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Introduction

About The Visualization Toolkit

OVERVIEW

Perkins and Will had been retained by Toronto and Region Conservation Authority in 2019 to develop a visualization toolkit, from conceptual plans to renderings, animations, and engagement tools to help demonstrate the overall look and feel of The Meadoway. To summarize the year-long process of developing the Visualization Toolkit, this report will walk through the various stages and tools used to produce the final visuals. From engagement to conceptual sketches, this is a compilation of precedent imagery, existing conditions understanding, and a contextual foundation on which the final visuals are based on.

SKETCHES

As seen on these pages, many of the renderings were based on existing photos from various field investigations the team participated in. The sketching process was a useful and highly iterative process for us to discover the best ideas, solutions, and scale of a design problem. With these, we were able to present these to stakeholders (e.g. TRCA, the public, etc.) to capture initial opportunities or constraints within the design.

CONCEPT ONLY

It is important to note that all the visuals as part of this Visualization Toolkit exercise are conceptual demonstrations of the design at this stage. They are proposed for illustrative purposes only and are for conveying the concept and vision for the overall project. They should not be relied upon as final representations of the corridor.

























Engagement

An integrated, accessible process

OVERVIEW

Public engagement is more than just a regulatory requirement, it is a critical part of the design process. With a corridor of this length, it crosses many of Toronto's neighbourhoods and communities. The Meadoway's adjacency to schools, community centres, public parks, and places of worship means that the engagement process must be inclusive, extensive, and fully inegrated into the design process.

Perkins and Will, Toronto Region and Conservation Authority and the larger Meadoway team participated in many public engagement meetings and open houses over the past year during the production of the Visualization Toolkit. Venues included community centres, school campuses, and the outdoors! Each time, we showcased work in progess and opened it all up for public comments. After receiving comments, we went back to the drawing board to ensure the visuals that are part of this work, considered every voice.

Our approach to engagement went further than just a presentation and panels. We knew that for a project at this scale, it had to be expanded beyond two-dimensions in order for it to be digestible and articulate for the public to understand. Some of the tools we used as vehicles of communication included a 24-foot map, Virtual Reality panoramas, and a flipbook (more on this later in this document).



Using virtual reality was a helpful tool for demonstrating how future conditions would look and feel on The Meadoway.





One way comments from public engagement were tracked were via sticky notes on the large map – colour coded to represent general comments, opportunities, or constraints.











After formal presentations, a panel of experts participated in an audience Q&A.







Participants were invited to interact with, and comment on The Meadoway using the large map.





The rendering visuals were displayed on panels with key maps and annotated labels.



Precedents

Envisioning the possibilities

WHY PRECEDENTS?

Building on the case study analysis done as part of Phase 1 of the project, the images on this page were sourced from many local and international projects. They inspired and informed how design elements such as signage, wayfinding, landscaping, crossings and seating have been integrated in other ways. It broadened the imagination when thinking of landscape and open spaces.

These were also useful prompts during public engagement, as many participants were able to point at photos and express what they did or did not like to see in the future of The Meadoway.

Photo sources: Roadsworth, Future Landscapes, 2.ink Studio, Steve Plummer, Picbois.com, PageGraphics, Landezine, Peralta Ayesa Arquitectos, Turenscape, Geoff Peters, Wikipedia/Pufacz, Nelson Byrd Woltz, Thorbjorn Andersson, Structurae.net, and Studio Evren Basbug.



































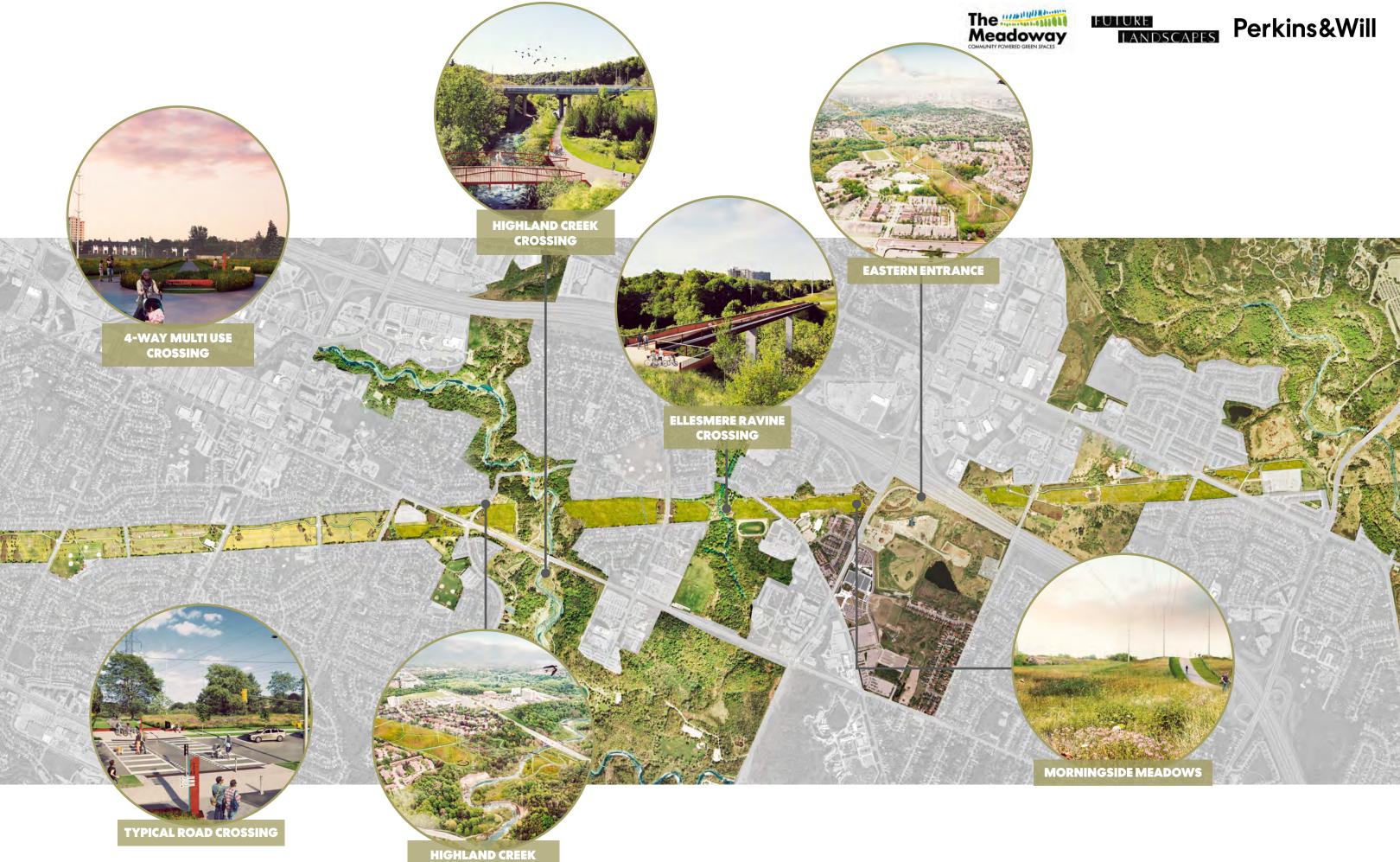












Western Gateway

A vital connection to the Don River Valley and Trail

OVERVIEW

Gateways are open spaces that will utilize a variety of planting types (e.g. gardens) to emphasize the grand entrance into The Meadoway. This can also serve as a hub for increased community and recreational use due to the existing informal play area and Jonesville Allottment Gardens.

This view is important to showcase the transition between the Don River (and East Don Trail) into The Meadoway, and how the slight slope east of Bermondsey can be used to frame that entrance.

Key Features

1

▼ FEATURE GARDEN PLANTING

Accompanied with gateway signage to signify entrance from Don River Path/Bermondsey Road into The Meadoway. Both a 'scenic' accessible winding trail and a more efficient stairway path are provided for different users.



FUTURE CONNECTION TO DON RIVER

Will establish a link between The Meadoway and Downtown Toronto.



FUTURE CONNECTION TO EGLINTON CROSSTOWN

Currently under construction. Surface stops at Bermondsey Rd (Sloane) and Pharmacy Rd (Pharmacy) are the closest to The Meadoway.



EXISTING JONESVILLE ALLOTTMENT GARDENS

An important community asset, served by parking.



Comments from Public Engagement

This will be a great connection to Downtown... you can bike all the way to Cherry Beach!

In order to buffer the corridor from incompatible uses (e.g. transfer station and hydro yard), can art, landscaping, or scented garden planting be used?

Community gardens should also encourage sustainable wildlife.

Cycling facilities are important, specifically at the LRT station to ensure inter-modal transfers.

Functional and visual signage can help frame pathways (e.g. new City of Toronto wayfinding is a useful guide).

all comments here are anonymous and may be paraphrased for clarity.



Givendale Gardens

Enhancing existing community assets through improved access and amenity

OVERVIEW

Community gardening has been an important asset for the surrounding neighbourhoods, as noted throughout the public engagement process. Existing gardens such as the plots between Givendale Road and Kennedy Road are widely used and support stewardship. In order to support these community assets, connections into the residential neighbourhoods and community buildings (e.g library, community centre, schools) can be explored.

In the background, the viewer can see the proposed rail corridor crossing, which will be positioned in a location that enhances the continuity of The Meadoway multi-use trail.

Key Features

EXISTING GIVENDALE ALLOTMENT GARDENS

This is already a well-used allotment garden, which could be expanded or replicated in other parts of The Meadoway

ENHANCED ACCESS TO NEIGHBOURHOODS

The multi-use trail can spur off to connect better with existing or enhanced connections to adjacent residential neighbourhoods.



ENHANCED ACCESS TO COMMUNITY BUILDINGS

Many civic buildings around Jack Goodlad Park are important to the community and The Meadoway shall be as accessible as possible to them.



SAFE CROSSINGS

The existing bridge is currently slated for reconstruction/ modification. A new bridge crossing over the TTC/GO rail corridor is proposed, which will keep users within the restored meadow.



Comments from Public Engagement

The curves in the pathways are nice.

Make sure this is as accessible and green as possible!

A good way to bring east/west cyclists into The Meadoway.

Design and integrate sit and rest areas with bike repair stations or water drinking stations.

Important to retain parking that serves The Meadoway and its programming (e.g. allottment gardens).

Retain informal paths throughout this segment, especially around the Mosque.



Highland Creek

Extending the reach of The Meadoway into other city infrastructure and the natural environment

OVERVIEW

The new bridge crossing at Highland Creek will create new links to existing cycling and pedestrian infrastructure such as the Upper Highland Creek Pan Am Path to the south.

This view highlights the various opportunities for lookout spots for trail users to enjoy the magnificent views of the creek. These trails shall be augmented with educational signage to understand the history of Toronto's ravines as important passages for travel and trade.

Key Features



LOOKOUT SPOTS

Strategically located lookout spots with seating and educational signage will allow users to take in the view!



SPUR TRAILS

The opportunity for small spur-off trails such as this one will allow trail users to get further immersed in the natural environment of the ravine.



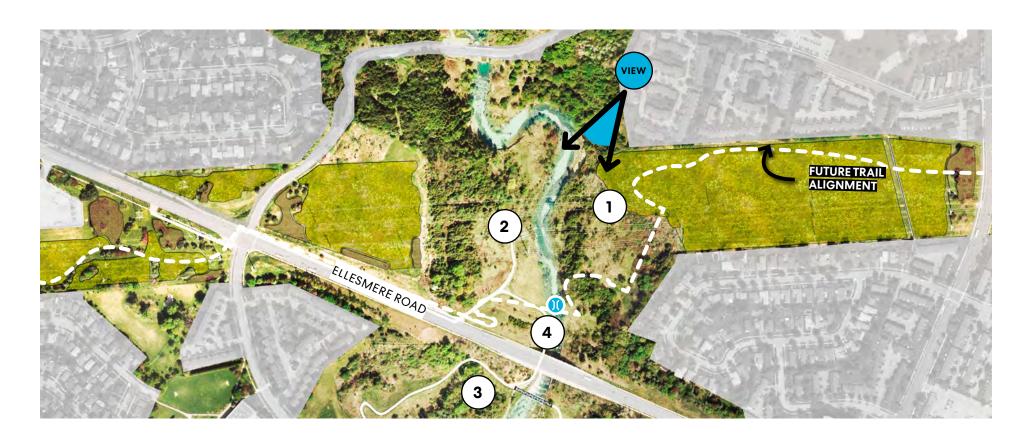
NEW CROSSINGS

New bridge crosses for the Upper Highland Creek Pan Am Path will continue to expand.



CONNECTIONS TO UPPER HIGHLAND CREEK PAN AM PATH

The new bridge crossing across Highland Creek will create new links to existing cycling and pedestrian infrastructure such as the Upper Highland Creek Pan Am Path to the south.



Comments from Public Engagement

Connect to Highland Creek trails.

Need more parking and access to The Meadoway.

Put signage in to make sure people respect nature (e.g. existing fauna such as snakes) while cycling or walking.

I am seeing birds I haven't seen in 30 years: Brown Creepers, Blue Jays, and Yellow Swallowtails.

Composing receptacles for dog waste!



Eastern Entrance

The community's passageway into The Meadoway

OVERVIEW

The location of this entrance was chosen due to its proximity to the broader community, and the preferred alignment coming up Conlins Road. This span of green open space before the highway creates an enclave condition and gateway. The entrance is near the Pan Am Aquatics Centre and the University of Toronto - Scarborough Campus (UTSC) grounds to the south. With garden features and signage, this will be an identifiable gateway from all directions. This path will also establish a link into Rouge National Urban Park.

For safety purposes, restricted areas such as around Highway 401 and accompanying infrastructure can be visually and physically buffered with planting.

Key Features

1

FEATURE GARDEN PLANTING

Due to the large freeway crossing, this area should serve as the eastern entrance, utilizing the topography to provide landformed lookout points and opportunities for landmark garden features.



COMMUNITY CONNECTIONS

Enhanced trail pathways into the backlotted residential neighbourhood can bring more people into the meadows and trail network.



CONNECTION TO UTSC / PAN AM CENTRE

This is an ideal entrance into The Meadoway for people at the Pan Am Aquatics Centre or the University of Toronto Scarborough. The preferred trail alignment that travels down Morningside Ave and into the campus grounds will be a frequented portion of the trail.



Comments from Public Engagement

Mural routes?
Find a way to
integrate natural
or built art into The
Meadoway.

I walk to The Meadoway.

Support Scarborough artists through an RFP for permanent art installs. Ideally you can turn encroaching parking lots into new meadow habitat.

Commercial gardening!

Once on the eastern side of Neilson, it is a very short distance to the continuation of The Meadoway to The Rouge.



Morningside Meadows

Rolling topography makes for grand views and immersive experiences

OVERVIEW

These areas are more 'passive' stretches of meadow, where the travelling experience along these portions of trail are peaceful and relaxing, with strategically located areas of rest. With the rolling hills topography west of Morningside Avenue, lookout points could be created at its peaks.

Key Features



INCREASED BIODIVERSITY

Meadow restoration promotes the return of native bird and pollinator species to the area, with beneficial impacts on local communities, wildlife, regional biodiversity, and climate change mitigation.



MOWED BUFFER

A mandatory mowed buffer around the trail area is important for user safety and comfort.



PAVED MULTI-USE TRAIL

The multi-use trail will be designed for all users.



Comments from Public Engagement

Limit permanent structures in meadow and community gardens.

Edible garden?
Community
orchard?

Wayfinding needed.

Lighting for post-dusk usage?

Excited to travel the full trail network!

opportunity for cross-country skiing?

Will there be an

Need to ensure that the buffer strips are better maintained.





Highland Creek Crossing

A local crossing providing access to the greater trail network of Toronto

OVERVIEW

As the ravine system is one of the most distinctive features of Toronto, opportunities to connect with and traverse a number of ravines in the form of safe pedestrian bridge crossings were explored. The one over Highland Creek will provide expanded access into the City's trail system, including the Upper Highland Creek Pan Am Path connection.

Key Features



SEATING

This area by the creek is an ideal space for trail users to rest and enjoy the view.



CLEAR AND EDUCATIONAL WAYFINDING

With important history embedded at these creeks, there is a great opportunity to provide signage that helps users orient themselves but also provides context.



CYCLING AMENITY

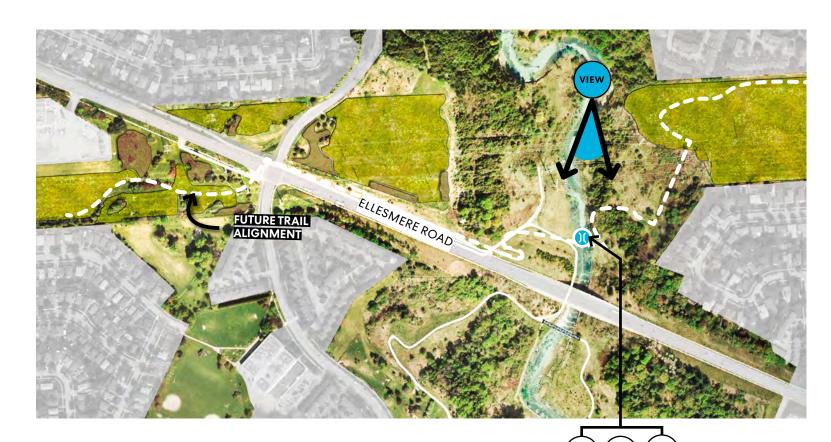
Cycling parking or tune-up stations could be provided at key nodes such as this crossing.
Cyclists may dismount, park, and continue their explorations throughout the creek area on foot.

Comments from Public Engagement

Very excited to see this built. I can't wait to use it to connect to the other Path in the creek.

Signage and amenities would direct people to enjoy a quiet experience of the intact ecosystem.

Excited for this crossing! I like the materiality of this.











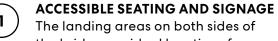
Ellesmere Ravine Crossing

An iconic crossing offering views of the ravine

OVERVIEW

From the Environmental Assessment (EA) process that occured in tandem with The VIsualization Toolkit, the EA identified a range of potential trail alignments and bridge crossings. The evaluation prioritized objectives such as: provide a positive user experience; protect and enhance natural features; provide connections, and maintain a safe environment. This rendering of the Ellesmere crossing was to emulate those objectives and demonstrate its critical east-west link.

Key Features



The landing areas on both sides of the bridge are ideal locations for

congregation, rest, and navigation.

VIEWS

This crossing will be one of the most iconic bridges within The Meadoway due to its long span and opportunity for an immersive experience within the tree canopy of the ravine.



Comments from Public Engagement

The span of this bridge is amazing! You will be able to really see into the ravine system.

I want to ensure that trails are accessible from a walking and biking perspective.

I hope signage is included throughout the trails.

It is an exciting concept!





Trail Intersection

Smaller 4-way community nodes – right in their backyards

OVERVIEW

Some north-south trails exist within the hydro corridor and are frequented by residents today. With the implementation of the full Meadoway multi-use trail, the intersections between the existing and the proposed connections will create local community nodes.

These can become meeting points for the community, with identifiable signage and distinct planting. Recreational users of the trail can still easily navigate around these nodes to continue on their journey.

Key Features



BUILDING ON CONNECTIONS

Existing breaks through the residential neighbourhoods into the hydro corridor can be enhanced to connect into The Meadoway multi-use trail. These are accessible ways for the community to enter The Meadoway.



CENTRAL NODES

The central 'social' nodes are located where The Meadoway is more likely to be used as a destination rather than a greenway. Community members can walk their dogs, meet their neighbours, or use for a passive stroll.



SEATING

A variety of seating will be strategically located throughout these nodes. Interpretative signage can be integrated into these resting areas. They should be designed to be comfortable and inviting, for trail users of all ages.

Comments from Public Engagement

Love the trail, I use it everyday, this is great for the community of Scarborough!

The vehicle-free path system that exists across the hydro corridor will be an amazing place for the longboarding community to use as transportation, as well as for holding events.





Typical Road Crossing

Safe, accessible, and critical linkages throughout the length of the trail

OVERVIEW

As per the City of Toronto Multi-Use Trail Design Guidelines, crossings should provide "a safe and direct crossing for all trail users...the primary goal is to prevent collisions between users. This is achieved by designing trails with the appropriate alignments and sightlines and by providing appropriate warnings to trail users when necessary".

As The Meadoway crosses over 30 roadways, each should be designed carefully and consistently to stitch the segments of the corridor together. Amenties such as bike parking and tune-up stations, areas of rest, and signage should be consistently applied to each crossing.

Key Features

- ACCESSIBLE SEATING AND SIGNAGE
 These areas are ideal locations to provide signage to point to nearby destinations (parks, libraries, etc.)
- MARKED CROSSINGS Paving markings provide enhanced visibility for both the motorists on the roadways and trail users.
- CYCLING SIGNALS

 By providing separate signals for cyclists, this enforces that pedestrians and cyclists are a priority in this crossing.
- To provide a sense of place, some interpretative art on the pavement could further emphasize to the user that they are using The Meadoway trail.

Comments from Public Engagement

Happy that a connection is being made to the East Don Trail, and that through this people will be able to travel to the Lower Don.

I can't wait to be able to cycle all of the way between the Rouge and the Don Valley! That will be great! Public art should be included along the trails.

I have often used the bike paths on The Meadoway and I know this corridor is an important community builder while it also helps enhance the real estate along its path.





Child's Eye View

An immersive, educational, and exploratory experience

OVERVIEW

The meadows are full of learning opportunities, especially for children! Toronto and Region Conservation Authority leads education and community learning intiatives for The Meadoway, and many of those explorations look like this!

This visual is an opportunity to demonstrate the naturalized habitat for biodiversity and the beautiful wildflower meadow.

Key Features



MEADOW HABITAT

A meadow, under the Ontario Ecological Land Classification, is "a community dominated by grasses and herbaceous plants, with tree and shrub cover of 25% or less... meadow communities are shaped over tie by patterns of natural or human disturbances such as cycles of fire, drought, soil scarification or mowing."

The opportunity for all to interact and view the meadows up close is one-of-a-kind!

Comments from Public Engagement

I am supportive of building uninterrupted meadow habitat.

Desire lines should be considered.





Urban Agriculture

Strengthening community and encouraging stewardship

OVERVIEW

Urban agriculture, as defined by the City of Toronto, are categorized as either community gardens or allotment gardens. Many existing gardens on The Meadoway (e.g. Jonesville Allotment Gardens, Givendale Gardens) are widely used.

Community gardens "provide access to land within the City for groups of people who wish to grow their own plants" whereas allotment gardens are plots that are available with a fee. From public consultation, it was noted that many community members are interested in both approaches to urban agriculture.

Key Features

DIRECTIONAL SIGNAGE As a highly frequented po

As a highly frequented public area of The Meadoway, these gardens will benefit from additional signage that can help users navigate.

2 VARIETY OF AGRICULTURAL OPPORTUNITIES

Additional opportunities for urban agriculture in The Meadoway will be explored.

3 ACCESSIBLE PATHWAYS Future urban agricultura

Future urban agricultural areas could connect to the multi-use trail, enhancing accessibility.

Comments from Public Engagement

Schools and community members should continue to be engaged in this project!

More community gardens are needed.

I am a big fan of community gardens. Areas heavy with new immigrants would greatly benefit from both a place to garden and a place to socialize.

> The Meadoway is a truly amazing project. I would like to see more urban agriculture in the corridor.





Wetlands

Learning about the range of natural species and habitats that call The Meadoway their home

OVERVIEW

Potential areas for future wetland restoration have been identified throughout The Meadoway. There is an opportunity to restore and enhance these within the corridor, as they are important to the health of our watersheds and communtiies.

Although these zones are small, according to Toronto and Region Conservation Authority, the benefits of wetland restoration include: increased biodiversity; increased wildlife habitat; improved habitat connectivity; flood attenuation; and improved water quality.

Key Features



WETLAND EDUCATION

For all trail users, these small pockets of wetland habitat can be excellent opportunities to teach and inform the public on the function of a wetland zone. Their ecological benefit can also be translated to school groups, making The Meadoway a great opportunity for field trips!



VARIETY OF SEATING

The Meadoway will offer a variety of experiences. Whether the user wants to use the trail for recreation, for seating, resting, or learning, there is space for everyone.

Comments from Public Engagement

Habitat enhancement is important to this project.

I would love to begin a similar initiative for the Finch Hydro Corridor! This project is really cool!

Some of these spaces wil be high usage for local runners and cyclists.





Other Tools

Virtual Reality

VIRTUAL REALITY PANORAMAS

An innovative way to demonstrate both the existing and proposed condition of The Meadoway was done through virtual reality (VR). The envisioned look and feel of these important crossings (Highland Creek and Ellesmere Ravine) was digitally modelled, then converted into QR codes.

Participants can scan the QR codes with their phone's camera or QR code reader app, which produces a link to a kuula.co website. Once on the website, the participants can be fully immersed in the space in 360! VR goggles can be used to even further augment the VR experience. Three different VR viewpoints are provided for each crossing to showcase the different experiences from middle of the bridge to each of the different landings. As both crossings are highly connected to their surrounding natural contexts, this interactive method offers a more close-up understanding of the proposed space that is typically more difficult to replicate in 2D space.

These QR codes live online and can be continually reused on multiple platforms moving forward, such as social media!





ELLESMERE RAVINE







HIGHLAND CREEK

















3D Models

SMALL REPLICAS OF LARGE SPACES

As the two crossings over Highland Creek and Ellesmere Ravine will be some of the most iconic destinations to The Meadoway, it was interesting to explore what the extent of these crossings actually looked like in their context. We created 1:500 scaled models through laser-cut wood panels and 3D-printed hydro towers, signage, bridges, and seating elements. Through this exercise, we were able to understand the topography of the ravines themselves, and how the new crossings could fit within this natural environment.











TANDSCAPES Perkins&Will

Photobooth

HASHTAG MY MEADOWAY

A large part of The Meadoway initiative is creating excitement within the local communities. For the public meetings for the Environmental Assessment and Visualization Toolkit processes, as well as all future public events, this large-format vinyl print can serve as a backdrop for photos! Cut-out props of local flora and fauna – and even a real bug net! – add to the interactive elements of this photobooth.

Participants can then share these photos of themselves 'in the meadow' to their own social media platforms, using the #MyMeadoway tag so the collection of these photos can grow over time!





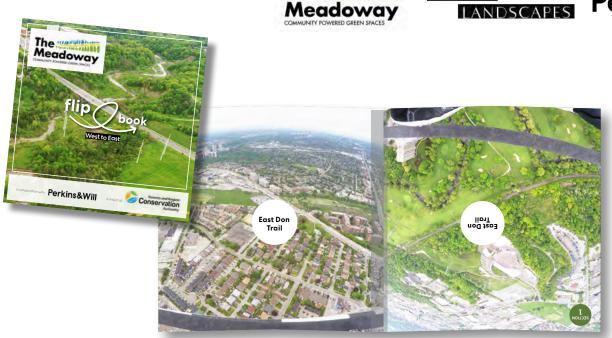




Flipbook

TACTILE TOOLS

A lot of photography has been collected as part of this visualization toolkit process. We came up with the idea of a flipbook because of its portable and interactive engagement format. Users of all ages can 'travel' through the 16 kilometre corridor – all in their own hands!



The William

Animations

ONE STORY. THREE VIDEOS

Three videos were produced as part of the Visualization Toolkit, spread over three different 'stages' and stories of The Meadoway. "Meadoway Today" presents the existing condition and the overall vision of The Meadoway. "Meadoway Tomorrow" focuses on the proposed future condition, featuring the renderings produced in this process. Lastly, the "Meadoway - Looking Ahead" video lays out the phasing plan for trail construction, bridge construction, and meadow restoration. These are sharable links that quickly summarize the story of The Meadoway.



Meadoway Today

Meadoway Tomorrow

Meadoway - Looking Ahead (Phasing)

24-Foot Map

A DIGESTIBLE FORMAT FOR A 16-KILOMETRE CORRIDOR

The best way to see, understand, and analyze the corridor is in a large format like this map. This has been a useful tool and platform for conversation, as participants can point to where they see opportunities and constraints, and staff can use it to describe the existing conditions or proposed designs.

This map is fully labelled, demonstrating community connections, future trail alignments, future crossings, and natural corridors. Along the edge, different 'mini-activities' are situated to gather feedback or educate the public with some additional information.

QUESTIONNAIRES

As the participant scans across this map, they may come across a few question prompts, such as "What do you use The Meadoway for today?" or "In one word, how would you describe The Meadoway?" Participants can then use stickers or markers to 'vote' or answer the questions. This is a quick way to gather feedback.



KID-FRIENDLY

In order to make the public engagement meetings kid-friendly, we designed some prompts along the map so that kids can participate too! We had an I-Spy game, sticker sheets, and fun facts all along the edges.







A SPECIES LIST

This list came in handy when participants or staff wanted to refer to a certain species in the meadow habitat.









DID YOU KNOW?

Under Ontario's Ecological and Classification, a meadov is defined as a "community dominated by grasses and herbaceous plants, with tree and shrub cover of 25%

FUN FACTS

To make this map more exciting -passive facts along the edges for participants to read. These are small opportunities for everyone to learn more about The Meadoway... and where they can find further information.



GUIDING PRINCIPLE: Blueprint for Revitalization

Throughout the process and upon implementation, The Meadoway will serve as a model for how to successfully revitalize and repurpose hydro corridors in both a local and international context.

ROOTED IN PRINCIPLES

To emphasize that the design of the corridor is rooted in 6 main principles, they have been listed and described along the map to remind everyone about the overall vision of the project.



