



CITY OF REDMOND

CITY HALL
411 SW 9th STREET
REDMOND, OR 97756
541.923.7710
FAX: 541.548.0706
info@redmondoregon.gov
redmondoregon.gov

CITY COUNCIL

July 12, 2022
Council Chambers • 411 SW 9th Street

COUNCIL MEMBERS

George Endicott
Mayor

Jay Patrick
Council President

Krisanna
Clark-Endicott
Councilor

Clifford Evelyn
Councilor

Ed Fitch
Councilor

Shannon Wedding
Councilor

Cat Zwicker
Councilor

JULY 12, 2022

REGULAR MEETING AGENDA

6:00 PM

- I. CALL TO ORDER / ESTABLISH A QUORUM**
- II. BLESSING - Pastor Mike Ferry, Cornerstone Christian Fellowship**
- III. PLEDGE OF ALLEGIANCE**
- IV. COMMENTS FROM CITIZENS AT THE MEETING**
- V. CONSENT AGENDA**
 - A. Minutes of May 24, 2022, Council Meeting
- VI. PRESENTATIONS**
 - A. Review and Discussion of Draft #2 Updates to City Blasting Regulations. Section 18.8.00 in Public Works Standards and Specifications: Worksession #3.
 - B. Policy Discussion with Hayden Homes - Annexation Agreement for NW Way and Spruce
 - C. Policy Discussion with Redmond Area Parks and Recreation District: Proposed Recreational Center and Associated Annexation Request.
- VII. MAYOR'S COMMENTS**
- VIII. COUNCIL COMMENTS**
- IX. CITY MANAGER COMMENTS**
- X. ADDITIONAL COMMENTS FROM CITIZENS AT THE MEETING**
- XI. ADJOURN**

Regular Council meetings are broadcast live on COTV11 – BendBroadband Channel 11 beginning at 6:00 p.m. on the 2nd and 4th Tuesdays of each month. Rebroadcasts are scheduled for the non-meeting Tuesdays at 6:00 p.m.

The City of Redmond encourages all citizens to participate in its programs and activities. This meeting location is accessible to people with disabilities. Requests for accommodation may include sign language interpreter service, assistive listening devices, materials in an alternate format or any other accommodation. If any accommodations are needed, please contact the ADA Coordinator at 541-504-3036 or access@redmondoregon.gov. Requests should be made as soon as possible, but at least 3 business days prior to the scheduled meeting.

The City of Redmond does not discriminate on the basis of disability status in the admission or access to, or treatment, or employment in, its programs or activities

REGULAR CITY COUNCIL MEETING OF THE CITY OF REDMOND WAS HELD MAY 24, 2022, IN COUNCIL CHAMBERS.

COUNCIL MEMBERS PRESENT: Krisanna Clark-Endicott – George Endicott – Clifford Evelyn – Ed Fitch – Jay Patrick – Cat Zwicker

COUNCIL MEMBERS EXCUSED: Shannon Wedding

STAFF PRESENT: City Manager Keith Witcosky – City Attorney Keith Leitz – Public Works Director Bill Duerden – City Engineer Jessica MacClanahan – Deputy City Manager John Roberts – IT Specialist II Christian Armatas – Chief Financial Officer Jason Neff – Accounting and Financial Reporting Director Brooks Slyter – Communications Director Heather Cassaro – City Recorder Kelly Morse – Police Chief Devin Lewis – Wastewater Division Manager Ryan Kirchner

MEDIA PRESENT: None

Mayor Endicott called the meeting to order at 6:00 p.m. A quorum was established.

BLESSING

Pastor Rick Russell of Mountain View Fellowship led the blessing.

PLEDGE OF ALLEGIANCE

Councilor Fitch led the Pledge of Allegiance.

COMMENTS FROM CITIZENS AT THE MEETING

Redmond resident and small business owner Rebecca Crawley addressed the Council regarding her safety concerns in Redmond namely in the downtown, at Hope Playground, and in other areas of the Dry Canyon. She asked Council to work with law enforcement to understand why the issues she enumerated continue to persist and if it is possible to get bike patrol in these areas so residents can feel safer.

Redmond resident Lena Berry concurred with the issues Ms. Crawley described, but opined more police is not the solution. Rather she encouraged the City to invest in more infrastructure and needed places for kids to go such as the Redmond Area Parks and Recreation District Activity Center. Ms. Berry also commented that a sweep of campers living near the Redmond Athletic Club and St Charles appears to have occurred, but service providers did not see any notices posted. She went on to raise concerns regarding the homelessness community and lack of shelter beds.

TNT Fireworks Regional Manager Jason Trout spoke to the Council regarding drought and the extreme circumstances in Redmond. He proposed solutions to determine when it is safe and unsafe to use and to sell fireworks within the community. TNT Fireworks wants to be part of the solution and is willing to help Redmond residents celebrate with fireworks safely by passing out informational flyers with each sale.

Redmond resident Bill Groesz congratulated the City on the passage of the Public Safety Facility ballot measure. While he did not know if there are plans for the former police building, he noted it can help protect the library that is currently housed in the Jessie Hill School which was built in 1929. The properties fit in nicely with City Hall and the surrounding park. Mr. Groesz opined that the proposed glass library would not fit in well with the neighborhood and added the library board's vote was not unanimous. He explained there was a unanimous was the vote of all 56 Redmond residents who attended the first meeting several years ago with the library board. All 56 residents stated that whatever was done, it should not harm the Jessie Hill School. The school was changed considerably on the inside when the library remodeled, which eliminates its ability to gain historic landmark status in order to save it. With the

old police station right next-door, the library can be connected with a corridor and other ideas could be considered. Mr. Groesz asked the City to let him know what the plans are for the old police building because it is the last resort for those who wish to save the Jessie Hill School.

CONSENT AGENDA

- A. Minutes of December 7, 2021, Council Meeting**
- B. Resolution #2022-11 - A resolution of the City of Redmond declaring certain City property to be surplus. (Three City vehicles and a supply of pipe)**

Councilor Fitch moved, seconded by Councilor Clark-Endicott, to approve the Consent Agenda as presented, motion passed. (Clark-Endicott-yes, Endicott-yes, Evelyn-yes, Fitch-yes, Patrick-yes, Wedding-absent, Zwicker-yes)

PROCLAMATIONS

- A. National Foster Care Month**

Councilor Zwicker moved, seconded by Councilor Clark-Endicott, to approve the Proclamation designating May 2022 as National Foster Care Month, motion passed. (Clark-Endicott-yes, Endicott-yes, Evelyn-yes, Fitch-yes, Patrick-yes, Wedding-absent, Zwicker-yes)

Mayor Endicott read the Proclamation.

Mayor Endicott shared that a very good friend of his, a former Oregon mayor, was in the foster care program and is known as being one of the best mayors in the history of the state. He came out of the foster care program as a shining star.

Every Child Central Oregon Executive Director Melissa Williams and Oregon Department of Human Services' Emily Kitesh thanked the Council for recognizing May as Foster Care Month in Redmond. It is an important time for the community to come together to recognize and honor local resource families and learn more about foster care in the community.

PRESENTATIONS

- A. Preview and Coordination Efforts for the 2022 Fire Season: Part II**

Deschutes County Emergency Services Manager Sergeant Nathan Garibay provided a presentation on preparation for the upcoming fire season. He opined the most important thing to do in terms of preparation is to develop relationships and partnerships because emergency responses often require involvement from multiple federal, state, and local agencies. Sergeant Garibay reviewed the current drought situation in Oregon noting that as of May 10, 2022, a significant portion of Central and South-Central Oregon is in exceptional drought. The drought monitor from about a year ago showed the drought situation has worsened for much of Central Oregon. Sergeant Garibay noted that despite a snow water equivalent percentage of normal, and a late snow season with cooler spring, the snowpack will not offset the impacts from drought. Sergeant Garibay highlighted the 30-day forecast from the National Weather Service Climate Center and the seasonal outlook for the area for July, August, and September which is the peak of the "fire season".

The significant wildland fire potential outlook for May, June, July, and August was pretty high for this time of year in the desert Southwest and Southern Plains. As the season progresses, additional risk or chance of significant wildland fire is seen in Northern California, the Pacific Northwest, and Northern Rockies. It was of note that an above-average chance has been forecasted in Central and South-Central Oregon. In addition, he spoke to the passage of Senate Bill 762 which allocated \$220 million this biennium for additional resources to support the protection of Oregon communities from wildfire.

Sergeant Garibay reviewed some of the activities Emergency Services has been working in collaboration with a number of agencies for 2022 and described how the community can prevent damage to property and mitigate the spread of fire. He addressed questions throughout his presentation.

Mayor Endicott revisited the previous meeting's discussion on fireworks. He recalled that Council decided to allow safe and sane fireworks and will not allow fireworks that are illegal in Oregon. He emphasized the police department and fire department are going to enforce rules and will not issue warnings. If people are caught with illegal fireworks, they will receive citations.

Mr. Witcosky confirmed the City is working on a public outreach campaign with Redmond Fire and Rescue regarding the safe use of fireworks. The target is mid-June to have all of the public service announcements completed.

Councilor Fitch reiterated his written comments in which he expressed his belief that fireworks should be banned in the Canyon and on airport property, particularly the old Juniper Golf Course. He recalled a fire in 1981 that started near the Negus station. With the Dry Canyon and Juniper Golf Course being difficult to access, if there was a fire with high temperatures and wind, it could be a significant problem. While he supports the use of fireworks to celebrate the Fourth of July, the risks outweigh any reward. He added city parks should perhaps also be restricted to allow no fireworks.

City Attorney Leitz confirmed that any changes to the fireworks rules would require an ordinance but that an emergency ordinance could be done at one meeting or two meetings if the decision were not unanimous.

Councilor Clark-Endicott opined an ordinance was not need if there has been only one incident in the last 40 years. What is most important is information, education, and ensuring the police department is patrolling.

Councilor Patrick disagreed with limiting what people can do on the Fourth of July. He noted the last time the Fire Marshal spoke to the Council it was confirmed that most of the small number of fireworks-related fires are caused by not putting the expired fireworks in a bucket of water. Councilor Patrick concurred that education is key. Mayor Endicott noted there was a total of five citations last year.

Councilor Evelyn concurred with both opinions but is concerned about the Dry Canyon and Airport area opining safety is most important.

Councilor Zwicker stated there is nowhere in the Dry Canyon where fireworks would be appropriate, other than some of the greener park spaces. However, a child with a sparkler near the dry brush or a teenager throwing crackling fireworks into the cheatgrass could be a problem. She did not think this would be an ongoing issue, but she emphasized the area is in the third year of a drought.

Mayor Endicott did not like the idea of putting a restriction on people. He could not recall anyone going to the old golf course or to Dry Canyon to light fireworks. They tend to light them at home or watch the fireworks at the fairgrounds. He noted Council did give direction on the matter last week, and what he was hearing was to move forward with what Council had in place.

Councilor Evelyn pointed out despite how things were in the past, there are new people moving to the city who may not understand the complexity and danger of the Dry Canyon.

PUBLIC HEARINGS

A. Ordinance #2022-02 – An ordinance concerning the vacation of a portion of the alley through Block 34, Townsite of Redmond.

City Attorney Keith Leitz stated staff is still attempting to get consent from the last remaining property owner and therefore asked that the public hearing be continued.

Mayor Endicott reopened the public hearing and continued the item to the June 14, 2022.

ACTION ITEMS

A. Amendment #1 and increase to the Anderson Perry & Associates Inc. contract for Redmond Wetlands Complex Final Design and Construction Management Services (WW2001): \$5,911,670

Wastewater Division Manager Ryan Kirchner requested approval of Amendment #1 to the engineering services contract with Anderson Perry & Associates. On March 9, 2021, Council awarded the predesign of the Redmond Wetland Complex project. The predesign brings the project to the 30 percent design phase which is the first phase of the project. The first phase brought the project to a moderate construction cost confidence. If the contract amendment is awarded tonight, it would bring the project into the final design phase, which is critical because it will take the project from a moderate cost confidence to a high-level, optimal cost confidence. This ultimately reduces the uncertainty of the overall cost for the project. Next step will be to submit a land use application to Deschutes County.

Another critical portion of the project is land use application which will be submitted to Deschutes County if tonight Council approves to move forward with final design with around a 180-day turnaround time frame. If Council provides Staff with direction to proceed with the bid award, Staff will go out for competent contractors and then return to Council again with the selected contractor which will give Council another opportunity to provide Staff with direction on how to proceed. Once the City is provided a bid by the contractor, that will be the highest-level construction cost confidence.

Councilor Clark-Endicott moved, seconded by Councilor Patrick, to authorize the City Manager to amend the contract with Anderson Perry & Associates Inc. in the amount of \$5,911,670 to provide engineering services for the final design and construction management for the Redmond Wetlands Complex project. Motion passed. (Clark-Endicott-yes, Endicott-yes, Evelyn-yes, Fitch-yes, Patrick-yes, Wedding-absent, Zwicker-yes)

MAYOR'S COMMENTS

Mayor Endicott explained that the Council called up a hearing on the Cottages on Helmholtz decision. The Council intends for its decision to be made de novo, so there will be a full hearing on the project. Mayor Endicott reported on an open house ceremony at BASX.

COUNCIL COMMENTS

A. Councilor Fitch's Written Comments

This item was discussed at the conclusion of presentation by Sergeant Garibay.

Councilor Clark-Endicott reported on the National League of Cities' Risk Information Sharing Consortium (RISC) conference she recently attended as a board member for CityCounty Insurance Services.

Councilor Evelyn reported that Arome is now open in downtown. He found it to be a beautiful shop and encouraged people to shop there and spend their money locally. He added many other businesses are opening up as well. Forever Sunshine has expanded and now has the Shalom Coffee Shop.

Councilor Fitch shared that over time he has learned that when ideology trumps common sense, bad decisions tend to follow.

DRAFT

Councilor Patrick announced that he is running for Mayor. He invited anyone with questions or suggestions on city operations to contact him. He hopes his years on Council have shown how much he cares for the city and wants to see it succeed. He asked everyone to keep the Uvalde, Texas, grade school, all of the families, and the community in their thoughts and prayers.

Councilor Zwicker echoed Councilor Patrick with heartfelt prayers and concerns. She thanked Pastor Russell and Rogue Retreat for the opportunity to participate in their poverty simulation this last week. It gave her a whole new insight and level of understanding as to how simple it is, especially in today's economy, to be homelessness when something goes awry.

CITY MANAGER COMMENTS

City Manager Keith Witcosky reported Local Paws opened on 4th Street and Evergreen Avenue. He shared that Transportation Division employees Preston Romanik and Hank West bravely responded to a fire while working in the vicinity of 16th Street and Newberry Avenue. Seeing smoke, they drove towards the location and saw a panic-stricken mother with her two small children. Mr. Romanik and Mr. West ran to the backyard where a storage shed was on fire. They grabbed garden hoses and put the fire out before it was fully engulfed, thus saving the shed from burning to the ground. The fire department arrived shortly thereafter and took care of the cleanup. The ODOT grant was submitted per the discussion last week for \$110 million to help go toward some major transportation improvements. Mr. Witcosky shared information regarding upcoming Council meetings.

ADDITIONAL COMMENTS FROM CITIZENS AT THE MEETING

There were no additional comments from citizens at the meeting.

There being no further business, the meeting was adjourned at 7:18 p.m.

Prepared by ABC Transcription Service and reviewed by Kelly Morse, City Recorder

APPROVED by the City Council and SIGNED by the Mayor this 12th day of July 2022.

George Endicott, Mayor

ATTEST:

Kelly Morse, City Recorder



CITY OF REDMOND

CITY HALL
411 SW 9th STREET
REDMOND, OR 97756
541.923.7710
FAX: 541.548.0706
info@redmondoregon.gov
redmondoregon.gov

STAFF REPORT

DATE: July 12, 2022
TO: Redmond City Council
THROUGH: Keith Witcosky, City Manager
John Roberts, Deputy City Manager
FROM: Jessica MacClanahan, City Engineer
SUBJECT: Review and Discussion of Draft #2 Updates to City Blasting Regulations. Section 18.8.00 in Public Works Standards and Specifications: Worksession #3.

Addresses Council Goal:

6.C. Invest in the use of public participation and community engagement in public policy decisions.
7. Comprehensive Planning - Enhance the quality of life through the adoption of programs, policies, and standards that manage the growth while maintaining Redmond's small-town feel.

Report in Brief:

This item requests City Council review changes to the City's Blasting Standards (PWSS) and receive public input.

Background:

Recent citizen concerns about blasting in residential neighborhoods highlighted the need for the City to develop more detailed blasting standards and review procedures. At Council's direction, staff created a Draft #1 of proposed blasting specification updates and solicited community input on the proposed changes. On June 7, Council received testimony from the community regarding Draft #1.

On June 21, Council hosted a panel discussion which included neighbors, subject matter experts, and the development community to further discuss the proposed changes. At the conclusion of the work session, Council recommended staff pursue the following:

- Develop a Draft #2 to incorporate key elements identified at the work session, in particular:
 1. More closely align City Standards with ODOT and Redmond Fire and Rescue.
 2. Add depth to qualifications and quality control elements.
 3. Develop a standard template for door hangers, surveys, and related outreach/FAQ items.
 4. Align notification and inspection distances relative to physics and science of blasting.
 5. More clearly articulate other quality control measures.
- Seek subject matter expertise on areas related to the physics and science of blasting (staff secured the services of Bob Cummings) to assist with Draft #2.
- Distribute Draft #2 the week of June 27, 2022.
- Repeat process of inviting input, which would be distributed to Council on July 7 for the July 12, 2022 meeting
- Set the expectation that Council may adopt updated blasting standards at the July 12, 2022 meeting (Standards would be adopted via a Resolution).

Following is a second draft of changes to Engineering standards and processes based on feedback gathered at the two Council meetings in June. These are intended to strengthen and replace the City's existing regulations and more closely align with the recently updated and implemented Fire Marshal blasting permit process.

The quality control measures contained herein shall be used when evaluating requests to blast within City limits. Blast requests will be subject to these provisions and procedures.

This document is organized as follows:

- Methodology for proposed standards
- Proposed new standards
- Appendices:
 - A: Previous City Blasting Standards (replaced in their entirety)
 - B: ODOT Blasting Standards
 - C: Redmond Fire Blasting Permit Requirements
 - D: Example, City Standard/Template Door Hanger
 - E: Example, City Standard/Template Pre-Blast Survey Form
 - F: Example, City Standard/Template Notification Letter
 - G: Public Comments on Draft #2

Discussion:

As part of the public participation, staff sought comment by publicly distributing an email on June 30, 2022, which included the draft changes. The expectation is that on July 12, the Council will determine what changes should be made to "Draft 2"; and at that time, there will also be further discussion with staff about next steps in the process and the path to approving any changes.

In response to the opportunity to comment on Draft #2, three sets of written remarks were received. These are attached as Exhibit G to this report.

The draft changes being presented to the Council attempt to incorporate the best way to mitigate the inherent risks of construction. The discussion should continue to parse out the perspectives of all parties to determine:

- what is tolerable
- what is practical
- what is reasonable

The draft changes to PWSS Section 18.8.00 and all associated documents are attached as Exhibits A through G to this report.

The proposed order of events for the worksession is:

- Staff presents purpose and context of the topic.
- Staff presents key elements of Draft #2.
- Initial Questions from Council.
- Public testimony (anticipated to be 3 minutes per person).
- Staff follow-up/Questions from City Council.
- Directions on next steps from City Council.

Fiscal Impact:

N/A

Alternative Courses of Action:

Courses of action include:

1. Adopt blasting standards.
2. Direct staff to make additional changes to blasting standards, and adopt.
3. Do not adopt the blasting standards.
4. Take no action and request more information for review at a future worksession.

Recommendation / Suggested Motion:

To be determined.



CITY OF REDMOND
Engineering Department

243 E. Antler Ave
Redmond, OR 97756-0100

(541) 504-2002
Fax: (541) 923-4035
info@ci.redmond.or.us
www.ci.redmond.or.us

MEMO

TO: Keith Witcosky, City Manager
John Roberts, Deputy City Manager
FROM: Jessica MacClanahan, City Engineer
DATE: June 30, 2022
SUBJECT: Working Draft #2 - Updated Requirements for Blasting

BACKGROUND

Recent citizen concerns about blasting in residential neighborhoods highlighted the need for the City to develop more detailed blasting standards and review procedures. At Council's direction, staff created a Draft #1 of proposed blasting specification updates and solicited community input on the proposed changes. On June 7, Council received testimony from the community regarding Draft #1. On June 21, Council hosted a panel discussion which included neighbors, subject matter experts, and the development community to further discuss the proposed changes.

At the conclusion of the work session, Council recommended staff pursue the following:

- Develop a Draft #2 to incorporate key elements identified by Council at the work session, in particular:
 - More closely align City Standards with ODOT and Redmond Fire
 - Add depth to qualifications and quality control elements
 - Develop a standard template for door hangers, surveys, and related outreach/FAQ items
 - Align notification and inspection distances relative to physics and science of blasting
 - More clearly articulate other quality control measures
- Seek subject matter expertise on areas related to the physics and science of blasting.
- Distribute Draft #2 the week of June 27, 2022
- Repeat process of inviting input which would be distributed to City Council on July 7 for the July 12, 2022 Council meeting
- Set the expectation that City Council may approve updated blasting standards at the July 12, 2022 Council meeting.

Following is a second draft of changes to Engineering standards and processes based on feedback gathered at the two Council Meetings in June. These are intended to

strengthen and replace the City's existing regulations and more closely align with the recently updated and implemented Fire Marshal blasting permit process.

The quality control measures contained herein shall be used when evaluating requests to blast within the Redmond city limits. Blast requests will be subject to these provisions and procedures.

This document is organized as follows:

- Methodology for Proposed Standards
- Proposed new standards
- Appendices:
 - A: Previous City Blasting Standards (replaced in their entirety)
 - B: ODOT Blasting Standards
 - C: Redmond Fire Blasting Permit Requirements
 - D: Example, City Standard/Template Door Hanger
 - E: Example, City Standard/Template Pre-Blast Survey Form
 - F: Example, City Standard/Template Notification Letter

METHODOLOGY

The Oregon Department of Transportation (ODOT) has comprehensive blasting standards (Section 0335 of the Oregon Standard Specifications for Construction) that can be incorporated into the City's Public Works Standards and Specifications. The City currently incorporates other sections of ODOT's standards such as asphalt pavement quality by reference and modifies them with Redmond specific provisions and conditions as appropriate.

A copy of Section 00335 is attached as Appendix B.

The mechanism for making these changes is done through what are called Special Provisions to the Public Works Standards and Specifications.

RECOMMENDATIONS

Standards and Specifications: Propose to add the following section:

102 BLASTING

102.1.00 DESCRIPTION

This work consists of excavating in rock using controlled blasting methods to facilitate trench excavation for utilities and dry wells or to remove rock for construction of road grades or structures. This Section shall be used in tandem with the Redmond Fire and Rescue District Explosive Blasting Permit issued by the Redmond Fire Marshal and other Fire Marshal requirements. In the event of conflicts between the Fire Marshal Blasting Permit and these Standard Specifications, the more stringent requirement applies unless approved by the City and Fire Marshal.

In addition to what is set out by federal, state or local laws, as a matter of quality assurance elements associated with these Standards, the following measures will apply:

Process Step/Task

Review of Personnel Qualifications
Blasting Plan Review
Inspection/Survey Requirements
Door Hangers
Informational Flier/FAQ

Quality Assurance

Redmond Fire
Redmond Fire
City Standard/Template
City Standard/Template
City Standard/Template

Minimum general standards for blasting shall meet the requirements of Section 00335 Blasting Methods and Protection of Excavation Backslopes of the Oregon Standard Specifications for Construction, current edition, with the following modifications and additions:

ADD the following Section: 00335.02 Qualifications of Blasting Personnel

- Provide the services of an independent, qualified Blasting Consultant, experienced in controlled blasting techniques for similar works, to prepare blasting plans, to guide the installation of blasting seismographs, and to coordinate and/or perform the interpretation of recorded results. The Blasting Consultant shall have at least 10 years of experience and demonstrate satisfactory experience on 5 similar projects. The Blasting Consultant shall be an approved Blasting Consultant for ODOT projects. These projects must include blasting within 100 feet of occupied dwellings. The Blasting Consultant shall not be an employee of the Contractor, explosives manufacturer, or explosives distributor. Submit the Blasting Consultant name and qualifications to the Fire Marshal as part of the blasting permit. All blasting plans, including revisions, shall be approved, in writing, by the Blasting Consultant. The City may waive the requirement for a Blasting Consultant on a particular project if, in the City's sole discretion, the scope and complexity of the project do not warrant the participation of a Blasting Consultant. Such a waiver will not preclude the City from requiring the subsequent engagement of a Blasting Consultant if, in the City's sole discretion, such participation would be advisable in the event of blasting-related problems or issues.
- The Contractor shall use experienced, competent Blasting Superintendents (Blasters-In-Charge) for all blasting operations. All blasting operations shall be under the direct supervision of a Blaster-In-Charge, who shall be present at the blast site whenever explosives are being handled. All Blasters-in-Charge shall have at least 10 years of experience and be able to demonstrate satisfactory experience on at least 5 similar projects, including blasting within 100 feet of occupied dwellings or other structures if close-in blasting is part of the Project. All Blasters-in-Charge shall be properly qualified and licensed in accordance with applicable federal, state, and local regulations. The Contractor shall not allow prohibited persons as defined by the BATF (27 CFR Part 555) to transport, handle, or use explosive materials.

- The Contractor shall use experienced and qualified personnel for conducting pre-blast condition surveys. Personnel conducting pre-blast surveys shall have at least 5 years of experience in conducting pre-blast condition surveys of structures and be able to demonstrate satisfactory experience on at least 3 similar projects. Personnel conducting pre-blast surveys shall be the employees of a firm regularly engaged in conducting such surveys and shall not be an employee of the Contractor or any explosives manufacturer or distributor.

ADD the following Section: 00335.03 Blasting Influence Zones

For purposes of this regulation, separate Blasting Influence Zones are defined for pre-blasting notifications, blast seismograph monitoring, and pre-blast surveys, as given in Table 1 below. All distances are straight-line distances from the closest blast hole in any given pattern.

TABLE 1 – BLASTING INFLUENCE ZONES

Charge per Delay ⁽¹⁾ (lb)	Notification Distance ⁽²⁾ , feet	Monitoring Distance ⁽³⁾ , ft	Pre-Blast Surveys ⁽⁴⁾ , ft
<7	200	175	150
7-17	300	250	200
18-49	500	425	350
50-100	700	600	500
100-250	1,100	950	800
>250	1,500	1,200	1,000

Notes

- (1) Charge per delay means the maximum total charge occurring within:
 - a. Any 8-millisecond delay interval when using nonelectric or electric methods of initiation
 - b. Any 3-millisecond delay interval when using electronic (digital/programmable) methods of initiation
- (2) Notify utility operators and the owners and occupants of all habitable structures within this radius or greater.
- (3) Where the closest structure or utility is further than the distance shown, place one (1) blasting seismograph at the closest structure or utility. When the closest structure or utility is closer than the radius shown, place one (1) blasting seismograph at the closest structure or utility and at least one (1) additional seismograph at a point as close to the radius given as is practicable. Where the City, in its sole discretion, identifies special circumstances or complications, the City may require additional seismographs to be used. For Test Blasting, an array of seismographs approved by the City shall be used at varying distances.
- (4) At a minimum, conduct pre-blast surveys at all habitable dwellings, outbuildings, flatwork and other above-ground structures pursuant to the requirements of this Regulation, that occur within this radius.

**DELETE Section 00335.40(c) in its entirety and REPLACE with the following:
Section 00335.40(c) Pre-blast/Post-blast Inspections**

Pre-blast inspections are required for existing residences and other structures or facilities within the blasting influence zone, as defined in Table 1 per 00335.03. Inspections shall be completed by qualified personnel as stated in 00335.02 using a City-approved inspection form. Notification of pre-blast inspections shall be made not less than 14 days prior to the first blast, and shall include information about the inspection process and contact information for the contractor and third-party inspection firm. Notification shall be made in writing transmitted to the property owner, as well as to the occupant if the occupant is not the owner. If there is no response, a second attempt shall be made, also in writing. A log of notifications attempted, along with survey acceptance or refusal, shall be maintained that identifies the address, owner, occupant, and date and manner of contact. The log shall be available for inspection by any duly authorized representative of the City or Redmond Fire within 72 hours of the request.

Inspections shall include documentation of interior subgrade and above grade accessible walls, ceilings, floors, roof, and visible exterior as viewed from grade level. It will detail by videotape or photographs, notes and sketches the existing condition of structures or facilities. Existing crack damage, other structural problems or defects occurring inside and outside the structure or facility shall be thoroughly documented. Sufficient information and documentation shall be included that the location and scale of each recorded defect can be ascertained.

As construction progresses, re-inspect, as often as necessary and upon receipt of any complaints, to verify that blasting methods are not causing any new damage. In the event any property owner denies access for the survey of structures, signed statement shall be sought from the property owner stating they decline the pre-blast inspection of their property. If the property owner, or occupant if different from the property owner, refuses to allow a pre-blast survey, the log shall show the date, time, manner, and reasons (if known) for the refusal. If the property owner refuses to sign the statement declining a pre-blast survey, the log shall show the date, time, and manner of the refusal.

The Contractor shall respond to all complaints or allegations of blasting damage within 72 hours of the first such notification or allegation and shall arrange to inspect the damage promptly thereafter. Post-blast inspections shall be promptly performed on property where written or verbal damage complaints were made by property owners. Post-blast surveys shall be performed by qualified third parties and documented with measurements, notation and photos or videos of the damage that will allow comparison with the pre-blast documentation, if any. Contractor shall promptly repair or replace any damaged structures or facilities to a condition equal to or better than that found in the pre-blast survey.

The pre-blast survey notation and imagery files shall be maintained in a secure manner by the third-party pre-blast survey firm. Copies of the inspection reports and any photos or videos taken shall be made available to the City, Redmond Fire, and/or property owner within 72 hours upon request.

The City will be indemnified and held harmless from any liability for damage or injury caused by the Contractor's blasting operations.

Contractor shall contact utilities that may be impacted by blasting to determine if closed circuit television (CCTV) video inspection of sanitary and storm sewer manholes, inlets and lines is needed before and/or after blasting. Utilities damaged from blasting activities shall be repaired and/or restored at the expense of the Contractor.

**DELETE Section 00335.40(d) in its entirety and REPLACE with the following:
00335.40(d) Blasting Plan and Fire Marshal Permit**

Blasting permits shall be obtained a minimum of 14 days prior to blasting from the Redmond Fire and Rescue District Fire Marshal, which can be found at: redmondfireandrescue.org. Blasting plans shall be included in the permit application as outlined below.

Each plan shall cover individual major Rock cut areas or Rock production from a material source. Similar minor Rock cut areas of less than 50 cubic yards, as well as utility and culvert trenches, may be covered as a group in one generalized blasting plan.

The blasting plans will be reviewed by the Fire Marshall and/or City staff for conformance with the Specifications and any concerns will be discussed with the Contractor. Submit any proposed changes to the blasting plans in writing to the Fire Marshal for review before implementation. Submittal of blasting plans is for quality assurance and record-keeping purposes. Review of blasting plans by the City or Fire Marshal does not relieve the Contractor of full responsibility for the accuracy and adequacy of the plans and the resulting safety when implemented in the field. For blasting within 100 feet of a structure, the City retains the right, at its discretion, to utilize the services of a third party blasting consultant to verify the safety and appropriateness of the Plan, and to require additional detailed blasting plans and information specific to each individual shot.

Each blasting plan shall contain the full details of the drilling and blasting patterns, vibration, flyrock, and noise reduction methods, blast area security measures and traffic control that the Contractor proposes to use, and the following information:

- Station limits of proposed shot.
- Removal of overburden.
- Plan and Cross Section diagrams of proposed drill pattern for controlled and production blast holes including buffer rows, free face, burden, blast hole spacing, blast hole diameters, blast hole angles, lift height and sub drill depth. Accurately draw to scale and show each cut area to be blasted.
- Loading diagram showing the type, amount and specific gravity of explosives, primers, and initiators, and location depth, and type of stemming.
- Initiation sequence of production and controlled blast holes including delay times and delay system.
- Manufacturer's product data sheets for all explosives, primers and initiators to be used in the Work.

- Map showing where blast will occur, distance to structures, notification perimeter and structures that will be offered pre-blast inspections. Distance from blast shall be the distance from the structure to the closest drillhole where blasting materials will be placed. Perimeter for notification shall be measured from the full extent of the blasting.
- Proposed seismograph locations.

Blast plan shall be modified as necessary once drilling is complete to account for subsurface materials that may have an effect on blasting results. Submit blasting plan changes and reasons for the changes to the Fire Marshal.

Blasting plan shall clearly identify measures taken to avoid damage to structures within 100 feet.

**DELETE Section 00335.40(e) in its entirety and REPLACE with the following:
00335.40(e) Blasting Notification**

Notify all owners and occupants of buildings, Structures, and utilities that are within the Influence Zone per Table 1 in 00335.03. Pre-blast notification is required to all properties within the blasting influence zone as specified above unless geologic conditions (as determined by drilling blast holes) warrant a larger radius.

Pre-blast notification shall occur on the following timeline:

- No less than 14 calendar days prior to first scheduled detonation, notification shall be mailed to property owner (and to the structure address if different) and door hanger placed at each address.
- 48 hours prior to first scheduled detonation, notification shall be by direct contact or door hanger.
- Day of blast notification shall be by direct contact or door hanger.

All notifications shall contain proposed blasting schedule, location where blasting will occur, and contact information for the developer, general contractor and blasting contractor. Contractors shall use the City standard door hanger template and notification letter as part of the notification requirements (see Appendix for details).

ADD the following to Section 00335.40(f) Blasting Test Sections:

The need for blasting test sections shall be evaluated in the Blasting Plan and based on complexity of blast and/or distance to structures or facilities. The City may, at its sole discretion, require test blasts for any project.

ADD the following: Section 00335.46 Vibration Control and Monitoring

Control ground vibrations by using properly designed blast hole patterns, delay sequences, stemming, and allowable charge weights per delay. Base the allowable charge weights per delay on ground vibration levels which will not cause damage. Establish allowable charge weights per delay by carrying out test blasts and measuring ground vibration levels as recommended by the Blasting Consultant. When

recommended, perform test blasts according to 00335.40(f), modified as required to limit ground vibrations to a level which will not cause damage.

Monitor each blast with an approved seismograph located, as approved, between the blast area and the closest Structure, facility, or utility subject to blast damage, in accordance with the distances given in Table 1 in 00335.03. The seismograph used shall be capable of recording particle velocity for three mutually perpendicular components of vibration in the range generally found with controlled and production blasting.

Operate the seismographs according to the recommended guidelines of the International Society of Explosives Engineering Seismograph Section, titled ISEE Field Practice Guidelines for Blasting Seismographs. The applicable guidelines are those contained in the current publication on the date the Project is advertised.

Do not allow peak particle velocity of each component to exceed the safe limits of the nearest Structure subject to vibration damage as follows:

Structure	Maximum Peak Particle Velocity at the Structure (Inches/Second)
Standard Construction Timber Frame, Brick, and Concrete Buildings	2.0
Reinforced Concrete Structures	4.0
Steel Structures	4.0
Buried Utilities.....	2.0
Wells and Aquifers.....	2.0
Green Concrete (Less than 7 Days).....	1.0

If the vibration levels exceed the limits, immediately report the measurements to the Engineer.

SPECIAL PROVISIONS TO THE 2010 PUBLIC WORKS STANDARDS AND SPECIFICATIONS

Development Provisions Section 18.8: This section will be deleted and replaced with the new Section 102:

18.8.00 BLASTING

~~Where rock material is encountered which requires systematic drilling and blasting for removal, the Contractor shall furnish all necessary approved blasting certifications and licenses, tools, equipment, and materials required to perform the work. The Contractor shall comply with all Federal, State, and local laws that apply to the storage, handling, placement, and firing of all explosives.~~

~~The Contractor shall furnish additional insurance coverage as required by the City or any agency in addition to the basic coverage required by these specifications.~~

~~No blasting shall be permitted adjacent to any portion of exposed work or structures unless proper precautions are taken to assure that damage to adjacent property will not occur. All blasting shall be covered with blasting mats or other approved type of protective cover to prevent the scattering of rock fragments or other material to outside the excavation area and limits of the construction. The Contractor shall be responsible for any and all damage or injury resulting from the use or handling of explosives, and accidental or premature explosion that may occur in connection with Contractors' use of explosives.~~

~~Proper notification and ample warning shall be provided to all persons within the danger zone. Contractor's personnel shall be stationed at strategic locations a safe distance from the blasting zone to prevent persons and vehicles from entering the blasting area. Electrical blasting caps shall not be connected to the electrical source until the area is cleared of all personnel and the proper warning signals have been sounded.~~

~~Where blasting is proposed in the proximity of private property or residences that may be affected by vibrations, shaking, or seismic shocks, the Contractor shall be responsible to perform pre-blast surveys of all structures to determine the condition of walls, ceilings, floor slabs, or other surfaces in which cracking or movement may be induced by the blasting operations. All existing conditions shall be thoroughly documented and recorded by means of photographs and/or video recordings to establish pre-blast conditions and existing damage. Following the blasting operations, the Contractor shall perform a follow up survey of those affected properties to determine if any shifting, cracking, settlement, or other damage was induced by the blasting. Contractor shall promptly repair or replace any damaged structures to a condition equal to or better than that found in the pre-blast survey. The City will be indemnified and held harmless from any liability for damage or injury caused by the Contractor's blasting operations.~~

~~Public utilities (utilities) located within the blast area must be identified and notified 72 hours prior to blasting. Contractor shall perform pre-blast survey and inspections of~~

~~identified utilities including closed circuit television (CCTV) video inspection of sanitary and storm sewer lines. Utilities damaged from blasting activities shall be repaired and/or restored at the expense of the Contractor.~~

Oregon Standard Specifications for Construction

2021

**OREGON DEPARTMENT OF TRANSPORTATION
4040 FAIRVIEW INDUSTRIAL DRIVE SE
SALEM, OREGON 97302-1142**

Section 00335 - Blasting Methods and Protection of Excavation Backslopes

00335.00 Scope	276
00335.01 Definitions	276
00335.10 Materials	276
00335.40 Blasting Methods	276
00335.41 Controlled Blasting Methods	279
00335.42 Production Blasting	280
00335.43 Scaling	280
00335.80 Measurement	281
00335.90 Payment	281

Section 00340 - Watering

00340.00 Scope	282
00340.01 Definitions	282
00340.02 Exclusions	282
00340.10 Water	282
00340.11 Water Mixtures	282
00340.20 Watering Equipment	282
00340.40 Watering	283
00340.60 Avoidance of Detrimental Operations	283
00340.80 Measurement	283
00340.90 Payment	283
00340.91 Quantity Variations	284

Section 00350 - Geosynthetic Installation

00350.00 Scope	285
00350.01 Definitions	285
00350.10 Materials	286
00350.20 Field Seam Stitching Equipment	286
00350.21 Asphalt Distributor	286
00350.40 General	286
00350.41 Geotextile Installation Requirements	287
00350.42 Subgrade Reinforcement Geogrid Installation Requirements	290
00350.80 Measurement	291
00350.90 Payment	291

Section 00370 - Finishing Roadbeds

00370.00 Scope	292
00370.40 Within Roadbed Cross Section	292
00370.41 Outside Roadbed Cross Section	293
00370.60 Maintenance	293
00370.80 Measurement	293
00370.90 Payment	293

Section 00390 - Riprap Protection

00390.00 Scope	294
00390.01 Definitions	294
00390.10 Riprap Geotextile	294
00390.11 Riprap Requirements	294
00390.12 Grouted Riprap	295
00390.13 Filter Blanket	295
00390.40 Preparation	295
00390.41 Riprap Geotextile	296
00390.42 Filter Blanket Construction	296
00390.43 Riprap Backing	296
00390.44 Riprap	296

Section 00335 - Blasting Methods and Protection of Excavation Backslopes

Description

00335.00 Scope - This Work consists of excavating in Rock using controlled blasting methods to achieve smooth, uniform and unfractured backslopes, and produce a free surface or shear plane in the Rock along the specified excavation backslope, and production blasting to facilitate excavation.

00335.01 Definitions:

Buffer Row - In multiple-row blasts in which perimeter control blasting techniques are used, the first row of production holes immediately adjacent to and drilled along a plane parallel to the perimeter control blast line. The buffer row is located between the production holes and the perimeter controlled blast line.

Perimeter Controlled Blasting - The use of explosives and blasting accessories in carefully spaced and aligned drill holes. Perimeter controlled blasting techniques include presplitting and trim (cushion) blasting.

Presplitting - A perimeter control blasting method in which the perimeter row of blast holes are drilled along the plane of the specified final excavation backslope and that utilizes reduced drill hole spacing and reduced diameter explosives decoupled from the drill hole wall, and whose initiation precedes the initiation of the adjacent production holes by a minimum of 25 milliseconds.

Production Blasting - Fragmentation blasting in the main excavation area, usually using more widely spaced drill holes than controlled blast holes

Trim (Cushion) Blasting - A perimeter control blasting method in which the initiation of the perimeter row of blast holes drilled along the plane of the specified final excavation backslope follows the initiation of the adjacent production holes within 25 to 75 milliseconds, if production holes are being employed in the blast.

Materials

00335.10 Materials - Furnish all explosives and blasting caps that are no more than 1 year old. Each blasting cap period shall come from one lot number.

Construction

00335.40 Blasting Methods:

(a) General - Use methods in making excavations that do not shatter or loosen the backslopes and that produce smooth and uniform excavation slopes at the specified Slope angles. These include:

- **Perimeter Controlled Blasting** - Use on the entire length of cut section in Rock or cemented materials that have backslopes of 1V:0.75H or steeper, even if the main excavation can be ripped.
- **Production Blasting** - Blasting in the mass of Rock to be excavated shall be designed to control flyrock, minimize ground vibration and air blast, and result in loosened and fragmented in-place Rock of a size that can be removed, transported, or crushed to produce specified products. Lay out production blast holes in a consistent pattern that does not affect the perimeter control blast holes. Where production blast holes are made adjacent to Highways with specified closure restrictions, the volume of material blasted shall not exceed the

Contractor's ability to remove the blasted material from the adjacent Highway within the specified closure time.

(b) Safety and Flyrock Control - Use techniques that effectively limit and control flyrock. Clear the site of all boulders or other material as directed prior to beginning blasting Work. Following every blast, observe the entire blast area for a minimum of 5 minutes before reentering or commencing Work in the area.

Be responsible for the storage, transportation, and handling of explosives, their use, and the results of all blasting operations according to 00170.94.

Cover all blast areas that are within 200 feet of residences, facilities or above-ground utilities using appropriate blast containment mats or an approved equivalent method.

Discontinue blasting operations, as directed, if it is apparent that the methods employed are not producing acceptable results or the safety of the public, the Contractor's employees or adjacent property is being jeopardized.

(c) Preblast Survey - Offer, in writing, to perform a preblast survey for owners and occupants of all buildings, Structures, and utilities within the distance of the blast specified in 00335.40(e). If the offer is accepted, use an Agency-approved survey form, signed and completed by an independent third party, and submitted to the Engineer and Contractor at least 72 hours before blasting begins. Deliver a copy of the survey form and copies of any photos taken to the owners and occupants.

(d) Blasting Plan - Provide a separate blasting plan for each cut that requires blasting, prepared by a person qualified and experienced in blasting Work. Each plan shall cover individual major Rock cut areas or Rock production from a material source. Similar minor Rock cut areas of less than 50 cubic yards, as well as utility and culvert trenches, may be covered as a group in one generalized blasting plan.

Submit the blasting plans for the Engineer's review at least 21 Calendar Days before beginning drilling for excavations or when any perimeter controlled blasting is required.

The blasting plans will be reviewed for conformance with the Specifications and any concerns will be discussed with the Contractor. Submit any proposed changes to the blasting plans in writing to the Engineer for review before implementation. Submittal of blasting plans is for quality control and record-keeping purposes.

Review of blasting plans by the Engineer does not relieve the Contractor of full responsibility for the accuracy and adequacy of the plans and the resulting safety when implemented in the field.

Each blasting plan shall contain the full details of the drilling and blasting patterns, vibration, flyrock, and noise reduction methods, blast area security measures and traffic control that the Contractor proposes to use, and the following information:

- Station limits of proposed shot.
- Removal of overburden.
- Plan and Cross Section diagrams of proposed drill pattern for controlled and production blast holes including buffer rows, free face, burden, blast hole spacing, blast hole diameters, blast hole angles, lift height and sub drill depth. Accurately draw to scale and show each cut area to be blasted.
- Loading diagram showing the type, amount and specific gravity of explosives, primers, and initiators, and location depth, and type of stemming.

- Initiation sequence of production and controlled blast holes including delay times and delay system.
- Manufacturer's product data sheets for all explosives, primers and initiators to be used in the Work.

(e) Blasting Notification - Notify all owners and occupants of buildings, Structures, and utilities that are within the following distances of the blasting areas:

- 300 feet for shots using less than 50 pounds of explosives per time delay of 15 milliseconds.
- 600 feet for shots using between 50 and 250 pounds of explosives per time delay of 15 milliseconds.
- 1,250 feet for shots using more than 250 pounds of explosives per time delay of 15 milliseconds.

Provide notification, in writing, once, at least 48 hours before blasting begins, and again on the Day the blasting operations occur.

Do not begin detonation of the blast until the Agency representative is ready to videotape the blast, or until the Engineer is prepared to witness the blast.

(f) Blasting Test Sections - Demonstrate the adequacy of each proposed blasting plan by means of test shots in each cut or excavation before beginning full-scale blasting. Do not proceed with remaining drilling and blasting until acceptable test blast results have been demonstrated to the satisfaction of the Engineer.

In areas where perimeter controlled blasting techniques are being employed, drill and blast short representative test sections not exceeding 100 feet in length. Excavate a section not less than 20 feet wide exposing the full height of the lift for examination. In areas where no perimeter controlled blasting techniques are being employed, determine effectiveness of the test section based on the material placement, cut slope stability, fragmentation and control of ground vibration, air blast and flyrock.

Do not drill ahead of the test blast area, except as provided in 00335.41(a)(6), until the test section has been evaluated. The Contractor may be directed to use test section lengths less than 100 feet.

If the results of the test shots are unacceptable revise the methods, techniques and procedures, at no additional cost to the Agency, so that the results achieved will be acceptable. No further drilling and blasting will be allowed until the revised methods are reviewed according to 00335.40(d) and verified by additional test shots.

If, during the progress of the Work, the methods of drilling and blasting do not produce acceptable results within the tolerances specified, drill, blast and excavate additional test sections until a technique is determined that will produce acceptable results.

(g) Blasting According to Plan - After the Engineer has reviewed the blasting plan and determined that test sections have demonstrated acceptable results, perform all perimeter controlled and production blasting according to the plan that produced acceptable results. Notify the Engineer when any changes in conditions or results are observed. On the Day of each blasting occurrence and before detonation of the blast, the supervisor or blasting specialist in charge shall certify, in writing, that the shots being carried out are consistent with the reviewed blasting plan.

(h) Blasting Report - Submit a blasting report detailing the blast outcome within 48 hours of making each blast. Include in the report the following:

- Drill logs and notes regarding conditions encountered in the drill holes, including a description of encountered subsurface conditions such as open joints, soft or fractured Rock zones, groundwater conditions, hole alignment, and drilling problems.
- Any variations from the submitted Blasting Plan, including any changes to explosives type or amount, loading dimensions, hole spacing, and initiation sequence and delay times.
- All blast monitoring documentation.
- A copy of the color video recording of the blast area(s), with sound, high definition (at least 1080p resolution, 24 fps), in a format commonly used for viewing with a computer or DVD player. The video recording must show an unobstructed view of the blast area, framed to show both above and below the blast area. Begin recording at least 10 seconds before the blast, and continue recording until there is no visible dust.
- A comment section that includes the Contractor's evaluation of the blast performance, any unusual conditions or situations during the blast, and any misfires.
- Details of all damage incurred and details of all neighbors' complaints or comments.

(i) Suspension of Blasting - If damage to existing facilities or adjacent property occurs due to blasting, immediately suspend blasting and report damage to the Engineer. Discontinue blasting operations if the methods of drilling and blasting do not produce acceptable results within the tolerances specified.

Before resuming blasting operations, revise the Blasting Plan and take other appropriate measures as necessary to correct the unacceptable blasting results. Submit the revised Blasting Plan to the Engineer. Do not resume blasting until authorized by the Engineer.

00335.41 Controlled Blasting Methods:

(a) Presplitting:

- (1)** Attach mechanical devices to all drilling Equipment used to drill the presplit holes to determine, within an accuracy of 1 degree, the angle at which the drill steel enters the Rock.
- (2)** Drill presplit holes with a minimum diameter of 2 1/2 inches and a maximum diameter of 3 inches.
- (3)** Start presplit drill holes along the presplit line within 3 inches of the dimensions shown on the blasting plan. Holes located beyond this tolerance will be rejected. Completely fill the rejected holes with stemming material at no additional cost to the Agency. Drill new presplit holes with the proper spacing. Rejected holes will not be measured for payment.
- (4)** Control the drilling operations to ensure that presplit hole alignment does not vary from the plane of the planned slope by more than 9 inches either parallel or normal to the slope. Presplit holes exceeding these limits will not be paid for unless, in the Engineer's opinion, satisfactory slopes are being obtained.
- (5)** The length of presplit holes for any individual lift shall not exceed 30 feet unless the Contractor can demonstrate to the Engineer's satisfaction that hole alignment can be maintained within the above tolerances. Upon satisfactory demonstration, and with written permission of the Engineer, the length of holes may be increased to a maximum of 60 feet. If more than 5 percent of the presplit holes are misaligned in any one lift, reduce the height of the lifts until the 9-inch alignment tolerance is met.

(6) Drill presplit holes a minimum of 30 feet longitudinally beyond the limits of the production holes to be detonated or to the end of the cut. Unless otherwise allowed by the Engineer in writing, remove all overburden, including any loose or decomposed Rock, before drilling the presplitting holes.

(7) When the cut height will require more than one lift, a maximum offset of 18 inches between lifts will be allowed to allow for drill Equipment clearance. Adjust the Slope angle of lower lifts to compensate for drill offsets and any drift that may have occurred in upper lifts.

(8) Use only explosives manufactured specifically made for presplitting in the presplit holes. The maximum diameter of explosives used in presplit holes shall not be greater than half the diameter of the presplit hole. Bulk ammonium nitrate and fuel oil (ANFO) will not be allowed in the presplit holes.

(9) Determine that the presplit hole is free of obstructions for its entire depth before placing charges. Exercise all necessary precautions so the placing of the charges will not cause caving of material from the walls of the holes.

(10) Detonation of explosives in each hole in a presplit shot may be delayed, providing the hole-to-hole delay is no more than 25 milliseconds.

(11) Drill the presplit holes with a minimum spacing of 10 times the presplit hole diameter, and a maximum spacing of 14 times the presplit hole diameter.

(b) Trim (Cushion) Blasting - When the horizontal distance from the new proposed slope face to the existing Rock face is less than 15 feet, the Contractor may trim blast instead of presplitting. The requirements in 00335.41(a) for presplitting also apply to trim blasting, by changing the words "presplit" and "presplitting" to "trim blasting". If trim blasting burdens are less than 6 feet or zones of weakness in the Rock are observed, submit a hole loading diagram that reflects the site conditions.

(c) Buffer Row - Locate the buffer hole line a minimum of 3 feet away from the perimeter control blast line, or 1 foot for every inch of buffer hole diameter, whichever is greater. Space buffer row holes 3 to 5 feet center-to-center. The explosive load in buffer holes shall not exceed 50 percent of the full explosive load that could be placed in a 3-inch production hole. Initiation of the buffer holes shall be on a delayed sequence toward a free face.

00335.42 Production Blasting - Do not drill any row of production blast holes closer than 6 feet to the perimeter controlled blast line. Where necessary to minimize damage to the Rock backslope, a row of buffer holes may be drilled between the perimeter controlled blast line and the production blast holes. Except for the bottom lift, do not extend production holes below the bottom of the controlled blast holes. Do not exceed 6-inch diameter for production holes. Detonate production holes on a delay sequence documented in the blasting plan.

00335.43 Scaling - Remove all loose, hanging, or potentially dangerous Rock on the excavated surface by scaling during the completion of the excavation of each lift or test section. Do not begin drilling the next lift until this Work has been completed, as directed.

Scale the slopes throughout the Contract at the frequency required to remove loose or overhanging material.

Use a suitable standard steel mine scaling rod to hand-scale the slopes. Other methods such as machine scaling, hydraulic splitters or light blasting may be used instead of, or to supplement, hand-scaling, if allowed.

Measurement

00335.80 Measurement - The quantities of perimeter controlled blast holes will be measured on the length basis and will be determined by dividing the cut slope surface area by the perimeter controlled blast hole spacing. The cut slope surface area will be determined by Cross Section measurement from the top of the blasted Rock to the finished ditch bottom elevation.

The quantities shown in the Contract Schedule of Items have been computed from a theoretical plan length using 30-inch hole spacing. The actual quantities will depend on field conditions and results from blasting test sections.

Payment

00335.90 Payment - The accepted quantities of perimeter controlled blast holes will be paid for at the Contract unit price, per foot, for the item "Perimeter Controlled Blast Holes".

Payment will be payment in full for furnishing and placing all Materials, and for furnishing all Equipment, labor, and Incidentals necessary to complete the Work as specified.

No separate or additional payment will be made for blasting, scaling, or loosening materials for excavation.

When the Contract Schedule of Items does not indicate payment for Work performed under this Section, no separate or additional payment will be made. Payment will be included in payment made for the appropriate items under which this Work is required.



Redmond Fire & Rescue

Explosive Blasting Permit Requirements

Redmond Fire & Rescue requires a permit to be issued for any type of explosive blasting conducted within District boundaries. **In order to receive a permit, a complete packet must be submitted at least 14 days prior to blasting.**

Permitting

An operational permit must be obtained from the Redmond Fire & Rescue Fire Marshal's Office prior to blasting operations. The following information is required before the issuance of a permit for blasting operations:

1. An original corporate surety bond in the minimum sum of \$1,000,000.00 or an original public liability insurance policy for the same amount. The bond or policy shall be in force for the duration of the blasting operations.
2. Redmond Fire & Rescue Permit Application obtained by contacting the Redmond Fire & Life Safety Office or the website.
3. Copy of the blasting company's current Federal Explosives License/Permit or Limited Intrastate Permit as issued by the Federal Bureau of Alcohol, Tobacco & Firearms (ATF).
4. Blasting Plan prepared in accordance with 2018 NFPA 495 and industry standards. It must include:
 - a. Explosives delivery information
 - b. Explosives storage information (magazine, location and responsible person)
 - d. Explosives products and loading information
 - e. Safety procedures
 - f. Pre-blast notification and proper posting in area of work (1/4 mile minimum).
 - g. A site plan, 8 ½" x 11" minimum size, drawn to scale, indicating:
 - a. Blasting area(s).
 - b. Any structures and their distances from the blasting site.
 - c. Nearby railway or roads.
 - d. Any barricades, whether man made or natural.

- e. Location and distances from any utilities.
- h. Verification of contact with city, county, and local police or sheriff agency where work is being performed to determine if additional requirements apply.
- i. Pre-blast survey of any structures, within 300' of the blast site unless the Blaster-in Charge determines a greater distance is necessary.
- j. A monitoring plan to identify how seismic monitoring will be conducted to ensure ground vibration does not exceed the maximum limit in 2018 NFPA 495 Figure 11.2.1 at the nearest structures or buildings.
- k. Where seismic monitoring is not provided, explosive use shall be limited to the "scaled distance factors" at the nearest structure as identified in 2018 NFPA 495 Table 11.2.2.
- l. Post blast monitoring and seismic report. Provide a copy to RFR when requested.

Note: Blasting operations shall be overseen by a Blaster-in-Charge qualified to perform such work.

Conditions for Blasting Operations

1. Forty-eight (48) hour notice shall be given to the Fire Marshal's Office for site inspection of the initial blasting activity.
2. Deschutes County 911 shall be contacted at 541-693-6911 prior to blasting.
3. All federal, state and local laws and regulations applicable to obtaining, owning, transporting, storing, handling and using explosive materials shall be followed.
4. Explosive materials shall be protected from unauthorized possession and shall not be abandoned.
5. Explosive materials shall be used only by experienced persons who are familiar with the hazards involved and who hold all required permits.
6. No explosive materials shall be located or stored where they may be exposed to flame, excessive heat, sparks or impact.
7. No smoking shall be permitted within 50 ft of any location where explosives are being handled or used. No person within 50 ft of any location where explosives are being handled or used shall carry any matches, open light or other fire or flame, except for approved devices for lighting safety fuses.
8. No blasting operations shall be conducted in a manner contrary to the instructions of the manufacturer of the explosive materials being used.
9. All explosive materials not in the process of manufacture, being transported or being used shall be kept in storage magazines. Storage magazines shall comply with federal explosives storage requirements.
10. Where blasting is done in a congested area or in close proximity to a structure, railway or highway, or any other installation, precautions shall be taken to minimize

earth vibrations and air blast effects. Blasting mats or other protective means shall be used to prevent fragments from being thrown.

11. Persons authorized to prepare explosive charges or to conduct blasting operations shall use every reasonable precaution, including but not limited to warning signals, flags, barricades, mats or other equally effective means to ensure the safety of the general public and workers.

12. At all blasting operations, the ground vibrations on any axis shall not exceed the limitations specified in Figure 11.2.1 of the 2018 edition of NFPA 495 at the location of any building or structure.

13. When blasting is not monitored with a blasting seismograph, the operation shall comply with the scaled distance factors at the nearest building or structure as shown in Table 11.2.2 of the 2013 edition of NFPA 495.

14. Seismograph readings must be provided to the Fire Marshal's Office once available.

15. Blasting operations shall only be conducted during daylight hours except when authorized at other times by the Fire Marshal's Office.

16. Where blasting is being conducted in the vicinity of utility lines or rights-of-way, the blaster shall notify the appropriate representatives of the utilities not less than 24 hours in advance of blasting, specifying the location and intended time of such blasting. Verbal notices shall be confirmed with written notice.

17. Precautions shall be taken to prevent accidental discharge of electric detonators from currents induced by radar and radio transmitters, lightning, adjacent power lines, dust and snow storms, or other sources of extraneous electricity. Such precautions are listed in Section 10.1.19 – 10.1.19.2 of the 2013 edition of NFPA 495.

18. After loading for a blast is completed and before firing, excess explosive materials shall be removed from the area and returned to the proper storage facilities.

19. The blaster shall supervise the connecting of the blastholes and the connection of the loadline to the power source or initiation point. Connections shall be made progressively from the blasthole back to the initiation point. Blasting lead lines shall remain shunted (shorted) and shall not be connected to the blasting machine or other source of current until the blast is to be fired.

20. Cap and fuse shall not be used to initiate blasts in congested areas, or on or adjacent to highways open to traffic.

21. An adequate warning signal approved by the Fire Marshal's Office must be given prior to the blast being fired.

22. After the blast, the following procedures shall be observed.

- a. No person shall return to the blast area until allowed to do so by the blaster in charge.
- b. The blaster shall allow sufficient time for smoke and fumes to dissipate and for dust to settle before returning to or approaching the blast area.
- c. The blaster shall inspect the entire blast site for misfires before allowing other personnel to return to the blast area.

23. Where a misfire is suspected, all initiating circuits shall be traced, and a search made for unexploded charges. Where a misfire is found, the blaster shall provide proper safeguards for excluding all personnel from the blast area. Misfires shall be reported to the blasting supervisor immediately. Misfires shall be handled under the direction of the person in charge of the blasting operation in accordance with NFPA 495.

24. Conditions for blasting must meet all requirements of the Oregon Fire Code and NFPA 495.

Should emergencies or unforeseen circumstances requiring immediate attention arise, please call 9-1-1. Other concerns may be directed to the Fire Marshal's Office at 541-504-5010.

FRONT

Dear Neighbor,

NOTICE

DRILLING/BLASTING OPERATIONS

Location _____

Date _____

Time _____

Project _____

Residents and businesses can expect some routine construction noise and dust; however, crews will work to mitigate these impacts to the neighborhood. Modern blasting is designed to be a safe, effective, and efficient way of excavating rock in Central Oregon.

If you have any additional questions or would like more information, please contact the contractor directly. *(Insert following REQUIRED info)*

Contractor NAME:

Contractor WEBSITE:

Contractor PHONE#:

Contractor EMAIL:

SEE BACK FOR MORE DETAILS

BACK

WHAT YOU CAN EXPECT DURING BLASTING ACTIVITIES:

- Air horns leading up to the blast
- Sounds and light ground vibration during the blast
- Dust in the air that will dissipate quickly after the blast
- Faint smell of explosive material that will dissipate quickly after the blast

You may be contacted to have your property inspected prior to blasting operations based on the City of Redmond Standards and Specifications for Construction. While damage is not expected to occur to any residences or structures, pre-blast surveys offer additional peace of mind for those nearest to the blast site. Cooperation with inspection staff and personal due diligence is encouraged.

To learn more about the City's Standards and Specifications for Construction, please visit:
www.redmondoregon.gov/constructionstandards

PREBLAST SURVEY

EXTERIOR REPORT

Property Owner _____

Page ____ of ____ Pages

Outside Photos Taken: Yes ____ No ____ B&W ____ Color ____

Description of Lot: Level ____ Sloping to front ____ Sloping to rear ____ Or to side ____

Standing Water or Pooling Area: Front ____ Back ____ Left ____ Back ____

Condition Codes: (E) - Excellant (G) - Good, not New (F) - Fair

Remarks:

Roofs	____	Type of Material	_____	_____
Siding	____	Type of Material	_____	_____
Gutters/Dnspouts	____	Type of Material	_____	_____
Driveway	____	Type of Material	_____	_____
Foundation	____	Type of Material	_____	_____
Walkway(s)	____	Type of Material	_____	_____
Porch(es)	____	Patio(s)	_____	Windows _____

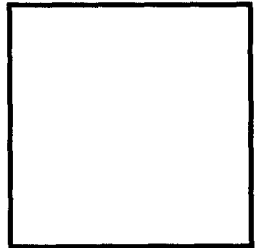
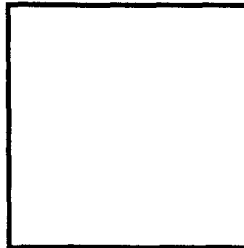
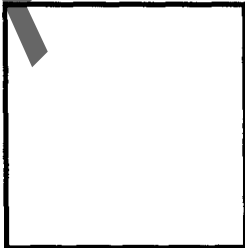
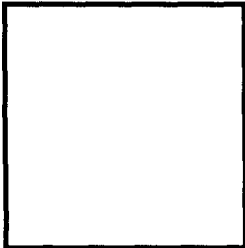
Chimney(s) Brick ____ Stone ____ C-Block ____ Metal ____

Front (facing foundations)

Right

Left

Rear



Detached Buildings:

Number:

Condition:

Garage(s)	_____
Barn(s)	_____
Shed(s)	_____
Utility Building(s)	_____
Other	_____

PREBLAST SURVEY

INTERIOR REPORT

Property Owner _____

Page ____ of ____ Pages

ROOM _____ ENTERED FROM _____

Walls Plaster ____ Dry Wall ____ Panel ____ Paper ____ C.Block ____ Other ____

Ceiling Plaster ____ Dry Wall ____ Ac. Tile/Panel ____ Paper ____ Open C. ____ Other ____

Floor Carpet ____ Linoleum ____ Square Tile ____ Wood ____ Concrete ____ Other ____

Wall

Ceiling/Floor

--	--	--	--

REMARKS:

ROOM _____ ENTERED FROM _____

Walls Plaster ____ Dry Wall ____ Panel ____ Paper ____ C.Block ____ Other ____

Ceiling Plaster ____ Dry Wall ____ Ac. Tile/Panel ____ Paper ____ Open C. ____ Other ____

Floor Carpet ____ Linoleum ____ Square Tile ____ Wood ____ Concrete ____ Other ____

Wall

Ceiling/Floor

--	--	--	--

REMARKS:

Example of sketch of existing cracks to supplement photos in inspection report:

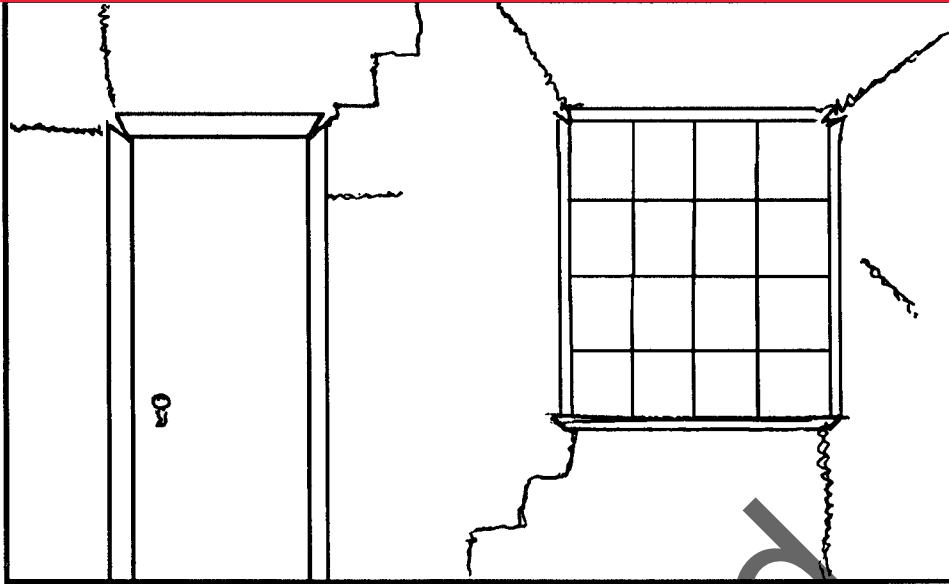


Figure 10.36 Sketch Of Typical Wall Crack Pattern.

10.8.6 PREBLAST SURVEY REPORTS

Thoroughness and care are important in a building inspection. Common sense based on knowledge of what to look for and where to look for it will insure an adequate inspection. The preblast survey report should be an adequate and complete description of what the inspection was able to document. It should be clearly written so that the independent examiner can readily understand what is being reported. An example form is given in Chapter 12.

10.9 EFFECTS OF BLASTING ON WATER WELLS AND AQUIFERS

10.9.1 AQUIFERS

Not uncommonly when blasting occurs in a region and either waterwells or the aquifer appear to undergo a change, the blasting is cited as the cause. Under normal blasting circumstances this is only remotely possible.

An aquifer is a rock formation with sufficient porosity and permeability to allow for the storage of water and the flow of water through the system. Charging of the aquifer results from rainfall percolating into the porous rock beneath the surface. Hence, the aquifer is intimately affected by the amount of rainfall and the seasonal conditions. The top of the water surface is known as the water table.

Dear Neighbor,

Drilling and blasting operations near _____
will begin _____ as part of _____ [INSERT PROJECT NAME]_____.

Residents and businesses can expect some routine construction noise and dust; however, crews will work to mitigate these impacts to the neighborhood. Modern blasting is designed to be a safe, effective, and efficient way of excavating rock in Central Oregon.

What you can expect during blasting activities:

- Air horns leading up to the blast
- Sounds and light ground vibration during the blast
- Dust in the air that will dissipate quickly after the blast
- Faint smell of explosive material that will dissipate quickly after the blast

You may be contacted to have your property inspected prior to blasting operations based on the City's Standards and Specifications for Construction. While damage is not expected to occur to any residences or structures, pre-blast surveys offer additional peace of mind for those nearest to the blast site. Cooperation with inspection staff and personal due diligence is encouraged.

If you have any additional questions or would like more information, please contact the contractor directly at:

Contractor Name: _____

Contractor Website: _____

Contractor Phone Number: _____

Contractor Email: _____

To learn more about the City's Standards and Specifications for Construction, please visit:
www.redmondoregon.gov/constructionstandards

Kelly Morse

From: Kelly Morse
Sent: Thursday, July 07, 2022 10:18 AM
To: Kelly Morse
Subject: FW: Draft 2 Blasting Special Provisions
Attachments: Draft 2 Blasting Special Provisions_REDLINE.pdf

From: Jacob Clark <jclark@hayden-homes.com>
Sent: Thursday, July 7, 2022 8:27 AM
To: Keith Witcosky <Keith.Witcosky@redmondoregon.gov>; Jessica MacClanahan <jessica.macclanahan@redmondoregon.gov>
Cc: Deb Flagan <dflagan@Hayden-Homes.com>; Karna Gustafson <karnag@coba.org>; Morgan Greenwood <morgang@coba.org>; Bob Cummings <bcummings@cnitucson.com>; Jake Hanning - Jack Robinson & Sons Inc. (jake@jackrobinsonandsons.com) <Jake@jackrobinsonandsons.com>; Mike Robinson <miker@pahlisch.com>; Chad Bettesworth, PE <chadb@pahlisch.com>; Matt Higgins <matt@qualitydrillingandblasting.com>
Subject: Draft 2 Blasting Special Provisions

: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the con

Good Morning, Keith and Jessica.

Thank you for providing the 2nd draft of the proposed blasting special provisions to interested parties. Please see attached draft with included recommendations in **RED**. Please provide the attached document to council members for reference at the July 12th city council meeting. The recommended items to modify within the Draft 2 Blasting Special Provisions include the following:

1. **102.1.00, Description**. Last line; change "City" to "City Engineer" or "City Manager" so that it's clear who approves. It should be a designated administrator; the City Council can always call the matter up if it wishes to.
2. **102.1.00, Description, First Paragraph**. Add the following: "The ODOT Standards applied herein are those in effect on the first date of adoption of these regulations. In the event of a conflict between the ODOT Standards and these regulations, these regulations shall control."
3. **00335.02 Qualifications of Blasting Personnel**. Reduce blaster in charge from 10 years to 5 years.
4. **00335.40(c)**. Add at end of second line in first paragraph: ",except for developer-owned and controlled properties."
5. **0335(40)((e)**. Add at end of first sentence in first paragraph: "Owners of record of property are those shown on the most recent property assessment roll of property." The regulations need to specify how the property owner list is determined. This language is from Redmond Development Code section 8.1335.1.B, which is based on ORS 197.763(2)(a) and is used for all land use application notices, so it's well known and title companies are adept at compiling this list based on the notice radius area. There's no list for occupants that's referenced in the regulations, so including residents means that the developer will have to compare the notice radius address list with the owner list and those addresses where the owner mailing address is at another address. If the City wants to provide notice to owners and residents, there's no way to avoid having two lists. "

6. **Section 00335.46 Vibration Control and Monitoring** Accept the z-curve as the standard for measurement of vibration rather than the listed Maximum peak Particle velocity at the structure.
MINIMUM: Increase Buried Utilities from 2(in/sec) to 8 (in/sec)
Brick, and Concrete buildings from 2(in/sec) to 4(in/sec)

Respectfully,

Jacob Clark | Land Development Manager



2464 SW Glacier Place | Redmond, OR 97756

P: 541.516.1527

C: 828.406.1717

E: jclark@hayden-homes.com



CITY OF REDMOND
Engineering Department

243 E. Antler Ave
Redmond, OR 97756-0100

(541) 504-2002
Fax: (541) 923-4035
info@ci.redmond.or.us
www.ci.redmond.or.us

MEMO

TO: Keith Witcosky, City Manager
John Roberts, Deputy City Manager
FROM: Jessica MacClanahan, City Engineer
DATE: June 30, 2022
SUBJECT: Working Draft #2 - Updated Requirements for Blasting

BACKGROUND

Recent citizen concerns about blasting in residential neighborhoods highlighted the need for the City to develop more detailed blasting standards and review procedures. At Council's direction, staff created a Draft #1 of proposed blasting specification updates and solicited community input on the proposed changes. On June 7, Council received testimony from the community regarding Draft #1. On June 21, Council hosted a panel discussion which included neighbors, subject matter experts, and the development community to further discuss the proposed changes.

At the conclusion of the work session, Council recommended staff pursue the following:

- Develop a Draft #2 to incorporate key elements identified by Council at the work session, in particular:
 - More closely align City Standards with ODOT and Redmond Fire
 - Add depth to qualifications and quality control elements
 - Develop a standard template for door hangers, surveys, and related outreach/FAQ items
 - Align notification and inspection distances relative to physics and science of blasting
 - More clearly articulate other quality control measures
- Seek subject matter expertise on areas related to the physics and science of blasting.
- Distribute Draft #2 the week of June 27, 2022
- Repeat process of inviting input which would be distributed to City Council on July 7 for the July 12, 2022 Council meeting
- Set the expectation that City Council may approve updated blasting standards at the July 12, 2022 Council meeting.

Following is a second draft of changes to Engineering standards and processes based on feedback gathered at the two Council Meetings in June. These are intended to

strengthen and replace the City's existing regulations and more closely align with the recently updated and implemented Fire Marshal blasting permit process.

The quality control measures contained herein shall be used when evaluating requests to blast within the Redmond city limits. Blast requests will be subject to these provisions and procedures.

This document is organized as follows:

- Methodology for Proposed Standards
- Proposed new standards
- Appendices:
 - A: Previous City Blasting Standards (replaced in their entirety)
 - B: ODOT Blasting Standards
 - C: Redmond Fire Blasting Permit Requirements
 - D: Example, City Standard/Template Door Hanger
 - E: Example, City Standard/Template Pre-Blast Survey Form
 - F: Example, City Standard/Template Notification Letter

METHODOLOGY

The Oregon Department of Transportation (ODOT) has comprehensive blasting standards (Section 0335 of the Oregon Standard Specifications for Construction) that can be incorporated into the City's Public Works Standards and Specifications. The City currently incorporates other sections of ODOT's standards such as asphalt pavement quality by reference and modifies them with Redmond specific provisions and conditions as appropriate.

A copy of Section 00335 is attached as Appendix B.

The mechanism for making these changes is done through what are called Special Provisions to the Public Works Standards and Specifications.

RECOMMENDATIONS

Standards and Specifications: Propose to add the following section:

102 BLASTING

102.1.00 DESCRIPTION

This work consists of excavating in rock using controlled blasting methods to facilitate trench excavation for utilities and dry wells or to remove rock for construction of road grades or structures. This Section shall be used in tandem with the Redmond Fire and Rescue District Explosive Blasting Permit issued by the Redmond Fire Marshal and other Fire Marshal requirements. In the event of conflicts between the Fire Marshal Blasting Permit and these Standard Specifications, the more stringent requirement applies unless approved by the City and Fire Marshal. **102.1.00, Description". Last line; change "City" to "City Engineer" or "City Manager" so that it's clear who approves.**

It should be a designated administrator; the City Council can always call the matter up if it wishes to.

102.1.00, Description. Add the following: “The ODOT Standards applied herein are those in effect on the first date of adoption of these regulations. In the event of a conflict between the ODOT Standards and these regulations, these regulations shall control.” In addition to what is set out by federal, state or local laws, as a matter of quality assurance elements associated with these Standards, the following measures will apply:

Process Step/Task

Review of Personnel Qualifications
Blasting Plan Review
Inspection/Survey Requirements
Door Hangers
Informational Flier/FAQ

Quality Assurance

Redmond Fire
Redmond Fire
City Standard/Template
City Standard/Template
City Standard/Template

Minimum general standards for blasting shall meet the requirements of Section 00335 Blasting Methods and Protection of Excavation Backslopes of the Oregon Standard Specifications for Construction, current edition, with the following modifications and additions:

ADD the following Section: 00335.02 Qualifications of Blasting Personnel

00335.02 Qualifications of Blasting Personnel. Reduce blaster in charge from 10 years to 5 years.

- Provide the services of an independent, qualified Blasting Consultant, experienced in controlled blasting techniques for similar works, to prepare blasting plans, to guide the installation of blasting seismographs, and to coordinate and/or perform the interpretation of recorded results. The Blasting Consultant shall have at least 10 years of experience and demonstrate satisfactory experience on 5 similar projects. The Blasting Consultant shall be an approved Blasting Consultant for ODOT projects. These projects must include blasting within 100 feet of occupied dwellings. The Blasting Consultant shall not be an employee of the Contractor, explosives manufacturer, or explosives distributor. Submit the Blasting Consultant name and qualifications to the Fire Marshal as part of the blasting permit. All blasting plans, including revisions, shall be approved, in writing, by the Blasting Consultant. The City may waive the requirement for a Blasting Consultant on a particular project if, in the City's sole discretion, the scope and complexity of the project do not warrant the participation of a Blasting Consultant. Such a waiver will not preclude the City from requiring the subsequent engagement of a Blasting Consultant if, in the City's sole discretion, such participation would be advisable in the event of blasting-related problems or issues.
- The Contractor shall use experienced, competent Blasting Superintendents (Blasters-In-Charge) for all blasting operations. All blasting operations shall be

under the direct supervision of a Blaster-In-Charge, who shall be present at the blast site whenever explosives are being handled. All Blasters-in-Charge shall have at least 10 years of experience and be able to demonstrate satisfactory experience on at least 5 similar projects, including blasting within 100 feet of occupied dwellings or other structures if close-in blasting is part of the Project. All Blasters-in-Charge shall be properly qualified and licensed in accordance with applicable federal, state, and local regulations. The Contractor shall not allow prohibited persons as defined by the BATF (27 CFR Part 555) to transport, handle, or use explosive materials.

- The Contractor shall use experienced and qualified personnel for conducting pre-blast condition surveys. Personnel conducting pre-blast surveys shall have at least 5 years of experience in conducting pre-blast condition surveys of structures and be able to demonstrate satisfactory experience on at least 3 similar projects. Personnel conducting pre-blast surveys shall be the employees of a firm regularly engaged in conducting such surveys and shall not be an employee of the Contractor or any explosives manufacturer or distributor.

ADD the following Section: 00335.03 Blasting Influence Zones

For purposes of this regulation, separate Blasting Influence Zones are defined for pre-blasting notifications, blast seismograph monitoring, and pre-blast surveys, as given in Table 1 below. All distances are straight-line distances from the closest blast hole in any given pattern.

TABLE 1 – BLASTING INFLUENCE ZONES

Charge per Delay ⁽¹⁾ (lb)	Notification Distance ⁽²⁾ , feet	Monitoring Distance ⁽³⁾ , ft	Pre-Blast Surveys ⁽⁴⁾ , ft
<7	200	175	150
7-17	300	250	200
18-49	500	425	350
50-100	700	600	500
100-250	1,100	950	800
>250	1,500	1,200	1,000

Notes

- (1) Charge per delay means the maximum total charge occurring within:
 - a. Any 8-millisecond delay interval when using nonelectric or electric methods of initiation
 - b. Any 3-millisecond delay interval when using electronic (digital/programmable) methods of initiation
- (2) Notify utility operators and the owners and occupants of all habitable structures within this radius or greater.
- (3) Where the closest structure or utility is further than the distance shown, place one (1) blasting seismograph at the closest structure or utility. When the closest structure or utility is closer than the radius shown, place one (1) blasting seismograph at the closest structure or utility and at least one (1) additional seismograph at a point as close to the radius given as is practicable. Where the City, in its sole discretion, identifies special circumstances or complications, the

City may require additional seismographs to be used. For Test Blasting, an array of seismographs approved by the City shall be used at varying distances.

- (4) At a minimum, conduct pre-blast surveys at all habitable dwellings, outbuildings, flatwork and other above-ground structures pursuant to the requirements of this Regulation, that occur within this radius.

DELETE Section 00335.40(c) in its entirety and REPLACE with the following:
Section 00335.40(c) Pre-blast/Post-blast Inspections

00335.40(c). Add at end of second line in first paragraph: “,except for developer-owned and controlled properties.”

Pre-blast inspections are required for existing residences and other structures or facilities within the blasting influence zone, as defined in Table 1 per 00335.03. Inspections shall be completed by qualified personnel as stated in 00335.02 using a City-approved inspection form. Notification of pre-blast inspections shall be made not less than 14 days prior to the first blast, and shall include information about the inspection process and contact information for the contractor and third-party inspection firm. Notification shall be made in writing transmitted to the property owner, as well as to the occupant if the occupant is not the owner. If there is no response, a second attempt shall be made, also in writing. A log of notifications attempted, along with survey acceptance or refusal, shall be maintained that identifies the address, owner, occupant, and date and manner of contact. The log shall be available for inspection by any duly authorized representative of the City or Redmond Fire within 72 hours of the request.

Inspections shall include documentation of interior subgrade and above grade accessible walls, ceilings, floors, roof, and visible exterior as viewed from grade level. It will detail by videotape or photographs, notes and sketches the existing condition of structures or facilities. Existing crack damage, other structural problems or defects occurring inside and outside the structure or facility shall be thoroughly documented. Sufficient information and documentation shall be included that the location and scale of each recorded defect can be ascertained.

As construction progresses, re-inspect, as often as necessary and upon receipt of any complaints, to verify that blasting methods are not causing any new damage. In the event any property owner denies access for the survey of structures, signed statement shall be sought from the property owner stating they decline the pre-blast inspection of their property. If the property owner, or occupant if different from the property owner, refuses to allow a pre-blast survey, the log shall show the date, time, manner, and reasons (if known) for the refusal. If the property owner refuses to sign the statement declining a pre-blast survey, the log shall show the date, time, and manner of the refusal.

The Contractor shall respond to all complaints or allegations of blasting damage within 72 hours of the first such notification or allegation and shall arrange to inspect the damage promptly thereafter. Post-blast inspections shall be promptly performed on property where written or verbal damage complaints were made by property owners.

Post-blast surveys shall be performed by qualified third parties and documented with measurements, notation and photos or videos of the damage that will allow comparison with the pre-blast documentation, if any. Contractor shall promptly repair or replace any damaged structures or facilities to a condition equal to or better than that found in the pre-blast survey.

The pre-blast survey notation and imagery files shall be maintained in a secure manner by the third-party pre-blast survey firm. Copies of the inspection reports and any photos or videos taken shall be made available to the City, Redmond Fire, and/or property owner within 72 hours upon request.

The City will be indemnified and held harmless from any liability for damage or injury caused by the Contractor's blasting operations.

Contractor shall contact utilities that may be impacted by blasting to determine if closed circuit television (CCTV) video inspection of sanitary and storm sewer manholes, inlets and lines is needed before and/or after blasting. Utilities damaged from blasting activities shall be repaired and/or restored at the expense of the Contractor.

**DELETE Section 00335.40(d) in its entirety and REPLACE with the following:
00335.40(d) Blasting Plan and Fire Marshal Permit**

Blasting permits shall be obtained a minimum of 14 days prior to blasting from the Redmond Fire and Rescue District Fire Marshal, which can be found at: redmondfireandrescue.org. Blasting plans shall be included in the permit application as outlined below.

Each plan shall cover individual major Rock cut areas or Rock production from a material source. Similar minor Rock cut areas of less than 50 cubic yards, as well as utility and culvert trenches, may be covered as a group in one generalized blasting plan.

The blasting plans will be reviewed by the Fire Marshall and/or City staff for conformance with the Specifications and any concerns will be discussed with the Contractor. Submit any proposed changes to the blasting plans in writing to the Fire Marshal for review before implementation. Submittal of blasting plans is for quality assurance and record-keeping purposes. Review of blasting plans by the City or Fire Marshal does not relieve the Contractor of full responsibility for the accuracy and adequacy of the plans and the resulting safety when implemented in the field. For blasting within 100 feet of a structure, the City retains the right, at its discretion, to utilize the services of a third party blasting consultant to verify the safety and appropriateness of the Plan, and to require additional detailed blasting plans and information specific to each individual shot.

Each blasting plan shall contain the full details of the drilling and blasting patterns, vibration, flyrock, and noise reduction methods, blast area security measures and traffic control that the Contractor proposes to use, and the following information:

- Station limits of proposed shot.
- Removal of overburden.

- Plan and Cross Section diagrams of proposed drill pattern for controlled and production blast holes including buffer rows, free face, burden, blast hole spacing, blast hole diameters, blast hole angles, lift height and sub drill depth. Accurately draw to scale and show each cut area to be blasted.
- Loading diagram showing the type, amount and specific gravity of explosives, primers, and initiators, and location depth, and type of stemming.
- Initiation sequence of production and controlled blast holes including delay times and delay system.
- Manufacturer's product data sheets for all explosives, primers and initiators to be used in the Work.
- Map showing where blast will occur, distance to structures, notification perimeter and structures that will be offered pre-blast inspections. Distance from blast shall be the distance from the structure to the closest drillhole where blasting materials will be placed. Perimeter for notification shall be measured from the full extent of the blasting.
- Proposed seismograph locations.

Blast plan shall be modified as necessary once drilling is complete to account for subsurface materials that may have an effect on blasting results. Submit blasting plan changes and reasons for the changes to the Fire Marshal.

Blasting plan shall clearly identify measures taken to avoid damage to structures within 100 feet.

DELETE Section 00335.40(e) in its entirety and REPLACE with the following:
00335.40(e) Blasting Notification

00335(40)((e). Add at end of first sentence in first paragraph: "Owners of record of property are those shown on the most recent property assessment roll of property." The regulations need to specify how the property owner list is determined. This language is from Redmond Development Code section 8.1335.1.B, which is based on ORS 197.763(2)(a) and is used for all land use application notices, so it's well known and title companies are adept at compiling this list based on the notice radius area. There's no list for occupants that's referenced in the regulations, so including residents means that the developer will have to compare the notice radius address list with the owner list and those addresses where the owner mailing address is at another address. If the City wants to provide notice to owners and residents, there's no way to avoid having two lists. "

Notify all owners and occupants of buildings, Structures, and utilities that are within the Influence Zone per Table 1 in 00335.03. Pre-blast notification is required to all properties within the blasting influence zone as specified above unless geologic conditions (as determined by drilling blast holes) warrant a larger radius.

Pre-blast notification shall occur on the following timeline:

- No less than 14 calendar days prior to first scheduled detonation, notification shall be mailed to property owner (and to the structure address if different) and door hanger placed at each address.
- 48 hours prior to first scheduled detonation, notification shall be by direct contact or door hanger.
- Day of blast notification shall be by direct contact or door hanger.

All notifications shall contain proposed blasting schedule, location where blasting will occur, and contact information for the developer, general contractor and blasting contractor. Contractors shall use the City standard door hanger template and notification letter as part of the notification requirements (see Appendix for details).

ADD the following to Section 00335.40(f) Blasting Test Sections:

The need for blasting test sections shall be evaluated in the Blasting Plan and based on complexity of blast and/or distance to structures or facilities. The City may, at its sole discretion, require test blasts for any project.

ADD the following: Section 00335.46 Vibration Control and Monitoring

Section 00335.46 Vibration Control and Monitoring Accept the z-curve as the standard for measurement of vibration rather than the listed Maximum peak Particle velocity at the structure.

MINIMUM: Increase Buried Utilities from 2(in/sec) to 8 (in/sec)
Brick, and Concrete buildings from 2(in/sec) to 4(in/sec)

Control ground vibrations by using properly designed blast hole patterns, delay sequences, stemming, and allowable charge weights per delay. Base the allowable charge weights per delay on ground vibration levels which will not cause damage. Establish allowable charge weights per delay by carrying out test blasts and measuring ground vibration levels as recommended by the Blasting Consultant. When recommended, perform test blasts according to 00335.40(f), modified as required to limit ground vibrations to a level which will not cause damage.

Monitor each blast with an approved seismograph located, as approved, between the blast area and the closest Structure, facility, or utility subject to blast damage, in accordance with the distances given in Table 1 in 00335.03. The seismograph used shall be capable of recording particle velocity for three mutually perpendicular components of vibration in the range generally found with controlled and production blasting.

Operate the seismographs according to the recommended guidelines of the International Society of Explosives Engineering Seismograph Section, titled ISEE Field Practice Guidelines for Blasting Seismographs. The applicable guidelines are those contained in the current publication on the date the Project is advertised.

Do not allow peak particle velocity of each component to exceed the safe limits of the nearest Structure subject to vibration damage as follows:

Structure	Maximum Peak Particle Velocity at the Structure (Inches/Second)
Standard Construction Timber Frame, Brick, and Concrete Buildings	2.0
Reinforced Concrete Structures	4.0
Steel Structures.....	4.0
Buried Utilities	2.0

Wells and Aquifers	2.0
Green Concrete (Less than 7 Days).....	1.0

If the vibration levels exceed the limits, immediately report the measurements to the Engineer.

DRAFT

July 7, 2022

Via E-mail

Mayor George Endicott
Redmond City Council
Redmond City Hall
411 SW 9th Street
Redmond, Oregon 97756

Re: Draft #2 of Proposed Blasting Regulations ("Draft 2"); Testimony by Pahlisch Homes, Inc ("Pahlisch Homes") for Third City Council Work Session on July 12, 2022

Dear Mayor Endicott and Redmond City Council (the "City Council") Members;

I am the Director of Government and Legal Affairs for Pahlisch Homes. I am writing on behalf of Pahlisch Homes to comment on Draft 2 of the proposed blasting regulations. Pahlisch appreciates the fact that staff distributed Draft 2 on June 30, giving us enough time to review and provide comments to staff and the City Council.

I submitted an email dated July 6, 2022 containing four changes to Draft 2 that the City Council should adopt. The four changes are fairly characterized as fine-tuning of Draft 2. The changes clarify what happens in the event of a conflict between the ODOT Standards and the adopted blasting regulations and that the ODOT Standards in effect now are what is incorporated by reference so that future versions of the ODOT Standards are not unintentionally incorporated. Additionally, the changes include a recommendation that the list of owners is determined by using Deschutes County's most recent tax assessment role and excluding developer-owned and controlled properties from the pre-blast inspection requirement. We hope that the City Council will adopt these changes because they will avoid future unintended results.

Finally, Pahlisch agrees with Mr. Jacob Clark's July 7, 2022 submittal regarding other changes to the proposed blasting regulations. Mr. Clark's recommended changes focus on changes that will minimize increased housing costs and construction delays. His recommended changes should be incorporated into the adopted blasting regulations. Pahlisch's past written and oral testimony on the proposed blasting regulations has emphasized the need to adopt regulations that protect the public safety while minimizing increased costs and construction delays. If the City Council decides not to adopt these recommended changes, Pahlisch recommends that the development community and staff monitor the effect of the adopted blasting regulations and if they increase housing costs and construction delays, the City Council should consider this evidence and make changes to the adopted blasting regulations as warranted.

Pahlisch thanks the City Council, staff, and the public for their time and effort in reviewing the proposed blasting regulations.

Very truly yours,



Michael C. Robinson
Director of Government and Legal Affairs for Pahlisch Homes, Inc.

Mayor George Endicott

July 7, 2022

Page 2

CC: Mr. Keith Witcosky (via email)

Mr. John Roberts (via email)

Ms. Jessica MacClanahan (via email)

Mr. Jerry Jones (via email)

Mr. Chad Bettsworth (via email)

Mr. Jacob Clark (via email)

Ms. Deb Flagan (via email)

Ms. Karna Gustafson (via email)

Ms. Morgan Greenwood (via email)

Mr. Bob Cummings (via email)

Mr. Matt Higgins (via email)



CITY OF REDMOND

CITY HALL
411 SW 9th STREET
REDMOND, OR 97756
541.923.7710
FAX: 541.548.0706
info@redmondoregon.gov
redmondoregon.gov

STAFF REPORT

DATE: July 12, 2022
TO: City Council
THROUGH: Keith Witcosky, City Manager
John Roberts, Deputy City Manager
FROM: Kyle Roberts, Planning Director
SUBJECT: Policy Discussion with Hayden Homes - Annexation Agreement for NW Way and Spruce

Addresses Council Goal:

- 7.A. Promote quality development and great neighborhoods.
- 7.B. Support orderly annexation from Urban Growth Boundary.
- 7.D. Identify housing objectives, policies, and implementation strategies to diversify the range of housing choices.

Report in Brief:

The purpose of this item is for City Council to have a policy level discussion with staff and Hayden Homes regarding their request to annex 76 acres located at NW Spruce and NW Way.

Background:

Hayden Homes is requested to have 76 acres annexed as part of a 500 unit residential development. The subject property is located in NW Redmond, due west of Northwest Way bisected by Spruce Avenue.

Staff has had multiple conversations with the developer and a draft annexation agreement has been developed. The intent of the presentation is to overview and accomplish the following as it relates to the request:

- I. Role and purview of City Council for Annexation Requests
- II. Staff overviews Redmond growth trends and NW Area Plan for context.
- III. Developer presents concepts and vision.
- IV. Council discusses with the developer key elements of the development and additional considerations or conditions of annexation.
- V. Determine next steps.

Discussion:

The annexation request is guided by the Northwest Area Plan Land Use and Public Improvements document. The Area Plan was adopted in August 2007, 15-years ago. Conditions in the community have changed significantly during the last 15-years and there is an opportunity for Council to discuss these with the developer (e.g., affordable housing, workforce housing, Accessory Dwelling Units, child care, mobility).

The subject property is zoned R-4 (60 acres) and R-5 (16 acres). The current concept proposes:

- ~ 500 units, 60% single family detached dwellings and 40% middle housing / multifamily housing.
- ~ 8.5 acres of parks and open space.
- Components of workforce housing up to 120% AMI.

Feedback from the Council will help frame the annexation agreement as staff works to finalize it with the developer. For example, there could be additional community benefits to consider, great neighborhood principles to be emphasized, or specifics associated with parks, open space and trail connectivity to be further examined as part of the annexation agreement.

Fiscal Impact:

None at this time.

Alternative Courses of Action:

Request additional information.

Request no additional information, proceed with annexation agreement.

Recommendation / Suggested Motion:

No formal action is needed. Staff and developer are seeking guidance on additional key elements and considerations to possibly include in the annexation agreement.



SPRUCE-NORTHWEST WAY ANNEXATION REQUEST

REDMOND CITY COUNCIL
JULY 12, 2022

SLIDE / 1



POPULATION FORECAST

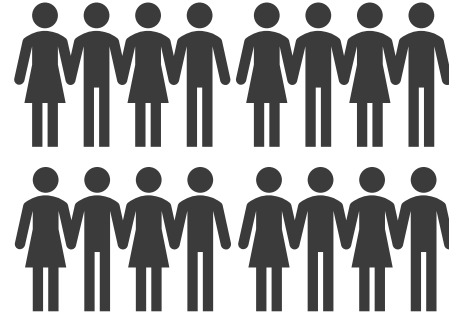
**REDMOND
GROWTH:
17,429 NEW
RESIDENTS
BY 2044.**

Population Projections 2018- 2068							
Area	2018	2025	2035	2045	2055	2065	2068
Tri-County Total	233,587	270,775	322,342	370,549	422,957	482,505	585,483
Crook	22,519	24,794	28,179	30,894	33,721	36,156	37,787
Deschutes	187,621	220,708	266,840	310,827	358,991	414,618	432,930
Redmond	29,364	33,839	43,473	53,750	65,515	78,213	82,575
Jefferson	23,447	25,273	27,323	28,828	30,245	31,731	32,191
<i>Sources: U.S. Census Bureau (2000, 2010); Portland State University (April 2019); Oregon Office of Economic Analysis (2015 – 2050).</i>							



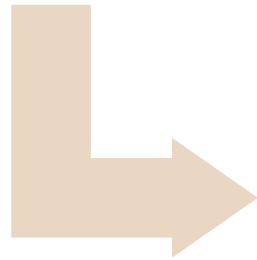
WHAT 'IS' REALLY HAPPENING: AS OF JANUARY 2022

50,000



NEW RESIDENTS
PROJECTED OVER
NEXT 20 YEARS

**20-YEAR
GROWTH
PROJECTION
BREAKDOWN
BY RESIDENTS**



2,848 +

NEW RESIDENTS
PER YEAR



7.8



NEW RESIDENTS
PER DAY



PLANNING BECOMES ACCELERATED



**URBAN GROWTH BOUNDARY
(UGB)**



**TRANSPORTATION SYSTEM
PLANNING (TSP)**



**HOUSING NEEDS ANALYSIS
(HNA)**

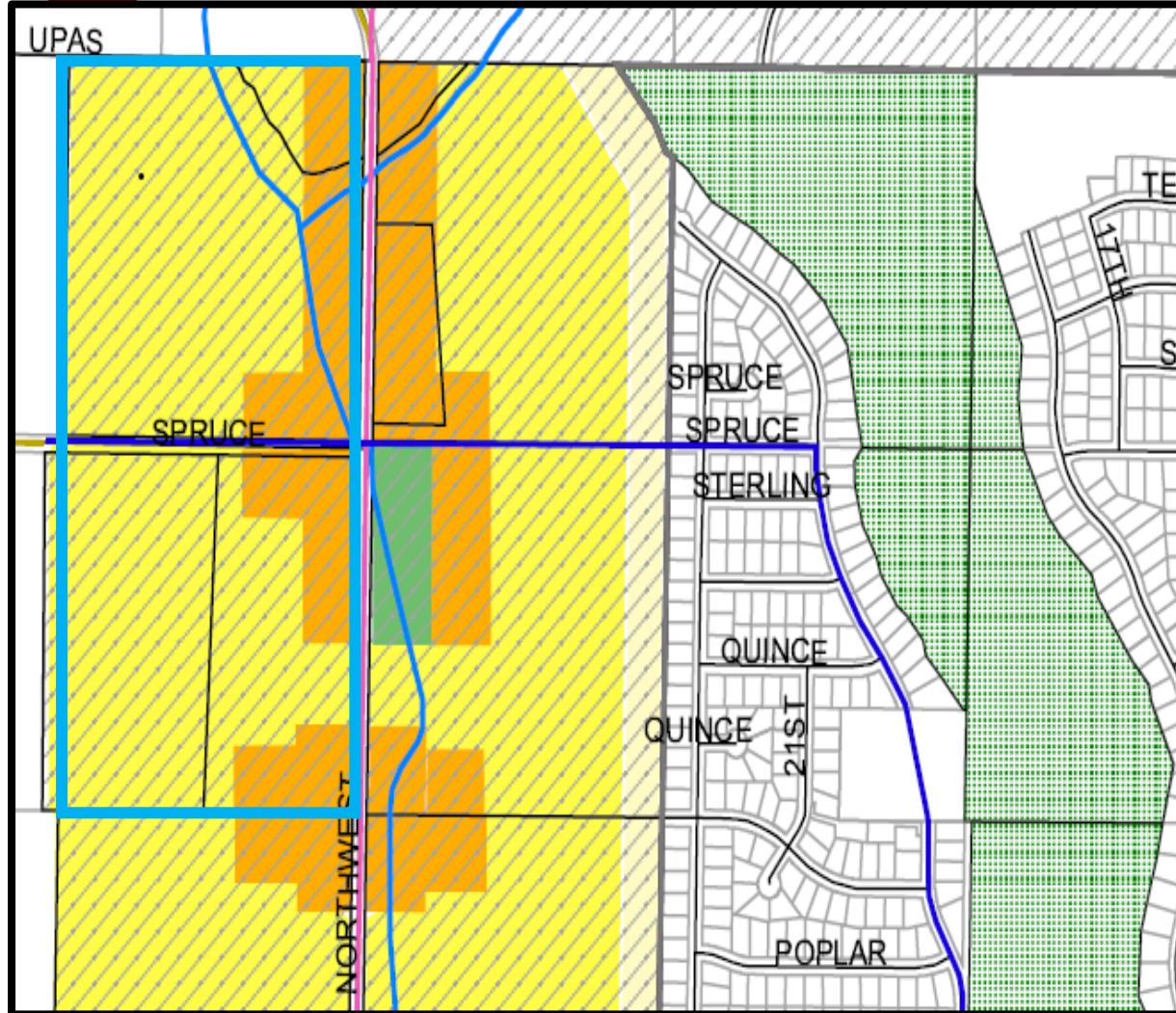


PUBLIC FACILITIES PLANS

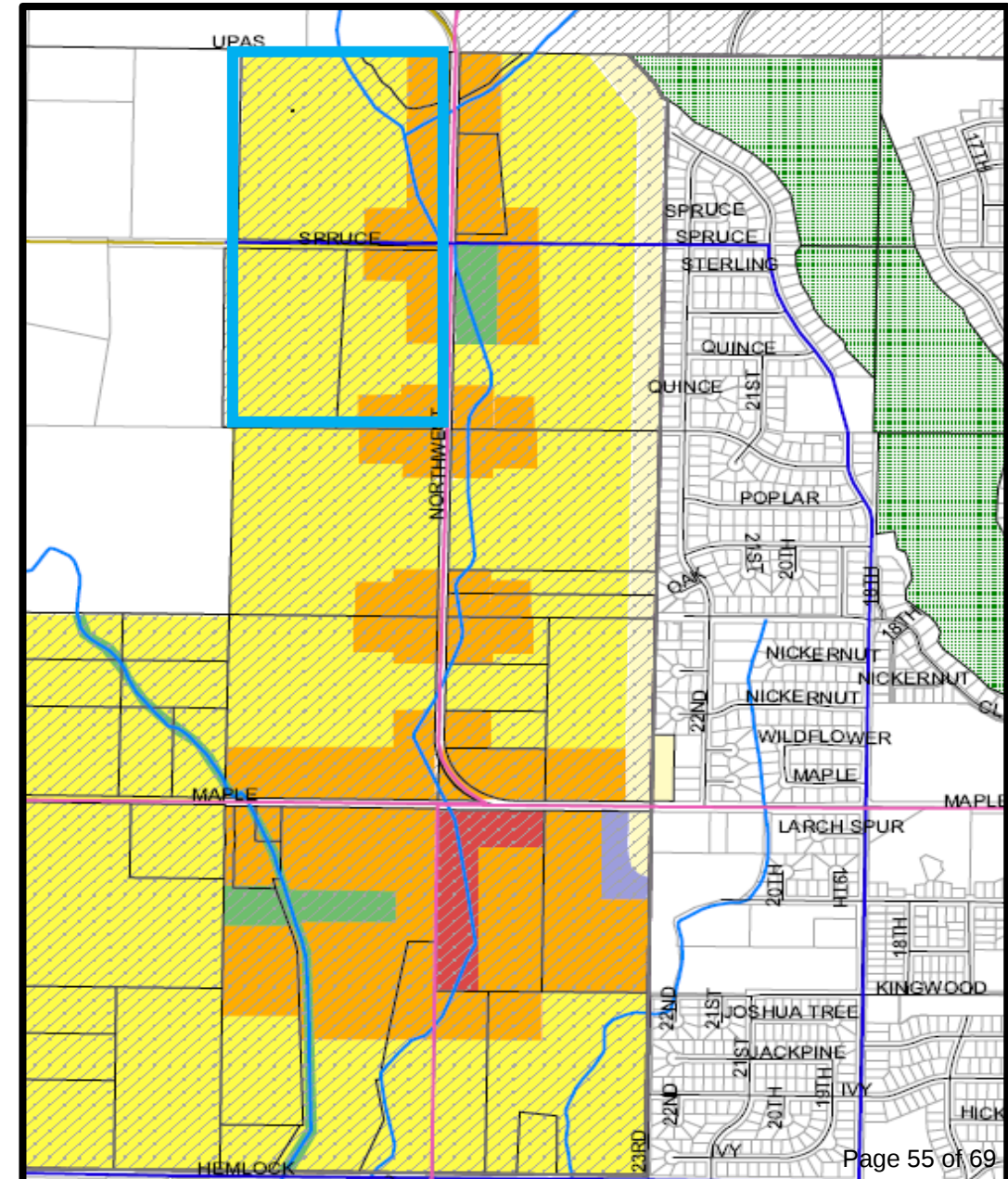




GEOGRAPHIC LOCATION NW PORTION OF NW AREA PLAN



SLIDE 7.9





R-4 (60 acres), R-5 (16 acres)

498 Dwelling Units, 8.5 acres of parks/open space

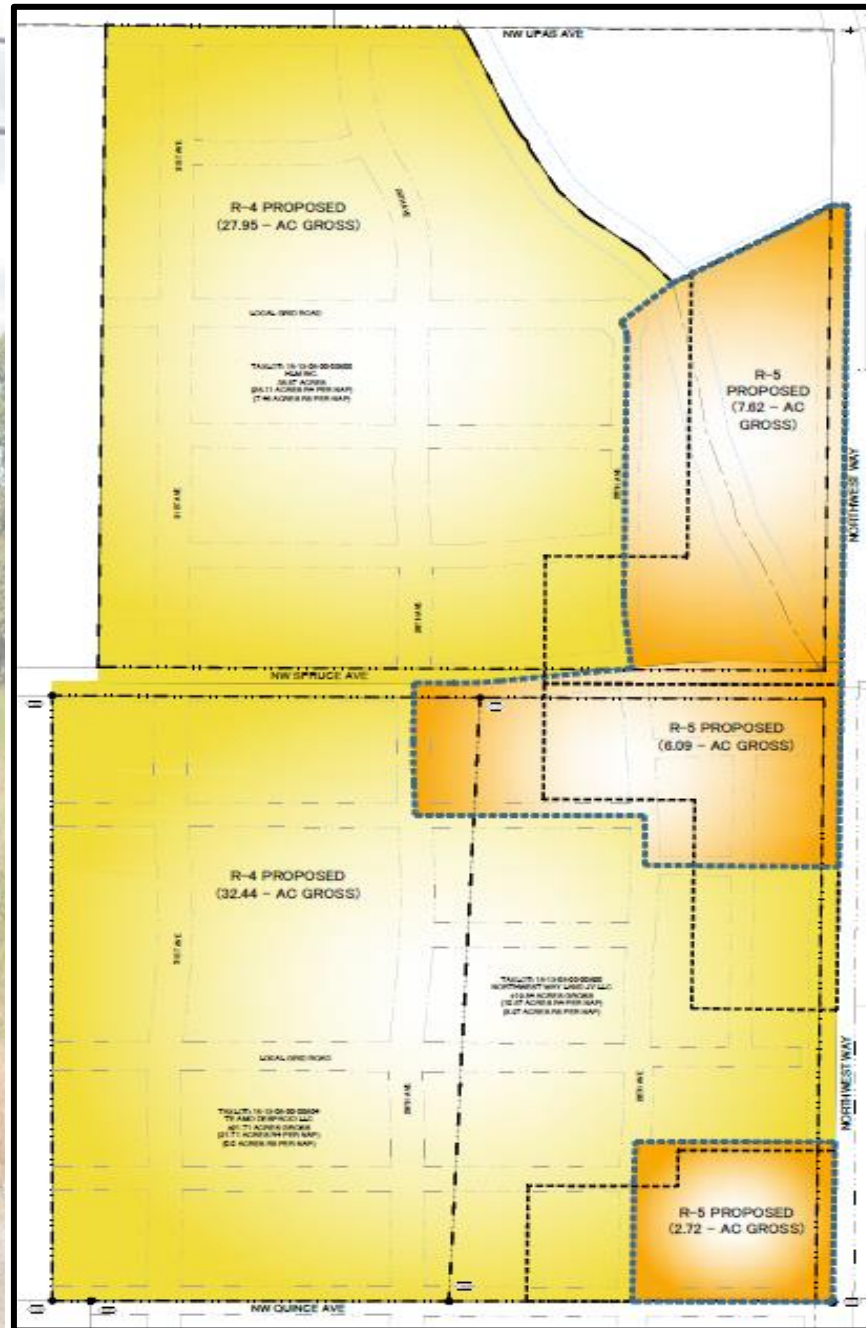
- ZONE BOUNDARY AMENDMENT & MASTER PLAN

**- 60% SINGLE-FAMILY & 40%
MIDDLE HOUSING/MULTI-
FAMILY**

**- COMPONENT OF WORKFORCE
HOUSING UNITS (UP TO 120%
AMI)**

**- +/- 8.5 ACRES OF PARKS &
OPEN SPACE**

SLIDE / 6





QUESTIONS



CITY OF REDMOND

CITY HALL
411 SW 9th STREET
REDMOND, OR 97756
541.923.7710
FAX: 541.548.0706
info@redmondoregon.gov
redmondoregon.gov

STAFF REPORT

DATE: July 12, 2022
TO: City Council
THROUGH: Keith Witcosky, City Manager
FROM: John Roberts, Deputy City Manager
SUBJECT: Policy Discussion with Redmond Area Parks and Recreation District: Proposed Recreational Center and Associated Annexation Request.

Addresses Council Goal:

- 4.B.III. Work with Park and Recreation Committee to support the passage of a RAPRD bond to fund new RAPRD Recreation facility.
- 7.A. Promote quality development and great neighborhoods.
- 7.B. Support orderly annexation from Urban Growth Boundary.
- 8.B.i. Support countywide great-Redmond area recreation initiatives through partnerships with the Redmond Area Park and Recreation District.

Report in Brief:

This item requests the City Council provide feedback to the Redmond Area Parks and Recreation District (RAPRD) regarding the construction of a new recreational facility and pool. RAPRD Director Katie Hammer will lead the discussion and project update.

Background:

RAPRD is exploring the construction and operation of a new recreational facility and pool. The facility would be located on ~10 acres purchased by RAPRD in 2008. The property is located south of Highway 126 immediately west of SW 35th adjacent to Highland Baptist Church. The property is outside Redmond's city limits and an annexation would be required.

The intent of the presentation is to:

1. Create awareness regarding the recreational facility concept, costs and timelines.
2. Discuss the financing which would require passage of a GO bond measure.
3. Provide the Council with an opportunity to offer additional feedback.

Discussion:

Fiscal Impact:

The passage of a bond would increase property tax rates for property owners within the RAPRD district.

Alternative Courses of Action:

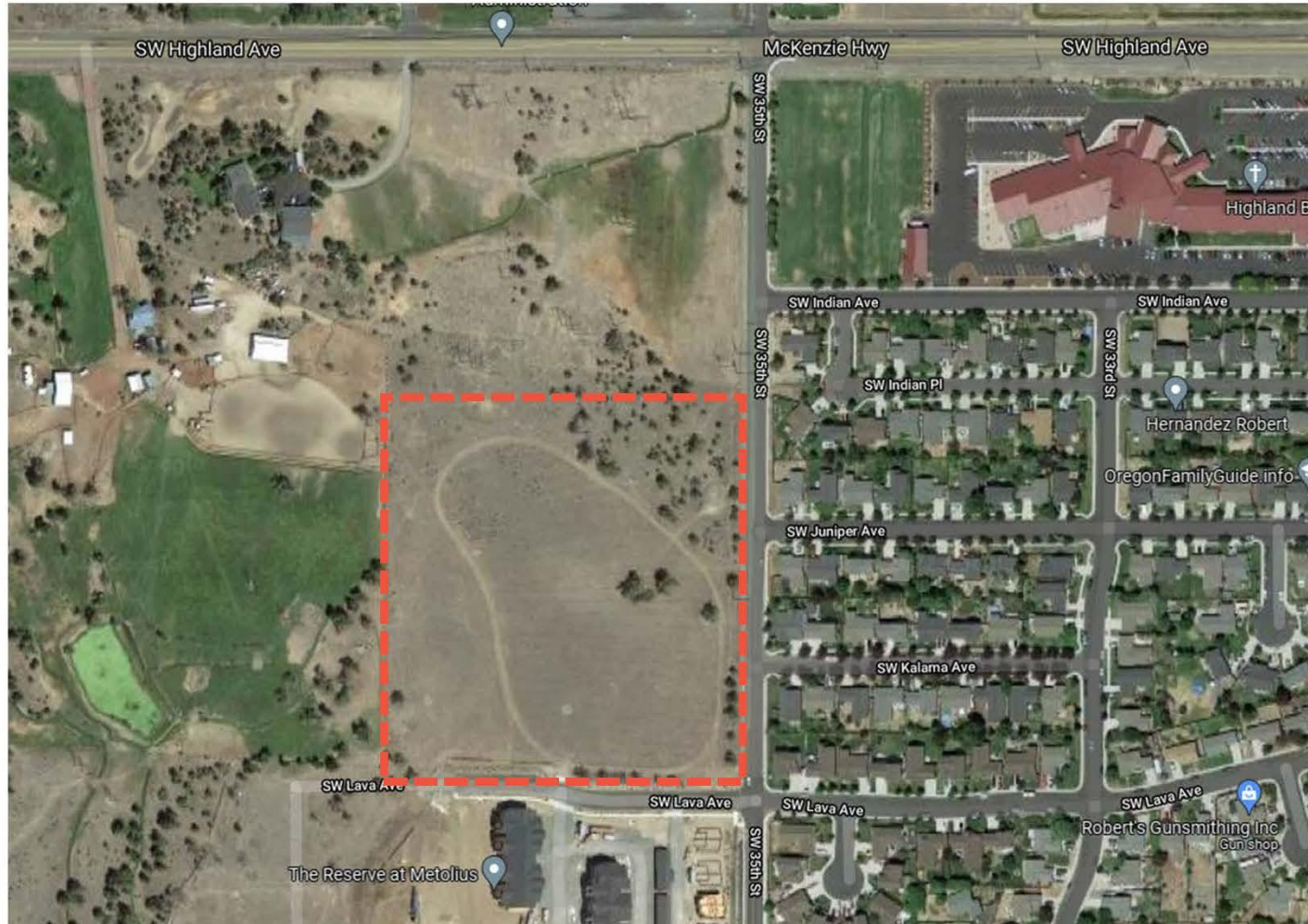
This is an informational item, no action is being requested.

Recommendation / Suggested Motion:

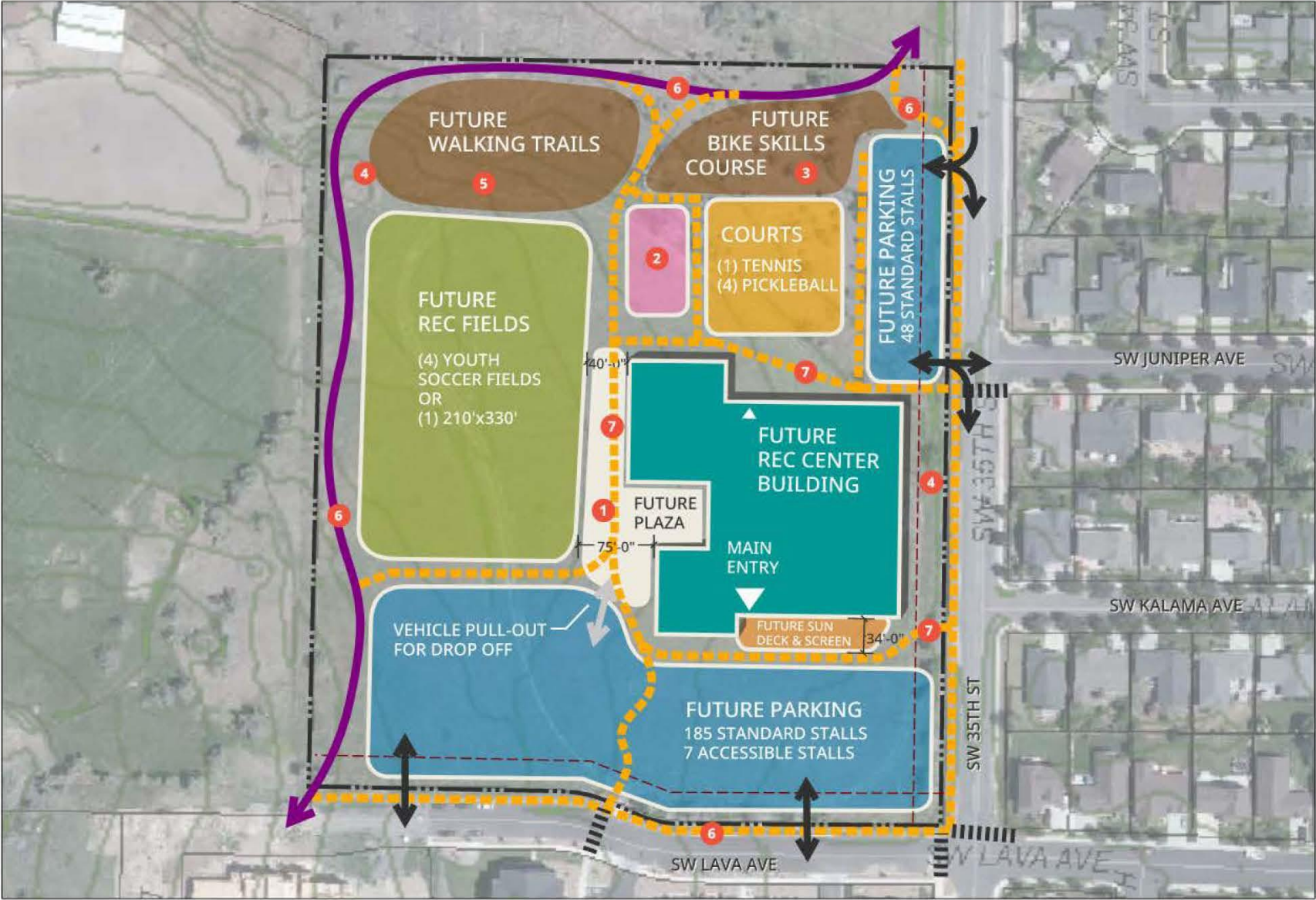
Not applicable.



Overview
Proposed Community Recreation Center
July 12, 2022



SITE PLAN – PREVIOUS CONCEPT



SITE LAYOUT
HUB CONCEPT

- 1 FLEXIBLE EVENT SPACE, FOOD TRUCKS, MOVABLE TABLES AND CHAIRS. ~12,000 SF
- 2 PLAYGROUND & ADULT FITNESS - PLAY FOR ALL AGES
- 3 BEGINNER COURSE WITH SOME INTERMEDIATE OPTIONS. ~1/4 MILE OF TRAIL
- 4 LID STORMWATER SWALE
- 5 SOFT SINGLE TRACK TRAILS INTERWOVEN WITH STORMWATER TREATMENT
- 6 OUTER PATH LOOP DISTANCE: 800 METER
- 7 INNER PATH LOOP DISTANCE: 400 METER

LEGEND

- PROPERTY LINE
- SETBACK LINE 30' Min. (8.0615-5A1a)
- SHARED-USE PATH CONNECTION
- SIDEWALKS
- VEHICLE ACCESS
- TEMPORARY ACCESS FOR EMERGENCY OR EVENT SETUP/FOOD TRUCKS. 26' WIDE ACCESS MIN.
- POTENTIAL CONNECTION ACROSS STREET

PROGRAM SUMMARY

SUB-TOTAL BUILDING CONST. COSTS	\$35,090,000
ON SITE CONSTRUCTION ALLOWANCE	\$2,500,000
SOFT-COST ALLOWANCE (30%)	\$11,277,000
TOTAL PROJECT COST	\$48,867,000
TOTAL SQUARE FOOTAGE	74,500

SUPPORT:

LOCKER ROOMS
(6) FAMILY LOCKER ROOMS
(6) PRIVATE OFFICES ADMIN
CONFERENCE ROOM
BREAK ROOM

REC:

GYM – HIGH SCHOOL W/ (2) MIDDLE
ELEVATED TRACK
4000+ SQ FT FITNESS
(2) 30-35 PERSON AEROBICS
BOULDERING WALL

AQUATICS:

AQUATIC SUPPORT INCLUDES: (2) OFFICES
*8 LANE 25 METER POOL
AQUATIC AMENITY – DIVING BOARDS
*5,000 RECREATION POOL +SPA
WATER SLIDE

COMMUNITY:

CAFÉ/COFFEE CART
CHILDWATCH
LOUNGE/GAMES AREA
MULTIPURPOSE ROOM – PARTIES
80 PERSON CLASSROOM
OUTDOOR PATIO
TEACHING KITCHEN

ADDITIONAL PROGRAM UNDER CONSIDERATION WITH THE AVAILABILITY OF FUNDS:

OUTDOOR AMMENITIES
PHOTOVOLTAIC PANELS/SOLAR HOT WATER
RACQUETBALL COURTS
SPRAY GROUND
IMPROVEMENTS TO CASCADE SWIM CENTER



VIEW OF FRONT ENTRY



VIEW FROM ENTRY



BARKER
RINKER
SEACAT
ARCHITECTURE

RAPRD
Redmond Area Park and Recreation District
"Always Ready To Play..."



VIEW FROM 2ND FLOOR ABOVE ENTRY



VIEW OF CENTRAL LOUNGE



BARKER
RINKER
SEACAT
ARCHITECTURE

RAPRD
Redmond Area Park and Recreation District
"Always Ready To Play..."



VIEW OF LEISURE POOL



25 Meter 8 lane lap pool

WHAT DOES THIS MEAN FOR HOMEOWNERS?

\$49 MILLION BOND

**\$4.67 PER \$100,000 OF ASSESSED
PROPERTY VALUE PER MONTH
+ \$2.40 PER \$100,000 OF ASSESSED PROPERTY
IN OPERATING COST PER MONTH**

EXAMPLE : \$225K ASSESSED VALUE =
\$126.00/YEAR OR \$10.50/MONTH
+ \$54/YEAR OPERATING COST OR \$4.50/MONTH
TOTAL COST: \$12.90/MONTH