

TRACK LIST

01 PROJECT PERSONNEL

02 SITE SELECTION

03 MISSION STATEMENT

04 COMPONENTS + MATERIALS

05 MARAMATAKA

06 FUNCTIONALITY

07 CONCLUSION



**AIDAN NOWELL**

2nd Year Master of Landscape Architecture  
University of Colorado Denver  
College of Architecture and Planning



\*Primary contact

**STEVEN PEARLMAN**

2nd Year Master of Landscape Architecture  
University of Colorado Denver  
College of Architecture and Planning



**MUSEUM OF OUTDOOR ARTS**

2024 Design and Build Competition  
Land Art: Celestial Architecture

**LISTEN TO THE MOON**



# 01 PROJECT PERSONNEL

Stevie and Aidan first met in 2012 in a band room at Denver East High School. Aidan played trombone and Stevie played drums in jazz bands together until 2014 when they parted ways, not to cross paths again until after college. Eight years later in Spring of 2022, Aidan reached out to Stevie out of the blue to request a special guest appearance during a show with their former band teacher Keith Oxman - a grammy nominated saxophonist and lifelong mentor and friend. While catching up before the gig, they discovered that they'd chosen to start in the same graduate program for landscape architecture that upcoming fall. Aidan and Stevie have been playing music together ever since, continuing on to form a jazz group called Treeline Trio that performs at various venues and events around Denver, CO including the American Society of Landscape Architects Holiday Party in 2023.

Within the Master of Landscape Architecture program at the University of Colorado, Denver, Stevie and Aidan have enjoyed applying the same creative processes used in music and visual art to landscape design. They have rapidly developed relevant skills that enable their creative voices and visions to be realized. They look frequently to each other, their peers, and the masters for inspiration and above all: practice, practice, practice.

Aidan and Stevie formed NAPS Design (Nowell Aidan Pearlman Stevie) with the intent of unifying and celebrating their strengths, interests, and styles. At NAPS Design, all work is collaborative, all concepts are rooted in genuine enthusiasm, and design processes are fun.



## AIDAN NOWELL



### ABOUT ME

Hello! My name is Aidan Nowell and I am a landscape designer born and raised in Denver, Colorado. I want to contribute to a more sustainable interaction between humans and the landscapes we inhabit and hope to someday design landscapes that will impart lasting value for future generations.

While living and studying for a year in Sweden, I came to appreciate elements of Scandinavian design - functionality, community, and celebration of nature. I get excited by practical solutions that better our world and regenerate damaged ecologies. Before entering the field of landscape architecture, I earned a degree in sustainable agriculture and food systems and enjoyed studying the nexus between humans and our food. I worked in farming communities, at a USDA laboratory, and designed a software platform to address retail food waste.

I bring positive energy and optimism to each day and maintain a calm demeanor even under pressure. As a team member, I communicate well and am highly coachable and adaptable. In addition to my passion for landscape architecture I enjoying drawing and painting, performing and teaching music, playing chess, coaching baseball, gardening, and backpacking and skiing in the Rocky Mountains.

### EDUCATION

**Master of Landscape Architecture**  
University of Colorado, Denver | 2025  
Sigma Lambda Alpha Honors Society

**Bachelor of Science in Sustainable Agriculture and Food Systems**  
University of California, Davis | 2019  
Dean's List 2018

### EXPERIENCE

**President Elect | American Society of Landscape Architects Student Chapter**  
University of Colorado, Denver: 05/2024 - Present

**Preprofessional Recognition of Excellence and Potential Fellow | Green Roofs For Healthy Cities**  
Denver, CO: 12/2023 - Present

**Landscape Design Intern | Norris Design**  
Denver, CO: 05/2023 - Present

**Vice President | American Society of Landscape Architects Student Chapter**  
University of Colorado, Denver: 05/2023 - 05/2024

**Class Representative | American Society of Landscape Architects Student Chapter**  
Denver, CO: 10/2022 - 05/2023

**Piano Performer and Educator | Freelance**  
Denver, CO: 10/2019 - Present

## STEVEN PEARLMAN



### ABOUT ME

As a budding landscape architect, my focus lies in seamlessly blending ecologically mindful design into both urban and rural settings. Whether crafting intimate gardens or expansive panoramas, I firmly believe that our bond with the environment thrives on a deep reverence and understanding of the natural world. I'm passionate about landscape architecture, because - both as a science and as an art - it fundamentally incorporates conservation biology and social justice issues, and can create functional spaces that dramatically improve the health of people and Nature.

After graduating from the University of Oregon in 2020, I've held various professional positions, ranging from horticultural to environmental consulting, where I've demonstrated versatility, adaptability, and a strong desire to learn.

I am currently serving as the CU Denver ASLA Horticulture Coordinator, was selected as a 2024 MLA Student Spotlight, and have had various studio projects selected for showcasing. Outside of academia, I have played on nationals-qualifying ultimate frisbee teams, am the curator of a Gold Status Certified Colorado Native Plant Garden, and am a near-peer mentor for the Colorado Conservatory for the Jazz Arts where I assist in the instruction of jazz performance and collaboration.

### EDUCATION

**Master of Landscape Architecture**  
University of Colorado, Denver | 2025  
Sigma Lambda Alpha Honors Society

**Bachelor of Science in Environmental Studies**  
University of Oregon | 2020  
Minors: Biology, Earth Sciences, & Food Studies

### EXPERIENCE

**Designer & Research Assistant | University Technical Assistance Program**  
University of Colorado, Denver: 05/2023 - Present

**Environmental Scientist | Tower Engineering Professionals, Inc.**  
Western United States: 02/2022 - 08/2022

**Horticulture Program Specialist | City of Aurora Water Conservation Department**  
Aurora, CO: 04/2021 - 10/2021

**Horticulture Team Member | Fresh Aire Enterprises Inc.**  
Arvada, CO: 09/2020 - 02/2021

**Environmental Educator | Bluff Lake Nature Center**  
Denver, CO: 06/2019 - 08/2019

**Riparian Restoration Project Team Member | UO Environmental Leadership Program**  
Eugene, OR: 01/2019 - 06/2019



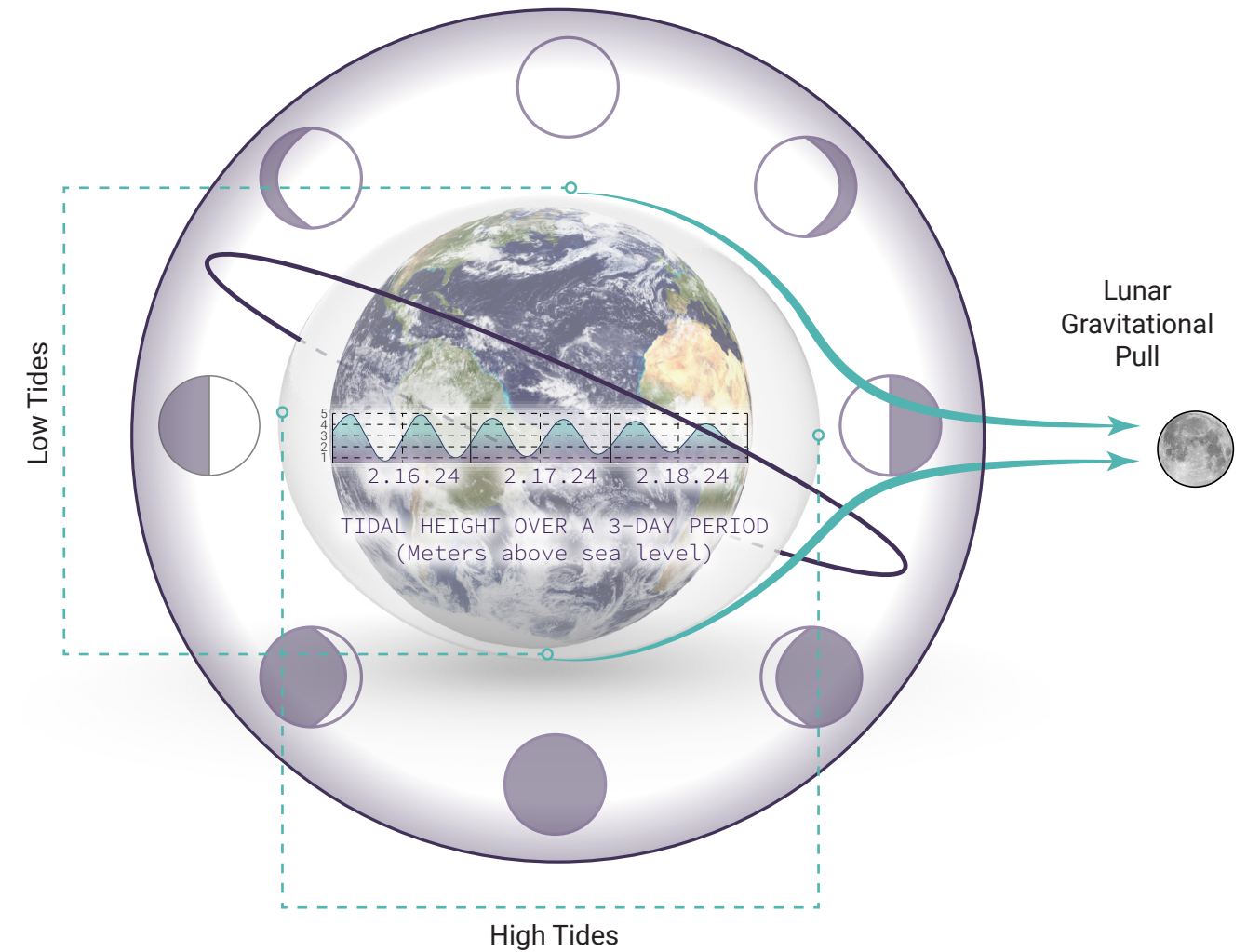
# 02 SITE SELECTION

This site is located at Onetahua (i.e. Cape Farewell) - a coastal bluff located on the northern tip of the southern island of New Zealand. The New Zealand landscape is truly like no other. Strongly shaped by tectonic forces - with the North Island sitting on the Pacific Plate and the South Island sitting on the Australian Plate - the country is defined by diverse landforms ranging from beaches and subtropical rainforests in the north to high alpine landscapes in the south with awe-inspiring fjords, bluffs, meadows, and rugged mountains.

Throughout history, cultures worldwide have maintained deep connections to the Moon, viewing it as a celestial symbol of mystery, spirituality, and natural cycles. Of these, the Māori (the indigenous people of New Zealand) have held a particularly deep connection with the Moon, viewing it as a significant celestial entity intertwined with their culture, traditions, and daily lives. In Māori cosmology, the Maramataka - their lunar calendar - marks the phases of the Moon in a lunar month. The Maramataka represents cycles of life, nature, and spirituality, and guides activities such as fishing, planting, and harvesting in relation to lunar cycles. Additionally, Māori myths and legends feature the Moon as a prominent figure, reflecting its role as a celestial guardian and source of cultural wisdom. Overall, the Māori connection to the Moon reflects a profound respect for nature and the interconnectedness of the universe within their worldview.

In addition to its cultural and ecological conditions, this site was selected for its dark skies and panoramic views, allowing for a clear connection to celestial bodies above. Further, the proximity of the site to the ocean and tide-eroded coastal bluffs allows for a more direct understanding of how the Moon's forces have shaped land and life on Earth through the gravitational ebb and flow of coastal water. Additionally, there is an established access road to an existing on-site overlook, resulting in minimal disturbance and easier project installation.

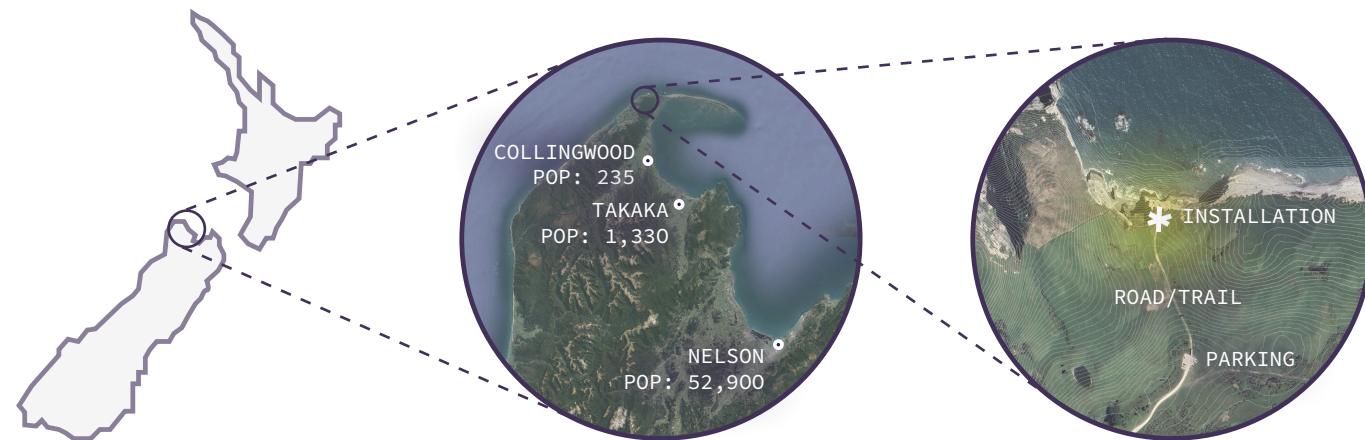
## LUNAR + TIDAL RELATIONS



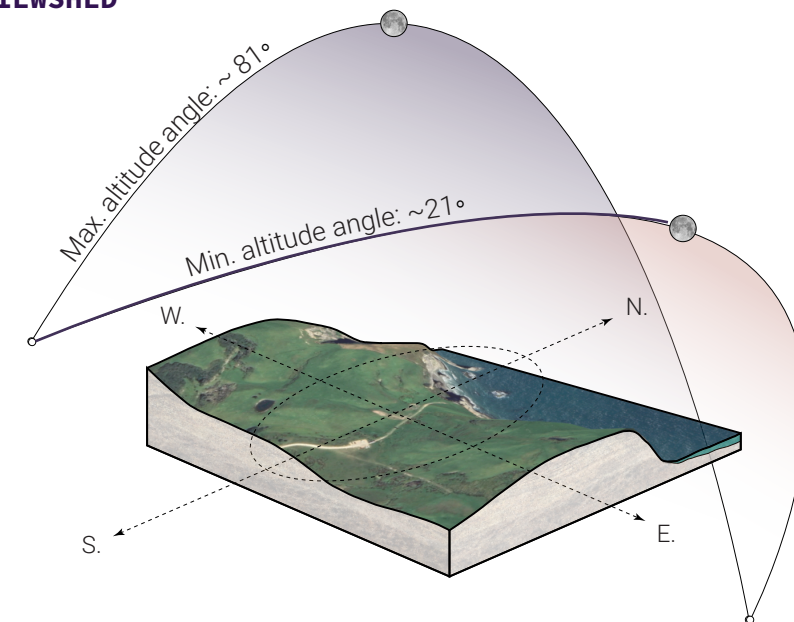
### NEW ZEALAND

### REGIONAL CONTEXT

### LOCALIZED SITE CONTEXT



### LUNAR VIEWSHED





# 03 MISSION STATEMENT

## 1. How does your design relate to the theme of Land Art: Celestial Architecture?

"Listen to the Moon" provides opportunities for visitors to reignite a magical connection with the Moon and begin to understand its multifaceted influences on life on Earth. While traditional cultures - such as the Māori - used the Moon as a calendar marking fishing, harvesting, and other activities pertaining to the natural world, in today's world we have generally become disconnected from these natural cycles and celestial moments. This design aspires to reveal the influence of the Moon in a way that visitors can both see and hear. It is a multi-sensory experience intended to broaden our perspectives and understanding of our magical relationship with Earth's celestial companion.

The installation features a glass chamber which visually indicates the tidal patterns generated by the lunar orbit and allows one to aurally experience them through a set of acoustic pipes that register the rise and fall of the tidal level below, producing a changing tonal chorus. Visitors would discover the genius loci of a site that is continuously formed and reformed by the tidal forces of the Moon and gain an expansive panoramic view of its celestial path across the sky. Experience the rhythm of nature and reconnect with your celestial reality as you listen to the Moon.





# 04 COMPONENTS + MATERIALS

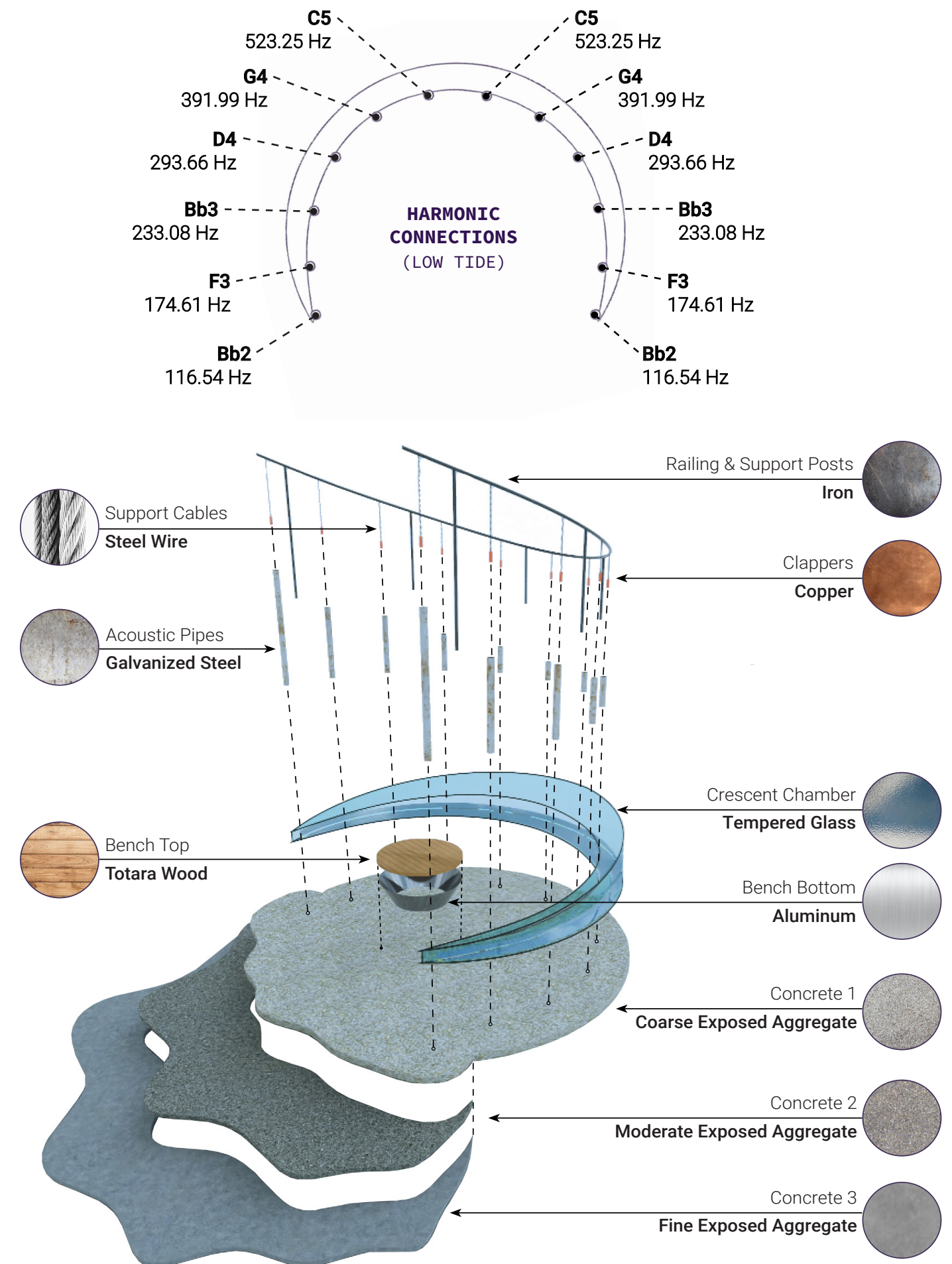
## 2. Describe the proposed materials, including required native materials, and methods used to build/install your structure/artwork/installation.

The concrete pad would be divided into three distinct areas. The main slab would be highly textured exposed aggregate concrete, and the two companion slabs would be progressively less textured surfaces – a choice meant to honor the higher level of erosion that proximity to the ocean creates. The aggregate used in the concrete is to be made from sandstone gathered on site. The set of acoustic pipes of different lengths, made from galvanized steel, would be cut to specific dimensions to achieve vibrational frequencies of sound when struck by the clappers. The pitches were chosen from the harmonic series of overtones, an emergent phenomenon from the natural physics of music. Each pipe would be engraved with three markings: 1) the frequency of pitch that it would produce when the water chamber is empty (low tide, the harmonic basis); 2) the musical note of that frequency; and 3) the water level lines corresponding to existing and future tidal patterns of the sea below.

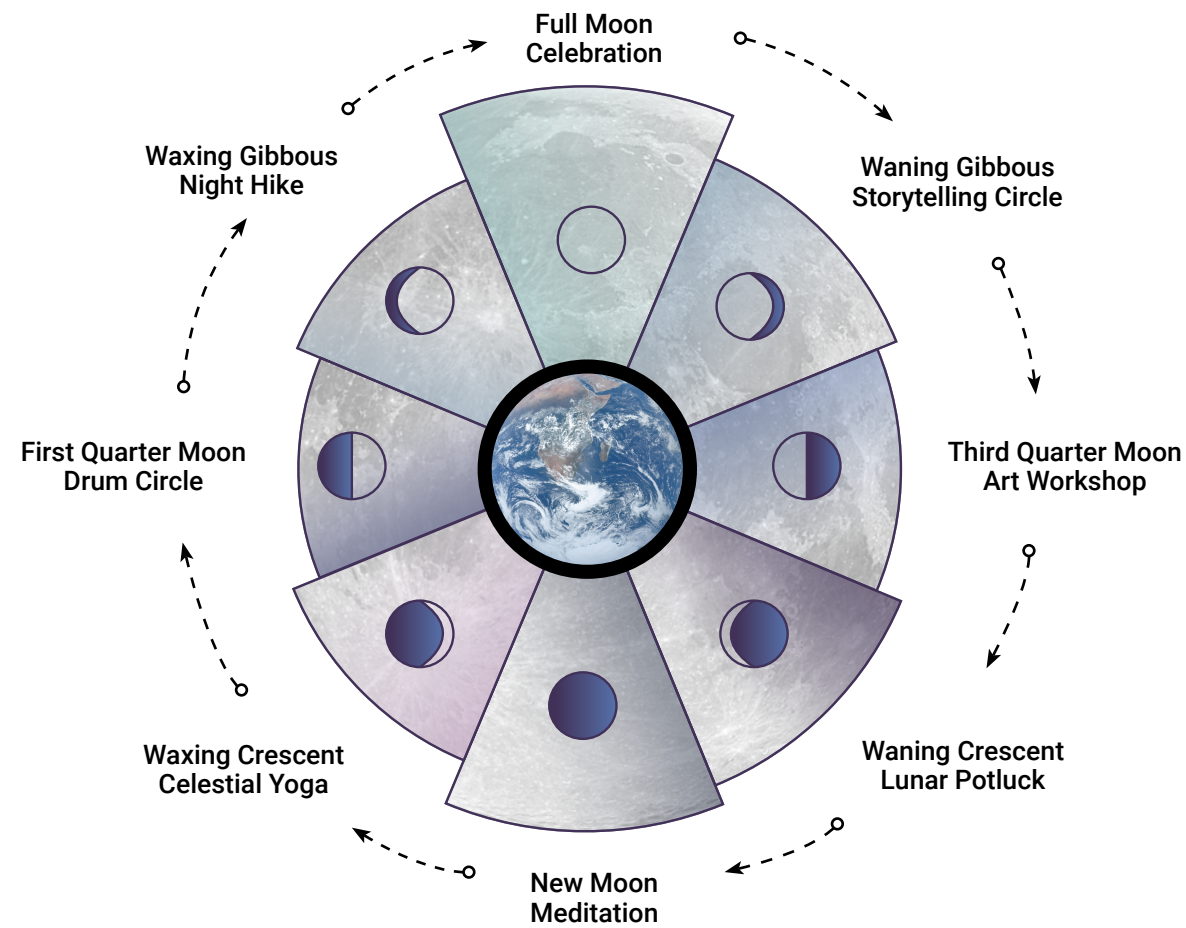
These, along with the iron railing, would be countersunk into the concrete for stability. Small copper clappers would be hung from the railing with steel wire cables. A translucent water chamber would be made of custom tempered glass panels fitted together with a steel frame. The seat of the bench would be crafted from totara wood, a native material to New Zealand that boasts impressive longevity even in the face of harsh coastal conditions. The bench bottom would be a conical aluminum base fastened to the concrete. All materials are intended to be locally sourced.

## 3. Describe how your concept will be constructed? How long would construction take?

This design would be constructed in three phases. Phase 1 would include minor demolition, site preparation, and installation of water modulation system components. The next step is the three separate concrete pours. The acoustic pipes would be cut to length, engraved, and countersunk vertically in the third concrete pour alongside the iron railing. Phase 2 would include having the three tempered glass panels custom fabricated and joined together with a steel frame then set into place, as well as steel wire cables fastened to the iron railing and copper clappers then hung into the acoustic pipes. The tidal gauge and buoy system would also be placed in the ocean below, and the bench installed onto the concrete pad. Phase 3 would introduce water to the system, and calibrate the tidal gauge, radio relay, and water modulation systems. In total, construction would be expected to be completed within 3-6 months.







### SAMPLE EVENTS

#### Full Moon Celebration:

Experience a unique concert at the sculpture during the full Moon. Local musicians will perform under the radiant full Moon, blending celestial rhythms with traditional Māori melodies.

#### Waning Gibbous Storytelling Circle:

Gather around for lunar storytelling during the waning gibbous phase. Share lunar myths, legends, and personal tales while listening to the installation, deepening our cosmic connections.

#### Third Quarter Moon Art Workshop:

Join our third-quarter Moon art workshop. Create collaborative installations reflecting lunar cycles and tides using coastal materials.

#### Waning Crescent Lunar Potluck:

Participate in a lunar potluck under the waning crescent Moon at the sculpture. Bring celestial inspired dishes or homemade recipes to share as we connect through food and music.

#### New Moon Meditation:

Join us at the sculpture for a new Moon meditation session. Embrace the night's darkness, setting intentions for new beginnings while listening to Moon chimes.

#### Waxing Crescent Yoga:

Attend a rejuvenating yoga class at the sculpture during the waxing crescent phase. Flow through gentle poses, harmonizing with ambient sounds for a serene experience.

#### First Quarter Moon Drum Circle:

Bring percussive instruments like drums, tambourines, or a Pahu "Gong" (the traditional percussive instrument of Māori culture) to create rhythmic foundations for changing melodic chimes.

#### Waxing Gibbous Night Hike:

Embark on a guided night hike along Puponga Hilltop and Farewell Spit Trails during the waxing gibbous phase. Reflect on the Moon's ocean reflection as a moment for personal contemplation.

### 4. How was collaboration utilized in realizing the design?

As musicians and emerging landscape architects, we recognize that collaboration is a fundamental component of artistic endeavors and landscape design. From the project's inception, internal teamwork and consultation with local practitioners has shaped and refined the design of a land art installation that aims to inspire a novel connection with the cosmos. Seeing discussions about the concept spark excited engagement have made us confident that this installation would deliver a unique and extraordinary experience.

Successful realization of this design will require involvement from local construction firms, glass and metal artists, and active participation from other members of the community. 'Listen to the Moon' offers visitors an opportunity to engage in collaborative artistic expression and connect with the Moon in a meaningful, multi-sensory way. People are encouraged to simply listen, dance, or bring instruments (e.g., Taonga puoro – traditional Māori musical instruments) and harmonize with the installation's tonal chorus.

### 5. How will your structure/installation be used by the public? How was safety addressed?

At its foundation, this installation marks a site that offers an incredibly scenic vista to the public. Visitors can access the site via existing roads and trails that wind through a pristine landscape. A circular bench provides a resting place that celebrates the 360° views. In addition to listening, dancing, and harmonizing with the sounds produced by the installation and ever-changing tides, we encourage the development of a community engagement calendar with different events celebrating our magical relationship with the Moon's lunar phases. Just as we all share the Moon, this installation is meant to be shared and interacted with by people on their own terms. The installation is set back sufficiently from the cliff edge and its form acts as a cradle to encourage a safe distance.





**6. How does the structure/artwork/installation address the climate in which it would reside?**

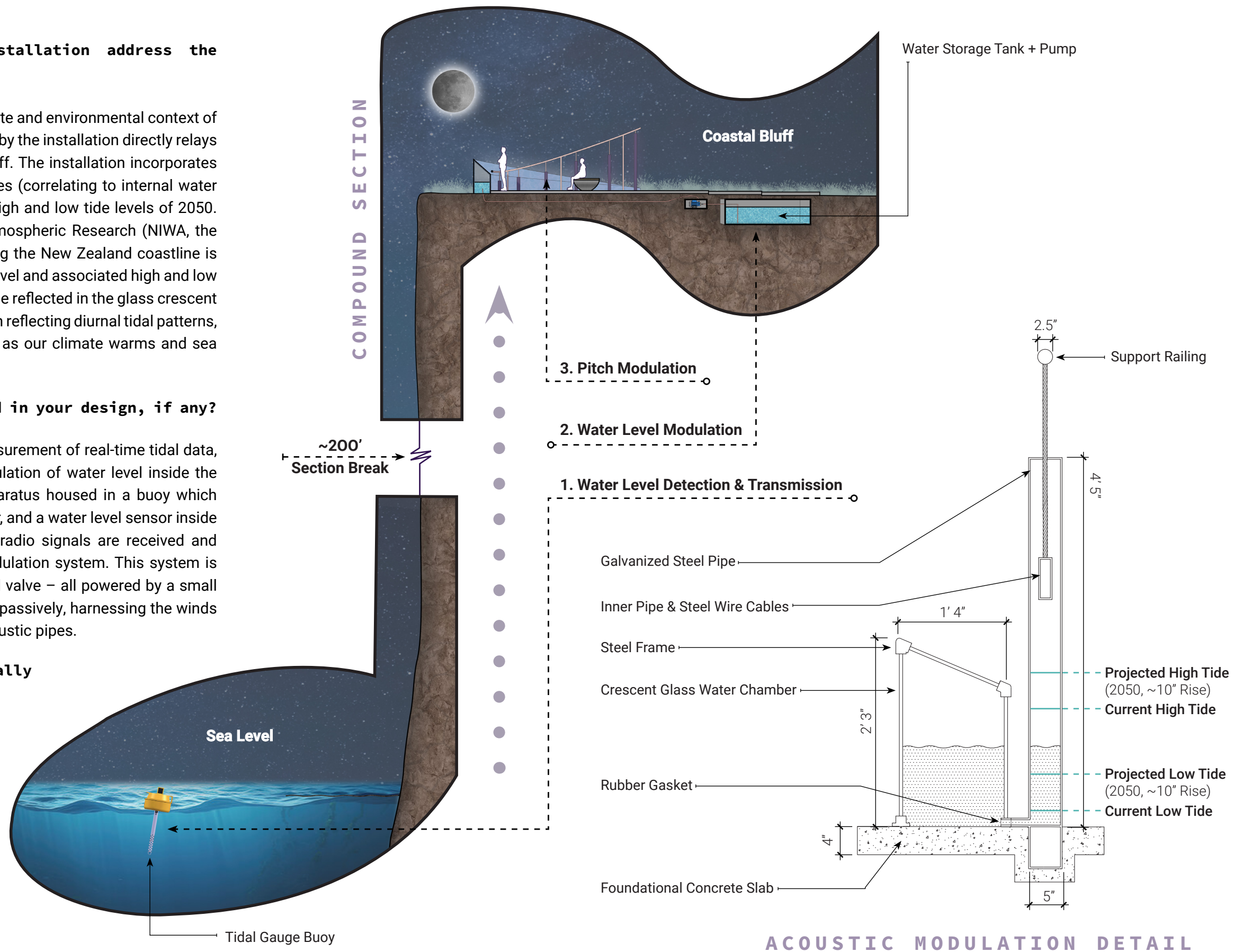
“Listen to the Moon” is inextricably related to the climate and environmental context of Onetahua. The ever-changing tonal network produced by the installation directly relays real-time tidal patterns at the base of the coastal bluff. The installation incorporates four markers indicating current high tide and low tides (correlating to internal water levels within the water chamber) and the projected high and low tide levels of 2050. According to the National Institute of Water and Atmospheric Research (NIWA, the New Zealand equivalent to NOAA), the sea level along the New Zealand coastline is expected to rise between 10-12” by 2050. As the sea level and associated high and low tides rise in the coming decades, this will continue to be reflected in the glass crescent water chamber. Therefore, in addition to the installation reflecting diurnal tidal patterns, it also reflects climate change and rising sea levels: as our climate warms and sea levels rise, the sounds emitted will continue to evolve.

**7. What type of technology is implemented in your design, if any?**

This design utilizes technology to achieve direct measurement of real-time tidal data, transmission of that data via radio signal, and modulation of water level inside the installation. The tidal gauge is a self-contained apparatus housed in a buoy which includes a small solar power system, radio transmitter, and a water level sensor inside a stainless-steel sensor deployment tube. On land, radio signals are received and trigger a corresponding reaction from the water modulation system. This system is composed of a water tank, water pump, and solenoid valve – all powered by a small solar power system. The installation produces sound passively, harnessing the winds of the site to move the hanging chimes within the acoustic pipes.

**8. What makes the design environmentally friendly/sustainable?**

The site was selected with the intent of maintaining a light environmental footprint. No new infrastructure is needed to reach the site and construct the installation there, and the design minimizes necessary replacement of parts. If constructed correctly, the installation should have a long life cycle. Reclaimed/recycled local materials are highly encouraged and feasible to use for the majority of the installation. This installation should not have an adverse impact on the ecosystem.



ACOUSTIC MODULATION DETAIL



# 07 CONCLUSION

## 9. Open question: Is there anything else you would like to tell us about your proposal?

Since a key component of this proposal is auditory, we have created an audio rendering of what the installation would sound like. Click the link or scan the QR code below to view a video that features the sounds of the installation:

<https://youtu.be/oRkV2BjRSmE>



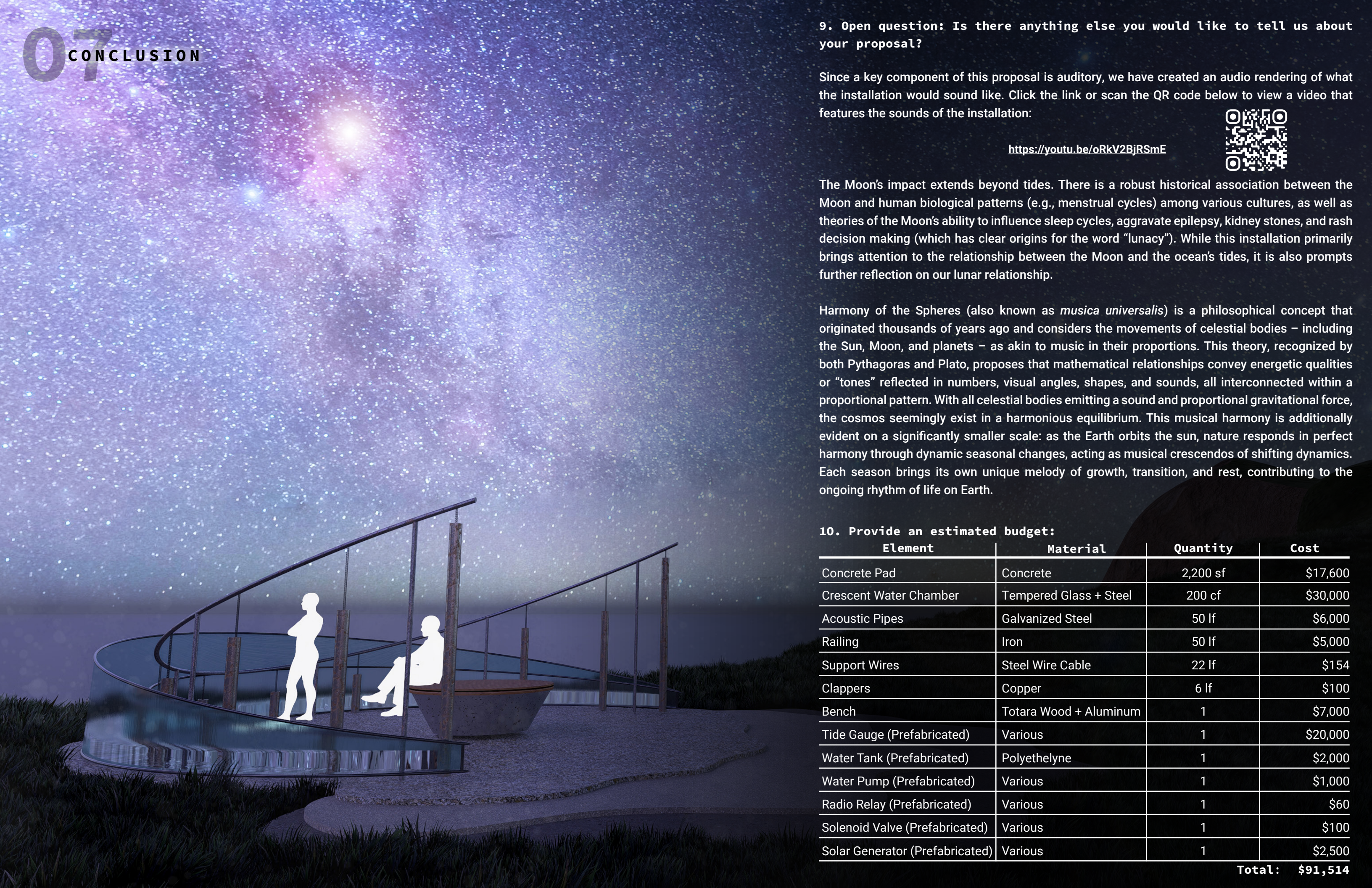
The Moon's impact extends beyond tides. There is a robust historical association between the Moon and human biological patterns (e.g., menstrual cycles) among various cultures, as well as theories of the Moon's ability to influence sleep cycles, aggravate epilepsy, kidney stones, and rash decision making (which has clear origins for the word "lunacy"). While this installation primarily brings attention to the relationship between the Moon and the ocean's tides, it is also prompts further reflection on our lunar relationship.

Harmony of the Spheres (also known as *musica universalis*) is a philosophical concept that originated thousands of years ago and considers the movements of celestial bodies – including the Sun, Moon, and planets – as akin to music in their proportions. This theory, recognized by both Pythagoras and Plato, proposes that mathematical relationships convey energetic qualities or "tones" reflected in numbers, visual angles, shapes, and sounds, all interconnected within a proportional pattern. With all celestial bodies emitting a sound and proportional gravitational force, the cosmos seemingly exist in a harmonious equilibrium. This musical harmony is additionally evident on a significantly smaller scale: as the Earth orbits the sun, nature responds in perfect harmony through dynamic seasonal changes, acting as musical crescendos of shifting dynamics. Each season brings its own unique melody of growth, transition, and rest, contributing to the ongoing rhythm of life on Earth.

## 10. Provide an estimated budget:

Element	Material	Quantity	Cost
Concrete Pad	Concrete	2,200 sf	\$17,600
Crescent Water Chamber	Tempered Glass + Steel	200 cf	\$30,000
Acoustic Pipes	Galvanized Steel	50 lf	\$6,000
Railing	Iron	50 lf	\$5,000
Support Wires	Steel Wire Cable	22 lf	\$154
Clappers	Copper	6 lf	\$100
Bench	Totara Wood + Aluminum	1	\$7,000
Tide Gauge (Prefabricated)	Various	1	\$20,000
Water Tank (Prefabricated)	Polyethelyne	1	\$2,000
Water Pump (Prefabricated)	Various	1	\$1,000
Radio Relay (Prefabricated)	Various	1	\$60
Solenoid Valve (Prefabricated)	Various	1	\$100
Solar Generator (Prefabricated)	Various	1	\$2,500

**Total: \$91,514**





THANK YOU FOR LISTENING

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2024 Design and Build Competition  
Land Art: Celestial Architecture

