copier/printer/fax, paper storage, printers, laminator, book repair materials and equipment, mailboxes and staff lockers.
2. Additional area for numerous carts and book storage in return bins, taskets and shelving. Includes additional circulation.
3. Separate spaces for the young and elementary children
4. Classes and programs would be added for computer training, technology, media etc. if space were available.
5. Group or Conference space for 2-4 people.
6. Sized for 8-10 people. Can be used as a public meeting room depending on the location.
7. Sized for 20-24 people. Can be used as a public meeting room depending on the location.
8. Can be used as a public meeting room depending on the location. Should be dividable into 2 smaller meeting rooms.
9. One room is for storage of equipment and furniture from the Community/Multi-purpose room and the other is for materials storage and workspace..
10. Small Focus Rooms sized for 1-2 people.
11. Storage Room should be located adjacent to or within the Friends of the Library Work Room.

					2015	2017	2020	2025
SUBTOTAL NET AREA					24,408	24,664	24,792	24,792
EFFICIENCY FACTOR (30%)					7,322	7,399	7,438	7,438
TOTAL STAFF	27	31	33	33	TOTAL USABLE AREA	31,730	32,063	32,230

CITY of TUALATIN
SPACE REQUIREMENTS STUDY

DEPARTMENT: Common Area

DIVISION: _____

ANCILLARY & SUPPORT SPACES DESCRIPTION	STAFF QUANTITY				WORKSTATION		AREA				ADJACENCY		NOTES
	2015	2017	2020	2025	TYPE	SIZE (SF)	2015	2017	2020	2025	ID	ADJ. to ID	
Break Room	1	1	1	1	Enclosed	500	500	500	500	500	1		1.
Coffee Alcove	3	3	3	3	Open	48	144	144	144	144	2		2.
Small Focus Room	1	1	1	1	Enclosed	64	64	64	64	64	4	1	7.
Medium Conference Room	1	1	1	1	Enclosed	216	216	216	216	216	5		3.
Large Conference Room	2	2	2	2	Enclosed	500	1,000	1,000	1,000	1,000	6		4.
Jury Room/ Executive Session Room	1	1	1	1	Enclosed	216	216	216	216	216	7	8	5.
Court Room/ Council Chamber	1	1	1	1	Enclosed	2,000	2,000	2,000	2,000	2,000	8	7	
Kitchenette	1	1	1	1	Enclosed	200	200	200	200	200	9	7&8	
TV/CTV Studio & Equipment	1	1	1	1	Enclosed	240	240	240	240	240	10	8	
Storage	1	1	1	1	Enclosed	300	300	300	300	300	11	8	6.
Shower & Locker Rooms	2	2	2	2	Enclosed	200	400	400	400	400	12		
Lactation Room	1	1	1	1	Enclosed	120	120	120	120	120	13		8.
							0	0	0	0			
							0	0	0	0			
SUBTOTAL NET AREA							5,400	5,400	5,400	5,400			

NOTES:

1. Staff Break Room with kitchen and multiple tables- seating for minimum of 24 staff.
2. Small coffee kitchens scattered strategically through-out the facility with sink and coffee service.
3. Shared Medium Conference Room sized for 10 - 12 people. All conference rooms should have white boards, tack boards, projection screens and current technology.
4. Shared Large Conference Room(s) sized for 20-24 people. Should be adjacent with movable common wall to form combined larger room. These should be located on the ground floor adjacent to the Council Chambers with access from the public lobby.
5. Equivalent to a Medium Conference Room sized for 10-12 people.
6. Storage adjacent to the Court Room/ Council Chamber for furniture, equipment and presentation materials to facilitate changing functions.
7. Small rooms for private phone calls and conversations located adjacent to Break Room.
8. Contains a sink and small refrigerator. Door to be lockable for privacy.
9. Approximate dimensions of space required is: 24' x 10' with a 10'-12' ceiling. Space for one(1) main equipment rack- 3' wide by 8-9' tall and custom console for two(2) technicians.

					2015	2017	2020	2025
SUBTOTAL NET AREA					5,400	5,400	5,400	5,400
EFFICIENCY FACTOR (30%)					1,620	1,620	1,620	1,620
TOTAL USABLE AREA					7,020	7,020	7,020	7,020

CITY of TUALATIN
SPACE REQUIREMENTS STUDY

GENERAL NOTES and STAFF COMMENTS:

1. Most staff felt it was important to have all of their department staff co-located and all City staff located in a single building. The exceptions to this were: some Parks & Recreation staff, Operations, Library and the IT/Server Room.
2. There was a discussion about words that describe the "image" of what City Hall should be: creative; productive; dignified; cool collaborative work space.
3. It should be noted that it currently takes 5 man hours to set-up and take-down the furniture and equipment for the council meetings that are currently occurring in the Juanita Pohl Center.
4. All large Conference Rooms and the Council Chamber/ Municipal Court Room should be equipped with the latest technology for presentations and meetings. This is including but not limited to: verbal and visual recording; projectors and screens; speaker systems and microphones; tack boards; white marker boards; video conferencing capabilities; monitors and computer connections; TVCTV studio space and equipment required connections; adequate storage space for equipment and furniture when not in use; control panel and work space for staff and separate staff and public presentation areas. The Council Chamber should have some form of electronic voting system.
5. A quiet work environment is important to be able to focus on work.
6. A Training Room for 60 people with table and chairs for computer training as well as other types would allow for more in-house training of staff.
7. Amenities including a Wellness Room, Lactation Room, small Exercise Room with Shower and Locker Rooms, adequate sized staff Break Room and lockable bicycle storage.
8. Safe, adequate and adjacent parking. It should be accessible without crossing a busy street.
9. Sit-to-stand adjustable height workspaces for offices and workstations.
10. Newer improved HVAC systems with better temperature controls.
11. Better lighting that is adjustable and dimmable. Use current LED technology instead of fluorescent lighting.
12. If the space is open plan with fewer offices, small focus rooms would be needed for the times when privacy and quiet is required to complete a task.
13. In public waiting areas where public is serviced at a counter, there should be separate public toilet rooms and staff toilet rooms. The staff toilet rooms should be located on the staff side of the public counter.
14. The staff Break Room should contain the following: two(2) large refrigerators, two(2) microwaves, sink, dishwasher and seating capacity for 24 minimum with some of the seating in a more private and quiet area. It should have windows to an outside view and access to an outdoor seating area that is not accessible to the public. Staff toilet rooms should not be accessible through the Break Room.
15. Space to display City owned art and photos currently in off-site storage.
16. Some open workstations should have higher panels and be more enclosed to allow for more privacy due to the work being done.
17. Library would provide additional services and programs to the public is space was available.
18. Could the Conference Rooms in the Library and those adjacent to the Council Chamber be "rented" to the public?

CITY of TUALATIN
SPACE REQUIREMENTS PROGRAM

AREA SUMMARY- Including Library

DEPARTMENT/ FUNCTION	STAFF QUANTITY				AREA				NOTES
	2015	2017	2020	2025	2015	2017	2020	2025	
Administration- City Managers Office	5	5	6	7	1,799	1,820	1,955	2,038	
Administration- Human Resources	3	5	6	7	884	1,050	1,134	1,217	
Finance	9	10	11	12	2,587	2,670	2,753	2,915	
Finance- Municipal Courts	4	5	6	6	2,015	2,098	2,181	2,181	
Legal	2	2	2	2	650	650	650	650	
Information Services	3	4	4	4	780	863	863	863	
Community Development	23	24	26	34	5,195	5,351	5,517	6,261	
Community Services- Parks & Recreation	7	7	8	9	2,153	2,153	2,236	2,319	
Community Services- Library	27	31	33	33	31,730	32,063	32,230	32,230	
Common Areas	0	0	0	0	7,020	7,020	7,020	7,020	
SUBTOTAL STAFF	83	93	102	114	54,813	55,739	56,540	57,694	SUBTOTAL USABLE AREA

	2015	2017	2020	2025	2015	2017	2020	2025	
TOTAL STAFF	83	93	102	114	54,813	55,739	56,540	57,694	TOTAL USABLE AREA
					63,035	64,100	65,021	66,348	TOTAL GROSS BUILDING AREA (+15%)

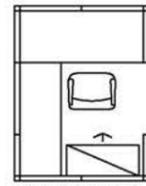
AREA SUMMARY- Excluding Library

DEPARTMENT/ FUNCTION	STAFF QUANTITY				AREA				NOTES
	2015	2017	2020	2025	2015	2017	2020	2025	
Administration- City Managers Office	5	5	6	7	1,799	1,820	1,955	2,038	
Administration- Human Resources	3	5	6	7	884	1,050	1,134	1,217	
Finance	9	10	11	12	2,587	2,670	2,753	2,915	
Finance- Municipal Courts	4	5	6	6	2,015	2,098	2,181	2,181	
Legal	2	2	2	2	650	650	650	650	
Information Services	3	4	4	4	780	863	863	863	
Community Development	23	24	26	34	5,195	5,351	5,517	6,261	
Community Services- Parks & Recreation	7	7	8	9	2,153	2,153	2,236	2,319	
Common Areas	0	0	0	0	7,020	7,020	7,020	7,020	
SUBTOTAL STAFF	56	62	69	81	23,083	23,676	24,310	25,464	SUBTOTAL USABLE AREA

	2015	2017	2020	2025	2015	2017	2020	2025	
TOTAL STAFF	56	62	69	81	23,083	23,676	24,310	25,464	TOTAL USABLE AREA
					26,545	27,227	27,957	29,284	TOTAL GROSS BUILDING AREA (+15%)

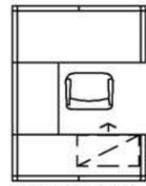
	2015	2017	2020	2025	2015	2017	2020	2025	
LIBRARY TOTAL STAFF	27	31	33	33	31,730	32,063	32,230	32,230	TOTAL USABLE AREA
					36,490	36,873	37,064	37,064	TOTAL GROSS BUILDING AREA (+15%)

WORKSTATIONS



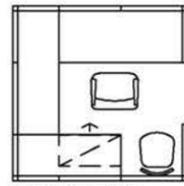
WORKSTATION

SIZE: 6' X 8' (48 S.F.)



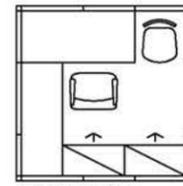
WORKSTATION

SIZE: 6' X 8' (48 S.F.)



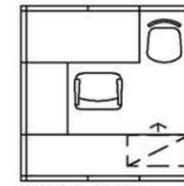
WORKSTATION

SIZE: 8' X 8' (64 S.F.)



WORKSTATION

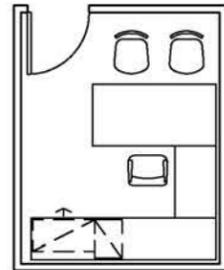
SIZE: 8' X 8' (64 S.F.)



WORKSTATION

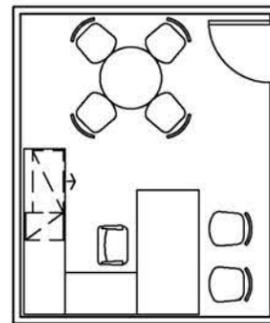
SIZE: 8' X 8' (64 S.F.)

PRIVATE OFFICES



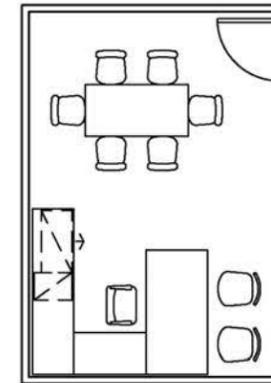
OFFICE

SIZE: 10' X 12' (120 S.F.)



OFFICE

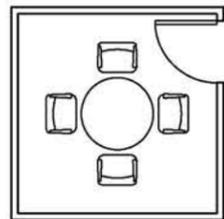
SIZE: 12' X 15' (180 S.F.)



OFFICE

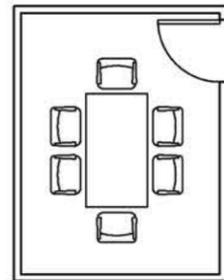
SIZE: 12' X 18' (216 S.F.)

CONFERENCE ROOMS



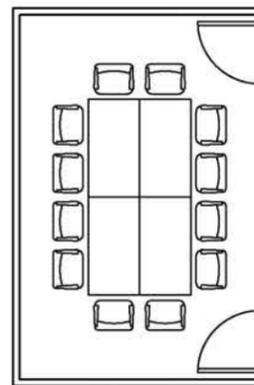
CONFERENCE ROOM

SIZE: 10' X 10' (100 S.F.)
OCCUPANCY: 4 PEOPLE



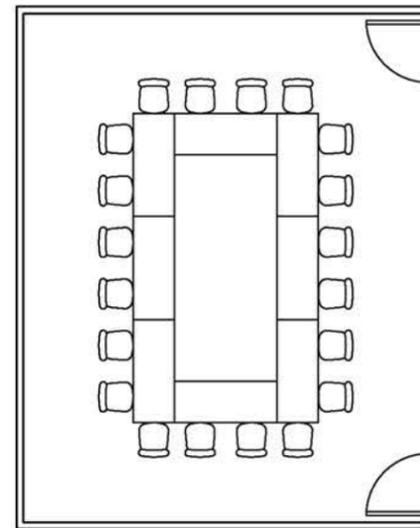
CONFERENCE ROOM

SIZE: 10' X 12' (120 S.F.)
OCCUPANCY: 4-6 PEOPLE



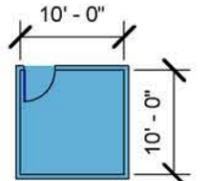
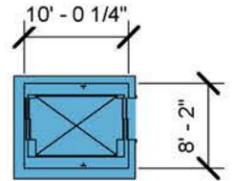
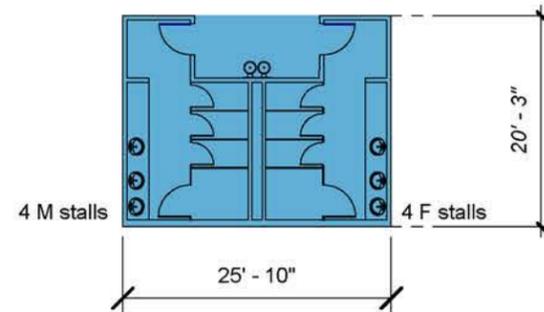
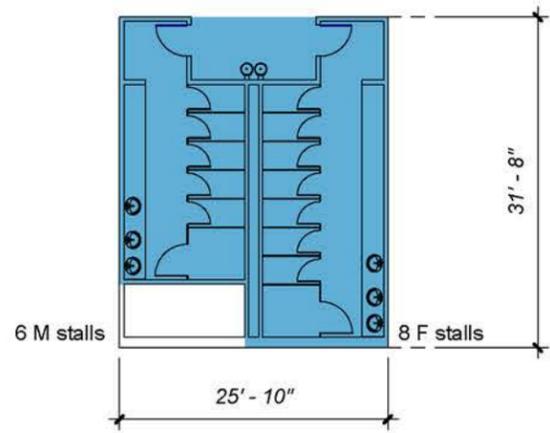
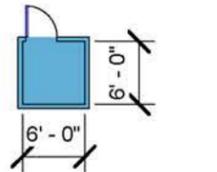
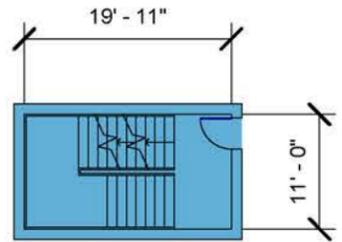
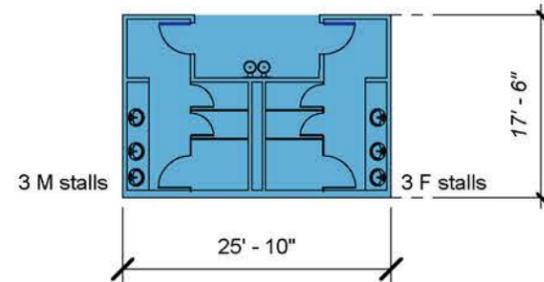
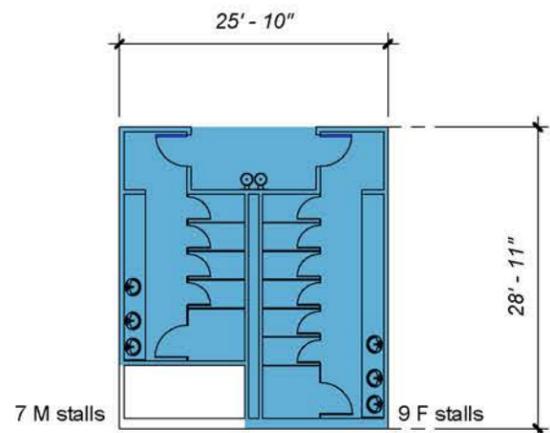
MEDIUM CONFERENCE ROOM

SIZE: 12' X 18' (216 S.F.)
OCCUPANCY: 10-12 PEOPLE



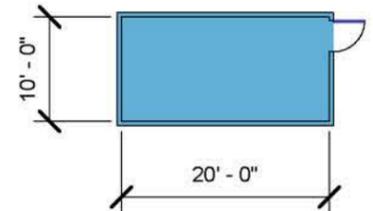
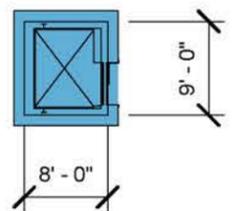
LARGE CONFERENCE ROOM

SIZE: 20' X 25' (500 S.F.)
OCCUPANCY: 20-24 PEOPLE



ACCESSIBLE RESTROOMS

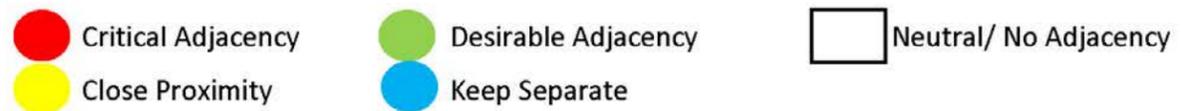
SERVICE ELEVATOR



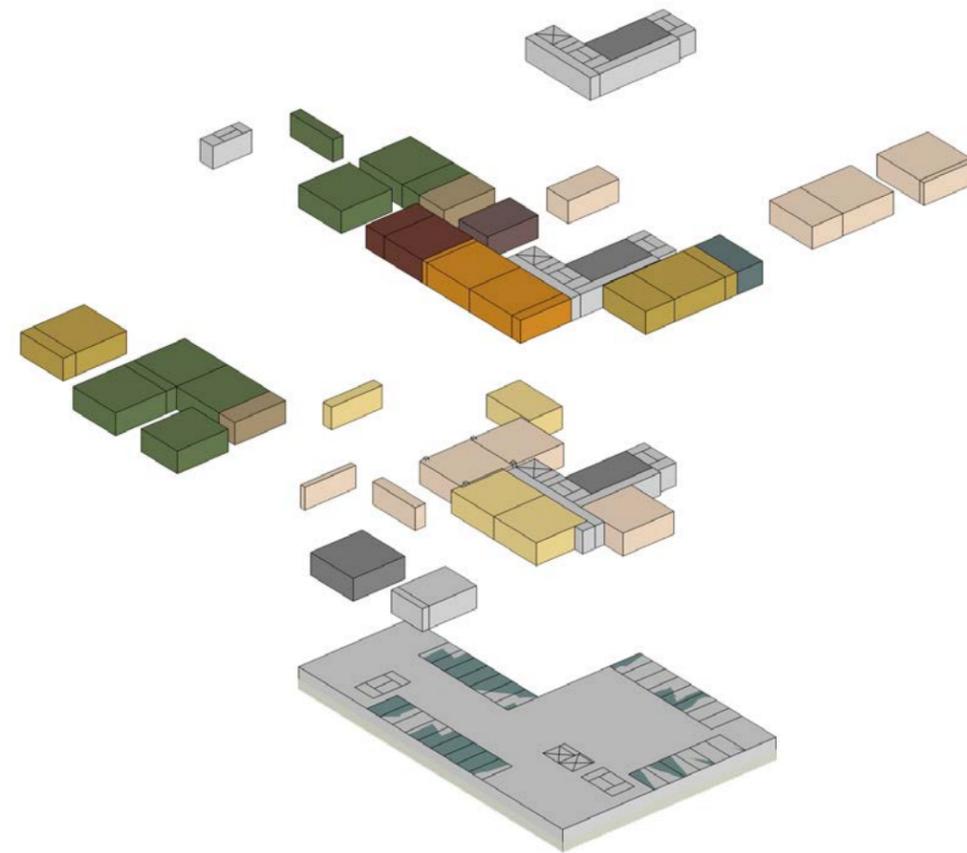
PASSENGER ELEVATOR

MAIN ELECTRICAL ROOM

	Admin.		Finance		Legal	Info. Services		Community Development					Comm. Services		Operations	Common Areas				
	Office of the City Manager	Human Resources	Finance	Municipal Courts		Information Services	GIS	Assistant City Manager	Economic Development	Planning	Buildings	Engineering	Parks & Recreation	Library		Entry Lobby/ Public Access	Department's Public Service Counter	Council Chambers/ Court Room	Conference Rooms	Executive Session Room/ Jury Room
Office of the City Manager	Grey				Green			Green	Green									Green		
Human Resources		Grey	Yellow		Yellow															
Finance		Yellow	Grey	Green														Red		
Municipal Courts			Green	Grey												Blue	Red	Red	Red	
Legal	Green	Yellow			Grey															
Information Services					Grey															
GIS						Grey			Red	Red	Red									
Assistant City Manager	Green						Grey	Red	Red	Red	Red							Green		
Economic Development	Green						Red	Grey	Red	Red	Red							Green		
Planning							Red	Red	Red	Grey	Red							Green		
Buildings							Red	Red	Red	Red	Red							Green		
Engineering							Red	Red	Red	Red	Red	Grey						Green		
Parks & Recreation												Grey								
Library												Grey								
Operations													Grey							
Entry Lobby/ Public Access				Blue										Grey						
Department's Public Service Counter			Red	Red					Red	Red	Red				Grey			Red		
Council Chambers/ Court Room				Red												Grey		Red		
Conference Rooms	Green	Green	Green				Green	Green	Green	Green	Green						Grey			
Executive Session Room/ Jury Room				Red													Red		Grey	



appendix C
PROGRAM AREA DISTRIBUTION



BASE

DEPARTMENT/ FUNCTION	2025 AREA
Most client interaction/ Ground floor	
Administration- Human Resources ¹	83
Finance ²	1,308
Finance- Municipal Courts	2,181
Community Development ³	1,662
Common Areas ⁴	2,000
Common Areas ⁵	1,956
	9,190
	Subtotal Usable Area
	10,569
	SUBTOTAL GROSS AREA (+15%)

Acceptable to have at Upper level(s)	
Finance	1,607
Community Development	4,599
Administration- City Managers Office	2,038
Administration- Human Resources	1,134
Legal	650
Information Services	863
Community Services- Parks & Recreation ⁶	1,903
Common Areas ⁷	1,444
	14,238
	Subtotal Usable Area
	16,374
	SUBTOTAL GROSS AREA (+15%)
	23,428
	Total Usable Area
	26,943
	TOTAL GROSS AREA

Notes:

1. ID Photo Area.
2. Reception/Passports, Utilities Clerk, Accounting Technician, Public Counter/Waiting Area, Passport Photo Area.
3. Permit Coordinator, Permit Technician, Public Counter/ Waiting Area, Small and Medium Conference Rooms.
4. Court Room/Council Chamber.
5. Large Conference Rooms, Jury Room/ Executive Session Room, Kitchenette, TVCTV Studio & Equipment.
6. Excluding Recreation Program Specialists & Pohl Center Supervisor.
7. Break Rm, Coffee Alcove, Small Focus Rm, Medium Conference, Storage, Shower & Locker Rooms, Lactation Rm.

option: TO PURCHASE ASPEN PLACE (ONA building)

DEPARTMENT/ FUNCTION	EXISTING	2025 AREA	Blocking & Stacking
First Floor			
Main Lobby ¹		700	960
Administration- Human Resources ⁸		83	80
Finance ²		1,078	1,066
Finance- Municipal Courts ³		1,951	2,194
Common Areas ⁵		2,000	2,000
Common Areas ⁶		1,704	2,046
		Subtotal Usable Area	7,516
			8,346
Restrooms	Yes	484	
Stairs	Yes		
Elevator (Passenger)	Yes		
Electrical Room (Main)	Yes		
Telecom Room (Main)	Yes		
Second Floor			
Community Development ⁴		6,021	6,053
Information Services		863	600
Finance		1,607	1,606
Common Areas ⁹		568	570
		Subtotal Usable Area	9,059
			8,829
Restrooms	Yes	46	
Stairs	Yes		
Elevator (Passenger)	Yes		
Telecom Room (Secondary)	Yes		
Janitor	Yes		
Third Floor			
Administration- City Managers Office		2,038	2,060
Administration- Human Resources		1,134	1,140
Legal		650	651
Community Services- Parks & Recreation ⁷		1,903	1,903
Common Areas ¹⁰		1,128	1,022
		Subtotal Usable Area	6,853
			6,776
Restrooms	Yes	46	
Stairs	Yes		
Elevator (Passenger)	Yes		
Telecom Room (Secondary)	Yes		
		Total Usable Area	23,428
		Existing BUILDING GROSS AREA	30,324
			23,951
			32,604

Notes:

1. Including 230 sf from Finance Waiting Area; 230 sf from Municipal Courts Waiting Area; & 240 sf from Community Development Waiting Area
2. Reception/ Passports, Utilities Clerk, Accounting Technician, Public Counter/ Waiting Area, Passport Photo Area.
3. Excluding 230 sf included in Main Lobby area.
4. Excluding 240 sf included in Main Lobby area.
5. Court Room/ Council Chamber.
6. Large Conference Rooms, Jury Room/ Executive Session Room, Kitchenette, Coffee Alcove, TVCTV Studio & Equipment.
7. Excluding Recreation Program Spacialists & Pohl Center Supervisor.
8. ID Photo Area only
9. Coffee Alcove, Lactation Rm, Shower & Locker Rooms.
10. Break Rm, Coffee Alcove, Small Focus Rm, Medium Conference Rm, & Storage.

option: NEW BUILDING near POLICE FACILITY

DEPARTMENT/ FUNCTION	2025 AREA	Blocking & Stacking
First Floor		
Main Lobby ¹	700	700
Finance ²	2,685	2692
Administration- Human Resources ¹¹	83	80
Finance- Municipal Courts ³	1,951	1980
Community Development ⁴	6,021	6000
Common Areas ⁵	2,000	2040
Common Areas ⁶	956	961
Information Services ⁷	256	270
Subtotal Usable Area	14,652	14,723
SUBTOTAL GROSS AREA (+15%)	16,850	
Second Floor		
Administration- City Managers Office	2,038	2040
Administration- Human Resources	1,134	1200
Legal	650	660
Information Services ⁸	607	630
Community Services - Parks & Recreation ¹⁰	1,903	2040
Common Areas ⁹	2,444	2460
Subtotal Usable Area	8,776	9,030
SUBTOTAL GROSS AREA (+15%)	10,093	
Total Usable Area	23,428	23,753
TOTAL GROSS AREA	26,943	30,663

Notes:

1. 230 sf from Finance Waiting Area; 230 sf from Municipal Courts Waiting Area; and 240 sf from Community Development Waiting Area.
2. Excluding 230 sf included in Main Lobby area.
3. Excluding 230 sf included in Main Lobby area.
4. Excluding 240 sf included in Main Lobby area.
5. Court Rm/Council Chamber.
6. Jury Rm/Executive Session Rm; Kitchenette; TVCTV Studio & Equipment; and Storage.
7. GIS Coordinator, GIS Technician, and Reference Table.
8. IS Manager, Network Administrator, IS Technician, Work Rm, Storage Rm, & Volunteer/Intern.
9. Break Rm, Coffee Alcove, Small Conference Rm, Medium Conference Rm, Large Conference Rms, Lactation Rm, Shower & Locker Rms.
10. Excluding Recreation Program Specialists & Pohl Center Supervisor.
11. ID Photo Area.

option: NEW BUILDING on THE COMMONS SITE

DEPARTMENT/ FUNCTION	2025 AREA	Blocking & Stacking
First floor		
Main Lobby	700	700
Administration- Human Resources ¹	83	80
Finance ²	1,078	1090
Finance- Municipal Courts	1,951	1980
Community Development ³	4,240	4260
Common Areas ⁴	2,000	2040
Common Areas ⁵	1,956	1968
Information Services	863	882
Subtotal Usable Area	12,871	12,300
SUBTOTAL GROSS AREA (+15%)	14,802	
Second floor		
Finance	1,607	1621
Community Development ⁸	1,781	1800
Administration- City Managers Office	2,038	2067
Administration- Human Resources	1,134	1139
Legal	650	662
Community Services- Parks & Recreation ⁶	1,903	1980
Common Areas ⁷	1,444	1447
Subtotal Usable Area	10,557	10,716
SUBTOTAL GROSS AREA (+15%)	12,141	
Total Usable Area	23,428	23,016
TOTAL GROSS AREA	26,942	29,301

Notes:

1. ID Photo Area only
2. Reception/ Passports, Utilities Clerk, Accounting Technician, Public Counter/ Waiting Area, Passport Photo Area.
3. Remaining, not listed in note 8.
4. Court Room/ Council Chamber.
5. Large Conference Room, Jury Room/ Executive Session Room, Kitchenette, TVCTV Studio & Equipment.
6. Excluding Recreation Program Specialists & Pohl Center Supervisor.
7. Break Rm, Coffee Alcove, Small Focus Rm, Medium Conference Rm, Storage, Shower & Locker Rooms, Lactation Rm.
8. Assistant City Manager, Management Analyst, Office Coordinator, Office Assistant, Economic Development Manager, & Economic Development Coordinator, Planning Manager, Senior Planner, Associate Planner, Transportation Planner, Office Coordinator, Files & Storage, Volunteer/Intern, Reference/Team Work Area.

option: NEW BUILDING on THE RIVER HOUSE SITE (Boones Frontage)

DEPARTMENT/ FUNCTION	2025 AREA	Blocking & Stacking
First Floor		
Main Lobby ¹	470	470
Administration- Human Resources ⁸	83	80
Finance ²	1,078	1090
Finance- Municipal Courts ³	1,941	1950
Finance- Municipal Courts ¹¹	230	230
Community Development ¹²	1,422	1425
Information Services ⁴	333	345
Common Areas ⁵	2,000	2017
Common Areas ⁶	1,704	1758
Subtotal Usable Area	9,261	9,365
SUBTOTAL GROSS AREA (+15%)	10,650	
Second Floor		
Community Development	4,599	4605
Information Services	510	525
Finance	1,607	1621
Common Areas ⁹	568	570
Subtotal Usable Area	7,284	7,321
SUBTOTAL GROSS AREA (+15%)	8,377	
Third Floor		
Administration- City Managers Office	2,038	2040
Administration- Human Resources	1,134	1151
Legal	650	662
Community Services- Parks & Recreation ⁷	1,903	1905
Common Areas ¹⁰	1,158	1165
Subtotal Usable Area	6,883	6,923
SUBTOTAL GROSS AREA (+15%)	7,916	
Total Usable Area	23,428	23,609
TOTAL GROSS AREA	26,943	33,118

Notes:

1. 230 sf from Finance Waiting Area & 240 sf from Community Development Waiting Area.
2. Reception/ Passports, Utilities Clerk, Accounting Technician, Public Counter/ Waiting Area, Passport Photo Area.
3. Excluding 230 sf included in Second Municipal Courts Entry.
4. GIS Coordinator, GIS Technician and Reference Table.
5. Court Room/ Council Chamber.
6. Large Conference Rooms, Jury Room/ Executive Session Room, Kitchenette, Coffee Alcove, TVCTV Studio & Equipment.
7. Excluding Recreation Program Specialists & Pohl Center Supervisor.
8. ID Photo Area only
9. Coffee Alcove, Lactation Rm, Shower & Locker Rooms.
10. Break Rm, Coffee Alcove, Small Focus Rm, Medium Conference Rm, & Storage.
11. Second Municipal Courts Entry w/ 230 sf Waiting Area.
12. Permit Coordinator, Permit Technician, Small and Medium Conference Rooms.

option: NEW BUILDING on THE RIVER HOUSE SITE (River Frontage)

DEPARTMENT/ FUNCTION	2025 AREA	Blocking & Stacking
First Floor		
Main Lobby ¹	470	470
Administration- Human Resources ⁸	83	80
Finance ²	1,078	1,090
Finance- Municipal Courts ³	1,941	1,914
Finance- Municipal Courts ¹¹	230	230
Community Development ¹²	1,422	1,425
Information Services ⁴	333	345
Common Areas ⁵	2,000	2,010
Common Areas ⁶	1,704	1,758
Subtotal Usable Area	9,261	9,322
SUBTOTAL GROSS AREA (+15%)	10,650	
Second Floor		
Community Development	4,599	4,605
Information Services	510	525
Finance	1,607	1,621
Common Areas ⁹	568	570
Subtotal Usable Area	7,284	7,321
SUBTOTAL GROSS AREA (+15%)	8,377	
Third Floor		
Administration- City Managers Office	2,038	2,040
Administration- Human Resources	1,134	1,151
Legal	650	662
Community Services- Parks & Recreation ⁷	1,903	1,905
Common Areas ¹⁰	1,158	1,165
Subtotal Usable Area	6,883	6,923
SUBTOTAL GROSS AREA (+15%)	7,916	
Total Usable Area	23,428	23,566
TOTAL GROSS AREA	26,943	33,201

Notes:

1. 230 sf from Finance Waiting Area & 240 sf from Community Development Waiting Area.
2. Reception/ Passports, Utilities Clerk, Accounting Technician, Public Counter/ Waiting Area, Passport Photo Area.
3. Excluding 230 sf included in Second Municipal Courts Entry.
4. GIS Coordinator, GIS Technician and Reference Table.
5. Court Room/ Council Chamber.
6. Large Conference Rooms, Jury Room/ Executive Session Room, Kitchenette, Coffee Alcove, TVCTV Studio & Equipment.
7. Excluding Recreation Program Specialists & Pohl Center Supervisor.
8. ID Photo Area only
9. Coffee Alcove, Lactation Rm, Shower & Locker Rooms.
10. Break Rm, Coffee Alcove, Small Focus Rm, Medium Conference Rm, & Storage.
11. Second Municipal Courts Entry w/ 230 sf Waiting Area.
12. Permit Coordinator, Permit Technician, Small and Medium Conference Rooms.

preliminary option: LEASING SPACE AT ROBINSON CROSSING

DEPARTMENT/ FUNCTION	EXISTING	2025 AREA	Blocking & Stacking
First Floor			
Finance- Municipal Courts		2,181	2,351
Common Areas ¹		2,000	2,000
Common Areas ²		656	594
Subtotal Usable Area		4,837	4,945
Restrooms	Yes	520	574
Stairs	Yes		
Elevator (Service size)	Yes		
Main Electrical & Telecom	Yes		
Elevator Equipment Rm	Yes		
Fire Riser Rm	Yes		
Janitor Rm/ Storage	Yes		
Second Floor			
Community Development		6,261	5,900
Community Services- Parks & Recreation ⁴		1,903	1,824
Information Services		863	1,029
Common Areas ³		500	922
Subtotal Usable Area		9,527	9,675
Restrooms	Yes	320	275
Stairs	Yes		
Elevator (Service size)	Yes		
Telecom Rm (Secondary)	Yes		
Janitor Rm/ Storage	Yes		
Third Floor			
Administration- City Managers Office		2,038	1,981
Administration- Human Resources		1,217	1,636
Finance		2,915	2,605
Legal		650	729
Common Areas		2,244	2,439
Subtotal Usable Area		9,064	9,390
Restrooms	Yes	320	275
Stairs	Yes		
Elevator (Service size)	Yes		
Telecom Rm (Secondary)	Yes		
Janitor Rm/ Storage	Yes		
Total Usable Area		23,428	24,010
Existing BUILDING GROSS AREA		30,324	27533*

Notes:

1. Court Room/ Council Chamber.
2. Jury Room/ Executive Session Room, Kitchenette, TVCTV Studio & Equipment.
3. Large Conference Room.
4. Excluding Recreation Program Specialists & Pohl Center Supervisor.

*Based on Asbuilts. Listed as NET. Actual GROSS not available.

preliminary option: NEW BUILDING NEAR CLARK LUMBER

DEPARTMENT/ FUNCTION	2025 AREA	Blocking & Stacking
Ground floor		
Finance ²	1,308	1,350
Finance- Municipal Courts	2,181	2,490
Community Development ³	1,662	2,370
Information Services ¹	333	330
Common Areas ⁴	2,000	1,980
Common Areas ⁵	656	630
Subtotal Usable Area	8,140	9,150
SUBTOTAL GROSS AREA (+15%)	9,361	
Second floor		
Community Development	4,599	5,235
Information Services	530	525
Common Areas	2,012	2,490
Subtotal Usable Area	7,141	8,250
SUBTOTAL GROSS AREA (+15%)	8,212	
Third floor		
Administration- City Managers Office	2,038	2,070
Administration- Human Resources	1,217	1,196
Legal	650	602
Finance	1,607	1,410
Community Services- Parks & Recreation ⁶	1,903	1,980
Common Areas ⁷	732	900
Subtotal Usable Area	8,147	8,158
SUBTOTAL GROSS AREA (+15%)	9,369	
Total Usable Area	23,428	25,558
TOTAL GROSS AREA	26,943	

Notes:

1. GIS Coordinator, GIS Technician and Reference Table.
2. Reception/ Passports, Utilities Clerk, Accounting Technician, Public Counter/ Waiting Area, Passport Photo Area.
3. Permit Coordinator, Permit Technician, Public Counter/ Waiting Area, Small and Medium Conference Rooms
4. Court Room/ Council Chamber.
5. Jury Room/ Executive Session Room, Kitchenette, TVCTV Studio & Equipment.
6. Excluding Recreation Program Specialists & Pohl Center Supervisor.
7. Break Room, Coffee Alcove, Small Focus Room, Lactation Room.

preliminary option: NEW BUILDING ON THREAT DYNAMICS SITE

DEPARTMENT/ FUNCTION	2025 AREA	Blocking & Stacking
Ground floor		
Finance ²	1,308	1,125
Finance- Municipal Courts	2,181	2,475
Community Development ³	3,993	3,780
Information Services ¹	333	450
Common Areas ⁴	2,000	1,980
Common Areas ⁵	1,956	1,980
Subtotal Usable Area	11,771	11,790
SUBTOTAL GROSS AREA (+15%)	13,537	
Second floor		
Finance	1,607	1,620
Community Development	2,268	2,399
Administration- City Managers Office	2,038	2,070
Administration- Human Resources	1,217	1,196
Legal	650	602
Information Services	530	-
Community Services- Parks & Recreation ⁶	1,903	533
Common Areas ⁷	1,444	1,890
Subtotal Usable Area	11,657	10,310
SUBTOTAL GROSS AREA (+15%)	13,406	
Total Usable Area	23,428	22,100
BUILDING GROSS AREA	26,943	

Notes:

1. GIS Coordinator, GIS Technician and Reference Table.
2. Reception/ Passports, Utilities Clerk, Accounting Technician, Public Counter/ Waiting Area, Passport Photo Area.
3. Permit Coordinator, Permit Technician, Public Counter/Waiting Area, Small & Medium Conference Rms, Building & Engineering.
4. Court Room/ Council Chamber.
5. Large Conference Room, Jury Room/ Executive Session Room, Kitchenette, TVCTV Studio & Equipment.
6. Excluding Recreation Program Specialists & Pohl Center Supervisor.
7. Break Rm, Coffee Alcove, Small Focus Rm, Medium Conference Rm, Storage, Shower & Locker Rooms, Lactation Rm.

appendix D
BUILDING CODE REQUIREMENTS



option: TO PURCHASE ASPEN PLACE (ONA building)

PLUMBING COUNT/ OSSC 2014	AREA	Occupancy	Occupant Load	Water Closets		Notes
	2025			Male	Female	
Ground floor						
Net general office	6,346	B				
Common Areas - Council Chamber	2,000	A-3	286	2.3	4.4	
Existing gross subtotal ⁴	11,628		116	3.3	3.3	
subtotal required WCs				5.6	7.7	
existing WCs				3	2	1
Second floor						
Net general office	8,829	B				
Existing gross subtotal	11,628		116	3.3	3.3	
subtotal required WCs				3.3	3.3	
existing WCs				3	3	2
Third floor						
Net general office	6,776	B				
Existing gross subtotal	9,348		93	2.9	2.9	
subtotal required WCs						
existing WCs				3	2	3
TOTAL required WCs				11.8	13.9	
TOTAL existing WCs				9.0	7.0	
Deficit				2.8	6.9	

Note:

- Two fixtures counted in Men's are Urinals. Code allows to replace WC's at a ratio of 1 Urinal per 3/6 WCs
Verify actual, because for 2nd flr brochure shows 3 F WC's. As built show only 2 fixtures. No 1st flr plans available in the brochure
- One fixture in Men's is Urinal. Brochure shows 3 F WC's. As built show only 2 fixtures
- Two fixtures in Men's are Urinals. Code allows to replace WC's at a ratio of 1 Urinal per 3/6 WCs
- Existing Gross SF subtotals based on As-Built Drawings.

option: NEW BUILDING near POLICE FACILITY

PLUMBING COUNT/ OSSC 2014	AREA	Occupancy	Occupant Load	Water Closets	
	2025			Male	Female
First floor					
Net general office	12,652	B			
Common Areas - Council Chamber	2,000	A-3			
net subtotal					
				286	2.3
gross subtotal				145	3.9
required WCs subtotal				6.2	8.3
Second floor					
Net general office	8,776	B			
net subtotal					
				-	0.0
gross subtotal				97	2.9
required WCs subtotal				2.9	2.9
TOTAL required WCs				9.1	11.2

option: NEW BUILDING on THE COMMONS SITE

PLUMBING COUNT/ OSSC 2014	AREA	Occupancy	Occupant Load	Water Closets	
	2025			Male	Female
First floor					
Common Areas - Council Chamber		2,000	A-3		
Other	10,871		B		
net subtotal	10,871				
		2,000		286	4.4
gross subtotal	12,502			125	3.5
required WCs subtotal				5.8	7.9
Second floor					
Other	10,557		B		
net subtotal	10,557				
		-		-	0.0
gross subtotal	12,141			121	3.4
required WCs subtotal				3.4	3.4
TOTAL required WCs				9.2	11.3

option: NEW BUILDING on THE RIVER HOUSE SITE (Boones Frontage)

PLUMBING COUNT/ OSSC 2014	AREA	Occupancy	Occupant Load	Water Closets	
	2025			Male	Female
First floor					
Common Areas - Council Chamber		2,000	A-3		
Other	7,142		B		
net subtotal	7,142				
		2,000		286	4.4
gross subtotal	8,213			82	2.6
required WCs subtotal				4.9	7.0
Second & Third floors					
Other	7,142		B		
net subtotal	7,142				
		-		-	0.0
gross subtotal	8,213			82	2.6
required WCs subtotal				2.6	2.6
TOTAL required WCs				10.2	12.3

option: NEW BUILDING on THE RIVER HOUSE SITE (River Frontage)

PLUMBING COUNT/ OSSC 2014	AREA	Occupancy	Occupant Load	Water Closets	
	2025			Male	Female
First floor					
Common Areas - Council Chamber	2,000	A-3			
Other	7,142	B			
net subtotal	7,142				
	2,000		286	2.3	4.4
gross subtotal	8,213		82	2.6	2.6
required WCs subtotal				4.9	7.0
Second & Third floors					
Other	7,142	B			
net subtotal	7,142				
	-		-	0.0	0.0
gross subtotal	8,213		82	2.6	2.6
required WCs subtotal				2.6	2.6
TOTAL required WCs				10.2	12.3

preliminary option: LEASING SPACE AT ROBINSON CROSSING

PLUMBING COUNT/ OSSC 2014	AREA	Occupancy	Occupant Load	Water Closets		Notes
	2025			Male	Female	
Ground floor						
Net general office	3,874	B				
Common Areas - Council Chamber	2,000	A-3	286	2.3	4.4	
gross subtotal (+15%)	4,455		45	1.9	1.9	
subtotal required WCs				4.2	6.3	
existing WCs				2	2	1
Second floor						
Net general office	10,830					
gross subtotal (+15%)	12,455		125	3.5	3.5	
subtotal required WCs				3.5	3.5	
existing WCs				2	2	1
Third floor						
Net general office	10,830					
gross subtotal (+15%)	12,455		125	3.5	3.5	
subtotal required WCs				3.5	3.5	
existing WCs				2	2	1
TOTAL required WCs				11.2	13.3	
TOTAL existing WCs				6.0	6.0	
Deficit				5.2	7.3	

Notes:

1. One fixture counted in Men's is Urinals. Code allows to replace WC's at a ratio of 1 Urinal per 3/6 WCs

preliminary option: NEW BUILDING NEAR CLARK LUMBER

PLUMBING COUNT/ OSSC 2014	AREA	Occupancy	Occupant Load	Water Closets		Notes
	2025			Male	Female	
Ground floor						
Common Areas - Council Chamber	2,000	A-3				
Other	7,142	B				
net subtotal	7,142					
	2,000		286	2.3	4.4	
gross subtotal	8,213		82	2.6	2.6	
required WCs subtotal				4.9	7.0	
Second & Third floors						
Other	7,142	B				
net subtotal	7,142					
	-		-	0.0	0.0	
gross subtotal	8,213		82	2.6	2.6	
required WCs subtotal				2.6	2.6	
TOTAL required WCs				10.2	12.3	

preliminary option: NEW BUILDING ON THREAT DYNAMICS SITE

PLUMBING COUNT/ OSSC 2014	AREA	Occupancy	Occupant Load	Water Closets		Notes
	2025			Male	Female	
Ground floor						
Common Areas - Council Chamber	2,000	A-3				
Other	10,871	B				
net total	10,871					
	2,000		286	2.3	4.4	
gross total	12,502		125	3.5	3.5	
required WCs subtotal				5.8	7.9	
Second floor						
Other	10,557	B				
net total	10,557					
	-		-	0.0	0.0	
gross total	12,141		121	3.4	3.4	
required WCs subtotal				3.4	3.4	
TOTAL required WCs				9.2	11.3	

appendix E

PARKING REQUIREMENTS

There are different ways of calculating parking requirements based on the Tualatin Development Code (TDC). Typically, the predominant use for a building is used when calculating parking requirements. YGH's original approach was to calculate the minimum parking requirements for the City Hall building classified under "General office" use. Most of the buildings and sites considered during the Alternative Analysis phase of the project are located in the Core Area Parking District (CAPD), with the exception of the Police Department, the site located near Clark Lumber, the Threat Dynamics site and the Library. YGH's original assumption was that the option would get a 25% reduction in the minimum parking requirement if a building were located in the CAPD.

On April 13, YGH received clarification from Tualatin Community Development Department that the CAPD does not allow for a 25% reduction of required spaces for the general office use. If the building were split into the appropriate uses where the "Council Chambers" part of the building would be classified under "other places of public assembly", then that part of the building would be subject to a 25% parking reduction. It is up to the City to assume a single predominant use for a building or to break out each use.

For the 2nd Community Open House and the April Task Force presentation, YGH recalculated the minimum parking requirements based on the appropriate uses. This method allowed for a 25% reduction, but increased the parking requirements for 2,000 square feet dedicated to the Council Chambers. During the May Task Force meeting, concerns were raised that the code-required minimum may not be enough to meet the Municipal Court needs. Following the discussions during those two meetings, the decision was made to include different ways of calculating parking requirements in this report.

In addition, on May 5th YGH received a copy of the 2011 CAPD assessment. Based on that report, there are 190 stalls in excess of minimum required parking for all uses in the Core Area.

Two questions remain:

- What is the best approach to calculate the parking requirement for a future City Hall?
- Can a future City Hall use some of the excess 190 stalls to minimize the requirements?

Ultimately, this will be considered in a future due diligence process for any final alternatives, and will require a policy decision from the Council and input from the Core Area Parking District Board.

CITY of TUALATIN Facilities Study: Alternative Analysis

PARKING REQUIREMENTS

option: TO PURCHASE ASPEN PLACE (ONA building)

	Gross Floor Area ¹ , SF (UNO)	Minimum ² Parking Requirement	Minimum Required Parking	Maximum ⁵ Parking Requirement	Maximum Allowable Parking
Option 1:					
ONA per Original Approval (Vehicle Parking)			37.0		
New Addition (Terrace)	2,280	2.7/1000 sf	6.2		
vehicle parking total			43.2		
Option 2:					
General Office (Vehicle Parking)	32,604	2.7/1000 sf	88.0	3.4/1000 sf	110.9
75% Reduction			66.0		83.1
General Office (Bicycle Parking)	32,604	0.5/1000 sf	16.3		
Option 3:					
General Office - 1st & 2nd floor ³ (Vehicle Parking)	23,256	2.0/1000 ³ sf	46.5	2.6/1000 ³ sf	60.5
General Office - 3rd floor (Vehicle Parking)	9,348	2.7/1000 sf	25.2	3.4/1000 sf	31.8
vehicle parking total			71.8		92.2
Option 4:					
Public Assembly ⁶ (Vehicle Parking)	2,000	1/400 sf	5	none	none
General Office (Vehicle Parking)	30,604	2.7/1000 sf	82.6	4.1/1000 sf	125.5
vehicle parking total			87.6		125.5
Option 5:					
Public Assembly ⁶ (Vehicle Parking)	120 seats	0.75/4 seats ³	22.5	0.4/seat ³	48
General Office (Vehicle Parking)	30,604	2.7/1000 sf	82.6	4.1/1000 sf	125.5
vehicle parking total			105.1		173.5
Option 6:					
Public Assembly ⁶ (Vehicle Parking)	120 seats	1/4 seats	30	0.5/seat	60
General Office (Vehicle Parking)	30,604	2.7/1000 sf	82.6	4.1/1000 sf	125.5
vehicle parking total			112.6		185.5

Notes:

1 TDC 73.370(c): Except where otherwise specified, the floor area measured shall be the gross floor area of the building primary to the function of the particular use of the property other than space devoted to off-street parking or loading.

2 TDC 73.340(a)

CITY of TUALATIN Facilities Study: Alternative Analysis

PARKING REQUIREMENTS

3 TDC 73.370(2)(b)(ii)(A): (A) Commercial, semi-public, and public uses except as outlined under TDC 73.370(2)(b)(ii)(B). A minimum of 75% of required CAPD off-street motor vehicle parking shall be provided for the first two floors of gross leasable⁴ area for commercial, semi-public, and public uses above grade, except as outlined under TDC 73.370(2)(b)(ii)(B).

4 For properties with only one tenant, the measurements of Gross Floor Area (GFA) and Gross Leasable Area (GLA) are essentially equal.

5 Zone A

6 Municipal Court.

UNO - Unless Noted Otherwise

APPROVED OREGON NURCES ASSOCIATION (ONA) BUILDING PARKING

	Leasable Floor Area Required	General office rate of 3.5 sp/ 1000 sq ft ¹		Required Parking	Core Area Discount	Less 25%	Total
Step 1. 1 and 2 floor	19,315.00	1,000.00	19.315	2	38.63	0	38.63
Step 2. Reduction through Impact Fee (no longer in Code)					38.63	0.25	9.6575
Step 3. 3rd Floor Area	5,050.00	1,000.00	5.05	2.7	13.635		13.635
Step 4. Total Required for Floors 1,2 and 3 minus 10 Impact Fee stalls							42.6075

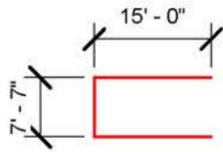
Parking Provided on site:	37
---------------------------	-----------

Gross Leasable Floor Area	24,365.00
Gross Floor Area reported in 2001 AR	
1 and 2 floors	23,256.00
First level plaza	2,245.00
3rd Floor	6,480.00
3rd level plaza	4,788.00
Total	36,769.00

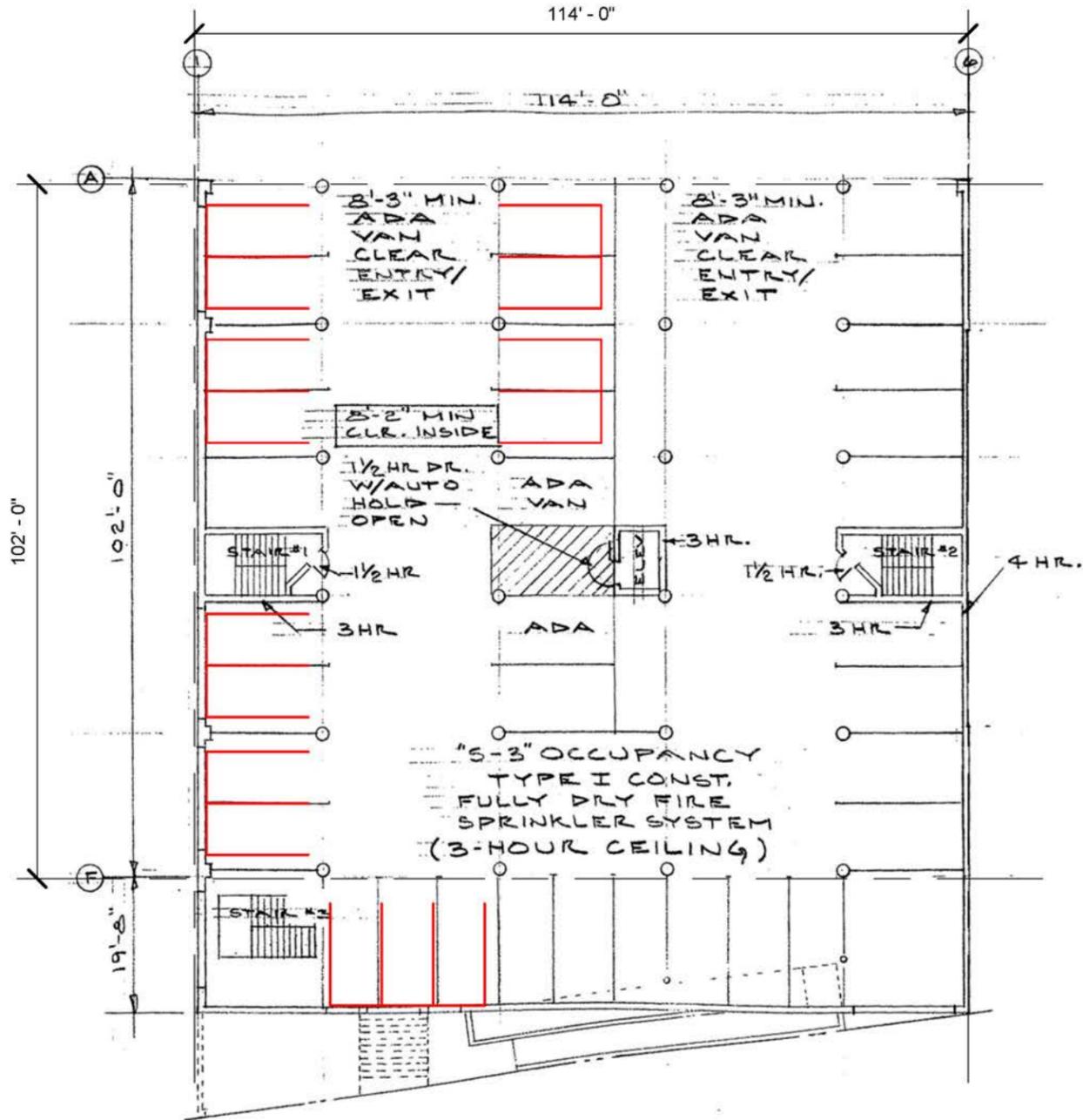
Proposed Parking Reductions

Core Area Impact Fee	9 Aspen Place paid a fee in lieu for 9 parking stalls
Parking Reduction	7 Applicants request to reduce third floor parking requirements from 14 required to 7
Total	16

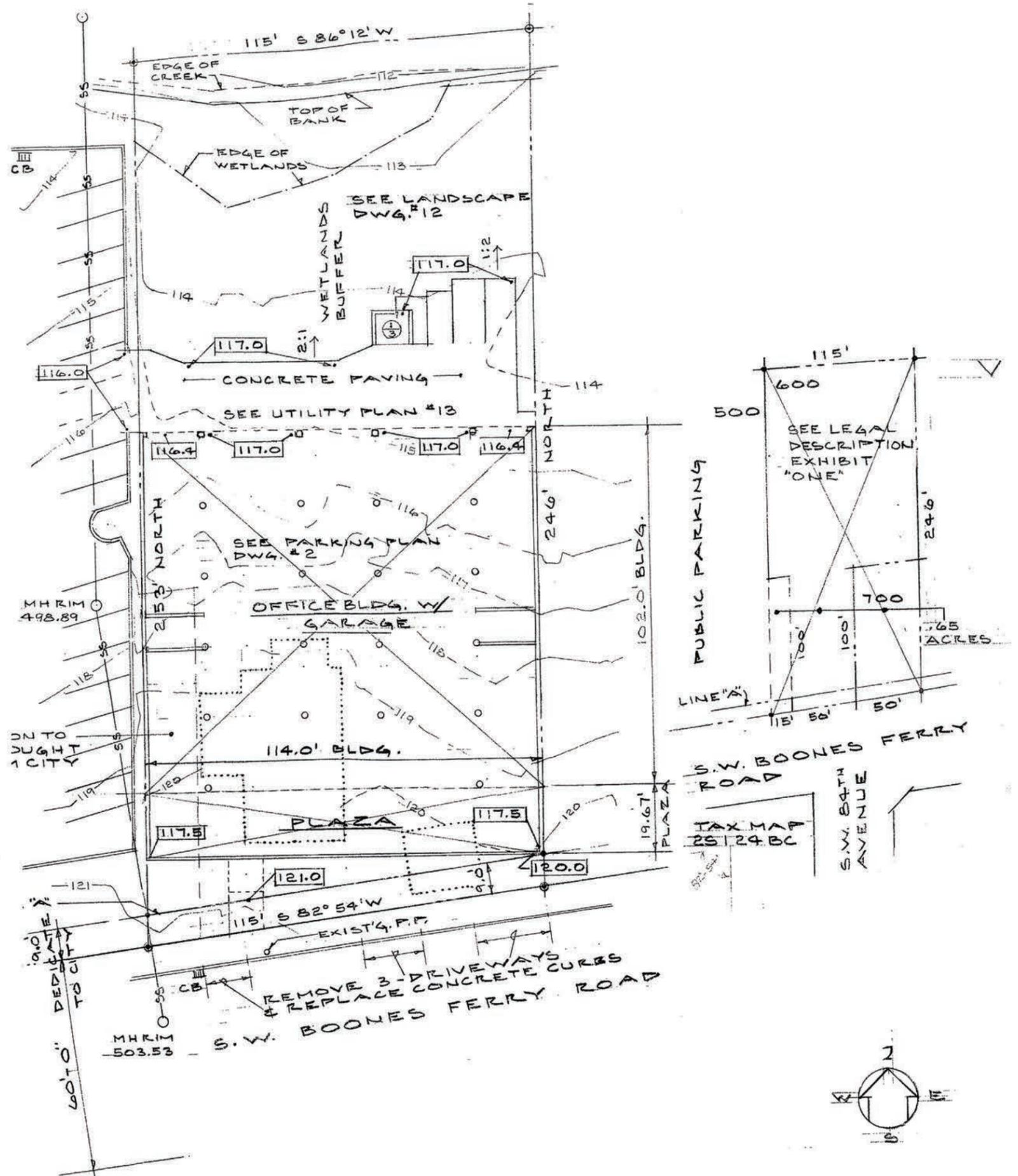
1. AR-00-26 assigned a rate of 3.5 spaces/ 1,000 sq ft of gross leasable area. The use was allowed a minimum parking rate of 75% of the required which resulted in 2.0 spaces/ 1,000 sqft of gross leasable area



SUBCOMPACT PARKING STALL



PARKING LEVEL - BASEMENT
13,870 SQ. FT. GARAGE



CITY of TUALATIN Facilities Study: Alternative Analysis

PARKING REQUIREMENTS

option: NEW BUILDING on THE COMMONS SITE

	Gross Floor Area ¹ , SF (UNO)	Minimum ² Parking Requirement	Minimum Required Parking	Maximum ⁵ Parking Requirement	Maximum Allowable Parking
Option 1:					
General Office (Vehicle Parking)	29,301	2.7/1000	79.1	3.4/1000	99.6
75% Reduction ³			59.3		74.7
General Office (Bicycle Parking)	29,301	0.5/1000	14.7		
Option 2:					
Public Assembly ⁸ (Vehicle Parking)	2,000	1/400 sf	5	none	none
General Office (Vehicle Parking)	27,301	2.7/1000 sf	73.7	4.1/1000 sf	111.9
vehicle parking total			78.7		111.9
Option 3:					
Public Assembly ⁸ (Vehicle Parking)	120 seats	0.75/4 seats ³	22.5	0.4/seat ³	48
General Office (Vehicle Parking)	27,301	2.7/1000 sf	73.7	4.1/1000 sf	111.9
vehicle parking total			96.2		159.9
Option 4:					
Public Assembly ⁸ (Vehicle Parking)	120 seats	1/4 seats	30	0.5/seat	60
General Office (Vehicle Parking)	27,301	2.7/1000 sf	73.7	4.1/1000 sf	111.9
vehicle parking total			103.7		171.9

Blocking & Stacking ⁷	Motor Vehicle Parking Stalls	Sub-compact ⁶ Vehicle Parking Stalls	Bicycle Parking Stalls	Minimum Number of Accessible Spaces ⁹	Number of Van Accessible Spaces ⁹
Parking Garage	24	9	15		
On-Site Parking	36	12			
vehicle parking total	60	21		3	1

Notes:

- 1 TDC 73.370(c): Except where otherwise specified, the floor area measured shall be the gross floor area of the building primary to the function of the particular use of the property other than space devoted to off-street parking or loading.
- 2 TDC 73.340(a)
- 3 TDC 73.370(2)(b)(ii)(A): (A) Commercial, semi-public, and public uses except as outlined under TDC 73.370(2)(b)(ii)(B). A minimum of 75% of required CAPD off-street motor vehicle parking shall be provided for the first two floors of gross leasable⁴ area for commercial, semi-public, and public uses above grade, except as outlined under TDC 73.370(2)(b)(ii)(B).

CITY of TUALATIN Facilities Study: Alternative Analysis

PARKING REQUIREMENTS

4 For properties with only one tenant, the measurements of Gross Floor Area (GFA) and Gross Leasable Area (GLA) are essentially equal.

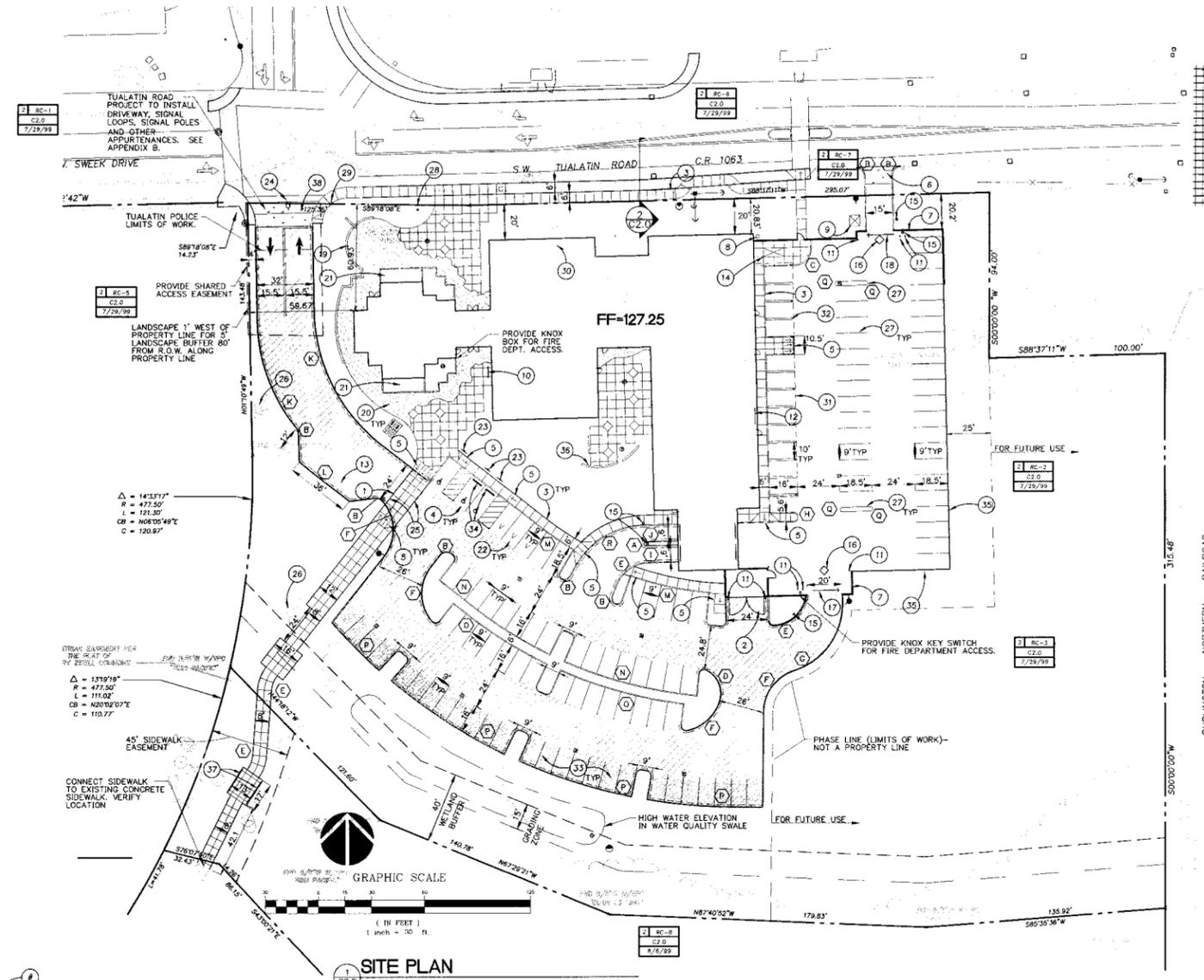
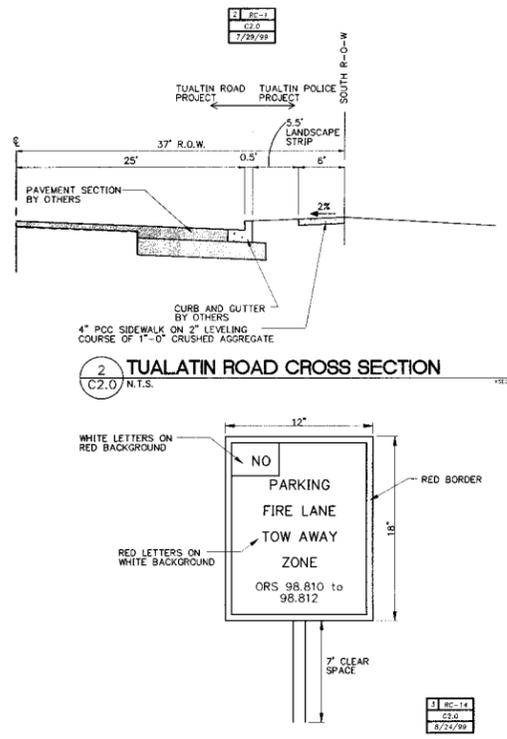
5 Zone A

6 TDC 73.380(2): Parking stalls for sub-compact vehicles shall not exceed 35 percent of the total parking stalls required.

7 Shows Option 1 - minimum required parking.

8 Municipal Court.

9 OSSC 2014, Table 1106.1



- KEYNOTES**
- CONCRETE CROSSWALK
 - TRASH AND RECYCLE CONTAINMENT AREAS
 - 6'-0" WIDE CONCRETE SIDEWALK. SEE DETAIL 8/C6.0 OR 16/C6.0
 - HANDICAP PARKING SPACE. SEE DETAIL 1/C6.0
 - HANDICAP RAMP
 - COMMERCIAL DRIVEWAY
 - BRICK AND CONCRETE BLOCK SECURITY WALL, 6" HIGH. SEE ARCHITECTURAL PLANS.
 - GAS METER LOCATION. COORDINATE GAS SERVICE WITH N.W. NATURAL
 - ELECTRICAL TRANSFORMER PAD
 - 3-(2'x6") BICYCLE PARKING SPACES. PROVIDE BIKE PARKING SIGN PER MUTCD. SEE DETAIL 17/C6.0
 - BOLLARD. SEE DETAIL 10/C6.0
 - 6-(2'x6") COVERED BIKE PARKING. PROVIDE BIKE PARKING SIGN PER MUTCD.
 - LOADING ZONE
 - EMERGENCY GENERATOR. LEVEL I-AS PER NFPA 110 '99 ED.
 - GATE & OVERHEAD DOOR, KEYPAD AND PEDESTAL
 - TRAFFIC DETECTOR LOOP
 - 20" WIDE POWER OPERATED SLIDING SECURITY GATE
 - 15" WIDE POWER OPERATED SLIDING SECURITY GATE
 - SEAT WALL. SEE ARCHITECTURAL PLANS.
 - STONE PAVING
 - LANDSCAPE AREA
 - VAN POOL / CAR POOL SPACE
 - HANDICAP PARKING SIGN. SEE DETAIL 2/C6.0
 - EXISTING POWER POLE TO BE RELOCATED. COORDINATE WITH ELECTRIC COMPANY.
 - ASPHALT TO CONCRETE PAVING TRANSITION. SEE DETAIL 9/C6.0
 - EXISTING TREE TO REMAIN. PROTECT DURING CONSTRUCTION.
 - PAINT 6" WHITE STRIPE ON PAVEMENT
 - RELOCATE TELEPHONE HISER. COORDINATE WITH TELEPHONE COMPANY
 - RELOCATE SANITARY SEWER FLOW MONITOR. COORDINATE WITH UNIFIED SEWERAGE AGENCY.
 - REMOVE EXISTING SIGN
 - LINE OF CANOPY ABOVE
 - CANOPY SUPPORT COLUMN
 - ECO-PAVEMENT. SEE DETAIL 15/C6.0
 - CONCRETE WHEEL STOP. SEE DETAIL 5/C6.0
 - 6" HIGH CHAIN LINK FENCE. SEE ARCHITECTURAL PLANS
 - SCREEN WALL
 - 42" HIGH GUARDRAIL. SEE ARCHITECTURAL PLANS.
 - COMMERCIAL DRIVEWAY BY TUALATIN ROAD PROJECT.

SITE DATA

PLANNING DISTRICT RH/HB
USE ALLOWED BY CONDITIONAL USE APPROVAL

SITE AREA (TOTAL)	192,738 S.F.	AUTO PARKING	
SITE AREA (POLICE FACILITY)	136,621 S.F.	SECURED STANDARD	48
SITE AREA (FOR FUTURE USE)	56,117 S.F.	VAN/CARPOOL (BASED ON REQUIRED NO.)	3
		DISABLED (BASED ON REQUIRED NO.)	3
		TOTAL	118

BUILDING AREA	21,180 S.F. (11.0%)	BICYCLE PARKING	
BUILDING (GROSS)	21,180 S.F. (11.0%)	BICYCLE SPACES ON SITE	5
PAVED AREA	51,365 S.F. (26.7%)	BICYCLE SPACES IN BUILDING	6
ECO-PAVED AREA	3,146 S.F. (1.6%)	TOTAL	11
SIDEWALK	11,179 S.F. (5.8%)		
TOTAL IMPERVIOUS AREA	86,870 S.F.		
PARKING LANDSCAPE REQUIRED	1,600 S.F.		
PARKING LANDSCAPE PROVIDED	3,012 S.F.		
LANDSCAPE (POLICE FACILITY)	32,713 S.F. (17.0%)		
WETLAND BUFFER AREA	23,026 S.F.		
TOTAL LANDSCAPE AREA	105,868 S.F. (54.8%)		
TOTAL SITE AREA	192,738 S.F.		

- LEGEND**
- TRUCK PAVING SECTION: 2 1/2" AC OVER 10" CRUSHED ROCK PER GEOTECHNICAL REPORT. VERIFY WITH GEOTECHNICAL ENGINEER.
 - STANDARD PAVING SECTION: 2 1/2" AC OVER 8" CRUSHED ROCK PER GEOTECHNICAL REPORT. VERIFY WITH GEOTECHNICAL ENGINEER.
 - ECO-PAVEMENT. SEE DETAIL 15/C6.0
 - EXTRUDED CURB. SEE DETAIL 6/C6.0
 - VERTICAL CURB. SEE DETAIL 7/C6.0
 - YELLOW PAINTED CURBS MARKED WITH "NO PARKING - FIRE LANE" AT EVERY 25 FEET. LETTERING ONE INCH WIDE BY SIX INCHES HIGH. PROVIDE SIGN PER FIRE MARSHAL. SEE DETAIL 3/C2.0.
 - VAN/CARPOOL STALL. PAINT "CARPOOL" ON ASPHALT PAVING WITH WHITE PAINT

CURB RADII

ALL CURB RADII ARE 3" UNLESS NOTED OTHERWISE

A. R = 1.42'
B. R = 5'
C. R = 10'
D. R = 15'
E. R = 20'
F. R = 25'
G. R = 40'
H. R = 2.82'
I. R = 29'
J. R = 31.83'
K. R = 100'
L. R = 112'
M. R = 181.5'
N. R = 240'
O. R = 246'
P. R = 302'
Q. R = 1.25'
R. R = 45'

- GENERAL NOTES**
- ALL DIMENSIONS TO BUILDING CORNERS ARE TO ARCHITECTURAL GRID LINES.
 - IMPROVEMENTS ON S.W. TUALATIN ROAD BY OTHERS. SEE OTHER HILL DRAWINGS. (SEE APPENDIX B IN SPECIFICATIONS)
 - SEE SHEET 42.4 FOR ADDITIONAL INFORMATION ON ENTRY PLAZA, COURTYARD, AND SECURE PARKING.
 - SEE SHEET E1.0 FOR ELECTRICAL SITE PLAN.
 - NO TOP SOIL STORAGE NOR CONSTRUCTION MATERIAL STORAGE SHALL BE LOCATED WITHIN THE DRIP LINE OF TREES DESIGNATED TO BE PRESERVED.
 - WHERE NECESSARY, A GRADING, BUILDING, PAVING, TRENCHING, BORING, DIGGING, OR OTHER SIMILAR ENCROACHMENT UPON A PRESERVED TREE'S DRIP-LINE AREA SHALL ONLY BE PERMITTED UNDER THE DIRECTION OF A QUALIFIED ARBORIST.

GROUP MACKENZIE

Architects
Civil Engineering
Structural Engineering
Interior Design
Landscape Architecture
Transportation Planning

6045 SW Meadows St / 10th floor
Portland, OR 97239-3199
Tel: 503.248.6900 Fax: 503.248.1828



Project
TUALATIN POLICE FACILITY
8650 SW Tualatin Road
Tualatin, Oregon

Mechanical/Electrical
INTERFACE ENGINEERING, INC.
6542 SE Lake Road
Milwaukie, Oregon 97222-2138
Phone: (503)659-6394
Fax: (503)659-9029

Landscape Architect
GREENWORKS
800 NW 6th Street
Suite 327
Portland, Oregon 97209
Phone: (503)222-5612
Fax: (503)222-2283

SHEET TITLE:
SITE PLAN



REVISIONS:

NO.	REVISION	DATE

DATE: 7/19/99

DRAWN BY:
CHECKED BY:
SHEET

C2.0
99-26-04
OF
JOB NO. 990044

option: NEW BUILDING near POLICE FACILITY

	Gross Floor Area ¹ , SF (UNO)	Minimum ² Parking Requirement	Minimum Required Parking	Maximum ³ Parking Requirement	Maximum Allowable Parking
Option 1:					
General Office (Vehicle Parking)	30,663	2.7/1000 sf	82.8	4.1/1000 sf	125.7
General Office (Bicycle Parking)	30,663	0.5/1000 sf	15.3		
Option 2:					
Public Assembly ⁴ (Vehicle Parking)	2,000	1/400 sf	5	none	none
General Office (Vehicle Parking)	28,663	2.7/1000 sf	77.4	4.1/1000 sf	117.5
vehicle parking total			82.4		117.5
Option 3:					
Public Assembly ⁴ (Vehicle Parking)	120 seats	1/4 seats	30	0.5/seat	60
General Office (Vehicle Parking)	28,663	2.7/1000 sf	77.4	4.1/1000 sf	117.5
vehicle parking total			107.4		177.5

Blocking & Stacking ⁶	Motor Vehicle Parking Stalls	Sub-compact ⁵ Vehicle Parking Stalls	Bicycle Parking Stalls	Minimum Number of Accessible Spaces ⁷	Number of Van Accessible Spaces ⁷
Parking Garage	28	15	16		
On-Site Parking	55	14			
vehicle parking total	83	29.1		3	1

Notes:

- 1 TDC 73.370(c): Except where otherwise specified, the floor area measured shall be the gross floor area of the building primary to the function of the particular use of the property other than space devoted to off-street parking or loading.
- 2 TDC 73.340(a).
- 3 Zone B.
- 4 Municipal Court.
- 5 TDC 73.380(2): Parking stalls for sub-compact vehicles shall not exceed 35 percent of the total parking stalls required.
- 6 Shows Option 1 - minimum required parking.
- 7 OSSC 2014, Table 1106.1

option: NEW BUILDING on THE RIVER HOUSE SITE (Boones Frontage)

	Gross Floor Area ¹ , SF (UNO)	Minimum ² Parking Requirement	Minimum Required Parking	Maximum ⁵ Parking Requirement	Maximum Allowable Parking
Option 1:					
General Office (Vehicle Parking) 75% Reduction	33,118	2.7/1000 sf	89.4	3.4/1000 sf	112.6
			67.1		84.5
General Office (Bicycle Parking)	33,118	0.5/1000 sf	16.6		
Option 2:					
General Office - 1st & 2nd floor ³ (Vehicle Parking)	23,310	2.0/1000 ³ sf	46.6	2.6/1000 ³ sf	60.6
General Office - 3rd floor (Vehicle Parking)	9,808	2.7/1000 sf	26.5	3.4/1000 sf	79.3
vehicle parking total			73.1		139.9
Option 3:					
Public Assembly ⁸ (Vehicle Parking)	2,000	1/400 sf	5	none	none
General Office (Vehicle Parking)	31,118	2.7/1000 sf	84.0	4.1/1000 sf	127.6
vehicle parking total			89.0		127.6
Option 4:					
Public Assembly ⁸ (Vehicle Parking)	120 seats	0.75/4 seats ³	22.5	0.4/seat ³	48
General Office (Vehicle Parking)	31,118	2.7/1000 sf	84.0	4.1/1000 sf	127.6
vehicle parking total			106.5		175.6
Option 5:					
Public Assembly ⁸ (Vehicle Parking)	120 seats	1/4 seats	30	0.5/seat	60
General Office (Vehicle Parking)	31,118	2.7/1000 sf	84.0	4.1/1000 sf	127.6
vehicle parking total			114.0		187.6

Blocking & Stacking ⁷	Motor Vehicle Parking Stalls	Sub-compact ⁶ Vehicle Parking Stalls	Bicycle Parking Stalls	Minimum Number of Accessible Spaces ⁹	Number of Van Accessible Spaces ⁹
Parking Garage	26	9	17		
On-Site Parking	42	14			
vehicle parking total	68	23.8		3	1

Notes:

1 TDC 73.370(c): Except where otherwise specified, the floor area measured shall be the gross floor area of the building primary to the function of the particular use of the property other than space devoted to off-street parking or loading.

2 TDC 73.340(a)

3 TDC 73.370(2)(b)(ii)(A): (A) Commercial, semi-public, and public uses except as outlined under TDC 73.370(2)(b)(ii)(B). A minimum of 75% of required CAPD off-street motor vehicle parking shall be provided for the first two floors of gross leasable⁴ area for commercial, semi-public, and public uses above grade, except as outlined under TDC 73.370(2)(b)(ii)(B).

4 For properties with only one tenant, the measurements of Gross Floor Area (GFA) and Gross Leasable Area (GLA) are essentially equal.

5 Zone A

6 TDC 73.380(2): Parking stalls for sub-compact vehicles shall not exceed 35 percent of the total parking stalls required.

7 Shows Option 1 - minimum required parking.

8 Municipal Court.

9 OSSC 2014, Table 1106.1

UNO - Unless Noted Otherwise

CITY of TUALATIN Facilities Study: Alternative Analysis

PARKING REQUIREMENTS

option: NEW BUILDING on THE RIVER HOUSE SITE (River Frontage)

	Gross Floor Area ¹ , SF (UNO)	Minimum ² Parking Requirement	Minimum Required Parking	Maximum ⁵ Parking Requirement	Maximum Allowable Parking
Option 1:					
General Office (Vehicle Parking) 75% Reduction	33,201	2.7/1000 sf	89.6	3.4/1000 sf	112.9
			67.2		84.7
General Office (Bicycle Parking)	33,201	0.5/1000 sf	16.6		
Option 2:					
General Office - 1st & 2nd floor ³ (Vehicle Parking)	23,393	2.0/1000 ³ sf	46.8	2.6/1000 ³ sf	60.8
General Office - 3rd floor (Vehicle Parking)	9,808	2.7/1000 sf	26.5	3.4/1000 sf	79.5
vehicle parking total			73.3		140.4
Option 3:					
Public Assembly ⁸ (Vehicle Parking)	2,000	1/400 sf	5	none	none
General Office (Vehicle Parking)	31,201	2.7/1000 sf	84.2	4.1/1000 sf	127.9
vehicle parking total			89.2		127.9
Option 4:					
Public Assembly ⁸ (Vehicle Parking)	120 seats	0.75/4 seats ³	22.5	0.4/seat ³	48
General Office (Vehicle Parking)	31,201	2.7/1000 sf	84.2	4.1/1000 sf	127.9
vehicle parking total			106.7		175.9
Option 5:					
Public Assembly ⁸ (Vehicle Parking)	120 seats	1/4 seats	30	0.5/seat	60
General Office (Vehicle Parking)	31,201	2.7/1000 sf	84.2	4.1/1000 sf	127.9
vehicle parking total			114.2		187.9

Blocking & Stacking ⁷	Motor Vehicle Parking Stalls	Sub-compact ⁶ Vehicle Parking Stalls	Bicycle Parking Stalls	Minimum Number of Accessible Spaces ⁹	Number of Van Accessible Spaces ⁹
On-Site Parking	68	23.8	17	3	1

Notes:

1 TDC 73.370(c): Except where otherwise specified, the floor area measured shall be the gross floor area of the building primary to the function of the particular use of the property other than space devoted to off-street parking or loading.

CITY of TUALATIN Facilities Study: Alternative Analysis

PARKING REQUIREMENTS

2 TDC 73.340(a)

3 TDC 73.370(2)(b)(ii)(A): (A) Commercial, semi-public, and public uses except as outlined under TDC 73.370(2)(b)(ii)(B). A minimum of 75% of required CAPD off-street motor vehicle parking shall be provided for the first two floors of gross leasable⁴ area for commercial, semi-public, and public uses above grade, except as outlined under TDC 73.370(2)(b)(ii)(B).

4 For properties with only one tenant, the measurements of Gross Floor Area (GFA) and Gross Leasable Area (GLA) are essentially equal.

5 Zone A

6 TDC 73.380(2): Parking stalls for sub-compact vehicles shall not exceed 35 percent of the total parking stalls required.

7 Shows Option 1 - minimum required parking.

8 Municipal Court.

9 OSSC 2014, Table 1106.1

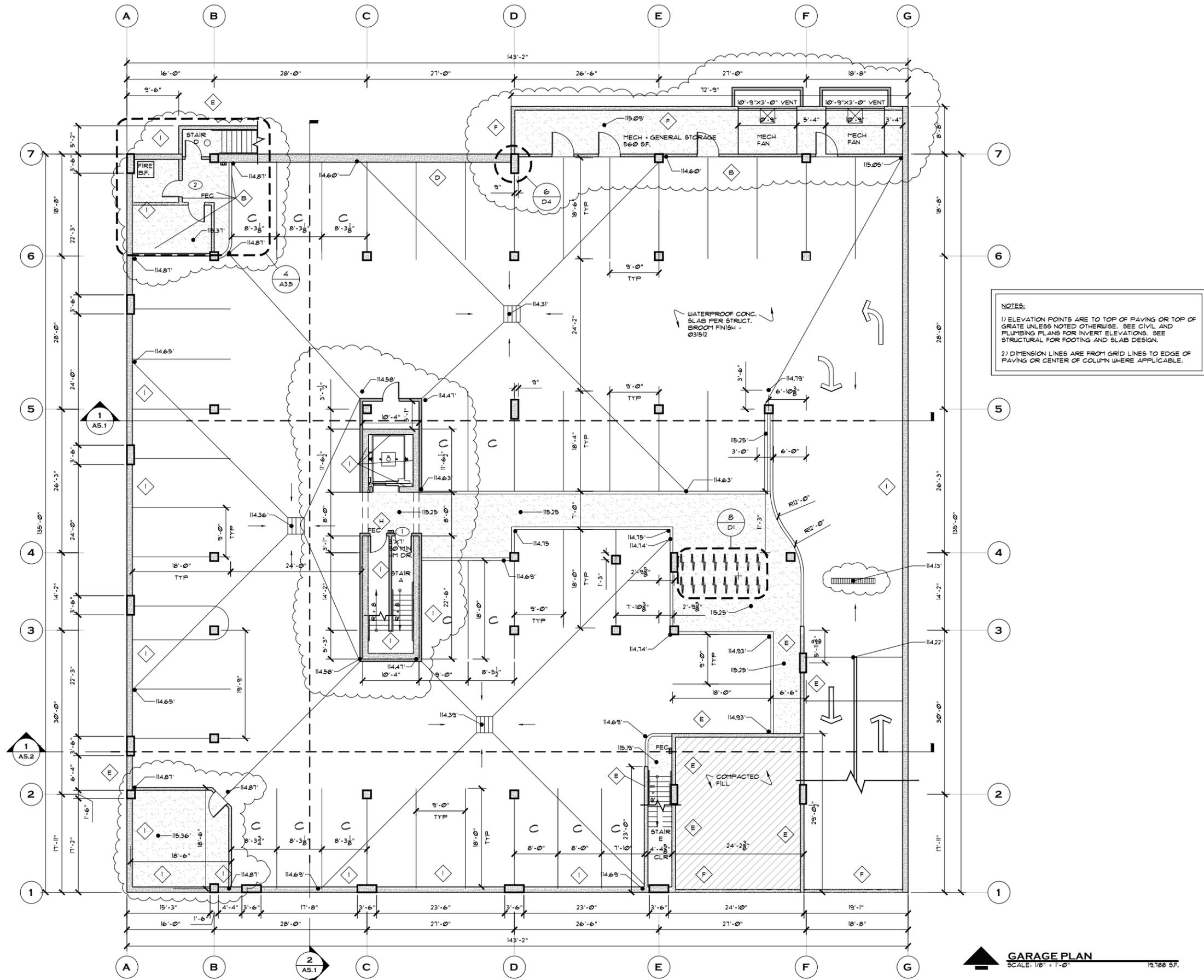
UNO - Unless Noted Otherwise

preliminary option: LEASING SPACE AT ROBINSON CROSSING

PARKING REQUIREMENTS	Existing Area	2025 AREA	Seats	Required Parking
Robinson Crossing per Original Approval (Vehicle Parking) ¹				51
General Office ²		3,874		10.5
Public Assembly - Municipal Courts ³			120	22.5
Required Motor Vehicle Parking TOTAL				84
	Existing Vehicle Parking			65
	Deficit			19
Robinson Crossing per Original Approval (Vehicle Parking) ⁴				15
Public Assembly - Municipal Courts ³			120	3
Required Bike Parking TOTAL				18
	Existing Bike Parking			16
	Deficit			2

Notes:

1. Excluding 14 approved parking stalls for Retail Use.
2. Change in Use from Retail to General Office.
3. Change in Use from Retail to Public Assembly. Municipal Court occupancy assumed: 100 to 120 seats
4. Retail and Offices Use have same Bicycle parking requirements.



NOTES:
 1) ELEVATION POINTS ARE TO TOP OF PAVING OR TOP OF GRATE UNLESS NOTED OTHERWISE. SEE CIVIL AND PLUMBING PLANS FOR INVERT ELEVATIONS. SEE STRUCTURAL FOR FOOTING AND SLAB DESIGN.
 2) DIMENSION LINES ARE FROM GRID LINES TO EDGE OF PAVING OR CENTER OF COLUMN WHERE APPLICABLE.

GARAGE PLAN
 SCALE: 1/8" = 1'-0"
 18,188 SF.



LARRY D. WILS
 ARCHITECT
 404 E. 15TH ST. S
 VANCOUVER WA
 98663
 (360) 696-4727

REGISTERED ARCHITECT
 LARRY D. WILS
 VANCOUVER, WA
 STATE OF OR

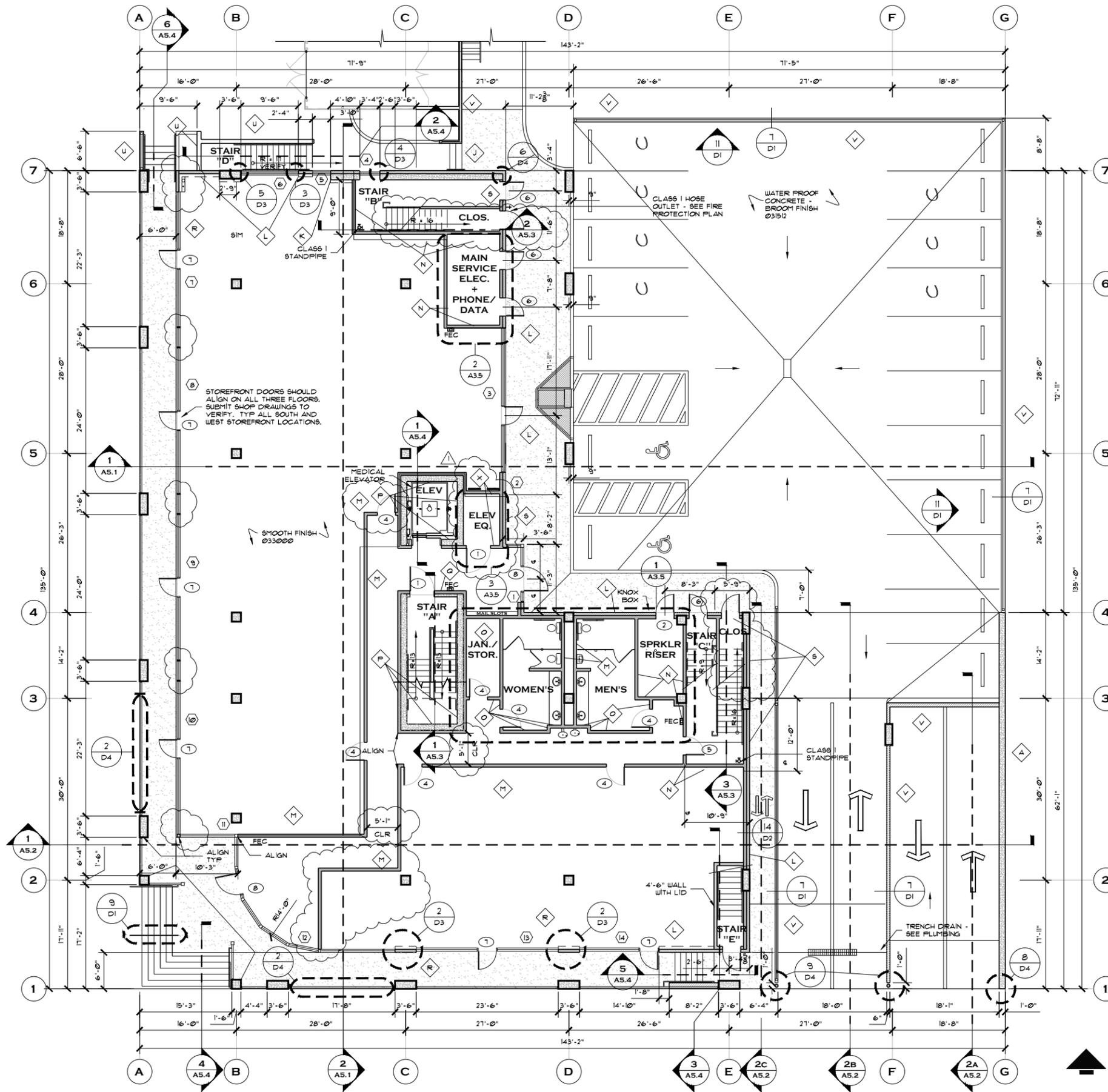
AS-BUILTS - 2/2013

ROBINSON BUILDING TWO
 18810 SW BOONES FERRY RD.
 TUALATIN, OR. 97062

DATE	SCALE
JOB NO. 3308	SEE F
REVISIONS:	DRAW RYD
1	
2	
3	
4	
5	
6	
7	
8	
9	

A3.C
 GARAGE PLAN





MAIN FLOOR PLAN
 SCALE: 1/8" = 1'-0"
 5,814 SF.



LARRY D. WILS
 ARCHITECT
 404 E. 15TH ST. S
 VANCOUVER, WA
 98663
 (360) 696-4724



AS-BUILTS - 2/2013

ROBINSON BUILDING TWO
 18810 SW BOONES FERRY RD.
 TUALATIN, OR. 97062

DATE	SCALE
3/30/08	SEE #1
3/30/08	DRW
3/30/08	RYAN

REVISIONS:

1	1/2/08	ELEV. COM'G
2		
3		
4		
5		
6		
7		
8		
9		

A3.1
 MAIN FLOOR PLAN



preliminary option: NEW BUILDING near CLARK LUMBER

PARKING REQUIREMENTS	Gross Floor Area, SF	Seats	Required Parking
Public Assembly - Municipal Courts ¹		120	30
General Office	24,943		67.3
Required Motor Vehicle Parking TOTAL			98
Public Assembly - Municipal Courts ¹		120	3
General Office	24,943		12.5
Required Bike Parking TOTAL			16

Blocking & Stacking	Motor Vehicle Parking Stalls	Bicycle Parking Stalls
Parking Garage	78	16
On Site	20	

Notes:

1. Assuming 100 to 120 seats

preliminary option: NEW BUILDING on THREAT DYNAMICS SITE

PARKING REQUIREMENTS	Gross Floor Area, SF	Seats	Required Parking
Public Assembly - Municipal Courts ¹		120	30
General Office	24,943		67.3
Required Motor Vehicle Parking TOTAL			98
Public Assembly - Municipal Courts ¹		120	3
General Office	24,943		12.5
Required Bike Parking TOTAL			16

Blocking & Stacking	Motor Vehicle Parking Stalls	Bicycle Parking Stalls
Parking Garage	54	16
On Site	44	

Notes:

1. Assuming 100 to 120 seats

library option: TWO-STORY ADDITION

	Floor Area, SF (UNO)	Minimum Parking Requirement	Minimum Required Parking	Maximum ¹ Parking Requirement	Maximum Allowable Parking
Existing Libray					
Public Assembly (Vehicle Parking)	21,180	1.0/400 sf	53.0	none	none
General Office (Vehicle Parking)	6,478	2.7/1000 sf	17.5	3.4/1000 sf	22.0
vehicle parking total			70.4		
bike parking total					
Public Assembly (Bicycle Parking)	21,180	1.5/1000 sf	31.8		
General Office (Bicycle Parking)	6,478	0.5/1000 sf	3.2		
bike parking total			35.0		
Renovated Libray					
Public Assembly (Vehicle Parking)	32,280	1.0/400 sf	80.7	none	none
Public Assembly (Bicycle Parking)	32,280	1.5/1000 sf	48.4		

Notes:

- 1 Zone A.
- 2 Current number of parking lots on-site 101 vehicle parking stalls.

UNO - Unless Noted Otherwise

library option: RENOVATION

	Floor Area, SF (UNO)	Minimum Parking Requirement	Minimum Required Parking	Maximum ¹ Parking Requirement	Maximum Allowable Parking
Existing Libray					
Public Assembly (Vehicle Parking)	21,180	1.0/400 sf	53.0	none	none
General Office (Vehicle Parking)	6,478	2.7/1000 sf	17.5	3.4/1000 sf	22.0
vehicle parking total			70.4		
bike parking total					
Public Assembly (Bicycle Parking)	21,180	1.5/1000 sf	31.8		
General Office (Bicycle Parking)	6,478	0.5/1000 sf	3.2		
bike parking total			35.0		
Renovated Libray					
Public Assembly (Vehicle Parking)	27,658	1.0/400 sf	69.1	none	none
Public Assembly (Bicycle Parking)	27,658	1.5/1000 sf	41.5		

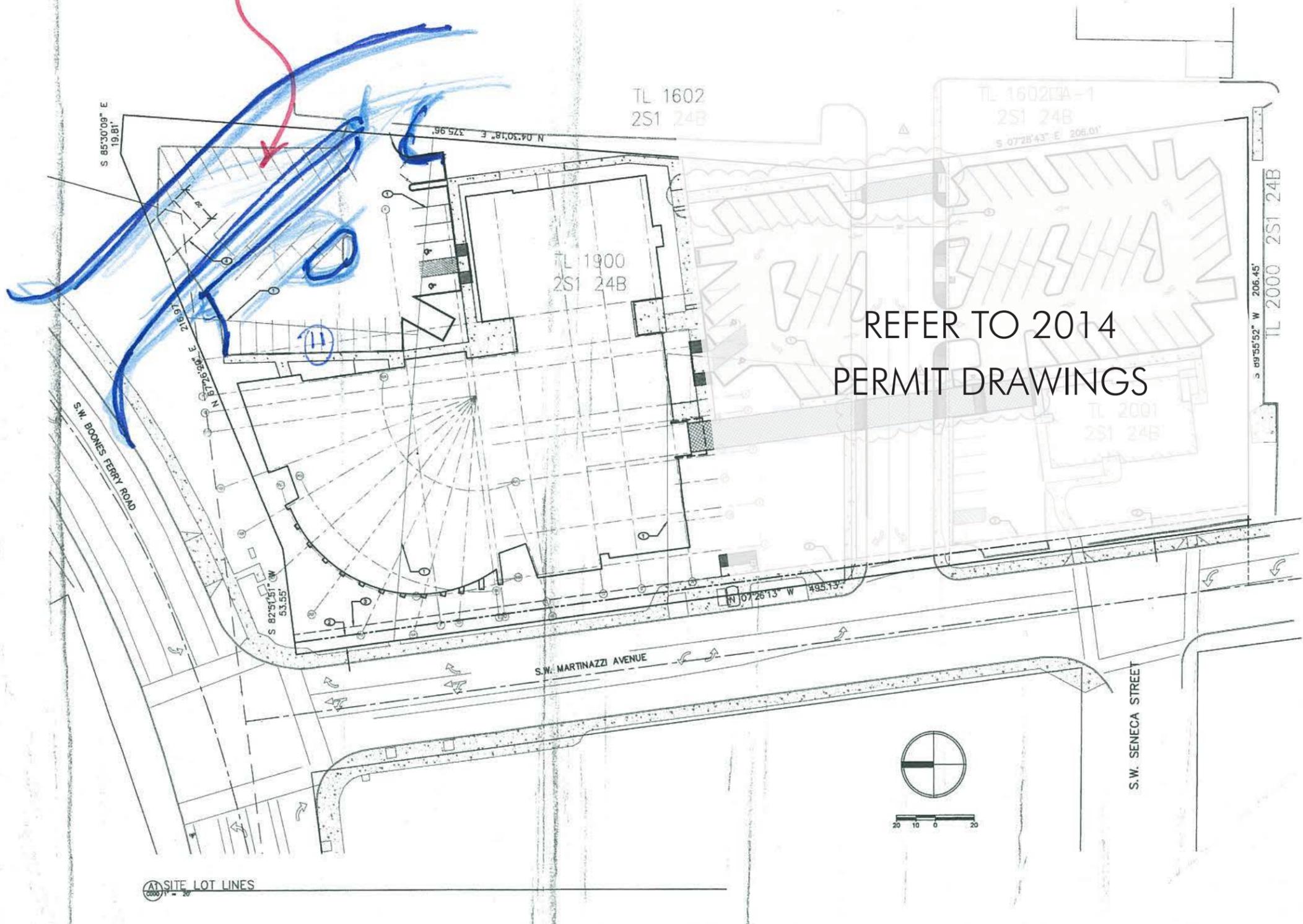
Notes:

- 1 Zone A.
- 2 Current number of parking lots on-site 101 vehicle parking stalls.

UNO - Unless Noted Otherwise

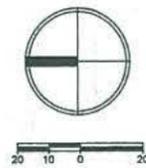
07-19-05

NEW ROAD



REFER TO 2014 PERMIT DRAWINGS

Ⓐ SITE LOT LINES



- Key Notes**
- ① Old Site Lot Lines
 - ② Proposed 6' Property Dedication
 - ③ Proposed 4' Public Utility Easement
 - ④ Proposed 20' Public Storm Easement
 - ⑤ Existing 50' Access Easement



ARCHITECTURE PLANNING INTERIORS
 621 SW Morrison Street, Suite 200
 Portland, Oregon 97205
 T: 503.222.1917 F: 503.254.6172
 SRG PARTNERSHIP INC

CES | NW
 1553 SW BANCY ROAD, STE 300
 TUALATIN, OREGON 97062
 503.966.6555 www.cesnw.com

Tualatin Public Library
 Addition and Remodel
 Contract Documents
 Tualatin, Oregon

For Construction
 Contract Documents

Drawing Title
 BNDRY LOT LINE
 PLAN

Revisions
 1 REVIEW COMMENTS 06/13/07

Drawn by
 TLU
 Checked by
 TLU/ARW
 Date
 April 8, 2007
 Project No
 2023
 Contract Project No
 1981
 Owner Project No
 Drawing No
 C-000

LEGEND

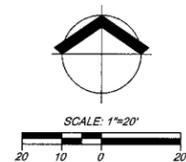
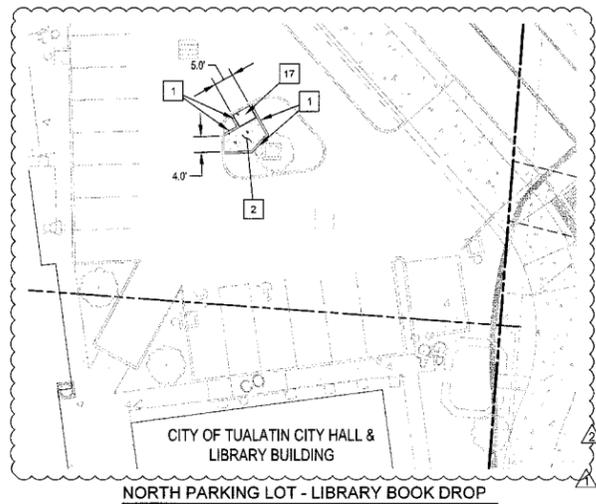
- PROPERTY LINE
- LOT LINE
- EXISTING EASEMENT
- PROPOSED CURB LINE
- PROPOSED CONCRETE
- PROPOSED DETECTABLE WARNING
- PROPOSED ADA STALL
- PROPOSED COMPACT STALL
- EXISTING STORM MANHOLE
- EXISTING STORM CATCH BASIN
- PROPOSED STORM CATCH BASIN
- PROPOSED STORM WQ CATCH BASIN
- PROPOSED STORM CLEANOUT
- EXISTING SANITARY MANHOLE
- EXISTING FIRE HYDRANT (PREVIOUS PHASE)
- EXISTING FDC (PREVIOUS PHASE)
- EXISTING WATER VALVE (PREVIOUS PHASE)
- EXISTING TREE
- PROPOSED LIGHT POLES
- PROPOSED TRASH ENCLOSURE

SIGNING AND STRIPING CONSTRUCTION NOTES

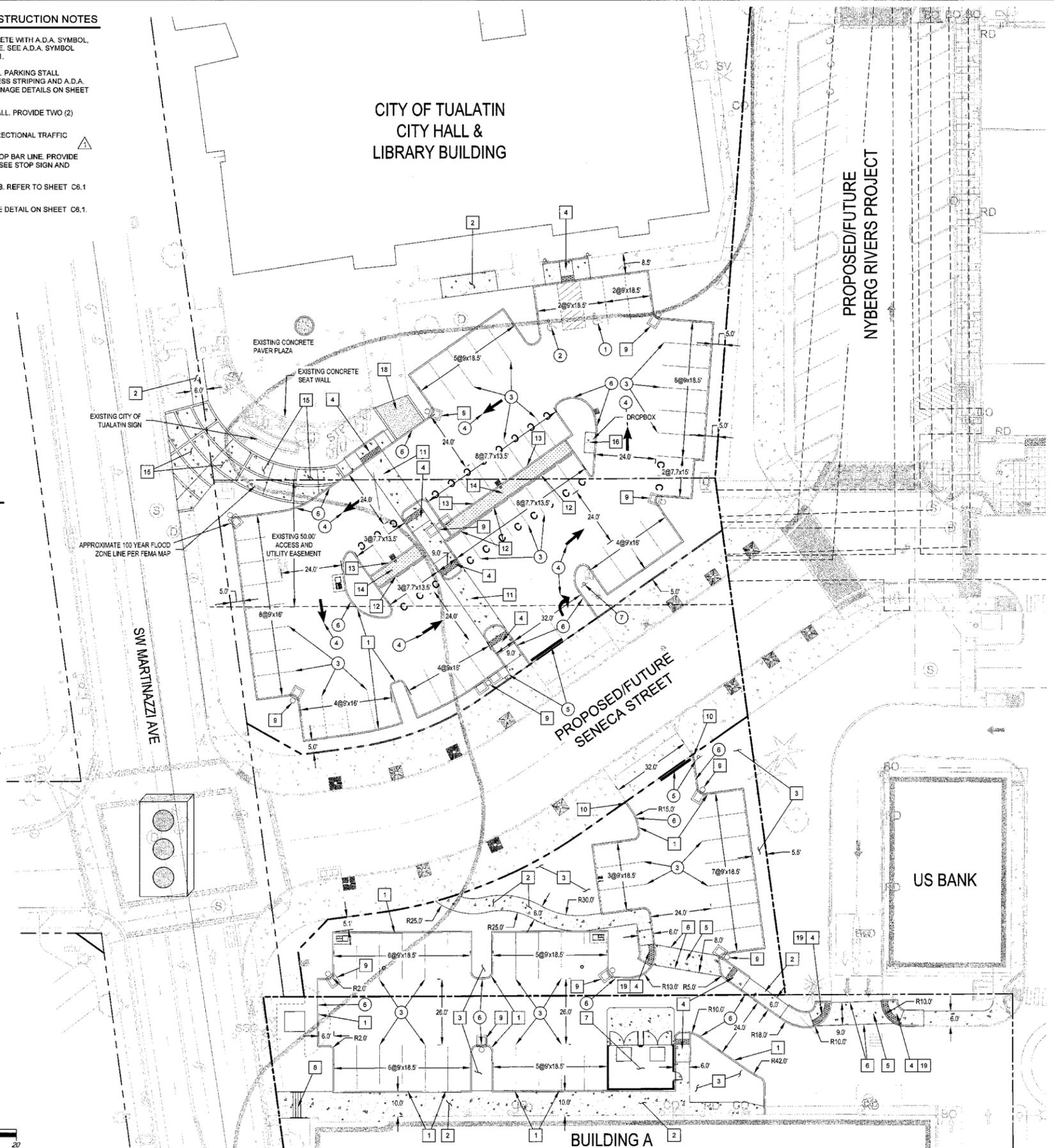
- 1 INSTALL A.D.A. PARKING STALL COMPLETE WITH A.D.A. SYMBOL, ACCESS STRIPING AND A.D.A. SIGNAGE. SEE A.D.A. SYMBOL AND SIGNAGE DETAILS ON SHEET C6.1.
- 2 CONSTRUCT WHEELCHAIR USER A.D.A. PARKING STALL COMPLETE WITH A.D.A. SYMBOL, ACCESS STRIPING AND A.D.A. SIGNAGE. SEE A.D.A. SYMBOL AND SIGNAGE DETAILS ON SHEET C6.1.
- 3 STRIPE SINGLE 4" WHITE PARKING STALL. PROVIDE TWO (2) COATS OF PAINT.
- 4 INSTALL THERMOPLASTIC TYPICAL DIRECTIONAL TRAFFIC ARROW. SEE DETAIL ON SHEET C6.1.
- 5 INSTALL STOP SIGN AND 12" WHITE STOP BAR LINE. PROVIDE TWO COATS OF PAINT FOR STRIPING. SEE STOP SIGN AND STOP BAR DETAILS ON SHEET C6.1.
- 6 NO PARKING FIRE LANE PAINTED CURB. REFER TO SHEET C6.1 FOR DETAIL.
- 7 INSTALL "RIGHT TURN ONLY" SIGN. SEE DETAIL ON SHEET C6.1.

SITE CONSTRUCTION NOTES

- 1 INSTALL STANDARD 6" EXPOSURE CONCRETE CURB. REFER TO DETAIL ON SHEET C6.0.
- 2 INSTALL STANDARD CONCRETE SIDEWALK. REFER TO SIDEWALK SECTION DETAIL ON SHEET C6.0.
- 3 LANDSCAPE AREA. REFER TO LANDSCAPE PLANS FOR PLANT AND TREE PLACEMENT.
- 4 CONSTRUCT ADA RAMP WITH BLACK PRECAST CONCRETE TRUNCATED DOMES. SEE GRADING PLAN FOR ELEVATIONS. SEE STANDARD DETAIL ON SHEET C6.0.
- 5 CONSTRUCT HEAVY CONCRETE CROSSING. REFER TO DETAIL ON SHEET C6.0.
- 6 CONSTRUCT IMPACT SLAB. SEE IMPACT SLAB DETAIL ON SHEET C6.0.
- 7 CONSTRUCT TRASH ENCLOSURE. REFER TO DETAILS ON SHEETS C6.4 & C6.5.
- 8 CONSTRUCT 4 STAIRS WITH TREADS 1% SLOPE. INSTALL HANDRAIL ON EACH SIDE OF STAIRS TO MEET ADA GUIDELINES AND CITY OF TUALATIN BUILDING REQUIREMENTS. SEE STAIR AND HANDRAIL DETAIL ON SHEET C6.1. CONTRACTOR TO PROVIDE SUBMITTALS WITH DETAILS FOR CITY APPROVAL.
- 9 LIGHT POLE. SEE ELECTRICAL/ILLUMINATION PLANS FOR LIGHT POLE CONSTRUCTION.
- 10 CONSTRUCT TRANSITION FROM 6" EXPOSURE CURB TO FLUSH CURB. SEE DETAIL ON SHEET C6.0.
- 11 CONSTRUCT RAISED 3" PEDESTRIAN CROSSWALK. GRADING PLAN FOR ELEVATIONS AND DETAIL ON SHEET C6.0.
- 12 CONSTRUCT STORMWATER FLUSH CURB AND WHEELSTOPS. SEE STORMWATER FLUSH CURB DETAIL ON SHEET C6.3 AND WHEELSTOP DETAIL ON SHEET C6.0.
- 13 CONSTRUCT STORMWATER CURB. SEE STORMWATER CURB DETAIL ON SHEET C6.3.
- 14 CONSTRUCT STORMWATER VEGETATED FILTER FACILITY. SEE STORM PLAN FOR PIPE UTILITY INFORMATION. SEE STORMWATER VEGETATED FILTER DETAIL ON SHEET C6.3.
- 15 CONSTRUCT CONCRETE PLAZA WITH PAVER DECORATIVE BAND. SEE GRADING PLAN FOR ELEVATIONS. SEE PLAZA DETAIL ON SHEET C6.0.
- 16 CONSTRUCT 4x8" VOTER'S BALLOT AND UTILITY BILL PAD. REINSTALL VOTER'S BALLOT BOX AND UTILITY BILL PAY BOX ON PAD. SEE SIDEWALK SECTION ON SHEET C6.0.
- 17 CONSTRUCT LIBRARY BOOK DROP OFF PAD AND SIDEWALK. INSTALL EZ DUAL DROP 5640 OR APPROVED EQUAL BOOK DROP BIN. SEE SIDEWALK SECTION ON SHEET C6.0.
- 18 CONSTRUCT PAVER SIDEWALK. PAVERS TO BE GRAY AND MATCH EXISTING. SOLDIER COARSE BOARD TO BE MORTAR SET AND MAIN BODY TO BE SAND SET. SEE SECTION ON SHEET C6.0.
- 19 CONTRACTOR TO CUT BLACK PRECAST TRUNCATED DOME PANELS TO FIT ADA RAMP CURVE. SEE TRUNCATED DOME DETAIL ON SHEET C6.0.



**CITY OF TUALATIN
CITY HALL &
LIBRARY BUILDING**



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**SITE PLAN
LIBRARY/CITY HALL PARKING REDEVELOPMENT
CITY OF TUALATIN
TUALATIN, OREGON**

DATE	DESCRIPTION	BY
06/23/2014	CITY COMMENTS	RHH
07/11/2014	REVISION 2	RHH

REGISTERED PROFESSIONAL ENGINEER
78505926
J. Halvorsen
OREGON
EXPIRES: 05/30/2015

DATE	05/22/2014
DRAWN	I RHH
DESIGNED	I RHH
CHECKED	I BFW
PROJECT #	21406620
SHEET TITLE	SITE PLAN
SHEET NUMBER	C3.0
LAND USE #	###

PERMIT SET

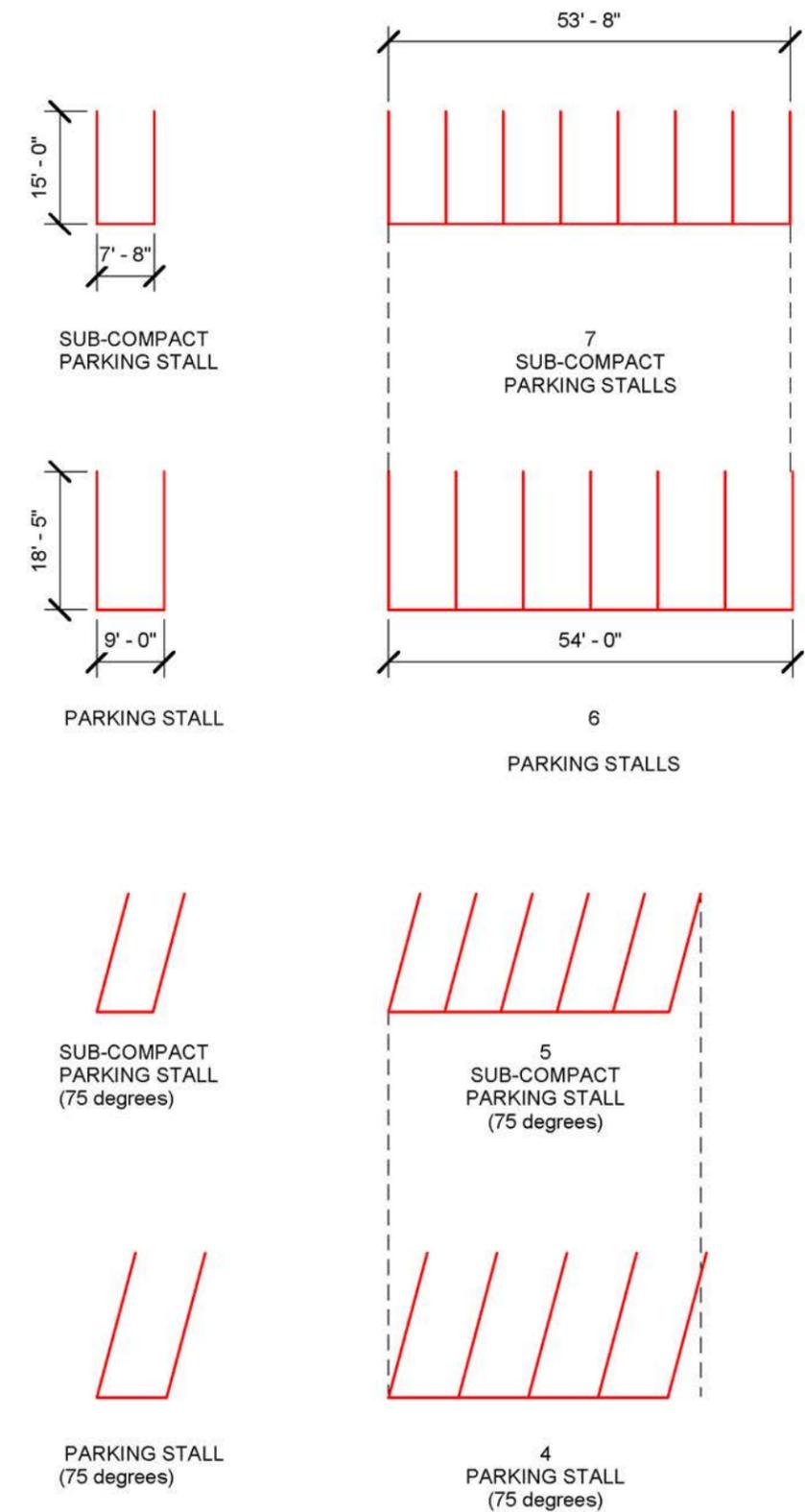
CITY of TUALATIN Facilities Study: Alternative Analysis

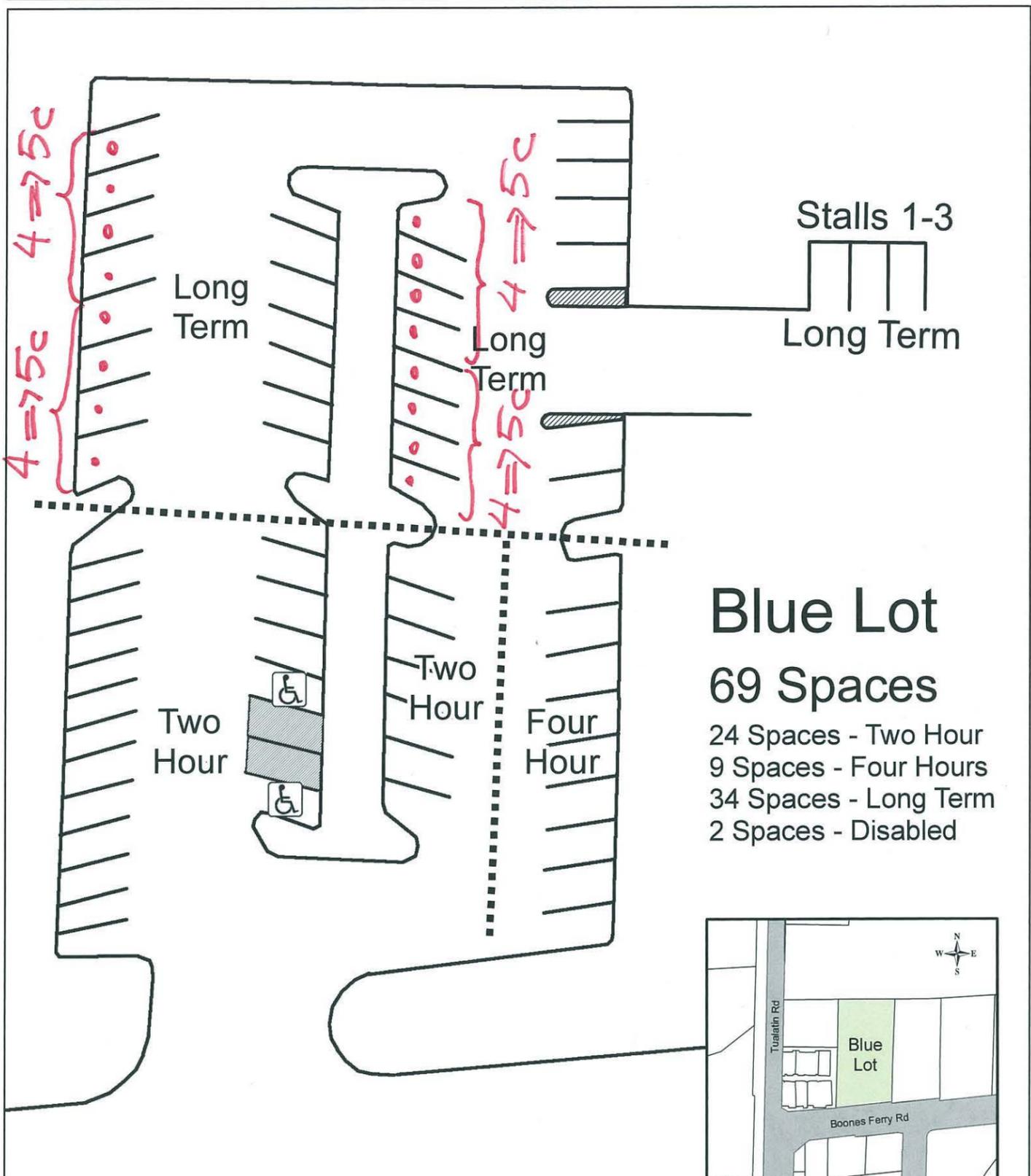
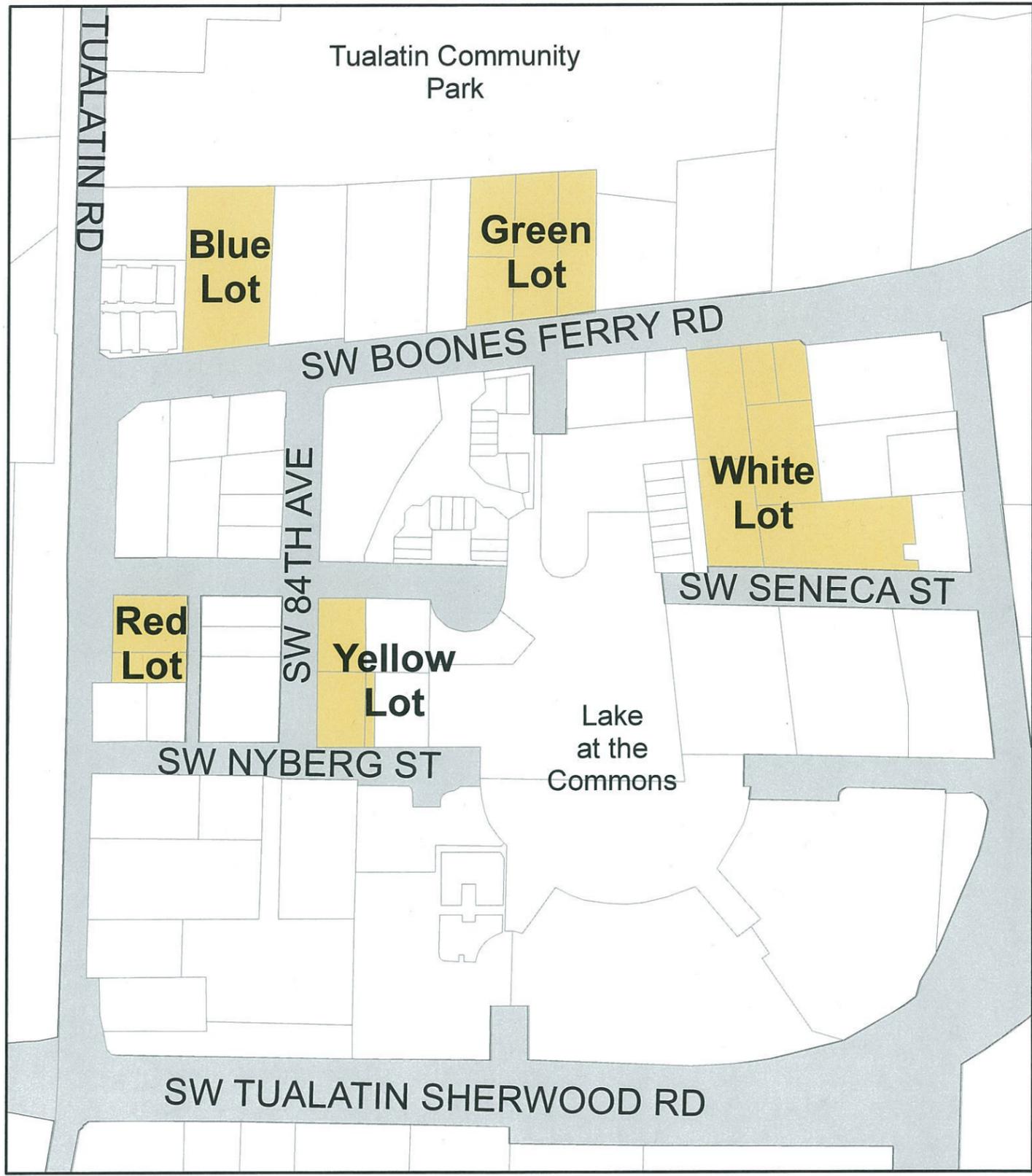
PUBLIC PARKING DOWNTOWN

	Existing Motor Vehicle Spaces ¹	Maximum Allowable Sub-compact ² Vehicle Parking Stalls	Number of Regular Stalls that can be Restriped	Number of Sub-compact Stalls after Restriping	Total Motor Vehicle Spaces after Restriping	Cost Opinion, refer to detailed calculations
Blue Lot	69	24.2	16	20	73	\$3,730.00
Green Lot	69	24.2	18	21	72	\$3,940.00
White Lot	166	58.1	48	56	174	\$8,740.00
total	304		82		319	\$16,410.00
additional parking stalls (after restriping)					15	
Red Lot	38					
Yellow Lot	44					

Notes:

1 TDC 73.380(2): Parking stalls for sub-compact vehicles shall not exceed 35 percent of the total parking stalls required.





Blue Lot
69 Spaces
 24 Spaces - Two Hour
 9 Spaces - Four Hours
 34 Spaces - Long Term
 2 Spaces - Disabled

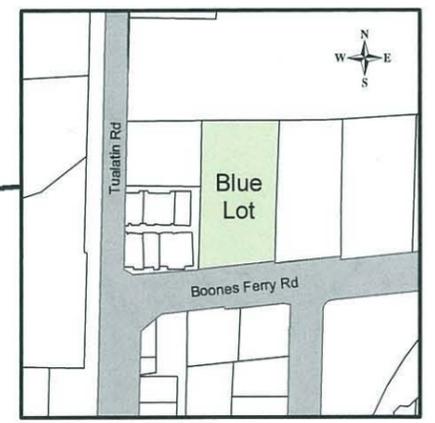


Exhibit B

Green Lot

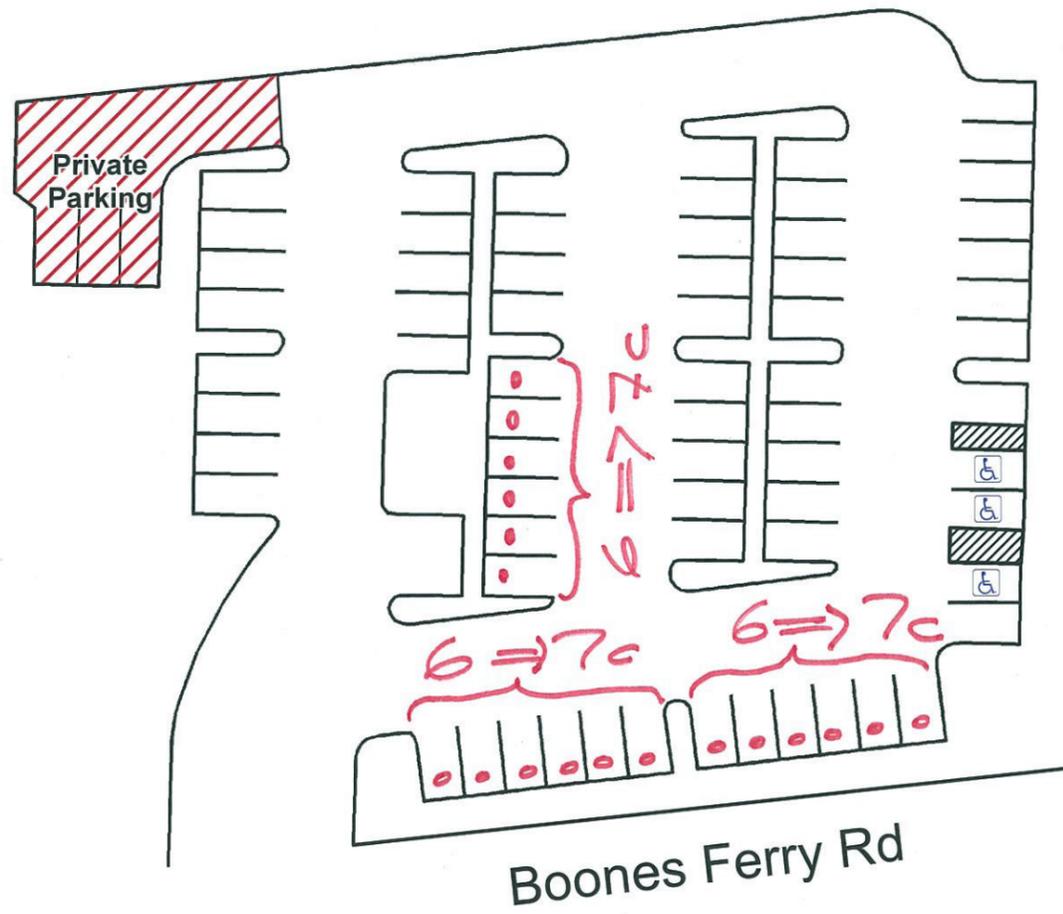
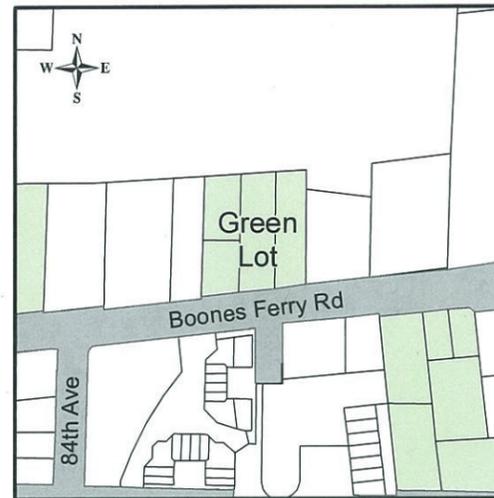
This map is derived from various digital database sources. While an attempt has been made to provide an accurate map, the City of Tualatin, OR assumes no responsibility or liability for any errors or omissions in the information. This map is provided "as is" - Engineering and Building Dept. Plotted 3/11/2008



Green Lot

69 Spaces

66 Spaces - Long Term
3 Space - Disabled



White Lot

This map is derived from various digital database sources. While an attempt has been made to provide an accurate map, the City of Tualatin, OR assumes no responsibility or liability for any errors or omissions in the information. This map is provided "as is" - Engineering and Building Dept. Plotted 04/07/2010

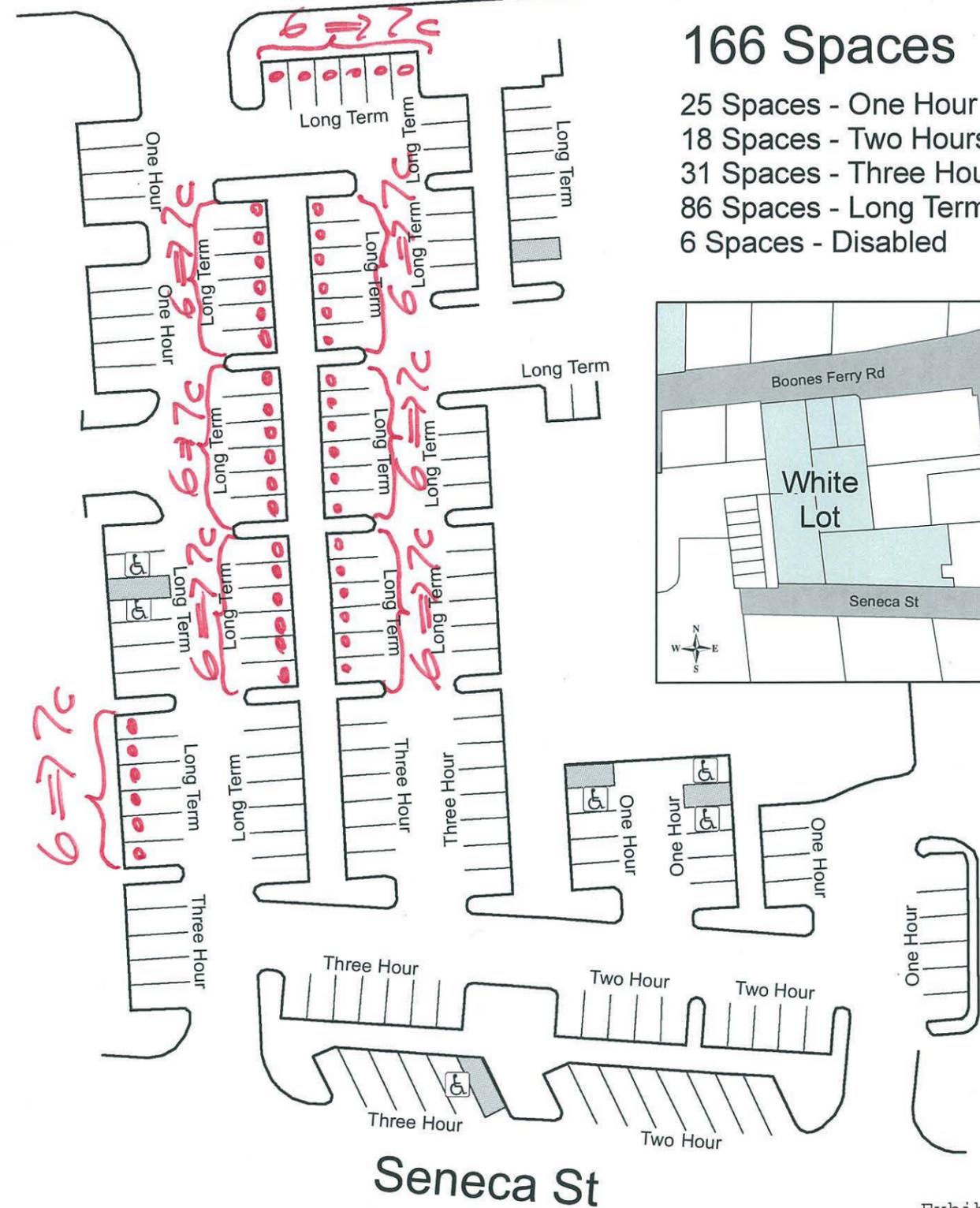
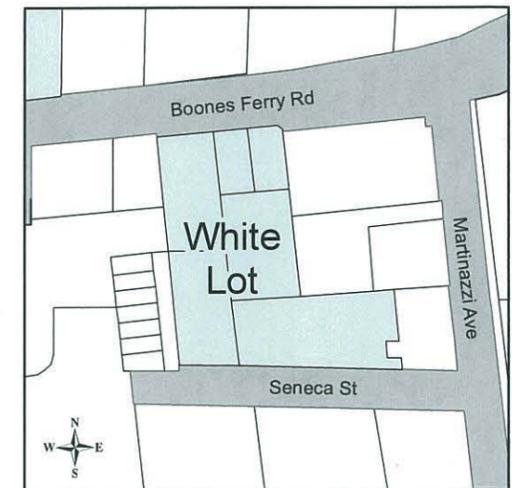


White Lot

166 Spaces

25 Spaces - One Hour
18 Spaces - Two Hours
31 Spaces - Three Hours
86 Spaces - Long Term
6 Spaces - Disabled

Boones Ferry Rd



Seneca St

Exhibit E

Red Lot

This map is derived from various digital database sources. While an attempt has been made to provide an accurate map, the City of Tualatin, OR assumes no responsibility or liability for any errors or omissions in the information. This map is provided "as is". -Engineering and Building Dept. Plotted 10/18/2011



Red Lot

38 Spaces

36 Spaces - Long Term
2 Spaces - Disabled

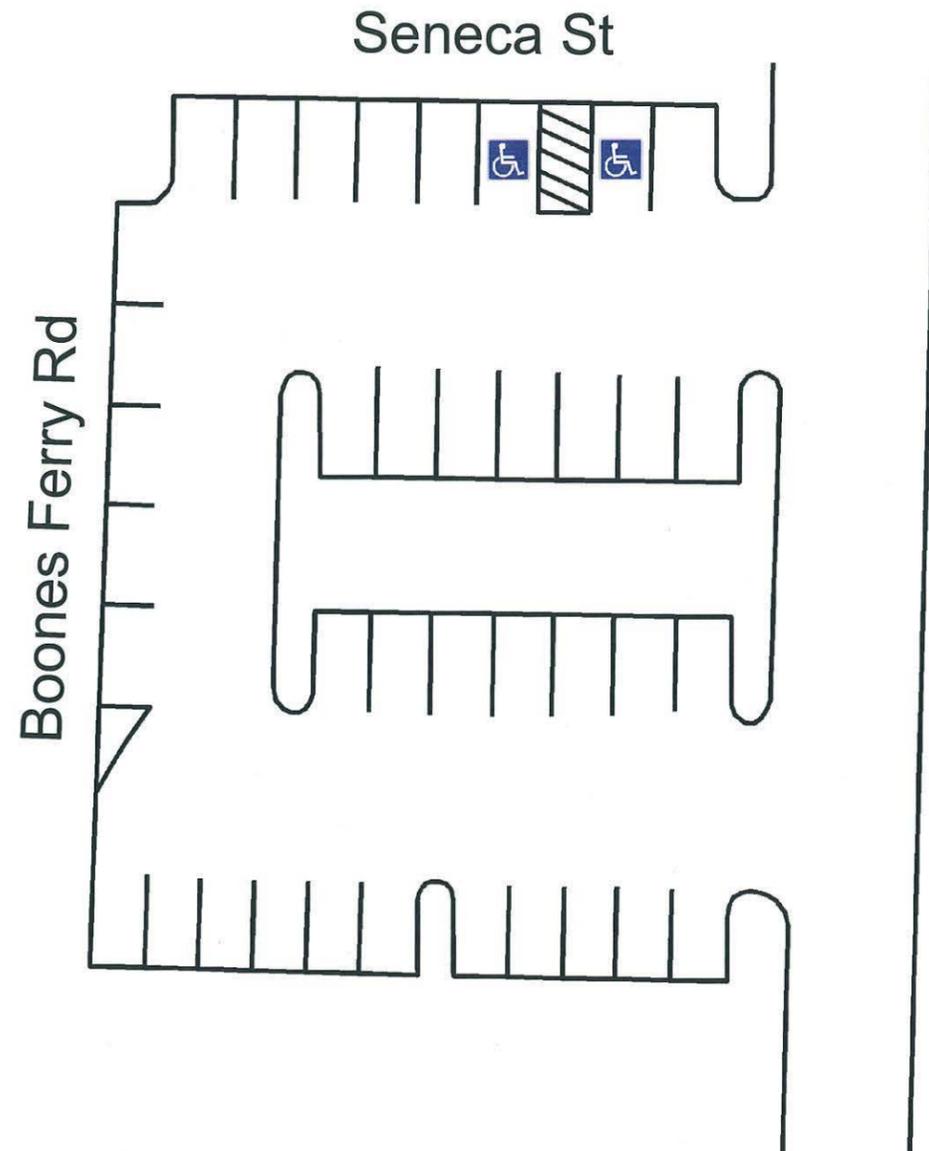
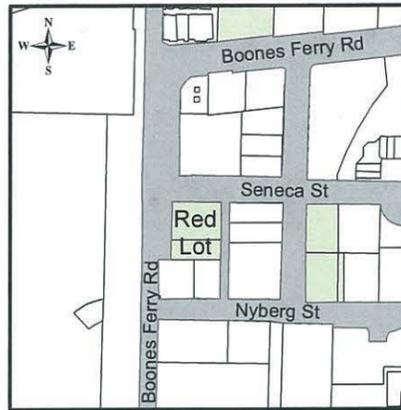


Exhibit D

Yellow Lot

This map is derived from various digital database sources. While an attempt has been made to provide an accurate map, the City of Tualatin, OR assumes no responsibility or liability for any errors or omissions in the information. This map is provided "as is". -Engineering and Building Dept. Plotted 7/18/2007



Seneca St

One Hour

Long Term

Long Term

Long Term

Long Term

Three Hour

One Hour

One Hour

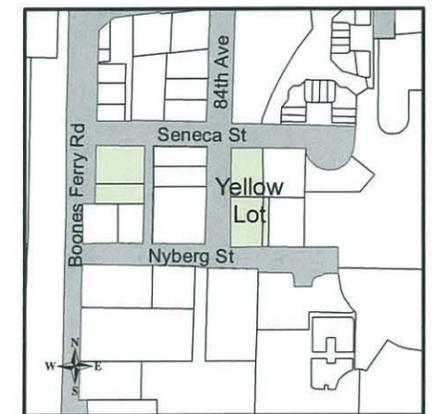
One Hour

84th Ave

Yellow Lot

44 Spaces

4 Spaces - One Hour
16 Spaces - Three Hours
23 Spaces - Long Term
1 Space - Disabled



Nyberg St

Exhibit F

Rick Williams Consulting
Parking & Transportation Demand Management
 610 SW Alder, Suite 1221
 Portland, OR 97205
 Phone: (503) 236-6441 Fax: (503) 236-6164
 E-mail: rick.williams@bpmdev.com

MEMORANDUM

TO: Alice Rouyer, City of Tualatin
 Eric Underwood, City of Tualatin
FROM: Rick Williams, RWC
DATE: June 14, 2011
RE: Technical Memorandum #1: Assessment of Core Area Parking District

A. BACKGROUND

The City of Tualatin is interested in an evaluation of its existing parking resources from several perspectives. These include:

- Current revenue generation and cost to operate City owned parking resources.
- Analysis of the number of stalls required by City code versus the supply provided by private property owners and the District.
- Analysis of the demand for the City's parking lots during peak hours.
- Implications on the supply associated with new development growth and the City's role in providing parking resources beyond current supplies.

Rick Williams Consulting is a Portland based parking and transportation demand management consulting firm retained by the City of Tualatin to assist in this evaluation.

The purpose of this memorandum is to provide an initial review of information and considerations related to the City of Tualatin's parking system. Information contained herein will be provided to the Core Area Parking District Board and City Council for review. Further review and refinement of findings will be incorporated into a subsequent final report.

B. CURRENT ENVIRONMENT

Supply

The current parking district was established in 1979 and generally encompasses 24 acres in the downtown area of Tualatin. The approximate boundaries of the District to the east is the easternmost edge of the



Library and City of Tualatin Offices building, SW Boones Ferry Road to the west, SW Nyberg Road to the south, and Hedges Creek on the north.

Over the years, the City has constructed 394 off-street parking stalls on 5 surface lots located within the parking district (see Figure A). An additional 61 stalls are provided as public on-street parking for a total of 455 public stalls.

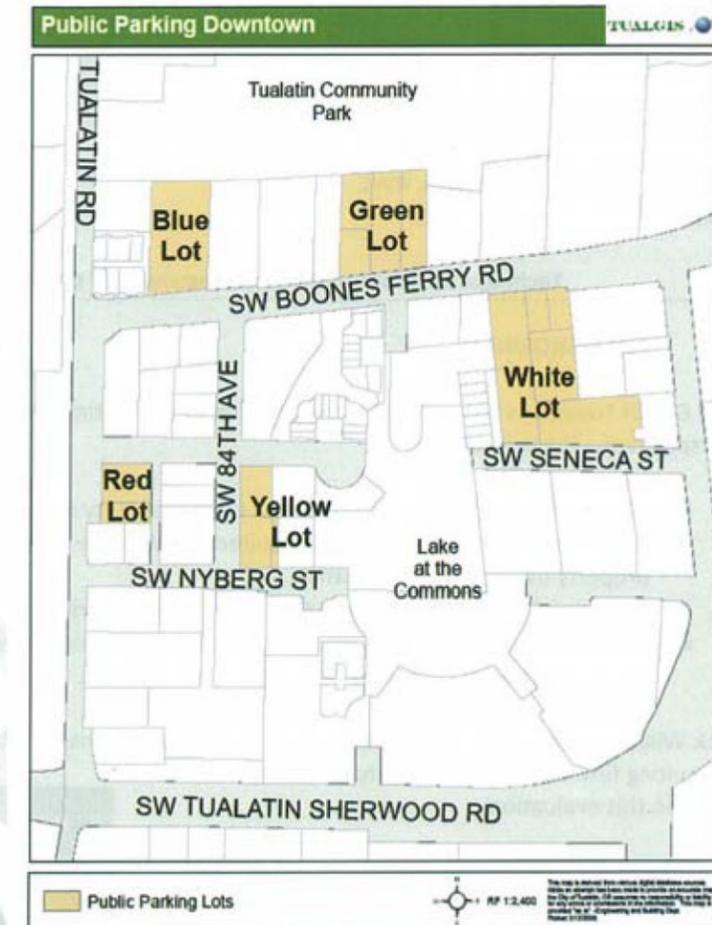
Capital Funding

Funding for the parking facilities came from a combination of funds derived from past impact fee payments and urban renewal funds. According to the City's Core Area Parking District Board Handbook (Updated December 2010) the majority of funds needed to pay for the provision of the City's parking facilities were urban renewal funds. As such, impact fees were supplemental funds within the combination of funding source that led to construction of the City's off-street parking facilities.

Impact fees were assessed for the amount of parking required for new developments or for expanding and/or changing uses that occurred in the district over time. The fees began at \$2,000 per stall and are currently at \$3,500 per stall. Developments only pay the fee on that amount of required parking that is not provided by the private developer themselves.¹ In other words, a development could avoid an impact fee if all required parking were provided within a project by the developer. Impact fees are paid at the time building permits are issued.

¹ See TMC 11-3-100 Impact Fee. The impact fee was last increased in 2004, when it was determined that the "cost per space to design and build each on-grade parking space in a public lot within the District" was \$3,500. Current City estimates of actual cost to construct are \$5,500 per stall, which includes hard construction costs and engineering costs but not land costs. As such, current impact fees are less than actual cost to construct and much less than cost to construct if a land purchase by the City is necessary to provide parking.

Figure A



Per TMC 11-3-100 (5) the funds derived from impact fees are to be used for new parking facilities and capital improvements in the district. As such, funds from impact fees cannot be used for the operation and maintenance of existing lots or lots built using these funds. Currently, the Impact Fee Reserve Fund balance is \$45,500. Operating funds are explained in more detail below and addressed in the Tualatin Municipal Code –see TMC 11-3-050.

Operations Funding

Operations and maintenance of the parking system is supported through a parking tax that is assessed “to all businesses, professions, occupations, trades, fraternal and religious organizations and taxable residential units, located within the district.” This tax is provided per TMC 11-3-050 (3). Like the impact fee for developers, every business use that furnishes privately owned off-street parking is allowed a credit against the parking tax for each space furnished. The City quantifies the total number of spaces required to meet parking demand generated by a specific business use, then derives parking tax credit calculations by subtracting private parking stalls before applying a “space factor,” which calculates the annual tax rate. The current maximum tax credit offered for private parking provided is 50%.

The space factor is generally correlated to an assumption of trip demand by use type, with businesses deemed to generate more parking visits assessed a higher factor than businesses with lower parking visits. The space factor is a common assessment tool used in parking districts around the country, but other tools include square footage, head taxes and flat monthly/annual per stall fees (to name a few). Tualatin’s space factors are assessed per the code and included in TMC 11-3-080, Table A.

Audited financial statements from the year ended June 30, 2010 showed a beginning reserve balance of \$210,425, operating revenue of approximately \$51,800, impact fee revenue of \$45,500 and operating expenditures of approximately \$59,000. Ending reserve balances at June 30, 2010 were \$203,191. During FY 2009-10, the City conducted a city-wide cost of service study to determine the true cost of providing administrative and other services to the different funds of the City. It was determined that the Core Area Parking District was not paying for the full cost of services, particularly for parking enforcement, being provided by the City’s General Fund. Adjustments to the transfer from the District to the General Fund were made beginning in FY 2010-11, thereby increasing the expenditures of the District. Estimates for FY 2011-12 assume \$62,200 in operating revenue with an estimated \$89,400 in expenditures. Assuming no change in the tax rate and expenditures increasing 3% for non-utility related expenditures and 5% for utilities, future projections show a steadily declining operating reserve/fund balance, dropping from \$203,191 at June 30, 2010 to \$89,858 at June 30, 2014 and dropping to zero in FY 2016-17 (see Figure B below).²

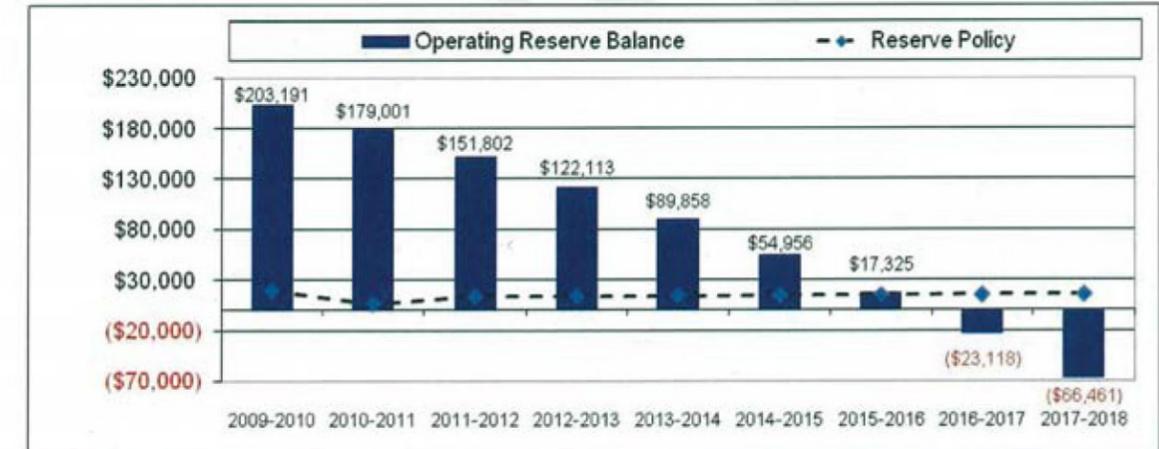
² Projections and estimates derived from recent *Updated City Fiscal Health Diagnostic* provided by the City of Tualatin.

Table 1

Year	CAPD Tax Revenue	Operating Expenses	Operating Reserve Year-End Balance
FY 2009/10	\$51,797	\$59,031	\$203,191
FY 2010/11 (Estimated)	\$56,000	\$80,190	\$179,001
FY 2011/12 (Adopted)	\$62,200	\$89,399	\$151,802

As Table 1 demonstrates, the District is filling the gap between revenue and expense with reserves. If this continues, the reserve will be fully expended during FY 2016-2017, which depletes the Operating Reserve Balance and significantly exceeds the amount required by the Reserve Policy (which is about \$18,000). The trend is graphically presented in Figure B, below.

Figure B



The text above, along with Table 1 and Figure B, demonstrate that sufficient reserves are available to cover the gap between operating expenses and tax revenue in the near term. During fiscal year 2011/12, it is advised that staff, the Core Area Board and City Council develop strategies to address this gap.

C. CURRENT REVENUE GENERATION AND COST TO OPERATE CITY OWNED PARKING RESOURCES³

As previously stated, current revenue generated from the parking tax lags the actual cost of operation. This trend began in 2006-2007 when actual parking tax receipts were \$71,402 and began declining each subsequent year until 2009-2010 when receipts were \$50,155.⁴ During the same period, operating costs increased from \$48,365 (FY 06/07) to \$59,031 (FY 09/10).⁵ Whether programmed increases in the space factor used to calculate the annual tax were too low, or there was a change in the number and type of businesses paying the parking tax, or a combination of both; it is clear that historically generated funds necessary to support operations and maintenance are now out of sync. This will continue to have a declining effect on the reserve fund over time unless changes in the tax occur or other operating funds are identified.

D. CITY'S SUPPLY OF PARKING IN THE CORE AREA

The City currently provides 394 parking stalls on 5 off-street surface lots within the downtown parking district.⁶ These stalls are provided to business uses for both customer/visitor and employee use.

In the aggregate, City data show that the CAPD contains a total of approximately 240,000 square feet of commercial tenant space, in a variety of public and private uses (e.g., public/assembly, banking, general office, medical/dental office, restaurants and taverns, retail and services, and vocational training). The City calculated the aggregate minimum parking requirement to serve this set of *non-residential users in the CAPD* using the minimum ratio of parking spaces required for each tenant's particular use in the Tualatin Development Code (TDC) based on the applicable CAPD standard, which reduces the TDC requirement by 25%. The resulting minimum parking requirement for all non-residential uses in the CAPD is 698 stalls.

At this time, there are 494 off-street parking spaces on private property within the CAPD that are available for non-residential use. In this analysis, properties that do not have sufficient private parking on-site to meet the CAPD minimum requirement were considered to "rely on" the public parking lots to provide the remainder of their minimum parking requirement. Because 494 spaces are provided in private on-site parking areas, a minimum of 204 spaces (698 less 494) must be available in public parking areas to maintain district-wide compliance with the minimum TDC/CAPD parking standard.

As stated above, the City provides a total of 394 parking spaces in public parking lots within the CAPD, based on recent City inventories of the built spaces in the 5 public surface lots. This exceeds the minimum required public parking for CAPD code compliance by 190 stalls (394 provided less 204 required to maintain compliance per TDC/CAPD parking standard). Based on this analysis, the City's supply of parking exceeds the total required by the TDC/CAPD parking standard.

³ Projections and estimates derived from recent *Updated City Fiscal Health Diagnostic* provided by the City of Tualatin.

⁴ This downtown trend is likely attributed to a combination of increases in building vacancies and a shift toward more businesses with a lower space factor, which results in less parking tax generated.

⁵ Increases in operating costs are a reflection of increases in utilities, enforcement/labor, landscape and maintenance and operating contracts for services such as sweeping, lot striping and the results of a Cost of Service Analysis implemented by the City in FY 2010/11.

⁶ The City also provides 61 on-street parking stalls, which have not been included in this discussion as they are not a part of the parking tax, impact fee or cost of operations issue. Nonetheless, these stalls are available to all businesses in the parking district for customer/visitor use.

Table 2 summarizes this analysis.

**Table 2
Parking Supply Analysis – Non-Residential Only⁷**

A	B	C	D	E
Total spaces required in CAPD--per Code	Total spaces privately provided	Total spaces provided in CAPD public lots	Total spaces in CAPD – public and private (Column B + Column C)	Net difference between total spaces provided vs. required (Column D – Column A)
698	494	394	888	190

E. PARKING AREA DEMAND

While more public and private parking spaces are provided in the Core Area than required by the TDC/CAPD, it is helpful to understand the current parking utilization and demand on those lots owned and managed by the CAPD.

The City completes occupancy counts on CAPD lots approximately 4 times per year. Counts were taken on Thursday May 5 and Thursday June 16, 2011 during the peak daytime parking period from 10:00 a.m. to 2:00 p.m.⁸ Tables 3 & 4 below summarize the findings of the lot occupancy counts. For purposes of this discussion, and to present the most conservative estimates, only the highest lot occupancy counts for this time period are presented in the Tables. Similarly, disabled stalls are not included in the occupancy calculations given that these stalls are for special uses and might understate actual demand for parking by the general public if their use was included. Of the 394 public stalls built, 16 are signed and reserved for disabled users.⁹ As such, actual peak hour occupancy is calculated on a stall base of 378 rather than 394.

**Table 3
Lot Occupancy Counts on Thursday, May 5, 2011
Highest lot occupancy count is listed, measured between 10:00 a.m. and 2:00 p.m.**

Lot	Total Built Stalls	General Public Stalls - Less Disabled	Peak Public Stalls Parked	Peak Occupancy in Public Stalls	Empty Public Stalls at Peak less Disabled Stalls
Red	38	36	30	83%	6
Green	69	66	15	23%	51
Blue	67	65	45	69%	20
Yellow	54	51	50	98%	1
White	166	160	101	63%	59
TOTAL SYSTEM	394	378	241	64%	137

⁷ A similar analysis examining residential requirements per the TDC and CAPD has been conducted and is available from the City of Tualatin's Community Development Department.

⁸ At this time, occupancy counts for the 61 stall on-street system are not available.

⁹ On the survey days, the 16 disabled stalls averaged peak hour occupancy of 44%.

Table 4
Lot Occupancy Counts on Thursday, June 16, 2011
 Highest lot occupancy count is listed, measured between 10:00 a.m. and 2:00 p.m.

Lot	Total Built Stalls	General Public Stalls - Less Disabled	Peak Public Stalls Parked	Peak Occupancy in Public Stalls	Empty Public Stalls at Peak less Disabled Stalls
Red	38	36	34	94%	2
Green	69	66	21	32%	45
Blue	67	65	53	82%	12
Yellow	54	51	50	98%	1
White	166	160	110	69%	50
TOTAL SYSTEM	394	378	268	71%	110

As the Tables demonstrate, the overall public off-street parking system averages between 64% (May) and 71% (June) occupancy when totaling the highest occupancy in each facility. This results in a surplus of empty parking in the public supply that ranges between 110 and 137 empty stalls.¹⁰ Individual lots do experience more demand, particularly the Red and Yellow Lots that reached a high of 94% and 98% occupancy, respectively, at their peak use measured between 10:00 a.m. and 2:00 p.m. On the other hand, the Green and White lots are less utilized, reaching just 32% and 69% peak occupancy at their highest points in June, respectively.

From these totals, it is clear that the parking district in its entirety has room to absorb new demand from existing and/or new development.

Given that two lots (Red and Yellow) are constrained, the City may want to look at “re-mixing or rebalancing” the supply of parking to assure that more employee use is directed to the Green and White lots to free up availability in the more constrained lots for customer/visitor use. This could be accomplished through a variety of parking management techniques, including an employee permit system, re-designation of lots as employee/visitor only lots, etc.

It is recommended that the Core Area Parking Board and City Council develop a work program for Fiscal Year 2011/12 to develop parking management strategies to address parking demand issues in higher demand lots.

Policy Implication

The analysis indicates that the City has provided 190 parking spaces more than required in the Tualatin Development Code/CAPD to support existing development within the Core Area. Typical use of the supply also shows surplus availability in the peak hour (between 110 and 137 stalls). This surplus has the ability to support additional development in the downtown without requiring the construction of new lots for a period of time. However, the parking demand analysis for the public Core Area lots do indicate that some lots are experiencing more parking demand than others, which could be placing

¹⁰ The available empty stalls do not account for empty stalls that might be available in private parking lots during the same peak hour(s). As such, the surplus of parking in the City lots is only for the public supply.

pressure during peak hours on those businesses and uses closest to the Red and Yellow lots. While the surplus of parking is evident in some lots, a more refined parking management strategy could begin to address these issues.

Most pressing from a policy perspective is the gap that exists between actual parking tax revenue and existing parking supply. While the reserves are sufficient to fill the gap in FY 2011/12, over the long-term the Core Area Parking Board and the City will need to address this issue in order to be consistent with the fiscal policies. The policy question is as follows:

What is the best approach for recalibrating the parking tax to assure that users of the parking provided through the tax cover the reasonable costs associated with operating and maintaining the supply?

The problem is clear; the operating fund needs more revenue to cover expenses. Recommended options to consider include (but are not limited to):

- **“Re-mix” parking in existing lots to assure a Customer First approach for access in the downtown.** The Red and Yellow lots are at capacity and should be managed as visitor only lots, signed 2 Hours and enforced to assure that employees are not using them. Employees should be assigned to spaces in the Green and White Lots. Many cities manage lots by priority and designation to assure that capacity is distributed in a manner that favors the “Customer First.”
- **Reductions in current expenses and services.** Given the economy, many cities are currently evaluating reductions in security, janitorial and other programs as well as deferring capital maintenance. The largest expense item in the parking operating budget is enforcement. Council should consider (a) reducing enforcement hours as an interim balancing measure or (b) increasing general fund contributions to parking services if preserving current service levels is desired.
- **Implement a “premium” pricing program to allow a limited number of parking stalls to be leased in highly desired locations.** Given that there is a surplus of capacity in the public lots, allow for a limited number of reserved stalls to be leased at a premium rate by those who may want direct access to a specific lot or stall. This type of pricing is already available on private lots outside the CAPD and is common in many other areas. Premium pricing better utilizes surplus parking and continues to provide free parking to employees and visitors in the remainder of the supply.
- **Carrying some cost of operations in the City’s general fund.** The most local example of this is the City of Vancouver, which carries a portion of operating costs and debt service for two of its municipal off-street facilities in the General Fund.
- **New revenue generated from increases in the tax.** If operating deficits continue after other measures are implemented (see above), the City should consider an incremental increase in the current business tax in ensuing budget years. For instance, the City of Salem has a parking tax in place and is currently evaluating the gap between tax assessed and cost to operate/maintain the municipal parking supply, which could include an increase to the tax through changes in the assessment formula.

- **New user fees (e.g., monthly permits, on & off-street pay stations, etc.).** The cities of Tacoma, WA and Ventura, CA have recently (2010) implemented strategies to eliminate free parking in their downtowns by metering on-street supply and imposing off-street user fees (hourly and monthly rates).
- **A combination of one or more of the above.** Implementation of multiple options is generally preferred as a means to spread cost responsibility and avoid an overburden on a single revenue source.

The CAPD Board also considered a number of parking strategy options in previous CAPD discussions. A summary of the minutes of those meetings, specific to the revenue to expense gap is available in a Memorandum prepared by the City for the CAPD Board.

While the problem is clear, solutions are difficult and complicated as they affect all beneficiaries of the parking system; buildings, tenants, customer/visitors and the City. Finding the right mix for sharing cost responsibility will be challenging, but should be based in an accurate understanding of benefit and the fiscal realities associated with the parking system.

It is important to understand that there are numerous potential solutions and examples of other cities or jurisdictions that have employed them. However, finding the right solution for Tualatin that meshes well with its unique character is the challenge. Necessarily, this will result in changes to the current status quo for parking in the downtown. Reaching consensus on triggering that change is critical. Sections B – E of this memorandum were developed to provide a basis for beginning this discussion.

It is recommended that the Core Area Parking Board and City Council develop a work program for Fiscal Year 2011/12 to address this fiscal issue in time for preparation of the FY 2012/13 budget -- by December 2012.

F. FOR COUNCIL CONSIDERATION: NEW DEVELOPMENT GROWTH AND THE CITY'S ROLE IN PROVIDING PARKING RESOURCES BEYOND CURRENT SUPPLIES

As new development growth is attracted to Tualatin, the issue of how the City might continue to provide parking to support that growth will need to be clarified. To date, new development has been allowed to meet the City's parking requirement privately and/or pay an impact fee for that part of the City's requirement not provided by the developer. It is important to note that the five lots that have been constructed by the City were funded using a combination of impact fees on new development and urban renewal funds. And, within this combination of funds the majority of funds needed to pay for the parking built were urban renewal funds. Urban renewal is currently closed as an option, which removes a key element for how past parking packages were put together by the City.

Moving forward the City will need to consider the following:

1. **What portion of the existing surplus of parking on City lots will be used to support new development versus anticipated growth of business (and parking demand) within existing businesses?**

Under this scenario, existing impact fees of \$3,500 per parking stall could be collected from new developments and some or all of the existing stalls within the surplus could be allocated to

cover requirements calculated for a new development. No additional funds would be necessary as stalls are already constructed and available.¹¹

Issues related to the shortfall in the parking tax necessary to support operations and maintenance would need to be evaluated and revised to assure that all users (existing and new) reasonably share the cost of maintenance and operations. Similarly, some discussion of growth in existing business and/or leasing up of vacant space would need to occur to assure that existing supply targeted for new development is reasonable and does not conflict with existing uses.

2. **If new development reaches a point where it exceeds the existing surplus, and developers take advantage of the impact fee, will impact fees and reserve funds continue to be an adequate funding source for construction of new parking stalls, particularly in light of the loss of urban renewal?**

The City has estimated that new construction costs for a surface parking stall are now \$5,500 a stall, which includes hard construction costs and engineering costs but not land costs. The current impact fee totals \$3,500. As such, current impact fees are less than actual cost to construct and much less than cost to construct if a land purchase by the City is necessary to provide parking. The current impact fee reserve fund balance is \$45,500. Additional funds would be needed to construct more parking in the future. Some options include:

- **Continue past practice of assembling funds for new parking construction with combination of impact fees and urban renewal funds.** This may not be feasible as it would require establishment of a new urban renewal district.
- **Continue past practice of assembling funds for new parking construction with combination of impact fees and other new sources of revenue.**
- **Increase impact fees to a rate more commensurate with actual construction/land costs.**
- **Discontinue impact fees and require all new parking to be provided privately.**

G. SUMMARY

This technical memorandum analyzes:

- Current revenue generation and cost to operate City owned parking resources.
- Analysis of the number of stalls required by City code versus the supply provided by private property owners and the District.
- Analysis of the demand for the City's parking lots during peak hours.

¹¹ Further analysis would need to take place to determine the ideal allocation of the existing surplus to existing development and its potential growth (e.g., change in business type, and absorption of currently vacant space) and new development.

- Implications on the supply associated with new development growth and the City's role in providing parking resources beyond current supplies.

The results highlight three main issues:

1. Current parking supply in the Core Area exceeds the code requirement by 190 spaces. In addition, recent occupancy data suggests that overall demand for parking in the Core Area public parking supply during peak hours operates at a capacity of 64% - 71% during peak weekday hours. Some public parking lots experience more demand than others, creating the need to implement parking management strategies to encourage more parking in those lots that have less demand, thereby freeing up space for the lots that have the most demand.
2. Moving forward, the operating fund needs more revenue to cover the expenses of maintaining the existing parking lots. While sufficient reserve funds are available to fill the gap in FY 2011/12, the Core Area Parking Board and City Council will need to address this deficit in order to be consistent with fiscal policy.
3. In the longer term, the City Council will need to evaluate its role in supplying parking to support private development in the Core Area. Urban Renewal funds have previously subsidized the true cost of constructing new public parking lots in the Core Area. In November, the City Council outlined a goal to "Review Downtown Redevelopment Plans." As a part of this goal, the Council should consider how the current Core Area Parking District policies and fees need to be refined to support the new vision for redevelopment in Tualatin's downtown.

Recommendation:

Based on this analysis, staff recommends:

- 1) *The Core Area Parking Board and City Council develop a work program for Fiscal Year 2011/12 to develop parking management strategies to address parking demand issues in higher demand lots.*
- 2) *The Core Area Parking Board and City Council develop a work program for Fiscal Year 2011/12 to address the gap between operating revenue and expenses in time for preparation of the FY 2012/13 budget – by December 2011.*
- 3) *As the City Council addresses its goal to "Review Downtown Redevelopment Plans", the Council should evaluate its role in supplying parking to support private development in the Core Area. The Council should consider how the current Core Area Parking District policies and fees need to be refined to support the new vision for redevelopment in Tualatin's downtown.*

"Donald Shoup is like Jane Jacobs. He starts by exposing the blind spot of a generation and then marshals a new generation of urbanists to make things right. Now that *The High Cost of Free Parking* is in paperback, I look forward to replacing all the dog-eared copies that have gone missing from our office library."

—Paul Steely White, Executive Director,
Transportation Alternatives

The High Cost of Free Parking

Updated by the author

One of APA's most popular and influential titles is finally in paperback, with a new preface and afterword by the author on how ideas about parking have changed since the book first appeared.

In this landmark treatise, Donald Shoup, FAICP, argues that free parking contributes to automobile dependence, urban sprawl, extravagant energy use, and a host of other problems. Off-street parking requirements intended to alleviate congestion end up distorting transportation choices, debasing urban design, damaging the economy, and degrading the environment. Ubiquitous free parking helps explain why American motor vehicles now consume an eighth of the world's oil production.

But it doesn't have to be this way. Shoup proposes new avenues to manage parking—namely, charge fair market prices for curb parking, use the revenue to fund enhanced public services in the metered neighborhoods, and remove zoning requirements for off-street parking. Such measures, according to the UCLA planning professor with a PhD in economics from Yale, will make parking easier and driving less necessary.

You'll never look at a parking spot the same way again.



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The High Cost of Free Parking | Shoup



The High Cost of Free Parking

DONALD SHOUP

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appendix F

COST ESTIMATES

Cost Summary

city hall option:	PURCHASING ASPEN PLACE (ONA)	\$9,400,000
city hall option:	NEW BUILDING NEAR POLICE FACILITY	\$14,100,000
city hall option:	NEW BUILDING ON THE COMMONS SITE	\$17,300,000
city hall option:	NEW BUILDING ON THE RIVER HOUSE SITE (Boones Frontage)	\$18,600,000
city hall option:	NEW BUILDING ON THE RIVER HOUSE SITE (River Frontage)	\$17,200,000
preliminary city hall option:	LEASING SPACE AT LAKESIDE CENTER	\$8,200,000
preliminary city hall option:	LEASING SPACE AT ROBINSON CROSSING	\$7,200,000
preliminary city hall option:	NEW BUILDING NEAR CLARK LUMBER	\$15,900,000
preliminary city hall option:	NEW BUILDING ON THREAT DYNAMICS SITE	\$15,800,000
library option:	TWO-STORY ADDITION	\$4,700,000
library option:	RENOVATION	\$900,000

option: TO PURCHASE ASPEN PLACE (ONA building)

Narrative:

This option consists of purchasing the ONA Building. A published purchase sale price of \$5.4M was used for acquisition cost. Tenant renovation and fitout is expected to be \$90/sf to accommodate demolition and new construction. We do expect that additional restroom fixtures will be required based on the change in occupancy to accommodate city council and municipal court space. Additional cost to build out one roof terrace at \$120/sf is included, tenant improvement cost for the terrace are included in the TI area and cost category.

COST ASSUMPTIONS

	unit	unit cost	qty	ext
Acquisition				
Purchase	ls	\$5,400,000.00	1	\$5,400,000.00
Renovations				
TI	sf	\$80.00	23951	\$1,916,080.00
TI Demolition	sf	\$10.00	23951	\$239,510.00
Terrace	sf	\$120.00	2280	\$273,600.00
Plumbing	ea	\$5,000.00	10	\$50,000.00
Add'l Parking	ea	\$1,800.00	0	\$0.00
Contingency	%		15%	\$371,878.50
Subtotal				\$2,851,068.50
AE Fee	%		8%	\$228,085.48
Other Soft Cost	%		25%	\$712,767.13
TOTAL				\$9,191,921.11

option: NEW BUILDING near POLICE FACILITY

Narrative:

This option consists of construction of a new city hall south of the existing police station. A single 1/2 basement is assumed to meet parking count and elevate the occupied floors above the 100-year flood plain. Additional parking would be accommodated on surface parking area east of the existing police station.

COST ASSUMPTIONS

	unit	unit cost	qty	ext
Acquisition				
Purchase	ls			
New Construction				
Base Building	sf	\$220.00	30663	\$6,745,860.00
Below Grade Parking	sf	\$150.00	15840	\$2,376,000.00
Site Improvements	ea veh	\$1,800.00	55	\$99,000.00
Contingency	%		15%	\$1,368,279.00
Subtotal				\$10,589,139.00
AE Fee	%		8%	\$847,131.12
Other Soft Cost	%		25%	\$2,647,284.75
TOTAL				\$14,083,554.87

option: NEW BUILDING on THE COMMONS SITE

Narrative:

This option consists of construction of a new city hall east of the commons (on the Wichita Pub site). A full floor basement is assumed to meet parking count and elevate the occupied floors above the 100-year flood plain. Minor additional surface parking would be accommodated on site to meet the parking demand. The property owner did not respond to inquiry regarding sale of the property. A purchase price was developed using pro-rated area costs from the Pohl Site. Complete demolition of the existing building is assumed in the cost opinion.

COST ASSUMPTIONS

	unit	unit cost	qty	ext
Acquisition				
Purchase	ls	\$2,500,000.00	1	\$2,500,000.00
New Construction				
Base Building	sf	\$220.00	29301	\$6,446,220.00
Below Grade Parking	sf	\$150.00	16830	\$2,524,500.00
Site Improvements	ea veh	\$1,800.00	36	\$64,800.00
Building Demo	sf	\$25.00	1500	\$37,500.00
Contingency	%		15%	\$1,345,608.00
Subtotal				\$10,418,628.00
AE Fee	%		8%	\$833,490.24
Other Soft Cost	%		25%	\$2,604,657.00
Total				\$16,356,775.24

option: NEW BUILDING on THE RIVER HOUSE SITE (Boones Frontage)

Narrative:

This option consists of construction of a new city hall east of the River House site along Boones Ferry Road. A single floor half- basement is assumed to meet parking count and elevate the occupied floors above the 100-year flood plain. Minor additional surface parking would be accommodated on site immediately east of the Pohl Center

COST ASSUMPTIONS

	unit	unit cost	qty	ext
Acquisition				
Purchase	ls	\$5,800,000.00	1	\$5,800,000.00
New Construction				
Base Building	sf	\$220.00	33118	\$7,285,960.00
Below Grade Parking	sf	\$85.00	11356	\$965,260.00
Site Improvements	ea veh	\$1,800.00	42	\$75,600.00
Contingency	%		15%	\$1,237,683.00
Subtotal				\$9,564,503.00
AE Fee	%		8%	\$765,160.24
Other Soft Cost	%		25%	\$2,391,125.75
TOTAL				\$18,520,788.99

option: NEW BUILDING on THE RIVER HOUSE SITE (River Frontage)

Narrative:

This option consists of construction of a new city hall east of the River House site. This area of the site is above the flood plain. Parking would be constructed along the street front side of the site.

COST ASSUMPTIONS

	unit	unit cost	qty	ext
Acquisition				
Purchase	ls	\$5,800,000.00	1	\$5,800,000.00
New Construction				
Base Building	sf	\$220.00	33201	\$7,304,220.00
Below Grade Parking	sf	\$85.00	0	\$0.00
Site Improvements	ea veh	\$1,800.00	68	\$122,400.00
Contingency	%		15%	\$1,095,633.00
Subtotal				\$8,522,253.00
AE Fee	%		8%	\$681,780.24
Other Soft Cost	%		25%	\$2,130,563.25
TOTAL				\$17,134,596.49

preliminary option: LEASING SPACE AT LAKESIDE CENTER

Narrative:

This option consists of leasing space at the Lakeside Center. We have assumed a lease cost of \$28/sf for a 7 year lease. Tenant improvement fitout is expected to be \$95/sf. We've assumed demolition cost of \$15/sf in the probable cost opinion. We do expect that additional restroom fixtures will be required based on the change in occupancy to accommodate city council and municipal court space. THIS OPTION IS NO LONGER UNDER CONSIDERATION.

	unit	unit cost	qty	ext
Cost Assumptions				
Acquisition				
Lease	sf	\$28.00	23861	\$4,676,756.00
Renovations				
TI	sf	\$95.00	23861	\$2,266,795.00
Plumbing	ea	\$5,000.00	0	\$0.00
Contingency	%		15%	\$340,019.25
Subtotal				\$2,606,814.25
Fee	%		8%	\$208,545.14
Other Soft Cost	%		25%	\$651,703.56
Total				\$8,143,818.95

preliminary option: LEASING SPACE AT ROBINSON CROSSING

Narrative:

This option consists of leasing space at the Robinson Crossing building. Lease cost were not provided as of April 15, 2015. We have assumed a lease cost of \$25/sf for a 7 year lease. Tenant improvement fitout is expected to be \$80/sf. The building is mostly unoccupied, we've assumed no demolition cost in the probable cost opinion. We do expect that additional restroom fixtures will be required based on the change in occupancy to accommodate city council and municipal court space. THIS OPTION IS NO LONGER UNDER CONSIDERATION.

	unit	unit cost	qty	ext
Cost Assumptions				
Acquisition				
Lease	sf	\$25.00	23861	\$4,175,675.00
Renovations				
TI	sf	\$80.00	23861	\$1,908,880.00
Plumbing	ea	\$5,000.00	12	\$60,000.00
Contingency	%		15%	\$295,332.00
Subtotal				\$2,264,212.00
Fee	%		8%	\$181,136.96
Other Soft Cost	%		25%	\$566,053.00
Total				\$7,187,076.96

preliminary option: NEW BUILDING NEAR CLARK LUMBER

Narrative:

This option consists of construction of a new city hall south of the Clark Lumber site. A 2 floor basement is assumed to meet parking count and elevate the occupied floors above the 100-year flood plain. Minor additional surface parking would be accommodated on site. THIS OPTION IS NO LONGER UNDER CONSIDERATION.

	unit	unit cost	qty	ext
Cost Assumptions				
Acquisition				
Purchase	ls	\$1,500,000.00	1	\$1,500,000.00
New Construction				
Base Building	sf	\$220.00	27441	\$6,037,020.00
Below Grade Parking	sf	\$180.00	9147	\$3,292,920.00
Site Improvements	ea veh	\$1,800.00	20	\$36,000.00
Contingency	%		15%	\$1,399,491.00
Subtotal				\$10,765,431.00
Fee	%		8%	\$861,234.48
Other Soft Cost	%		25%	\$2,691,357.75
Total				\$15,818,023.23

preliminary option: NEW BUILDING ON THREAT DYNAMICS SITE

Narrative:

This option consists of construction of a new city hall on the former Threat Dynamics Building site. A two story building would be constructed with full basement to accommodate the parking requirements. Additional surface parking would be required on site to accommodate the full parking demand. THIS OPTION IS NO LONGER UNDER CONSIDERATION.

	unit	unit cost	qty	ext
Cost Assumptions				
Acquisition				
Purchase	ls	\$2,250,000.00	1	\$2,250,000.00
New Construction				
Base Building	sf	\$220.00	27441	\$6,037,020.00
Below Grade Parking	sf	\$150.00	18200	\$2,730,000.00
Site Improvements	ea veh	\$1,800.00	36	\$64,800.00
Contingency	%		15%	\$1,315,053.00
Subtotal				\$10,146,873.00
Fee	%		8%	\$811,749.84
Other Soft Cost	%		25%	\$2,536,718.25
Total				\$15,745,341.09

library: TWO-STORY ADDITION

Narrative:

This option consists of construction of a new two-story library addition east of the existing library. This requires demolition of the existing city services wing east of the library.

COST ASSUMPTIONS				
	unit	unit cost	qty	ext
Acquisition				
Purchase	ls	-		\$0.00
New Construction				
Base Building	sf	\$200.00	12706	\$2,541,200.00
Demolition	sf	\$75.00	6353	\$476,475.00
Contingency	%		15%	\$452,651.25
Subtotal				\$3,470,326.25
AE Fee	%		8%	\$277,626.10
Other Soft Cost	%		25%	\$867,581.56
TOTAL				\$4,615,533.91

library: RENOVATION

Narrative:

This option consists of construction of renovation of the existing City Services component of the library building. Cost include demolition of existing office space and renovation to accommodate meeting rooms, classrooms and workrooms.

COST ASSUMPTIONS				
	unit	unit cost	qty	ext
Acquisition				
Purchase	ls	-		\$0.00
New Construction				
Tenant Improvement	sf	\$80.00	6478	\$518,240.00
Demolition	sf	\$10.00	6478	\$64,780.00
Contingency	%		15%	\$87,453.00
Subtotal				\$670,473.00
AE Fee	%		8%	\$53,637.84
Other Soft Cost	%		25%	\$167,618.25
TOTAL				\$891,729.09

COST ESTIMATE to restripe PUBLIC PARKING LOTS

	unit	unit cost	Blue Lot		Green Lot		White	
			qty	ext	qty	ext	qty	ext
Remove Striping	ea	\$22.00	16	\$352.00	18	\$396.00	48	\$1,056.00
Paint Striping	ea	\$22.00	20	\$440.00	21	\$462.00	56	\$1,232.00
Barricades	lf	\$7.05	150	\$1,057.50	162	\$1,142.10	432	\$3,045.60
Mobilization	day	\$370	2	\$740.00	2	\$740.00	2	\$740.00
Estimating Contingency	%	15%		\$388.43		\$411.02		\$911.04
O&P	%	25%		\$744.48		\$787.78		\$1,746.16
Total				\$3,722.41		\$3,938.89		\$8,730.80

appendix G
MUNICIPAL COURT DATA



Municipal Court Average Caseload & Attendance

- Average Number on Docket = 209
- Disposed Before Court = 106
- Number Appearing in Court = 64
- Number Who Ask for Trial = 7

	Number on Docket	Disposed before Court	Court Numbers 2015		
			Number appeared in Court	# of FTA's	Asked for Trial
1/8/2015	474	224	120	110	11
1/15/2015	300	170	75	68	5
1/22/2015	190	80	60	54	8
1/29/2015	50	30	26	9	3
2/5/2015	107	60	40	25	5
2/12/2015	151	55	60	54	8
2/19/2015	300	190	67	52	7
2/26/2015	133	55	50	39	5
3/5/2015	278	129	75	74	6
3/12/2015	146	80	50	28	5
3/19/2015	120	65	60	20	6
3/26/2015	225	101	70	52	8
4/2/2015	235	162	75	75	7
4/9/2015	250	130	75	52	5
4/16/2015	256	185	72	42	8
4/23/2015	224	88	65	65	8
4/30/2015	176	70	70	39	6
5/7/2015	93	38	45	21	5
5/14/2015	255	105	70	63	8
5/21/2015	218				
AVERAGES	209	106	64	50	7

OTHER CONSIDERATIONS

If another photo red light location was added, this would push court to add another day
 Adding another court day would require the cost for the judge, interpreter and staff time
 Increased technology is not likely to reduce the number of people who want to appear in court
 The Court numbers are expected to increase
 Arraignments start at 3 p.m., and if a large # is expected, some begin at 2 p.m. and are staggered
 Peak time is between 2 p.m. to 5 p.m.
 Current parking at the PD fills up on a heavy court day, community park is used for overflow

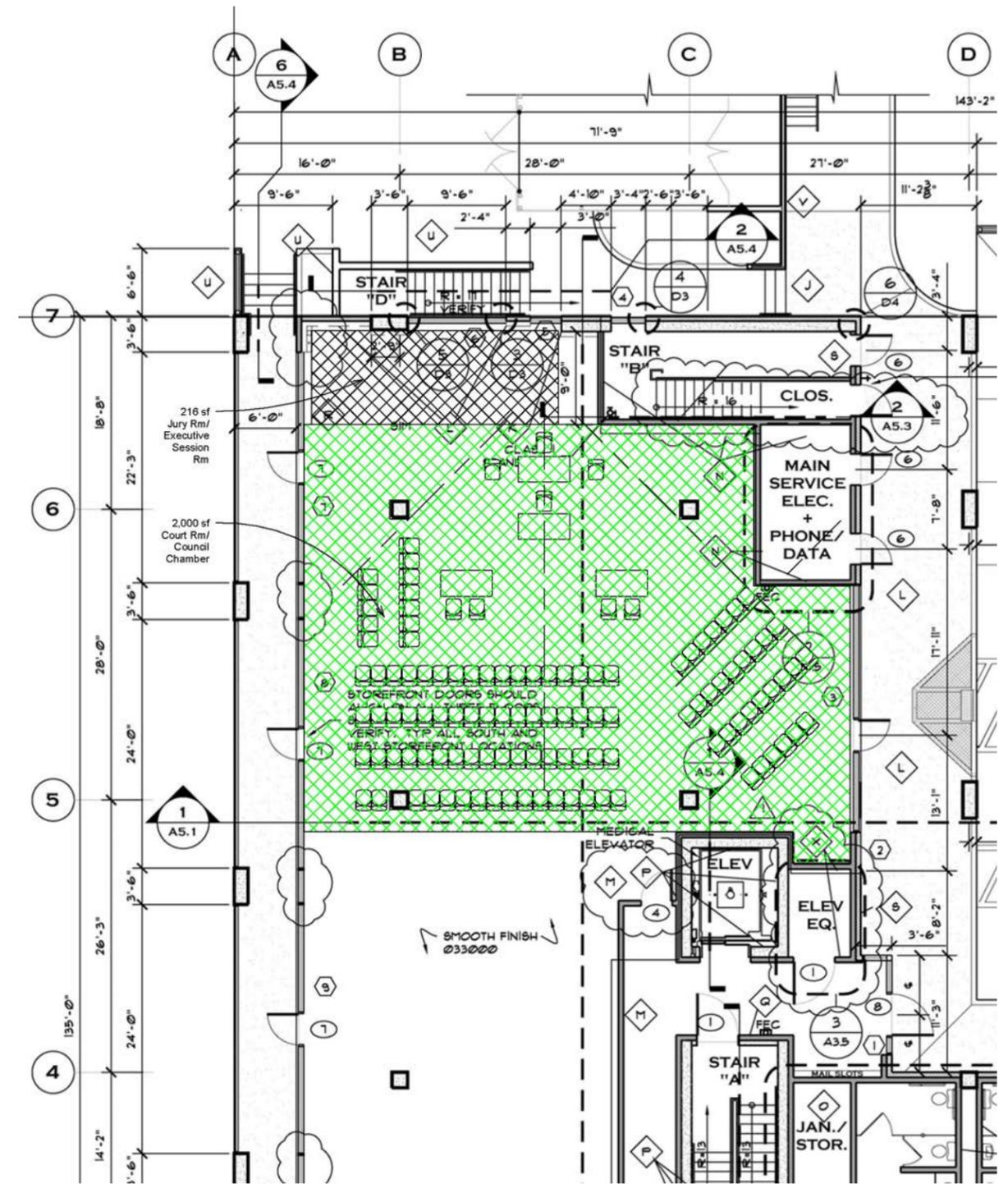
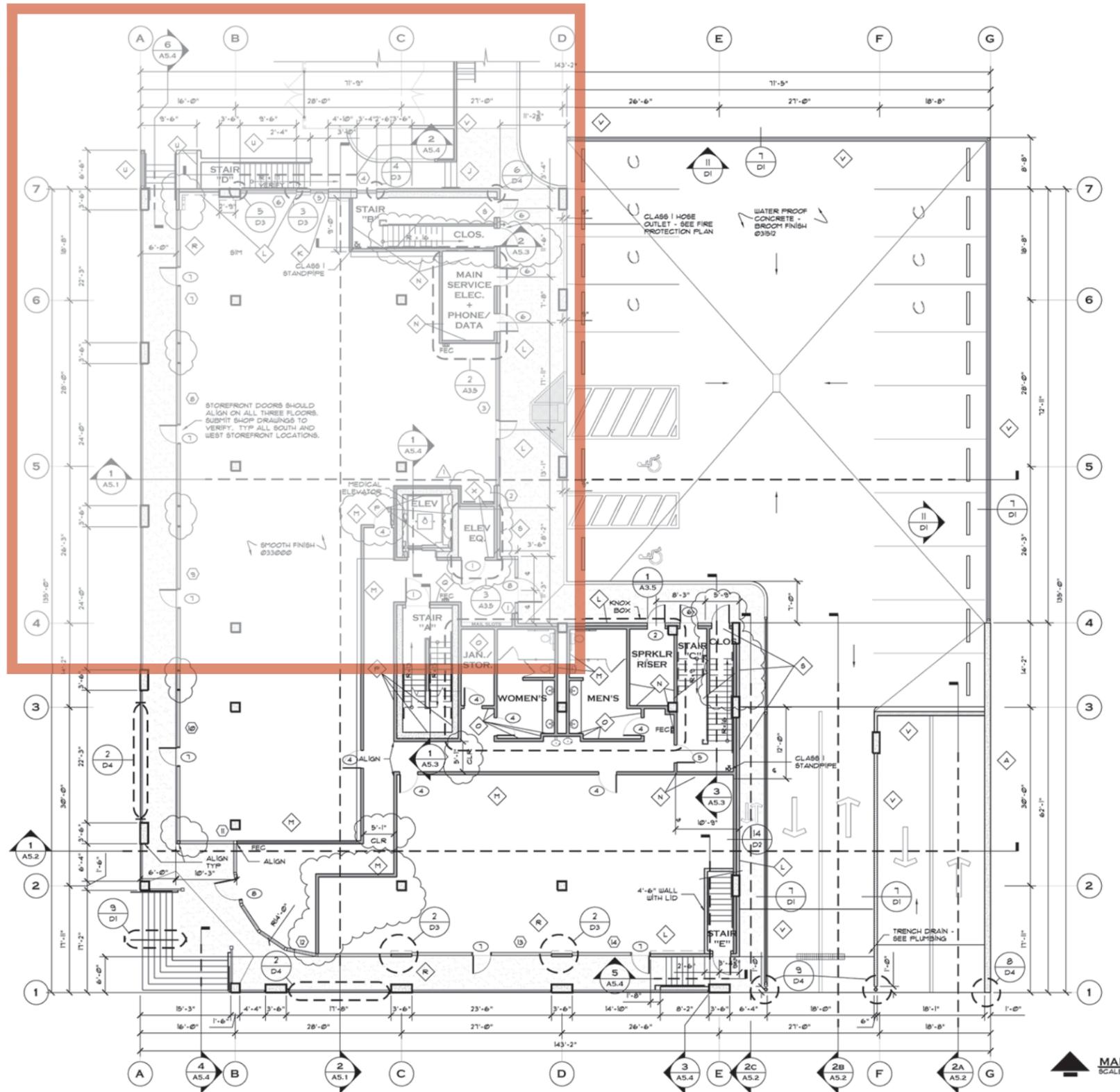
West Linn

- City Hall includes Administration, Finance, Human Resources, IT, Municipal Court, Parks, Engineering, Planning & Inspections
- 54 employees work out of this building.
- The building is 26,941 square feet.
- 44 parking stalls (shared parking adjacent to City Hall).

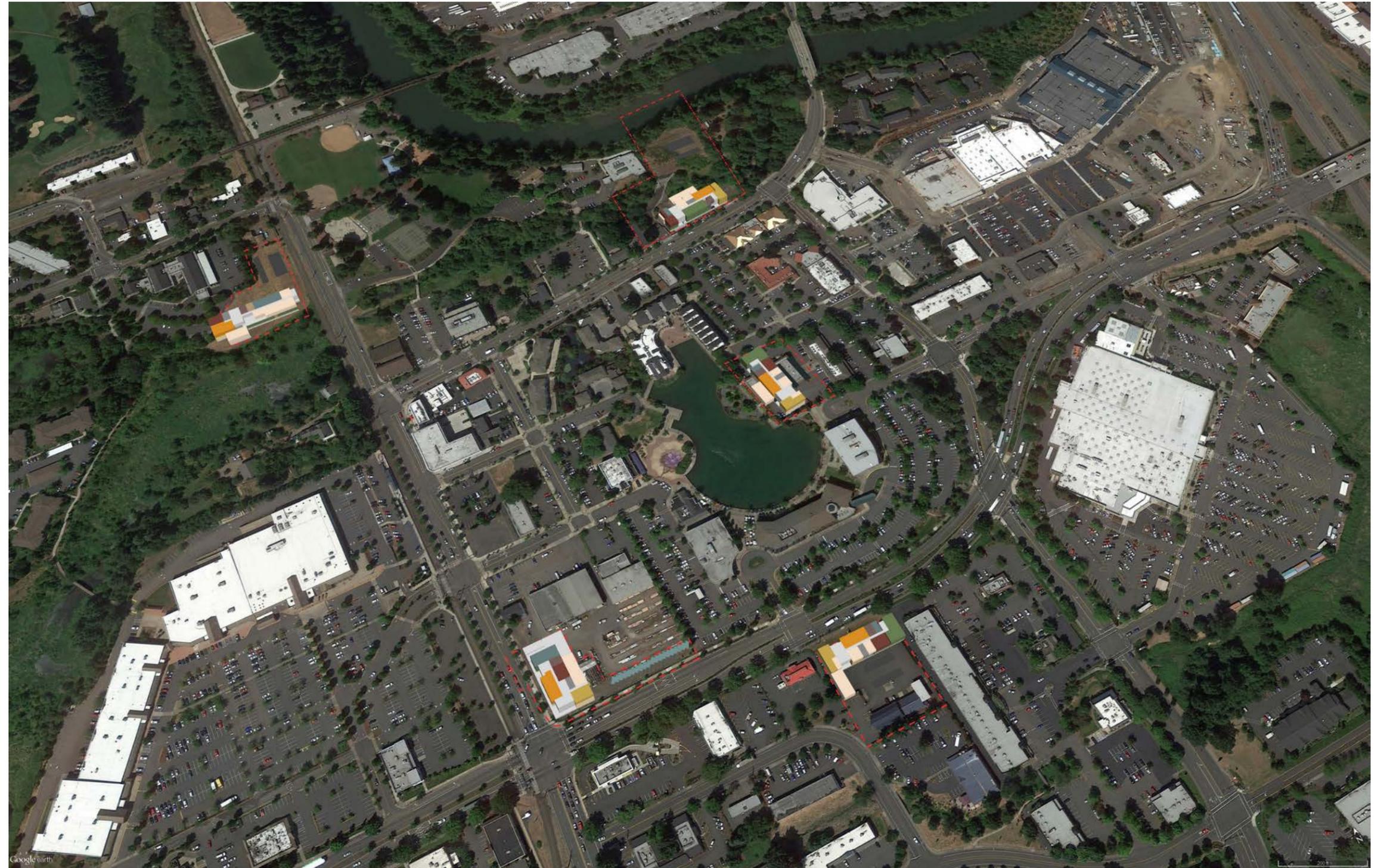
Tigard

- City Hall functions located in two buildings separated by a breezeway: the Permit Center and the City Hall. They include the city manager's office, Finance, utility billing, Municipal Court, city recorder/records, design and communications, web coordinator, building, Planning, Engineering.
- 87 employees work out of those two buildings.
- The Permit Center is 13,381 square feet. City Hall is 11,433 square feet. Total for two buildings is 24,814 square feet.
- 91 parking stalls (including 4 handicap). There is no time limits other than in the circle drive in front of the buildings (10 minutes).

ROBBINSON CROSSING



appendix H
SITES PHOTOS AND OTHER DATA



ASPEN PLACE (ONA)



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IMG_5095.JPG



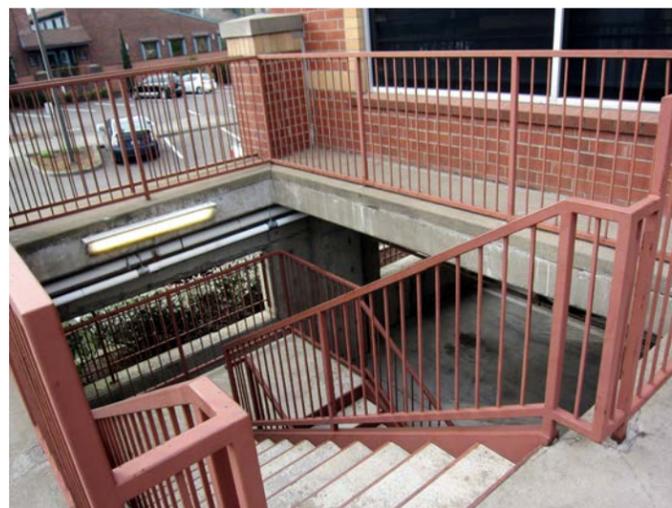
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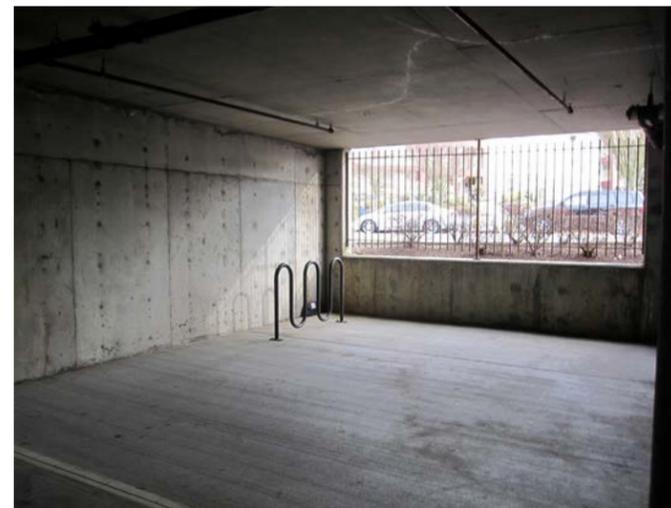
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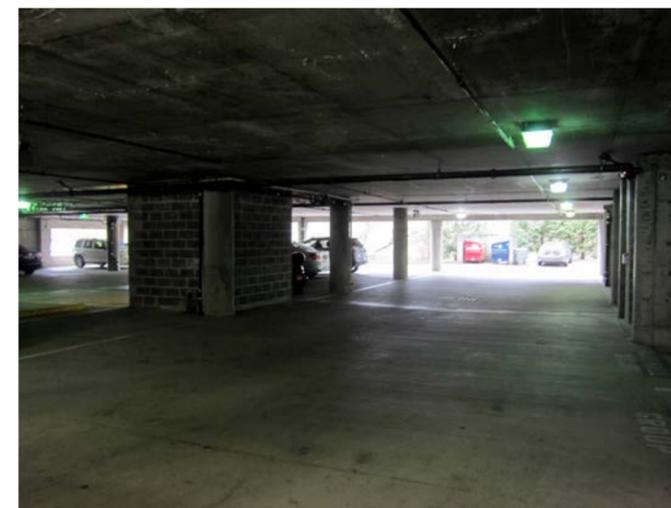
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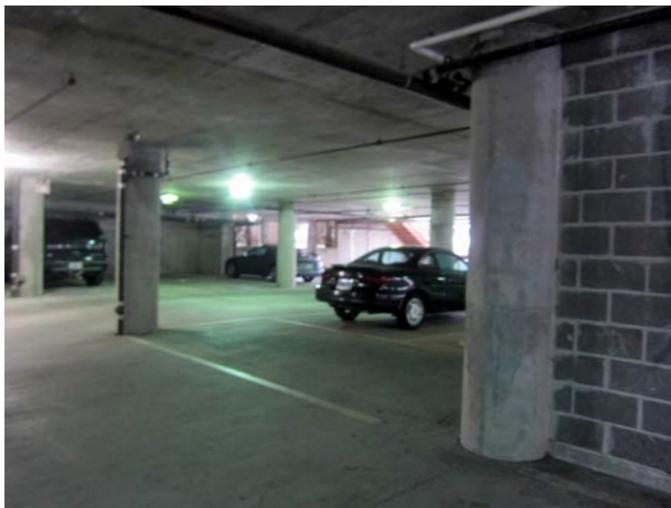
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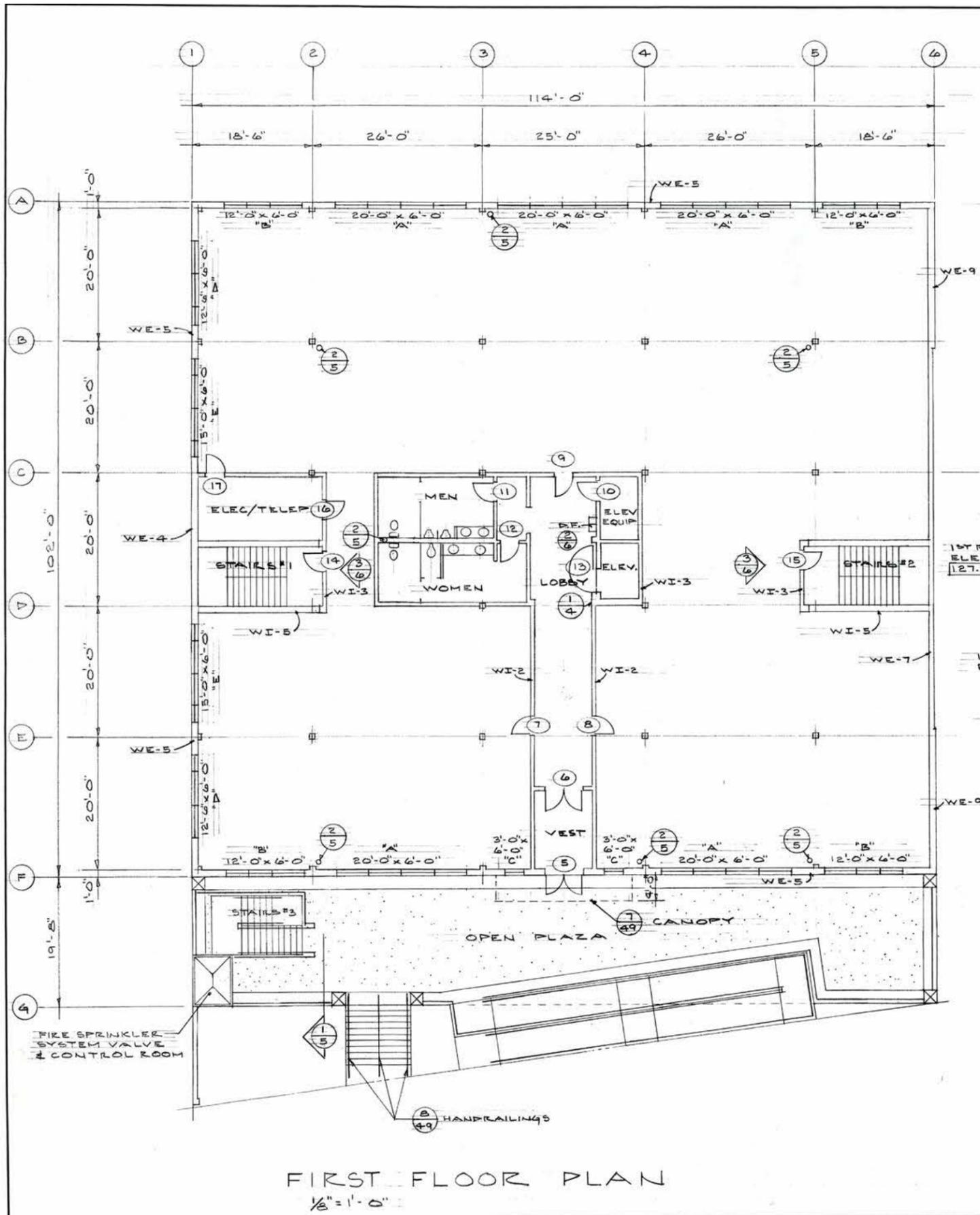
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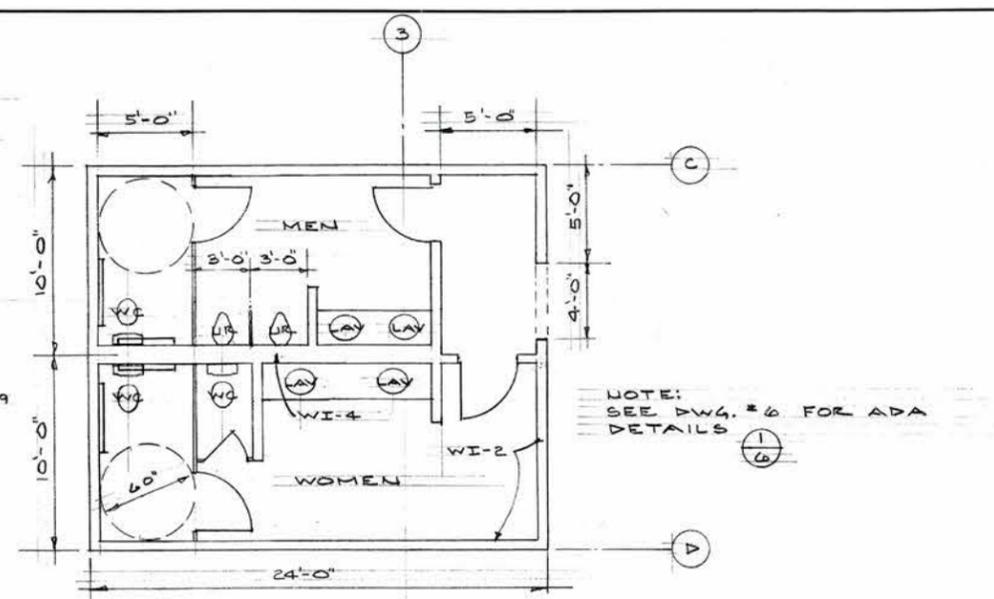
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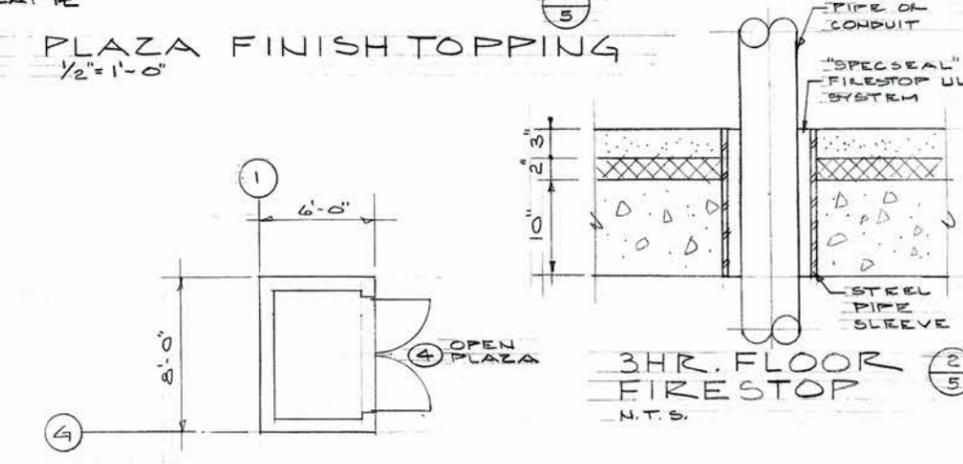
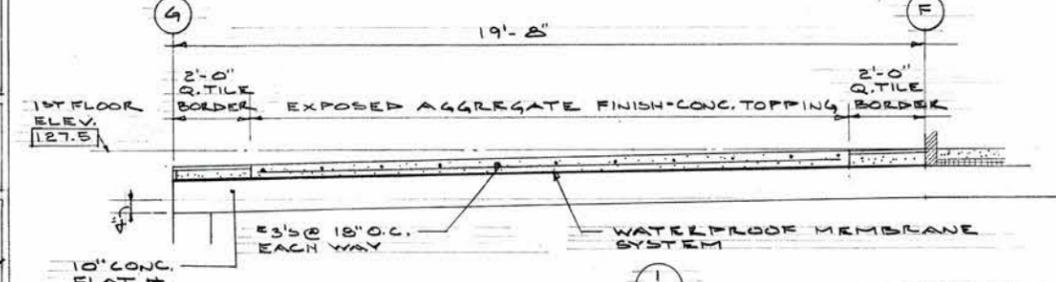
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FIRST FLOOR PLAN
 1/8" = 1'-0"



TYPICAL ADA TOILET RMs.
 @ 1ST FLOOR, 2ND FLOOR & 3RD FLOOR-PENTHOUSE
 1/4" = 1'-0"



FIRE SPRK. SYSTEM
 VALVE & CONTROL RM.
 1/4" = 1'-0"

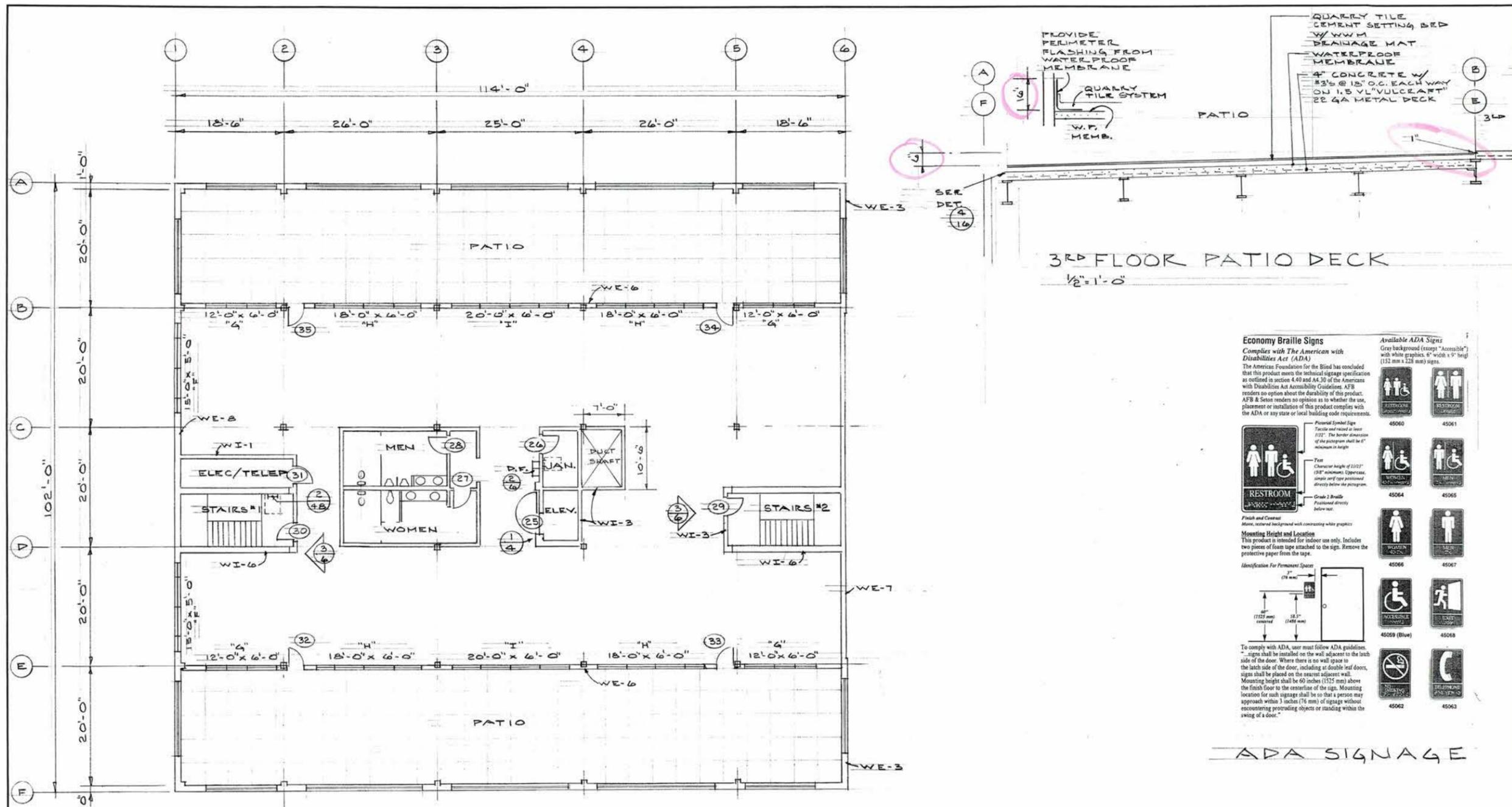
REVISIONS	BY
2/19/01	JA
2/23/01	JA
4/30/01	JA

JOHN D. ANNAND II
 NCARB - ARCHITECT
 8560 S.W. HUNZIKER RD.
 TIGARD, OREGON 97223
 (503) 620-8668

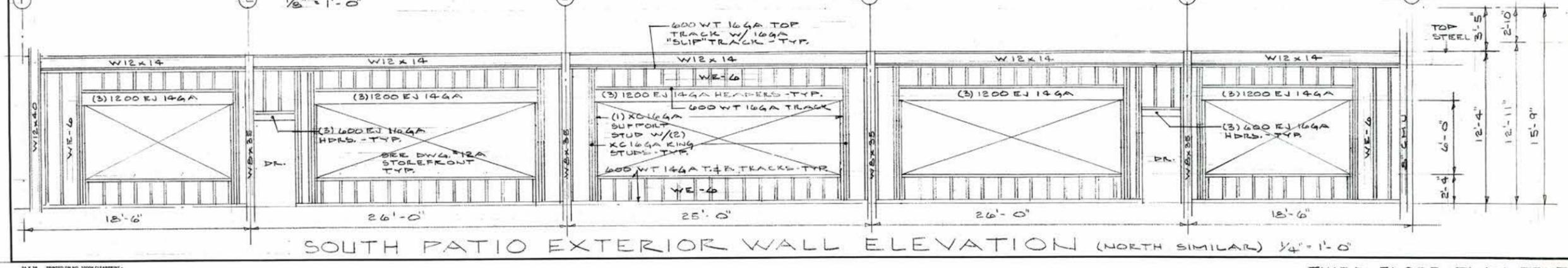


ASADEN PLACE
 S.W. BOONES FERRY ROAD & S.W. 84TH AVENUE
 TUALATIN, OREGON

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Job	20014
Sheet	5
Of	Sheets



THIRD FLOOR PLAN - PENTHOUSE
1/8" = 1'-0"



SOUTH PATIO EXTERIOR WALL ELEVATION (NORTH SIMILAR) 1/4" = 1'-0"

REVISIONS	BY
2/19/01	JA
2/23/01	JA
4/30/01	JA

JOHN D. ANNAND II
 NCARB - ARCHITECT
 8260 S.W. HUNZIKER RD.
 TIGARD, OREGON 97223
 (503) 620-8668



Economy Braille Signs
 Complies with The American with Disabilities Act (ADA)
 The American Foundation for the Blind has concluded that this product meets the technical signage specification as outlined in section 4.49 and A4.30 of the Americans with Disabilities Act Accessibility Guidelines. AFB renders no opinion about the durability of this product. AFB & Seton renders no opinion as to whether the use, placement or installation of this product complies with the ADA or any state or local building code requirements.

Available ADA Signs
 Gray background (except "Accessible") with white graphics. 4" wide x 9" high (102 mm x 228 mm) signs.

	45060		45061
	45062		45063
	45064		45065
	45066		45067
	45068		45069
	45070		45071

Mounting Height and Location
 This product is intended for indoor use only. Includes two pieces of foam tape attached to the sign. Remove the protective paper from the tape.

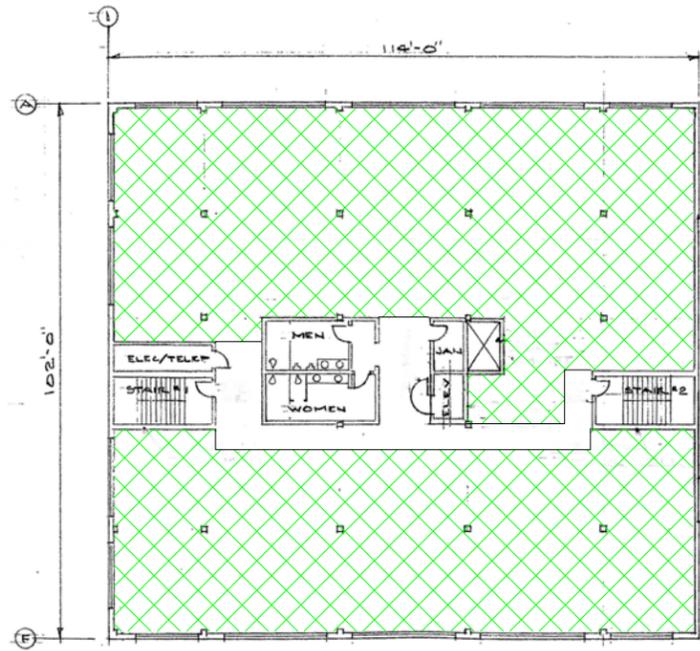
Identification For Permanent Spaces

To comply with ADA, user must follow ADA guidelines. Signs shall be installed on the wall adjacent to the latch side of the door. Where there is no wall space to the latch side of the door, including at double leaf doors, signs shall be placed on the nearest adjacent wall. Mounting height shall be 60 inches (1525 mm) above the finish floor to the centerline of the sign. Mounting location for such signage shall be so that a person may approach within 3 inches (76 mm) of signage without encountering protruding objects or standing within the swing of a door.

ADA SIGNAGE

JULIENNE S. WOODS
 ARCHITECT
 10000 N. BROADWAY
 SUITE 200
 TIGARD, OREGON 97223
 (503) 620-8668

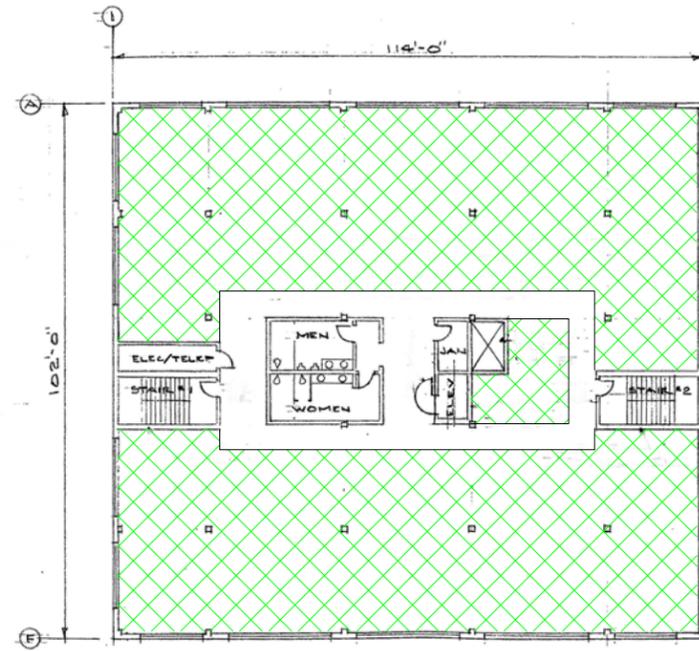
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Of	Sheets



SECOND FLOOR PLAN

OPTION 1

9,200 SF
MAIN CIRCULATION - ONE SIDE



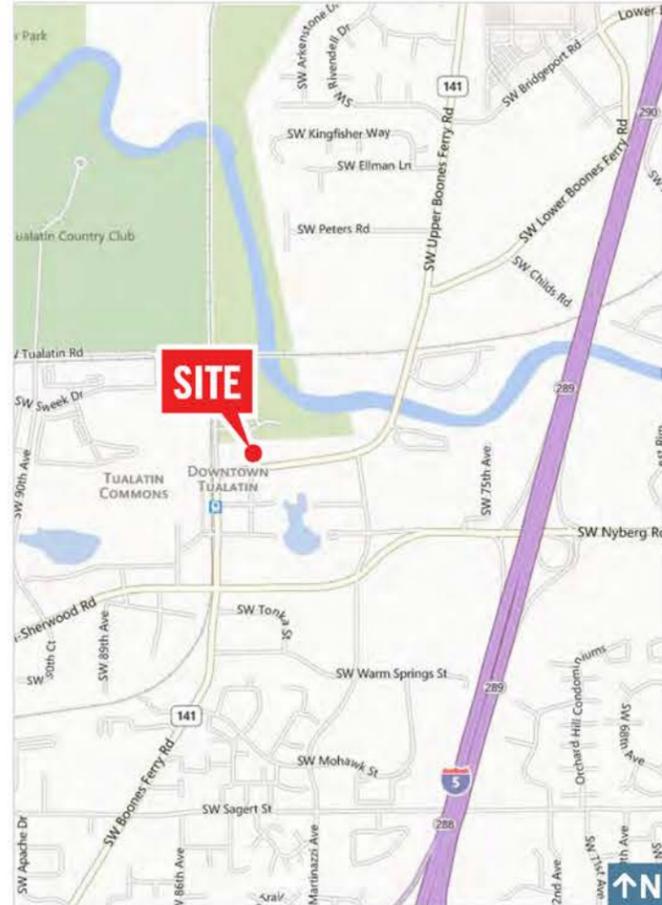
SECOND FLOOR PLAN

OPTION 2

8,740 SF
MAIN CIRCULATION - LOOP

FOR SALE

ASPEN PLACE 18765 SW BOONES FERRY ROAD TUALATIN, OR 97062



Contact
JOHN KOHNSTAMM, SIOR
503.542.4355
SCOTT MADSEN, SIOR
503.542.4352
SCOTT MILLER
503.517.9872



805 SW BROADWAY
SUITE 700
PORTLAND, OR 97205

t. 503.326.9000
f. 503.425.1006

Proud member of: **CORFAC International** The information contained herein is believed to be accurate but is not warranted as to its accuracy and may change or be updated without notice. Seller or landlord makes no representation as to the environmental condition of the property and recommends purchaser's or tenant's independent investigation.



FOR SALE

ASPEN PLACE 18765 SW BOONES FERRY ROAD TUALATIN, OREGON



t. 503.326.9000
f. 503.425.1006



Contact
JOHN KOHNSTAMM, SIOR
503.542.4355
SCOTT MADSEN, SIOR
503.542.4352
SCOTT MILLER
503.517.9872

CAPACITY COMMERCIAL GROUP, 805 SW BROADWAY, SUITE 700, PORTLAND, OR 97205

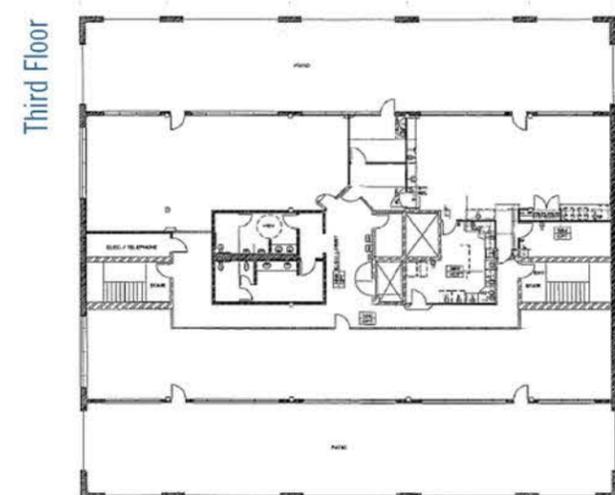
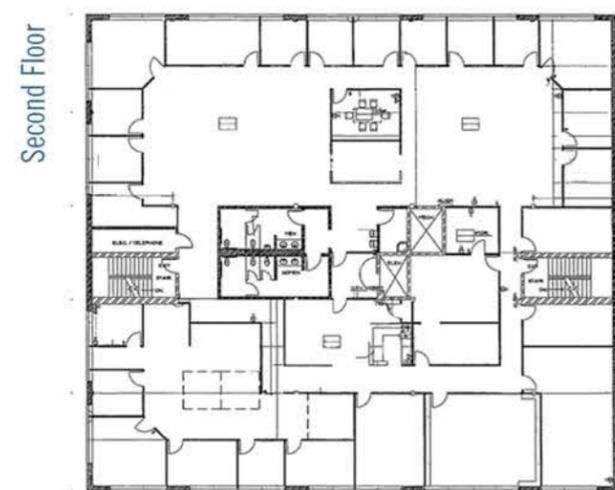
Proud member of: **CORFAC International** The information contained herein is believed to be accurate but is not warranted as to its accuracy and may change or be updated without notice. Seller or landlord makes no representation as to the environmental condition of the property and recommends purchaser's or tenant's independent investigation.



ASPEN PLACE

18765 SW BOONES FERRY RD TUALATIN, OREGON 97062

- Located in the heart of downtown Tualatin, adjacent to the new Nyberg Rivers Development, restaurants, shopping, banks and more
- Priced at \$5,200,000
- Prime Owner/User opportunity
- Three-story Office Building of concrete/CMU brick construction with a brick veneer finish
- Approximately 26,014 Rentable SF (30,324 Gross SF) on 0.65 Acres of Land
- Bonus third floor deck (front and back) of approximately 4,560 SF overlooking the Tualatin Community Park and downtown Tualatin
- Immediate occupancy of up to 14,486 SF available
- Zoned CC - Central Commercial
- 4.87:1,000 SF Parking Ratio
- Below-grade parking structure with 37 stalls; additional public parking directly adjacent to building
- Easy access to I-5 and southwest suburbs



POLICE FACILITY



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THE COMMONS SITE



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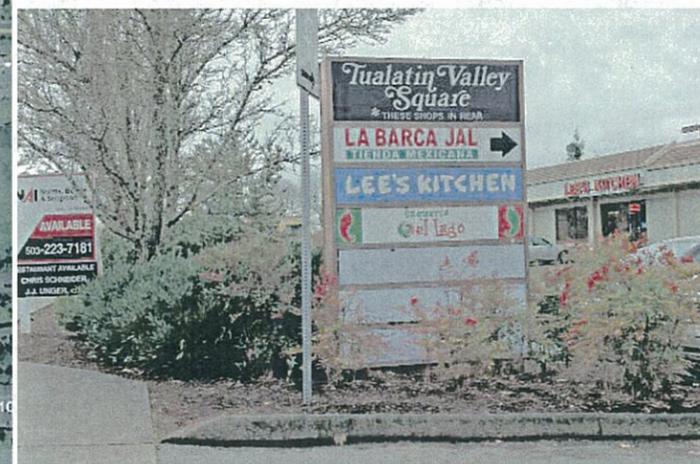
For Lease
Tualatin Valley Square
 8125 SW Nyberg Street, Tualatin, OR 97062

For Lease
Tualatin Valley Square
 8125 SW Nyberg Street, Tualatin, OR 97062



\$18.00/SF/NNN
 (NNN's \$6.40/SF)

- 5,100 SF
- Retail center across from future Cabela's- anchored retail development
- Excellent restaurant space, equipped with hood, walk-ins and two full restrooms
- Great off-street parking
- Close proximity to I-5 and Tualatin Sherwood Road
- NNN includes all trash, water, sewer and HVAC maintenance



NAI Norris, Beggs & Simpson

For More Information, Contact:
Chris Schneider
 tel 503 273 0367
 cschneider@nai-nbs.com
J.J. Unger
 tel 503 273 0341
 junger@nai-nbs.com

NAI Norris, Beggs & Simpson

For More Information, Contact:
Chris Schneider
 tel 503 273 0367
 cschneider@nai-nbs.com
J.J. Unger
 tel 503 273 0341
 junger@nai-nbs.com

RIVER HOUSE SITE



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Service Provider Letter

CWS File Number
12-002037

This form and the attached conditions will serve as your Service Provider Letter in accordance with Clean Water Services Design and Construction Standards (R&O 07-20).

Jurisdiction:	<u>Tualatin</u>	Review Type:	<u>Tier 2 Analysis</u>
Site Address / Location:	<u>18615 SW Boones Ferry RD Tualatin, OR 97062</u>	SPL Issue Date:	<u>October 15, 2012</u>
		SPL Expiration Date:	<u>October 15, 2014</u>

Applicant Information:		Owner Information:	
Name	<u>CSB LLC</u>	Name	<u>CSB LLC</u>
Company	<u>PO BOX 2708</u>	Company	<u>PO BOX 2708</u>
Address	<u>ISSAQUAH WA 98027</u>	Address	<u>ISSAQUAH WA 98027</u>
Phone/Fax	<u>(425) 391-6646</u>	Phone/Fax	<u>(425) 391-6646</u>
E-mail:		E-mail:	

Tax lot ID	Development Activity
<u>2S124BC01301, 2S124BC01400</u>	<u>River House Commons Development</u>

Pre-Development Site Conditions:	Post Development Site Conditions:
Sensitive Area Present: <input checked="" type="checkbox"/> On-Site <input checked="" type="checkbox"/> Off-Site	Sensitive Area Present: <input checked="" type="checkbox"/> On-Site <input checked="" type="checkbox"/> Off-Site
Vegetated Corridor Width: <u>Variable; 50-125</u>	Vegetated Corridor Width: <u>Variable; 0-125</u>
Vegetated Corridor Condition: <u>Marginal/Degraded</u>	

Enhancement of Remaining Vegetated Corridor Required: Square Footage to be enhanced: 37,392

Encroachments into Pre-Development Vegetated Corridor:

Type and location of Encroachment:	Square Footage:
<u>Road, Parking, Building</u>	<u>19,635</u>
<u>Trail Allowance</u>	<u>701</u>
Total Permanent Encroachment Requiring Mitigation	<u>18,934</u>

Mitigation Requirements:

Type/Location	Sq. Ft./Ratio/Cost
<u>On-site Mitigation/ 2S124BC01301, 01400</u>	<u>2,469</u>
<u>On-site Enhancement for Mitigation / 2S124BC01400</u>	<u>9,567/ 2:1</u>
<u>Off-site Enhancement for Mitigation/ 2S114CA00201</u>	<u>23,400/ 2:1</u>
Total area required to be planted to District density standards	<u>72,828</u>

Conditions Attached Development Figures Attached (7) Planting Plan Attached Geotech Report Required

This Service Provider Letter does NOT eliminate the need to evaluate and protect water quality sensitive areas if they are subsequently discovered on your property.

CWS File No. 12-002037; Memo to Respond to Tier 2 Regulations

The proposed project has met the Tier 2 Alternative Analysis criteria and responses to the criteria are depicted below.

1. The proposed encroachment area is mitigated in accordance with Section 3.08.
The proposed permanent vegetated corridor encroachments will be fully mitigated in accordance with Section 3.08 of R&O 07-20. Mitigation for the project will consist of on-site corridor expansion; on-site enhancement; and off-site enhancement. The total square footage of necessary mitigation is 18,934 square feet. Proposed mitigation includes 2,469 square feet of corridor expansion and 32,967 square feet of enhancement. On-site mitigation includes 2,469 square feet of area. On-site enhancement of the Tualatin River vegetated corridor beyond the required 50 feet will account for an additional area of 9,567 square feet. At a ratio of 2 to 1, the enhancement mitigation area accounts for approximately 4,784 square feet of mitigation credit. Off-site mitigation consists of the enhancement of 23,400 square feet of vegetated corridor located south of an existing wetland west of the project area. At a ratio of 2 to 1, the off-site enhancement mitigation area accounts for approximately 11,700 square feet of mitigation.

2. The replacement mitigation protects the functions and values of the Vegetated Corridor and Sensitive Area.
All elements of proposed vegetated corridor mitigation have been designed to protect the functions and values of the adjoining sensitive areas and vegetated corridor. Mitigation is proposed for areas adjoining the Tualatin River, Hedges Creek, and the Apache Bluffs wetland, which is hydrologically connect to the Tualatin River. Mitigation associated with the project includes a total area of 35,436 square feet.

3. Enhancement of the replacement area, if not already in Good Corridor Condition, and either the remaining Vegetated Corridor on the site or the first 50 feet of width closest to the resource, whichever is less, to a Good Corridor Condition.
Proposed replacement and enhancement areas range from degraded to marginal condition, despite the general presence of native species in the tree canopy along the Tualatin River and Hedges Creek. Invasive species are common throughout proposed replacement and enhancement areas. The applicant will remove invasive species from all replacement and enhancement areas and as necessary, plant native trees, shrubs, and herbaceous cover.

4. A District Stormwater Connection Permit is likely to be issued based on proposed plans.
The proposed project is located in Tualatin. The applicant reasonably expects to obtain a District Stormwater Connection Permit based on proposed plans for the project, from the District, or from the City of Tualatin.

5. Location of development and site planning minimizes incursion into the Vegetated Corridor.
Encroachment into the adjacent vegetated corridor has been minimized to the maximum extent practicable. Vegetated corridor encroachments are limited to those necessary for construction of two buildings on the property, as well as vehicular and pedestrian bridges to cross Hedges Creek. The southern building will only encroach upon less than 100 square feet of corridor. Though the vehicle bridge impacts a little more 4,000 square feet, its alignment was dictated by the need to maintain a building sites on both the southern and northern portions of the property. As the bridge had already been constructed prior to this submittal, its impact could not be further reduced. The northern building has been much reduced in size from previously approved dimensions in an effort to avoid as much of the Tualatin River Vegetated Corridor as possible.

6. No practicable alternative to the location of the development exists that will not disturb the Sensitive Area or Vegetated Corridor.

The benefits of locating the development at the site in question are multiple and would be negated if the development were moved off of the Boone's Ferry Road site. First, the development in question will be an assisted living facility, providing nursing and other care to seniors in the Tualatin community. Its present site on Boone's Ferry Road is directly adjacent to the Tualatin Senior Center and was carefully chosen. Its proximity to the Senior Center will allow residents of the facility easy and convenient access to social programs, and community events, it is also close to healthcare facilities, rapid transit, and basic shopping needs. Additionally it is extremely important to locate senior focused housing within existing communities, allowing seniors to remain close to family and friends. As a licensed senior housing development, the spaces provided for in the Boone's Ferry Road development are all necessary. Any attempt to shrink the facility footprint further would risk jeopardizing the ability of the facility to provide the necessary dietary, housekeeping, and nursing services to its residents, or would directly take space away from those residents' already minimal private spaces.

As amenities, services, and minimal room sizes must be maintained, the only remaining option to decrease the building size would be to reduce the overall number of rooms available. This in turn reduces the overall building population, increasing the cost per room to the extent that the cost of maintaining the facility could not be covered by the tenants. A minimum number of residents are required in order to provide the level of service and amenities needed for such a facility. The proposed building footprint has been designed to provide for an appropriately sized building population and has taken into account the irregular building envelope available between Hedge Creek and the Tualatin River.

7. The proposed encroachment provides public benefits.

The public benefits of senior focused housing are numerous and well documented. Assisted living facilities like the proposed Boone's Ferry Road project provide lower cost alternatives to nursing homes and hospitals while allowing seniors to remain as independent as possible. In addition to direct public benefits provided by the facility itself, public benefits to water quality will be provided by a combined area of 72,828 square feet of proposed vegetated corridor enhancements and mitigation.

The offsite mitigation area, Apache Bluffs, is owned and Managed by The Wetlands Conservancy (TWC). TWC is a non-profit organization with a mission to conserve, protect, and restore Oregon wetlands. In their own words; TWC "promotes community and private partnerships to permanently protect and conserve" Oregon's wetlands. The proposed partnership between TWC and the applicant guarantees not only the initial enhancement of the existing vegetated corridor, but also maintenance and management of the enhancement area for perpetuity. One other benefit to partnering with TWC is the fact that enhancement at Apache Bluffs will also involve outreach to the adjoining residential neighborhood. This outreach will include educating adjoining landowners of the benefits of restoring native vegetation as well as an invitation to continue enhancement onto private property bordering TWC property.

In order to comply with Clean Water Services water quality protection requirements the project must comply with the following conditions:

1. No structures, development, construction activities, gardens, lawns, application of chemicals, uncontained areas of hazardous materials as defined by Oregon Department of Environmental Quality, pet wastes, dumping of materials of any kind, or other activities shall be permitted within the sensitive area or Vegetated Corridor which may negatively impact water quality, except those allowed in R&O 07-20, Chapter 3.
2. Prior to any site clearing, grading or construction the Vegetated Corridor and water quality sensitive areas shall be surveyed, staked, and temporarily fenced per approved plan. During construction the Vegetated Corridor shall remain fenced and undisturbed except as allowed by R&O 07-20, Section 3.06.1 and per approved plans.

3. If there is any activity within the sensitive area, the applicant shall gain authorization for the project from the Oregon Department of State Lands (DSL) and US Army Corps of Engineers (USACE). If applicable, the applicant shall provide Clean Water Services or its designee (appropriate city) with copies of all DSL and USACE project authorization permits.
4. An approved Oregon Department of Forestry Notification is required for one or more trees harvested for sale, trade, or barter, on any non-federal lands within the State of Oregon.
5. **Prior to ground disturbance an Erosion Control Permit is required through the City. Appropriate Best Management Practices (BMP's) for Erosion Control, in accordance with Clean Water Services' Erosion Prevention and Sediment Control Planning and Design Manual, shall be used prior to, during, and following earth disturbing activities.**
6. Prior to construction, a Stormwater Connection Permit from Clean Water Services or its designee is required pursuant to Ordinance 27, Section 4.B.
7. Activities located within the 100-year floodplain shall comply with R&O 07-20, Section 5.10.
8. Removal of native, woody vegetation shall be limited to the greatest extent practicable.
9. **Should final development plans differ significantly from those submitted for review by Clean Water Services, the applicant shall provide updated drawings, and if necessary, obtain a revised Service Provider Letter.**
10. The Vegetated Corridor width for sensitive areas within the project site shall be a minimum of 50 feet wide, as measured horizontally from the delineated boundary of the sensitive area.
11. Prior to any site clearing, grading or construction, the applicant shall provide Clean Water Services with a Vegetated Corridor enhancement/restoration plan. Enhancement/restoration of the Vegetated Corridor shall be provided in accordance with R&O 07-20, Appendix A.
12. **Prior to installation of plant materials, all invasive vegetation within the Vegetated Corridor shall be removed per methods described in Clean Water Services' Integrated Pest Management Guide, 2009. During removal of invasive vegetation care shall be taken to minimize impacts to existing native tree and shrub species.**
13. Clean Water Services shall be notified 72 hours prior to the start and completion of enhancement/restoration activities. Enhancement/restoration activities shall comply with the guidelines provided in Landscape Requirements (R&O 07-20, Appendix A).
14. **Maintenance and monitoring requirements shall comply with R&O 07-20, Section 2.11.2. If at any time during the warranty period the landscaping falls below the 80% survival level, the owner shall reinstall all deficient planting at the next appropriate planting opportunity and the two-year maintenance period shall begin again from the date of replanting.**
15. Performance assurances for the Vegetated Corridor shall comply with R&O 07-20, Section 2.06.2.
16. **Clean Water Services shall require an easement over the Vegetated Corridor conveying storm and surface water management to Clean Water Services or the City that would prevent the owner of the Vegetated Corridor from activities and uses inconsistent with the purpose of the corridor and any easements therein.**

FINAL PLANS

17. **Final construction plans shall include landscape plans.** In the details section of the plans, a description of the methods for removal and control of exotic species, location, distribution, condition and size of plantings, existing plants and trees to be preserved, and installation methods for plant materials is required. Plantings shall be tagged for dormant season identification and shall remain on plant material after planting for monitoring purposes.
18. **A Maintenance Plan shall be included on final plans** including methods, responsible party contact information, and dates (minimum two times per year, by June 1 and September 30).

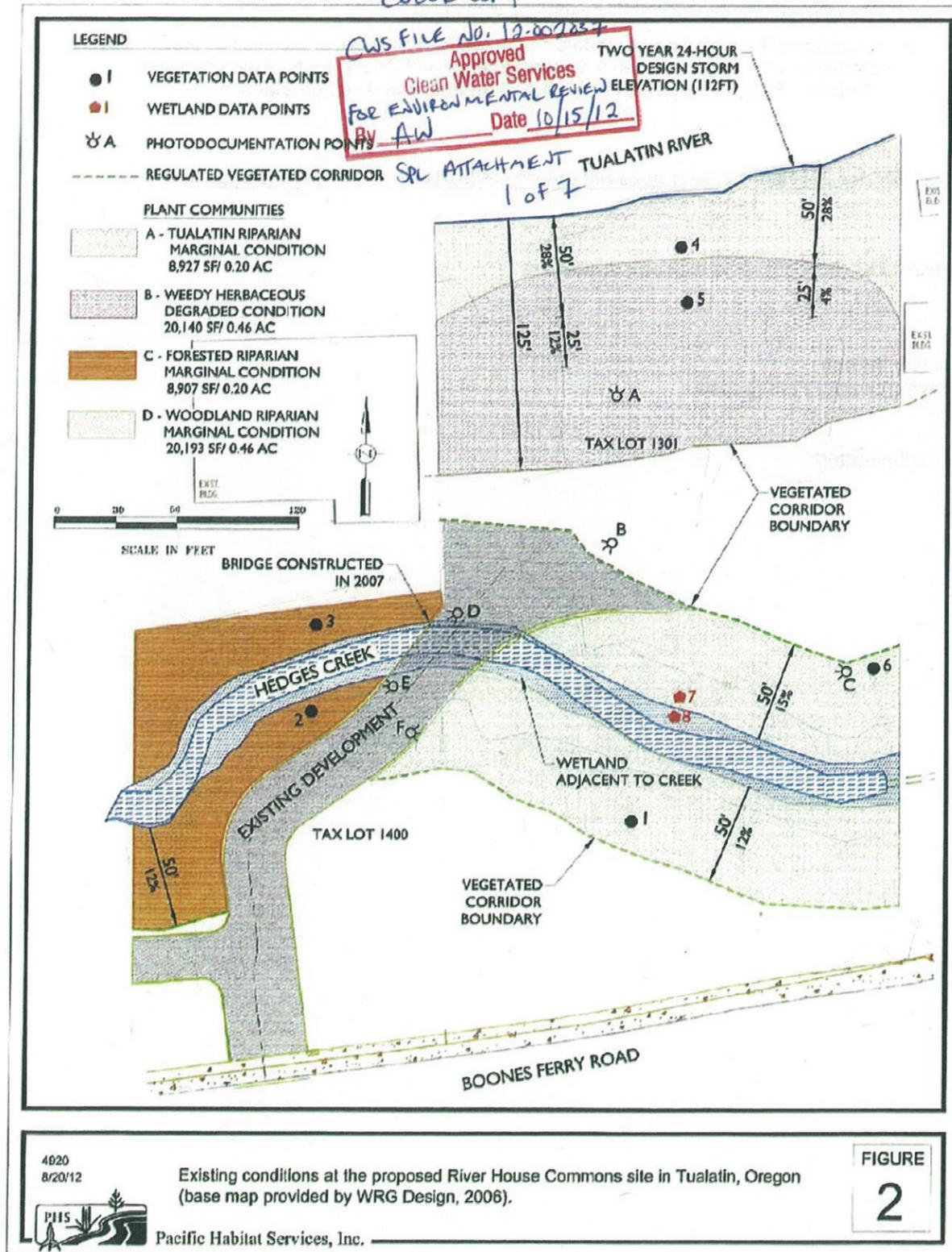
- 19. Final construction plans shall clearly depict the location and dimensions of the sensitive area and the Vegetated Corridor (indicating good, marginal, or degraded condition). Sensitive area boundaries shall be marked in the field.
- 20. Protection of the Vegetated Corridors and associated sensitive areas shall be provided by the installation of signage between the development and the outer limits of the Vegetated Corridors. Signage details to be included on final construction plans.

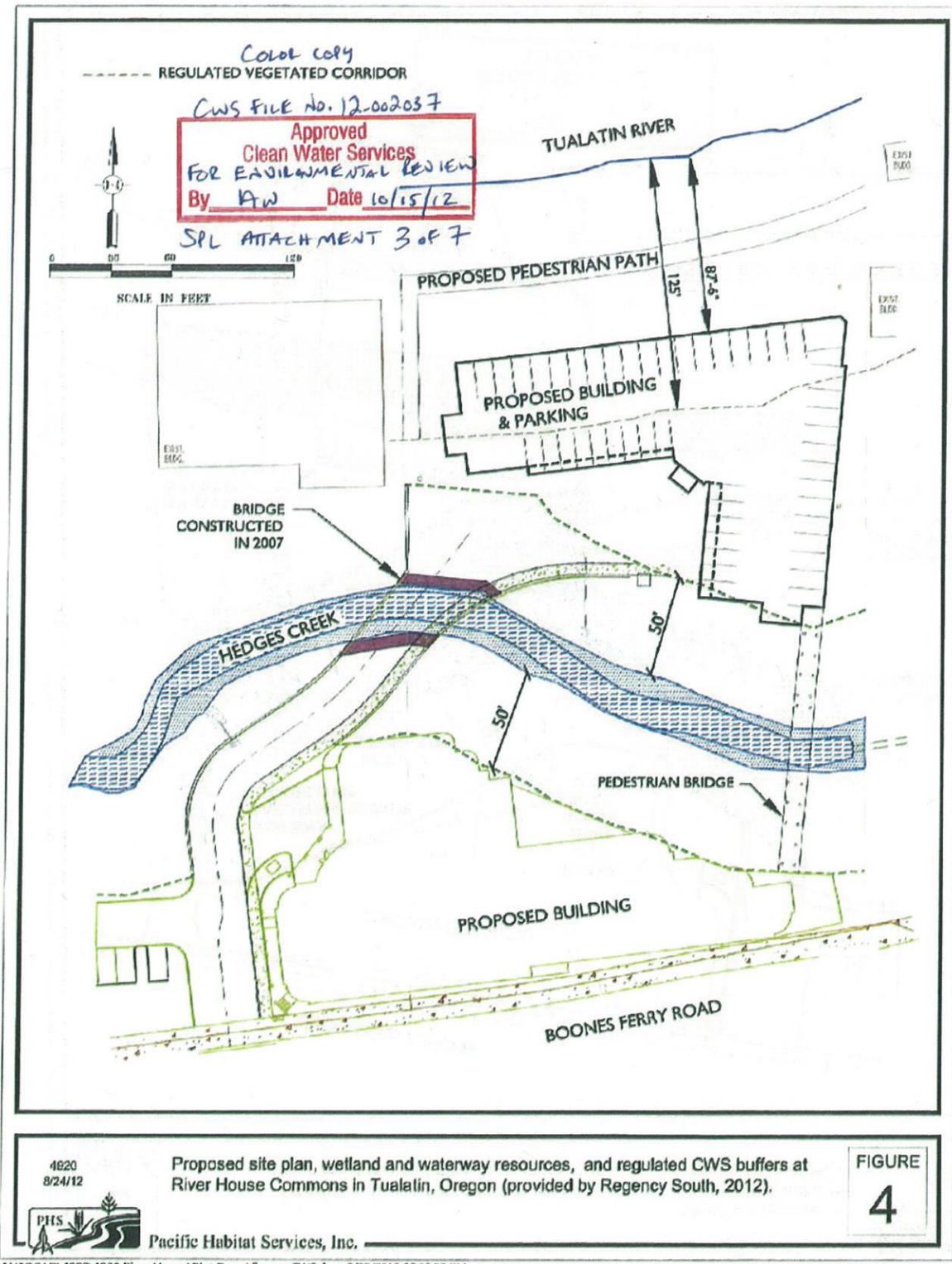
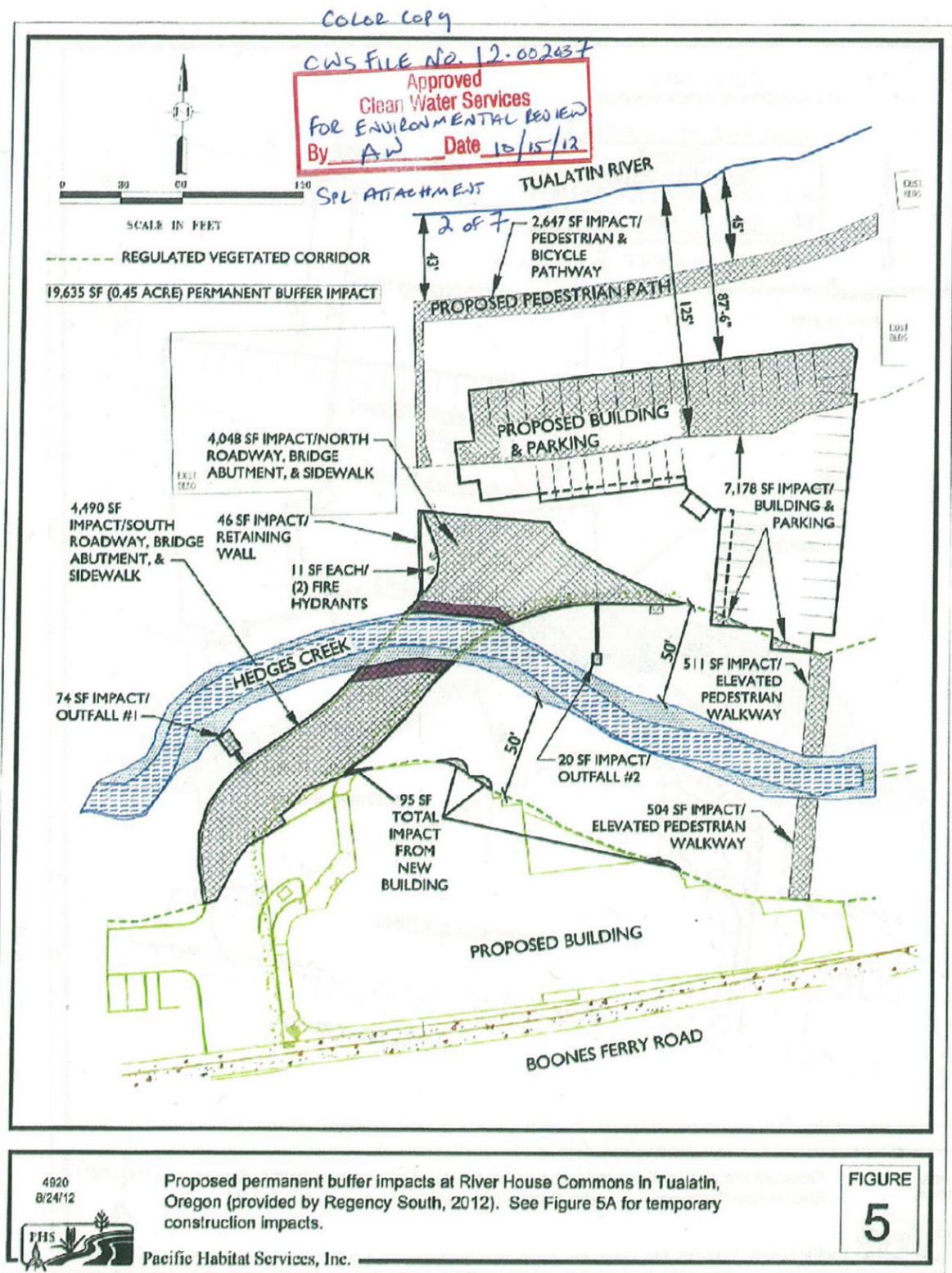
This Service Provider Letter is not valid unless CWS-approved site plan is attached.

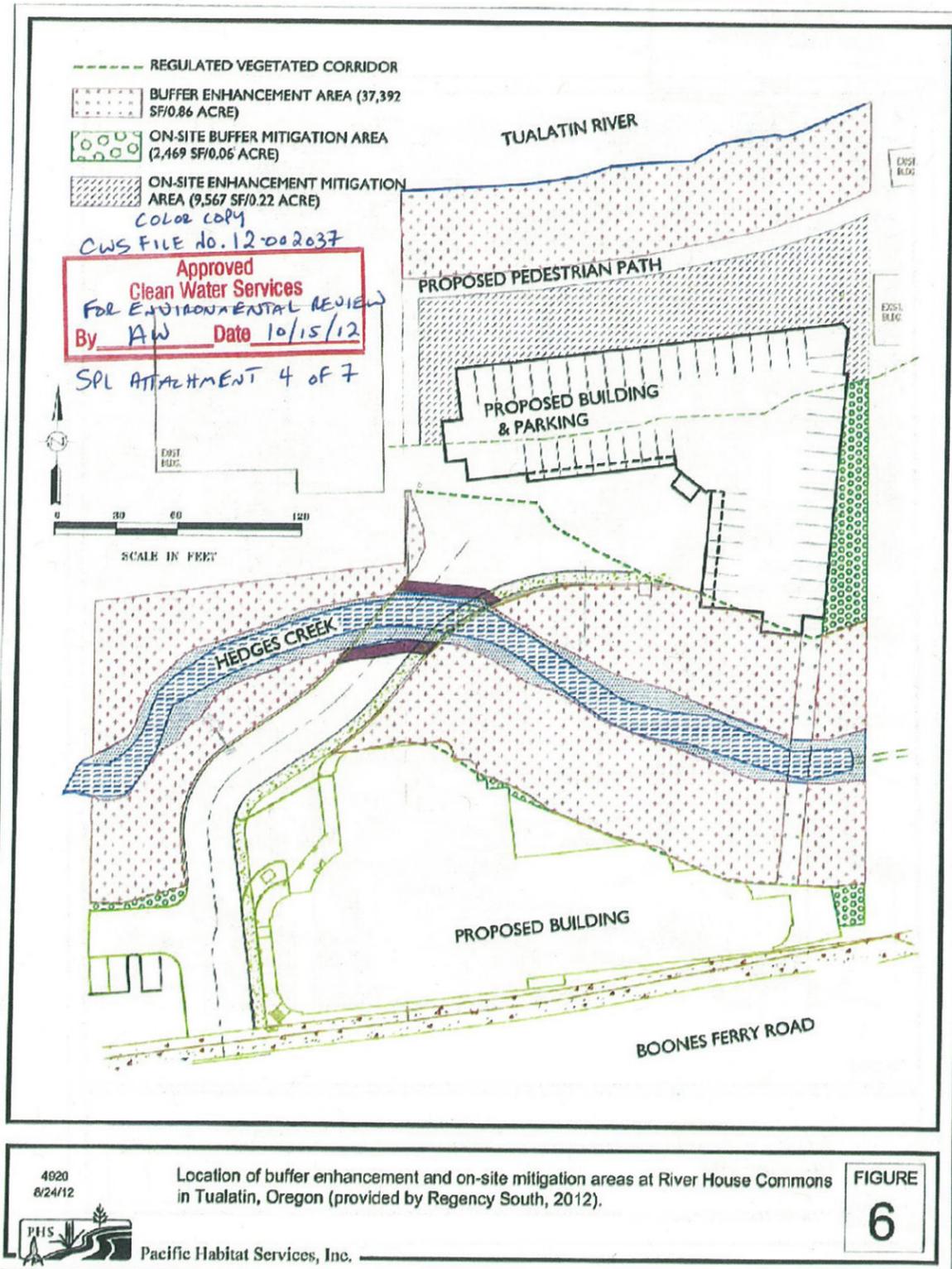
Please call (503) 681-3653 with any questions.

Amber Wierck
Environmental Plan Review

Attachments (7)



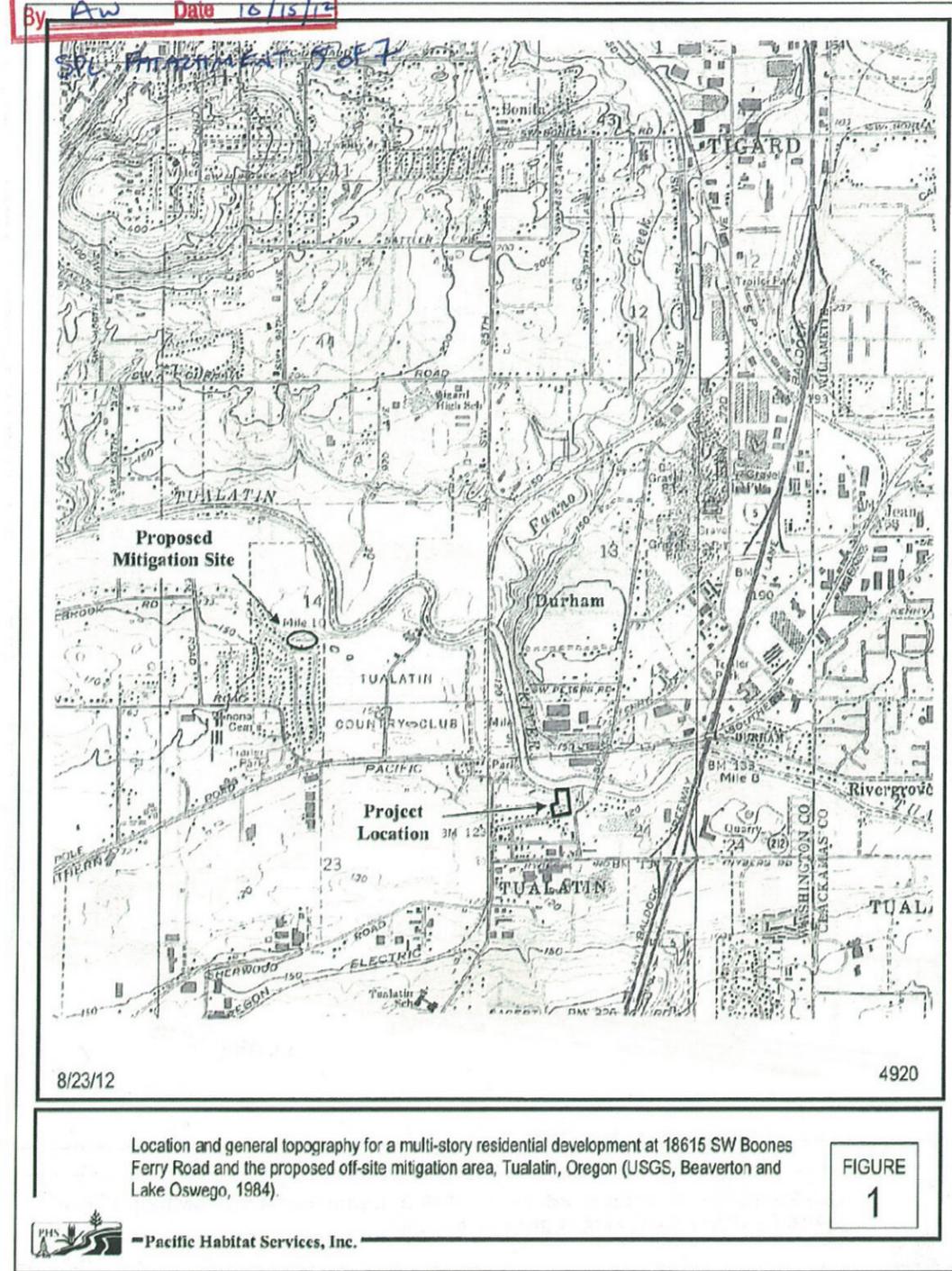


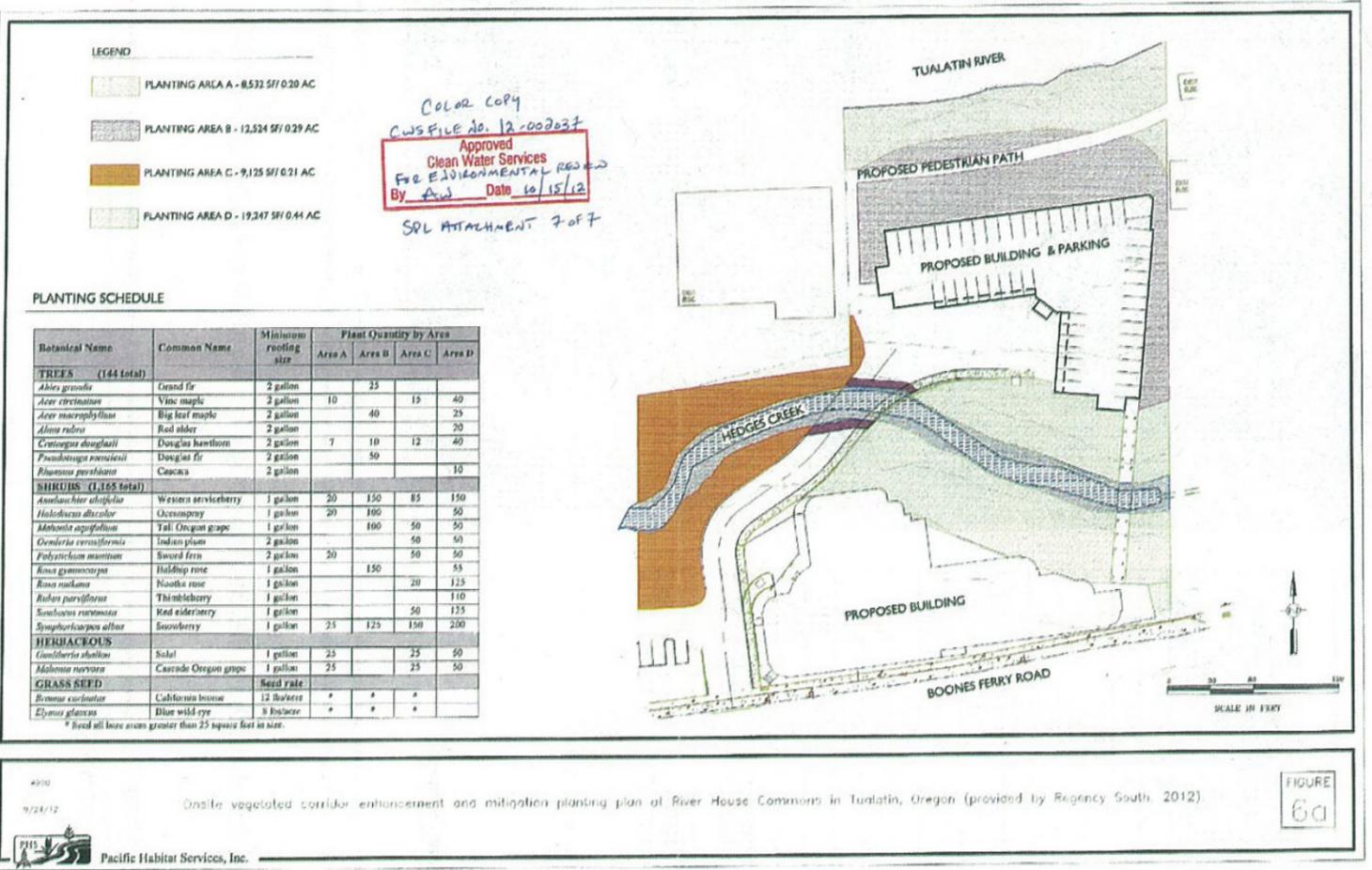
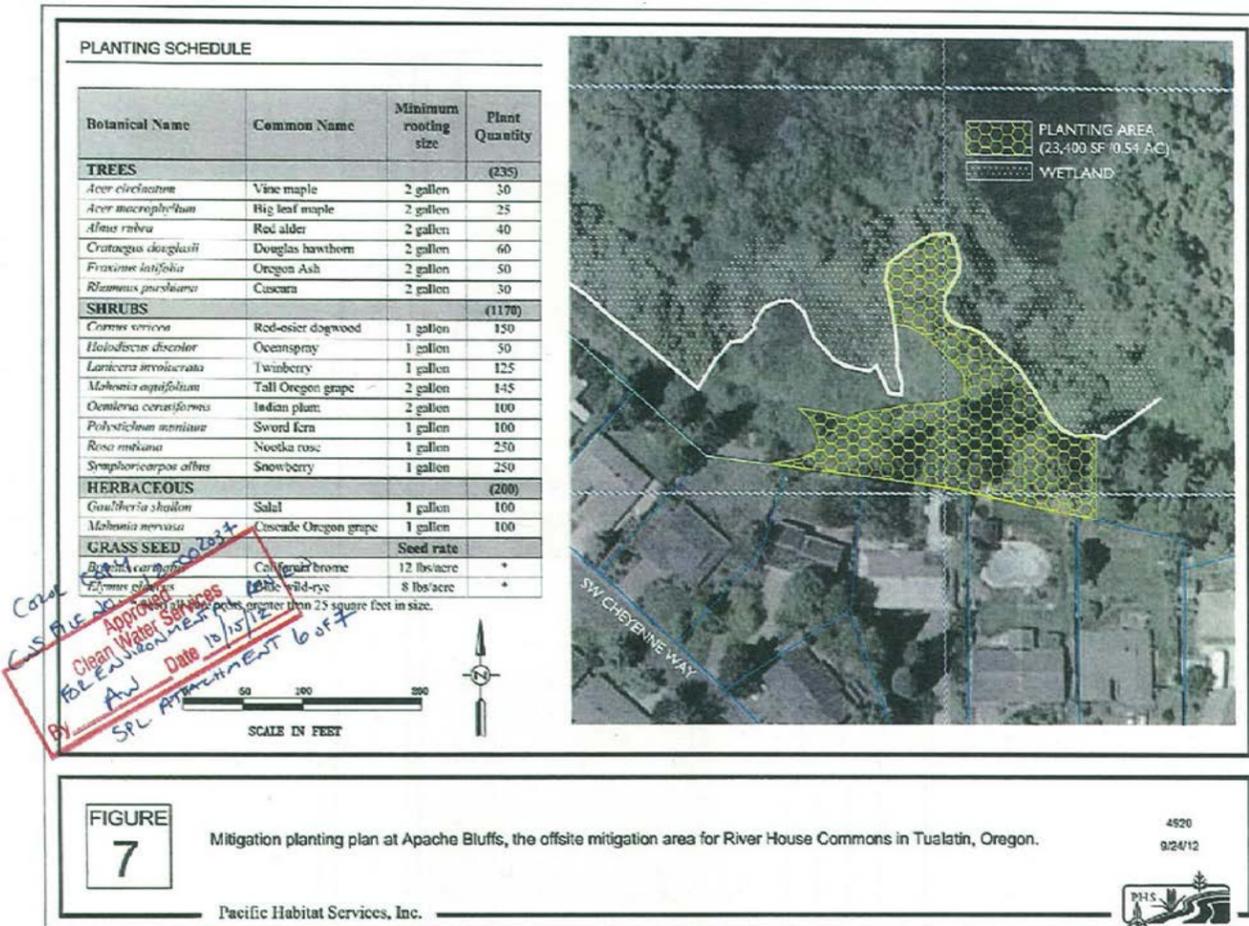


Y:\AUTOCAD\4900\4920 River House\Plot Dwg\figures CWS.dwg, 8/28/2012 12:58:20 PM

CWS FILE NO. 12-002037

Approved
Clean Water Services
FOR ENVIRONMENTAL REVIEW
By AW Date 10/15/12





PROPERTY DESCRIPTION



FOR SALE | MULTI-FAMILY DEVELOPMENT OPPORTUNITY

River House | 18615 SW Boones Ferry Road, Tualatin, OR



PROPERTY SUMMARY

Name	Riverhouse Property
Ownership	CSB, LLC
Property Type	Vacant Land (Multi-Family)
Address	18615 SW Boones Ferry Road Tualatin, Oregon 97060
Assessor's Parcel #(s)	R50533444, R0533462
Property Tax Data	Real Market Value Land: \$1,415,920.00 2010-2011 Property Taxes: \$5,851.00/Year

Site Description

Size	
Gross	3.12 acres (135,907 SF)
Net	2.83 acres (123,275 SF)
Topography	Sloping
Zoning	Central Commercial (CC)
Flood Zone	Zone AH

Property Appraisal

\$4,100,000.00 (1/14/11), Completed by Colliers International

Transportation

Tri-Met bus service and commuter rail within walking distance

Infrastructure & Utilities

The property is currently served with an access roadway, concrete bridge over hedges creek and utilities stubbed to the contemplated development sites. The size, configuration and location of all underground utilities in place should be verified by a prospective purchaser

Offering

The property is available for immediate sale. The sale price is negotiable

Contact:

BRIAN OWENDOFF
BRIAN@
CAPACITYCOMMERCIAL.COM
503-425-1206

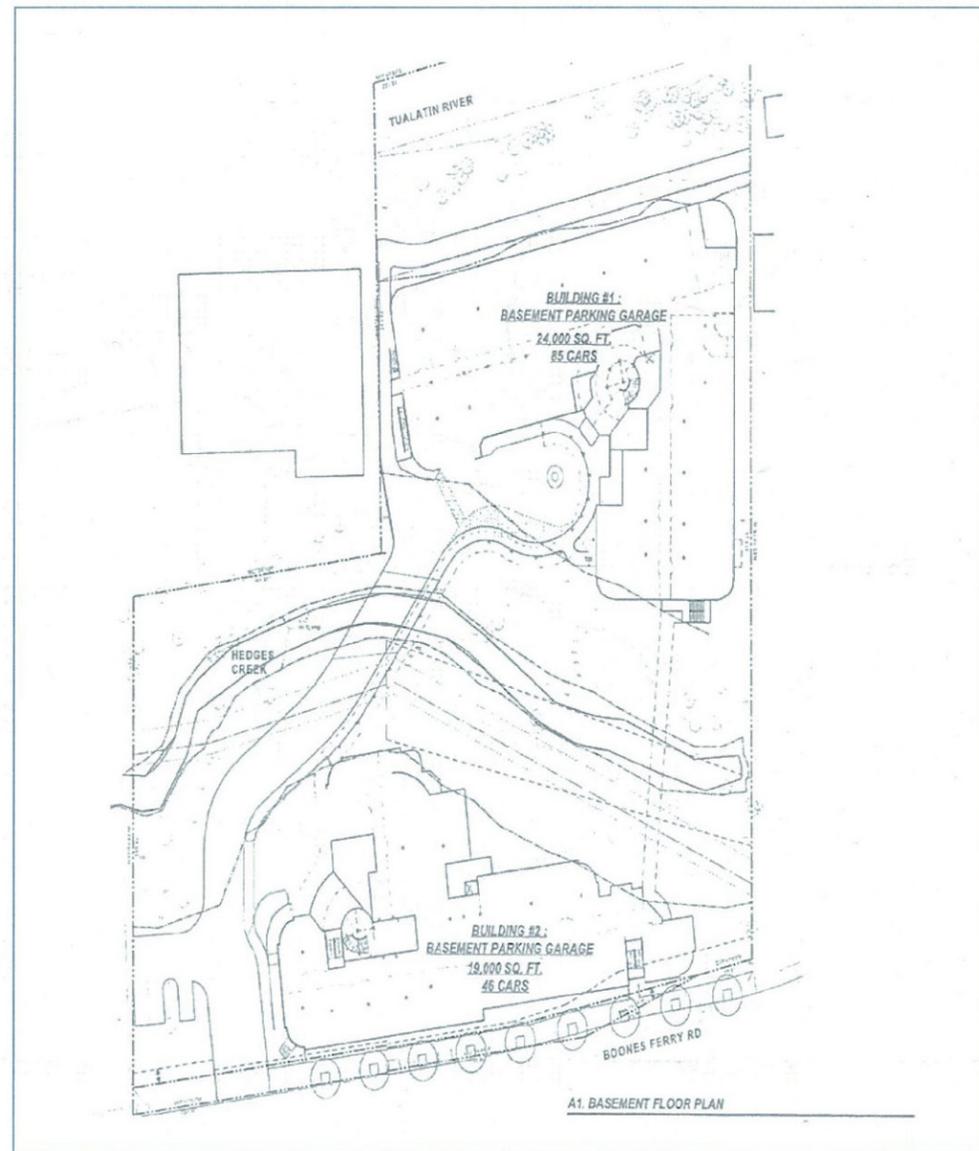


Contact:

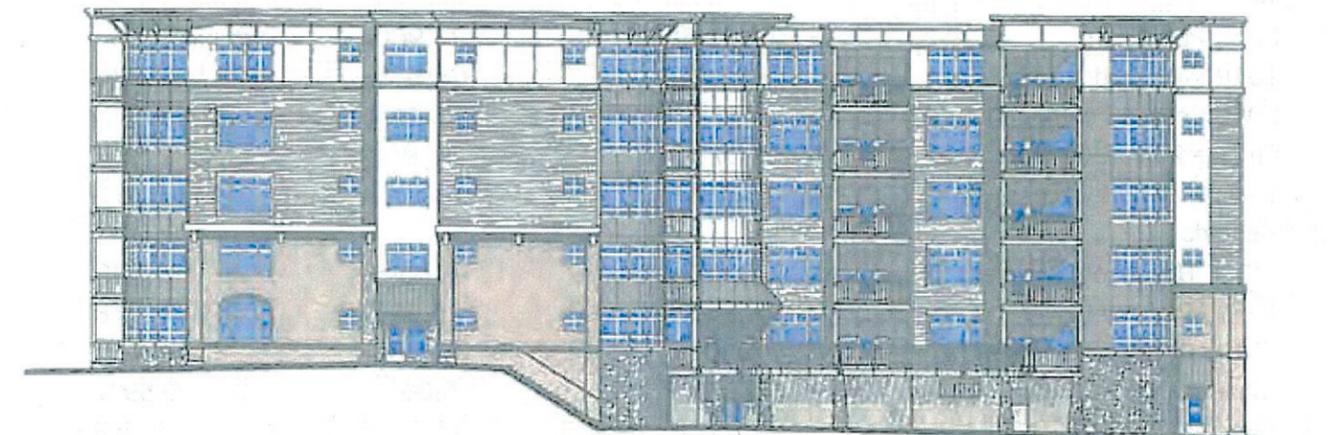
JOHN FETTIG
JOHNFETTIG@
CAPACITYCOMMERCIAL.COM
503-517-9870

805 SW BROADWAY,
SUITE 700
PORTLAND, OR 97205
503-326-9000

WWW.CAPACITYCOMMERCIAL.COM



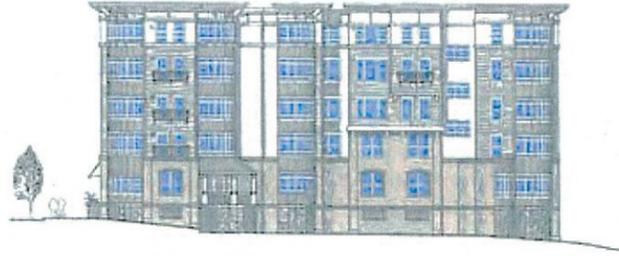
A1. BUILDING #1: NORTH ELEVATION



C1. BUILDING #1: WEST ELEVATION



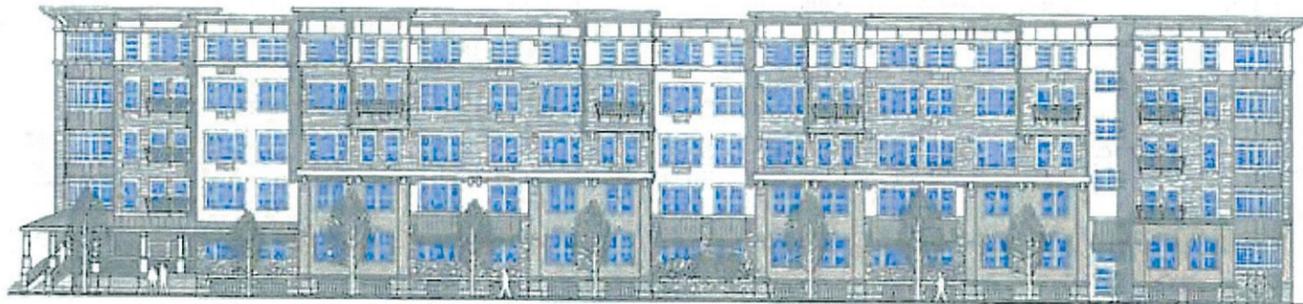
C1. BUILDING #1 - WEST ELEVATION



C3. BUILDING #1 - EAST ELEVATION



A2. BUILDING #2 - NORTH ELEVATION



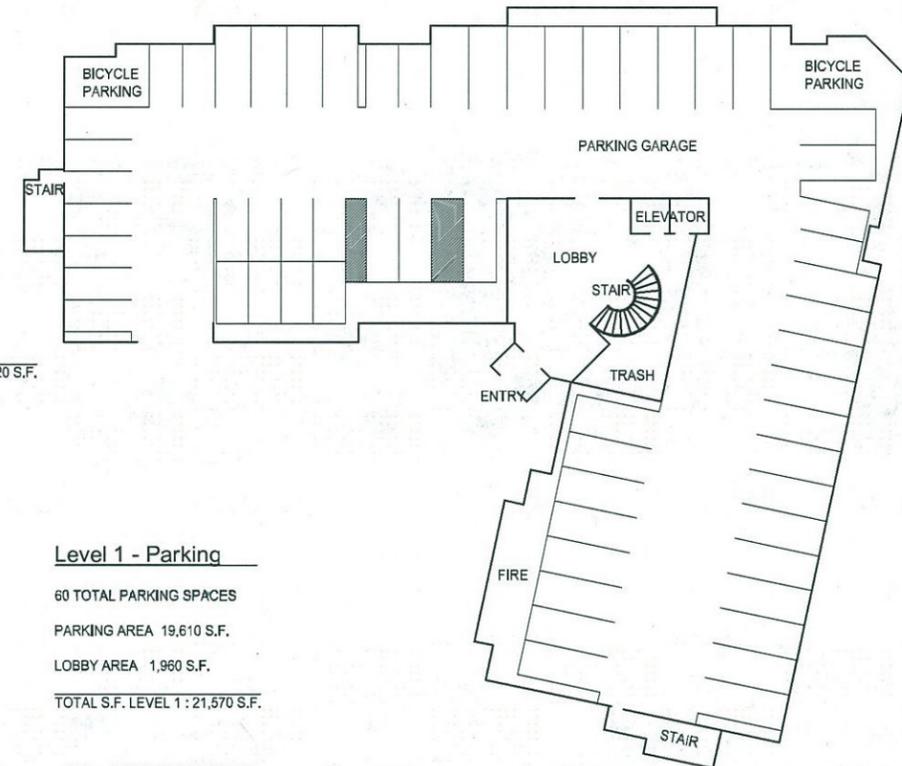
A1. BUILDING #2 - SOUTH ELEVATION

BUILDING TOTALS

UNIT TOTAL: 122 UNITS
 (32) STUDIOS
 (80) 1-BEDROOMS
 (10) 2-BEDROOMS

61 PARKING SPACES REQUIRED
 60 PARKING SPACES PROVIDED
 (21) COMPACT SPACES
 (39) REGULAR SPACES

TOTAL BUILDING SQUARE FOOTAGE: 126,420 S.F.



Level 1 - Parking

60 TOTAL PARKING SPACES

PARKING AREA 19,610 S.F.

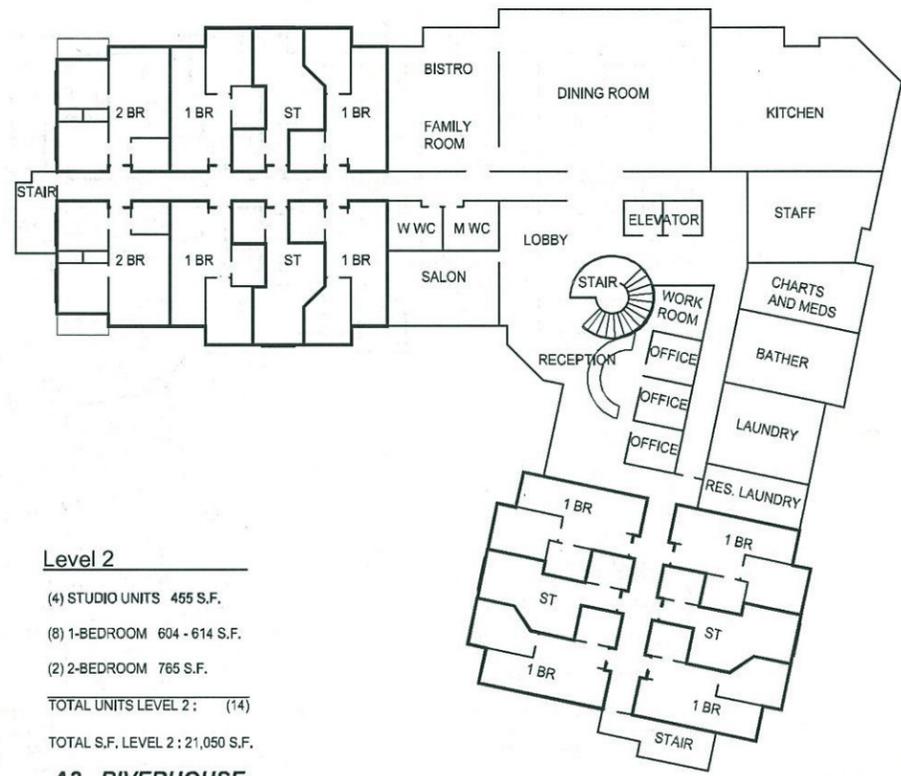
LOBBY AREA 1,960 S.F.

TOTAL S.F. LEVEL 1: 21,570 S.F.

Regency South, Inc.
Issaquah, Washington

A1. RIVERHOUSE
SCALE: 1" = 20'-0"

LRS
ARCHITECTS
JANIS R. LIND
1 NOVEMBER 2008



Level 2

(4) STUDIO UNITS 455 S.F.
 (8) 1-BEDROOM 604 - 614 S.F.
 (2) 2-BEDROOM 765 S.F.

TOTAL UNITS LEVEL 2 : (14)
 TOTAL S.F. LEVEL 2 : 21,050 S.F.

A2. RIVERHOUSE
 SCALE: 1" = 20'-0"

Regency South, Inc.
 Issaquah, Washington

LRS
 ARCHITECTS
 1 NOVEMBER 2008

LAKESIDE CENTER



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Office Property For Lease

Lakeside Center

8100 SW Nyberg Road, Tualatin, OR 97062



Total Space Available: 20,167 SF
 Rental Rate: Negotiable
 Min. Divisible: 960 SF
 Max. Contiguous: 14,818 SF
 Property Type: Office
 Property Sub-type: Office Building
 Building Size: 55,864 SF
 Building Class: A
 Listing ID: 17424839
 Last Updated: 14 days ago
[Find Out More...](#)

4 Spaces Available

Display Rental Rate as [Entered](#) ▾

Suite 130	Space Available:	1,300 SF
	Rental Rate:	Rental Rate Negotiable
	Space Type:	Office Building
	Lease Type:	Full Service

Suite 200	Space Available:	960 SF
	Rental Rate:	Rental Rate Negotiable
	Space Type:	Office Building
	Max. Contiguous:	11,031 SF
	Lease Type:	Full Service

Suite 100	Space Available:	3,089 SF	
	Rental Rate:	Rental Rate Negotiable	
	Space Type:	Office Building	
	Lease Type:	Full Service	
		Date Available:	Feb 2014

4th Floor	Space Available:	14,818 SF
	Rental Rate:	Rental Rate Negotiable
	Space Type:	Office Building
	Lease Type:	Full Service

Description

55,864 SF Class A office building completed in 1995.

Recently renovated lobby.

Beautiful location on the lake at Tualatin Commons, surrounded by a public promenade, plazas and an interactive fountain.

On-site locker rooms and showers.

Free parking; 4 spaces per 1,000 SF plus shared hotel parking during daylight hours.

On-site UPS drop-box.

Local ownership - quick decision.

Minutes to I-5 & I-205

15 Minutes to downtown Portland

On TriMet bus line 96

ROBINSON CROSSING



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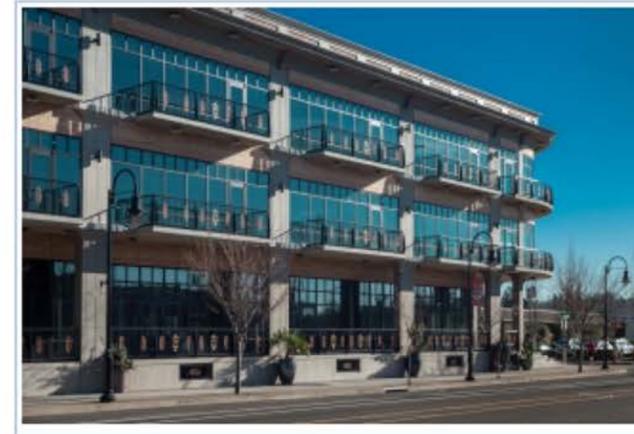
Company Not Provided

David A Emami — (503) 557-3350

Office Property For Lease

Robinson Crossing

18840 SW Boones Ferry Road, Tualatin, OR 97062



Total Space Available: 20,200 SF
 Rental Rate: Negotiable
 Min. Divisible: 200 SF
 Max. Contiguous: 7,000 SF
 Property Type: Office
 Property Sub-type: Office Building
 Building Size: 24,000 SF
 Listing ID: 17970590
 Last Updated: 2 days ago

[Find Out More...](#)

4 Spaces Available

Display Rental Rate as [Entered](#) ▾

1st floor	Space Available:	5,000 SF
	Rental Rate:	Rental Rate Negotiable
	Space Type:	Street Retail
	Min. Divisible:	600 SF
	Lease Type:	NNN
	Pct. Procurement Fee:	6.00%

2nd floor	Space Available:	7,000 SF
	Rental Rate:	Rental Rate Negotiable
	Space Type:	Medical Office
	Min. Divisible:	200 SF
	Lease Type:	NNN
	Pct. Procurement Fee:	5.00%

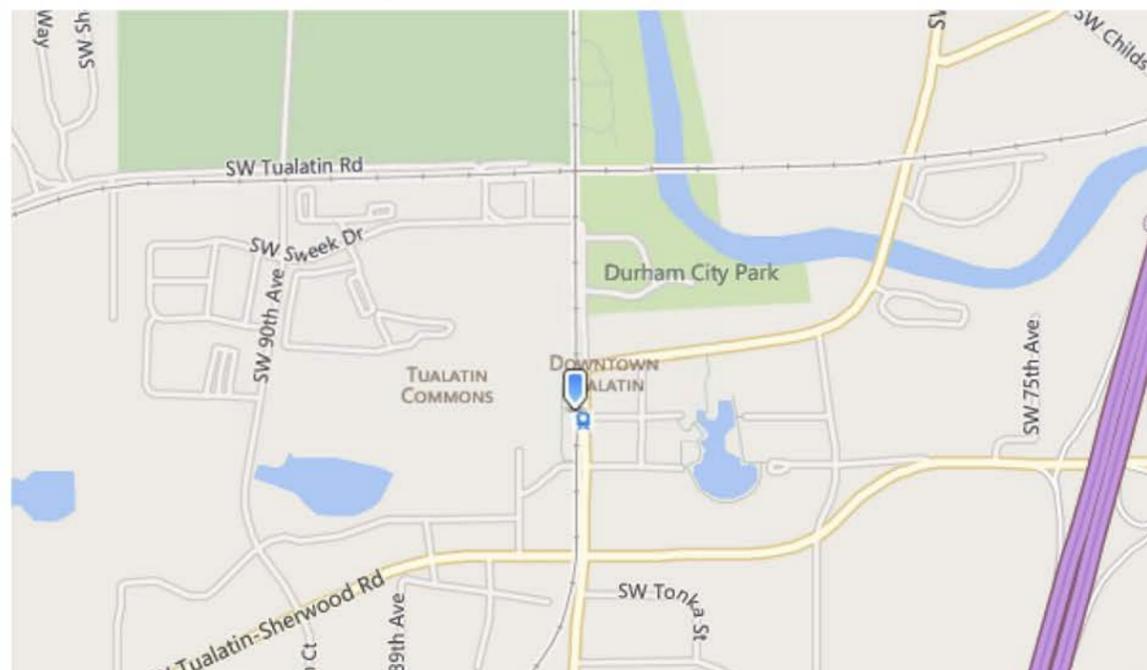
3rd floor	Space Available:	7,000 SF
	Rental Rate:	Rental Rate Negotiable
	Space Type:	Office Building
	Min. Divisible:	600 SF
	Lease Type:	NNN
	Pct. Procurement Fee:	5.00%

Space 310	Space Available:	1,200 SF
	Rental Rate:	Rental Rate Negotiable
	Space Type:	Office Building
	Lease Type:	Modified Gross

Description

Convenient location in the heart of Tualatin, easy access to I-5.
 Great exposure. Exterior building signage for your business.
 High traffic counts on Boones Ferry.
 Great parking - underground covered parking, surface parking and free city / CORE parking lots.
 Walking distance to over 15 restaurants, 8 major banks, Staples, post office, Hagen, public library, numerous coffee shops, fast food and other retail locations.
 Located in front of commute rail station.

Map of 18840 SW Boones Ferry Road, Tualatin, OR 97062 (Washington County)



Additional Photos



Robinson Crossing



Robinson Crossing



Robinson Crossing



Robinson Crossing



Robinson Crossing



Robinson Crossing



Robinson Crossing



Robinson Crossing



Robinson Crossing



Robinson Crossing



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Robinson Crossing

SITE near CLARK LUMBER



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US Parcel Data

Three vacant land parcels are available in the intersection of Boones Ferry road and Tualatin Sherwood road.

Parcel R0534087

ACRES .21

Lot size: 9,148

Parcel R0534096

ACRES .30

Lot size: 13,068

Parcel R0534103

ACRES .22

Lot size: 9,583

THREAT DYNAMICS SITE



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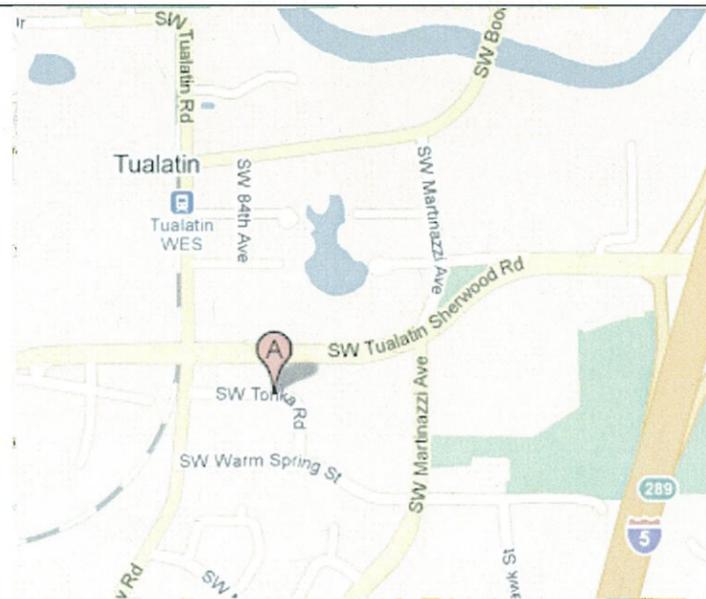
TONKA BUILDING AVAILABLE



8250 SW Tonka, Tualatin, Oregon 97062

- Approx. 2,500 SF Showroom, 2,500 SF Office, 2,000 Warehouse, 32,670 secured, paved lot. Strong rental history.
- \$6,500 per month, NNN, for all. Can lease showroom, office and warehouse separately.
- Signage on Tualatin-Sherwood Hwy. Off-street parking. Minutes from I-5 and Tualatin-Sherwood Hwy. interchange.

Demographics:	1 mile	3 mile	5 mile
2007 Est. Population	11,036	64,656	171,813
2007 Ave. H.H. Income	\$60,123	\$78,610	\$86,821
Daytime Population	9,875	47,807	110,827



KLM
Commercial Real Estate
 Suite 300, 6700 SW 105th Avenue
 Beaverton, Oregon 97008
 Ph: (503) 597-7777 / Fax: (503) 597-2686
klmcommercialre@comcast.net

For more information, call:

C. Marcele Daeges
 (503) 597-7777
marcele@klmcommercial.us

This information has been furnished from sources which we deem reliable, but for which we assume no liability. This is an exclusive listing. The information contained herein is given in confidence with the understanding that all negotiations pertaining to this property be handled through KLM Commercial Real Estate. All measurements are approximate.

