



How do the physical **forms** and **patterns** of a city's design impact the **community**?

My thesis explores **small urban city revitalization**. When small cities outlast the function of their own infrastructure, city revitalization needs to focus on how the city is functioning overall. City infrastructure is the basis for **structure** and **function** of a city. City revitalization plays an important part in reorganizing the **forms** and **patterns** of a city to create the **networks** and **connections** for a successfully functioning **community**.





Highway 8 Reconstruction

State Highway 8 flows East and West, it is used as a main through fare for traffic traveling between Minnesota and Wisconsin. Currently Minnesota Department of Transportation is working on the Highway 8 project. The purpose for the reconstruction is foremost safety, and secondly for traffic flow. Highway is one of the most dangerous highways in the Midwest and for this reason, something needs to be done.



Lindstrom has a strong **Scandinavian heritage** that has an important impact on the culture of the community.

The town was established in **1894**, and was founded by a group of Swedish immigrants: Daniel Lindstrom, Erik Norelius, and Vilhelm Moberg.

The similar **topography** and **climate** of Sweden has drawn Scandinavian homesteaders to this area.

Today the **population** of Lindstrom is **4,442 people**, and is continuing to grow.

Small Urban City Revitalization

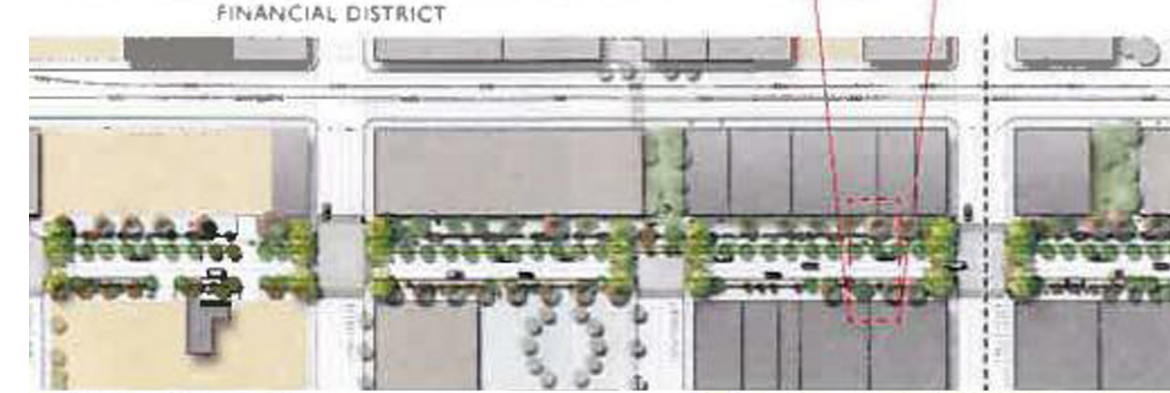
Lindstrom is currently looking to rejuvenate its downtown.

City Revitalization Practices | Techniques | Types:

- Main Street Renewal
- Central-City Revitalization
- Space Focused Design
- Green Design
- Economic Revitalization

Case Study:

One case study I explored in Tacoma, Washington focused on a green downtown and streetscape. The design focused on Pacific Avenue and how it functions as a main street for downtown Tacoma.



View 4: Intersection of 7th Street and Pacific Ave.

[1] Kames, S. (2016, September 18). Streetscapes and wayfinding. Retrieved from http://1.bp.blogspot.com/_9F1VJ0pmjG0/TJUBBxrg6-I/AAAAAAAAA1M/nRke-cjdxrA/s1600/pacAveArtistRender.jpg

Built Environment

Lindstrom's existing built environment and spatial relationships of its downtown are dispersed along the main corridor of State Highway 8.

The streetscapes are not consistent with the built and urban forms, which includes sizes, scaling, styles, and the setbacks.

Highway 8 is a strong corridor for the city of Lindstrom, which allows for urban development.



The framed area on the map below shows Lindstrom's existing downtown, the built structures and vehicular movement along the corridor.

Networks | Connections

The existing network of roads in the Lindstrom area have a disconnected feeling, and the system of roads is not very organized.

The movement around the city's downtown has levels of hierarchy consistent with the levels of traffic flow.

arterial streets : State Highway 8

collector streets : County Road 14, County Road 3

local streets : Lincoln Road, Andrews Avenue

Currently the traffic is more oriented to the vehicle, but the community would benefit from a more pedestrian friendly streetscape.

Creating a walkable downtown will make Lindstrom more accessible with better connectivity.



Highway 8 is one of the most dangerous highways in Minnesota. The main concern with the collector streets is that there are many access points are not controlled by any form of signals. Local streets are frequently used by the locals trying to beat the traffic on Highway 8.

The fabric that makes up the surfaces of Lindstrom spaces are **gray** and **green** fabrics.

Gray fabrics are the urban impervious uses of downtown spaces, whereas **green** fabric are spaces with vegetative covers that are pervious.

The arrangement of these fabrics downtown is widely dispersed.

The fabrics are interconnected with the **gray** networks such as the streets. Lindstrom would benefit from a more compact and higher density of spaces and different network and connections. The fabrics of downtown develop patterns within the downtown.

Classifying spaces and corridors gives diversity to the uses of the spaces. There are also benefits to the fabrics such as adding aesthetics, giving spaces and places identity, controlling the temperature and climate, and providing wildlife habitats.



The majority of the **gray** fabrics scattered about Lindstrom's downtown are paved parking lots for the local businesses. There are over 15 nearby open **green** spaces, parks, and wildlife trails in Lindstrom.



Streetscape | Urban Identity

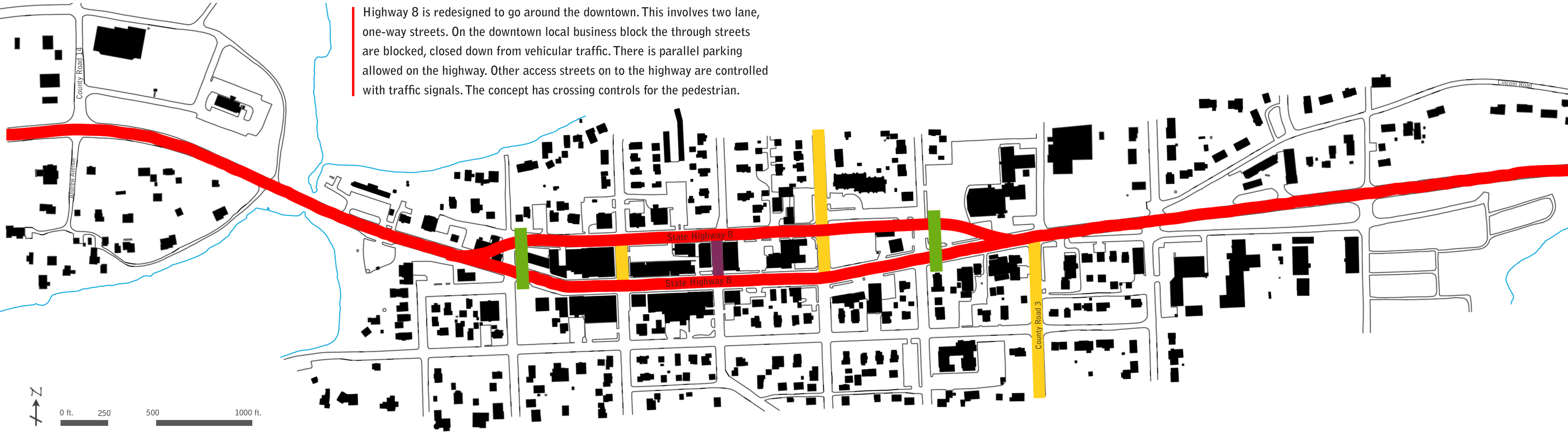
The city of Lindstrom has a wide assortment of built structures with different styles.

The photos are of building facade types along the Highway 8 corridor.

The downtown has a lack of identity and weak presence of a downtown space.

Figure A.- shows the older and more traditional built structures with more of a Swedish impression on the downtown.

Figure B.- in this image the economic industry needs these businesses, but the facilities are unoriginal. They are very separated from each other and are dispersed throughout town.



Highway 8 is redesigned to go around the downtown. This involves two lane, one-way streets. On the downtown local business block the through streets are blocked, closed down from vehicular traffic. There is parallel parking allowed on the highway. Other access streets on to the highway are controlled with traffic signals. The concept has crossing controls for the pedestrian.

Goals | Direction of the Project

- Overall goal is to improve the safety of the downtown Lindstrom
- To create 'Heart of the Downtown'
- Make more pedestrian-friendly, more accessible
- Improve circulation, movement, and connectivity around the site
- To establish an identity for the community
- To strengthen the business district
- And finally rejuvenate the downtown, attract, and repopulate Lindstrom



Traffic Structure

Downtown Businesses

Pedestrian Circulation

Green Corridor

Parking





Traffic Structure

Downtown Businesses

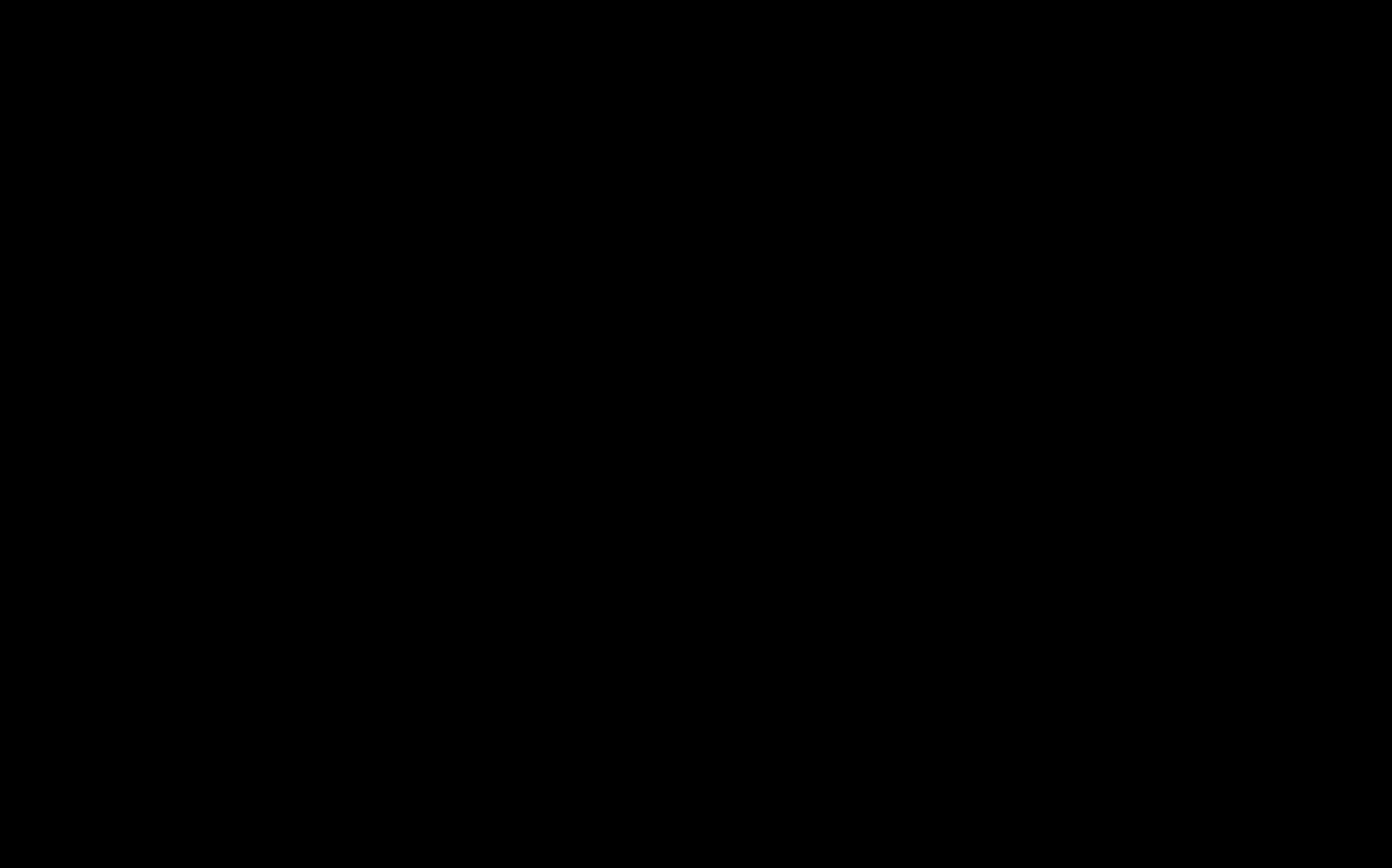






Master Plan

- Buildings Structures (both residential and commercial)
- Green Spaces and Connections
- Water
- Seating and Planters
- Parking
- Stamped Concrete



Traffic Structure

← Traffic Direction Flow
■ Parking



Traffic Structure

To create a smooth flowing traffic and allow for stopping in the downtown business district. Highway 8 is a two, one-ways the Northern route flowing to the West, and the Southern route to the East. There are also bumpouts and a Hot Button traffic signal for the crosswalks on both ends of the one-way corridor. The crosswalks stand out well with the stamped concrete patterns. The local roads North Lake Trail to the North, and Olinda Trail to the South have a strong connection to the circulation pattern in the networks.



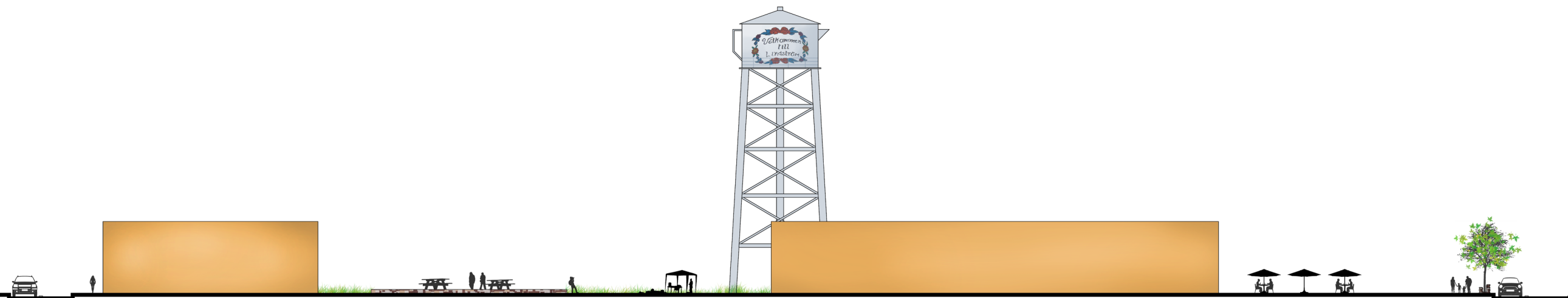
Downtown Businesses

The downtown character is enhanced with the businesses located in the downtown. The Scandinavian and Swedish culture is expressed with the colors brought into the built structures or downtown. These were derived from Swedish facades from buildings in Sweden. Buildings added to the infill were added to enhance the downtown giving variety and diversity to the downtown businesses. This also allows for different events and activities to be hosted in the downtown.



In the section above the building facades were an important part of the overall design. Lindstrom was derived for a Swedish heritage this stands out in some of the current downtown building structure, continuing this for the current and new development strengthens the culture of the community.

Downtown Businesses





Pedestrian Circulation

Pedestrian oriented street is an important element to the design of the Lindstrom Corridor. Focusing on the safety for the pedestrian with the use of the wide sidewalks and the protected tree canopy. There is a bike lane on the outside of the corridor that allows for a separation from walkers and motorized vehicles. Hot Buttons are located on either end of the corridor, these allow for marked safe crossing areas. There is stamped concrete pattern on the sidewalk this is used to direct the public around the downtown. Planters are used as seating to give character to the downtown. Local businesses use the space for a more flexible boundary to their stores. These planters run along the corridor creating a connection to the streetscape and acts like a barrier for a safer level. The trees along the Highway 8 corridor are planted as a sheltered canopy for pedestrian using the downtown spaces. The boulevard trees give the downtown character a unique feel.



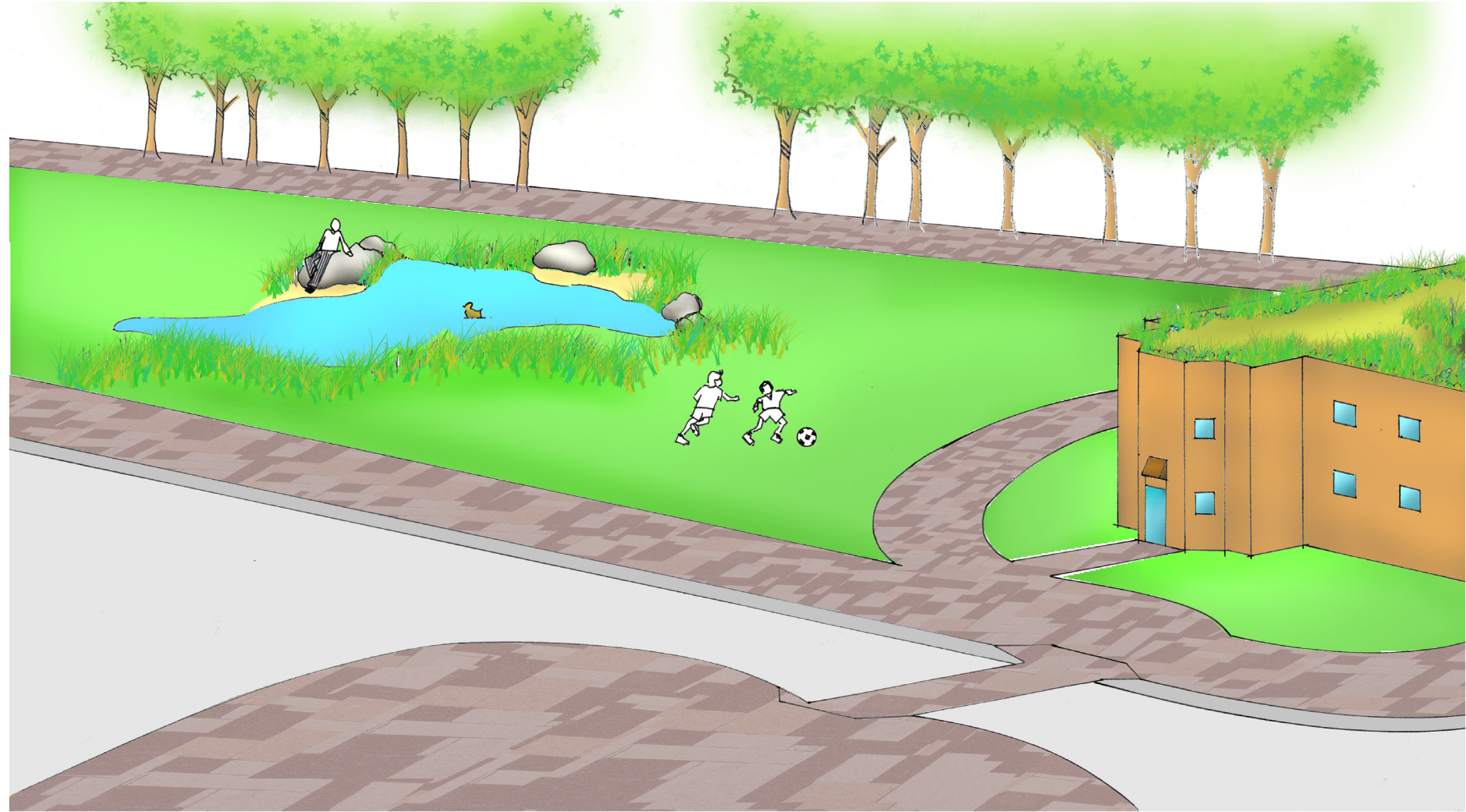
Green Corridor

The green corridor creates a unifying element to the downtown with the interconnected, overhead canopy. The connections are made throughout the downtown with the park system. This includes the two green spaces on either end of the corridor. On the West end of the corridor is an open green space with a water amenity. Also in relation to the built structures there is a chiropractic clinic that is in close proximity which has a green roof above to support the green corridor. Continuing down the corridor is a mid block plaza for a gathering area under the Swedish teapot water tower, that are many uses for this space such as for local business vendors to sell their products. On the East end there is an amphitheater, intended for multiple entertainment events, this space also has a large lawn for other outdoors activities which is enclosed by a grove of tree separating the space from traffic.

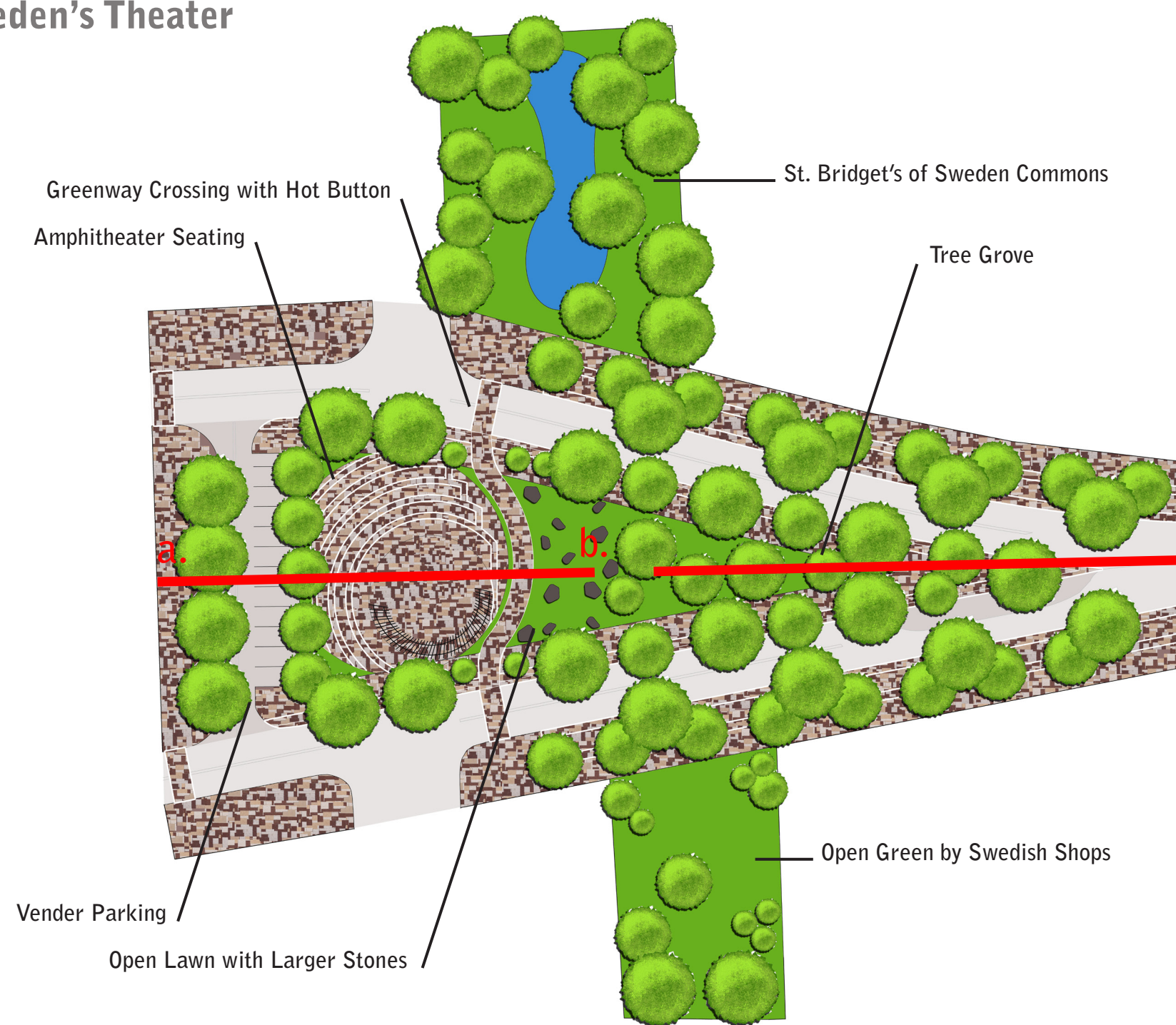
Boulevard Trees

- Elm
(disease resistant varieties)
- Ginkgo
(non-fruiting varieties)
- Hackberry
- Honeylocust
- Linden
(American and Sentry varieties)
- Maple
(Red and Sugar varieties)
- Oak
(Bur, Swamp White, and White varieties)

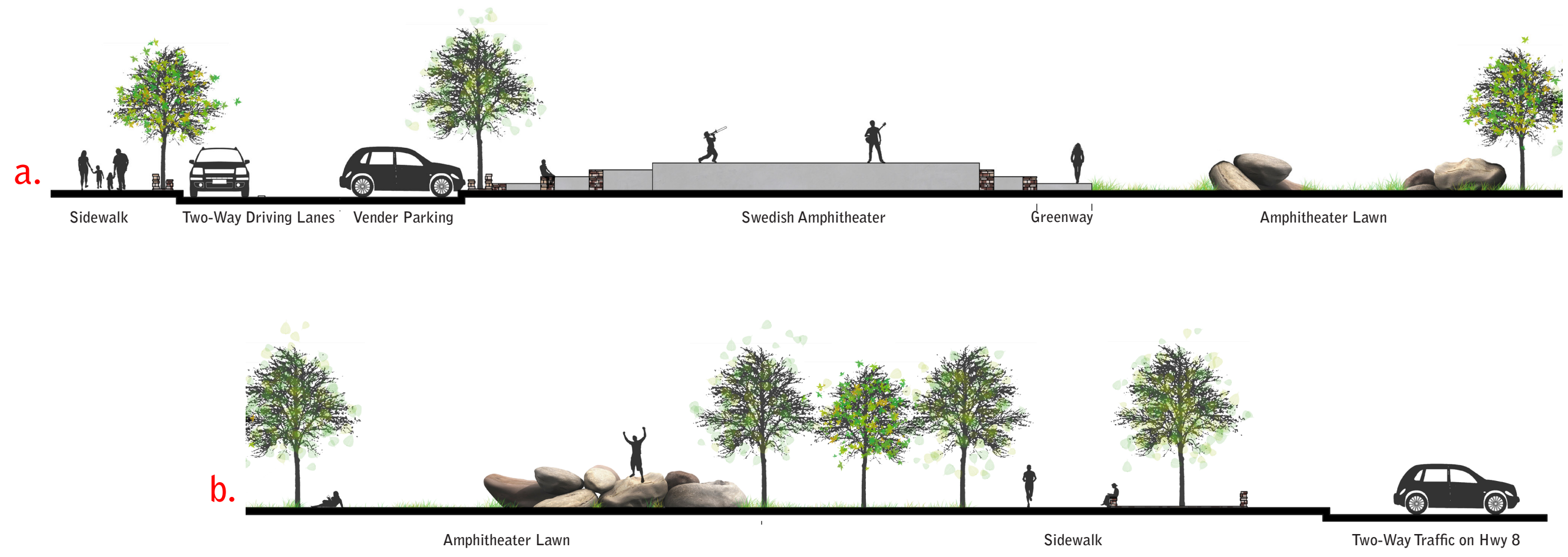
West Park



Little Sweden's Theater



Little Sweden's Theater

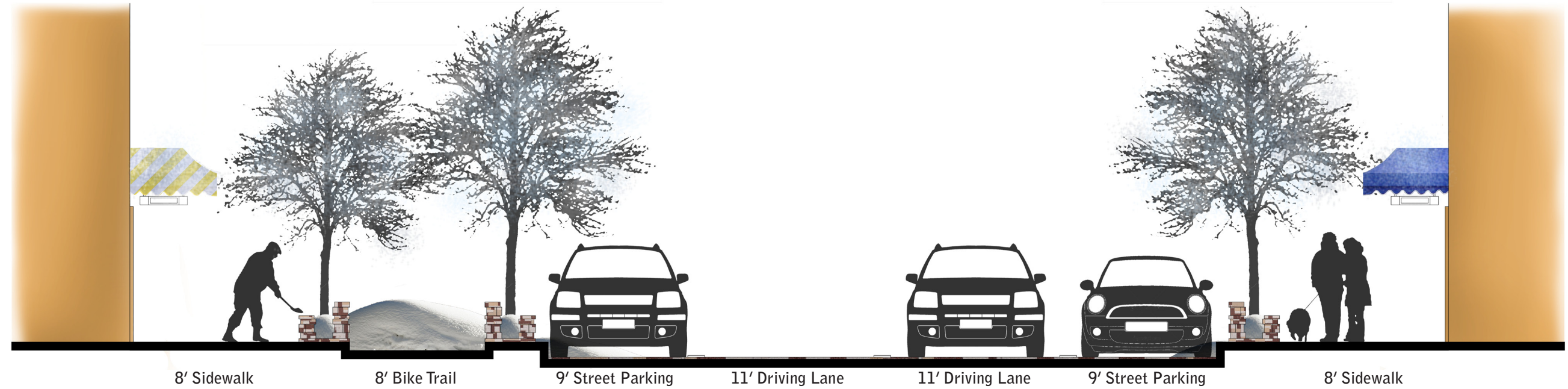
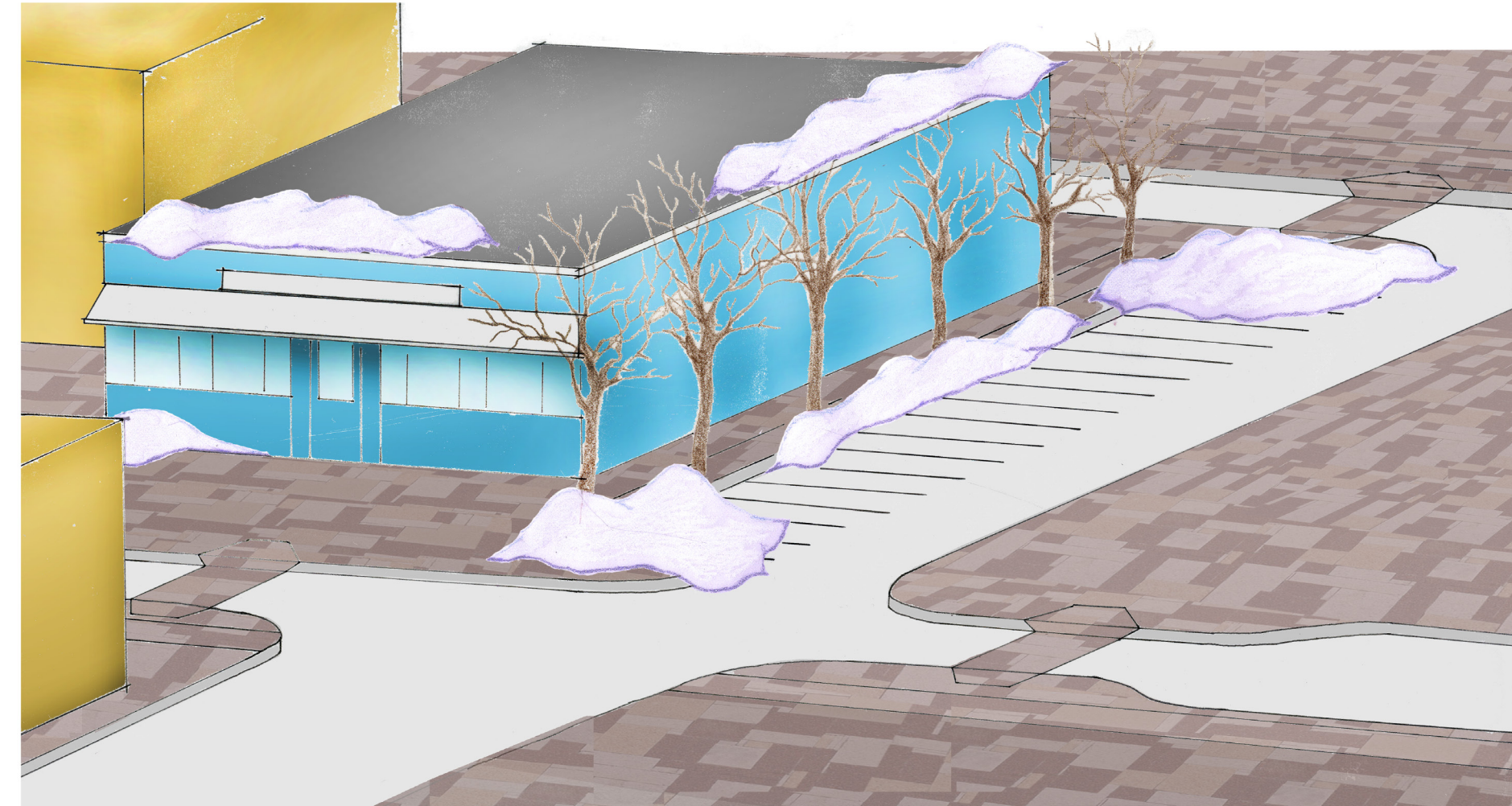




Parking

Downtown Lindstrom's parking is created for an amenity to the city. With the Lindstrom corridor design there are two parking lots formed from through roads. The two parking amenities are created to help out the local businesses in the downtown. One is located centrally on Maple Street by the downtown businesses. And the other is an amenity for the amphitheater on the East end on Elm Street. Also with on street parking this encourages direct access to the downtown businesses. Seasonally the parking lots can be used for excess snow storage. Parking is an aesthetic amenity to the downtown of Lindstrom.

Parking



The section above is showing seasonal impact of the streetscape design. In the downtown, the sidewalks are improved with the extra room to deal with Minnesota's heavy snow fall.



Highway 8 Reconstruction Resolution

The outcome to the design is a revitalized small town in the Midwest. It was a town that had outlasted the function of its infrastructure. In the reconstruction of the highway and major transportation system of Lindstrom the town is able to strengthen its community, culture, and identity. Major elements of the design that make for a successful community are the safe traffic structure that flows easy, economic downtown businesses, walkable pedestrian circulation, unified green corridor, and parking as an aesthetic amenity. Lindstrom's innovative downtown corridor creates a successful community that the residents are proud to continue to take part in.