

REDMOND CENTRAL CONNECTOR

ART FOR PHASE II

SIDECAR COLLECTIVE | 2015

REDMOND TRAIL CONNECTOR ART FOR PHASE II

This document is intended to serve as a handbook for integrating art interventions along the Phase 2 section of Redmond Central Corridor. The approach to art integration built upon many of the concepts outlined in the trail master plan but focused on creating a different experience than that of Phase 1. Phase 2 is a connector, so the art interventions outlined in this book were designed to enhance the user's experience of the trail, rather than create points of destination along it. When appropriate the interventions build upon existing trail infrastructure to strengthen and layer the experience. The art interventions are designed with varied levels of

permanence from events to curated frameworks. The temporary nature allows for the experience of the trail and the interventions to change with the weather, time of day and seasons making each visit a unique experience. Since Phase 2 will be open before Phase 3 completes the trail connection, several interventions are event-based to draw people to the end of the trail and create interest and buzz about the final Phase. The designs in this handbook are at the concept level and will require further development prior to implementation.

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ABOUT SIDECAR COLLECTIVE

OUR INTEREST IN PUBLIC ART STEMS FROM OUR COLLECTIVE DESIRE TO CREATE MOMENTS OF DELIGHT AND ESTABLISH PLACES WITH IDENTITY FOR THE PUBLIC.

As a team, we have a background covering Public Art, Urban Design, Architecture and Construction, Human Geography, Psychology, and Interactive Art. Our interest in public art stems from our collective desire to create moments of delight and establish places with identity for the public. Collectively, we all work in the field of design on multiple projects with a range of scales including large scale architecture and urban design projects to smaller scale temporary art projects.

We have worked with various groups such as the City of Seattle, 4Culture, designers in Copenhagen, non-profit groups and the general public. We have also worked in all phases of a design project, including conceptual development to construction documentation and installation. Our work is developed as an interdisciplinary collective and we enjoy working with other design teams in our process. We feel that collaboration allows for design strengths and skills to be leveraged and creates a more holistic and integrated end result, particularly in public art.



LAUREN KEENE



SARAH MARSHALL

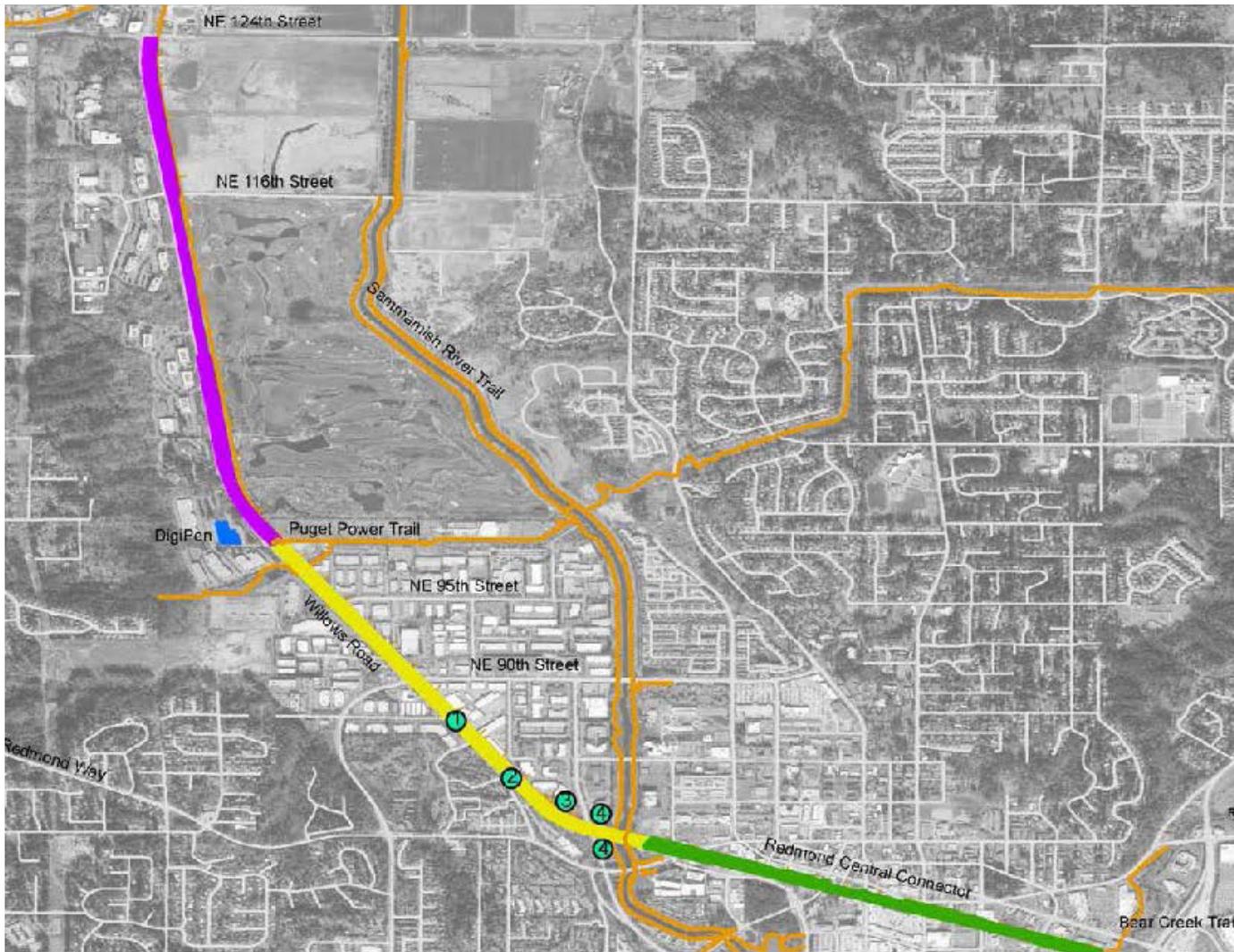


JENNY KEMPSON



CARISSA FRANKS

REDMOND CENTRAL CONNECTOR PHASE II



The art concepts provided in this document are intended for the Phase II section of the Redmond Central Connector shown in yellow in the adjacent map.

Legend

- RCC Phase 1
- RCC Phase 2
- RCC Phase 3
- Regional Trails
- Future Eastside Trail Corridor
- Ped Connections to Phase II

source
<http://www.redmond.gov/>



GOALS OF THE REDMOND CENTRAL CONNECTOR ART MASTERPLAN

2011, Carolyn Hope (City of Redmond)
Guy Michaelsen and Dave Knight (Berger Partnership)
Peri Lynch Howard (Velocity Made Good)

Make it distinctly Redmond
Make it great on all days, in all weather
Inspire a community through artistic activity (Engage, don't just display)

CONCEPT

ART CAN HAVE A HUGE IMPACT - HELPING TO START CONVERSATIONS, ATTRACTING PEOPLE TO SPACES IN THE CITY, FORMING NEW COMMUNITIES, AND BECOMING A CATALYST TO FUTURE IDEAS AND WORK.

OUR CONCEPT WAS CREATED WITHIN THREE CONSTRUCTS:

- CREATING A FRAMEWORK
Art can be a framework for human interaction in the public realm
- Re-Framing the Norm
Art can help to shape and change our perception on how we see the world
- Revealing the Hidden
Art can highlight information that otherwise goes unnoticed

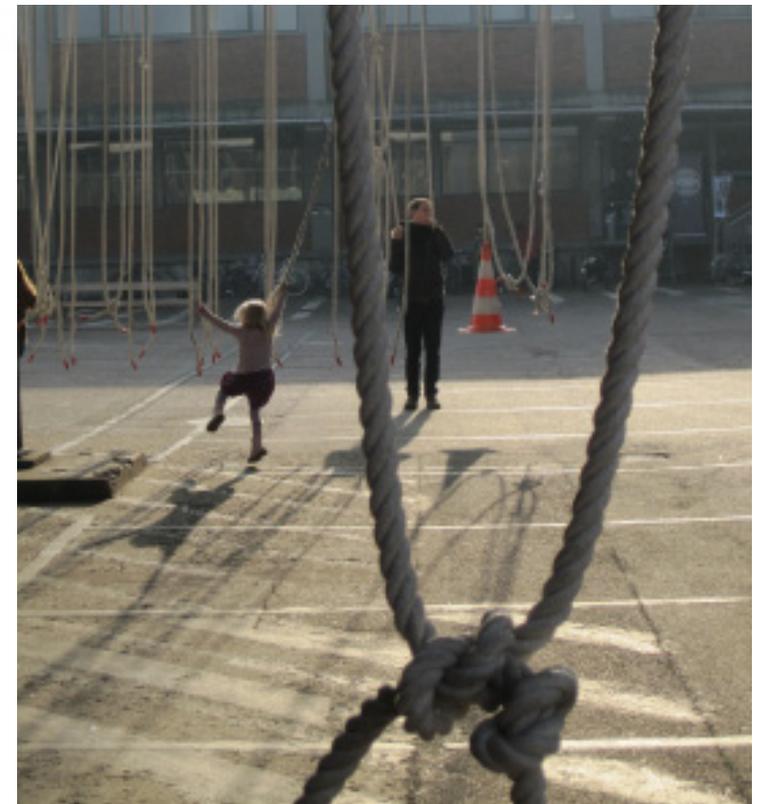
PHASE II ART INSPIRATION

CREATING A FRAMEWORK

Art interventions that create an armature or situation that invites users to participate and interact. Through interaction people meet and mix and new uses and outcomes evolve

Example projects related to the theme:

- a. "Bins and Benches" 2006, Greyworld
- b. "The Rope Show" 2010, UIWE



PHASE II ART INSPIRATION

RE-FRAMING THE NORM

Art interventions that build upon the everyday experience, but alters it in such a way to reveal a new meaning. Re-framing causes the user to pause, interact, and consider what was common in a new way

Example projects related to the theme:

- a. "Picidae Chorus" by Tangible Interaction
- b. Lycée Germaine Tillon du Pays de l'Arbresle



PHASE II ART INSPIRATION

REVEALING THE HIDDEN

Art interventions that create a layered experience through presenting information or data that about a space, place or view that would otherwise be invisible.

Example projects related to the theme:

- a. Entre ciel et Terre, 2005 by Fleice Varini
- b. The Tidy Street Project , part of CHANGE, an EPSRC funded research collaboration between The Open University, Goldsmiths, Sussex University and Nottingham University.



MOVEMENT

THE ACT, PROCESS, OR RESULT OF MOVING
A SERIES OF ACTIONS OR ACTIVITIES
A CHANGE OF POSITION OR LOCATION
THE PROGRESS OF EVENTS, AS IN A NARRATIVE
CHOREOGRAPHY AND COMPOSITION (WIKIPEDIA)

SPEED OF EXPERIENCE



PAUSE



PLAY

ART INTERVENTIONS

DESIGN IS AN EXPERIMENT. CONTINUOUSLY EVOLVING AND CHALLENGING OUR TIMES, AN UNDERSTANDING THAT ... ATTEMPTS TO RENDER THIS WORLD SINGULAR AND FINITE ARE OBSOLETE.

-STEPHEN AND THEODORE SPYROPOULOS MIMIAFORMS

TYPE OF ART INTERVENTION



EVENT



TEMPORARY



PERMANENT/CURATED

LOCATION

ONE OF THE FIVE GEOGRAPHIC THEMES; A SPECIFIC POSITION OR POINT IN PHYSICAL SPACE (WIKIPEDIA)

LOCATION ON THE TRAIL



STRAIGHT

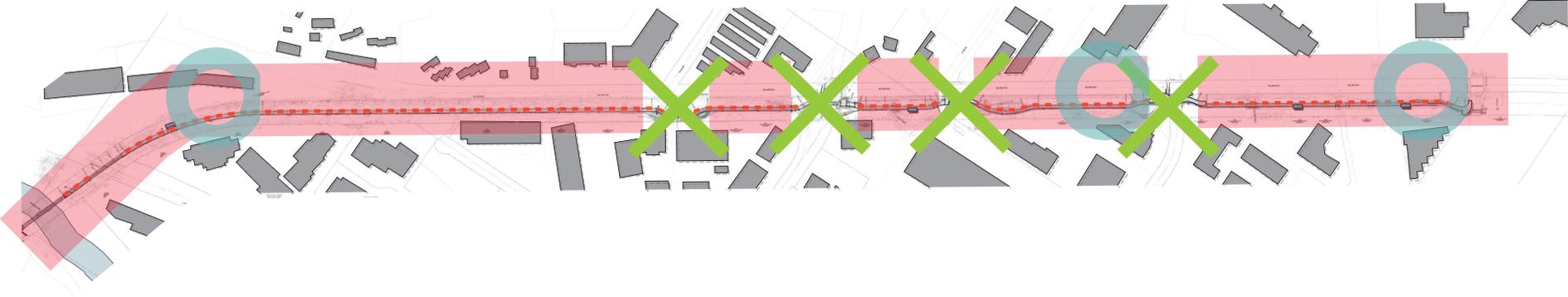


INTERSECTION



SITE SPECIFIC

PHASE II ART LOCATIONS



STRAIGHTAWAYS —

SITE SPECIFIC ○

INTERSECTIONS X



MENU OF ART IDEAS

ART OVERLAY PLAN

1. POWER UP
2. REDMOND RUSH
3. PUMP TROLLEY
4. DERAILED DISPLAY
5. STOP FRAME
6. SCENE SCREEN

7. CANOPY CORRIDOR

8. MIXED MESSAGES

9. FLASH FORWARD

10. CYCLE IN CINEMA



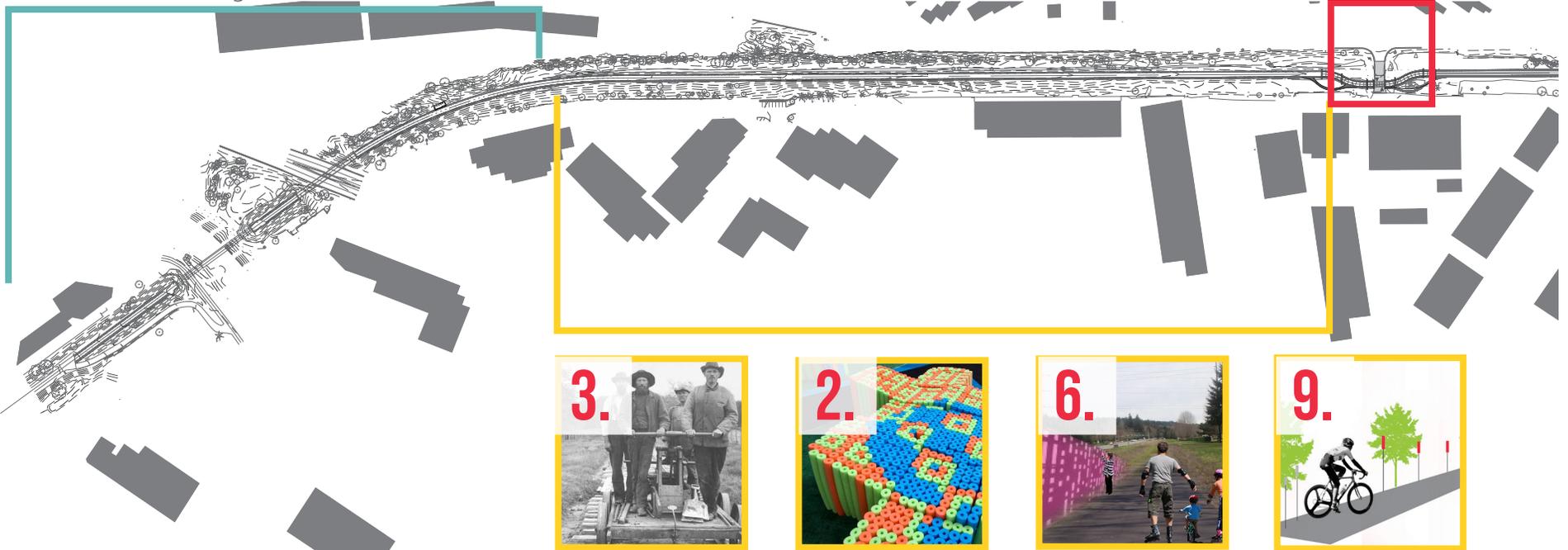
REDMOND CENTRAL CONNECTOR PHASE II ART OVERLAY PLAN

Suggested locations for each art menu item along the Phase II corridor



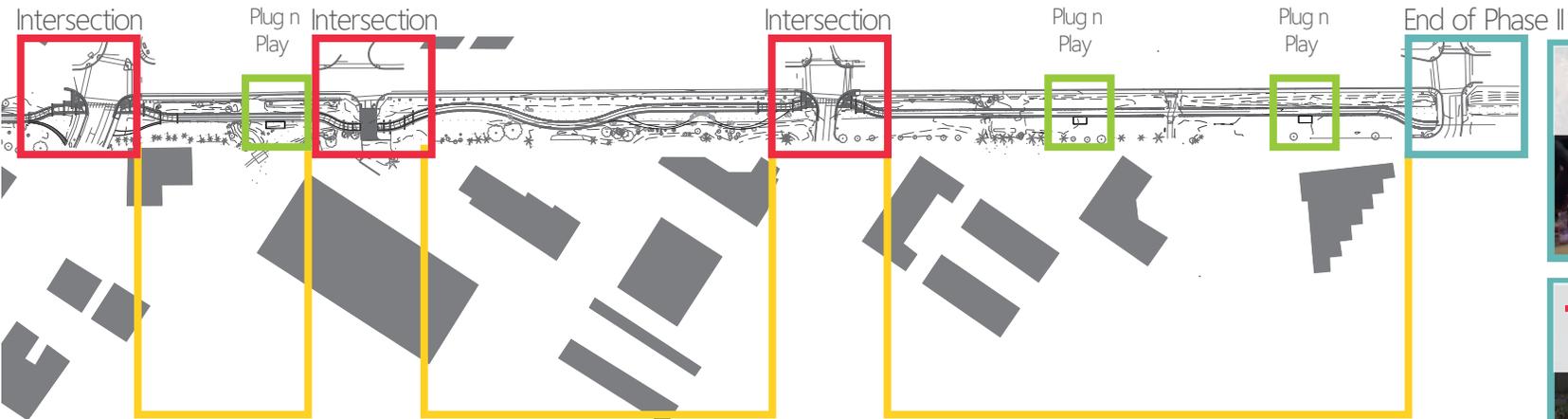
Start of Phase II : Bridge and Trees

Intersection



Straightaways throughout the Trail

REDMOND CENTRAL CONNECTOR PHASE II ART OVERLAY PLAN



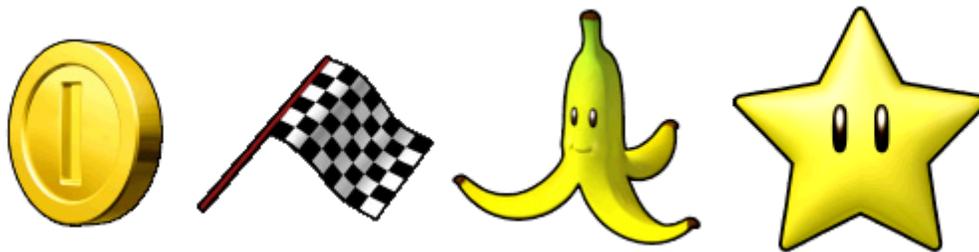
POWER UP



REDMOND CENTRAL CONNECTOR VIDEO GAME CLUES

This installation plays with the idea of first-person video games in which icons appear on the screen in front of you, providing clues to winning the game. In the case of the Redmond connector, the installation uses paint on natural features of the trail, combined with a users shifting perspective as he/she travels down the trail. What first appears as disjointed blobs of paint from one perspective, will snap into focus from

a different vantage point. These painted icons could be used as way-finding symbols along the trail.





REDMOND RUSH



A RUSH OF SYNTHETIC LANDSCAPE

Redmond Rush is an installation that creates a synthetic landscape for kids and grown ups to play in, that mimics the wetland topography of the existing site. By using a fun and flexible material (such as foam pool noodles) that are fixed to a mat anchored in the ground, users can experience the feeling of crawling through tall grass. This installation

creates a framework for added creativity because users can manipulate the material into seats or nests and define the way they play.





Example precedent : Delirious Frites by Les Astronautes

PUMP TROLLEY



A RAIL TO RIDE ALONG THE REDMOND CENTRAL CONNECTOR

As a way to connect to the railroad past, this installation showcases the pump trolley, but allows for new interpretations to take shape. Similar to the Red Bull Fluevog, this would be an event where people could make their own pump trolley to race along the track and receive prizes,

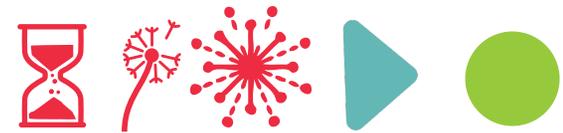
not only for the winner, but best in show, most crazy design, etc.. It is a way for people to be creative and artists themselves while also paying attention to the history of the corridor.





The Train Project by HeHe
<http://hehe.org.free.fr>

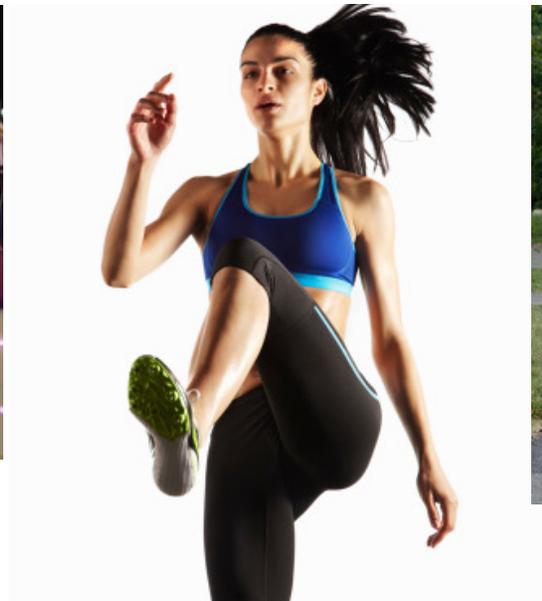
DERAILED DISPLAY



HUMAN POWERED VIDEO GAME YEARLY EVENT

The Derailed Display event along the Redmond CC is a fun activity that could bring the tech organizations, such as Digipen out into the public space. This could be an annual event showcasing digital interactive games that could involve biking and exercise to power the display screen. Digipen students could be involved by assisting to create a

new game for this annual show every year, creating a partnership and revolving curation of games.



STOP FRAME



ARTIST POSTCARD OR ARTWORK DISPENSER

A dispenser of art - Stop Frame is a fun pause moment along the trail, primarily located at the Plug n Play spots. A person would interact with the dispenser just like a regular vending machine, however the output is a work of a local artist. This could range from a series of fun graphically designed postcards by individual unique artist to small works of art that

hit into a small plastic bubble, such as mini sculptures or machines. this intervention could be integrated with other redmond city arts programs such as the poet laureate or artist in residence. Dispensers along the trail create an art walk along the trail that could serve as methods to convey information about trail history through the lens of the artist.



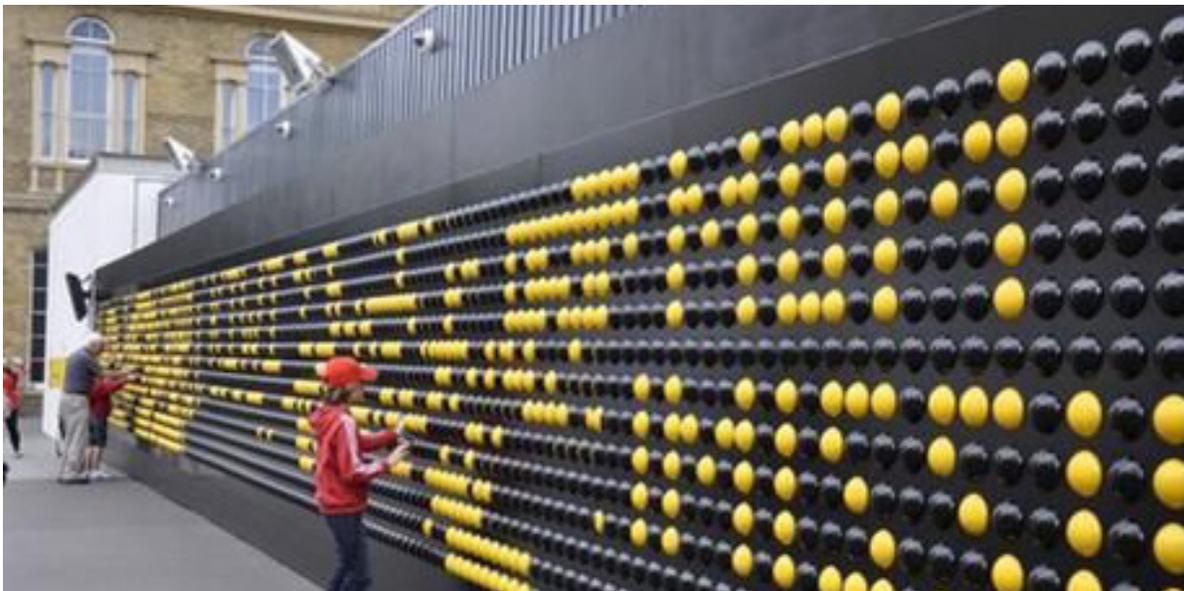
SCENE SCREEN



INTERACTIVE CANVAS

Scene screen is an interactive canvass that is located along the straight stretches of trail along willows road. The screen could be composed on led panels that could be prograded to light up or convey data or information about the trail. The screens could also be analog and and be composed of repeated elements that users could adapt or change. The appearance of the screen would constantly change as trail users

interact with it. The screen also provides a buffer to busy Willows Road. The screen would be double sided so cars and pedestrians on Willows Road could all see the screen change overtime. Scene Screen provides opportunities for collaboration with Digipen and others for development of the screens along the trail.





CANOPY CORRIDOR



GATEWAY TO PHASE II TRAIL

Canopy Corridor is a site specific installation that would be located in the grove of trees just over the trestle bridge to the Phase II trail. The installation would be a canopy within the trees that would act as a gateway or entrance to the phase II trail. Canopy would be composed of simple materials such as balloons, tyvek or string repeated along the length of the grove. The materials would be light and their connection to the trees

would be such that they wouldn't damage the trees. The canopy would be visible from the Phase 1 portion of the trail, creating intrigue and drawing users to cross the bridge versus continuing along the Sammamish trail. The canopy would be installed for the opening of the trail and remain in place for a temporary period to announce the new trail.





SELECTED DESIGNS

MIXED MESSAGES

FLASH FORWARD

CYCLE IN CINEMA

MIXED MESSAGES



INTERSECTIONS



FLASH FORWARD



STRAIGHTAWAYS



CYCLE IN CINEMA



EVENT



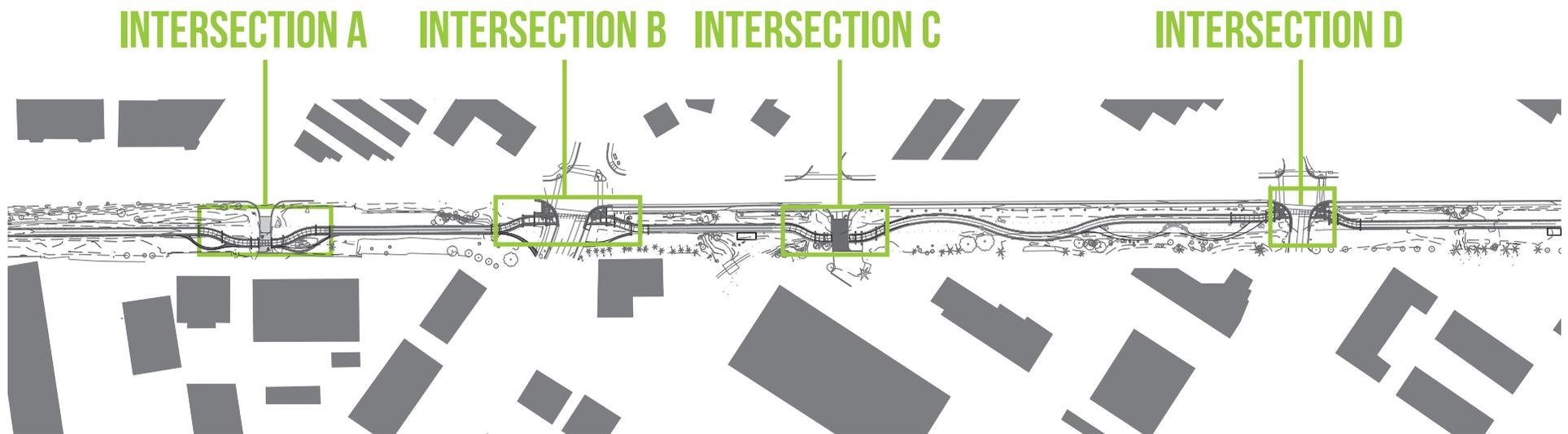
MIXED MESSAGES

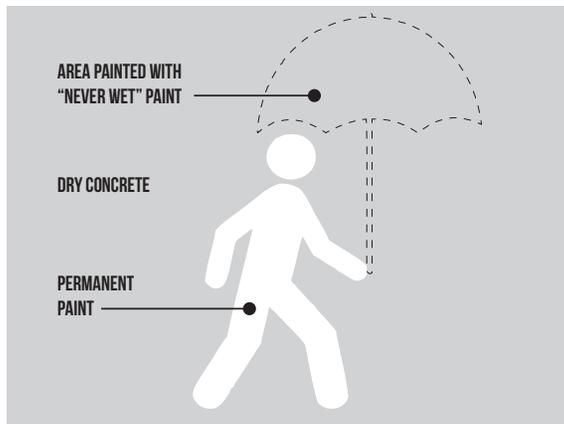


STORIES FOR RAINY DAYS

Mixed Messages is a series of narrative “frames” that would be located at four intersections along the trail. Each message is composed of typical traffic paint common to trail signage and wayfinding as well as “rain paint” a clear paint that keeps the concrete from darkening when wet hence only visible in the rain. Each message would occupy one “frame” of concrete at the intersections. The characters for the messages are icons from traffic signage but their placement within the frames creates a relationship between the

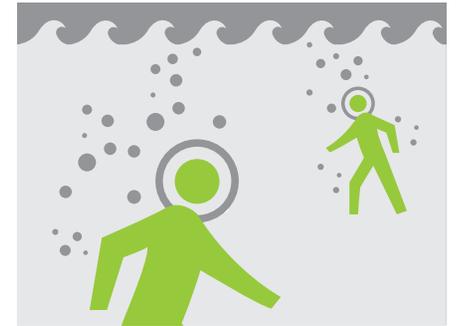
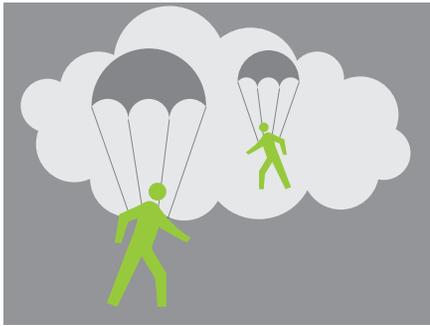
characters through scale, position and perspective within the frame. When it rains the picture is completed. The each frame is a story but each is part of a larger narrative, the next frame located at the following intersection. One narrative is complete when a trail user moves North along the trail, the other narrative is complete when the user moves South along the trail.





NORTHBOUND NARRATIVE

NO RAIN NO GAIN



The general ideas behind sweet escape and no rain no gain - it's really about promoting bike culture by creating two narratives that seek to overcome two major hurdles related to use of the trail 1) riding in the rain. 2) getting out of your car. These themes are already embodied in the format/ media/overall concept but hammered home in each specific story line. The messages are playful and incite imagination wet or dry.

SOUTHBOUND NARRATIVE

SWEET ESCAPE



The messages encourage a certain suspension of reality that is possible with a major paradigm shift such as the adoption of bike culture. It is our hope that children will use sidewalk chalk to create their own ending/fill in the blanks when narratives are dry. The text provided is for presentation purposes only. Ultimately we choose to champion images over text for greater universality of the messaging. The stories will function as non-verbal messages increasing stimulation during trail use, sparking conversation and engaging a wider audience. Text could be presented online or in pamphlets if desired but truly unnecessary.

NORTHBOUND NARRATIVE

NO RAIN NO GAIN



When they jumped from the plane the parachutes unfurled almost immediately. The sky was dark and heavy with the promise of rain. If they could reach the ground quickly they could find shelter before the shower began.



The landing coincided with the first raindrops. They were able to fashion an umbrella from a parachute but water pooled at their ankles. It became hard to deny their impending fate. The remainder of the journey would have to be by boat.



Running to a nearby lot they found the boards they needed to fashion a makeshift vessel. The second parachute made a fine sail. They were seaworthy as soon as the rising waters took their ship afloat but the wet deck proved treacherous. The captain slipped and was pulled into the tow of the newly swirling sea.



Without a second thought first mate followed captain into the thrashing waters. Hasty bubbles spun glassy spheres that shielded their faces from the freezing water. Gracefully plunging deeper they distanced themselves from the chaos at the surface, arriving in a limitless and unexplored world of wonder.

SOUTHBOUND NARRATIVE

SWEET ESCAPE



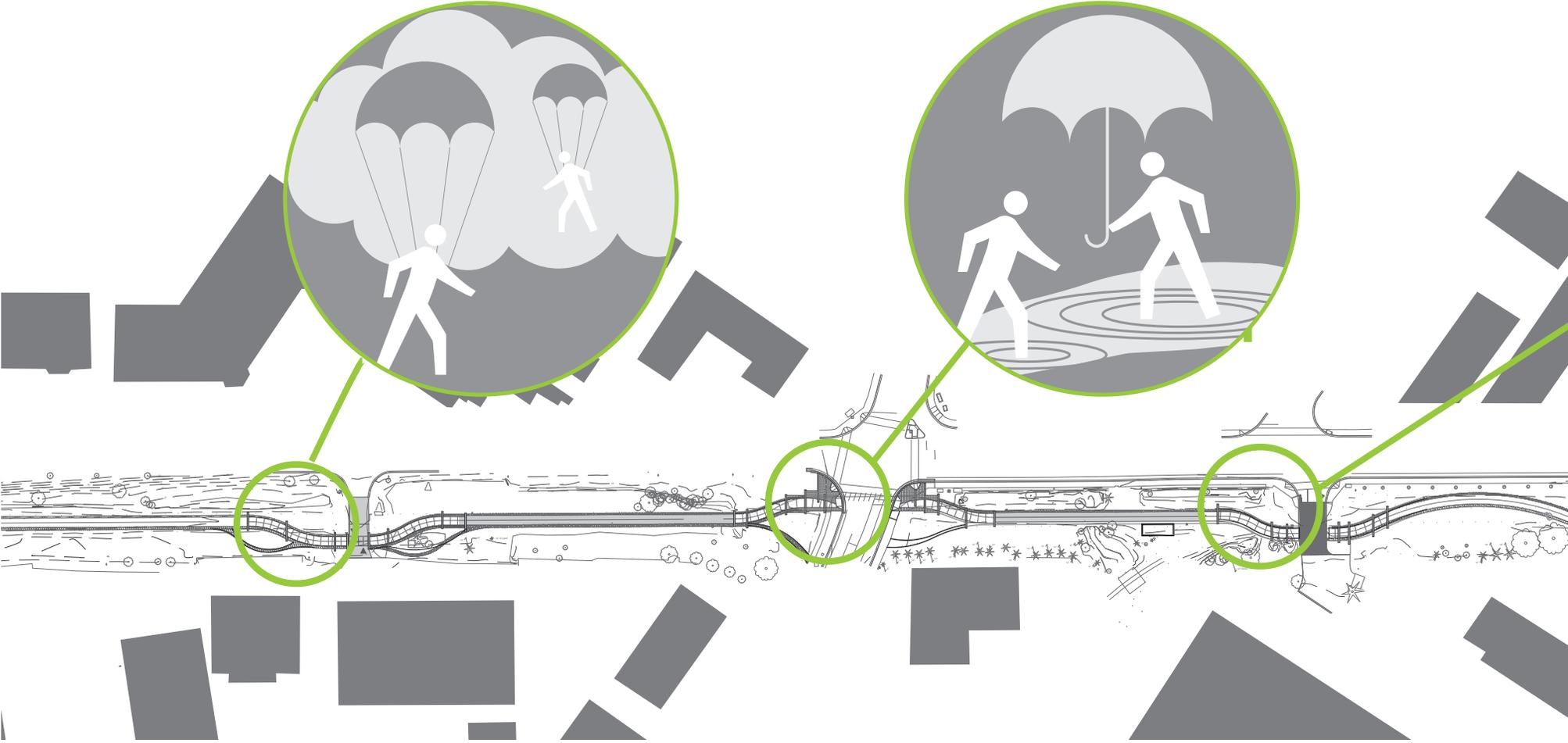
The year is 2030 and cars have taken over the universe. The average commute is 2.5 hours encroaching on the modern work day and placing productivity in a steady decline. In the congested streets of Redmond the hum of motors and smell of exhaust lured even the least imaginative driver into a dreamy haze. Today in particular the collective conscious longed for a better way.

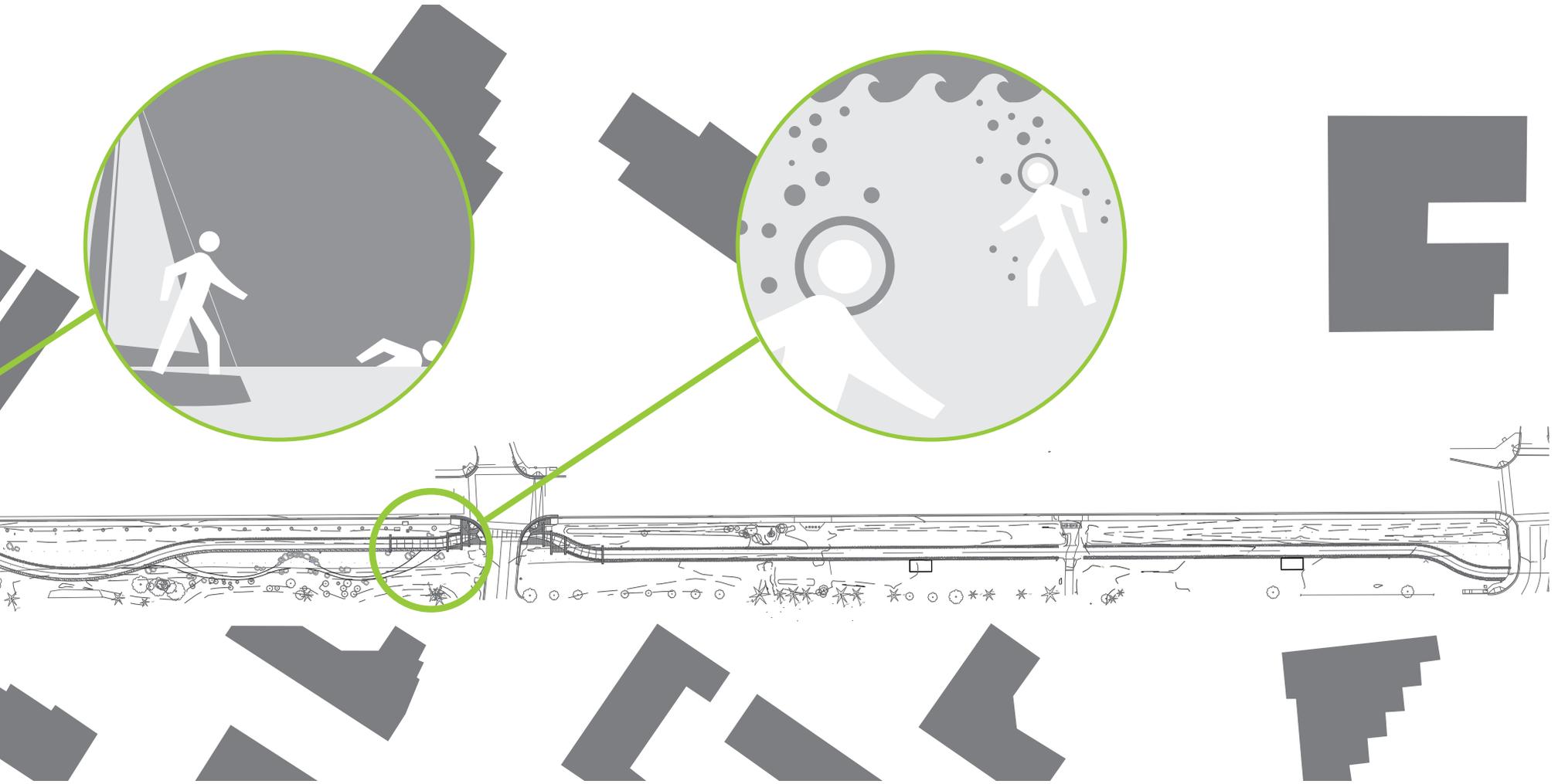
Desperation gave way to shock and awe as winged creatures attacked from above. Grasping car bodies like beasts of prey they shook wheels loose from axels. Falling from the heavens they landed in perfect bicycled pairs promising a safe escape.

Just as soon as they had mastered these peddle driven steeds a giant, covered head to toe in menacing tufts of hair, chased them until they had nearly taken flight. They escaped. Their bodies were weary but their thirst for adventure greater than ever.

When they came upon the third unexpected visitor the endorphins coursing through their brains convinced them to stay. They befriended the stranger and spoke a shared language of mobility and freedom. Never would they return to the self inflicted prisons of their former routine.

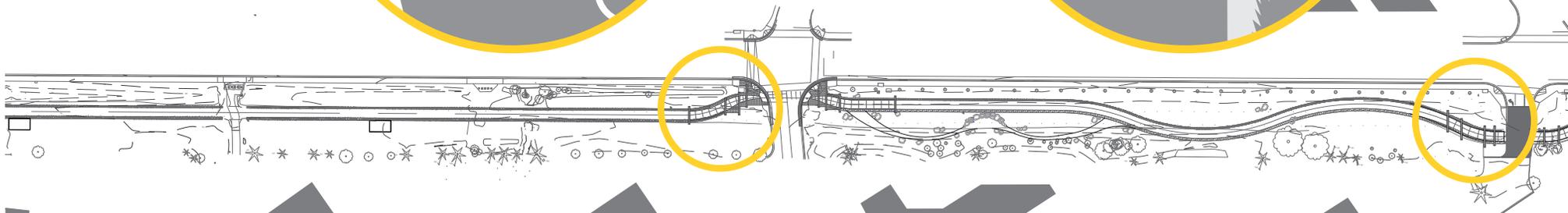
NORTHBOUND NARRATIVE



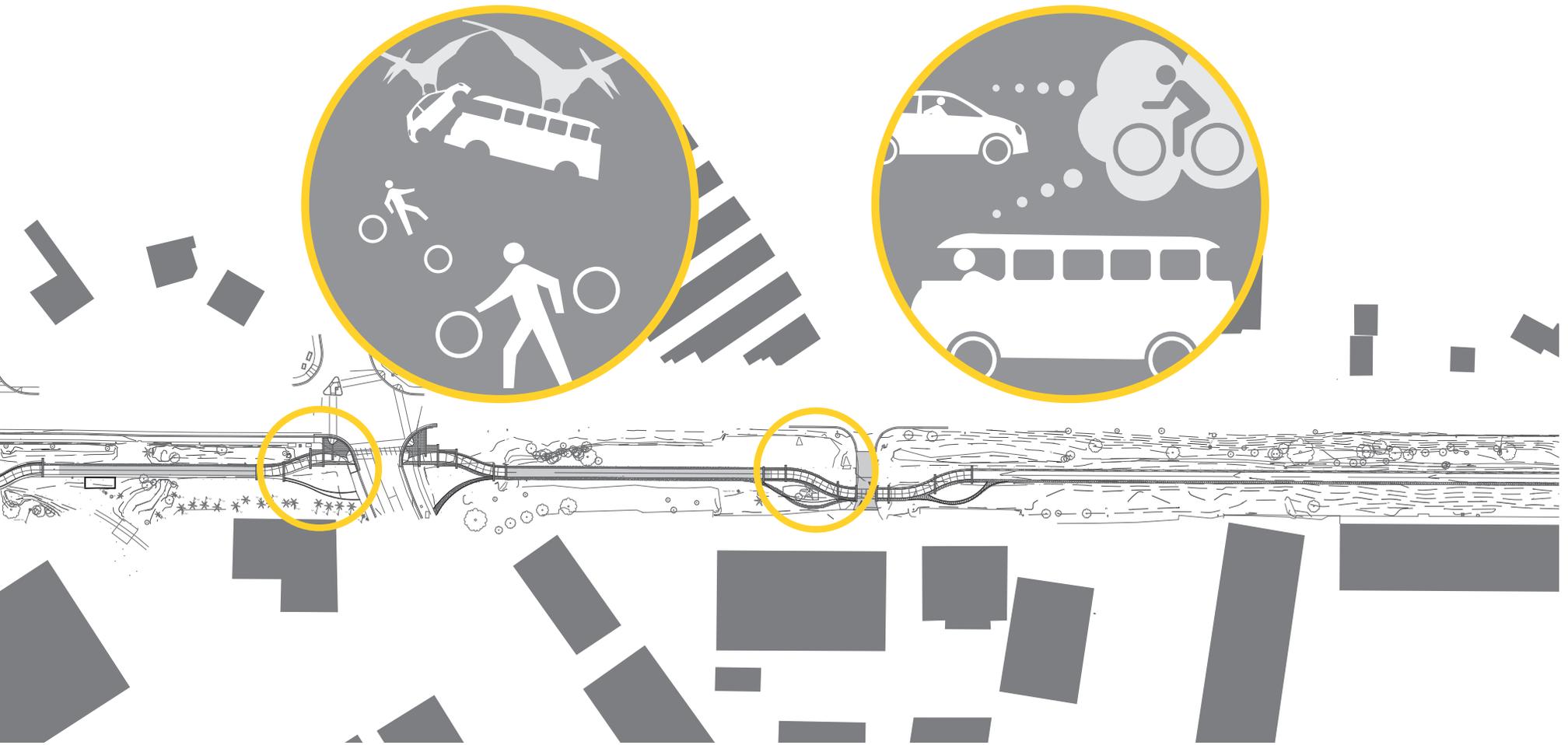


NORTH

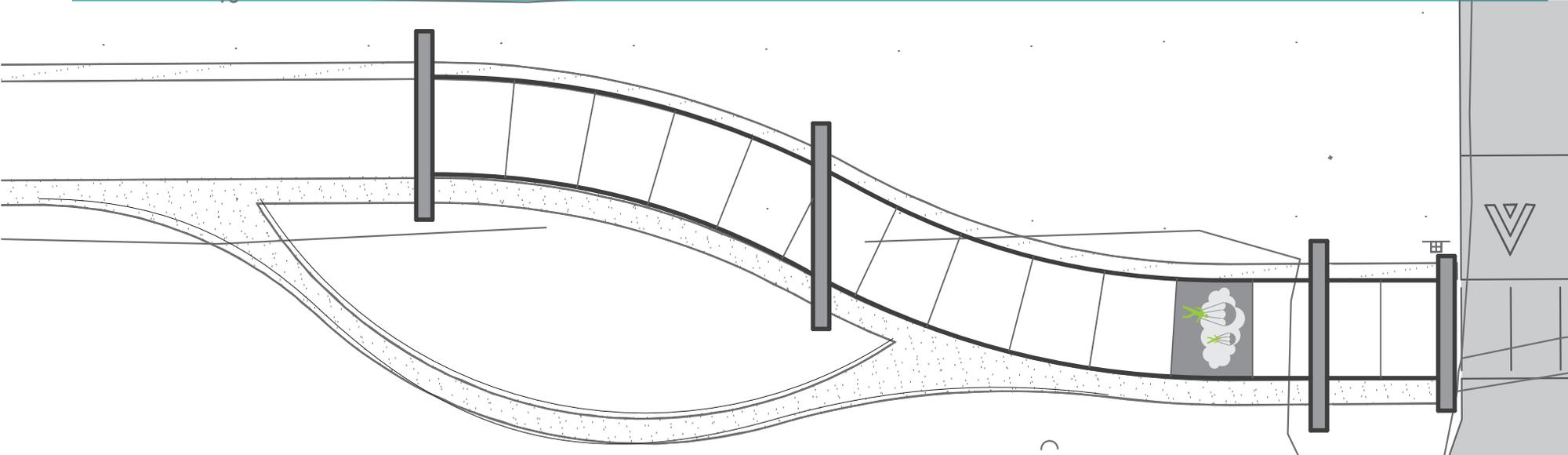
SOUTHBOUND NARRATIVE



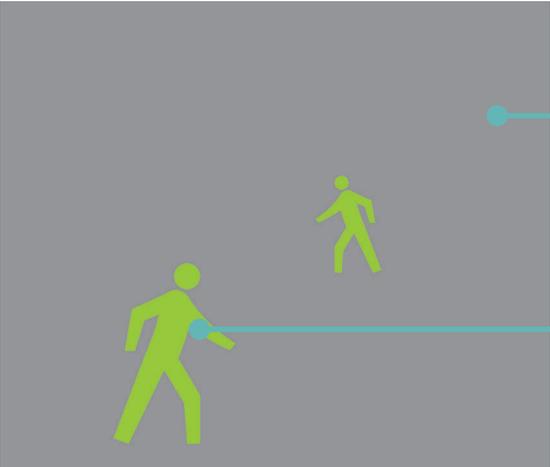
SOUTH



MIXED MESSAGES INTERSECTION A



DRY



DRY CONCRETE

TRAFFIC PAINT

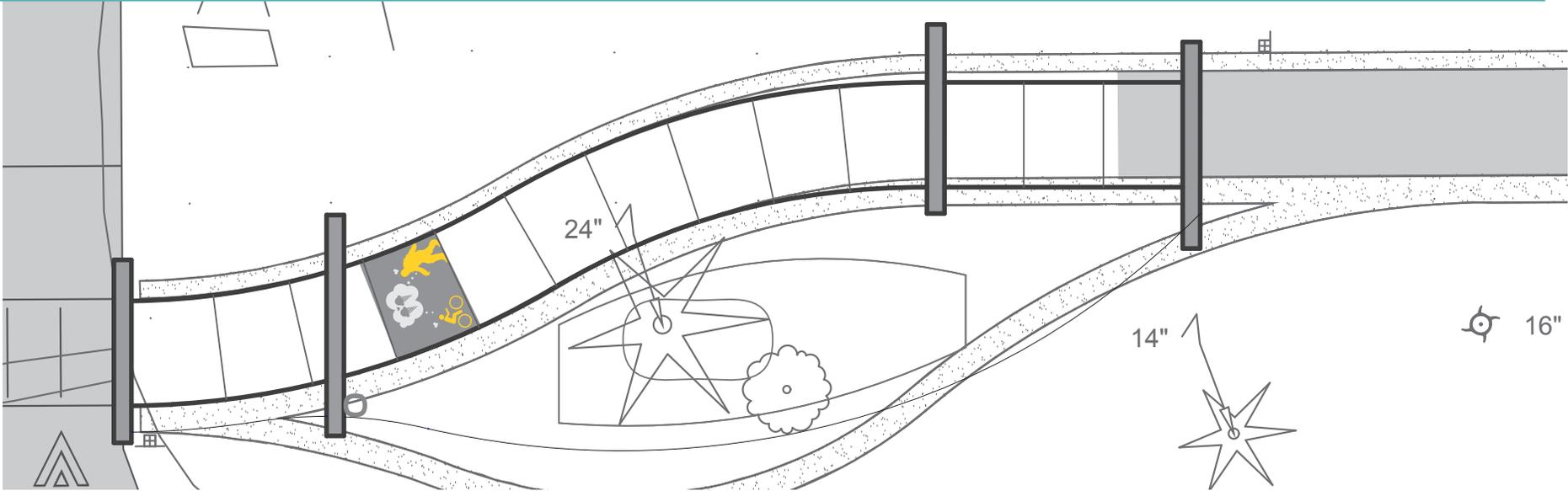
WET



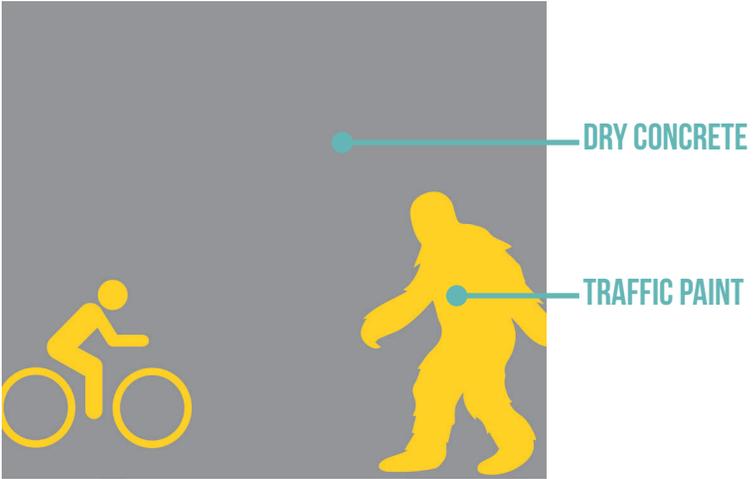
RAIN PAINT

WET CONCRETE

MIXED MESSAGES INTERSECTION A



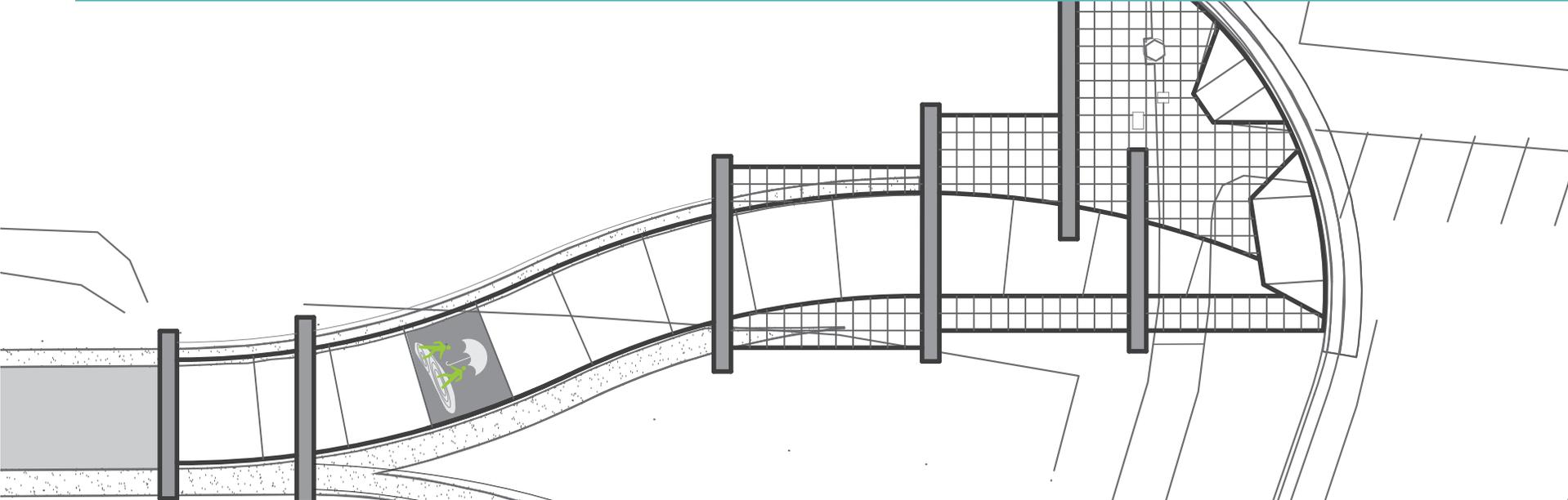
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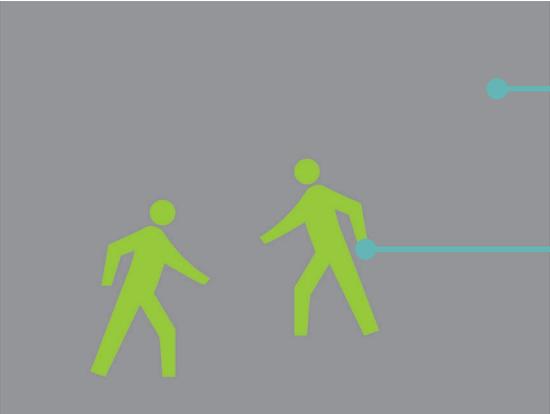
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MIXED MESSAGES INTERSECTION B



DRY



DRY CONCRETE

TRAFFIC PAINT

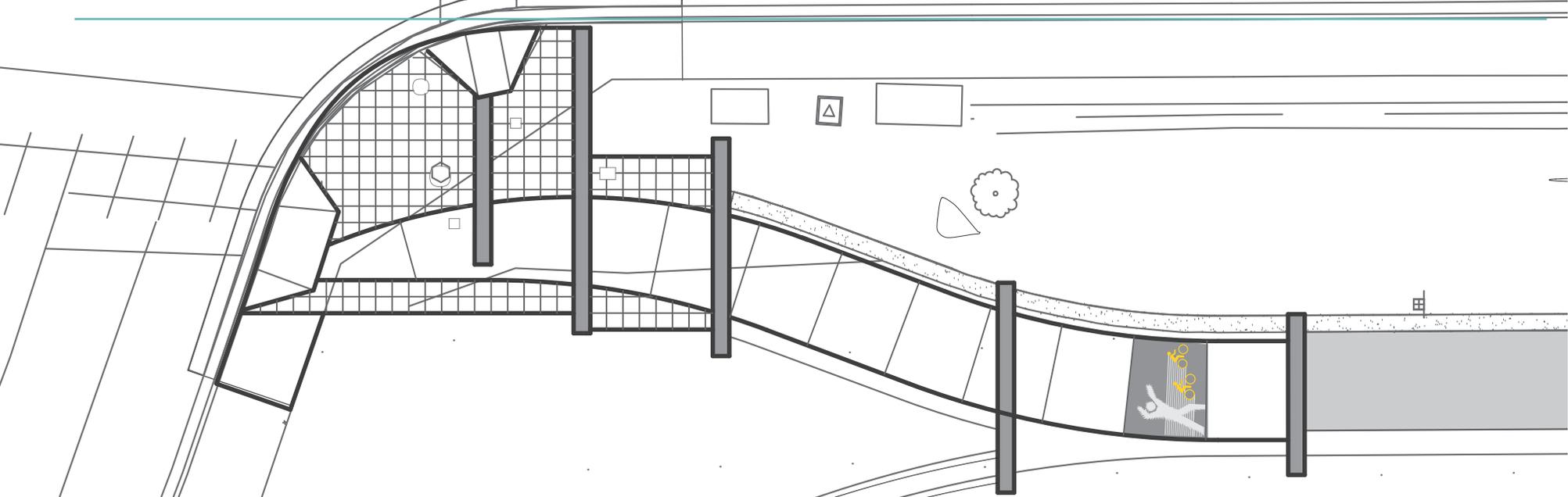
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RAIN PAINT

WET CONCRETE

MIXED MESSAGES INTERSECTION B



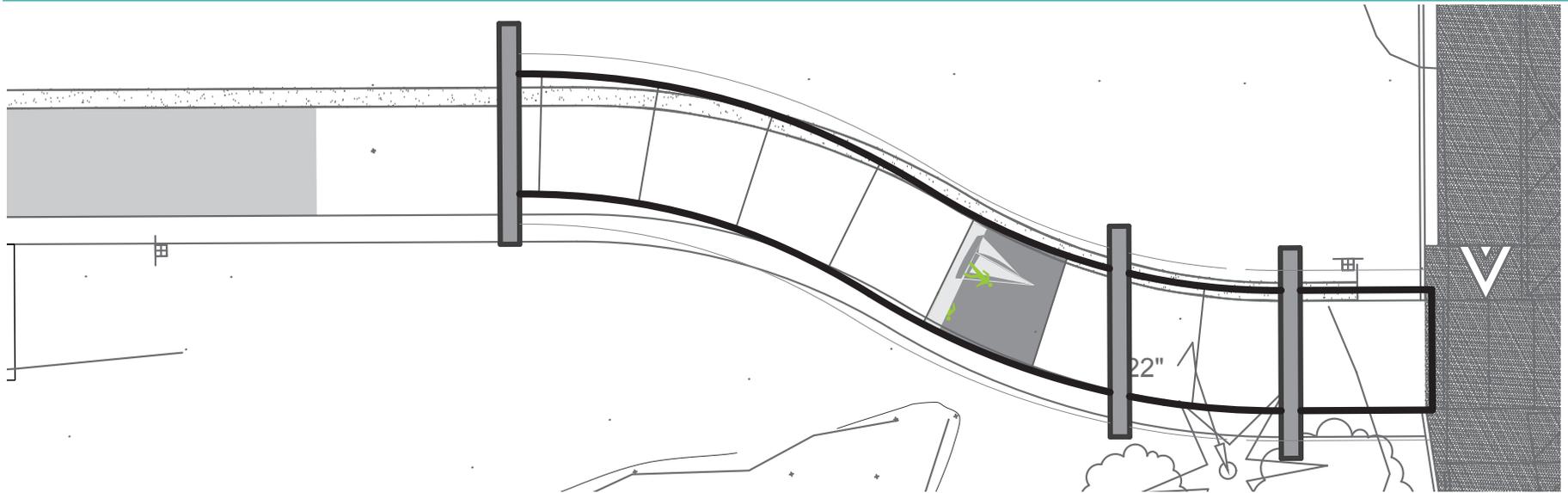
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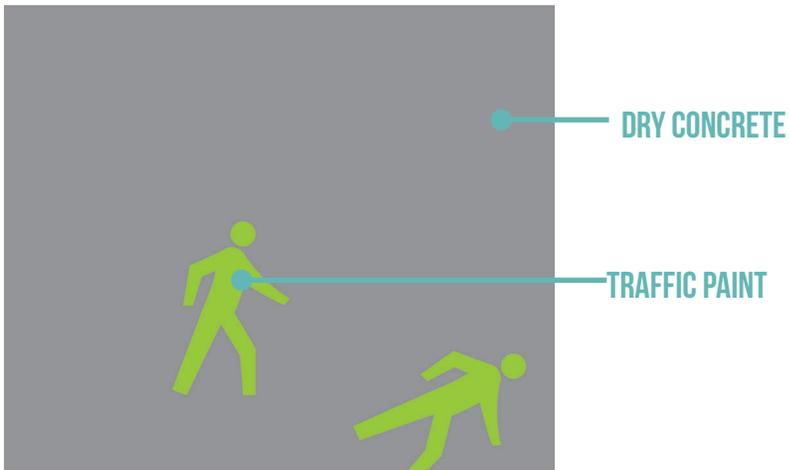
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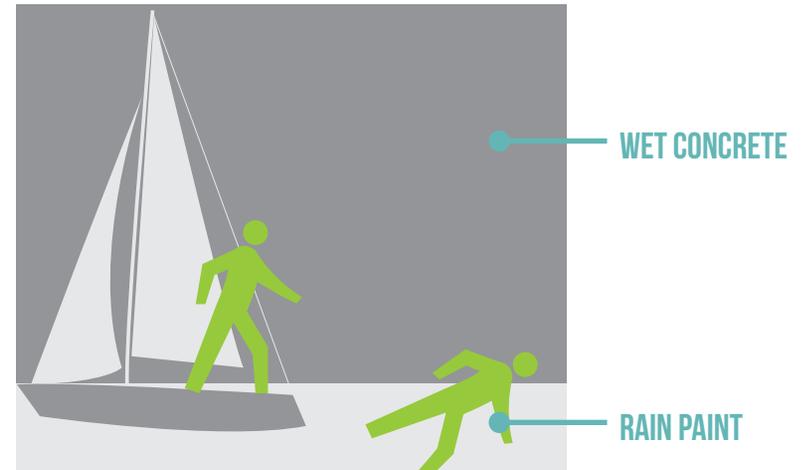
MIXED MESSAGES INTERSECTION C



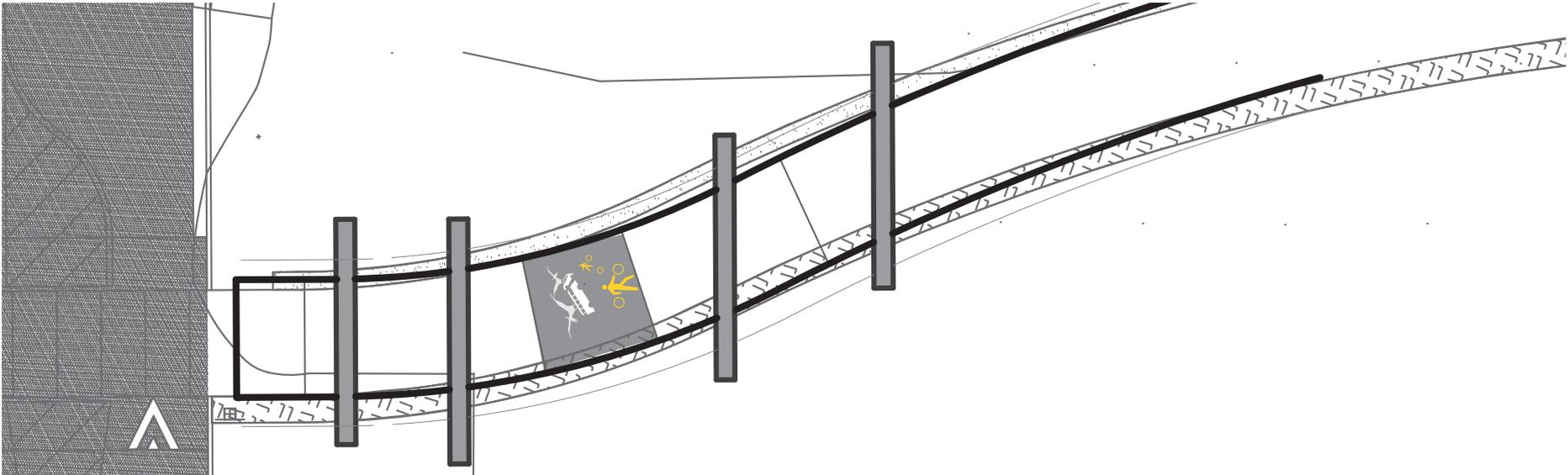
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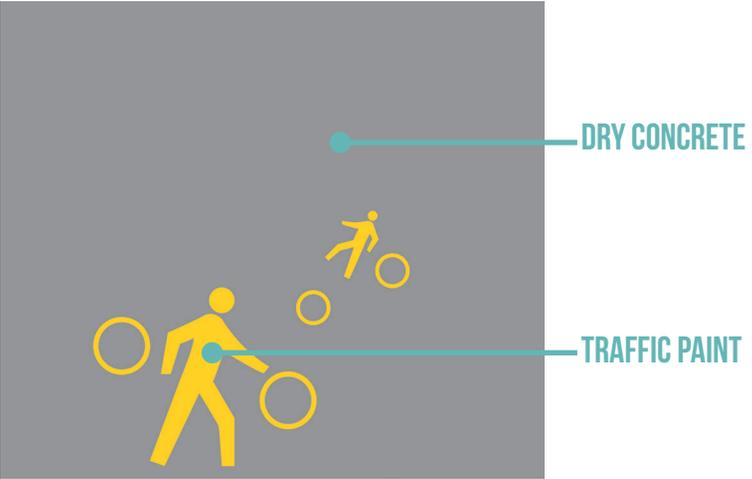
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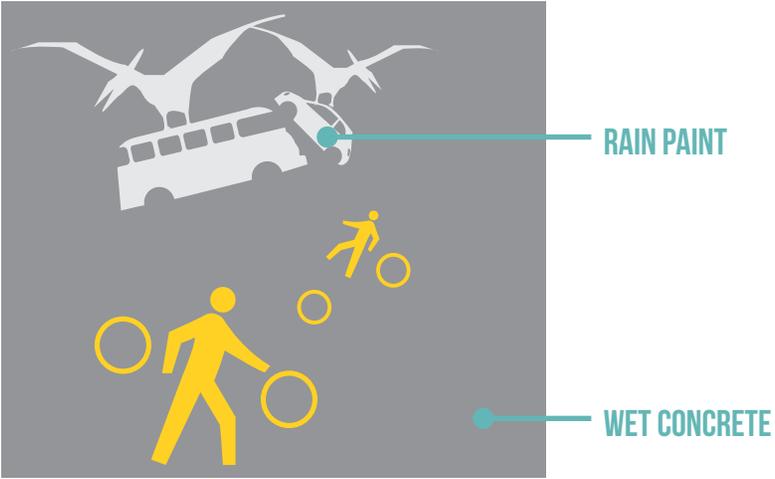
MIXED MESSAGES INTERSECTION C



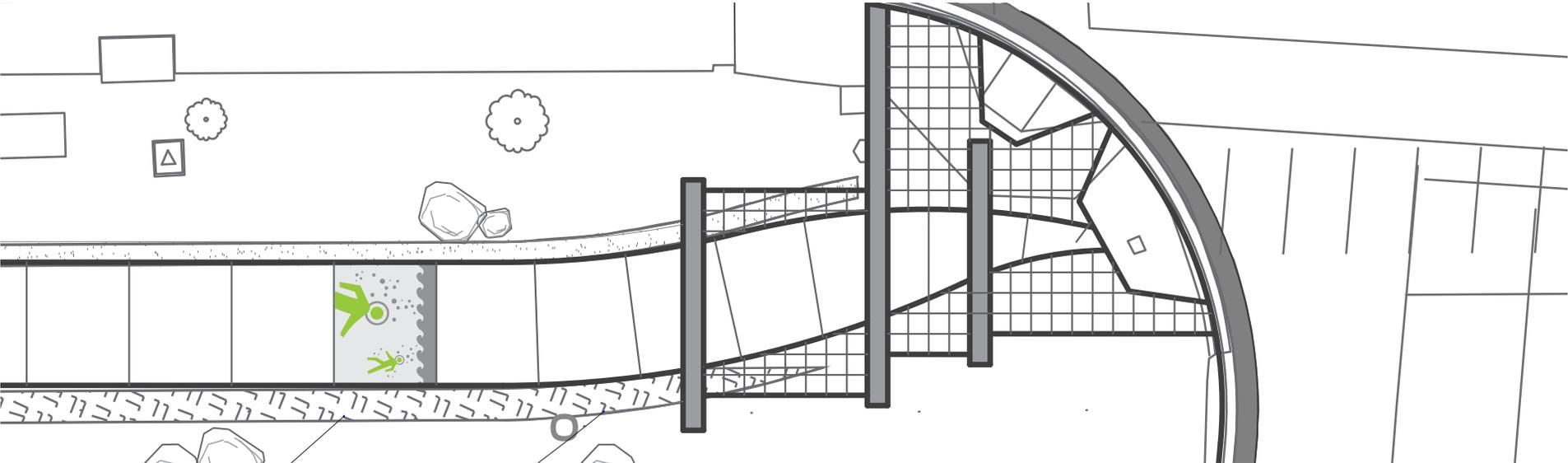
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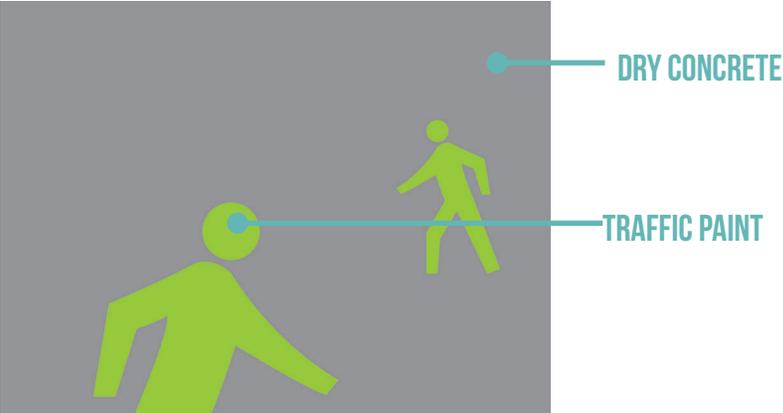
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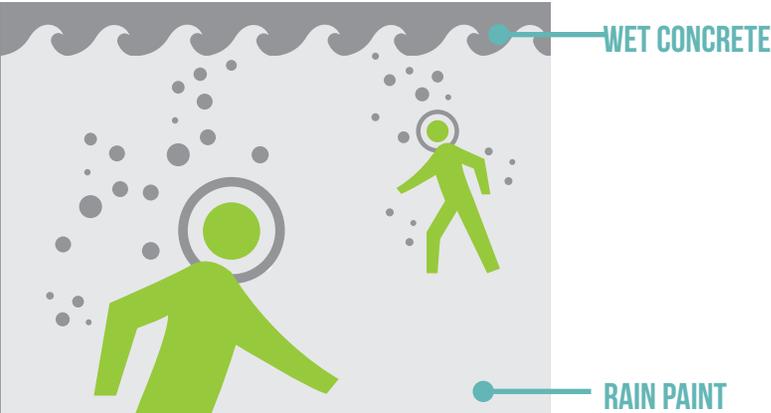
MIXED MESSAGES INTERSECTION D



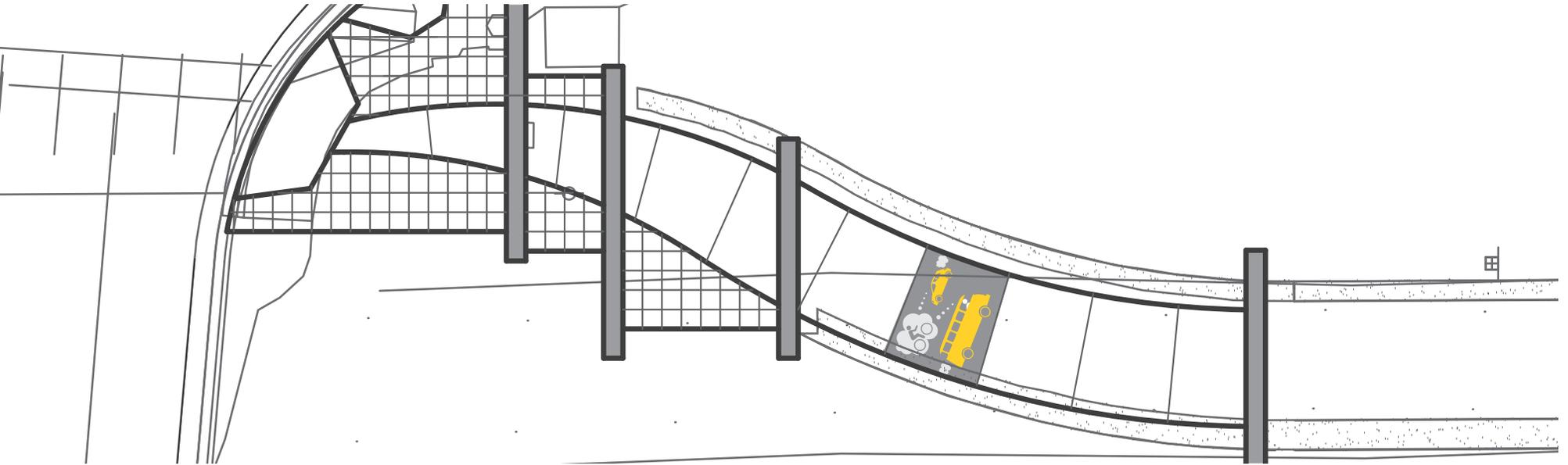
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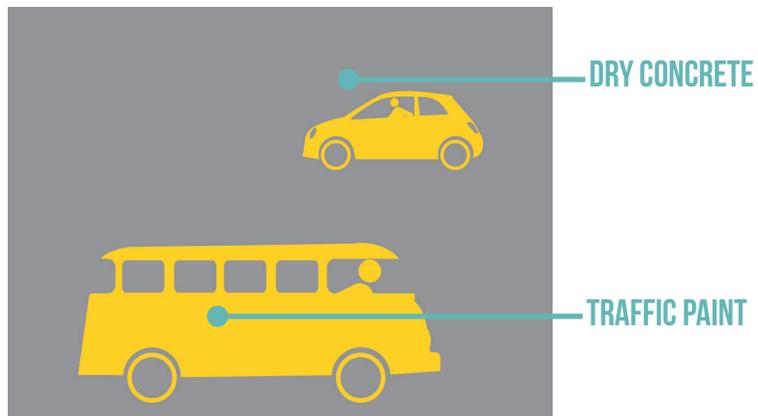
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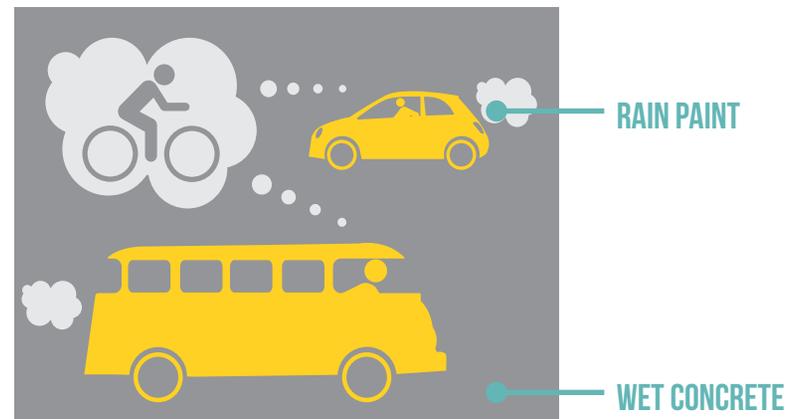
MIXED MESSAGES INTERSECTION D



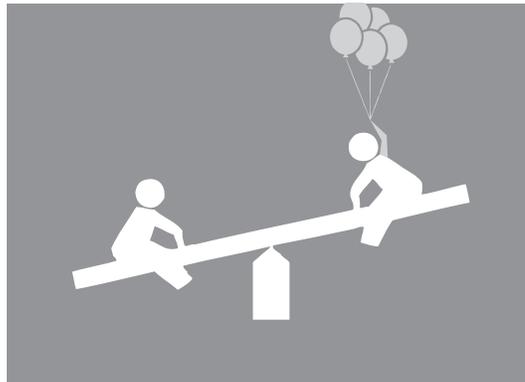
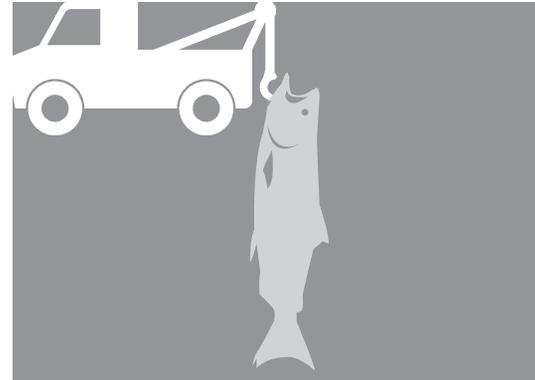
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WET

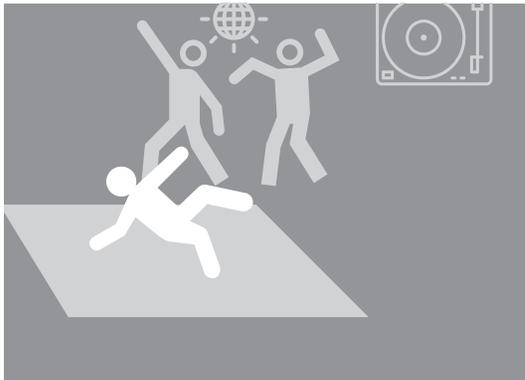


MIXED MESSAGES OPTIONS



GO
get 'em
tiger

MIXED MESSAGES OPTIONS



FLASH FORWARD

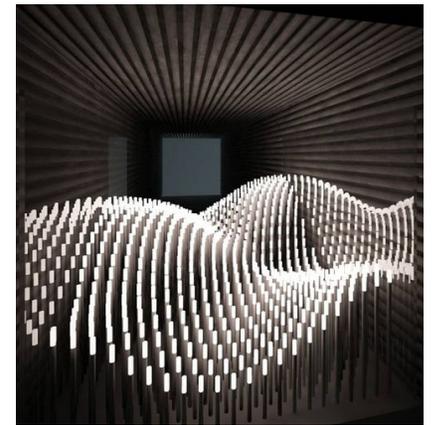
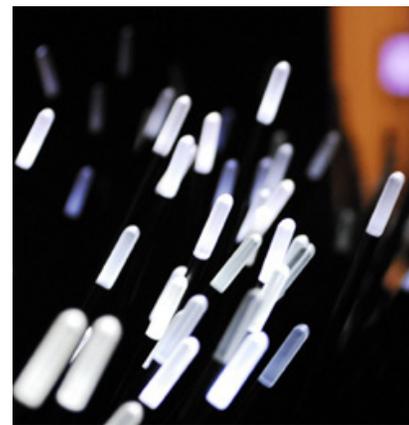
INTERACTIVE LANDSCAPE

Flash Forward is an interactive installation that would be located along the straight sections of the Phase 2 trail. Taking inspiration from the reeds and rushes along the trail, Flash forward is a series of interactive lights that line the trail edge. The installation serves as an interactive art component of the trail as well as makes cars and bikers aware of oncoming trail users. Sensors at certain points of the trail will trigger the lights when a biker or

runner passes by. When the sensor is triggered the lights will flash ahead of the trail user in relation to the speed they are traveling. The lights always flash ahead of the user in the direction they are traveling and stop flashing behind them. When two trail users approach one another their "flashes" collide and either cancel out or reverberate back depending on who is moving at a faster rate.



Reeds and rushes along existing trail edge Inspiration for flash forward "reeds".



DUNE by Daan Roosegaarde Dune is an interactive landscape that interacts with human behavior.



FLASH FORWARD

ART, DATA & SAFETY

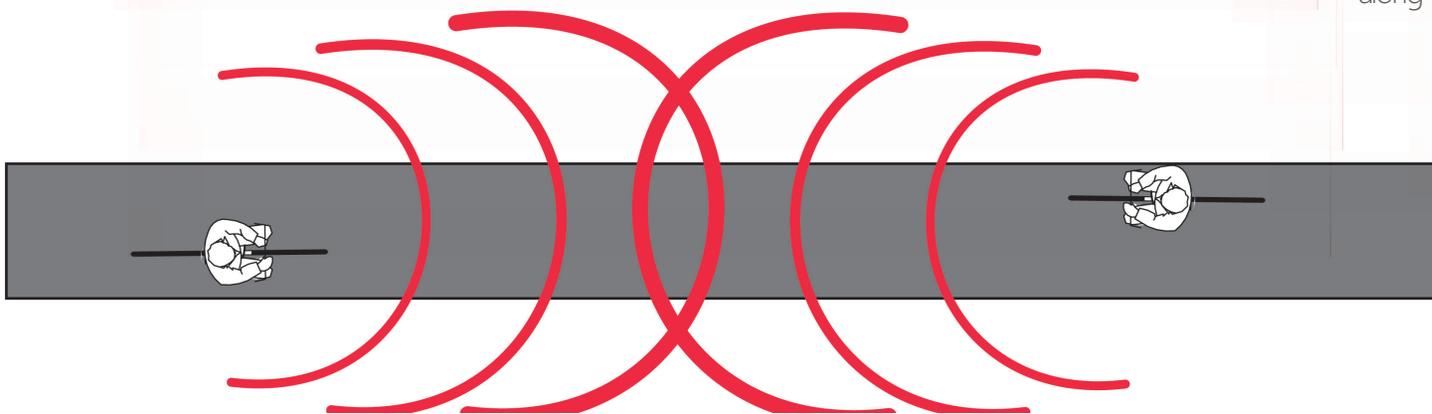
Flash Forward provides an enhanced experience of the trail by connecting the users on foot and bike. A user's "flash" warns oncoming bikers of their approach and is an extra safety precaution for cars at intersections along the trail. The sensors at each segment not only trigger the lights but could also be used to collect data about the users of the trail. The sonar sensors send out sound waves at a non audible frequency. When a trail user

intersects waves, the time it takes for them to bounce back to the sensor determines the user's speed. This data can be collected to determine the number of bikers versus runners versus walkers on the trail, the time the trail is busiest, and the relative speed of trail users. This data can be used to promote the trail and predict future trail use.



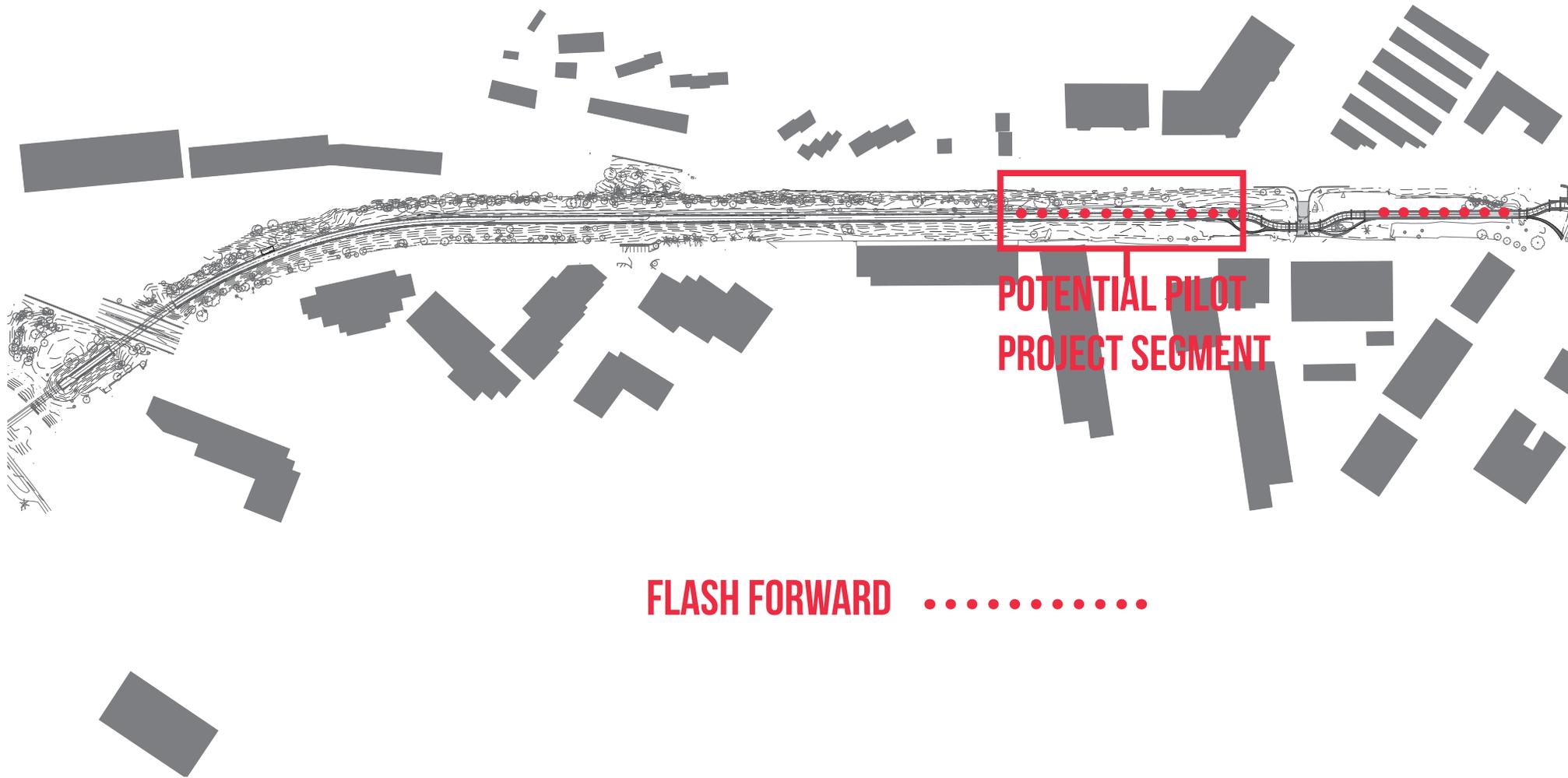


Flash Forward “reeds” create a relationship between the natural landscape of the trail and provide an interactive landscape element that can collect data and users along the trail.



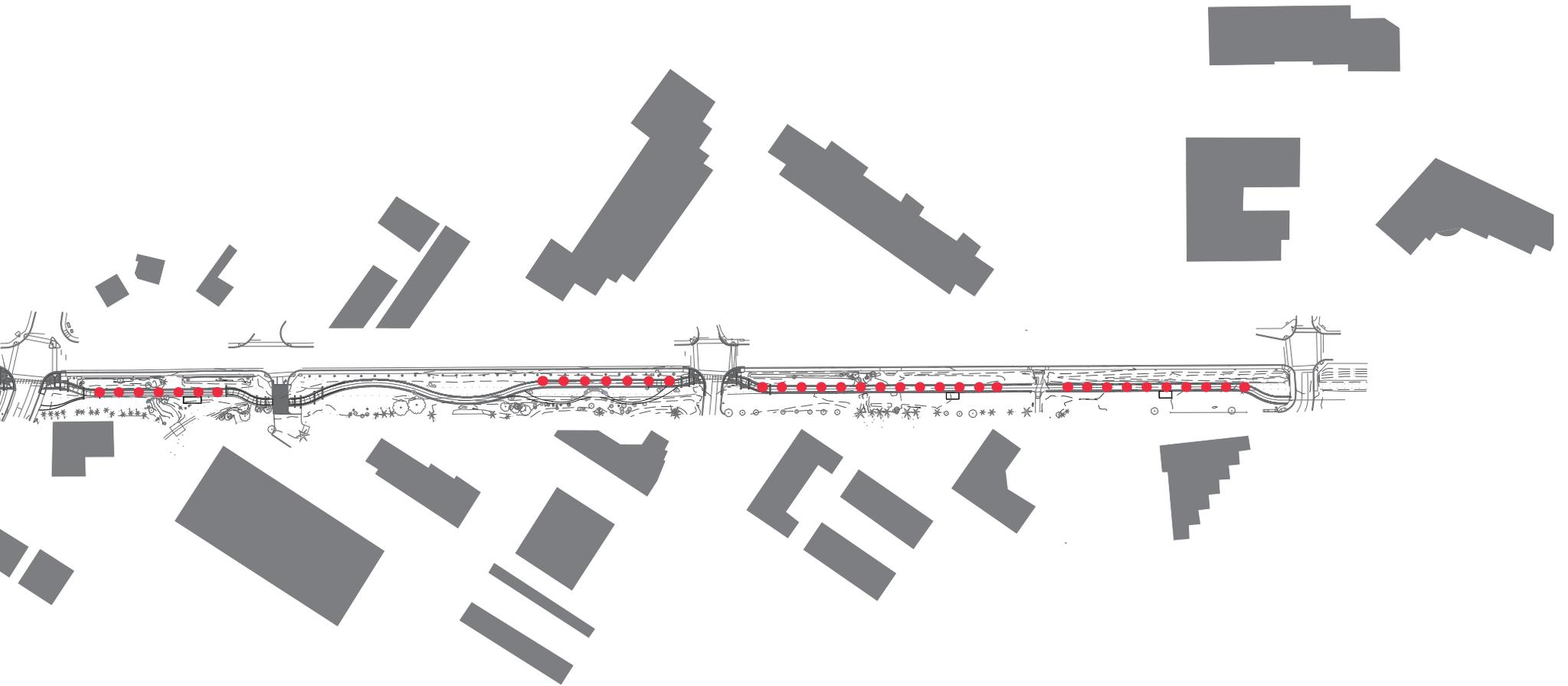
“Reed” Sequencing can provide varied interactions as riders pass each other and their “flashes” interact.

FLASH FORWARD LOCATIONS



POTENTIAL PILOT
PROJECT SEGMENT

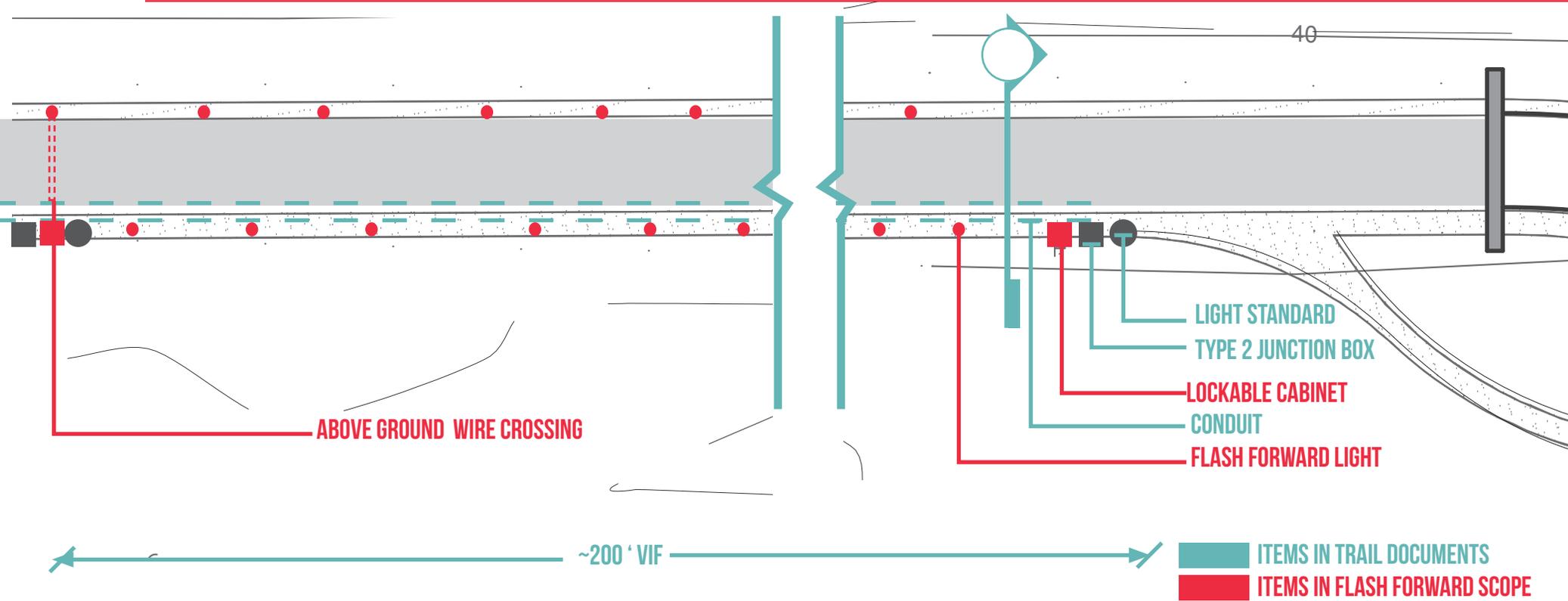
FLASH FORWARD



The plan above shows all locations along the trail for the Flash Forward “reeds”. Each section starts and ends at an existing junction box and light standard. In a permanent installation the wiring would share the existing trail conduit. A converter box would be located at the existing trail junction box to convert the power to a lower voltage. The area marked on the plan as a potential pilot segment is identified as an area where a more temporary

prototype version of the reeds could be installed as a pilot project to test the sequencing and raise momentum to fund more sections of the trail in later phases.

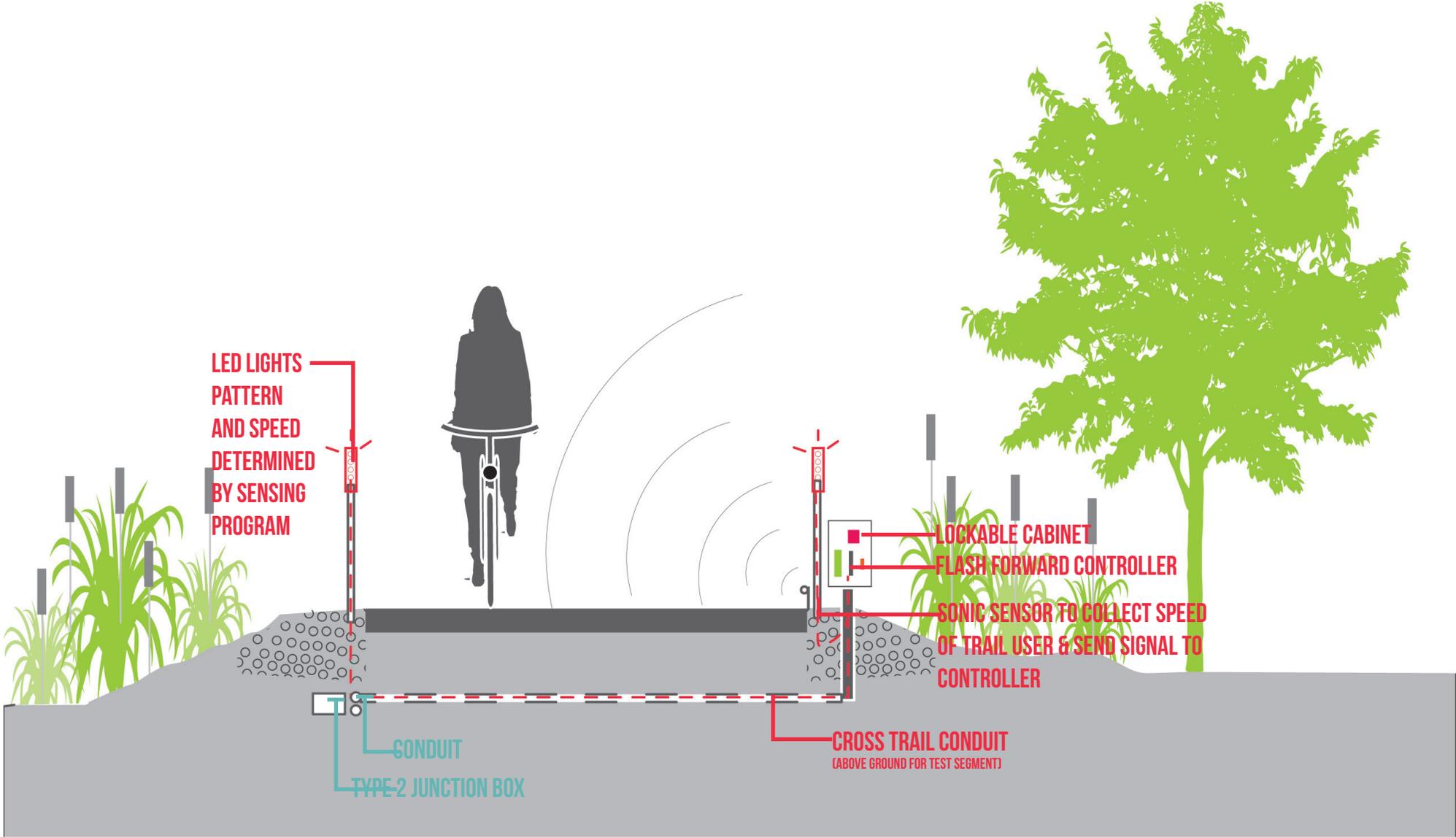
FLASH FORWARD PLAN



Each Flash Forward segment would start and end at an existing trail junction box. A low voltage converter would be located at each junction box. A lockable service cabinet or box would house the controller and arduino processors that control the sensing and sequencing of the led lights within each Flash Forward "reed". Wiring would run within trail conduit in a more permanent installation or gravel shoulder in more temporary installation to

each Flash Forward "reed". A sonar sensor at the start of each segment can sense the speed of an oncoming biker. Each reed consists of a plastic tubing in which the wiring runs up to a series of led lights within a translucent plastic housing. Several lights within each "reed" allows for flexibility and opportunity for varied reactions in the sequencing programming.

FLASH FORWARD SECTION



CYCLE IN CINEMA

MOVIES AT THE END OF THE PHASE II TRAIL

The Cycle In Cinema event is a way to promote the trail and create a fun event for people to enjoy. It is also a chance to bring people all the way to the end of Phase II, near the black Raven Brewery. The Cycle in Cinema would be a series of 3 movie nights (or more, depending on momentum and funding).

The series would have a theme that would inform both the film being screened and other associated promotions. At each movie night would necessitate a temporary movie screen and space for people to cycle up and watch all together. The event would require promotional and marketing efforts as well as a team for set up and take down. The following pages outline a basic production plan with estimated pricing per event and suggested themes.



photo from the www.capitolhillblog.org, from Cal Anderson Movie Nights



CYCLE IN CINEMA | PRODUCTION PLAN

This plan is an overview of the Cycle in Cinema event. We propose that this event is a three part series with a theme, which could be started in the fall or next spring to help promote the new trail.

PROPOSED TIME FRAME | FALL 2015 OR SPRING 2016 SEQUENCE OF 3 FILMS - ~ 1 MOVIE PER EVERY 2 WEEKS

LOCATION | REDMOND CENTRAL CONNECTOR – Phase II, next to Black Raven Brewery

POTENTIAL PARTNERS | Black Raven Brewery (Could coordinate with their Cast Wednesdays), Digipen (Students could create small shorts as previews). Redmond Derby Days festival. Local Bike shops and Cycle Clubs

EVENT OVERVIEW

3pm – Event set-up, inflate screen (Funflicks will set-up provide full setup)

6pm – Food Trucks Arrive

Sundown – Movie Starts

11pm - Event take down and cleanup

APPROXIMATE COST PER MOVIE SCREENING

FUNFLICKS OUTDOOR MOVIE RENTAL (includes inflatable screen, projector, sound system, DVD player and event setup/takedown) - \$800.00

FOOD TRUCK FOR EACH EVENT - \$0 (recommend 1 truck for 500-800 people)

MOVIE LICENSING (\$300.00 - \$600.00 per movie)

MARKETING AND PROMOTION - \$300.00 per movie

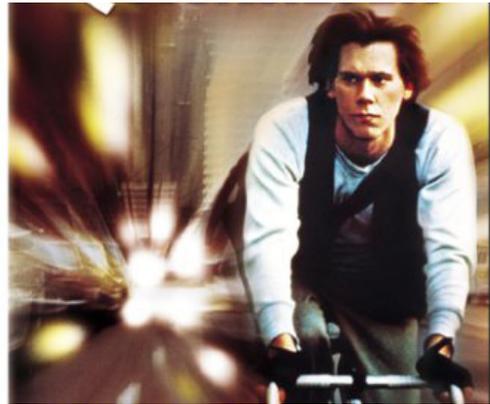
BIKE LIGHT GIVAWAYS! - \$300.00 per movie (<http://www.promobikelight.com/>)

TOTAL COST ESTIMATE | \$2000.00 PER MOVIE

CYCLE IN CINEMA | PRODUCTION PLAN

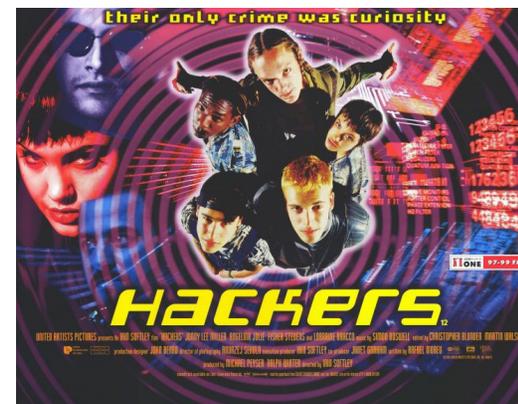
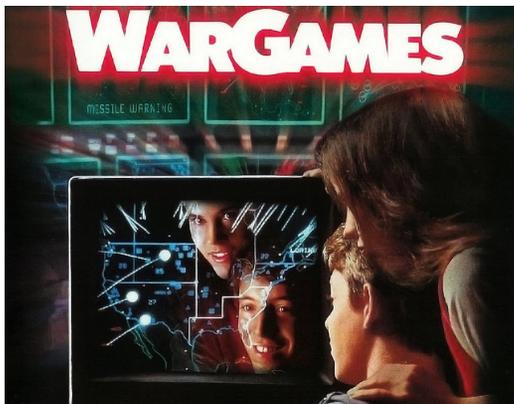
THEME 1 | BICYCLES

movie suggestions : Pee Wee's Big Adventure, Quicksilver, Triplets of Belleville



THEME 2 | VIDEO GAMES/TECH

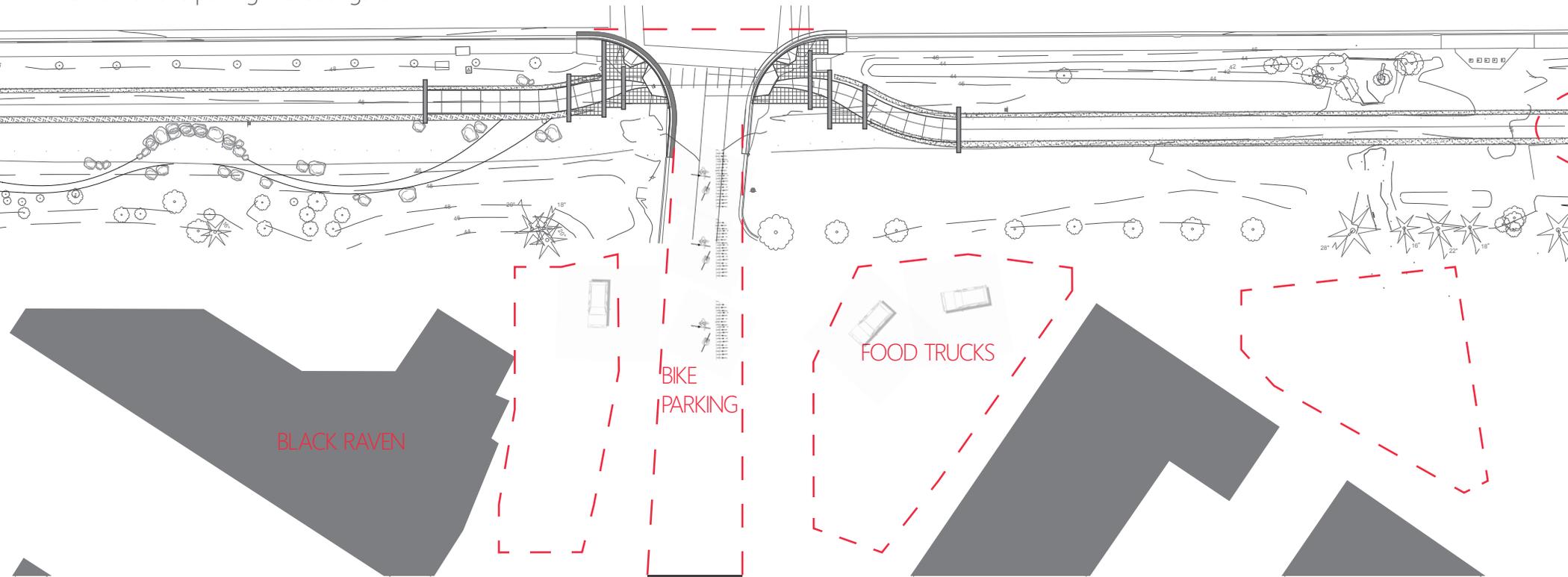
movie suggestions : Wargames, Scott Pilgrim vs. the World, Hackers



CYCLE IN CINEMA | PLAN

BIKE STREET

cycle-in cinema team to work with city entities to create temporary street closure at this intersection for the evening of the movie showing. Most business are closed by six so it wouldnt be a disturbance during business hours. the closed section of street can provide space adjacent to trail for bike parking and beer garden



BLACK RAVEN BREWERY

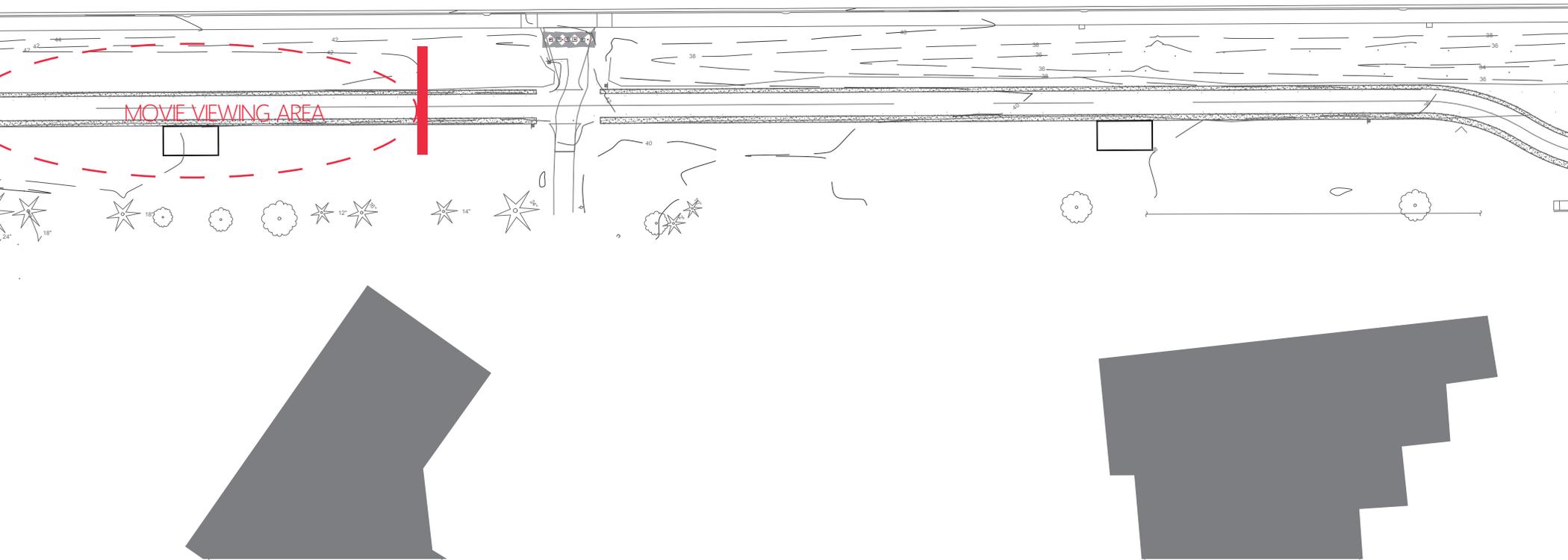
cycle-in cinema team to work with black raven to create beer garden for the event in their parking lot or along an area of the trail

PARKING LOTS

cycle-in cinema team to work with local businesses to allow their parking lots to be used for food trucks during the event. Most businesses are 9-5 so food trucks could arrive after the close of business day

MOVIE SCREEN

the movie screen is inflatable so would not require permanent supports on the trail and could be set up and taken down by the screen production company. the location is adjacent to a parking lot entrance for ease of set up. Screen sizes vary and would have to be field verified



THANK YOU
SIDECAR COLLECTIVE

APPENDIX - CONCEPT PRICING ESTIMATE

This conceptual estimate is intended for budgeting purposes only. It is not a quote. A more detailed cost analysis with the project team is required. Sidecar collective and vendors represented are not obligated to this estimate. Prices are subject to change.

Mixed Messages

Stanley Patrick Striping is pricing the 8 messages at \$9,000 installed. This includes making the vinyl stencils and installing the traffic paint (similar product to what was used in sky painting) and the rain paint.

Coordination on this would be relatively minimal from Sidecar - roughly budgeting 50 hours of time to coordinate the installation. This assumes no additional revisions to the messages, or presentation materials beyond what has been provided.

Cycle-in cinema

The cycle-in cinema trail grand opening would be marketed as an event hosted by Redmond with Sidecar as support for coordinating between the city and potential partners such as Black Raven Brewing. Our involvement would be reaching out to

APPENDIX - CONCEPT PRICING ESTIMATE

potential partners and working with you and others from the city to coordinate logistics. Budgeting for 80-100 hours from sidecar for this scope but we would have to discuss further what meetings or procedures might be required for permits etc. This time would include a member from sidecar at each event to facilitate but additional staffing would need to be coordinated with the city and potential partners like Black Raven.

Flash Forward

Flash forward would require a next phase of design to develop. Our initial contract was for concept designs and we developed ideas that varied in permanence and scale.

Flash Forward is on that spectrum as a more permanent and involved art installation in comparison with mixed messages because it has to connect to the trail infrastructure. A more detailed scope of work for the next phase of design and what it would entail to determine level of effort, design completion and construction. The following is an estimate for development of a working prototype that could be implemented on the trail. This is an estimate only and further scope and costing information will be needed to determine true cost.

APPENDIX - CONCEPT PRICING ESTIMATE

Alternative 1: Dedicated conduit for low voltage wire Estimate provided by Electrical Engineer - Not Sidecar

Conduit: \$28k

- o Assume 2" conduit along trail and laterals at each location

Transformer/converter for low voltage: \$4k

- o assume one converter at each service cabinet (\$2k each)

Wiring (assume #8): \$4k

- o Assume 2-#8 to each location

Junction boxes (1 per each): \$4k

- o Assume 7 Type 2 Junction boxes

Alternative 1 Total: \$40k

APPENDIX - CONCEPT PRICING ESTIMATE

Alternative 2: Shared conduit w/ trail lighting. This alternative would need to be approved by City for the illum and low voltage wire sharing conduit.

Estimate provided by Electrical Engineer - Not Sidecar

Conduit: \$5k

- o Assume 2" laterals to each location

Transformer/converter for low voltage: \$4k

- o assume one converter at each service cabinet (\$2k each)

Wiring (assume #8): \$4k

- o Assume 2-#8 to each location

Junction boxes (1 per each): \$4k

- o Assume 7 Type 2 Junction boxes

Alternative 2 Total: \$17k