

Oregon Zoo Bond Citizens' Oversight Committee

Skyline Room, Oregon Zoo Wednesday, Nov. 4, 2015 3 to 5 p.m. Oregon Zoo Bond Citizens' Oversight Committee Meeting

Nov. 4, 2015

Agenda

AGENDA

Α.	Welcome / Introductions	Bill Kabeiseman
В.	Committee Leadership	Bill Kabeiseman
C.	Approval of Committee meeting minutes1. Sept. 9, 2015, meeting2. Oct. 13, 2015, special phone-in meeting	Bill Kabeiseman
D.	Zoo Update	Teri Dresler
E.	Polar Bear research and partnerships at the Oregon Zoo Amy Cutting, Oregon Zoo Animal Curator	Amy Cutting
F.	Minority-owned, women-owned and emerging small business (N	MWESB) utilization Heidi Rahn
G.	Preparing Oversight Committee's 2016 annual report to the Met Three reporting areas: program progress, finances, and project r	
Н.	Monthly Project Status Reports Heidi 1. Elephant Lands	Rahn, Jim Mitchell, Brent Shelby
	2. Education Center	
	3. Interpretive Experience	
	4. Percent-for-Art	
	5. Remote Elephant Center	
I.	Program Status and Financial Information at a Glance	Heidi Rahn
J.	Program Schedules 1. Active Projects Schedule	Heidi Rahn
	2. All Projects Schedule	
К.	Open Discussion/Questions	Bill Kabeiseman
Upcom	ning 2016 meeting dates –Wednesdays, 3 to 5 p.m.:	



MEMBERS PRESENT

Bill Kabeiseman (Chair) Noah Bishop Linda S. Craig Susan Hartnett Mickey Lee Daniel Morris Robyn K. Pierce Ruth Shelly Kevin Spellman Dick Stenson Karen Weylandt

MEMBERS ABSENT

Tony Butchart Sharon Harmon Deborah Herron Mike Schofield Tom Turnbull

GUESTS

Jon Gramstad Kirsten Gunst Barbara Spears Gary Thompson Peggy Thompson Mike Westling

ELECTED OFFICIALS AND STAFF

Shirley Craddick Teri Dresler Caleb Ford Bob Lee Jim Mitchell Joel Morton Linnea Nelson Heidi Rahn Scott Robinson Brent Shelby Marcia Sinclair Nadja Wielebknowski

Oregon Zoo Bond Citizens' Oversight Committee

Oregon Zoo – Skyline Room Wednesday, Sept. 9, 2015 3 to 5 p.m.

MINUTES

AFFILIATION

Garvey Schubert Barer Bishop Bankruptcy Law, LLC Retired CPA; nonprofit treasurer Spectator Facilities and Development, City of Portland MPower Oregon Our Oregon Pierce, Bonyhadi & Associates Portland Children's Museum Spellman Consulting, Inc. Retired healthcare executive; community volunteer Providence Health & Services

AFFILIATION

Hummingbird Homes Oregon Humane Society Walmart Gresham-Barlow School District OpenSesame Inc.

AFFILIATION

Free the Oregon Zoo Elephants Brink Communications Free the Oregon Zoo Elephants Oregon Zoo Foundation Conservation Club members Oregon Zoo Foundation Conservation Club members Brink Communications

Metro Councilor Oregon Zoo Interim Director Oregon Zoo Budget and Finance Manager Oregon Zoo Elephant Curator Oregon Zoo Bond Construction Manager Metro Senior Attorney Oregon Zoo Bond Program Coordinator Oregon Zoo Bond Program Director Metro Deputy Chief Operating Officer Oregon Zoo Bond Project Manager Oregon Zoo Marketing Oregon Zoo Conservation and Research Manager Oregon Zoo Bond Citizens' Oversight Committee Meeting

Nov. 4, 2015

Agenda item C-1

A. Welcome / Introduction

Bill Kabeiseman, Oregon Zoo Bond Citizens' Oversight Committee Chair, opened the meeting at 3:04 p.m.

B. Approval of May 13, 2015, Oversight Committee meeting minutes

Members approved the minutes of the May 13, 2015, Oregon Zoo Bond Citizens' Oversight Committee ("Oversight Committee" or "the Committee") meeting.

C. Zoo Update

Teri Dresler, Oregon Zoo Interim Director, reported that the zoo had a slow start with revenues for the first two months of fiscal year 2016 (starting July 1, 2015), due to the extremely warm summer and resulting lower attendance. The zoo did have a successful concert season that just ended last week. The recruitment for a new zoo director continues, and six candidates were interviewed in a first round, with the recruitment team interested in two of them. Since then and in addition, Ms. Dresler has talked with two more potential candidates and plans to meet with three more next week at the Association of Zoos and Aquariums annual conference. She noted that the recruitment did not meet the Aug. 10 target date previously set for selecting a new director. She feels the people she is talking to now are really qualified candidates. Many zoo and Oregon Zoo Foundation staff are busy getting ready to do presentations at the AZA conference.

D. Elephant Lands Design and Animal Welfare

Nadja Wielebnowski, Oregon Zoo Conservation Research Manager, and Bob Lee, Oregon Zoo Elephant Curator, gave a presentation on animal welfare research and practices, especially with elephants, and how that informed the design of Elephant Lands (a copy of the presentation is included with the record). The zoo's research is helping animal management in the wild, and has been incorporated into the designs for the new zoo habitats, to maximize animal welfare. Animal welfare science has become very important to zoos, and the knowledge keeps evolving.

The World Association of Zoos and Aquariums just published a report "Towards Positive Animal Welfare," a copy of which is included with the record.

The Association of Zoos and Aquariums has been on the forefront of using the specific term "animal welfare." Ms. Wielebnowski and David Shepherdson, Oregon Zoo Deputy Conservation Manager, have served on the AZA's animal welfare committee since it started in 2001, and Ms. Wielebnowski served as the chair the past six years until 2014.

She clarified terms: "Animal rights" refers to the legal rights of animals, and is seen as a spectrum from animals having the same rights as humans to animals having no rights. "Animal welfare" refers to an animal's collective physical, mental and emotional states over a period of time and is measured on a continuum from poor to excellent. It measures how animals are thriving, and recognizes that the emotional and cognitive are integrated. Some "tradeoffs" may temporarily raise stress levels (such as transport or introductions to new animals, etc.), but ultimately have a greater benefit for the animal over its lifetime.

The Oregon Zoo just went through AZA accreditation this summer. AZA Animal accreditation standards and related policies are updated every five years, to maximize the welfare potential for animals.

Animal-based welfare assessment looks at individual animals, is relative and not absolute (with each animal being different with its own history), and recognizes that no single measure is adequate, but

rather needs to be a conglomerate measure. Three types of welfare assessment are used: behavior, physiology, and physical appearance and health.

The Oregon Zoo now has a behavior lab that uses ipads, video recordings, and trained volunteers and staff to collect data. The zoo also has an endocrine lab to measure animals' hormone levels via fecal matter, urine and serum. Cortisol levels can indicate if an animal has chronic (or bad) stress.

The zoo has been monitoring and collecting data on its elephants for more than 30 years, including 25 years of elephant hormone data. One of the first zoos to have this long, continuous history of research, the Oregon Zoo has contributed to the active management of wild elephant herds in Asia. Elephant Lands includes what the zoo has learned from its years of research, and from the results of an AZA-wide 2010-2014 welfare study of 255 elephants at 70 AZA zoos that included 40,000 samples. The results are planned to be published in nine papers that are currently under review and expected to be released soon. Ms. Wilebnowski provided a rough overview of those results. The zoo's baseline data will enable staff to measure changes with the transition to Elephant Lands, and beyond as well.

The Oregon Zoo is currently conducting an exhibit transition study to see how the elephants are handling the transition. They are already moved into Forest Hall and parts of the new habitat, and data analysis has just started. Several trends are emerging showing an increase in exploratory behaviors, resource use (greater diversity in food and enrichment) and social contact frequency. The zoo invented a new way to measure social complexity of the elephants and how much chance they have to take advantage of opportunities for interaction. The data collection will continue at least six months past when Elephant Lands officially opens.

Mr. Lee talked about the design of Elephant Lands and the focus on giving the elephants choices. Now keepers are seeing how the animals are taking advantage of that design. The design includes sand and a variety of substrates, substrate with which the elephants can interact, a complexity of spaces, high diversity of options and choices, and unpredictable food sources. He has seen a change in the elephants' social dynamics, since in the old habitat the herd was more dependent on the staff. Now the animals are more self-motivated, and staff are functioning more as habitat managers.

Foraging for food from the new overhead boom feeders are important for the elephants to develop their head muscles, which are also important for getting up from laying down. An air curtain door that can stay open down to 32 degrees will allow the animals to go in or out as desired. The sand is staying soft, and is spruced up periodically with a tractor. The elephants enjoy the sand hills, which promote social interaction, and the mud wallows. With overhead misters inside and out, the elephants don't know where or when rain or food will come. The elephants' foot pads are developing ridges, as they would in the wild. The animals have not shown reaction to the construction or concerts, and seem to be quite comfortable in their new space.

Packy, the senior male elephant, is taking oral medications for tuberculosis and is in his own space. After successfully completing treatment, if tests indicate he has no signs of the disease, he can rejoin the herd.

The staff monitors and manages the elephants' weight gain. Most of the herd has had stable weight, but Shine as the dominant female has gained some weight, so the staff will adjust the timing and location of feeders accordingly so she is not dominating access to the food. Lily, the baby elephant, continues to gain two to three pounds a day. Recently it took the elephants one and a half hours to

graze from an overhead feeder, which is very different from the old habitat where food was placed before them on the ground and consumed immediately.

Heidi Rahn, Bond Program Director, noted that animal welfare, along with conservation education and sustainability, were the focus of the bond measure, and will be addressed in a planned mid-program report to come.

E. Monthly Project Updates--A copy of the PowerPoint presentation is included with the record.

1. Elephant Lands

Jim Mitchell, Construction Manager, gave an update on the Elephant Lands project, the largest construction project in the zoo's history, which is now 93 percent complete. Construction is scheduled to be done Nov. 30, 2015, and the grand opening is set for Tuesday, Dec. 15, 2015. This will be a soft opening, with a greater marketing push and more opening events in the spring of 2016. The project has \$4 million left of planned expenditures. Elephant Lands will provide a new great vista for visitors to view both the elephants and the zoo concerts and activities on the concert lawn. The splash pool is being plumbed, and the big pool will have water in it by mid- to end of October. It will be run for two weeks for testing before commissioning.

Councilor Craddick noted problems with a product used on some Portland Community College roofing construction. Mr. Mitchell confirmed that the zoo did not use similar products at Elephant Lands to those used at PCC. He further noted that the PCC materials were not managed on site in a manner that would avoid exposure to the elements. Mr. Mitchell addresses such risk by walking the construction site several times a day.

Chair Kabeiseman complimented Mr. Mitchell and the bond program on excellent work and the remarkable job of staying within budget.

2. Education Center

Brent Shelby, Project Manager, continued the presentation and gave an update on the education center project. The groundbreaking was held Sept. 1, 2015, was well attended and provided inspirational speakers. The event was videotaped, and links to a <u>short video</u> and <u>full-length video</u> will be provided. The general contractor is Fortis Construction and the architectural team is headed by Opsis Architecture, with a local firm, Jones & Jones, providing landscape architecture. Contractors are now onsite, marking utilities.

One goal of the project was to leverage the bond investment for the public by creating partnerships, a partial list of which was presented. One significant partner is the United States Fish and Wildlife Service, and the regional director Robyn Thorson spoke at the groundbreaking. USFWS has committed to provide a staff person at the new education center, and she characterized it as a new and exciting model for her agency to reach an urban audience. The Oregon Zoo Foundation is also a partner and contributed \$1.47 million, with roughly one third of that for capital improvements and two thirds for teen outreach programs. The Collins Foundation contributed \$200,000 toward the OZF contribution.

OZF also assisted in securing from Solar World discounted solar arrays with a contribution value of more than \$100,000 of material donation. As well, these solar arrays will go toward meeting the requirement for the Oregon Department of Energy green power requirement, and the \$100,000 value of offsets go into the project contingency. Solar World has also agreed to assist with the project effort for net-zero energy operations. This is a bid add alternate that is

contingent on the zoo receiving a Portland General Electric Renewable Energy Development Fund Grant, which it will apply for when the RFP is out.

Other Metro departments are also partners in the project. The Nature Exploration Station, referred to as the "Nest" and a core visitor hub with an action center, will have content partly provided by Metro Resource Conservation and Recycling. They are also providing the Backyard Habitat display. Metro Parks and Nature is providing an interactive map of the region showing natural areas, how to get there, and what you can do at each. It will show the interconnected tapestry for us all to engage in conservation. With many partners galvanized, the zoo can move forward with developing programming.

One member asked about the project budget and tools for meeting cost escalation. Mr. Shelby explained that the team recognized the risk of cost escalation, and structured the project accordingly. The project has a contingency of almost 9 percent (although the team would have preferred 10 percent.) The team created additive and deductive alternates in the bid package to accommodate available funding. The schedule and contract finish date will be set with the Guaranteed Maximum Price after the subcontractor bids are received. Construction is expected to finish the end of 2016.

3. Interpretive Experience Design Services

Mr. Shelby continued with an update on the interpretive experience design for Elephant Lands. Work has been progressing on the interpretive for as long as the construction. The interpretives can have an emotional impact on the visitor, and help them have a deeper connection with the animals and take their zoo experience to the next level that hopefully leads to taking action on behalf of the animals. Many zoo departments have contributed to developing the interpretives, and the interpretives will be an amalgam of what zoo visitors want and what the zoo wants for them – a conservation education goal.

The interpretives are built around three core concepts: 1.) Being an elephant – physically and emotionally; 2.) Elephant Lands is the zoo's vision for elephants in practice; and 3.) A shared history of humans and elephants, both at the zoo and externally over time. The interpretive will include all modalities of learning, including tactile, smell (the musk scent of an elephant), activity cards, comparing you and your friends' weight to a baby elephant, etc. A kiosk at the Elephant Plaza will display a large map with four monitor screens tied to live feed cameras around the habitat that will show where the elephants are at that time. Icons on the map will highlight the various features of the habitat that elephants can choose to use and explore.

The gallery space in Forest Hall will feature full-size elephant images displayed on glass panels, a timeline of all Oregon Zoo elephants since Rosie, the first Oregon Zoo elephant, and a history of elephants in Oregon. Some items from the former elephant museum will help to tell the global story of elephants, and lead to the conservation message. One of the interpretive stations will demonstrate how elephants are very smart and work cooperatively, and provide visitors an opportunity to try their hand at the same problem-solving. An elephant trunk model will give visitors a chance to operate a trunk that sprays. Six panels will teach visitors how to identify each individual elephant in the habitat.

Thanks to a generous grant from OZF, a mobile phone app has been developed that will also enable visitors to identify the elephants and submit data reports on what elephant behavior they observe. The app will display the trend of the last 100 data reports, and also include quizzes, activities, and the chance to earn badges. It will encourage visitors to explore, and take a pledge for elephants, which can be posted on social media. Visitors can also use an "Elphie Selfie" mobile phone app to create a picture of themselves with an elephant trunk.

Interpretive costs used to be listed under a separate Interpretives project, but starting with the education center, are now included in the project cost. The program found it was more efficient to have the project architects manage the interpretive for the project. The project budgets for the education center and other remaining projects were adjusted accordingly.

Wayfinding

The interpretive project also includes revamping wayfinding at the zoo. A wayfinding RFB is set to go out in September, with the installations planned for early 2016. The design will be fully funded by the bond program, and fabrication and installation will be funded by both the bond and zoo operations. Three kiosks will be provided for trip planning, and zoo operations will pay for wayfinding upgrades to the front entry. Most of the interpretive work will be done in this first phase, with the remainder to be done after Polar Bears with the central plaza construction.

One member asked about the zoo budget for maintenance and replacement of the interpretives. The new interpretives have a 10-year warranty, with ultraviolet protection for maintaining the colors. Caleb Ford, zoo Finance Manager, explained that all assets at the zoo are tracked, and based on their expected life, funds are deposited into a maintenance and replacement fund.

4. Percent-for-Art

The first major art commission for the bond program will include an installation by Catherine Widgery of Massachusetts on the Forest Hall entry and three towers delineating Elephant Lands from the concert lawn area. All of the towers will be installed in September. Titled "Forest Lights," the structures suggest bamboo and contain dichroic glass panels that cast changing colors of light.

The second major art commission is being done by Rob Ley of Los Angeles for the education center. The zoo's Public Art Advisory Committee made a recommendation that will be presented to the Metro Council to proceed with the art concept, which is still under final development. The vast majority of the zoo's art collection is already local artists. Metro worked with the Regional Art and Culture Council to conduct the solicitation and select the best artist. Zoo Oversight Committee member Ruth Shelly also serves on the art committee and said she felt the process was exceptionally fair. She noted that the finalists did include some local artists, but that the selected artist was most qualified.

Members asked about recognition for the artists, and suggested that it would be nice to tell more about the artists, possibly on the zoo website. Ms. Shelly said the art committee had discussed the possibility of developing an art guide. She also noted that the bond program is refurbishing several significant art pieces as part of the bond program, including two totem poles and the historical Willard Martin mosaic.

5. Remote Elephant Center

Three Oversight Committee members – Daniel Morris, Karen Weylandt and Tom Turnbull – are serving on a third-party task force to make a recommendation to Metro's Chief Operating Officer Martha Bennett on whether Metro should proceed with a remote elephant center. The task force has met once and is expected to meet three more times in the coming months to

review due diligence done to date and all pertinent materials. They will have more to report at the next Nov. 4 Oversight Committee meeting.

After extensive study, Metro determined in mid-August that the Roslyn Lake site is not suitable for elephants due to environmental challenges. A news feed announced the decision.

F. Program Status and Financial Information at a Glance

The bond program has spent approximately \$77 million to date. Metro plans to issue a round of \$30 million in bonds in the spring of 2016 and the remaining \$10 million in 2018 in partnership with a Metro Parks and Natural area bond sale. Looking at external program resources, The Energy Trust of Oregon contributed \$107,000 for energy efficiencies at Elephant Lands. The education center project has many contributing partners. The bond program is moving into planning for the Polar Bear project.

G. Program Schedules

The start of the Polar Bear project schedule was extended to accommodate the additional time added to finish Elephant Lands. The new project start date did not change the overall program end date in 2020, and the program continues to be on schedule.

H. Open Discussion/Questions--none

I. Other

Chair Kabeiseman's term on the Oversight Committee ends in December 2015, and he asked members to let him or Heidi Rahn know if they are interested in serving as vice chair. He hopes to appoint someone by the November meeting.

Members watched a <u>video</u> produced by OZF about how polar bear research done at the zoo is benefitting efforts to protect polar bears in the wild. A copy is included with the record.

J. Adjournment

Chair Kabeiseman adjourned the meeting at 4:45 p.m.

Upcoming meeting dates –Wednesdays, 3 to 5 p.m.:

Nov. 4, 2015	Skyline Room, Oregon Zoo
Feb. 10, 2016	Skyline Room, Oregon Zoo
May 11, 2016	Kalahari Room, Oregon Zoo
Sept. 14, 2016	Skyline Room, Oregon Zoo
Nov. 9, 2016	Skyline Room, Oregon Zoo



Oregon Zoo Bond Citizens' Oversight Committee

Special Phone-in Meeting Tuesday, Oct. 13, 2015 1 to 1:45 p.m.

MINUTES

Garvey Schubert Barer

Oregon Humane Society

Bishop Bankruptcy Law, LLC

Retired CPA; nonprofit treasurer

Pierce, Bonyhadi & Associates Gresham-Barlow School District

Portland Children's Museum

Providence Health & Services

AFFILIATION

Our Oregon

MEMBERS PARTICIPATING

Bill Kabeiseman (Chair) Noah Bishop Linda S. Craig Sharon Harmon Daniel Morris Robyn K. Pierce Mike Schofield Ruth Shelly Dick Stenson Tom Turnbull Karen Weylandt

MEMBERS NOT PARTICIPATING

Tony Butchart Susan Hartnett Deborah Herron Mickey Lee Kevin Spellman

AFFILIATION

OpenSesame Inc.

Hummingbird Homes Spectator Facilities and Development, City of Portland Walmart MPower Oregon Spellman Consulting, Inc.

Retired healthcare executive; community volunteer

ELECTED OFFICIALS AND STAFF PARTICIPATING

Shirley Craddick	Metro Councilor
Teri Dresler	Oregon Zoo Interim Director
Caleb Ford	Oregon Zoo Budget and Finance Manager
Jani Iverson	Oregon Zoo Foundation Director
Jim Mitchell	Oregon Zoo Bond Construction Manager
Joel Morton	Metro Senior Attorney
Linnea Nelson	Oregon Zoo Bond Program Coordinator
Heidi Rahn	Oregon Zoo Bond Program Director
Scott Robinson	Metro Deputy Chief Operating Officer

A. Welcome / Phone-in meeting protocols

Attendees phoned in to participate in the meeting via conference phone. Bill Kabeiseman, Oregon Zoo Bond Citizens' Oversight Committee Chair, opened the meeting at 1:04 p.m.

Heidi Rahn, Zoo Bond Program Director indicated that she had called this special meeting to have the Committee weigh in on the two agenda items before they go to the Metro Council on October

Oregon Zoo Bond Citizens' Oversight Committee Meeting

Nov. 4, 2015

Agenda item C-2

20, 2015. She sent two memos with background information to Committee members in advance of the meeting.

B. Polar Bear Habitat project – construction using Construction Management General Contractor (CM/GC) alternate procurement method

Ms. Rahn explained that the bond program needs approval from the Metro Council to use the alternative procurement process of construction management by general contractor, instead of the standard low-bid process mandated by state law. Both the Metro Council and the Committee have been supportive of using CM/GC in the past, and it is being used successfully on Elephant Lands.

With CM/GC, the general contractor is brought on early in the process to work side-by-side with the architectural team, as opposed to the traditional process of fully designing the building, bidding it, awarding to the low bidder and then building it. The architect is selected by qualifications (not lowest cost) through a request for proposals process. This goes hand-in-hand with the selection of CM/GC by RFP, which is still a competitive process. The architect and CM/GC are evaluated on a series of criteria that include experience, quality of work, ability to use minority/women/emerging small businesses, sustainability, work plan, and approach. Metro advertises its RFPs and RFBs on the Oregon Procurement Information Network (ORPIN), which is used by public agencies statewide and automatically sends notices to MWESB contractors registered in Oregon.

With CM/GC, the contractor still must bid out the subcontract work and take the lowest qualified bidder. For work the CM/GC wishes to self-perform, the general contractor submits its own sealed bid for the subcontract work, and competes with all the other bids it receives. Zoo bond staff also are present at subcontractor bid openings to provide oversight and ensure transparency and fairness.

Zoo bond staff do not lose any oversight of the project using CM/GC, and in fact, it probably enhances the oversight. It creates a team from the start of the project that works more cooperatively together to solve problems and find the best way to design and build the project. This is particularly useful with complex projects with difficult site conditions.

Bringing on the general contractor early in the design process enables the contractor to foresee constructability problems before the design is final, which usually results in project cost reduction. An example of this is Elephant Lands CM/GC, which to date only has 5 percent of the total contract cost in change orders. Typically a low-bid project would have 10 to 15 percent in change orders.

Staff evaluated the complexity of the Polar Bear project to assess whether or not to pursue CM/GC. The evaluation references 10 criteria and provides a score that assists staff in determining the best contracting method. The Polar Bear project has many attributes that led to a CM/GC contracting recommendation. The project is in the middle of the zoo that operates 24 hours a day and seven days a week, with a difficult site layout, difficult access and geotechnical challenges. The project will have phased work, with utility corridor work first. The CM/GC provides a scheduling advantage since the contractor can start that work early while the rest of the design is being finalized.

Using CM/GC will promote diversity in contracting, since it provides more time for the contractor to encourage MWESB contractors to bid. On the education center project this was the case, and is enabling the bond program to exceed its 15 percent goal for MWESB utilization.

Members asked clarifying questions and noted why they supported the use of CM/GC for the Polar Bear project. Many felt using CM/GC is the only logical way to deal with complex projects, assuming the owner still has enough oversight and the contractor is qualified.

A motion was made, seconded and approved by all members to recommend using CM/GC for the Polar Bear project.

C. Education Center budget – Inflationary construction costs exceed budget estimates

Heidi Rahn reminded members that at the last Oversight Committee meeting in September, the education center project CM/GC was about to go out to bid for the subcontract work. At the time of bid, the contractor and architect cost estimation placed the project within the identified budget. In order to provide management options, the project had contingency and bid alternates in place, and staff tried to take as many precautions as they could to control costs. Despite those precautions, the bids came in above the construction cost estimates due to inflationary construction costs that have escalated in the current highly competitive market. After significant value engineering efforts, staff is recommending that to preserve the program and vision as promised to project partners and voters, the project budget be increased. The issue will be considered by the Metro Council on Oct. 20, 2015, and the Council will appreciate the review and recommendation of the Oversight Committee.

Project Manager Brent Shelby spoke about the cost estimating and value engineering process. During design, the project had three scope and construction cost estimate check-ins with architects, the CM/GC and an independent architectural cost estimator. This process resulted in \$2.7 million in cost reductions due to value engineering, after which the project was estimated to be within budget in August, with add alternates and contingency in place to manage costs. But market expectations changed, availability of some subcontractors was limited – especially for glass and concrete – and bids came in \$1.6 million over estimates. So staff activated the contingency plan of using bid alternates, value engineering measures and post-bid deductions to reduce costs by \$706,974, while still preserving the program goals, partner commitments, and sustainability elements. Any additional reduction beyond that would jeopardize the vision of the project, and it would go forward without some core elements. To keep the project whole, staff is recommending that the remaining cost variance of \$975,000 be paid from unallocated bond premium funds, which currently total \$5.8 million.

Some of the bond premium funds were used for Elephant Lands, but not for the Veterinary Medical Center, Condors of the Columbia or Penguin water filtration projects. The bond program does estimate that it may need some of the premium for Polar Bears and Primates/Rhino projects due to construction cost escalation, as well as for additional program administration costs with the schedule extension.

Chair Kabeiseman noted that the bond program has been lucky historically in that the early bond projects were built during a down construction market, and, when the bonds were sold during a down market several years ago, it resulted in a \$10 million premium. At that time, the Committee discussed options for using the premium – everything from refunding it to voters to adding it to the project budgets – and the Committee recommended holding it for future project needs.

Members discussed the issue. With construction, one has to assume you will run into the vagaries of the market. Members noted it is very impressive that staff has already value-engineered it twice.

The additional amount for the education center project will not exhaust the program contingency of unallocated bond premium funds, so it seems like a good use for a portion of those funds. Members questioned the amount of contingency the Education Center project will have. The general contractor is carrying \$340,000 for contingency, and the zoo will have \$1.1 million of its own contingency. The additional \$975,000 is not for contingency, but to keep elements that retain the vision of the Education Center including classrooms, the insect zoo and the turtle lab. The project is not anticipated to need more funding than that, since the bid is a not-to-exceed amount. Members emphasized that they do not want to jeopardize funding future projects.

Scott Robinson, Metro Deputy Chief Operating Officer, agreed that funding future bond projects is foremost in Metro's mind. Metro has two more bond sales to go, and expects to receive another premium. Also, the Remote Elephant Center project has \$7.2 million in allocated bond funds that could become unallocated, depending on how that project proceeds.

Since the education center project has add-alternates that will be added if funding is available, the project would not expect to have any extra unspent funds left over to put back into program contingency. The add alternates are mostly landscaping, and can be activated late in the project if the project contingency is still available.

With construction costs up now and continuing to rise, future bond projects will be budgeted accordingly. Scott Robinson made three points: 1.) The bond program will re-forecast the remaining projects to see if they need more budget, to prospectively control costs; 2.) The bond program is more than 50 percent complete, and with the education center done, will be around 60 percent complete, so the program has diminishing risks; and 3.) The unallocated bond premium provides adequate contingency for all remaining projects.

The next issuance of bonds is scheduled for spring 2016 for \$30 million, with a date yet to be set. The final \$10 million will be sold later in conjunction with the Metro Natural Areas program, to provide a better offer to investors. The program cannot sell all the bonds too soon, since Metro has to reasonably project to spend 85 percent of the funds within three years. Thus, the remaining bond sale will occur in two phases.

Karen Weylandt said that Providence Health & Services is also reforecasting their construction due to the market, and is using 4.5 percent escalation. When the budgets for each of the zoo's bond projects were set in 2011, the percent of escalation varied starting at 3 percent up to 6 percent depending on when the project was scheduled to be built. Kevin Spellman was not able to attend the meeting, but he shared with Ms. Rahn that Portland Public Schools has upcoming construction on two schools and projected a 5 percent escalation on those projects.

Linda Craig asked if something important was given up when the \$706,974 was value-engineered out of the education center project? Mr. Shelby explained that the project had four priorities – classrooms and education spaces, sustainability features, zoo operations and revenue generation, and partnership needs – and the team had taken out items that did not impact those four pieces. They reduced finishes, changed the siding profile, and made other changes that may have some impact to the eye, but not to the core priorities.

A motion was made, seconded and approved by all in favor of recommending using \$975,000 from the bond premium contingency to fund the education center project.

D. Adjournment

Chair Kabeiseman thanked everyone for calling in and adjourned the meeting at 1:45 p.m.

Upcoming meeting dates –Wednesdays, 3 to 5 p.m.

- Nov. 4, 2015Skyline Room, Oregon ZooFeb. 10, 2016Skyline Room, Oregon Zoo
- May 11, 2016 Kalahari Room, Oregon Zoo
- Sept. 14, 2016 Skyline Room, Oregon Zoo
- Nov. 9, 2016 Skyline Room, Oregon Zoo



Oregon Zoo Bond Citizens' Oversight Committee meeting

Nov. 4, 2015

Agenda Item H. Monthly Project Status Reports

- 1. Elephant Lands
- 2. Education Center
- 3. Interpretive Experience
- 4. Percent-for-Art
- 5. Remote Elephant Center



Oregon Zoo Bond Project Status Report Elephant Lands

Nov. 4, 2015

Agenda item H-1

Project Title: Elephant Lands and Related InfrastructureProject Manager: Jim MitchellReporting Period #052/Status Date October 23, 2015Project Manager Phone: 503-914-6025Project Description: Provide a new elephant habitat, expanding from 1.5 acres to 6 acres, allowing for an
evolution in the way the elephants use their space, which supports the zoo's vision for elephants to live in
family herds. Sub-projects include: 1) relocating the train, 2) a new perimeter service road, 3) relocating the
Wild Life Live program, and 4) water and energy sustainability measures, including LEED Silver Certification
and a new campus geothermal loop to reduce the use of fossil fuels for heating and cooling.

Status at a Glance

Status Item	On Track	Caution	Off-track	LEGEND:
Budget	x			Moving along nicely, no significant concerns at this time.
Schedule and signoffs	x			Must be addressed or may be escalated to off-track mode.
Deliverables	х			Causing significant impact to the project.

Design and Construction Schedule

Project Budget and Expenditures

									ESTIMATED
	START	DATE	COMPLET	ION DATE	ORIGINAL	Revised	COSTS TO DATE	ESTIMATE AT	BUDGET
ESTIN	MATED	CONTRACT	Estimated	CONTRACT	BASELINE	BASELINE	OF STATUS	COMPLETION	VARIANCE
8/3	0/11	9/13/11	4/14/15	11/30/15	\$53,847,389	\$57,561,443*	\$55,074,014	\$57,431,819**	\$129,624

* The Budget Baseline reflects the additional funds approved by the Metro Council.

** Forecasted expenditures have been adjusted to reflect actual labor to date and projected labor to complete.

Critical Issues

None at this time.

Summary Status

Milestones/deliverables/information items for this reporting period:

- > The overall project is 96 percent complete and is within budget and on schedule.
- Change orders with the general contractor total 5 percent of the Guaranteed Maximum Price to date.
- The visitor path around the concert lawn is complete.
- The grand opening event has been scheduled for Dec. 15, 2015.
- The marketing plan is targeting zoo members to the opening of Elephant Lands in January and the general public in February as part of the zoo's annual celebration of elephants, Elephantastic.
- Construction progress:
 - Bridge concrete deck and steel systems are being installed.
 - The splash pool structural concrete is complete and a water/leak test is being monitored.
 - Landscaping is in progress.

Planned milestones/deliverables/information for the next reporting period:

- > Complete the elephant splash pool.
- Complete bridge construction.
- > Complete landscaping.
- > The punch list process is scheduled for the week of November 9.



Oregon Zoo Bond Project Status Report Education Center

Nov. 4, 2015

Agenda item H-2

Project Title: Zoo Education Center	Project Manager: Brent Shelby
Reporting Period #025/Status Date: October 23, 2015	Project Manager Phone: 503-525-4240
Project Description: The zoo Education Center will be located	at the site of the original zoo entrance. It will
provide flexible and engaging education program activity space program partner use. In addition to the education programmi comfort amenities identified for the "West Hub" in the Compr limited to: train ticket sales, restrooms, way-finding/trip-plann project includes a portion of infrastructure improvement work water and aging site utilities.	ng at the Center, the project includes visitor ehensive Capital Master Plan, including but not ing material, seating and food. Finally, this

Status at a Glance

Status Item	On Track	Caution	Off-track	LEGEND:		
Budget		х		Moving along nicely, no significant concerns at this time.		
Schedule and signoffs	Х			Must be addressed or may be escalated to off-track mode.		
Deliverables	х			Causing significant impact to the project.		

Design and Construction Schedule

Project Budget and Expenditures

								ESTIMATED
STAR	T DATE	COMPLET	ION DATE	ORIGINAL	Revised	COSTS TO DATE	ESTIMATE AT	BUDGET
ESTIMATED	CONTRACT	ESTIMATED	CONTRACT	BASELINE	BASELINE	OF STATUS	COMPLETION	VARIANCE
4/21/14	6/25/14	3/1/17	n/a	\$12,899,510	\$15,357,615*	\$2,174,133	\$15,357,615	\$0

* The Education Center budget was updated in October 2015 with a net additional \$625,507 for south entry storm pipe construction (co-funded with City of Portland), Metro Parks and Nature funds for interpretives, Metro Resource Conservation and Recycling funds for the Backyard Habitat construction, and previous bond project savings reinvested to meet state solar requirements and security infrastructure.

Critical Issues

None at this time.

Summary Status

Milestones/deliverables/information for this reporting period:

- In light of construction bids exceeding available construction budget, the Metro Council has authorized \$975,000 of unallocated bond program funds be added to the education center allocation to keep project vision and scope whole. These additional resources will be amended into the project budget allocation in November, moving budget status from "caution" to "on track."
- > Site clearing and demolition work is nearly finished. Contractors are beginning to excavate for utilities.
- Zoo staff, partner subject matter experts and design consultants are refining interpretive content for the Insect Zoo, NESt and site exhibits. The 100 percent design development deliverable for the interpretive experience package is due in mid-November.

Planned milestones/deliverables/information for the next reporting period:

- Construction (site work and utilities)
- Interpretive experience design development deliverable



Oregon Zoo Bond Project Status Report Interpretive Experience

Oregon Zoo Bond Citizens' Oversight Committee Meeting

Nov. 4, 2015 Agenda item H-3

Project Title: Interpretive Experience	Project Manager: Brent Shelby					
Reporting Period #46/Status Date: October 23, 2015	Project Manager Phone: 503-525-4240					
Project Description: Interpretive elements are the printed, graphical and electronic activities, experiences and						
signage in and around exhibits that provide mission-based communication to connect guests with the zoo's						
animals, mission and values. In addition to explaining information at exhibits, the interpretive experience will						
address campus orientation and navigation, branding, amenities, and the holistic guest experience.						

Status at a Glance

Status Item	On Track	Caution	Off-track	LEGEND:
Budget	x			Moving along nicely, no significant concerns at this time.
Schedule and signoffs	x			Must be addressed or may be escalated to off-track mode.
Deliverables	x			Causing significant impact to the project.

Design and Construction Schedule

Project Budget and Expenditures

								ESTIMATED
START	DATE	COMPLET	ION DATE	Original	Revised	COSTS TO DATE	ESTIMATE AT	BUDGET
ESTIMATED	CONTRACT	ESTIMATED	CONTRACT	BASELINE	BASELINE		COMPLETION	VARIANCE
2/27/12	3/12/12	12/31/16	12/31/15	\$3,876,412	\$2,489,647*	\$1,843,157**	\$2,489,647	\$0

*Interpretive budges were historically allocated and included with each major project budget. The program originally determined it would be best to track and manage Interpretives as a stand-alone project. The budgets were modified for this change. As of January 2014, Interpretive budgets were reallocated back to the remaining projects (Education Center, Polar Bears and Primate/Rhino).

** Project costs to date include production of condor interpretive videos paid for by a \$25,000 grant from US Fish and Wildlife Service.

Critical Issues

No critical issues to report for this period.

Summary Status

Milestones/deliverables/information for this reporting period:

- Installation of Elephant Lands interpretive experience components is scheduled to be complete November 13.
- A Request for Bid (RFB) for the campus wayfinding system production and installation contract is open and publicly advertised. Bids are due November 19. This work will be executed in early 2016 to coincide with publication of a new campus map for visitors.

Planned milestones/deliverables/information for the next reporting period:

- Elephant interpretive experience installation.
- Campus wayfinding system RFB pre-bid conference.



Oregon Zoo Bond Project Status Report Percent-for-Art

Oregon Zoo Bond Citizens' Oversight Committee Meeting

Nov. 4, 2015

Agenda item H-4

Project Title: Percent-for-Art	Project Manager: Brent Shelby						
Reporting Period #45/Status Date: October 23, 2015	Project Manager Phone: 503-525-4240						
Project Description: Metro Council Resolution 11-4282 approved the recommendation to use the Percent-for							
Art funds for zoo bond program programmatically rather than on a project-by-project basis. This enables a							
more strategic approach to the selection and installation of public art at the zoo and leverages the monies to							
greater effect for the public and the campus.							

Status at a Glance

	-			
Status Item	On Track	Caution	Off-track	LEGEND:
Budget	×			Moving along nicely, no significant concerns at this time.
Schedule and signoffs	×			Must be addressed or may be escalated to off-track mode.
Deliverables	x			Causing significant impact to the project.

Project Schedule*

Project Budget and Expenditures

							Estimated
START I	START DATE COMPLETION DATE		TON DATE	BUDGET	COSTS TO DATE	ESTIMATE AT	BUDGET
BASELINE	Revised	BASELINE	Revised	BASELINE	OF STATUS	COMPLETION	VARIANCE
n/a	n/a	n/a	n/a	\$843,154**	\$330,252	\$842,467	\$687

*This is an ongoing initiative, throughout the duration of the bond program, and does not have a definitive start and end date. ** Budget baseline includes \$20,000 from Oregon Cultural Trust grant and \$30,000 donated by Oregon Zoo Foundation to help fund Willard Martin Mosaic restoration and reinstallation efforts.

Critical Issues

None at this time.

Summary Status

Milestones/deliverables/information for this reporting period:

The Metro Council approved the Oregon Zoo Public Art Advisory Committee's recommendation that artist Rob Ley proceed with his design concept for a commissioned sculpture at the Education Center. He will finalize design, engineering and begin fabrication.

Planned milestones/deliverables for the next reporting period:

Second percent-for-art commission (at Education Center) – design phase coordination.



Oregon Zoo Bond Project Status Report Remote Elephant Center

Oregon Zoo Bond Citizens' Oversight Committee Meeting

Nov. 4, 2015

Agenda item H-5

Project Title: Remote Elephant Center – Phase II	Project Manager: Heidi Rahn
Reporting Period/Status Date: October 27, 2015	Project Manager Phone: 503-220-5709
Project Description: Metro Council Resolution No. 11-423 purchase real property for the purpose of providing a Rem Bond Measure. Staff was also authorized to continue finan scheduled to be delivered to the Metro Council for direction	ote Elephant Center under the 2008 Oregon Zoo cial feasibility planning. A feasibility report is

Status at a Glance

Status Item	On Track	Caution	Off-track	LEGEND:
Budget	TBD			Moving along nicely, no significant concerns at this time.
Schedule and signoffs		х		Must be addressed or may be escalated to off-track mode.
Deliverables		х		Causing significant impact to the project.

Schedule

Project Budget and Expenditures

						ESTIMATED	
START DATE COM		COMPLE	TION DATE	BUDGET	COSTS TO DATE	ESTIMATE AT	BUDGET
BASELINE	REVISED	BASELINE	Revised	BASELINE	OF STATUS	COMPLETION	VARIANCE
10/19/2009)	TBD		\$7.2 million*	\$117,864**	TBD	\$

*The Metro Council adopted Bond Implementation Plan allocates \$7.2 million for the potential offsite facility capital improvements. Once a site is selected, programming, operating, and capital plans will be updated to identify refined capital construction funding requirements. The baseline budget will show \$7.2 million until that work concludes.

** \$78,192 has been spent from the zoo capital fund for property due diligence; \$39,672 has been spent from the zoo bond fund for feasibility assessment.

Critical Issues for Corrective Action: CAUTION.

Project constraints include identification of capital and operating funds.

Summary Status

Milestones/deliverables/information for this reporting period:

The task force is planning their third meeting to assess the feasibility of the Oregon Zoo constructing and operating a remote elephant center. The previous discussions focused on purpose, projected operating and capital expenses, zoo finances, revenue sources, input from the broader zoo community, and experiences of other offsite facilities. The task force should provide a recommendation to the COO by the end of 2015 regarding how to proceed with this project.

Planned milestones/deliverables/information for the next reporting period:

> Provide research/information needed to inform REC task force discussion.



Oregon Zoo Bond Program Project Status and Financial Information at a Glance

Expenditures through September 30, 2015

Oregon Zoo Bond Citizens' Oversight Committee Meeting Nov. 4, 2015 Agenda item I

Program Budgets	and Exp	enditures - note 1;	note 2				Pr	oject Budgets	E	Project openditures		ject Forecast I Expenditures
Construction Projects		Pre-Schematic Design	Design Development	Construction Docs	Contracting	Construction						
Veterinary Medical Center		Complete	Complete	Complete	Complete	Complete	\$	9,464,299	\$	8,840,329	\$	8,840,329
Penguin Life Support System		Complete	Complete	Complete	Complete	Complete	\$	1,800,000	\$	1,762,250	\$	1,762,250
Water Main Building		Complete	Complete	Complete	Complete	Complete	\$	267,459	\$	242,495	\$	242,495
Elephant Lands	% Complete	Complete	Complete	Complete	Complete	96%	\$	57,561,443	\$	55,074,014	\$	57,431,819
Condors of the Columbia	% Complete	Complete	Complete	Complete	Complete	Complete	\$	2,628,592	\$	2,215,609	\$	2,210,130
Education Center	% Complete	Complete	Complete	Complete	75%		\$	15,357,615	\$	2,174,133	\$	15,357,615
Polar Bear Habitat	% Complete	Complete					\$	20,107,853	\$	12,770	\$	20,107,853
Primate/Rhino Habitats	% Complete	Complete					\$	14,240,221	\$	1,909	\$	14,240,221
Remote Elephant Center	% Complete						\$ see	7,200,000 e note 3	\$ see	117,864 e note 4	\$	7,200,000
Interpretives		Condors Interp.	Elephants Interp.	Education Ctr Interp.	Polar Bears Interp.	Primate/Rhino Interp						
Program Interpretive Experier	nce	Complete					\$	2,489,647	\$	1,843,157	\$	2,489,647
	% Complete		98%	37%								
Percent-for-Art		VMC Art	Art Program Planning	East Plaza Art	West Plaza Art	Central Plaza Art						
One-Percent-for-Art Requirer	nent	Complete	Complete	Complete			\$	843,154	Ś	330,252	\$	842,467
	% Complete				19%							
Planning Projects		Proposals Submitted	Contract Award	Interim Reports	Final Deliverables	Close-out						
Comprehensive Capital Maste	er Plan	Complete	Complete	Complete	Complete	Complete	\$	1,850,000	\$	1,691,504	\$	1,691,504
Stormwater/ Wastewater Ana	alysis	Complete	Complete	Complete	Complete	Complete	\$	160,000	\$	159,979	\$	159,979
Stormwater Minor Projects &	Campus Surve	complete	Complete	Complete	Complete	Complete	\$	386,797	\$	386,797	\$	386,797
		Project Scope and	Technical Studies and		Submit CU MS to City	Land Use Approval						
Land Use Processes		Baselines	Application	Public meetings	for Approval	Process						
Land Use – New CUMS		Complete	Complete	Complete	Complete	Complete	\$	796,785	\$	816,777	\$	816,777
Land Use – Amended CUMS		Complete	Complete	Complete	Complete	Complete	\$	110,429	\$	142,617	\$	142,617
Program Administration												
Program Administration, Met	ro Central Sup	port & Bond Issuance					\$	3,912,881	\$	3,392,734	\$	4,950,361
	·	•				Totals	\$	139,177,175	\$	79,205,189	\$	138,872,860
Program Resourc	es						Ex	pected Amount		Issued or Received		allocated Amt. for Contingend
General Obligation Bonds							\$	125,000,000	_	85,000,000	\$	-
May 2012 Bond Issuance Una		mium					\$	10,705,459		10,705,459	\$	5,805,459
Oregon Zoo Foundation - Not	e 5						\$	5,848,000	\$	5,330,000	\$	-
Interest Earnings - Note 6	d	atmonto Noto 7					\$ \$	1,500,000	\$	883,323	\$	-
Grants, donations, rebates an	lu partner inve	estments - Note /					Ş	1,102,799	Ş	271,798	Ş	-

Resource Totals \$ 144,156,258 \$ 102,190,580 \$ 5,805,459

Note 1 - Projects not loaded for program administration, Metro service charges or other allocated costs.

Note 2 - As of May 2014, budgets and expenditures include nonbond funds (Oregon Zoo Foundation, grants, donations, rebates, etc.)

Note 3 - The Metro Council-adopted Bond Implementation Plan allocates \$7.2 million for the offsite facilities capital improvements, which includes Oregon Zoo Foundation funds to support property due diligence. Programming, operating and capital plans will be updated to identify refined capital construction funding requirements. The baseline budget will show \$7.2 million until that work concludes.

Note 4 - Includes \$78,192 of zoo Capital Fund (nonbond) costs.

Note 5 - The OZF pledge includes \$3.2 million for Elephant Lands, \$130,000 for Elephant Lands ID application, \$488,000 for the Education Center capital improvements and interpretives, \$30,000 for the Willard Martin mosaic restoration, and the remainder unrestricted for the zoo bond program.

Note 6 - Interest earnings adjusted Dec. 2014 based on actual expenditures to date and projections moving forward.

Note 7 - Includes Energy Trust of Oregon incentives, City of Portland ecoroof grant, donation for Primates, USFWS grant for Condor interpretive video, Oregon Cultural Trust grant for Willard Martin mosaic, City of Portland South Entry Storm Pipe design and construction, Metro Parks and Nature funds for Ed. Ctr. Interpretives, and Metro Resource Conservation and Recycling funds for Ed. Ctr. Backyard Habitat.

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SERVICE	OF	MET	RO

ACTIVE PROJECTS SCHEDULE Oregon Zoo Bond Program As of Oct. 16, 2015

Oregon Zoo Bond Citizens' Oversight Committee Nov. 4, 2015 Agenda item J-1

ID	Task Name	Start	Finish		2015				2016				2017		
	Tabit Hamo	Otdart		Qtr 3 Qtr 4	Qtr 1 Qtr	r 2 Qtr 3		Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3
0	Consolidated Bond Program Schedule	2/14/11	1/23/17												
1	Elephant Lands	2/14/11	2/19/16						EI	lephant Lands					
2	Land Use Amend. Elephant/CondorCompleted	2/14/11	3/2/12												
3	Elephant Habitat and Related Projects	12/16/11	2/19/16						EI	lephant Habitat and	Related Projects				
4	Design	12/16/11	7/8/13												
5	Wildlife Live	4/4/13	6/21/13												
6	Access Road Construction	4/8/13	1/19/15		Access Road Constru	uction									
7	Train Trestle/Re-grade	11/18/13	11/14/14	🔺 Train	Trestle/Re-grade										
8	Elephant Habitat Construction	9/13/13	11/30/15					El	ephant Habitat (Construction					
9	Post-Construction	10/19/15	2/19/16				A		Po	ost-Construction					
10	Interpretive Experience	3/19/12	2/12/16						📕 🛡 Inte	erpretive Experience	9				
11	Interpretive Roadmap	3/19/12	9/30/12												
12	New Elephant Habitat Interpretive Design	6/25/12	9/18/14	New Elephant Ha	abitat Interpretive Design										
13	New Elephant Habitat Production and Installation	9/19/14	11/13/15	A				🔥 New I	Elephant Habita	at Production and In:	stallation				
14	Condor Habitat Intepretive Design	6/14/12	6/28/13												
15	Condor Habitat Production and Installation	12/23/13	3/7/14	uction and Installation											
16	Wayfinding Design	3/17/14	7/10/15			Wayfin	ding Design								
17	Wayfinding Solicitation and Execution	8/3/15	2/12/16			A			🔺 🖌 Wa	ayfinding Solicitation	and Execution				
18	Education Center	3/21/13	1/23/17						1				Education	Center	
19	Early Demolition	3/21/13	6/12/13												
20	RFP Design	1/21/14	4/18/14												
21	Design	4/21/14	9/11/15				📥 Desigr								
22	Construction	9/14/15	11/21/16				Δ					Cor	struction		
23	Post Construction	11/22/16	1/23/17										Post Cons	truction	

The Comprehensive Capital Master Planning effort identified the schedule and sequencing for the remaining bond projects. This schedule only includes active projects.

O R E G O N ZOOO A service of metro			ALL PROJECTS SCHE Oregon Zoo Bond Pro As of Oct. 16, 201	ogram			Oregon Zoo Bond Citizens' Oversight Committee Nov. 4, 2015 Agenda item J-2
D Task Name	Start 2014 H1 H2	2015 H1 H2	2016 H1 H2	2017 H1 H2	2018 H1 H2	2019 H1 H2	2020 2 H1 H2
¹ Zoo Bond Program Construction Projects Schedule	H1 H2 11/2/09	H1 H2	<u> </u>	H1 H2	H1 H2	H1 H2	H1 H2
2 3 Elephant Lands	11/7/11		🛡 Elephant Lands				
4 5 Procurement/Design/Bid	11/7/11gn/Bid						
6 Construction - Train, Road and WLL	4/4/13	Construction - Train, Road and WLL					
8 9 Construction - Elephant Habitat	9/12/13		Construction - Elephant Habitat				
Condors of the Columbia	7/25/12 Condors of the Columbia						
12 13 Procurement/Design/Bid	7/25/12						
4 5 Construction	6/3/13 Construction						
6 7 Education Center	3/21/13			Education Center			
8 9 Early Demolition	3/21/13						
1 Procurement/Design/Bid	1/2/14	Procur	ement/Design/Bid				
2 3 Construction	9/14/15			Construction			
4 5 Polar Bears	1/6/16					Polar Bears	
26 27 Procurement/Design/Bid	1/6/16			Pr	ocurement/Design/Bid		
28 29 Construction	9/12/17					Construction	
0 Primates and Rhino	1/9/17			~			Primates and Rhino
2 3 Procurement/Design/Bid	1/9/17				hP	rocurement/Design/Bid	
4 5 Construction	11/13/18						Construction
7 Remote Elephant Center	11/2/09						Remote Elephant Cen
38 39 Feasibility Study	11/2/09		Feasibility Study				
0 Property Search	1/21/11				Property Search		
2 Operating and Capital Plans	1/1/14	Operating and Capital Plans					
4 5							