Chief Peguis Trail Extension

PENTLAND NODE
This community connection point provides access to the Chief Peguis Trail multiuse pathway at the intersection of Douglas Street and Pentland Avenue. This node will include benches, waste receptacle, interpretive signage and lighting. This is a rest area and gathering point directly adjacent to the Millennium Garden. The node commemorates the history of agriculture in the area physically with a strong linear geometry inferred from the City of Winnipeg's river lot system and agricultural plots. A fruit orchard and native prairie grasses and historical farm equipment all help to celebrate the community's strong agrarian roots.

ROTHESAY STREET
The grade separation structure at Rothesay provides a unique engineering solution to provide safe North/South travel over the Chief Peguis Trail. By raising the structure above the natural prairie elevation we are able to provide a grade separated solution which relies primarily on gravity drainage for the Chief Peguis Trail underpass rather than having to pump all runoff out of the pond. The structure will be constructed of pre-cast concrete girders and feature sidewalks on both sides of the bridge.

SUGAR POINT MAJOR NODE
The highest point of the trail system will allow people a prime vantage point to survey the surrounding features of the Chief Peguis Trail. The feature walls will shelter the sitting area while providing a frame for the surrounding nodes and planting features. Maple trees, reminiscent of Chief Peguis' homestead "Sugar Point" will be planted to provide amazing season colour change. Local materials such as limestone will further create a sense of place. Amenities including signage, benches, bike rack, waste receptacles and pedestrian scale lighting with banners will enhance the node adjacent to the pedestrian bridge.

LAKE NODE
A distinctive deck platform overlooking the Sun Valley Park Retention Pond creates a unique and reflective space which both celebrates and overlooks water. This pedestrian node is framed by undulating topography planted with native prairie grasses and will include seating, waste receptacle, interpretive signage, decorative railing and lighting. A beautiful resting spot located directly off the Multi-use pathway.

SALT TOLERANT SEEDING
A salt tolerant grass buffer zone will be planted within 10 meters of the major roadway and median areas. This planting treatment will be used adjacent to intersections as it is essential to maintain clear sightlines for vehicle and pedestrian safety.

PRAIRIE NODE
Located just south of the pedestrian bridge and surrounded by native prairie grass restoration, this node provides a great overview of the historically dominant biome of the Manitoba prairie landscape. A special little resting spot includes benches, waste receptacles, interpretive signage and pedestrian scale lighting. Native limestone and a distinctive unit paver pattern will distinguish and highlight the prairie node.

PEDESTRIAN BRIDGE
A new pedestrian bridge and trail will divert pedestrians and cyclists away from vehicle traffic on Gateway and Chief Peguis Trail. This safe overpass at a major pedestrian pathway intersection links the community safety with the North East Pioneer's Greenway. Each end of the bridge is flanked by welcoming sitting node areas. A gentle berm safety elevates the pedestrians and frames the views of the adjacent tree planting and prairie restoration areas. Bike racks, pedestrian scale lighting, interpretive elements

MULTI USE PATHWAYS
The 3.5m multi-use asphalt pathway adjacent to the Chief Peguis Trail allows safe and efficient movement of cyclist and pedestrians. The pathways include connections to the adjacent community and existing trails including the North East Pioneer's Greenway. Signage will introduce safety, directional way-finding and historic interpretation along the pathways. Nodes or key gathering areas are located at major pedestrian intersections, including the pedestrian bridge and will contain benches, waste receptacles and bike racks, creating inviting resting spots to admire the views. The City of Winnipeg accessible design standards will be incorporated into the design and implementation of the pedestrian crossings. The surfaces of the curb ramps shall be slip resistant and incorporate detectable warning surface at pedestrian crosswalks. Change in colour and pattern when unit paving is used will help define and delineate path of travel.

1 DRY POND
To ensure that the underpass at Rothesay is protected from flooding an innovative solution and stormwater management technique is used to control runoff during extreme rainfall events and high river levels on the Red (Spring or Summer). A dry pond is interconnected with the land drainage piping leading to the river. When gravity discharge to the river is restricted, the dry pond stores the runoff. The pond drains down when conditions permit. As added protection, a pump system has been included which can de-water the pond and the land drainage piping. This re-establishes capacity in the system for the next rainfall event. The dry pond will have a staggered shelf of native shrubs planted and low grow seeding.

2 SOUND ATTENUATION
A series of sound attenuation measures will be utilized to mitigate the noise created by the vehicular traffic including grassed berms, tree planting and a sound attenuation walls. Noise studies have been conducted to ensure adjacent properties are properly protected. The Simtek sound barrier is a durable material which is impact and graffiti resistant. It has an authentic split face granite look and is made of recycled materials. Additional embellishments include ornamental gates and ornamental metal railings at the ends of each fence run.

3 SEWER PIPE INTERCONNECTION
In a collaborative effort, DBF2 and the City of Winnipeg developed and analyzed the existing Douglas area land drainage system. The residential areas north and south of Chief Peguis Trail right-of-way were susceptible to surface flooding. Through engineering analysis, the two parties were able to improve the capacity of the local drainage system by up-sizing a portion of the new land drainage piping and then interconnecting the sewers to help reduce surface flooding frequencies for these areas.

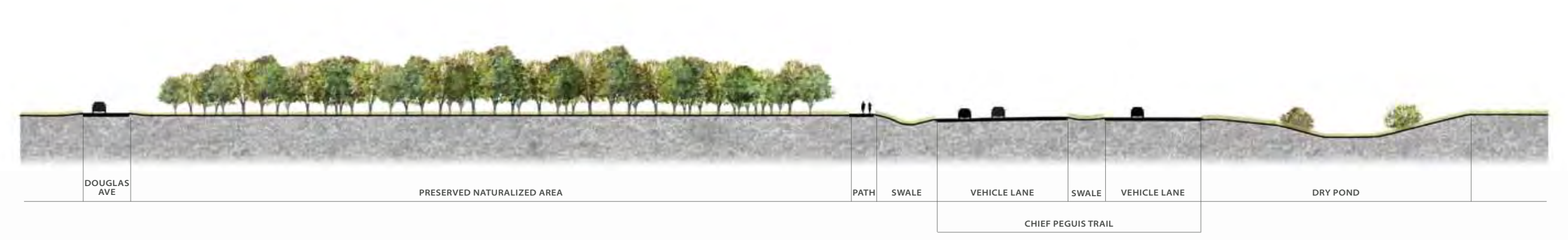
4 PRAIRIE RESTORATION
Tall grass prairie was historically the dominant biome in south central Manitoba. Prior to settlement, this condition would have been present in the vicinity of the Chief Peguis Trail extension. 40, 000 square meters of native prairie grasses will be introduced adjacent to the Gateway/ Chief Peguis Trail intersection. A very intensive planting strategy by Native Plant Solutions will require a number of planting seasons to establish the prairie species and will include weed control and two years of cover crop plantings. The final three years the prairie herbaceous plant species will be introduced. Common species include Big Bluestem, Western Wheat Grass, Blue Grama, Buffalo Grass, Canada Wildrye, June Grass, Little Bluestem, Indian Grass, as well as many others.

5 PRESERVATION AND PROTECTION
A Tree and Naturalized Areas Preservation and Protection plan has been developed and implemented in collaboration with the City of Winnipeg Forestry department. Clearing was required in areas for the Chief Peguis Trail roadway construction and a 10m buffer for salt spray and grade adjustment area in the bridge development zones. A conscious effort to maintain and preserve as much of the remaining and significant trees and natural areas as possible has been executed. Over thirty percent of the total quantity of existing naturalized areas will be preserved. Maintaining these healthy naturalized areas contribute to the preservation of habitat for the birds and mammals of the area.

6 ART WORK
Major gateway entrance features are currently being developed and commissioned by local artist Peter Sawatzky and will infuse texture, movement and character while celebrating local wildlife and native symbolism. Banners will create and transmit project identity for the trail. Interpretive signage and way-finding signage will carry on the unique image developed specifically for this project. The introduction of a community art project is also in development stages now.

7 WOODLAND NATURALIZATION
Environmentally appropriate species, selected in conjunction with the City of Winnipeg Urban Forestry Department, will add native trees, shrubs and forbs adjacent the Chief Peguis Trail. Developing a woodland, a very complex ecosystem, will be a multi-year task introducing cover crops for two years to control invasive species and erosion prior to tree and shrub planting. A diversity of native trees including Paper Birch, Green Ash, Balsam Poplar, Bigtooth Aspen, Trembling Aspen, Manitoba Maple, Bur Oak, Common Hackberry and American Elm. A variety of sizes of each native species ranging from seedling to 40 and 60mm calliper trees will create a realistic variety and diversity represented in all natural woodland areas. Speckled Alder, Red Osier Dogwood, Beaked Hazelnut, Prickly Rose and Saskatoon characterize the native shrub layer. Herbaceous seedling layer include a native mixture of flowering species and grasses will create a ground cover representative of native woodlands.

ROAD SECTION



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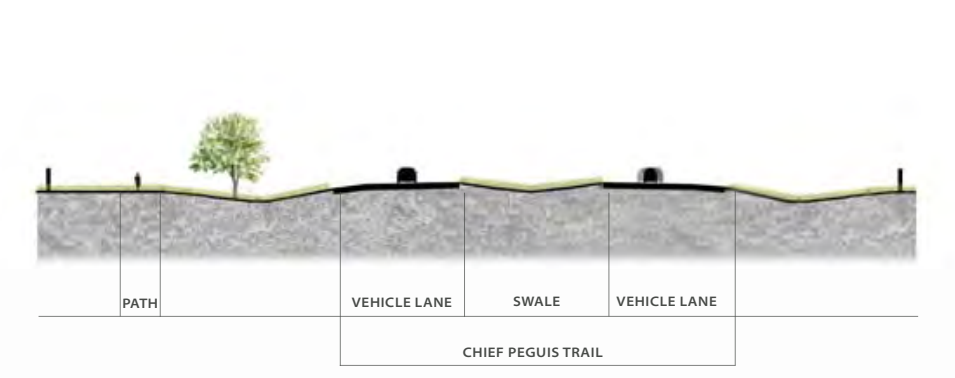

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