

WALMART GREEN PARKING LOT RE-DESIGN

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 USU LAEP 3500
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PROJECT DESCRIPTION

The Walmart Parking Lot in North Logan is a sea of asphalt with very few trees and no sensitivity to sustainable storm water management. It is the type of parking lot that makes a significant contribution to the heat island impacts that we associate with poor parking lot design. The assignment is to re-envision the Walmart Parking Lot into a Green Parking Lot that includes a significant number of trees, microclimatic benefits and effective storm water management.

WHAT IS THE HEAT ISLAND EFFECT?

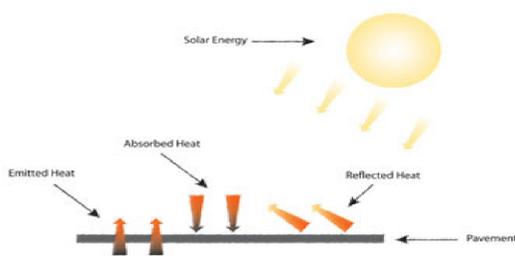
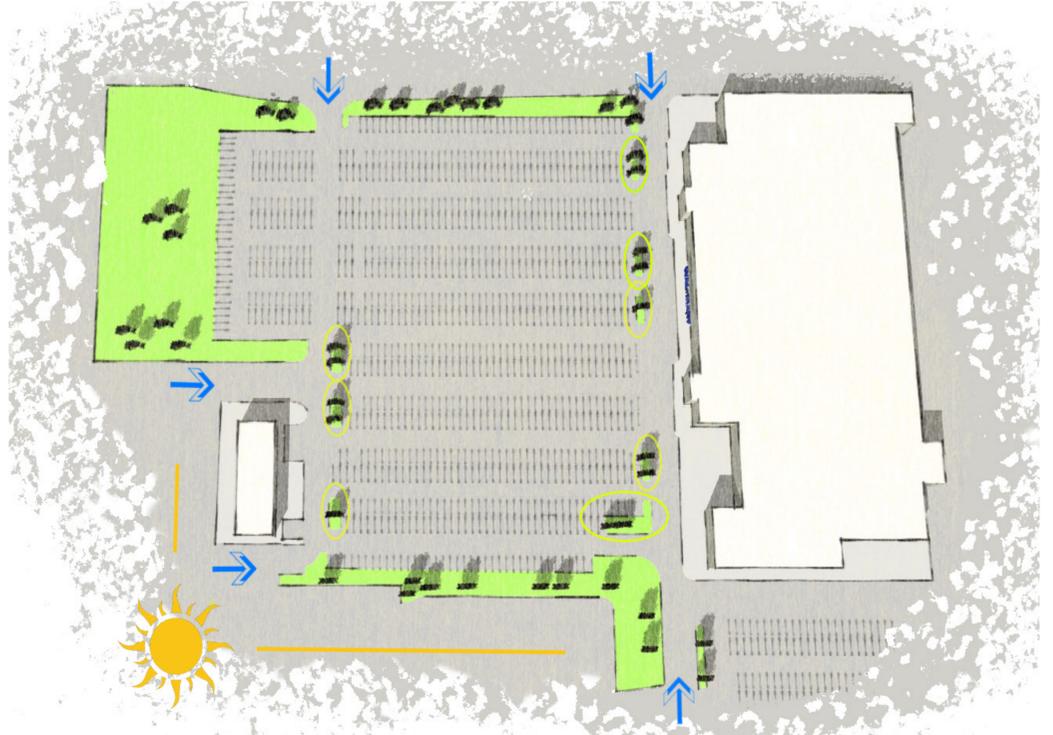
The Heat Island Effect is caused by the urbanization of large areas and the materials we use to create them. Not all surfaces are kind to the environment such as asphalt, which absorbs heat and retains it. This along with many other surfaces is heating up the spaces we live in.

PARKING LOT EXISTING CONDITIONS

As you can see in the image to the right, there is an overwhelming grey area. This symbolizes the asphalt that has negative impacts on the environment currently. During the summer daylight hours the asphalt is especially exposed to the hot sun.

In a failed attempt to break up the sea of hardscape there are eight raised planting beds with small trees planted in them.

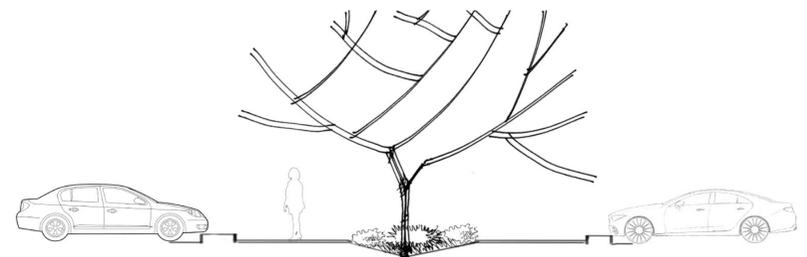
Also noted are the current access points which are referenced in blue. It is important that these are considered in the overall design of the parking lot in order to maintain smooth traffic flow and store front access where applicable.



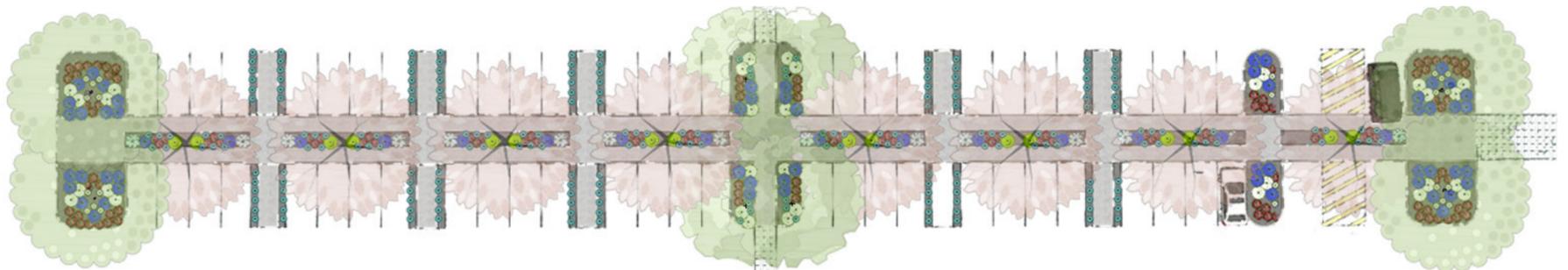
SITE DESIGN AND PLANTING

Below are segments of the site to help demonstrate the design idea as well as assist in clarifying the proposed planting plan. The hardscape layout should remain functional and simple, with the main idea behind the design being to reduce the Heat Island Effect by creating a vegetative buffer between the sun and the hardscape. The canopy of the trees will create a microclimate below as well as a pleasant experience for those visiting the store. The lower level of the planting plan will also help with water filtration and collection, as being made up of shrubs that are resistant to salt, pollution, and require minimal irrigation.

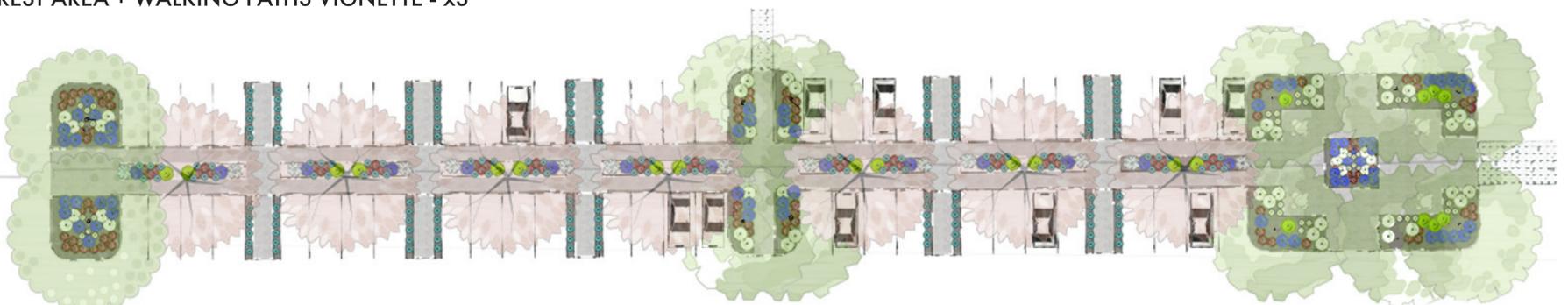
ELEVATION OF ELEMENTS IN ISLANDS



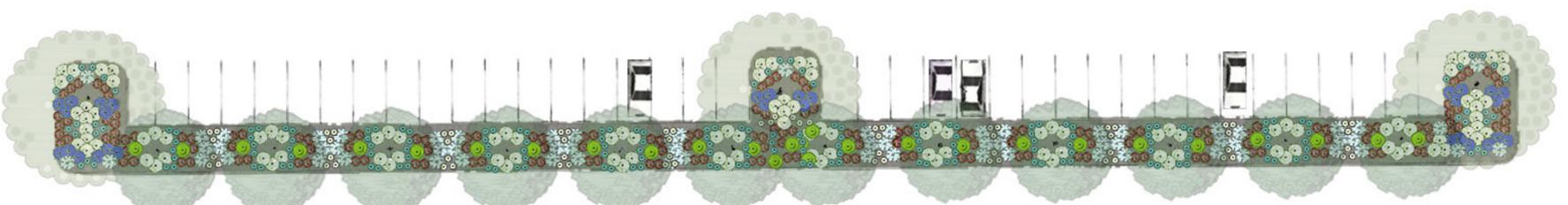
CENTRAL WALKING PATHS VIGNETTE - x2



REST AREA + WALKING PATHS VIGNETTE - x3



CURBED OUTER EDGE PLANTING VIGNETTE - x2



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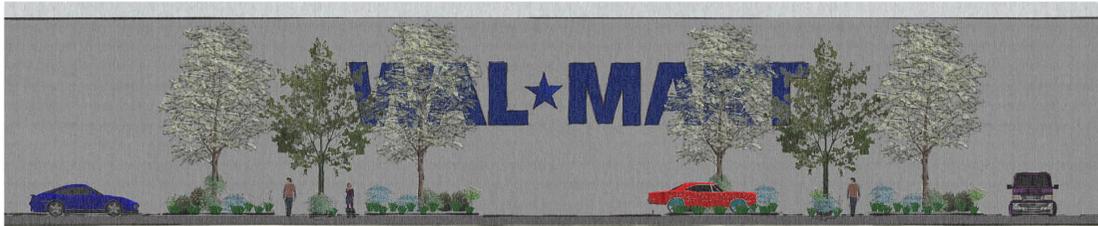
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WAITING AREA CROSS SECTION



This parking lot design does more than shade a sea of asphalt, considering there are more functions to a parking lot than just adding stall after stall. Most people have at some point in their life sat in the car while another goes into the store, but wouldn't it be nice to be able to get out of the car and sit comfortably in a waiting area surrounded by plant life? In this plan there are three areas designated for those instances at the ends of the walking isles on the North and South ends.

WALKING PATH CROSS SECTION



Designed for maximum safety and planting opportunities, each row of parking stalls is to be separated by a large walking isle. In the center of each walking isle there is a multiple use section which divides the path in two. Inside this section plants are to assist in breaking up the landscape and as a filtration system for the water that is guided into these collection areas. The paths are to be even ground with the parking lot asphalt, protected by curbs where there are not entrances to the paths and planters. There are many entrance areas, evenly spaced every four or five stalls.

BIRDS EYE VIEW OF SITE RE-DESIGN



SEASONAL INTEREST CHART

SEASONAL INTEREST CHART		JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
TREES													
BIGTOOTH MAPLE													
NORWAY MAPLE													
MORAINES HONEY LOCUST													
SWEET GUM													
LITTLELEAF LINDEN													
SHRUBS													
SNOW IN SUMMER													
WINTERCREEPER													
BLUE OAT GRASS													
BLUE STAR JUNIPER													
SWITCH GRASS													
FALSE SPIREA													
DESERT EVE YARROW													

Above is a chart showing the seasonal color interest that the plant life would bring into the hardscape design throughout the year. As shown there should be color in the spring, summer, and fall with a special interest in bringing color into the winter season.

HARDSCAPE AND PLANTING DESIGN

