

WHEATON

## DOWNTOWN STREETSCAPE CONCEPTS

MARCH 2, 2016



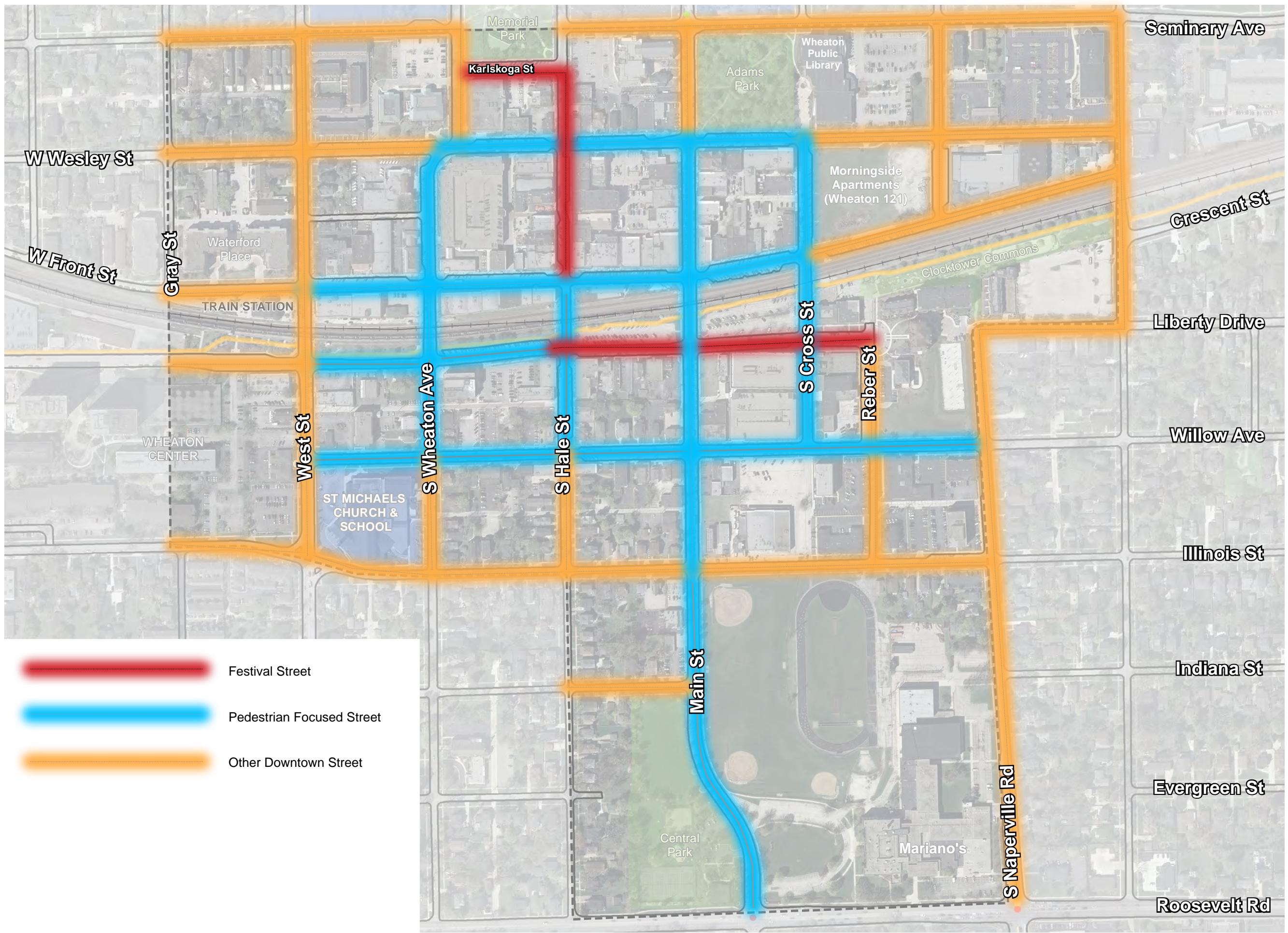
DESIGNWORKSHOP

# CLIENT VISION

The City of Wheaton and the various stakeholders in the downtown area aim to complete designs for the four street typologies, central park, Prairie Path Connections, and French Market that make the downtown a true destination in the surrounding region and stimulates ongoing development and evaluation of the Downtown district. The design of the next stages of the streetscape and downtown plan aim to create truly distinguished plans that will elevate the position of Downtown Wheaton and draw increased business and visitation to the district.

# CLIENT CRITICAL SUCCESS FACTORS

- a. Conduct necessary coordination and outreach with stakeholder and property owners in the Downtown area to create designs and plans that meet the objectives of the various parties in the Downtown area.
- b. Involve various agencies and departments as necessary to arrive at an achievable design (including departments from the City of Wheaton, and other outside agencies)
- c. Create models for the four street typologies: Pedestrian Streets, Festival Streets, Other Streets and S. Main Street.
- d. Create a model for streetscape design to provide a template for street design in Downtown Wheaton, going forward.
- e. Create designs that facilitate movement for all modes of travel (including bicycle, transit, taxi and walking)
- f. Create designs that elevate the position of Downtown Wheaton and support businesses and ongoing redevelopment in the area
- g. Develop a phasing strategy that is fundable and complete at the end of each phase.
- h. Develop a plan that conforms to any existing or pending local, state, and federal regulations.



# CONCEPT DESIGN

The DW team takes into consideration both the cost of construction as well as the cost of maintenance and life cycle in the design process. It is critical to understand the material alternatives related to the identified level of investment of each street typology. Our process will quantify various material alternatives for paving, curbs, crosswalks, furnishings, site lighting, planting methods and street tree treatments. The various levels of investment must be weighed against the established goals of the Master Plan.

For example, the level of treatment for street trees will vary from an open planter to a suspended paving system with structural soil, to a suspended paving treatment with 900-1,000 cubic feet of soil to an even higher level of investment using structural systems in the root zone to provide maximum soil volume, while maximizing usable space around the tree.

Our process will provide the understanding necessary to make informed design and investment decisions. This process will be used at worksessions with the City, as well as within the public input meeting to confirm the impact stakeholders feel each element will have versus the impact they feel the elements will have. This allows us to weigh these factors along with construction and maintenance costs to determine a “good/better/best” strategy for each concept.

The “good/better/best” strategies are outlined on the following pages for each street typology:

- a. Festival Street
- b. Pedestrian Street
- c. Other Street
- d. South Main Street

In addition, this chapter contains concept ideas for the Downtown Plaza and French Market Parcel.

**FESTIVAL STREET**  
**FRENCH MARKET**  
**DOWNTOWN PLAZA**  
**PEDESTRIAN STREET**  
**SOUTH MAIN STREET**  
**OTHER STREET**



## CONCEPT DESIGN NARRATIVE

### FESTIVAL STREET

Consideration for maintenance costs and methods, operating costs, potential revenue sources and positioning retail are critical as part of the programming and design process. In addition, the design process began from the conclusions of the 2013 Downtown Plan public input. As a starting point for each prototype, the metrics established in the Downtown Plan are revisited and prioritized within the layout of the streetscape and other public spaces.

The festival streets are intended to serve as dynamic public gathering spaces and help facilitate outdoor dining, major events, and promote overall downtown vitality. The prototype at Liberty Street will become a part of the proposed plaza/park creating a more robust setting for the French Market and other events. This will create a primer or catalyst for focusing redevelopment south of the rail road tracks.

During the 2013 Master Plan, the public input indicated support for a more contemporary application of streetscape materials, as compared to the historic application applied throughout downtown. This can be applied in the form of a color palette combined with contemporary furniture, while maintaining a consistent look and feel to unity all of downtown. Core to the concept design for the festival street prototype is the same metrics identified in the pedestrian street.

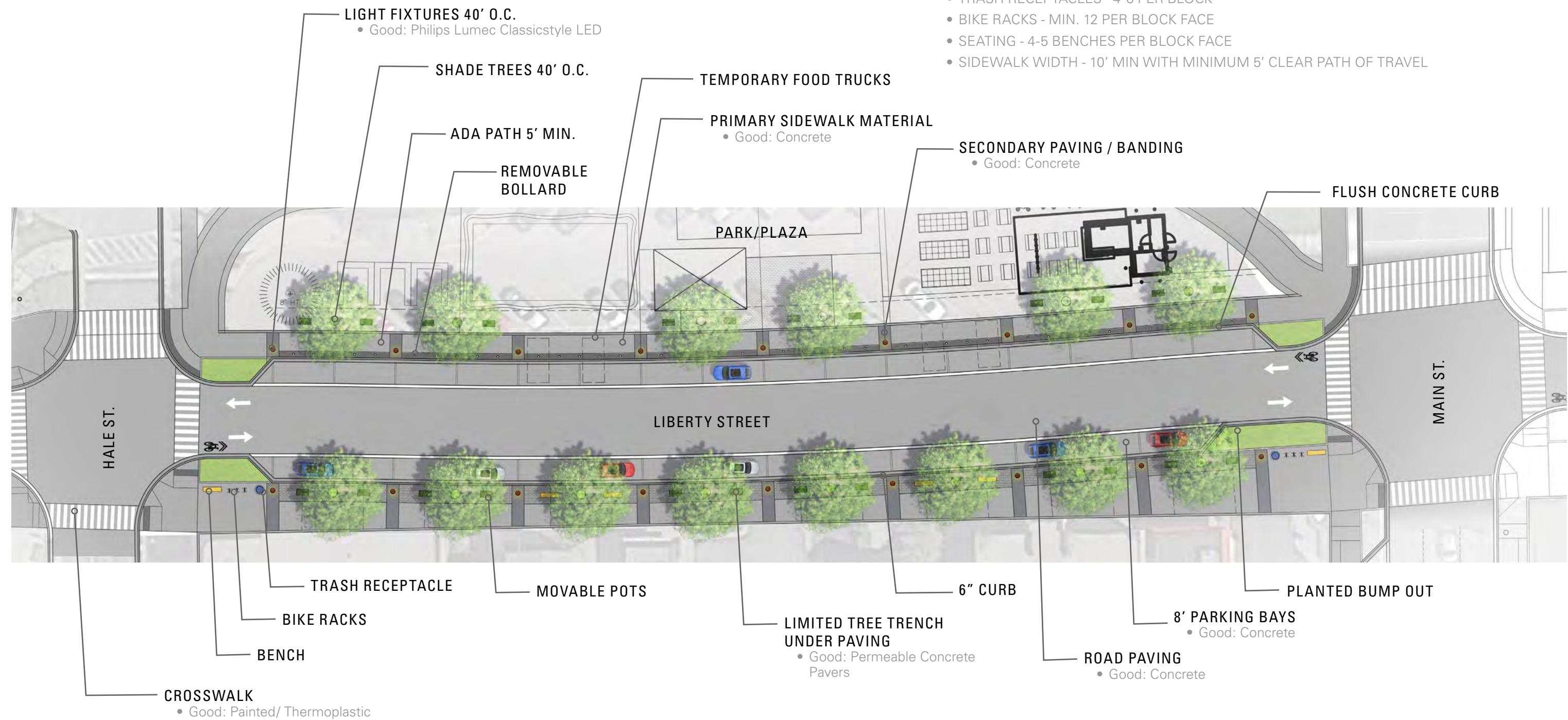
The festival street should physically serve as an extension of the adjacent public space. The curb will be designed as a flush curb with removable bollards on one side and a mountable curb on the other - for ease of delivery and set-up for events. The street sidewalks will provide fixed anchors for securing temporary tent or canopy structures during events. Parking will remain in place, while curb cuts are eliminated where possible. Sidewalk widths are maximized to at least 12'.

Catenary lighting will span the right-of-way affixed to new LED street lighting. Light fixtures will accommodate banners and/or a district identity logo. This will strengthen the street as a focus for events and gathering, as well as create a beautiful setting for restaurant dining and strolling. Bulb-outs and highly visible crosswalks will be provided at all intersection corners to reduce crossing distances to about 20-22'. Trash receptacles will be provided at each street corner along with bicycle parking to meet the established metrics. Using a similar system of suspended paving at tree planting areas, pedestrian and plaza space is maximized, while trees benefit from 1,000+ of growth area. This will allow the festival street to achieve a 13% tree canopy which is slightly lower than the pedestrian street due to the larger tree spacing.

A similar palette of materials will be used to create a rich texture along the festival streets. Differences in the 'good/better/best' studies include trade-offs in quality and quantity of paving materials, tree size and soil quality, and roadway materials. Planting areas will include largely native and drought resistant plant materials including shrubs, grasses, perennials and bulbs with a focus on seasonality. Movable pots will provide additional seasonality while maintaining flexibility within the public realm to accommodate dining or increased pedestrian traffic flow during events. Consideration should be given to underground utilities adjacent to the Prairie Path.

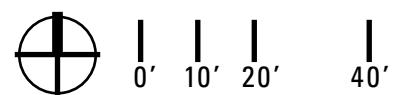
## FESTIVAL STREET | WEST BLOCK

GOOD



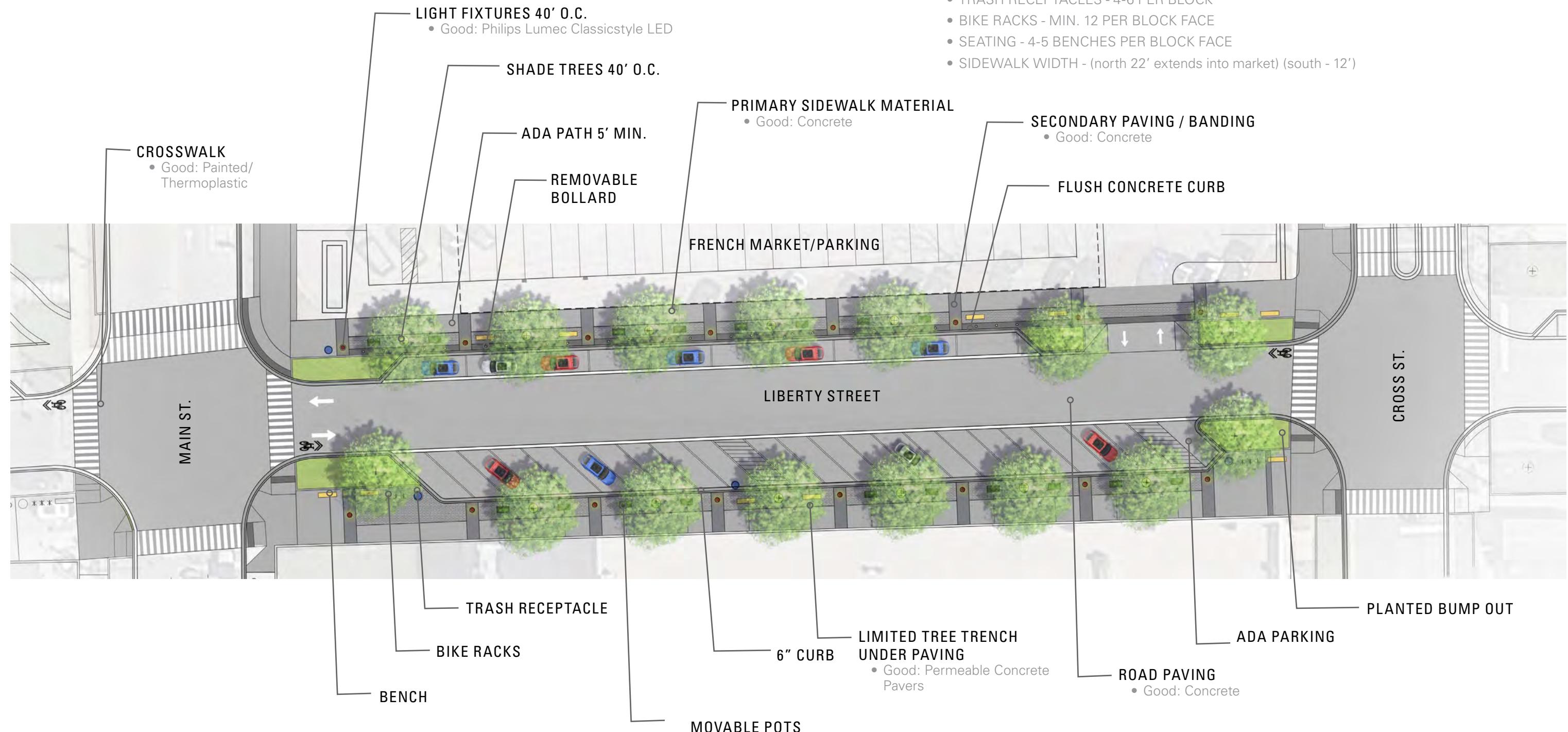
## METRICS

- TREE CANOPY - 15%
- PARKING - (NORTH) 18 SPACES BEFORE/ 16 AFTER [AS A RESULT 2880 s.f. AREA IS ADDED TO THE PLAZA SPACE] - (SOUTH) 8 SPACES BEFORE/ 15 AFTER
- SOIL VOLUME - 900-1000c.f. (PLANTERS, SUSPENDED PAVING WITH STRUCTURAL SOIL)
- CROSSING DISTANCE - Before: 28-40' After: 22'
- TRASH RECEPTACLES - 4-6 PER BLOCK
- BIKE RACKS - MIN. 12 PER BLOCK FACE
- SEATING - 4-5 BENCHES PER BLOCK FACE
- SIDEWALK WIDTH - 10' MIN WITH MINIMUM 5' CLEAR PATH OF TRAVEL



## FESTIVAL STREET | EAST BLOCK

GOOD



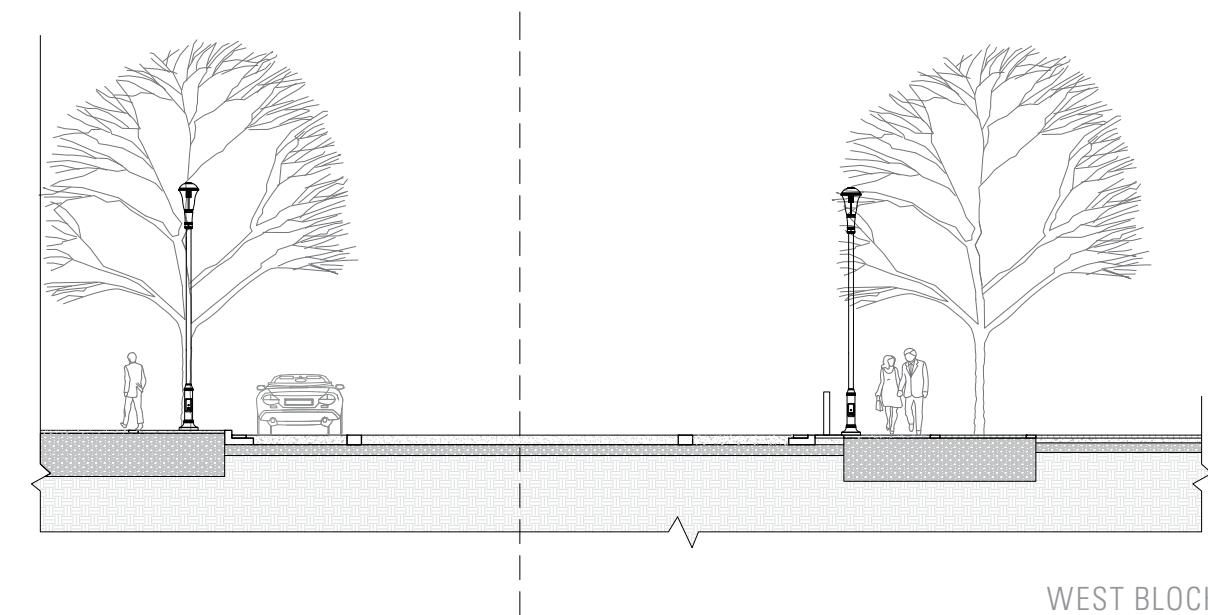
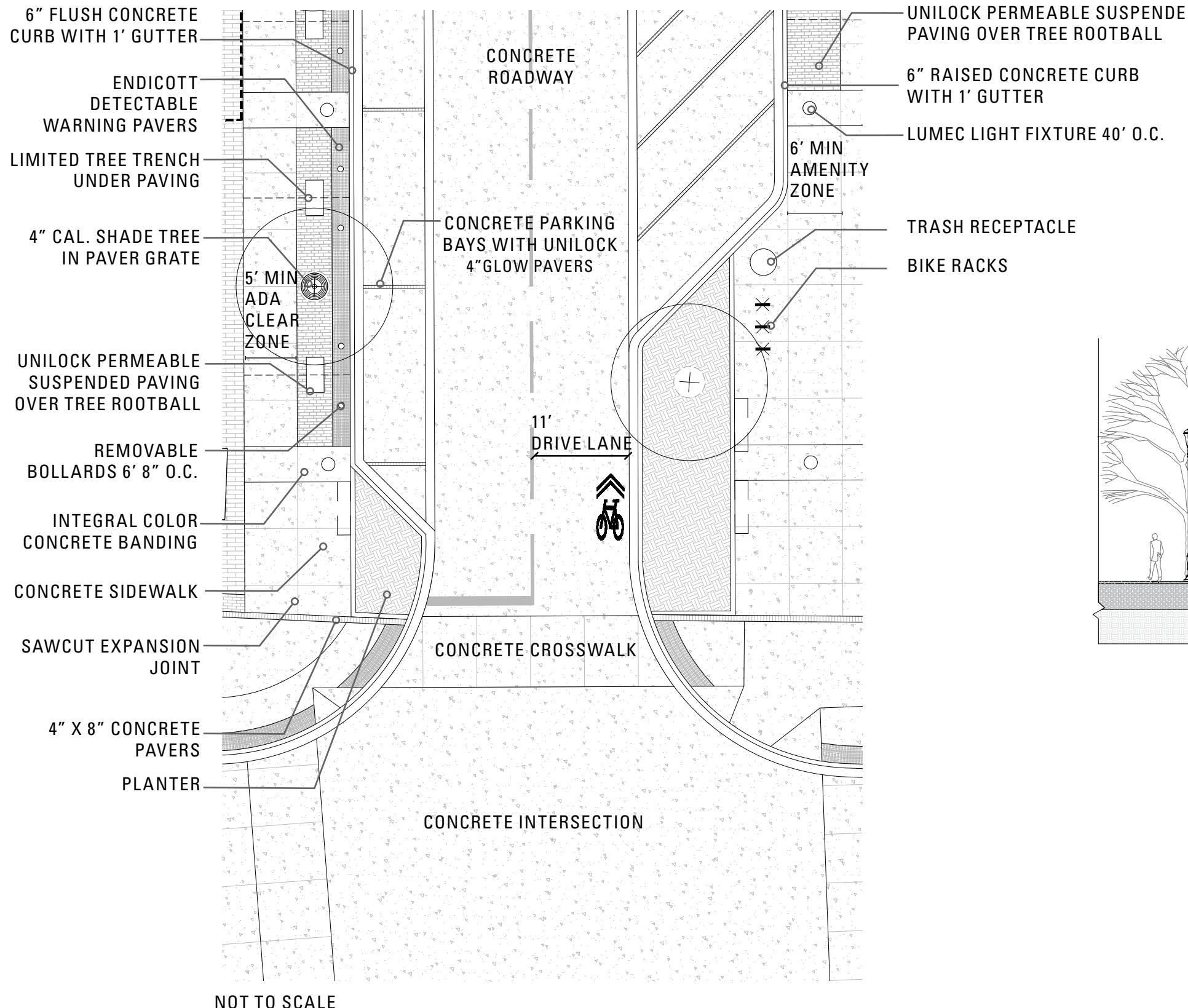
## FESTIVAL STREET

GOOD



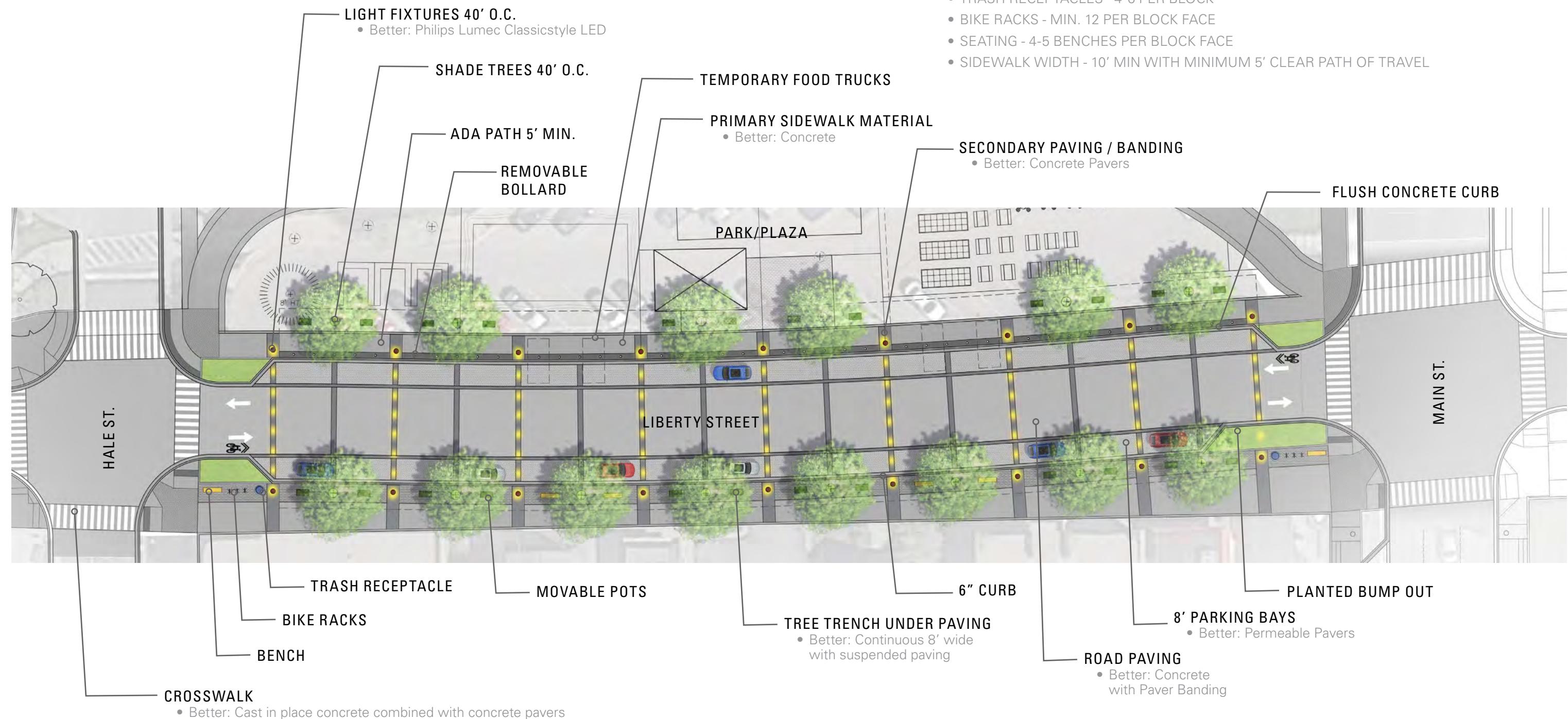
## FESTIVAL STREET

GOOD



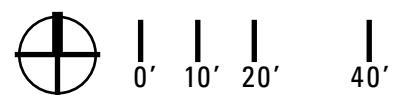
## FESTIVAL STREET | WEST BLOCK

BETTER



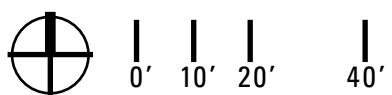
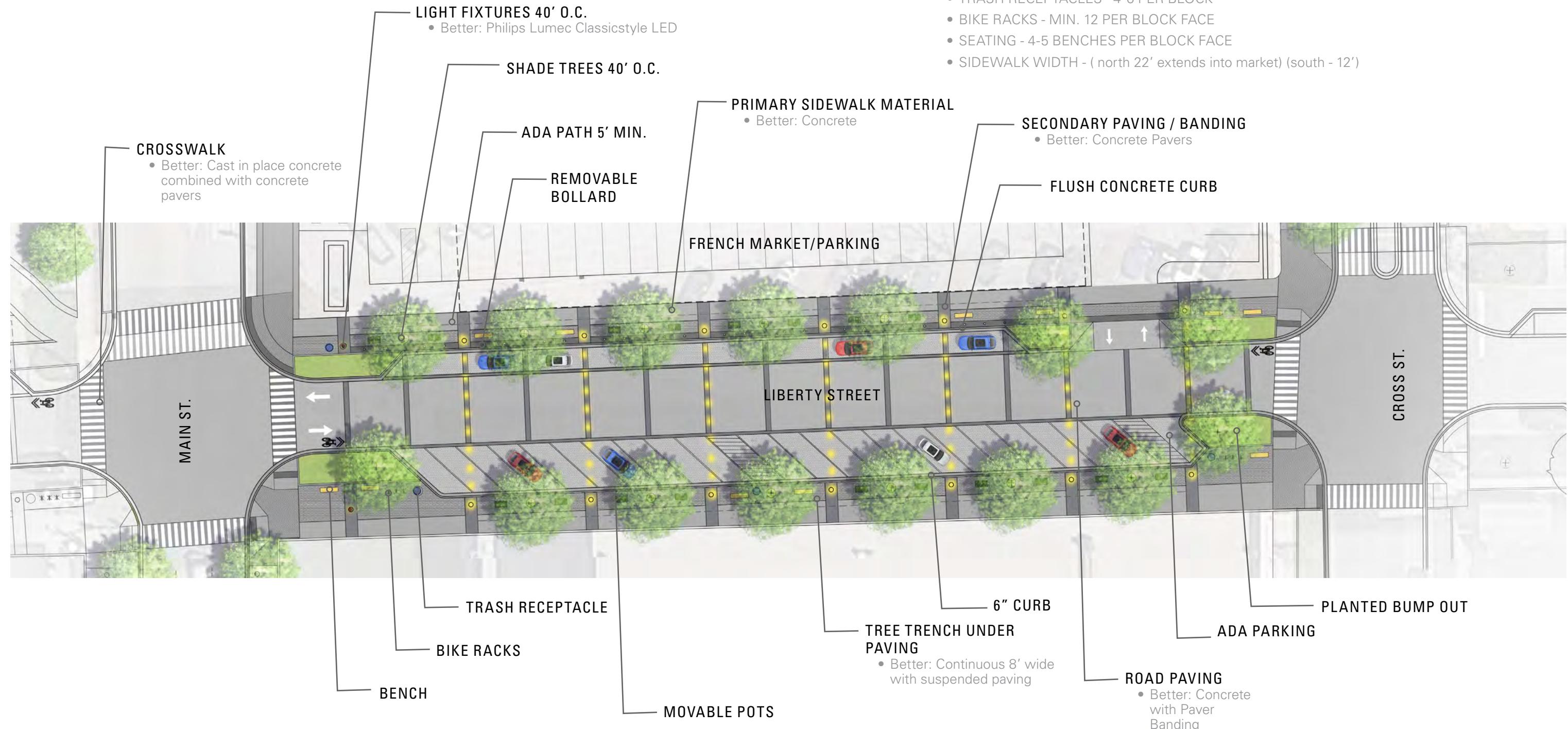
## METRICS

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- PARKING - (NORTH) 18 SPACES BEFORE/ 16 AFTER [AS A RESULT 2880 s.f. AREA IS ADDED TO THE PLAZA SPACE] - (SOUTH) 8 SPACES BEFORE/ 15 AFTER
- SOIL VOLUME - 810-1,200 c.f. (PLANTERS, SUSPENDED PAVING WITH STRUCTURAL SOIL)
- CROSSING DISTANCE - Before: 28-40' After: 22'
- TRASH RECEPTACLES - 4-6 PER BLOCK
- BIKE RACKS - MIN. 12 PER BLOCK FACE
- SEATING - 4-5 BENCHES PER BLOCK FACE
- SIDEWALK WIDTH - 10' MIN WITH MINIMUM 5' CLEAR PATH OF TRAVEL



## FESTIVAL STREET | EAST BLOCK

BETTER



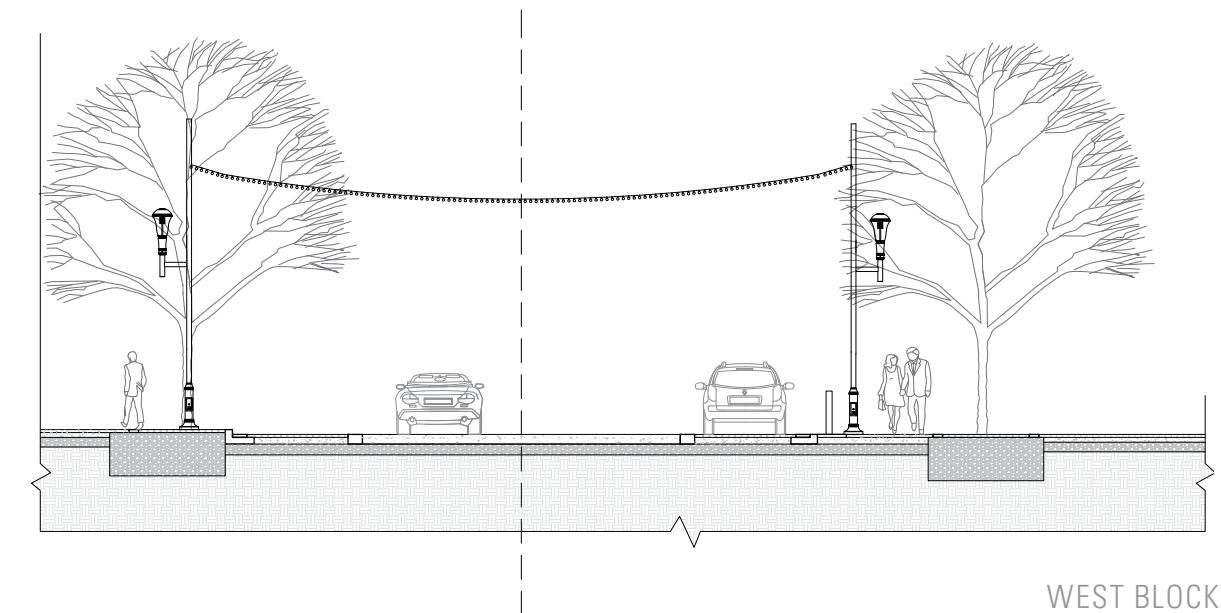
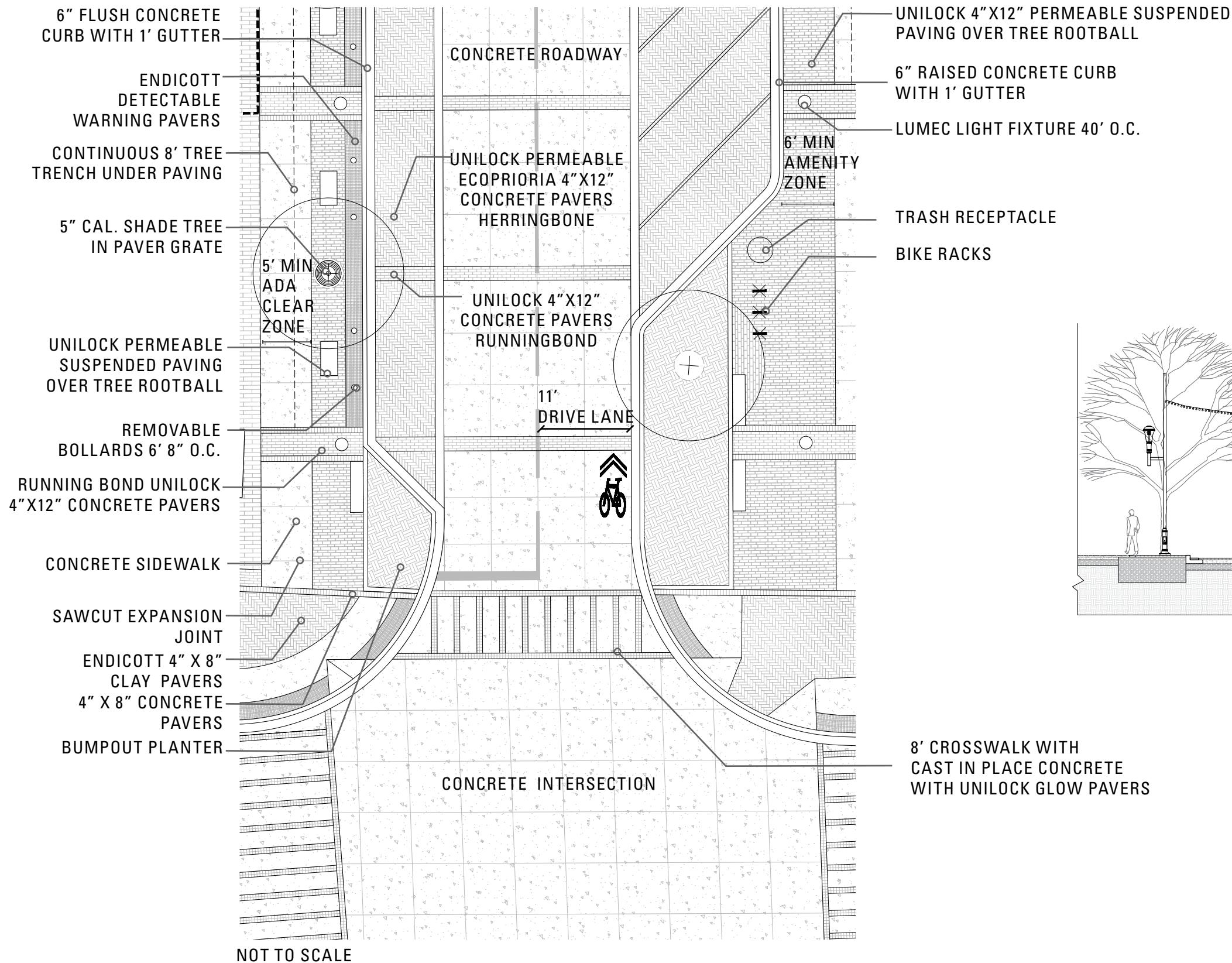
## FESTIVAL STREET

BETTER



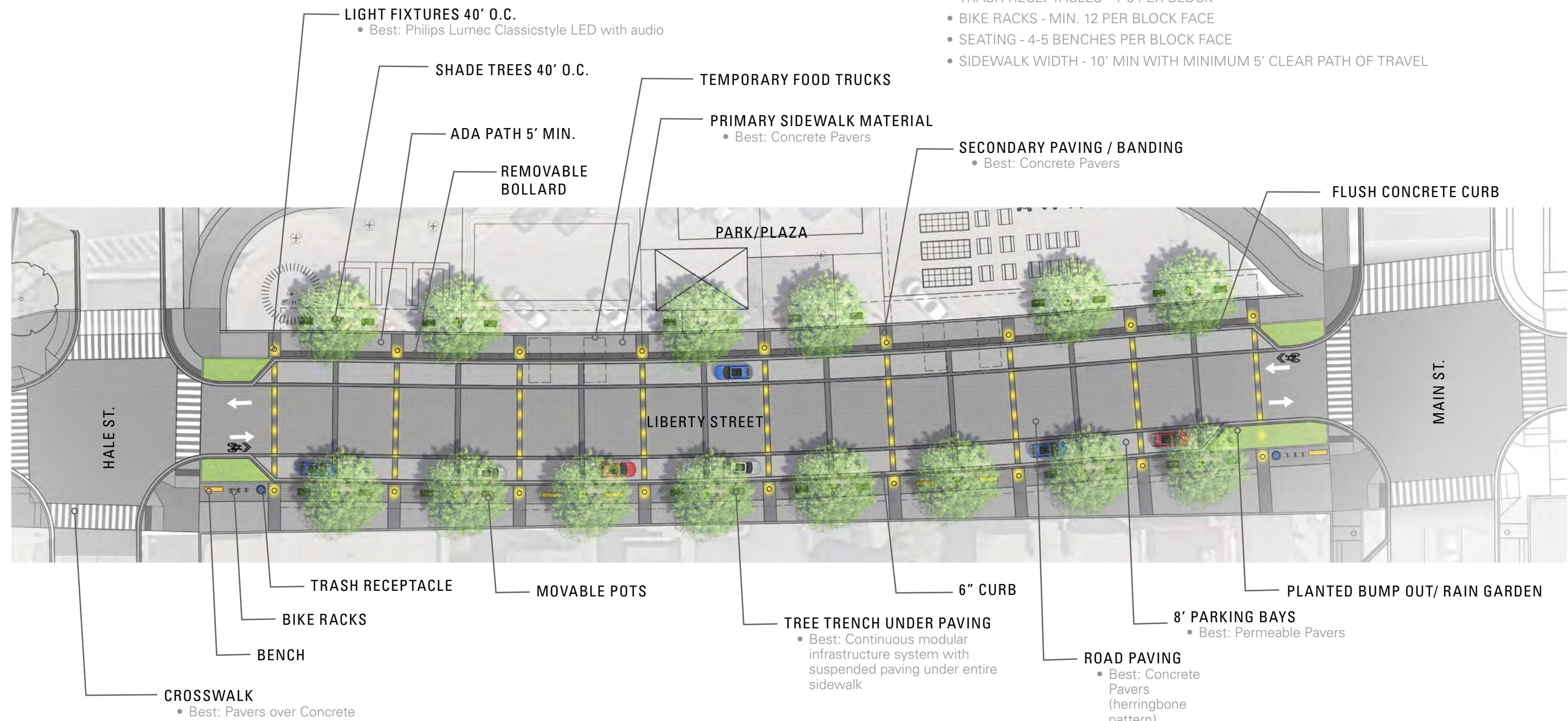
## FESTIVAL STREET

BETTER



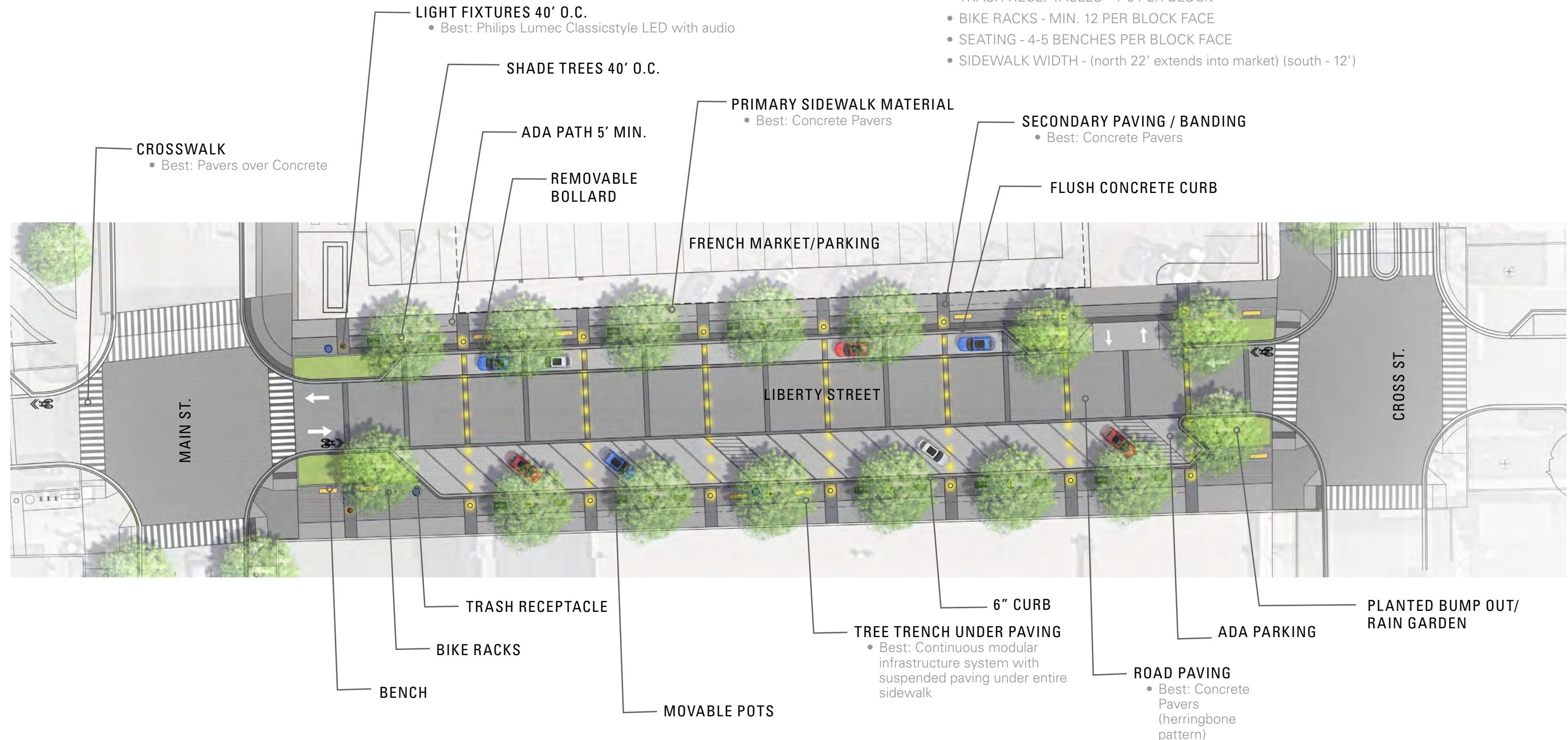
## FESTIVAL STREET | WEST BLOCK

BEST



## FESTIVAL STREET | EAST BLOCK

BEST



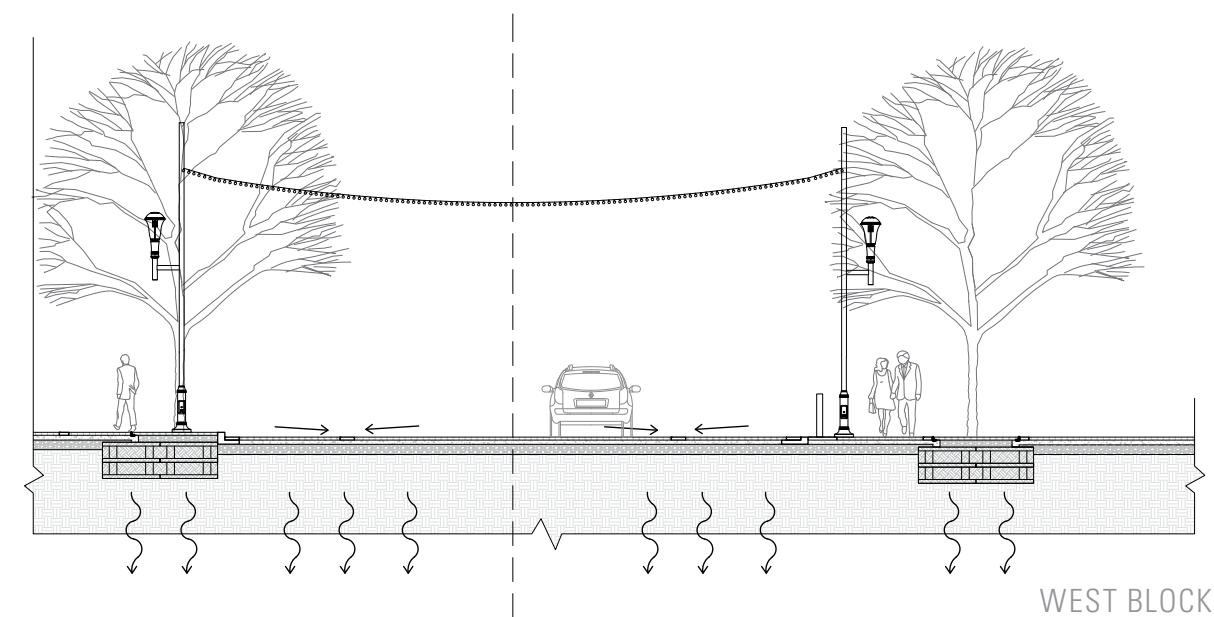
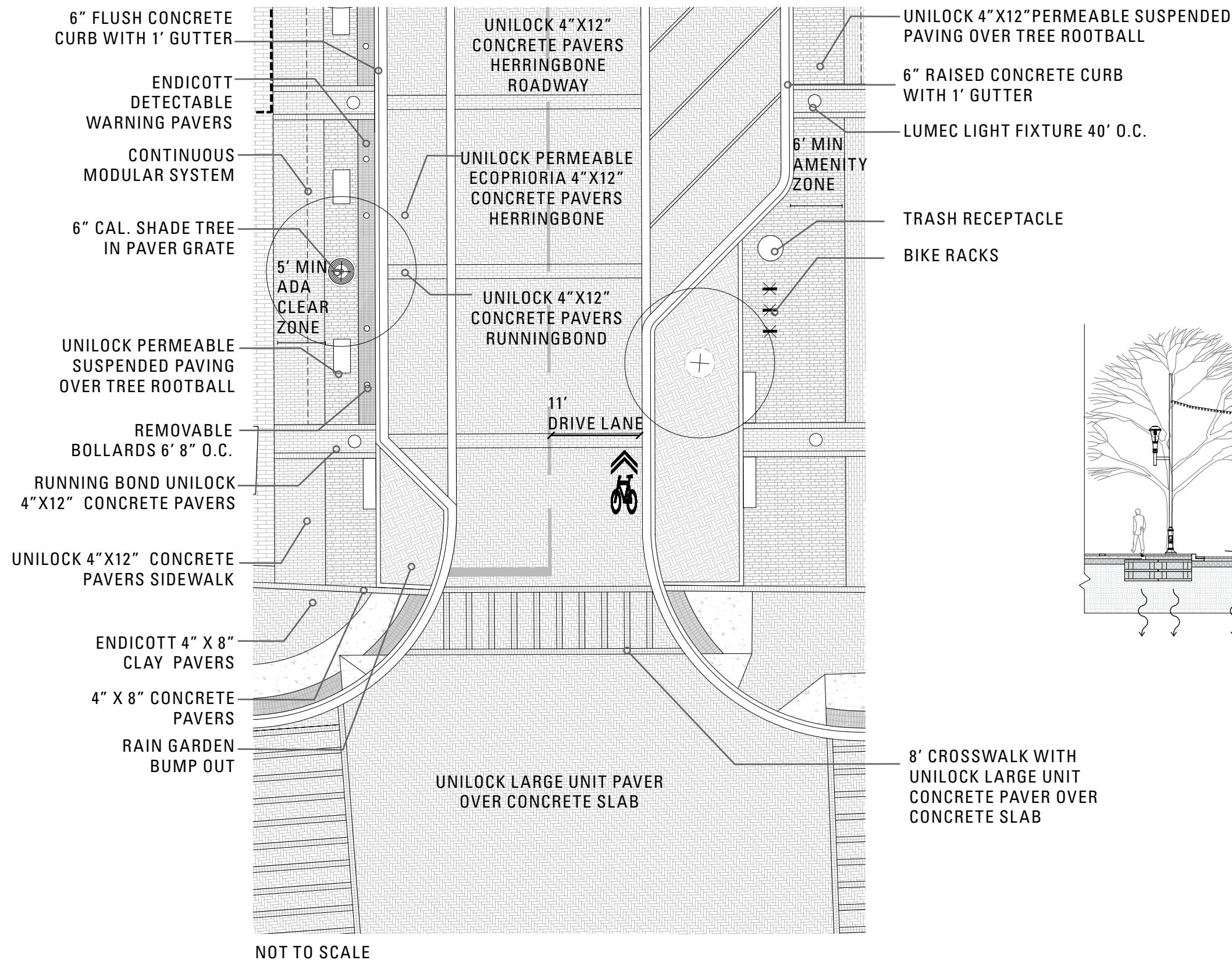
## FESTIVAL STREET

BEST



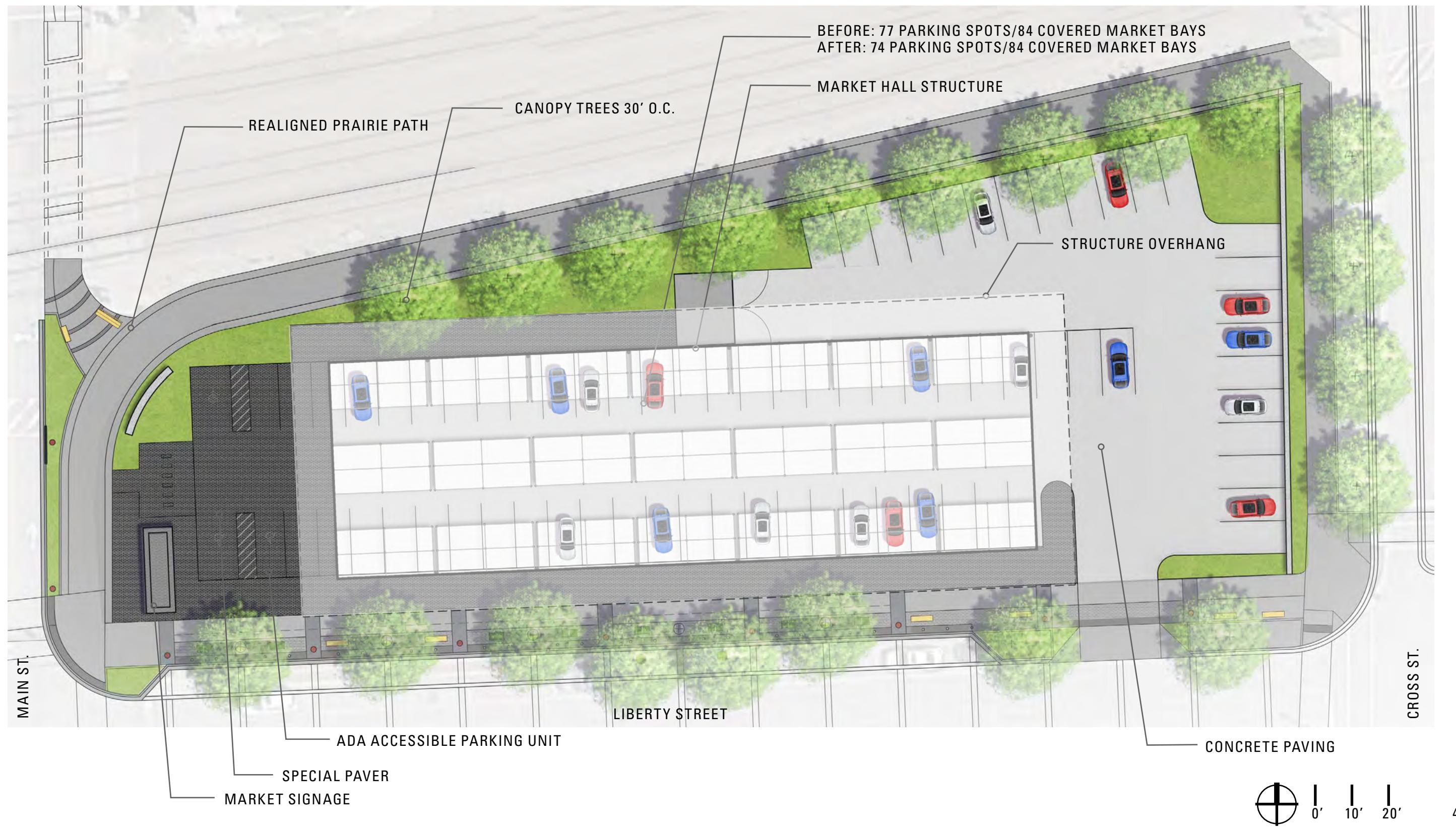
## FESTIVAL STREET

BEST



## FRENCH MARKET

### SITE PLAN





## CONCEPT DESIGN NARRATIVE

### DOWNTOWN PLAZA

To further activate the Festival Street, French Market and redevelopment areas south of the railroad tracks, the Downtown Plan proposed a plaza between Hale and Main Streets. The space would be generally treated as a shaded, paved plaza to accommodate festivals and events. The space is designed to be as flexible as possible to allow soft programming to take place.

The Illinois Prairie Path system has eight hundred thousand annual visitors. The park/plaza concepts all provide bike and stroller parking, as well as locations for signage and downtown directories to encourage Prairie Path users to visit the downtown. In addition, signage should be located at the Metra Station stop to note the short walking distance to the park/market, and the future signage program north of the RR tracks should incorporate the future park/market.

A concession structure is proposed at the north-west corner of the intersection to anchor this corner architecturally across from the new French Market structure. The architecture of the concession will reflect that of the French Market. There are numerous models across the country in which the City leases the space to an operator, which could be a temporary (during events or rotating) basis or a permanent satellite location for a successful restaurant. Restrooms are anticipated as part of this structure. The structure would be flanked by movable café seating or picnic tables. This area can be temporarily enclosed to allow the space to be used for a beer garden event.

A misting pop jet fountain will provide an attraction for this space. The fountain can also be active in the winter as an ice sculpture can be created. A shaded space can provide an area for soft programming or seating. Fire pits will provide additional year-round interest. Light projections will enhance the seasonality and experience while providing a unique identity to this location of downtown.

Suspended paving will be utilized to maximize paved/walking/gathering space and reduce obstructions for events. This strategy will also allow for increasing soil volume for trees. In concepts where trees cannot fit, movable tree planters can be used to allow for flexibility during large events.

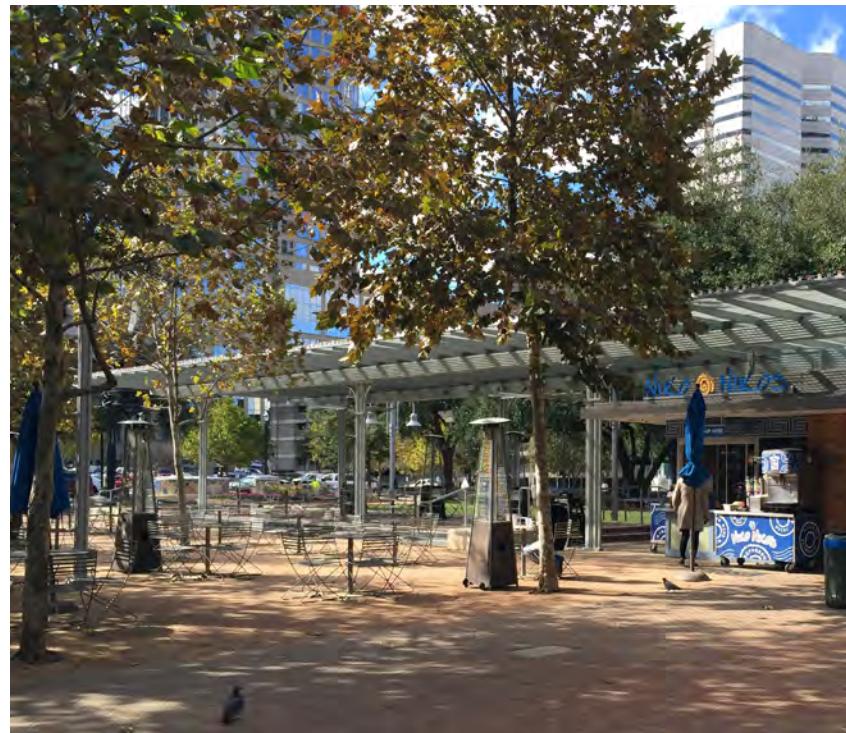
The program elements and configuration differ slightly between design concepts for the park/plaza space, however the overall intent is consistent.

## PLAZA

## CONCEPTS



CONCESSION



MIST FOUNTAIN/POP-JET/ICE SCULPTURE



FIRE PITS



ELEMENTS THAT TRANSITION SEASONS



## PLAZA

OPTION 1: CONCEPT SHOWS ACCOMMODATION OF MOST 'TASTE' ATTRACTIONS

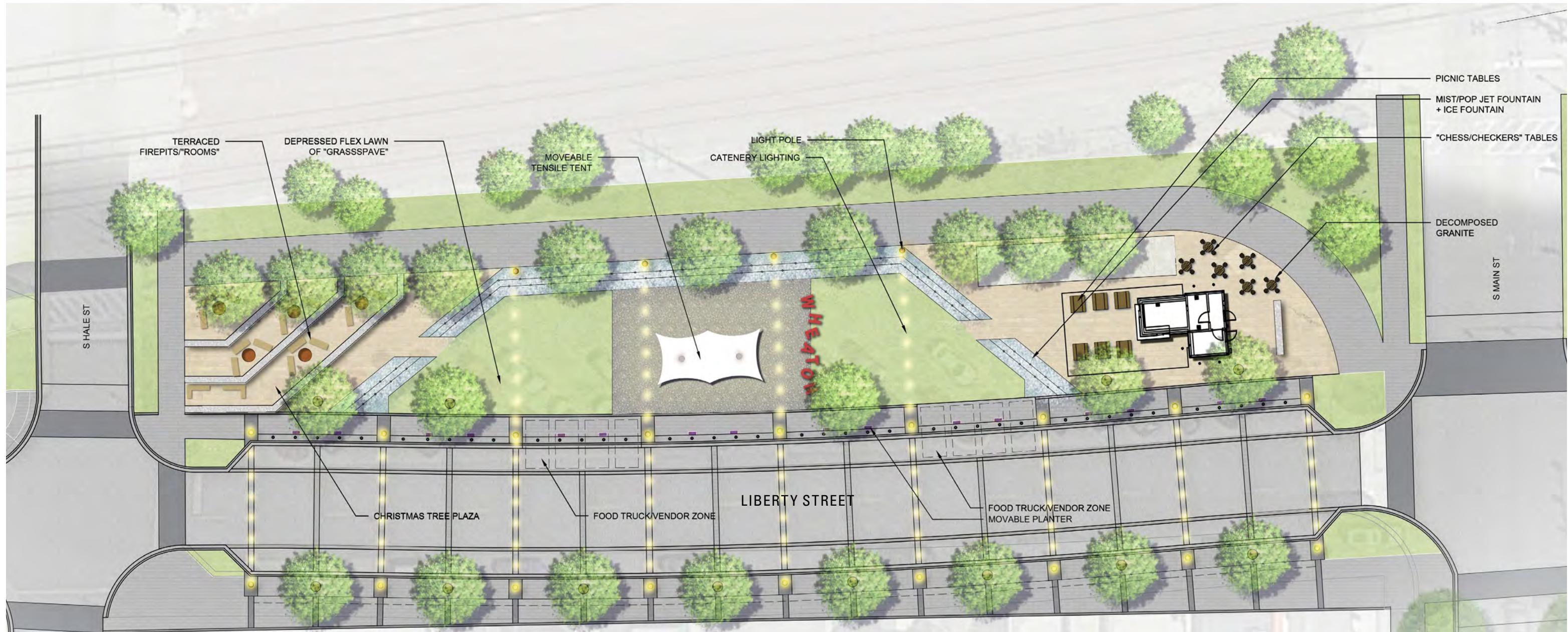


**PLAZA**  
OPTION 1 PERSPECTIVE



# PLAZA

OPTION 2

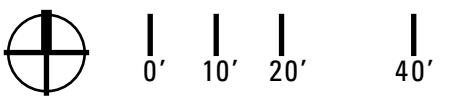
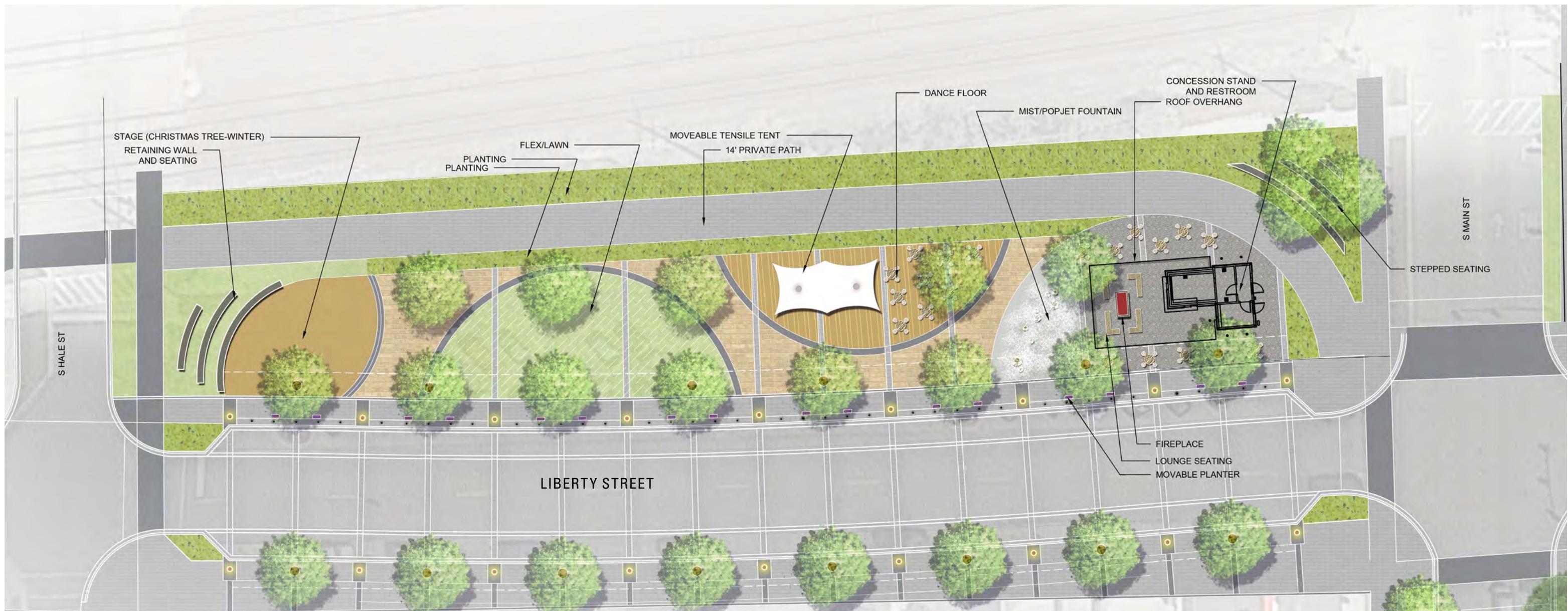


PLAZA  
OPTION 2 PERSPECTIVE



# PLAZA

OPTION 3



**PLAZA**  
OPTION 3 PERSPECTIVE



## CONCEPT DESIGN NARRATIVE

### PEDESTRIAN STREET

The established streetscape metrics serve as the basis for the pedestrian street composition. As a pedestrian focused street, the intent is to promote pedestrian travel and overall retail activity. The streets identified as Pedestrian Streets in Downtown Wheaton serve a variety of retail and office uses in the heart of the district, or are likely to serve this function as redevelopment proceeds and the area south of the tracks continues to grow. These streets will form a core area within Downtown where patrons can move with ease from block to block and can spend time shopping, recreating, or dining during their visit to the area.

Key to creating a safe, walkable environment is providing shorter crosswalk distances wherever possible, and reducing curb-cuts. The pedestrian street prototype achieves a 21' crossing distance and closes curb-cut vehicular access where rear or side access is achievable. Also critical to creating a public realm where people are comfortable and safe is the creation of wide sidewalks. By creating an ADA clear route of 5' adjacent to an amenity zone for trees, bike racks, trash cans, and outdoor dining – a sidewalk should be 12' at a minimum. In the case of the pedestrian street prototype shown, the lanes were reconfigured to both maintain parking counts, while increasing sidewalk width. Pedestrian streets can accommodate parklets where sidewalk width is challenging to accommodate outdoor dining and gathering spaces. Lastly, to create a safe walking environment, bulb-outs, high visibility crosswalks and ADA ramps will be provided at each corner of pedestrian streets. Lighting will be upgraded to an LED fixture for energy and maintenance savings. Light fixtures will accommodate banners and/or a district identity logo.

As with all downtown streets, it is critical to maintain parking counts as the streetscape is implemented. However, this should be balanced with the sidewalk width metric. This is a focus area for pedestrians so its important to increase sidewalk width. The reconfiguration of the street will be on a case-by-case basis as every block is different. Driveway closures are key to this and parking consolidation is part of this strategy. To accommodate the popularity of biking, particularly off of the Prairie Path, secure bicycle parking should be provided at the rate of at least one space per business. The street should be thought of as a linear public plaza – a place to recreate in downtown – and therefore seating should be provided at a minimum of five benches per block face and trash cans should be provided at each street corner and mid-block at high traffic areas.

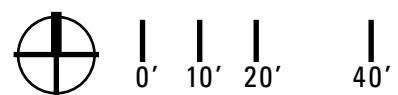
Soil volumes for trees meet 1,000 cubic feet of growth area per tree. This is accomplished by planting trees in bulbouts or through structural soil. By providing sufficient tree soil volumes, the trees will benefit from a longer, healthier life, minimizing maintenance and replacement. The soil volume will allow trees to meet a larger growth potential, therefore increasing tree canopy to meet the 15% tree canopy goal within downtown. With trees planted approximately 30' on-center, the pedestrian street can achieve a 23% tree canopy as demonstrated in the prototype.

Also critical to improving the livability and maintenance of the downtown over the next 2-3 decades will be stormwater management. In the 'best' version of the prototype, rain gardens can be implemented at corner planters. The 'good' and 'best' versions both recommend the use of porous pavers in the parking areas. Other major differences in the 'good/better/best' studies include trade-offs in quality and quantity of paving materials, tree size and soil quality, and roadway materials. Planting areas will include largely native and drought resistant plant materials including shrubs, grasses, perennials and bulbs with a focus on seasonality. Movable pots will provide additional seasonality while maintaining flexibility within the public realm to accommodate dining or increased pedestrian traffic flow during events.

Material selections are intended to create a rich palette and varied texture. A range of paver sizes, colors and orientations will be used in a consistent way. This will allow the streetscape to evolve over time, while considering maintenance and replacement practices.

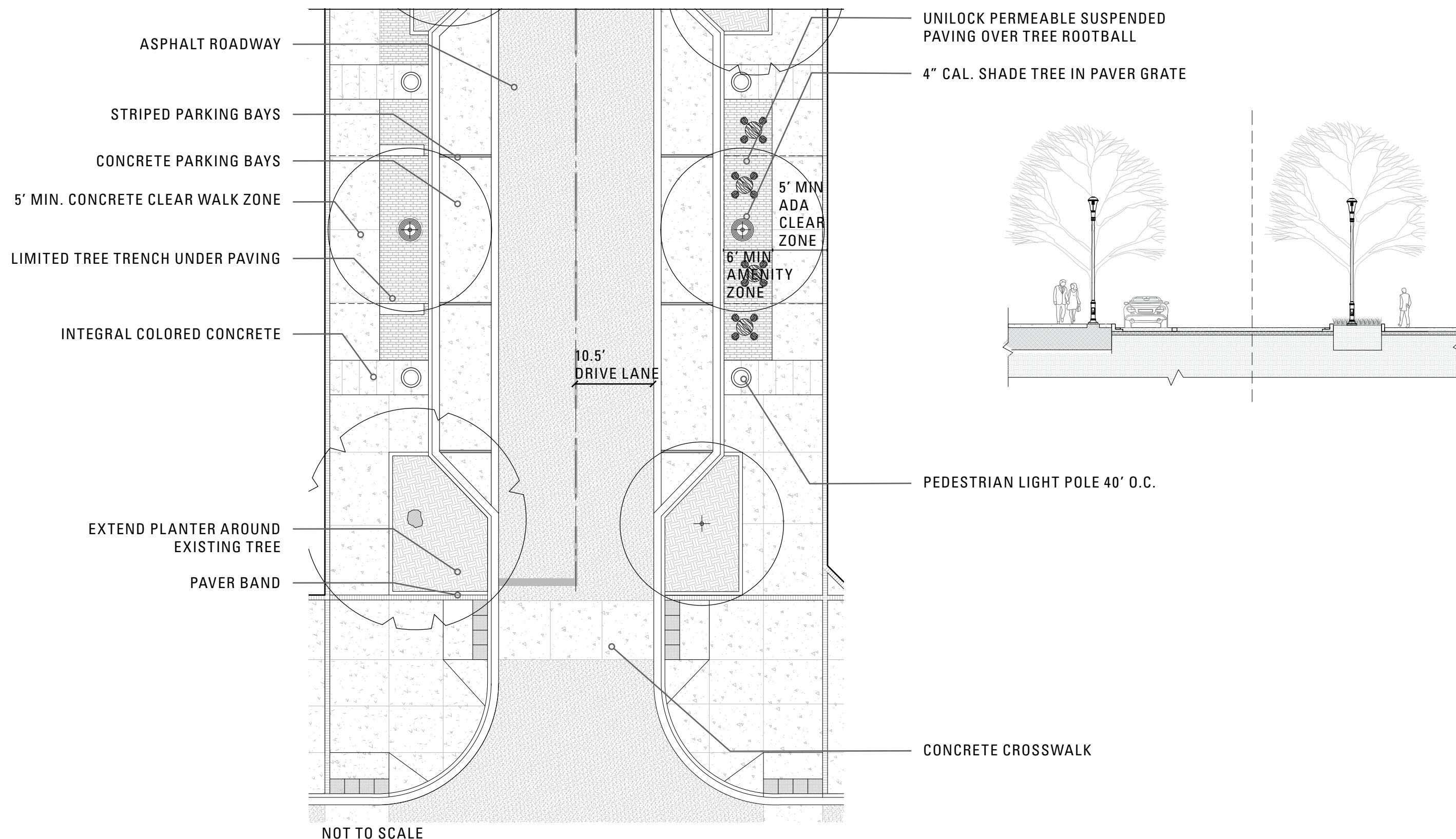
## PEDESTRIAN STREET

GOOD



## PEDESTRIAN STREET

GOOD



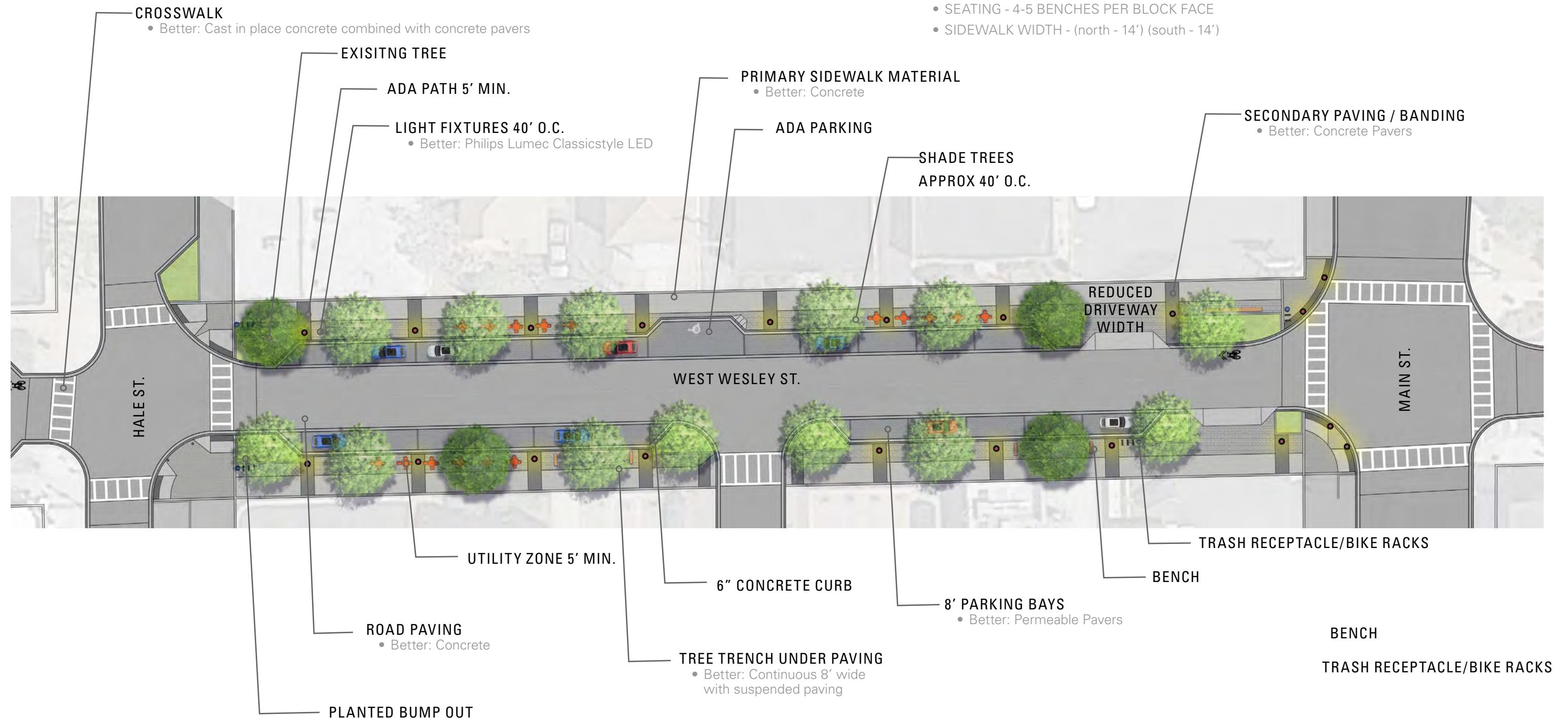
## PEDESTRIAN STREET

GOOD



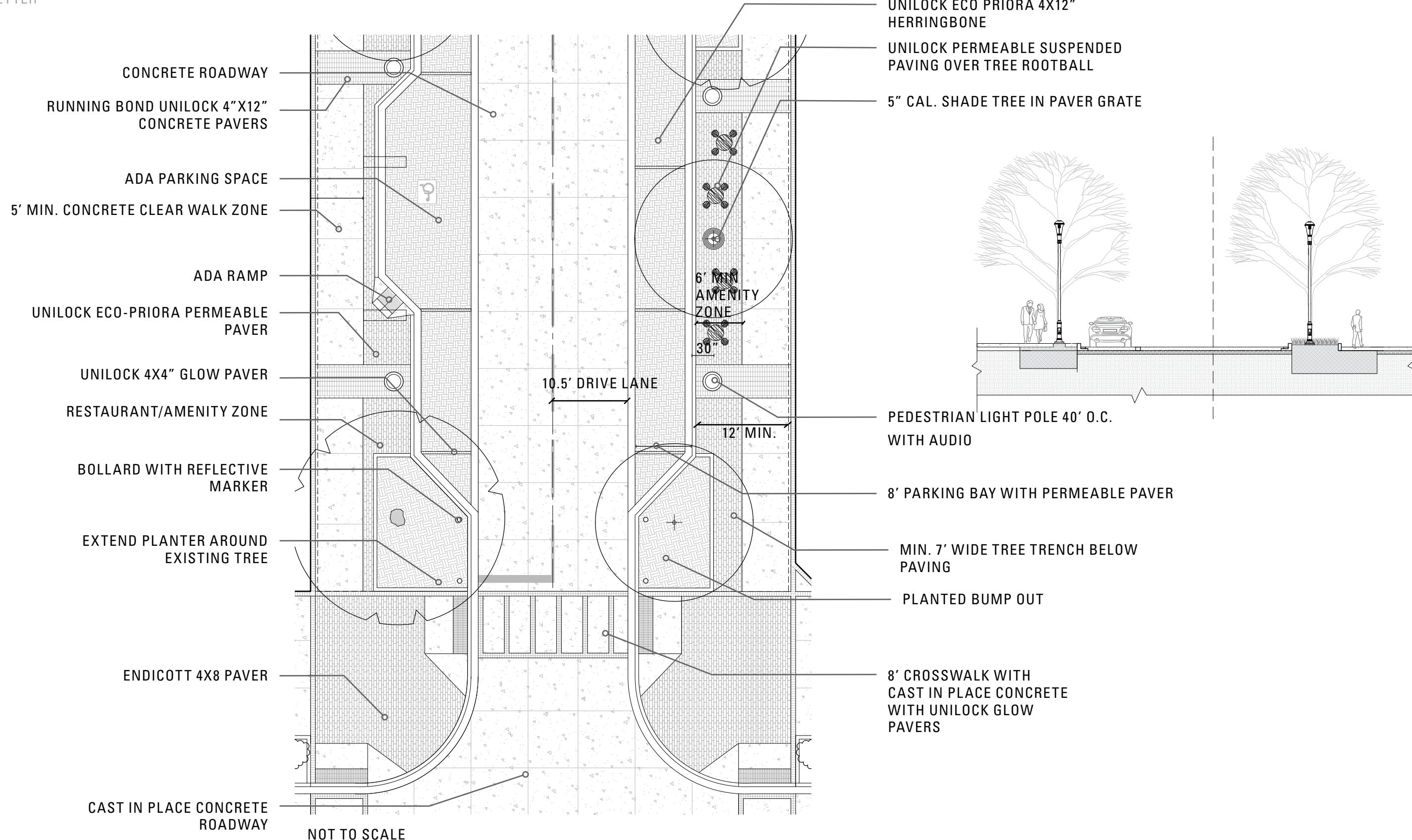
## PEDESTRIAN STREET

BETTER



## PEDESTRIAN STREET

BETTER



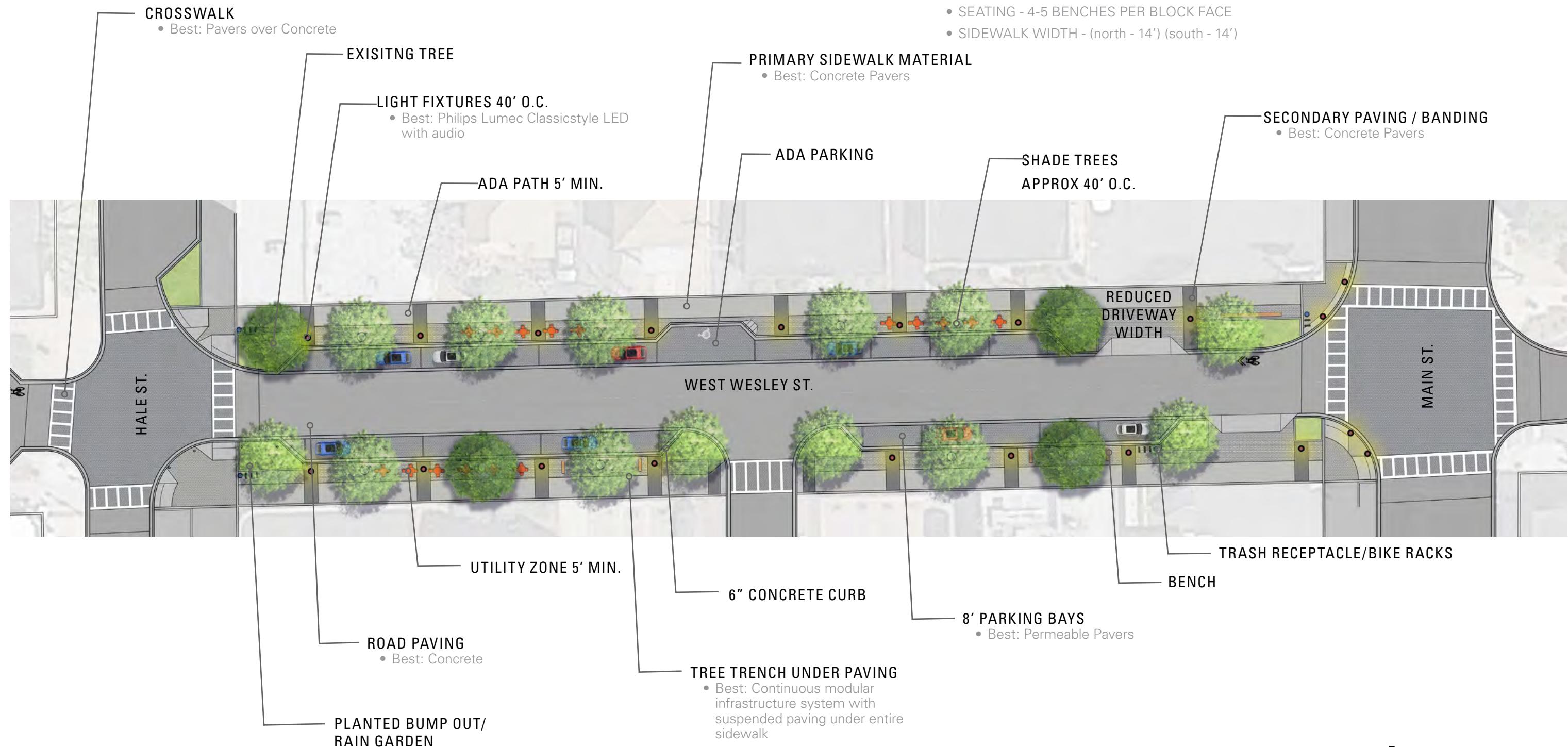
## PEDESTRIAN STREET

BETTER



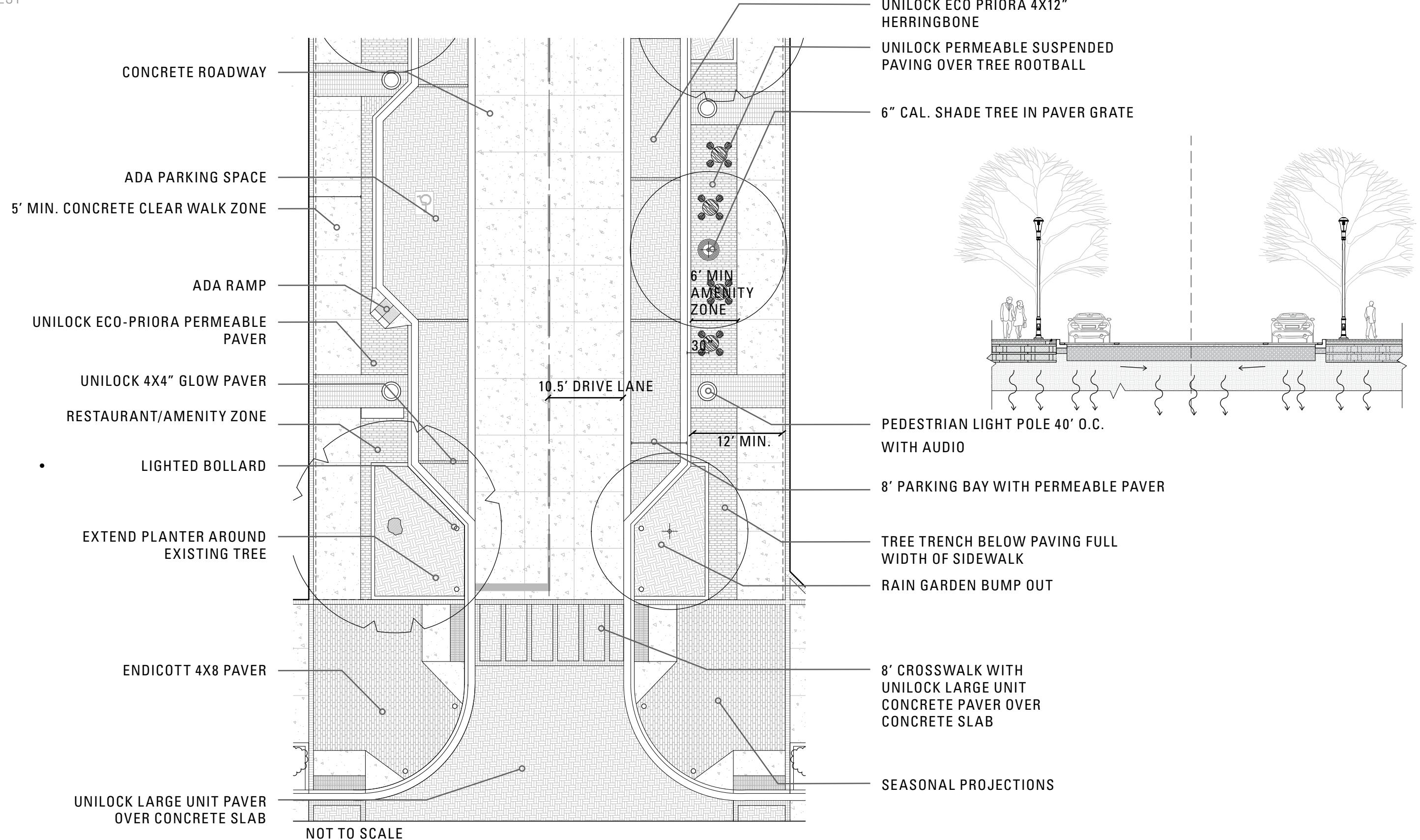
## PEDESTRIAN STREET

BEST



## PEDESTRIAN STREET

BEST



## PEDESTRIAN STREET

BEST





## CONCEPT DESIGN NARRATIVE

### SOUTH MAIN STREET

The configuration of the right-of-way long S. Main Street reflects that of a pedestrian street prototype. The sidewalks are widened, particularly where retail occurs. The vehicular lane widths are condensed slightly to 12' to allow sidewalks to widen. Driveways are consolidated where possible to increase pedestrian safety.

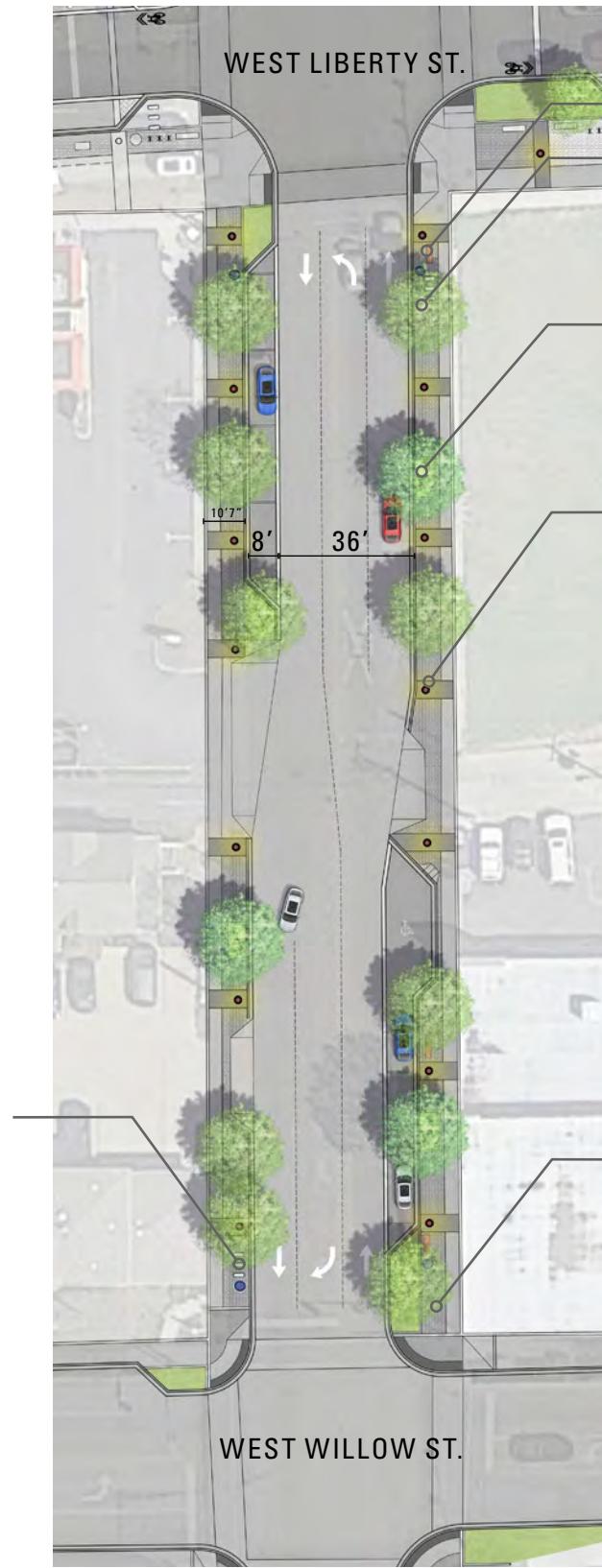
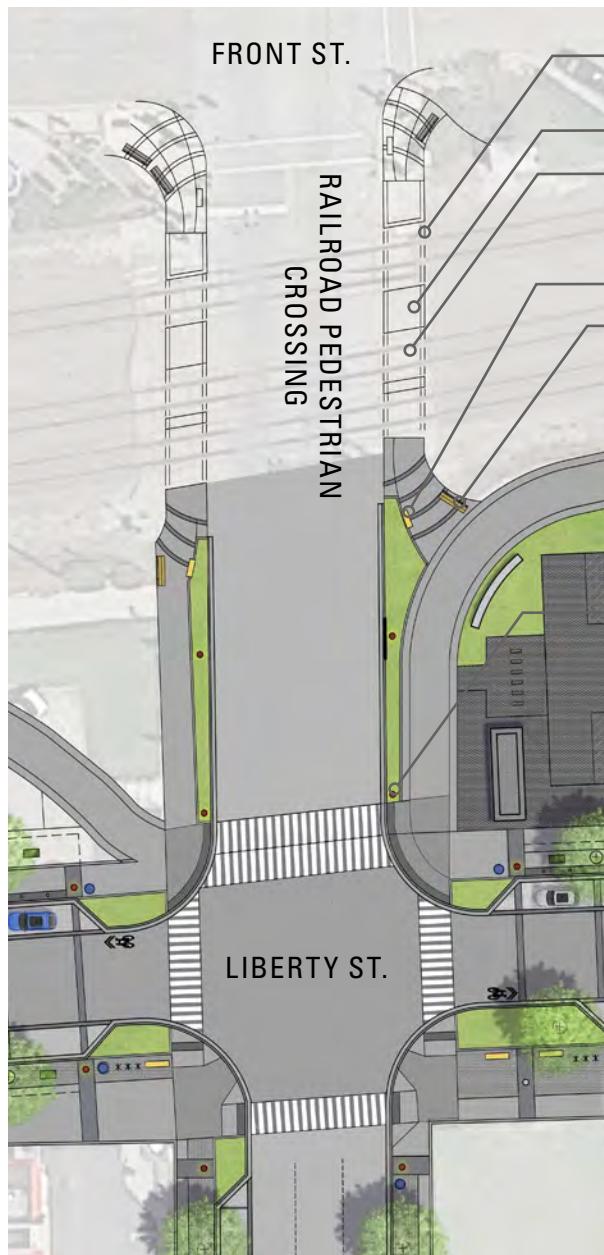
The treatment for South Main Street is the pedestrian street prototype application with wider sidewalks, bulb-outs and enhanced crosswalks. This achieves the same metrics when and where appropriate. As land uses along South Main change over time, the pedestrian street prototype will allow the accommodation of outdoor dining and furniture amenities. In areas where future development may infill, a "build-to"line should be established along S. Main Street. Current land uses along South Main encourage curb-cuts, but as these change over time, curb cuts will be closed to give priority to pedestrians. The pedestrian connection from Central Park ball fields to the future residential apartments and French Market is critical.

Gateway enhancements will be placed at Roosevelt Road as identified in the Downtown Plan. The style is intended to reflect the bold and sculptural letter forms shown at the French Market at Main/Liberty Street. Indiana Street will begin to reflect downtown identifiers such as a higher level planting treatment where the road narrows into a more urban setting.

As flooding is a challenge in this area, consideration will be given to porous paving in parking bays. The goal of the tree planting is to create a strong bold statement of consistent color and form. Where possible, the plans should indicate the maintenance of healthy trees where they exist.

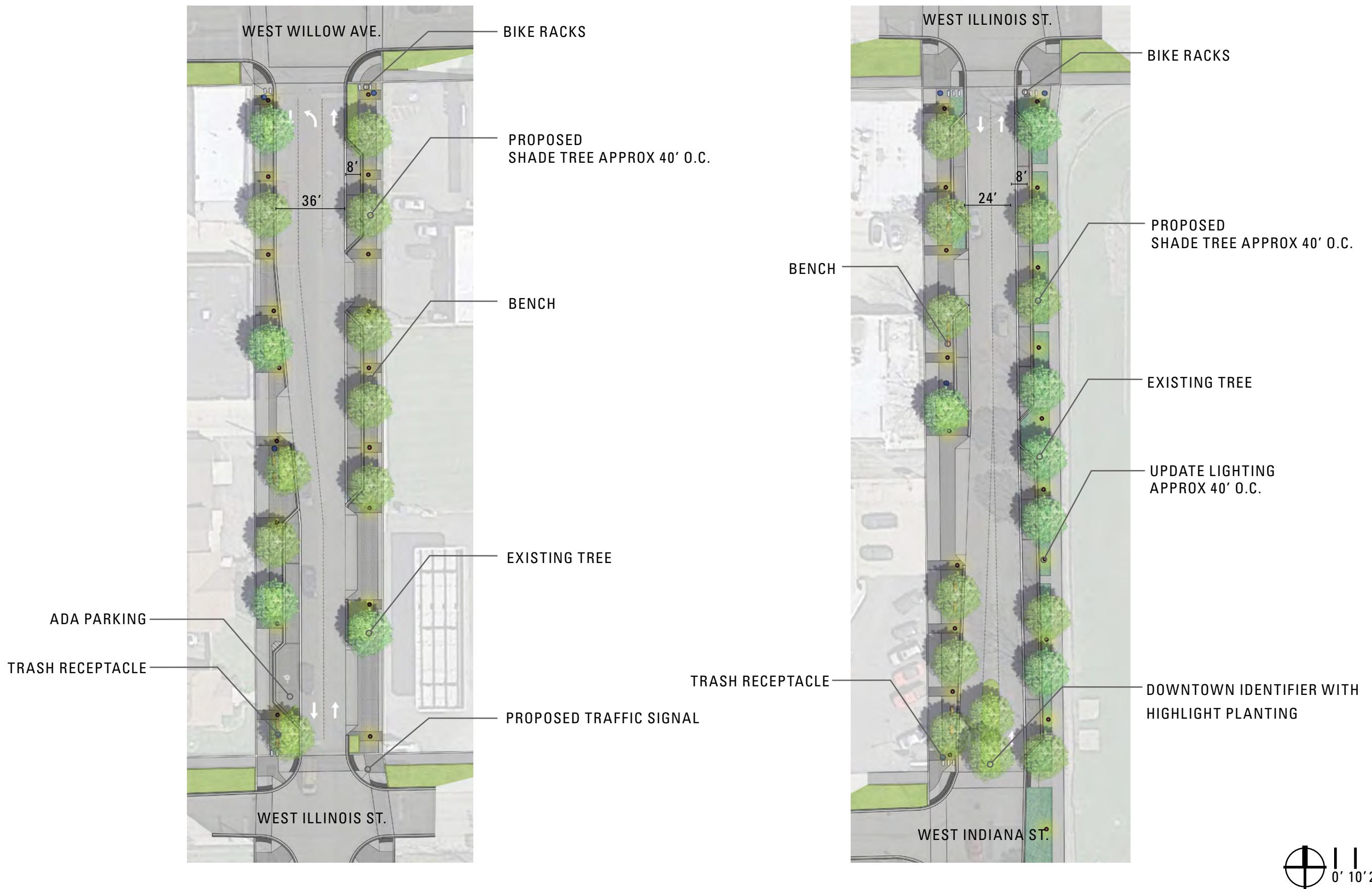
# MAIN STREET

SHEET 1



# MAIN STREET

SHEET 2



# MAIN STREET

SHEET 3



## MAIN STREET

GOOD



# MAIN STREET

BETTER



## MAIN STREET

BEST





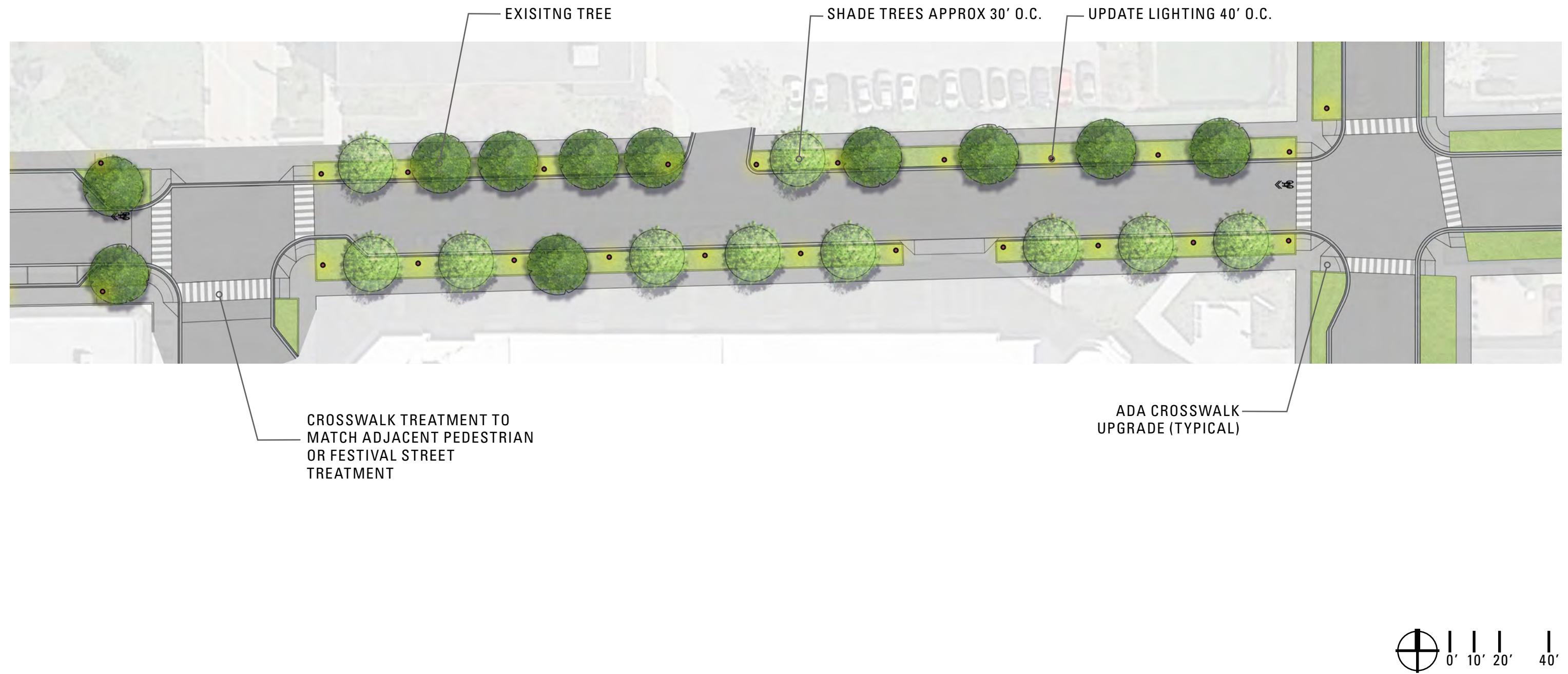
## CONCEPT DESIGN NARRATIVE

### OTHER DOWNTOWN STREETS

These streets serve as transitions from residential areas to the core retail areas of Downtown Wheaton. These streets must safely accommodate pedestrian movement, but their design does not serve the needs of more pedestrian-intensive sidewalk activity associated with retail businesses. The intent of the 'other' streets is to upgrade lighting to match the style within the down core, as well as upgrade lighting to LED. The general material palette will match that of the pedestrian street, but to a lesser degree of application. Trees will be provided in a parkway rather than structural paving, as widening sidewalks is not critical in these zones. Trash cans, benches and bike parking can be provided to a lesser degree compared to the other street prototypes.

ADA ramps will be provided throughout. Crosswalk treatments should consider that of adjacent streets. If an "other" street meets a pedestrian street, the crosswalk should be designed accordingly.

## OTHER STREET



## OTHER STREET



## OUTLINE SPEC

ELEMENT	FIXED	GOOD	BETTER	BEST
<b>1 - HARDCAPING</b>				
Crosswalk	N/A	<b>Painted / Thermoplastic</b>	<b>Cast-in-Place Concrete</b>	<b>Pavers over Concrete</b>
		Pavement Striping with Layout - Crosswalk	4000 PSI - 8" CIP Conc. - Wire Mesh Reinforced	Unilock - II Campo- Paver w/ joint compound
			6" Aggregate Base	2" Sand Base
			Existing 6" Subgrade Removal W/ 10 Mile Hauloff	4000 PSI - 6" CIP Conc. - Wire Mesh Reinforced
				6" Aggregate Base
				Existing 12" Subgrade Removal W/ 10 Mile Hauloff
Sidewalk (Primary Surface)	N/A	<b>Conc. With Design Jointing Pattern</b>	<b>Conc. With Design Jointing Pattern</b>	<b>Concrete Pavers, Brick on Concrete</b>
		4000 PSI - 6" CIP Conc. - Wire Mesh Reinforced	4000 PSI - 6" CIP Conc. - Wire Mesh Reinforced	Unilock - II Campo- Paver w/ joint compound
		Add for Design Jointing Patter	Add for Design Jointing Patter	2" Sand Base
		6" Aggregate Base	6" Aggregate Base	4000 PSI - 6" CIP Conc. - Wire Mesh Reinforced
		Existing 6" Subgrade Removal W/ 10 Mile Hauloff	Existing 6" Subgrade Removal W/ 10 Mile Hauloff	6" Aggregate Base
				Existing 12" Subgrade Removal W/ 10 Mile Hauloff
Sidewalk (Secondary Surface)	N/A	<b>Integral Color Concrete</b>	<b>Concrete Pavers, Brick on Concrete</b>	<b>Concrete Pavers, Brick on Concrete</b>
		4000 PSI - 6" CIP Conc. - Wire Mesh Reinforced	Unilock - II Campo- Paver w/ joint compound	Unilock - II Campo- Paver w/ joint compound
		Add for Colored Mix	2" Sand Base	2" Sand Base
		6" Aggregate Base	4000 PSI - 6" CIP Conc. - Wire Mesh Reinforced	4000 PSI - 6" CIP Conc. - Wire Mesh Reinforced
		Existing 6" Subgrade Removal W/ 10 Mile Haul off	6" Aggregate Base	6" Aggregate Base
			Existing 12" Subgrade Removal W/ 10 Mile Haul off	Existing 12" Subgrade Removal W/ 10 Mile Haul off
Roadway Paving	N/A	<b>Asphalt Paving</b>	<b>Cast In Place Concrete (pedestrian street)/ Cast In Place Concrete w/ Concrete paver banding (festival street)</b>	<b>Concrete Pavers on Concrete(festival street)</b>
		8" Asphalt Paving - 3 Course	4000 PSI - 8" CIP Conc. - Wire Mesh Reinforced	4000 PSI - 8" CIP Conc. - Wire Mesh Reinforced
		Asphalt Seal Coat	6" Aggregate Base	
		6" Aggregate Base	Existing 6" Subgrade Removal W/ 10 Mile Haul off	
		Existing 6" Subgrade Removal W/ 10 Mile Haul off	Unilock - II Campo- Paver w/ joint compound	Unilock - II Campo- Paver w/ joint compound
			2" Sand Base	2" Sand Base
			4000 PSI - 6" CIP Conc. - Wire Mesh Reinforced	4000 PSI - 6" CIP Conc. - Wire Mesh Reinforced
			6" Aggregate Base	6" Aggregate Base
			Existing 12" Subgrade Removal W/ 10 Mile Haul off	Existing 12" Subgrade Removal W/ 10 Mile Haul off
Roadway Lane Delineator	N/A	<b>Painted</b>	<b>Concrete Pavers</b>	<b>Concrete Pavers</b>
		Pavement Striping with Layout	Unilock - Glow Concrete Paver	Unilock - Glow Concrete Paver
			2" Sand Base	2" Sand Base
			4000 PSI - 6" CIP Conc. - Wire Mesh Reinforced	4000 PSI - 6" CIP Conc. - Wire Mesh Reinforced
			6" Aggregate Base	6" Aggregate Base
			Existing 12" Subgrade Removal W/ 10 Mile Haul off	Existing 12" Subgrade Removal W/ 10 Mile Haul off
Pervious Paving	<b>Permeable Pavers over Percolating Base</b>	<b>Over Tree Rootball Area</b>	<b>Over Tree Rootball Area + Parking bays</b>	<b>Over Tree Rootball Area + Parking bays</b>
	Unilock - Eco-Priora - Paver w/ joint aggregate			
	2" Sand Base			
	36" Permeable Base			
	Existing 36" Subgrade Removal W/ 10 Mile Haul off			
Roadway Curbs	<b>Concrete Curb and Gutter</b>	N/A	N/A	N/A
	6" Concrete Curb			
	6" Aggregate Base			
	Existing 6" Subgrade Removal W/ 10 Mile Haul off			
Planter Curbs	N/A	<b>6" Concrete Curb W/ Designed Profile</b>	<b>6" Concrete Curb W/ Designed Profile</b>	<b>Concrete Seat Wall /Metal Rail</b>
		6" W x 12" High (6" Abv. Grade) Conc. Curb	6" W x 12" High (6" Abv. Grade) Conc. Curb	2' W x 3' H (2' Abv. Grade) Conc.
		Add for Designed Profile	Add for Designed Profile	Metal Rail
		6" Aggregate Base	6" Aggregate Base	6" Aggregate Base
		Existing 6" Subgrade Removal W/ 10 Mile Haul off	Existing 6" Subgrade Removal W/ 10 Mile Haul off	Existing 6" Subgrade Removal W/ 10 Mile Haul off

## OUTLINE SPEC

ELEMENT	FIXED	GOOD	BETTER	BEST
<b>2 - LANDSCAPE</b>				
Planter Beds	N/A	Native and Seasonally Rotated Annuals / Perennials with Movable Pots	Native and Seasonally Rotated Annuals / Perennials with Movable Pots	Rain garden planter with Protective Curbs at bumpouts - Native and Seasonally Rotated Annuals / Perennials with Movable Pots
		Base Planting Mix	Base Planting Mix	Premium Planting Mix
		Harwood Mulch - 3" Deep	Harwood Mulch - 3" Deep	Stone Mulch - 3" Deep
		Topsoil Fill - 3" Deep	Topsoil Fill - 3" Deep	Topsoil Fill - 3" Deep
		Existing 4" Subgrade Removal W/ 10 Mile Haul off	Existing 4" Subgrade Removal W/ 10 Mile Haul off	Existing 4" Subgrade Removal W/ 10 Mile Haul off
Street Tree Soil	N/A	Open Planters with Protective Curbs + Limited Tree Trench with Structural Soil -Suspended Paving Abv.	Open Planters with Protective Curbs in bumpouts - Continuous Tree Trench with Structural Soil - Suspended Paving Abv.	Open Planters with Protective Curbs in bumpouts - Continuous Silva Cell, Greenblue or Other Modular System
		Excavation	Excavation	Excavation
		Dirt Fill	Structural Soil Fill	Structural Soil Fill
		Finish Grade	Finish Grade	Finish Grade
Street Trees	N/A	4" Caliper	5" Caliper	6" Caliper
		4" Caliper, 18' H Cedar, Birch, Oak, Elm	5" Caliper, 18' H Cedar, Birch, Oak, Elm	6" Caliper, 24' H Cedar, Birch, Oak, Elm
Tree Grates	Paver Grate	N/A	N/A	N/A
	Paver Grate w/ Concrete Pavers At Vaults			
Water Irrigation	N/A	No Irrigation	Key Areas Irrigated	All Areas Irrigated
			Irrigation Sprinkler System	Irrigation Sprinkler System
			Water Main Connection, RPZ in Enclosure	Water Main Connection, RPZ in Enclosure
Sod	Sod	N/A	N/A	N/A
	Sod			
	Excavation - (Assumes 1")			
	Dirt Fill (Assumes 1")			
	Finish Grade			
Top Soil	18" Top Soil in Planters / 6" Top Soil in Sod areas	N/A	N/A	N/A

## OUTLINE SPEC

ELEMENT	FIXED	GOOD	BETTER	BEST
<b>4 - DRAINAGE</b>				
Curb Inlet	N/A	One Side of Street	Both Sides of Street - Two Lane Street	Both Sides of Street - 4 Lane or 2 Lane plus Parking Aisle Street
		Curb Inlet, Frame, Grate & Box 24" x 36"	Curb Inlet, Frame, Grate & Box 24" x 36"	Curb Inlet, Frame, Grate & Box 24" x 36"
		RCP, Class 3 W/ Gaskets, up to 15"	RCP, Class 3 W/ Gaskets, up to 15"	RCP, Class 3 W/ Gaskets, up to 15"
		Excavation and Backfill (avg. 4' wide and 6' deep)	Excavation and Backfill (avg. 4' wide and 6' deep)	Excavation and Backfill (avg. 4' wide and 6' deep)
		Finish Grade	Finish Grade	Finish Grade
Connection to Existing Storm Main / Branch	Connection to Existing Storm Main / Branch	N/A	N/A	N/A
	Connection to Existing Storm Main / Branch			
Replaced RCP Storm Branch 12"	Replaced RCP Storm Branch 12" - 15" D	N/A	N/A	N/A
	RCP, Class 3 W/ Gaskets, up to 15"			
	M/H or C/B 4' to 8' deep - 2 per 25 l.f.			
New RCP Storm Branch 12"	New RCP Storm Branch 12" - 15" D	N/A	N/A	N/A
	RCP, Class 3 W/ Gaskets, up to 15"			
	M/H or C/B 4' to 8' deep - 2 per 25 l.f.			
	Excavation and Backfill			
	Finish Grade			
Replaced RCP Storm Branch 18-24"	Replaced RCP Storm Branch 18" - 24" D	N/A	N/A	N/A
	RCP, Class 3 W/ Gaskets, up to 24"			
	M/H or C/B 4' to 8' deep - 2 per 25 l.f.			
New RCP Storm Branch 18-24"	New RCP Storm Branch 18" - 24" D	N/A	N/A	N/A
	RCP, Class 3 W/ Gaskets, up to 24"			
	M/H or C/B 4' to 8' deep - 2 per 25 lft			
	Excavation and Backfill			
	Finish Grade			

## OUTLINE SPEC

ELEMENT	FIXED	GOOD	BETTER	BEST
<b>5 - LIGHTING</b>				
Tree Lighting	N/A	Existing Treatment with Protected / Concealed Outlets	New Treatment with Protected / Concealed Outlets	New Treatment with Protected / Concealed Outlets
		Underground Conduit - Assume 50' ea.	Underground Conduit - Assume 50' ea.	Underground Conduit - Assume 50' ea.
		Underground Wiring - Assume 50' ea.	Underground Wiring - Assume 50' ea.	Underground Wiring - Assume 50' ea.
		Replace Damaged Lighting Allowance	Controller - Assuming 1 per 50ea	Controller - Assuming 1 per 50ea
			Miscellaneous Service and Distribution Allowance	Miscellaneous Service and Distribution Allowance
			Lighting Allowance	Lighting Allowance
Street Pedestrian Lighting	N/A	New Dark Sky Compliant Fixture	New Dark Sky Compliant Fixture	New Dark Sky Compliant Fixture w/ Audio
		Lumec ClassicStyle 14'H	Lumec ClassicStyle 14'H	Lumec ClassicStyle 14'H
		Concrete Pole Base - 18" x 60"	Concrete Pole Base - 18" x 60"	Concrete Pole Base - 18" x 60"
		Underground Conduit - Assume 50' ea.	Underground Conduit - Assume 50' ea.	Underground Conduit - Assume 50' ea.
		Underground Wiring - Assume 50' ea.	Underground Wiring - Assume 50' ea.	Underground Wiring - Assume 50' ea.
		Controller - Assuming 1 per 50ea	Controller - Assuming 1 per 50ea	Controller - Assuming 1 per 50ea
		Miscellaneous Service and Distribution Allowance	Miscellaneous Service and Distribution Allowance	Miscellaneous Service and Distribution Allowance
		Demo Existing Light & Base	Demo Existing Light & Base	Demo Existing Light & Base
				Audio Allowance - Speaker, Wiring and Controller
Street Vehicular Lighting	N/A	New Dark Sky Compliant Fixture	New Dark Sky Compliant Fixture	New Dark Sky Compliant Fixture
		Demo Existing Light & Base	Demo Existing Light & Base	Demo Existing Light & Base
Projections / Specialty Lighting	N/A	None	Projection onto Paving	Projection onto Paving and Catenary Lighting Overhead
			WE-EF Gobo Projector	WE-EF Gobo Projector
			Underground Conduit - Assume 50' ea.	Underground Conduit - Assume 50' ea.
			Underground Wiring - Assume 50' ea.	Underground Wiring - Assume 50' ea.
			Controller System - Assume 1 per 5 ea	Controller System - Assume 1 per 5ea
			Miscellaneous Service and Distribution Allowance	Miscellaneous Service and Distribution Allowance
			iColor Flex LMX gen2	iColor Flex LMX gen2
			LED Lighting Allowance - Assuming 500' of lighting ea.	LED Lighting Allowance - Assuming 500' of lighting ea.
			Underground Conduit - Assume 50' ea.	Underground Conduit - Assume 50' ea.
			Underground Wiring - Assume 50' ea.	Underground Wiring - Assume 50' ea.
			Controller System - Assume 1 per 5 ea	Controller System - Assume 1 per 5 ea
			Miscellaneous Service and Distribution Allowance	Miscellaneous Service and Distribution Allowance
Integrated Lighting	N/A	N/A	Lighted Bollards	Lighted Bollards
			Forms & Surfaces: Light Column Bollard	Forms & Surfaces: Light Column Bollard
			Underground Conduit - Assume 25' ea.	Underground Conduit - Assume 25' ea.
			Underground Wiring - Assume 25' ea.	Underground Wiring - Assume 25' ea.
			Miscellaneous Service and Distribution Allowance	Miscellaneous Service and Distribution Allowance

## OUTLINE SPEC

ELEMENT	FIXED	GOOD	BETTER	BEST
<b>6 - UTILITIES</b>				
Replaced Water Main - up to 12" Dia.	Water Main up to 12" Dia. PVC Pipe, Water Supply, C900 PCV or Ductile Iron, up to 6" Dia.	N/A	N/A	N/A
	Water Valve in Vault - 1 per 100 lnft			
Replaced Water Main - up to 8" Dia.	Water Main up to 8" Dia. PVC Pipe, Water Supply, C900 PCV or Ductile Iron, up to 8" Dia.	N/A	N/A	N/A
	Water Valve in Vault - 1 per 100 lnft, Trench Box - 4' wide, Ex & Backfill/Finish grade as all watermain will have to be trench installed. Replace all water services to ROW line for all watermain installations			
New Water Main - up to 4" Dia	Water Main up to 4" Dia. PVC Pipe, Water Supply, C900 PCV or Ductile Iron, up to 4" Dia.	N/A	N/A	N/A
	Water Valve in Vault - 1 per 100 lnft			
	Trench Box - 4' wide up to 10' deep			
	Excavation and Backfill			
	Finish Grade			
New Water Main - up to 12" Dia	Water Main up to 12" Dia. PVC Pipe, Water Supply, C900 PCV or Ductile Iron, up to 6" Dia.	N/A	N/A	N/A
	Water Valve in Vault - 1 per 100 lnft			
	Trench Box - 4' wide up to 10' deep			
	Excavation and Backfill			
	Finish Grade			
New Water Main - up to 8" Dia	Water Main up to 8" Dia. PVC Pipe, Water Supply, C900 PCV or Ductile Iron, up to 8" Dia.	N/A	N/A	N/A
	Water Valve in Vault - 1 per 100 lnft			
	Trench Box - 4' wide up to 10' deep			
	Excavation and Backfill			
	Finish Grade			
Fire Hydrant	Fire Hydrant	N/A	N/A	N/A
	Fire Hydrant 2-Way, 5 1/4" Valve, 6ft Deep, @ 350' spacing along all new and replaced mains			
	Excavation and Backfill			
	Finish Grade			

## OUTLINE SPEC

ELEMENT	FIXED	GOOD	BETTER	BEST
Replaced RCP Storm Sewer Main 12"	Replaced RCP Storm Sewer Main 12" - 15" D RCP, Class 3 W/ Gaskets, up to 15' M/H or C/B 4' to 8' deep - 1 per 100 lnft	N/A	N/A	N/A
New RCP Storm Sewer Main 12"	New RCP Storm Sewer Main 12" - 15" D RCP, Class 3 W/ Gaskets, up to 15' M/H or C/B 4' to 8' deep - 1 per 100 lnft Trench Box - 4' wide up to 10' deep Excavation and Backfill Finish Grade	N/A	N/A	N/A
Replaced RCP Storm Sewer Main 18-24"	Replaced RCP Storm Sewer Main 18" - 24" D RCP, Class 3 W/ Gaskets, up to 24' M/H or C/B 4' to 8' deep - 1 per 100 lnft	N/A	N/A	N/A
New RCP Storm Sewer Main 18-24"	New RCP Storm Sewer Main 18" - 24" D RCP, Class 3 W/ Gaskets, up to 24' M/H or C/B 4' to 8' deep - 1 per 100 lnft Trench Box - 4' wide up to 10' deep Excavation and Backfill Finish Grade	N/A	N/A	N/A
Replaced RCP Storm Sewer Main 36"	Replaced RCP Storm Sewer Main 36" D RCP, Class 3 W/ Gaskets, up to 36' M/H or C/B 4' to 8' deep - 1 per 100 lnft	N/A	N/A	N/A
New RCP Storm Sewer Main 36"	New RCP Storm Sewer Main 36" D RCP, Class 3 W/ Gaskets, up to 36' M/H or C/B 4' to 8' deep - 1 per 100 lnft Trench Box - 6' wide up to 10' deep Excavation and Backfill Finish Grade	N/A	N/A	N/A
Replaced RCP Storm Sewer Main 48"	Replaced RCP Storm Sewer Main 48" D RCP, Class 3 W/ Gaskets, up to 48' M/H or C/B 4' to 8' deep - 1 per 100 lnft	N/A	N/A	N/A
New RCP Storm Sewer Main 48"	New RCP Storm Sewer Main 48" D RCP, Class 3 W/ Gaskets, up to 48' M/H or C/B 4' to 8' deep - 1 per 100 lnft Trench Box - 6' wide up to 10' deep Excavation and Backfill Finish Grade	N/A	N/A	N/A

## OUTLINE SPEC

ELEMENT	FIXED	GOOD	BETTER	BEST
<b>7 - MISCELLANEOUS</b>				
Benches	N/A	6' Standard Manufactured Bench Outdoor Bench - Aluminum - Standard - 6'	Custom / Semi-Custom Bench Outdoor Bench - Concrete - Deluxe - 8'	Signature Bench Ecofet - Twig Plastic - 8' Section
Bike Racks	Dero Model 8' Bike Rack	N/A	N/A	N/A
Bike Lean Rails	Lean Rail Landscape forms model	N/A	N/A	N/A
Movable Planters	Movable Planter Landscape forms model	N/A	N/A	N/A
Operations Details	N/A	None	None	Details for Flexible Programming - Tent Ties, Movable Planters Allowance
Wayfinding Signage	N/A	Directional Signage at Key Decision Points Banner Supports Banner	Additional Direction Signage at Decision Points Sign Post - 8' Galvanized Directional Sign	Directory w/ LED Fixture Directory - Stainless Steel Clad Frame - 54" x 96" LED Fixture Add
Regulatory Signage	N/A	Consistent Use of Color and Pole Sign Post - 8' Galvanized Regulatory Sign	Frame and Pole to Match Direction Signage Style Sign Post - 8' Galvanized Regulatory Sign Directional Sign	Street Sign with Color and Logo Sign Post - 8' Galvanized Regulatory Sign Street Sign with Color and Logo
Gateway Signage	Gateway Signage Allowance	N/A	N/A	N/A
Art	N/A	N/A	Lease Program Allowance for Area Prep	Integrated Art Allowance
Trash Receptacles	N/A	Perforated Steel Large Perforated Steel	Contoured Steel Large Contoured Steel	Concrete or GFRC Large Concrete or GFRC
Traffic Signal	N/A	Stop Sign and Post Stop Sign and Posts - 4-way	Traffic Signals - Isolated 4-way traffic control lights	Traffic Control Signal System 4-way traffic control light system
Traffic Control System	N/A	N/A	N/A	Traffic Control System Traffic Control Interconnect

## MAINTENANCE ASSUMPTIONS

The following is a summary of our preliminary assumptions and expected maintenance cycles for the proposed upgrades for the City of Wheaton. Design is ongoing and the following assumptions may need to be adjusted based on City feedback and design development.

### PAVEMENT

#### Asphalt Pavements

Asphalt pavement should be maintained in accordance with the City's standard practice for crack sealing and surface overlays. The need for the crack sealing will depend upon whether the pavements are overlaid or fully reconstructed, the thickness of the pavement section that is constructed, and the asphalt mix design. Fully reconstructed pavements should not need crack sealing for 4-6 years, while overlay pavements may need crack sealing after only 2 years.

#### PC Concrete sidewalk

Standard PC concrete sidewalk does not require any maintenance other than occasional cleaning. In order to keep sidewalk looking fresh, we recommend cleaning them every 2-3 years. High traffic areas and outdoor dining areas will require more frequent cleaning. Since standard PC concrete sidewalk is light in color, it does not require UV protection.

#### Integral Color PC Concrete sidewalks

Integral colored concrete should be cleaned and sealed with a UV sealer to prevent fading. Colored sidewalk should be cleaned and sealed every 2 years. High traffic areas and areas where there is outdoor dining may need to be clean more frequently. Darker colors may require more frequent UV sealer applications to reduce fading.

#### Precast Concrete Shapes & Concrete Unit Pavers

Concrete pavers and precast shapes should be cleaned and sealed every 2 years. High traffic areas and areas where there is outdoor dining may need to be clean more frequently. Darker colors should be sealed with a UV type sealer that will protect the pavers/shapes from fading. In addition, the joint sand should be vacuumed out and reinstalled every two years.

Cleaning and re-jointing of brick pavers requires specialized equipment to be performed properly. There are a number of local brick paver contractor that offer these services on a contract basis.

In addition to UV sealers, precast concrete shapes and walls may require anti-graffiti coatings in areas where graffiti is a problem. This is not likely necessary in Wheaton's downtown.

#### Photocatalytic Concrete Unit Pavers

This type of paver should not require cleaning or sealing. In fact, sealing could inhibit the self-cleaning properties of these pavers. These pavers will still require joint maintenance to keep the pavers stable. Joint sand should be removed and replaced every two years.

Cleaning and re-jointing of brick pavers requires specialized equipment to be performed properly. There are a number of local brick paver contractor that offer these services on a contract basis.

#### Clay Unit Pavers

Clay unit pavers require little or no maintenance under most pedestrian circumstances. However areas that are used for outdoor dining should be cleaned yearly to keep the area looking fresh. In

addition, the joint sand should be vacuumed out and reinstalled every two years to keep the pavers stable.

Cleaning and re-jointing of brick pavers requires specialized equipment to be performed properly. There are a number of local brick paver contractor that offer these services on a contract basis.

#### Paint Pavement Markings

There is no maintenance required for paint pavement marking. However the anticipated life span for this product is approximately 2 years. The City should monitor the visibility of the pavement marking and plan to reapply all paint markings every 2 years.

#### Thermoplastic Pavement Marking

There is no maintenance required for thermoplastic pavement marking. However the anticipated life span for this product is approximately 6 years. The City should monitor the reflectivity of the pavement marking and plan to reapply all thermoplastic markings every 6 years.

### IRRIGATION

Irrigation Systems require yearly maintenance in the spring and in the fall. Typical irrigation system shut-down for this climate is approximately October 31. The shut-down consists of opening all of the zone valves and evacuating the water from the system by the use of compressed air. At this time, the system should be checked for broken heads and valves. Manual valves along the irrigation mainline should also be exercised at this time. Any exterior backflow preventers are also removed at this time and stored in a climate control storage area to prevent freeze damage.

In the spring, typically in early May, the system will require start up. All backflow preventers are to be reinstalled and the system is filled with water. Each zone is then tested to confirm that all heads and valves are operating properly and all controller timings are checked against a master list.

This is a fairly labor intensive procedure. We recommend that the City hire an irrigation contractor to perform the winter shut down and spring start up.

### UTILITIES

#### Storm Sewers

RCP and PVC storm sewers require little or no maintenance and should last in excess of 50 years. Storm sewers and manholes should be cleaned and inspected on the City's schedule for the rest of their system. We recommend that storm sewer be cleaned and televised every at least every 10 years. Any failures noted during the inspections should be repaired. In addition, catchbasins should be inspected for clean-out on an annual basis and cleaned if the debris in the basin is greater than 1/3 of the sump depth.

## MAINTENANCE ASSUMPTIONS

### Sanitary Sewers

PVC sanitary sewers require little or no maintenance and should last in excess of 50 years. Sanitary sewers and manholes should be cleaned and inspected on the City's schedule for the rest of their system. We recommend that sanitary sewer and manholes be cleaned and televised every at least every 10 years. Any failures noted during the inspections should be repaired.

### Watermains

PVC Watermains require little or no maintenance and should last in excess of 50 years. Mainline valves, hydrant valves and hydrants should be exercised on the City's schedule for the rest of their system. We recommend that valves an hydrant be exercised approximately every two years.

### LIGHTING

#### Post Top Fixtures for Festival Street and Pedestrian Streets:

Based on IES LM-80 and TM-21 standards, LED life is rated at 60,000 hours to 70% of rated light output (this equates to 13.7 years with fixtures burning 12 hours/night). Fixtures will likely not fail completely at the end of life, but will continue operating at a continually decreasing output. 70% of initial light output is typically used in the lighting industry as the cutoff beyond which the fixture should be serviced. Optional dimming of fixtures after hours will increase LED life and save additional energy. An optional preset driver is available to program custom predefined dimming schedules over the course of each night. Network-connected systems are also available, which would allow for remote maintenance alerts when fixture failures or end of life are detected. All LED light engines and drivers are accessible and replaceable from a lift.

#### Catenary Fixtures for Festival Street:

Based on IES LM-80 and TM-21 standards, LED life is rated at 60,000 hours to 70% of rated light output (13.7 years with fixtures burning 12 hours/night). Color-changing control system will be programmed via software with preset looks after installation. Looks can be reprogrammed in the future in conjunction with the fixture dealer/systems integrator. All remote drivers will be accessible and replaceable. LED nodes are not individually replaceable – entire fixture strands (50 nodes per strand) are designed to be replaced at end of life.

#### Projection Fixtures for Park Areas:

Metal halide lamp life is rated at 12,000 hours (2.7 years with fixtures burning 12 hours/night). All lamps and ballasts are accessible and replaceable. Patterns (gobos) would be accessed via a lift and changed out on a seasonal basis.

### PLANTING

#### Shrub, Perennial and Groundcover Beds

Use selective spot treatment of directed post-emergent herbicides to control weeds only in shrub plantings, with precautions taken to avoid spray drift onto perennials, grasses and annuals. Perennial plantings including grasses shall be maintained weed-free by hand weeding. Based on regular inspections, frequency of hand weeding should be adjusted to prevent weeds from seeding. Mulch should be kept at a minimum two-inch depth.

All shrub and evergreen beds should be pruned in April to remove dead or damaged branches and/or salt kill from the winter season, with a minimum of one additional pruning during the landscape season. Woody shrubs should be pruned to maintain a natural form - avoid pruning to a tight

"ball" shape. A pre-emergent weed control shall be applied to all beds one time per season at the beginning of the landscape season. Leaves should be removed from landscape beds in autumn. Foliage should be mowed off when it turns yellow and dies back naturally - and not sooner. After flowering, the plant needs the leaves to manufacture food for the following year's growth.

#### Trees

All trees and lawn evergreens shall be pruned to remove dead or damaged branches and develop the natural form of the plant. All sucker growth should be removed as it occurs. Straighten any leaning trees as necessary and reset guy wires and stakes to keep trees straight

## STREET MATERIALS MATRIX

GOOD



PAINTED/THERMOPLASTIC

BETTER



CAST-IN-PLACE CONCRETE OR DURATHERM

BEST



PAVERS OVER CONCRETE

Unilock pavers

### SIDEWALK (PRIMARY SURFACE)



CONCRETE SIDEWALK WITH DESIGNED JOINTING PATTERN



CONCRETE SIDEWALK WITH DESIGNED JOINTING PATTERN



CONCRETE PAVERS, BRICK ON CONCRETE

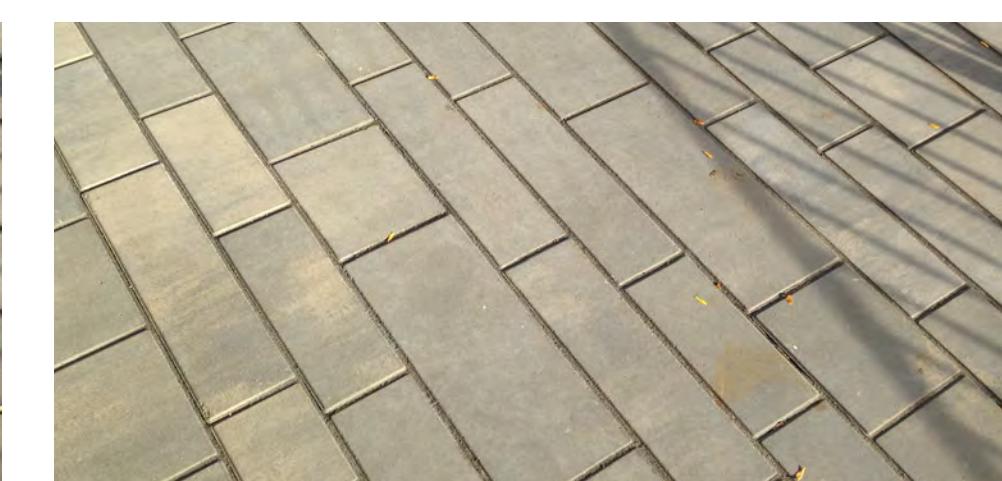
### SIDEWALK (SECONDARY SURFACE)



INTEGRALLY-COLORED CONCRETE



CONCRETE PAVERS



CONCRETE PAVERS

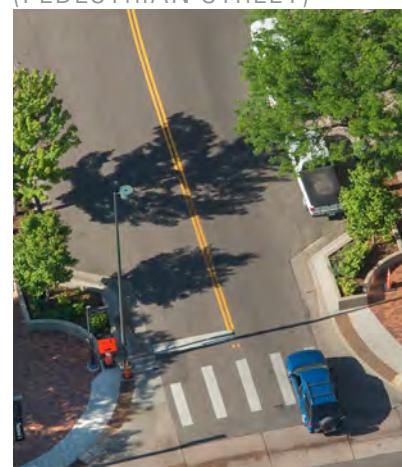
## STREET MATERIALS MATRIX

GOOD



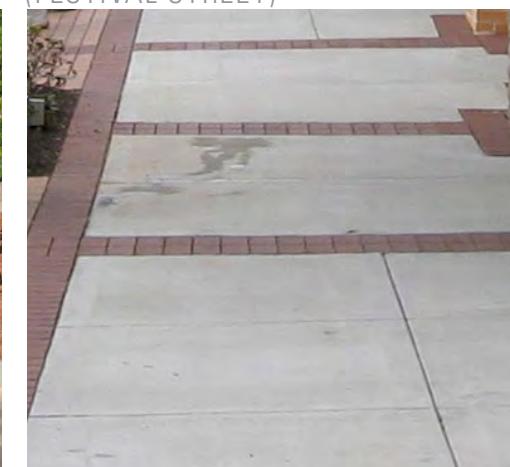
SPOT REPAIR OR REPLACEMENT OF EXISTING ASPHALT OR CONCRETE ROADWAY

BETTER  
(PEDESTRIAN STREET)



CONCRETE

(FESTIVAL STREET)



CONCRETE WITH PAVER BANDS

BEST  
(PEDESTRIAN STREET)



CONCRETE

(FESTIVAL STREET)

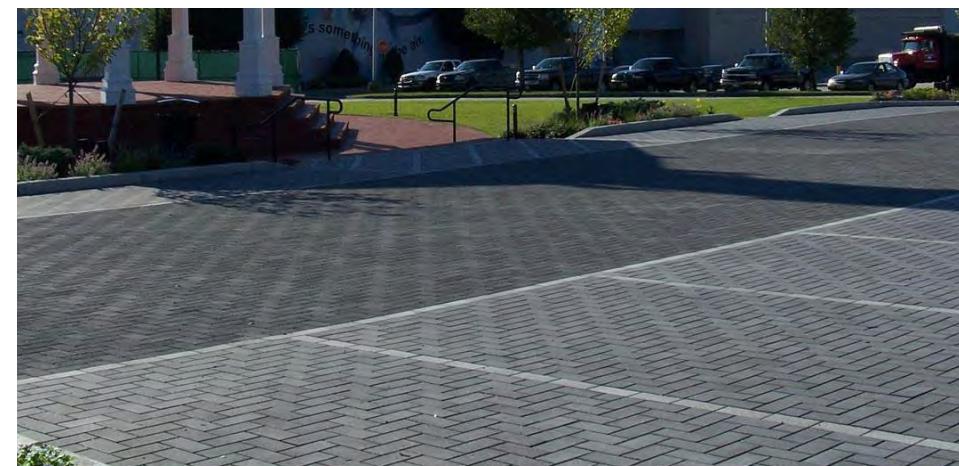


UNIT PAVER ON CONCRETE  
Unilock pavers

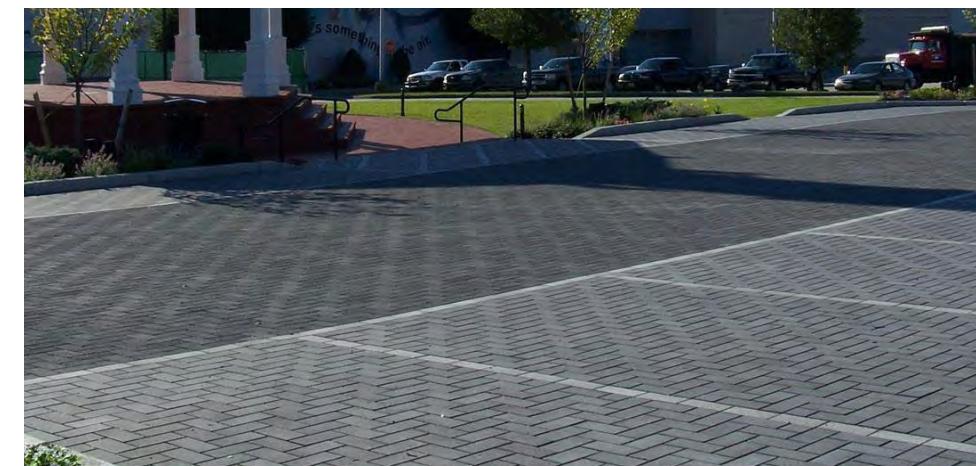
**ROADWAY PAVING**



PERMEABLE PAVERS OVER PERCOLATING BASE  
Unilock Eco-Priora pavers



PERMEABLE PAVERS OVER PERCOLATING BASE  
Unilock Eco-Priora pavers



PERMEABLE PAVERS OVER PERCOLATING BASE UNDER ENTIRE ROAD  
Unilock Eco-Priora pavers

**DELINERATOR**



PAINT



CONCRETE GLOW PAVER  
Unilock

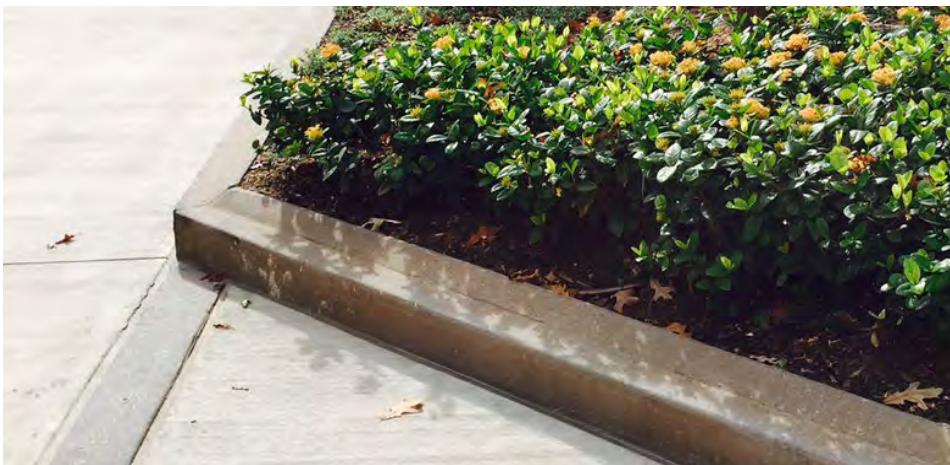


CONCRETE GLOW PAVER  
Unilock



## STREET MATERIALS MATRIX

GOOD



6" CONCRETE CURB WITH A DESIGNED PROFILE

BETTER



6" CONCRETE CURB WITH A DESIGNED PROFILE

BEST



METAL RAIL OR CONCRETE SEAT WALL



PLANTER BEDS



MIX OF NATIVE AND SEASONALLY ROTATED ANNUALS/PERENNIALS WITH THE ADDITION OF MORE MOVABLE POTS



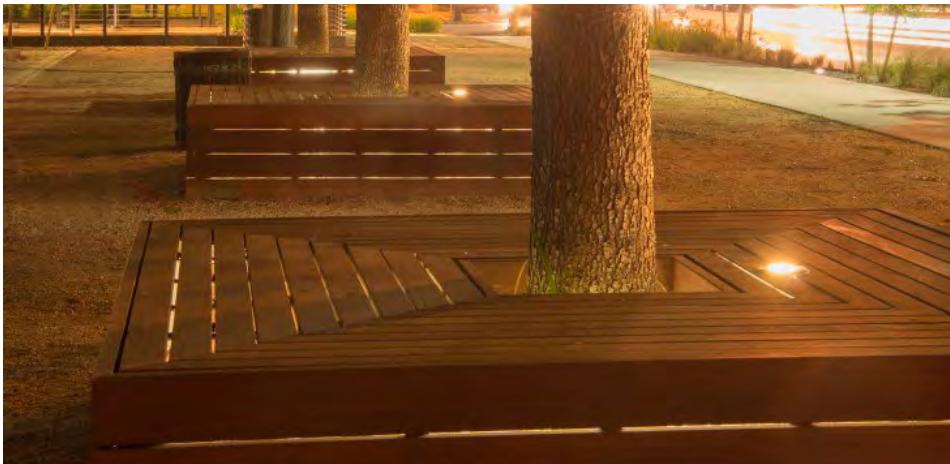
MIX OF NATIVE AND SEASONALLY ROTATED ANNUALS/PERENNIALS WITH THE ADDITION OF MORE MOVABLE POTS



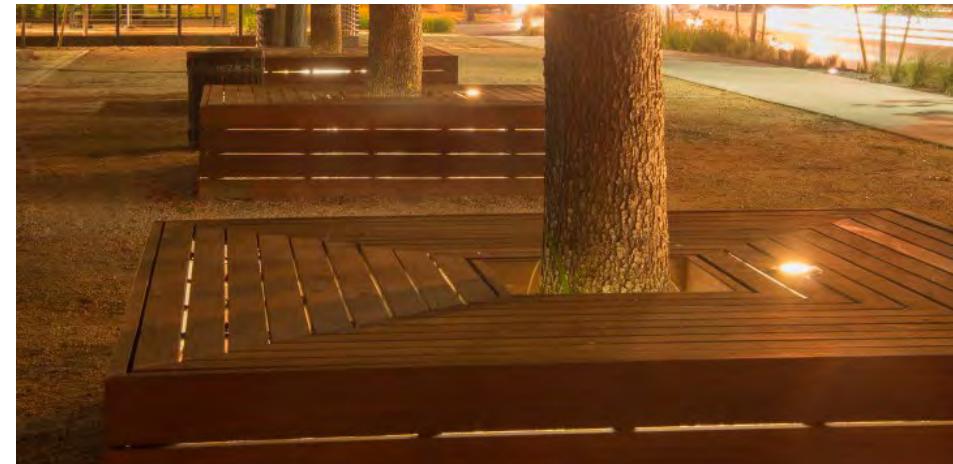
MIX OF NATIVE AND SEASONALLY ROTATED ANNUALS/PERENNIALS, MOVABLE POTS



STREET TREE SOIL



SUSPENDED PAVING OVER LIMITED TREE TRENCH WITH STRUCTURAL SOIL



SUSPENDED PAVING AS A CONTINUOUS TREE TRENCH WITH STRUCTURAL SOIL



CONTINUOUS SILVA CELL, GREENBLUE OR OTHER MODULAR SYSTEM  
Image source: GreenBlue Infrastructure Solutions

## STREET MATERIALS MATRIX

### STREET TREES

GOOD



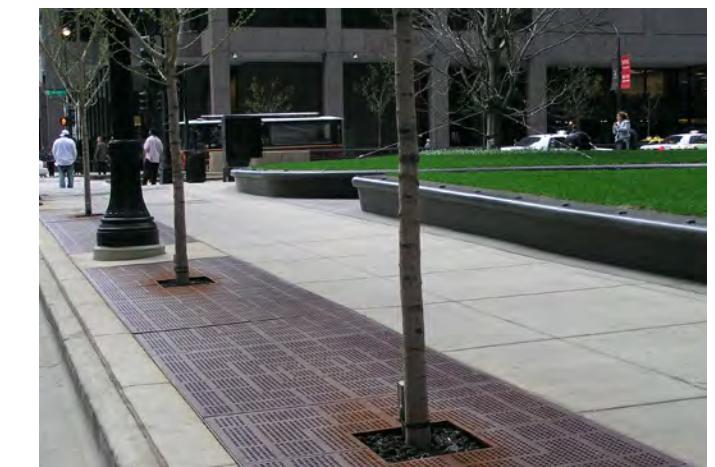
4" CALIPER

BETTER



5" CALIPER

BEST



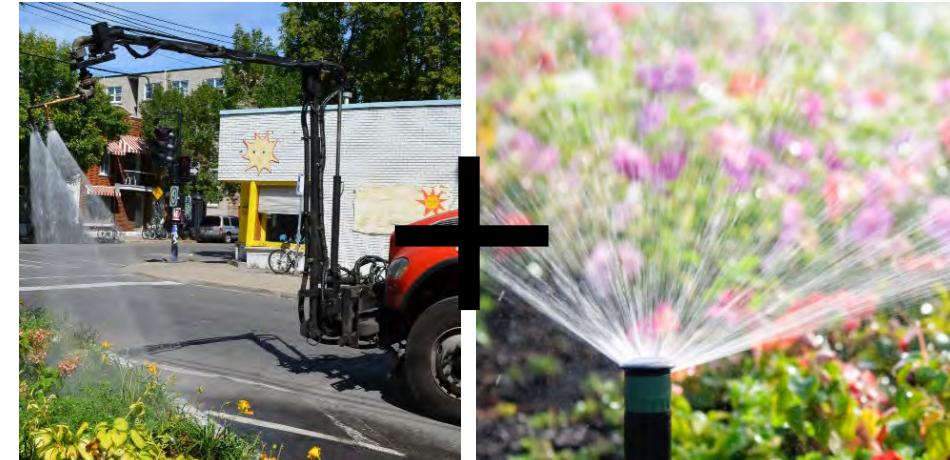
6" CALIPER

### WATER/IRRIGATION



CONTINUE WATERING BY TRUCK

Image source: confettiblues.wordpress.com



CONTINUE WATERING BY TRUCK WITH KEY AREAS IRRIGATED



IRRIGATION THROUGHOUT ALL NEW STREETSCAPE PLANTINGS

Image resource: Rain Your Way

### STREET PEDESTRIAN LIGHTING



NEW DARK SKY COMPLIANT FIXTURE

Phillips Lumec classicstyle LED



NEW DARK SKY COMPLIANT FIXTURE

Philips Lumec classicstyle LED



NEW FIXTURE WITH AUDIO AND DAYLIGHT TIMERS

## STREET MATERIALS MATRIX

### INTEGRATED LIGHTING

GOOD



PEDESTRIAN AND ROADWAY LIGHTING ONLY

BETTER



SEAT WALLS, LIGHTED BOLLARDS

Forms & Surfaces: Light Column Bollard 2

BEST



SEAT WALLS, LIGHTED BOLLARDS

Forms & Surfaces: Light Column Bollard 2

### BENCH



6' STANDARD MANUFACTURED BENCH (EXAMPLE ONLY)



CUSTOM/SEMI-CUSTOM BENCH (EXAMPLE ONLY)



SIGNATURE BENCH (EXAMPLE ONLY)

Ecofet - Twig Plastic

## STREET MATERIALS MATRIX

### WAYFINDING SIGNAGE

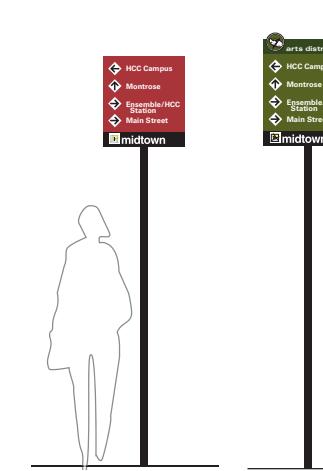
GOOD



DIRECTIONAL SIGNAGE AT KEY DECISION POINTS

Prioritizing the Prairie Path

BETTER



ADDITIONAL DIRECTIONAL SIGNAGE AT DECISION POINTS

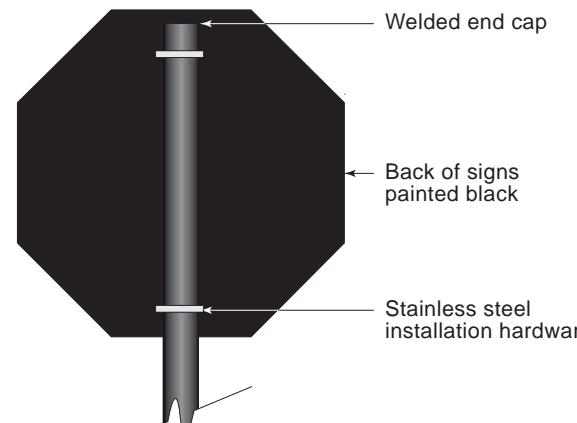
BEST



AUTO-COUNT SIGNAGE/SYSTEM FOR PARKING GARAGES

Image source: Cincinnati Time of Maine

### REGULATORY SIGNAGE



CONSISTENT USE OF COLOR AND POLE



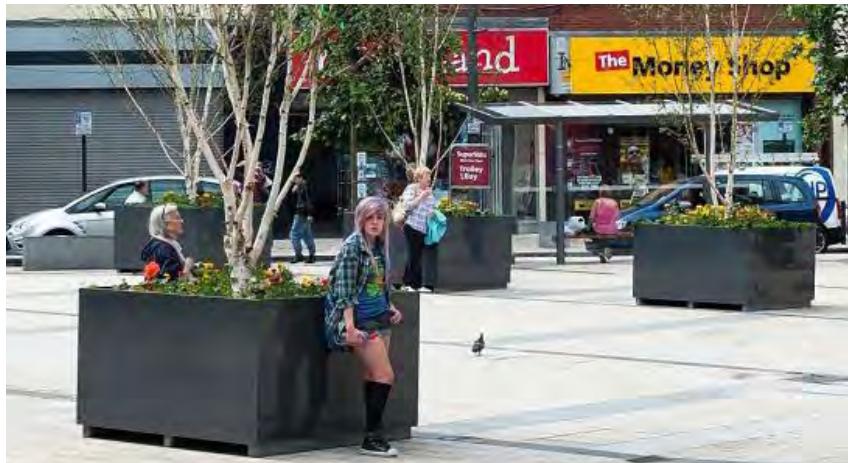
FRAME AND POLE TO MATCH DIRECTIONAL SIGNAGE STYLE



STREET SIGN WITH COLOR OR LOGO

## STREET MATERIALS MATRIX - FIXED MATERIALS

### MOVABLE PLANTERS



IOTA granite tree planter



UK street-design Kensington planters on steel frame / Leeds planters



BEST



STREETLIFE giant flowerpot



### TRASH RECEPTECLES



LANDSCAPE FORMS - DISPATCH



FORMS AND SURFACES - PARC VUE

### ART



LEASE PROGRAM FOR ART / SHOWCASE ART / ROTATING ARTWORK FROM WHEATON COLLEGE



INTEGRATED ART



MAGLIN

## STREET MATERIALS MATRIX - FIXED MATERIALS

### TREE LIGHTING



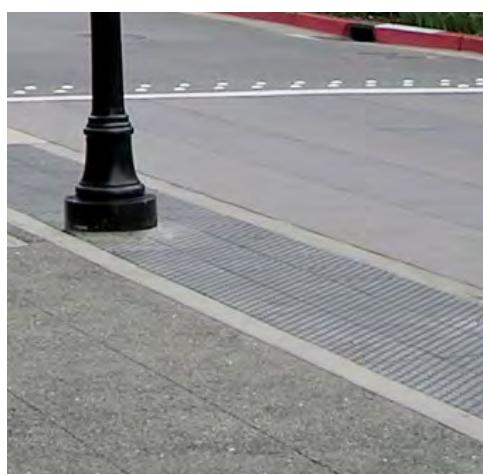
EXISTING TREATMENT WITH PROTECTED/CONCEALED OUTLETS

### BIKE RACK

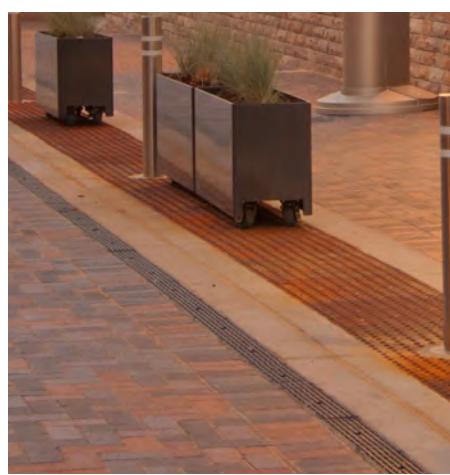


CONTINUE WITH DERO MODEL

### ROAD CURBS

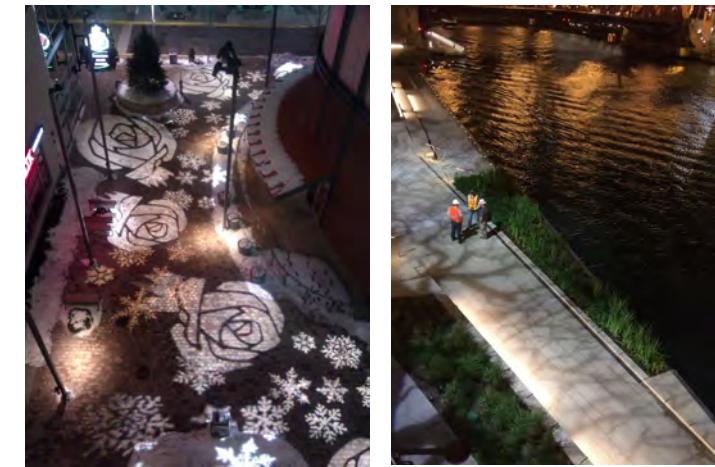


FLUSH CONCRETE CURB



ROLLED/MOUNTABLE CONCRETE CURB

### PROJECTIONS/SPECIALTY LIGHTING



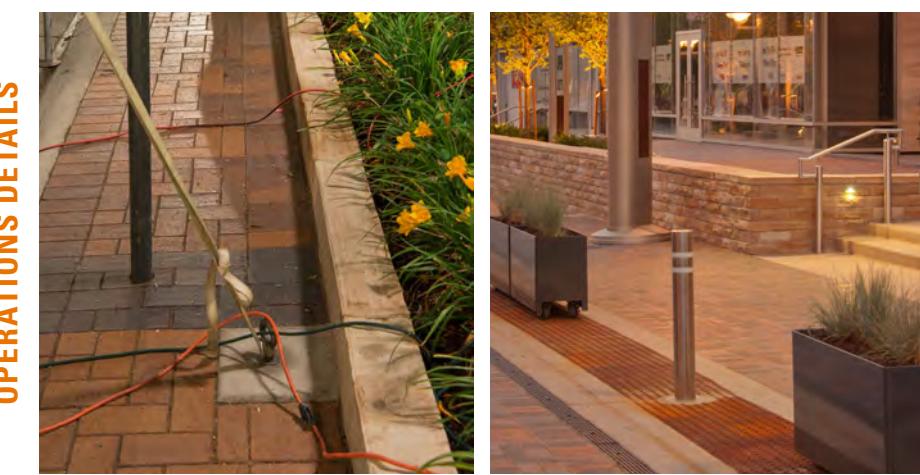
PROJECTIONS ONTO PAVING

Projector: SourceFour XT HID Zoom/ WE-EF Gobo Projector



Color Changing LED Strands: i Color Flex LMX gen2

### OPERATIONS DETAILS



DETAILS FOR FLEXIBLE PROGRAMMING - MARKET TENT TIES, MOVABLE PLANTERS

## PLANTING PALETTE

MIX 1



ALLIUM TUBEROSUM | GARLIC CHIVES



HEUCHERA MICRANTHA 'PURPLE PALACE' | CORAL BELS



PANICUM VIRGATUM 'SHENANDOAH' | SHENANDOAH SWITCHGRASS



AMSONIA HUBRICHTII 'ARKANSAS BLUE STAR' | BLUE STAR



HYLOTELEPHIUM TELEPHIUM | STONECROP



ALLIUM ATROPURPUREUM

## PLANTING PALETTE

MIX 2



ALLIUM 'GLOBEMASTER' | ORNAMENTAL ONION



CAREX PENNSYLVANICA | SEDGE



SALVIA X SYLVESTRIS 'MAY NIGHT' | WOOD SAGE



PINUS MUGO 'VALLEY CUSHION' | DWARF MUGO PINE



SESLERIA AUTUMNALIS | AUTUMN MOOR GRASS



ALLIUM 'PURPLE SENSATION' | ALLIUM PURPLE SENSATION

## PLANTING PALETTE

MIX 3



ABE NELAE MILLEFOLIUM | YARROW | MACK CHOKEBERRY



VERBENA BONARIENSIS | TALL VERBENA



OPUNTIA COMPRESSA | PRICKLY-PEAR CACTUS



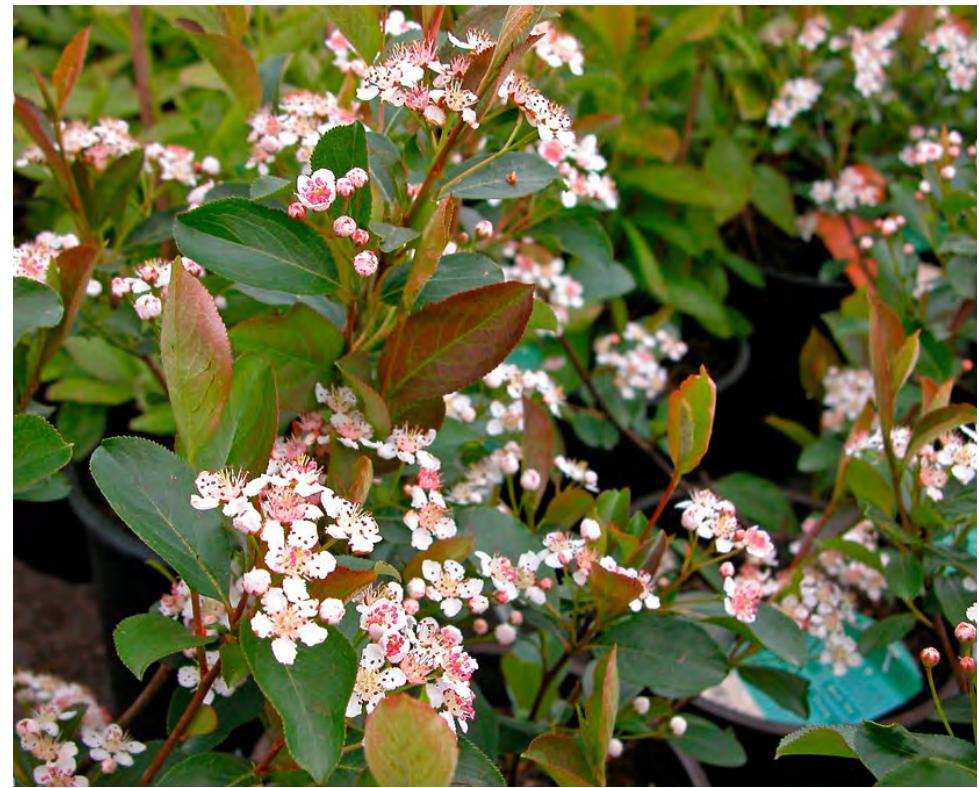
ALLIUM 'SUMMER BEAUTY' | ALLIUM SUMMER BEAUTY



PENNISETUM ALOPECUROIDES | FOUNTAIN GRASS

## PLANTING PALETTE

### MIX 4



ARONIA MELANOCARPA 'AUTUMN MAGIC' | BLACK CHOKEBERRY



SEDUM 'AUTUMN FIRE' | STONECROP



CHELONE LYONII 'HOTLIPS' | PINK TURTLEHEAD



ERYNGIUM YUCCIFOLIUM | RATTLESNAKE MASTER



SPOROBOLUS HETEROLEPIS | PRAIRIE DROPSEED



GAURA LINDHEIMERI 'WHIRLING BUTTERFLIES' | BEEBLOSSUM

## PLANTING PALETTE

### MIX 5



ACHILLEA 'WALTHER FUNCKE' | YARROW



DESCHAMPSIA CESPITOSA 'GOLDSCHEIR' | TUFTED HAIRGRASS



HELENIUM 'MOERHEIM BEAUTY' | SNEEZEWEED



SESLERIA AUTUMNALIS | AUTUMN MOOR GRASS



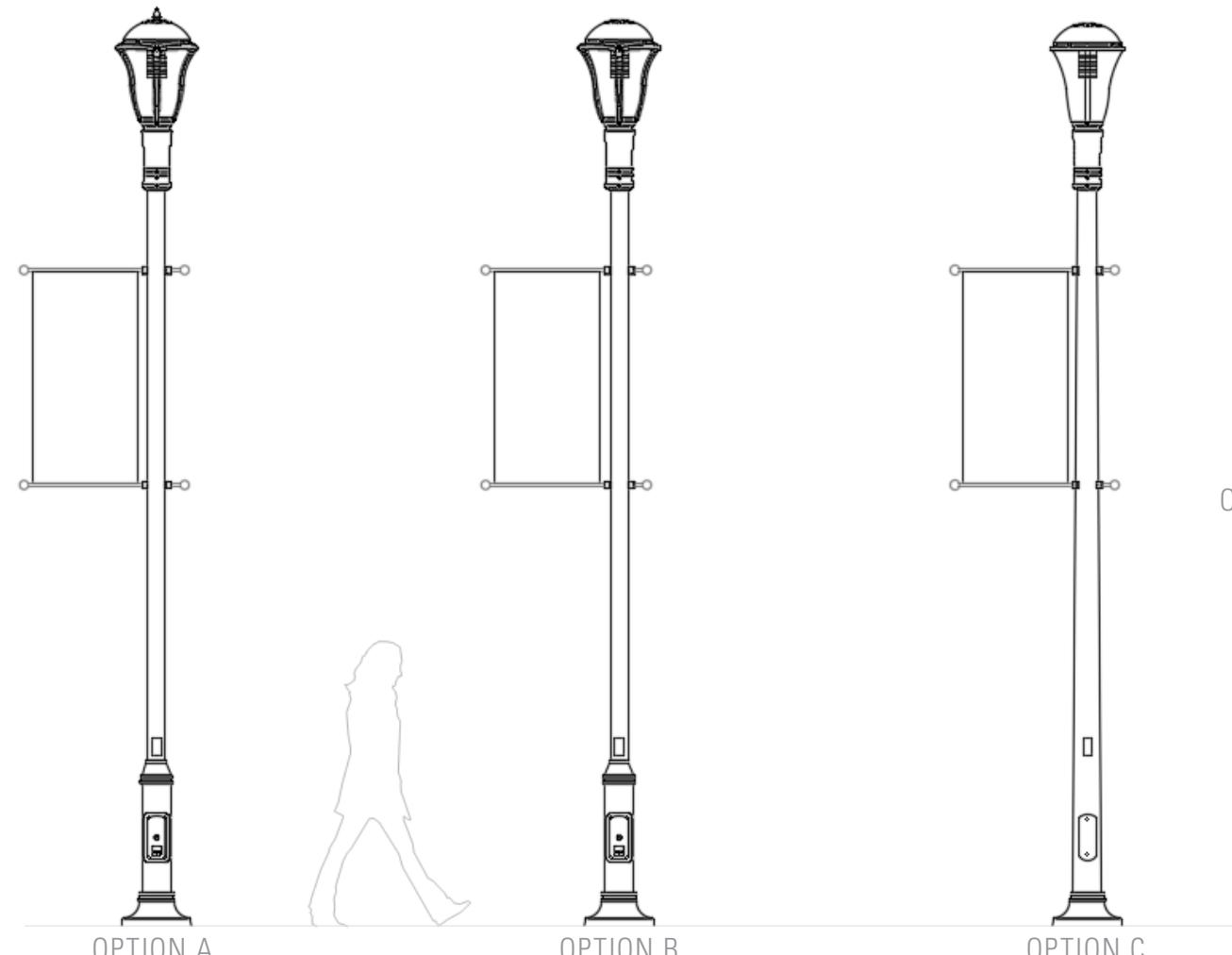
AESCLEPIAS TUBEROSA | BUTTERFLY WEED



RHUS AROMATICA 'GRO LOW' | GRO-LOW SUMAC

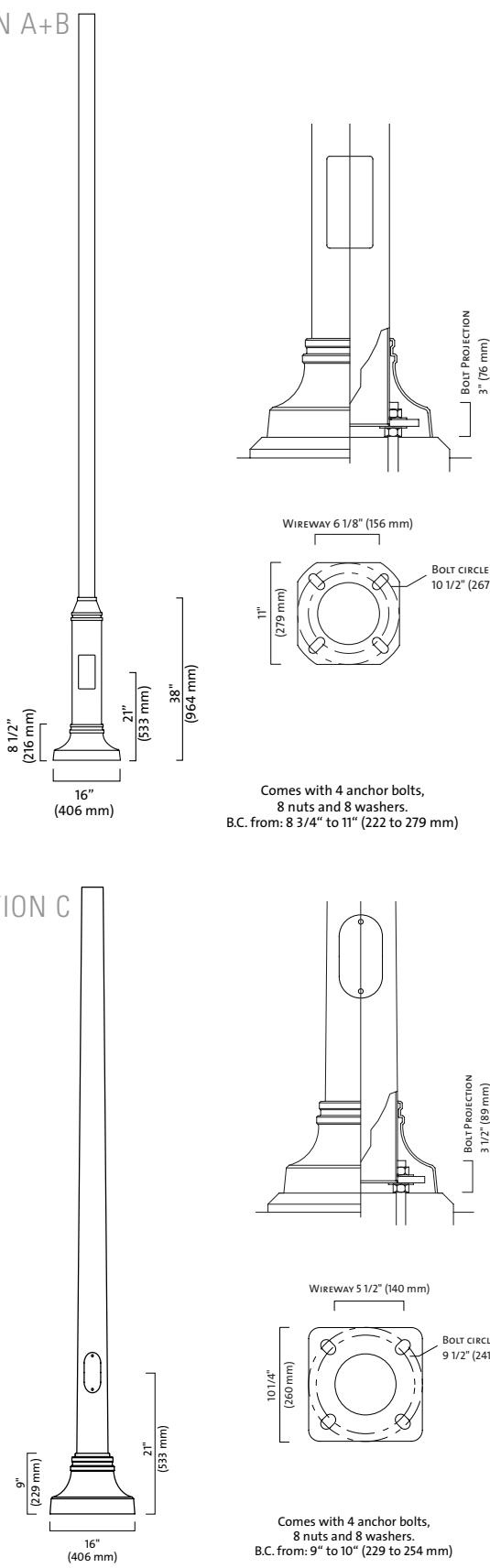
## PEDESTRIAN STREET

### LIGHTING STANDARD



OPTION A+B

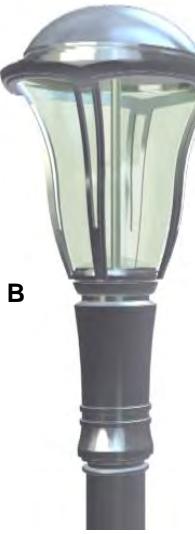
LUMEC URBAN CLASSIC STYLE POST TOP FIXTURE



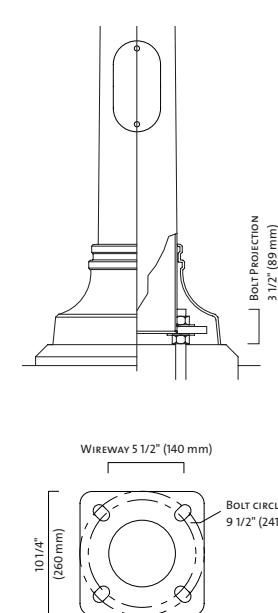
OPTION A



OPTION B

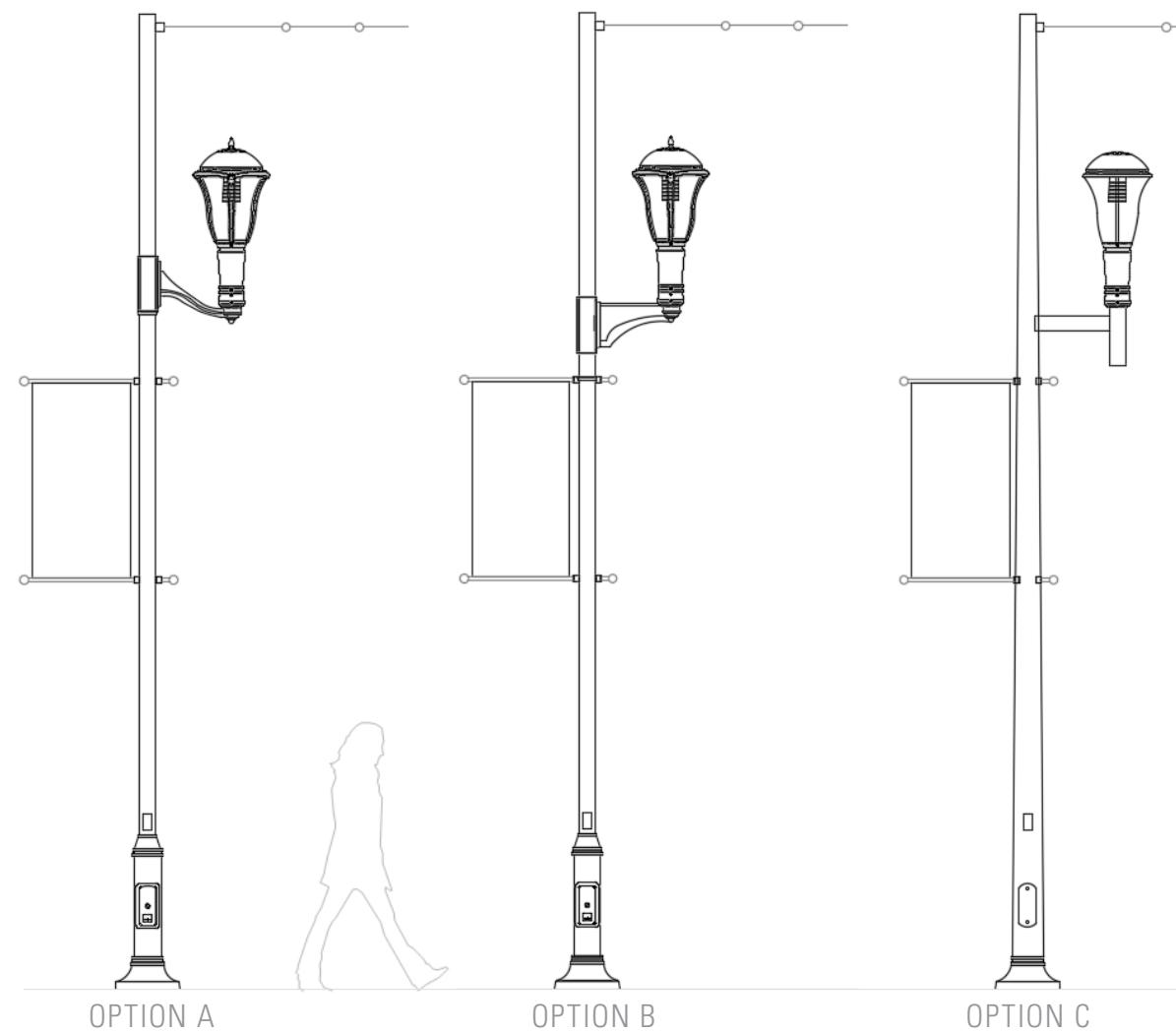


OPTION C



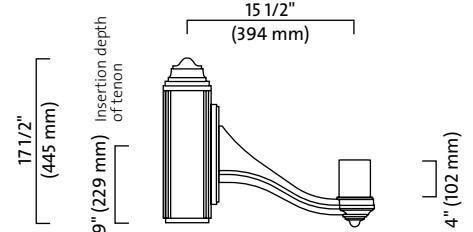
## FESTIVAL STREET

### LIGHTING STANDARD



#### CRDS

EPA: 1.13 sq.ft. Weight: 19.0 lbs. (8.6 kg)

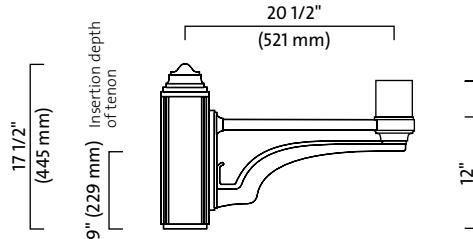


#### OPTION A



#### CRC

EPA: 1.39 sq.ft. Weight: 17.0 lbs. (7.7 kg)

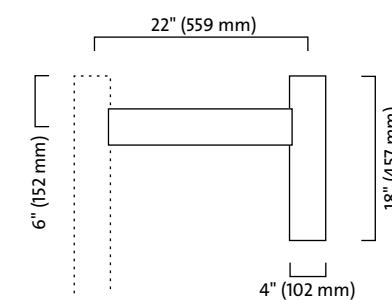


#### OPTION B



#### CR

EPA: 1.11 sq.ft. Weight: 12.0 lbs. (5.4 kg)

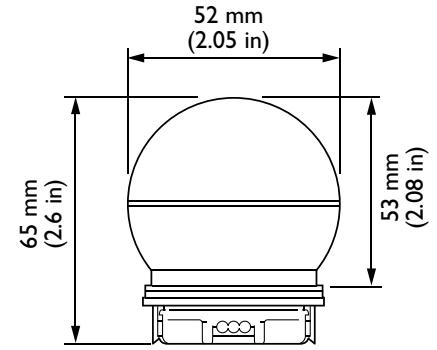


#### OPTION C



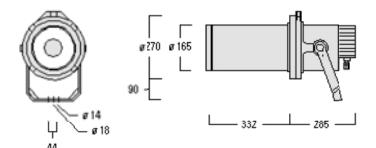
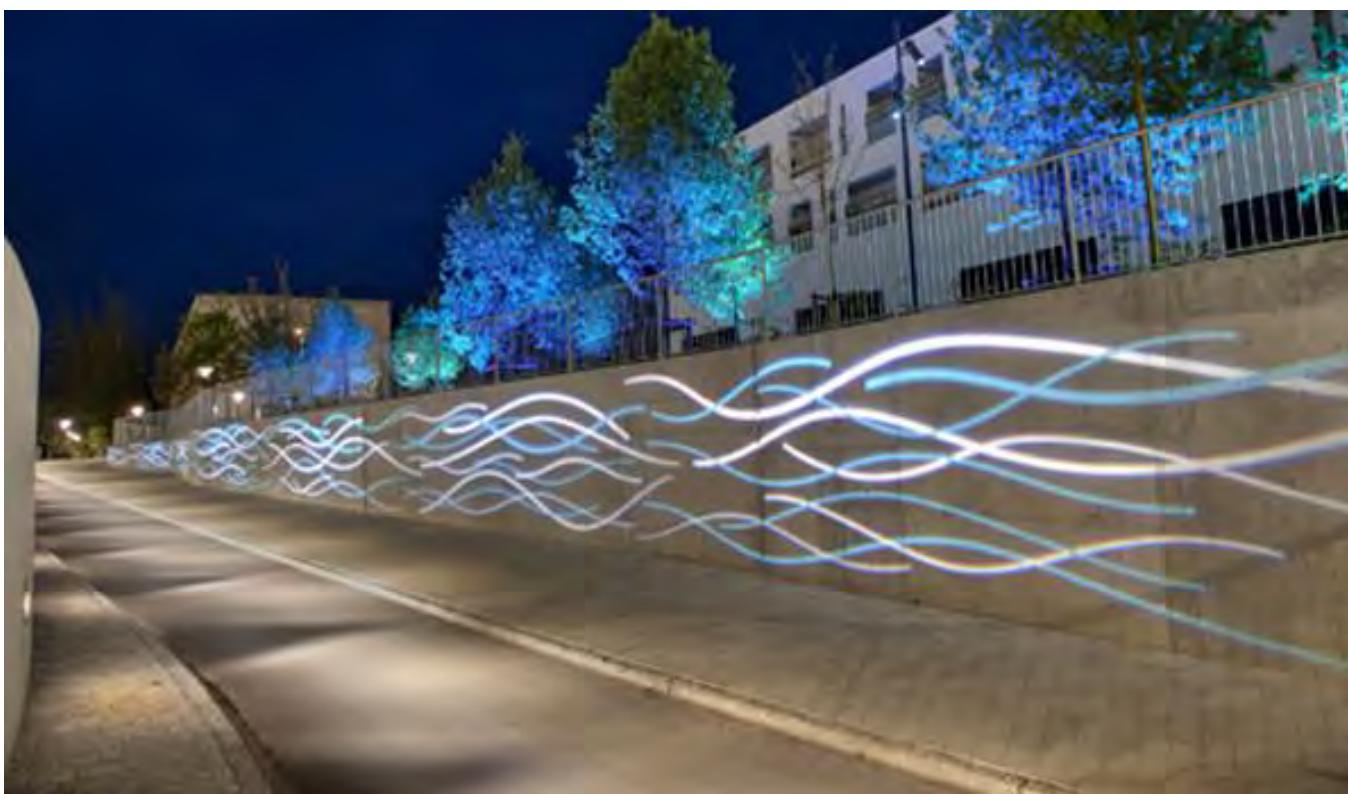
## FESTIVAL STREET

### COLOR CHANGING CATENARY LIGHTING

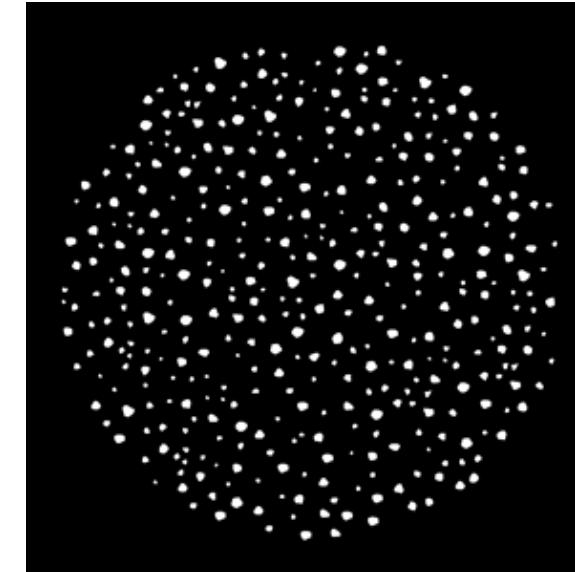


## SUPPLEMENTAL LIGHTING

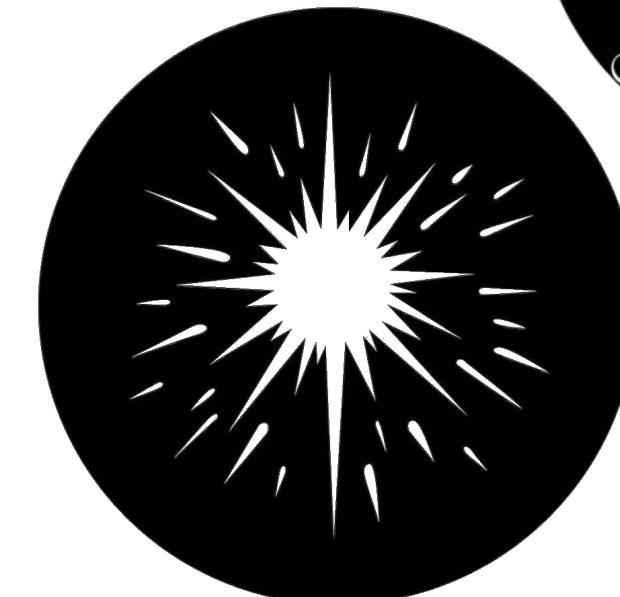
### GOBO PROJECTIONS



## HOLIDAY LIGHTING



THOUSANDS OF PATTERNS  
AVAILABLE – INCLUDING  
CUSTOM IMAGES AND TEXT



## ARCHITECTURAL LIGHTING STANDARDS



### Potential Architectural Lighting Guidelines:

- Color temperature standard –3000K “Warm White”
- Minimum 80 Color Rendering Index for all lighting
- Light levels –Maximum 7.5 fc measured on public sidewalk adjacent to building, or no more than 3x measured light level of adjacent street
- Exterior building-mounted lighting to be a human-scale (below 14 ft.) whenever possible, unless specifically illuminating significant architectural features
- Controls –Interior fixtures to be automatically switched off or dimmed to 50% after an agreed time each night / after closing.
- Glare –Fixtures to be shielded and/or to utilize diffuse lensing to mitigate glare when viewed from public areas. Direct view of light source to be avoided at all times.
- Color-changing or multi-colored exterior lighting to be limited to a single color, plus white, unless specifically approved.
- Exterior lighting should respond to architectural features and patterns of the building.



## CONCEPT DESIGN NARRATIVE

### FRENCH MARKET

#### Option 1 - Contemporary

This contemporary interpretation of the traditional French market is derived from a simple, functional structural form. The concept consists of an inverted steel truss supported on wide flange columns. The underside of the truss would be finished with a tongue and groove wood ceiling, with a metal fascia panel enclosing its sides, and a standing seam metal roof system enclosing the shed slope. Angular glass skylights provide additional natural light while creating an interesting contemporary ceiling scape.

#### Option 2 – Art Nouveau

The Art Nouveau Scheme is an abstraction of the historic style prevalent in the architecture of early 20th century Paris. It is composed of a painted undulating open air tubular steel structure supported on composite tube steel columns with a corrugated metal roof form.

#### Option 3 – Traditional French

The Traditional French option for consists of a simple standing seam metal gable roof form created by steel scissors trusses. Additionally, dormers have been added to create a more interesting form and allow for clerestory lighting. Within the trusses, ornamental steel scrollwork would be applied to create a more elegant traditional aesthetic. The trusses would be supported on wide flange columns with curved steel angle brackets to further enrich the design.

#### Option 4 – Industrial

Similar to the Traditional French, this option consists of a simple standing seam metal gable roof form created by steel scissors trusses. Dormers have been added, but the traditional scrollwork has been removed as a decorative element leaving only the basic steel work exposed. The trusses would also be supported on wide flange columns with curved steel angle brackets to further enrich the design.

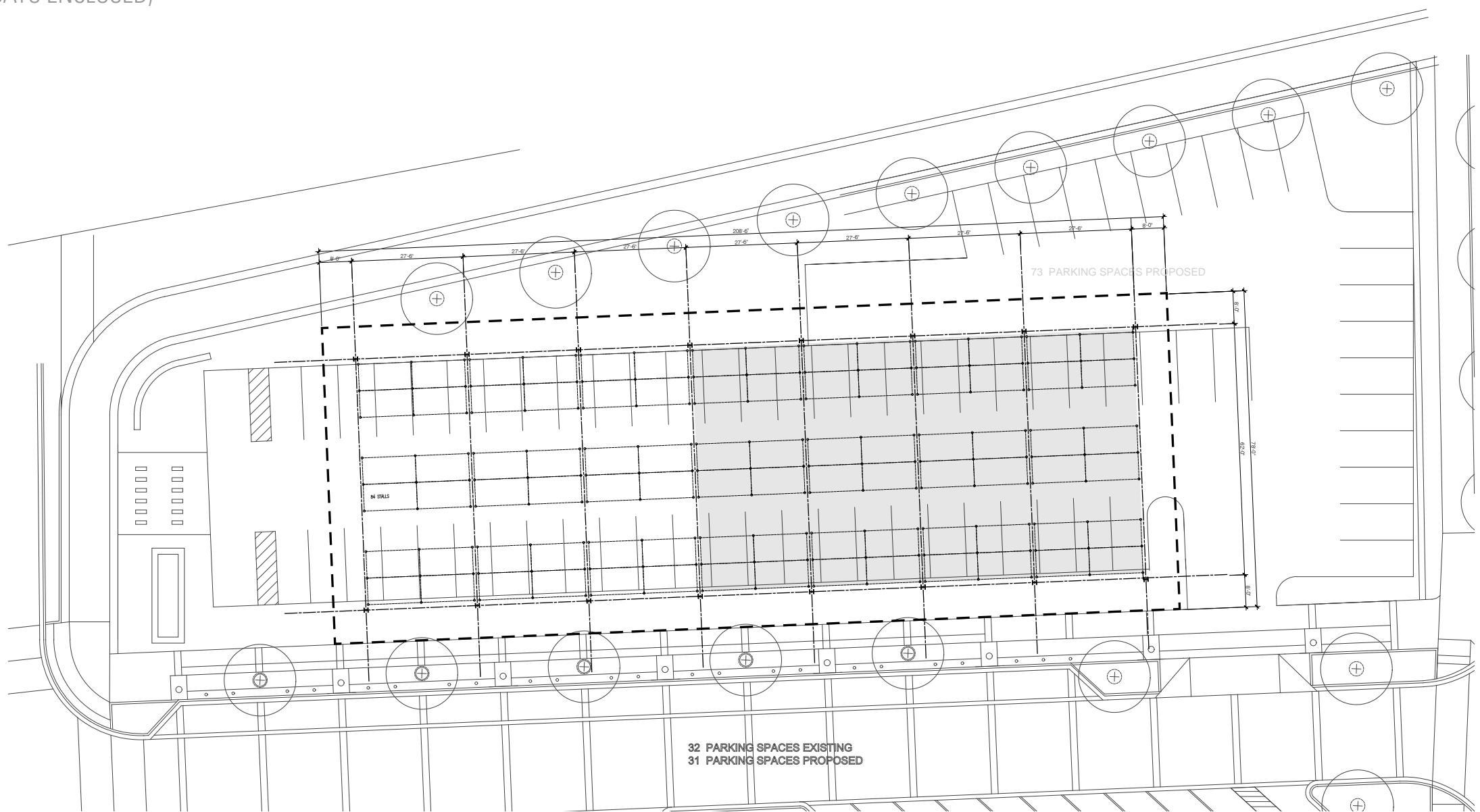
# FRENCH MARKET STRUCTURE

## BASIC 7 BAY PLAN

73 PARKING SPACES

83 VENDOR STALLS

48 POTENTIALLY ENCLOSED (4 BAYS ENCLOSED)



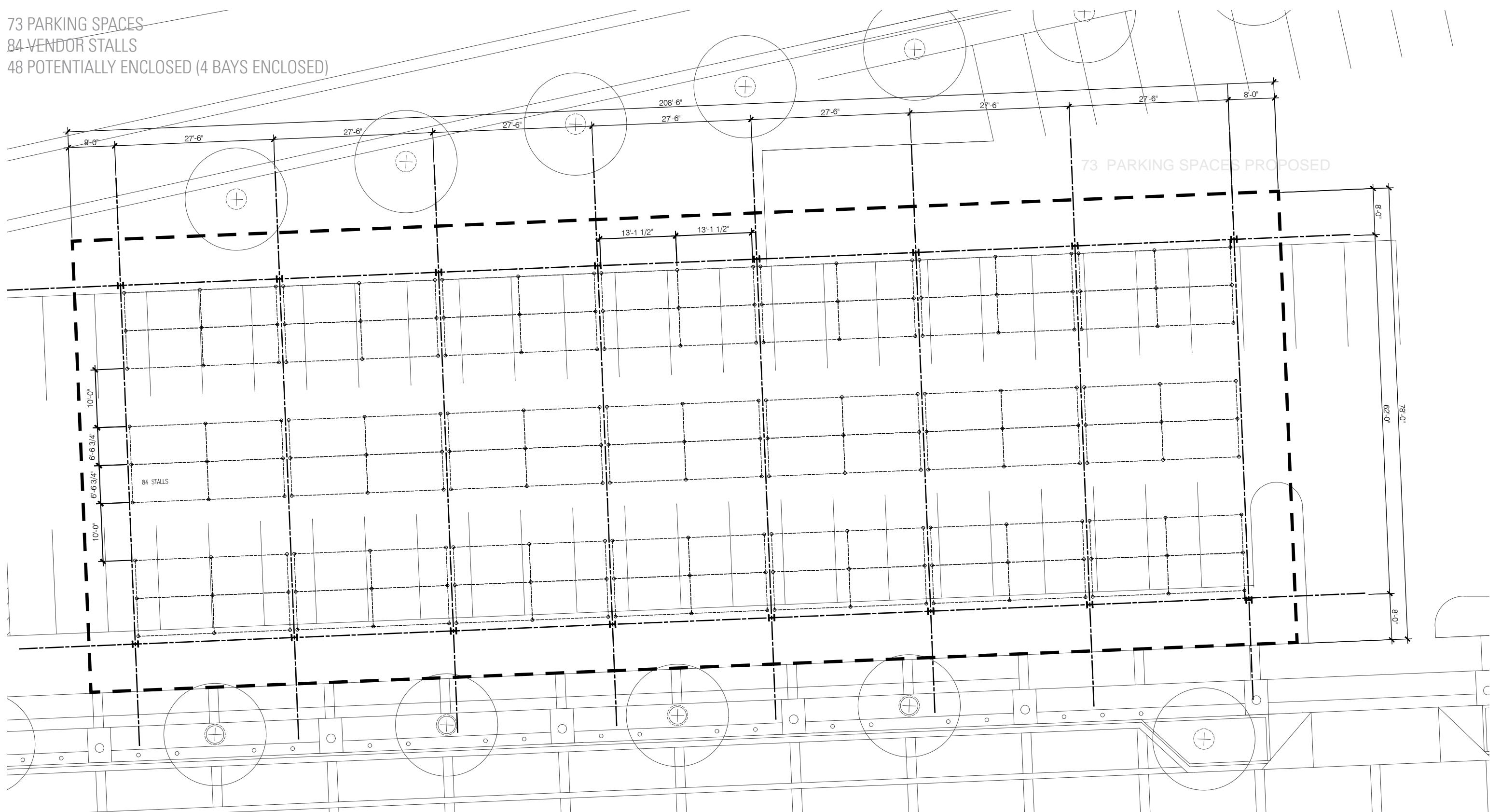
# FRENCH MARKET STRUCTURE

BASIC 7 BAY PLAN

73 PARKING SPACES

84 VENDOR STALLS

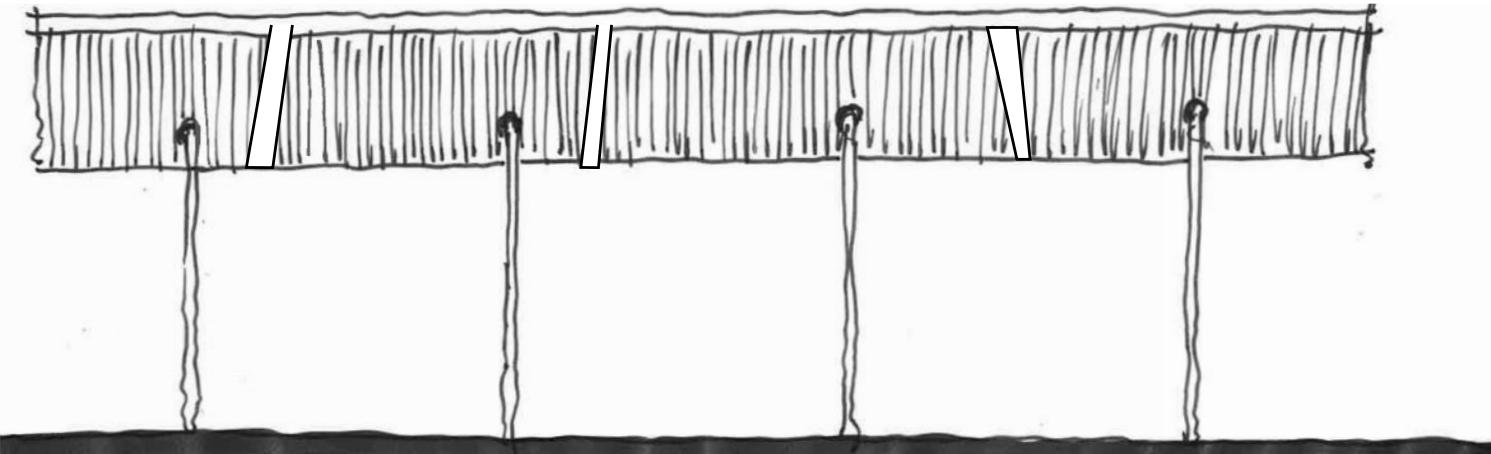
48 POTENTIALLY ENCLOSED (4 BAYS ENCLOSED)



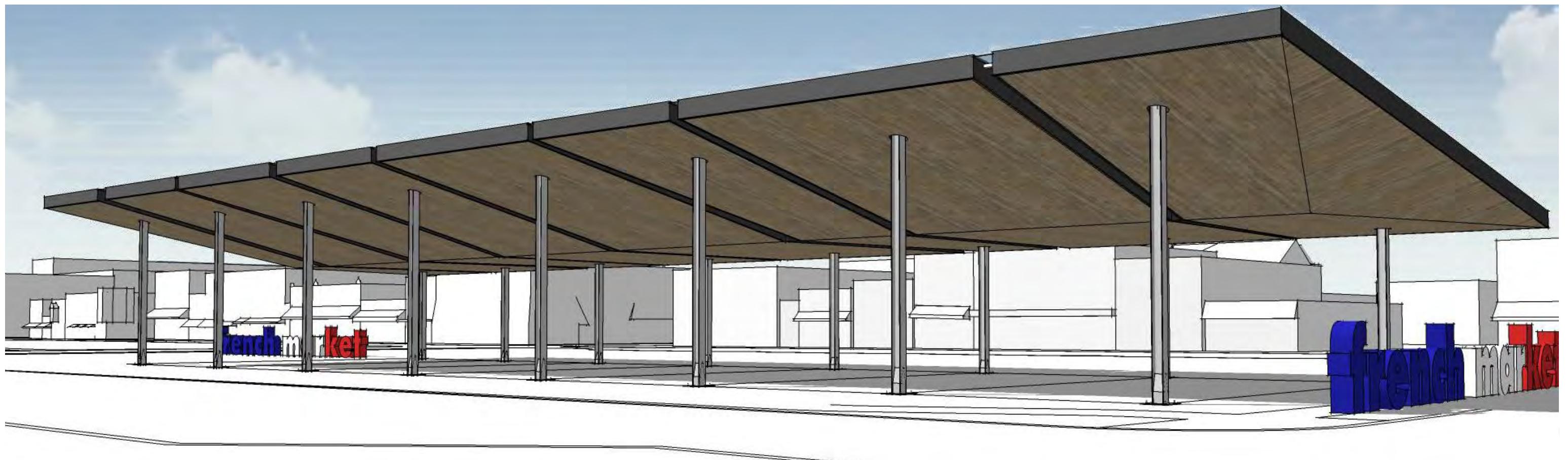
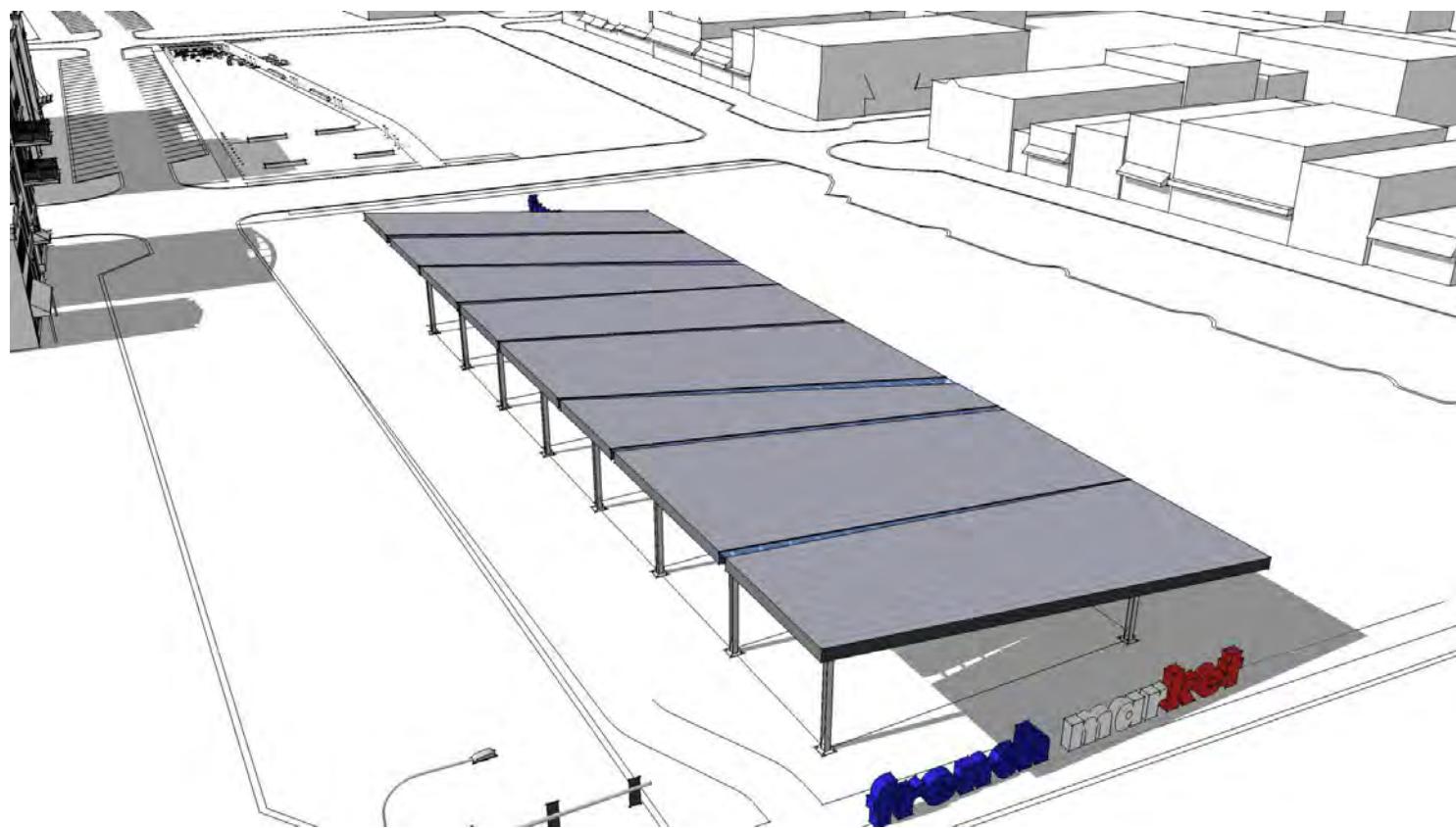
# FRENCH MARKET STRUCTURE

## Option 1 - Contemporary

This contemporary interpretation of the traditional French market is derived from a simple, functional structural form. The concept consists of an inverted steel truss supported on wide flange columns. The underside of the truss would be finished with a tongue and groove wood ceiling, with a metal fascia panel enclosing its sides, and a standing seam metal roof system enclosing the shed slope. Angular glass skylights provide additional natural light while creating an interesting contemporary ceiling scape.



# FRENCH MARKET STRUCTURE



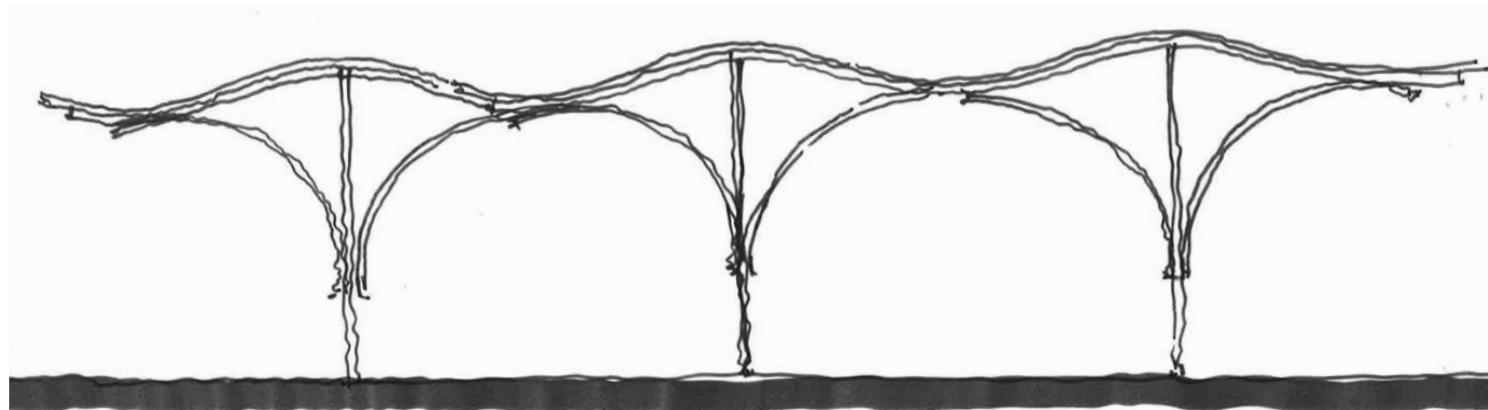
# FRENCH MARKET STRUCTURE



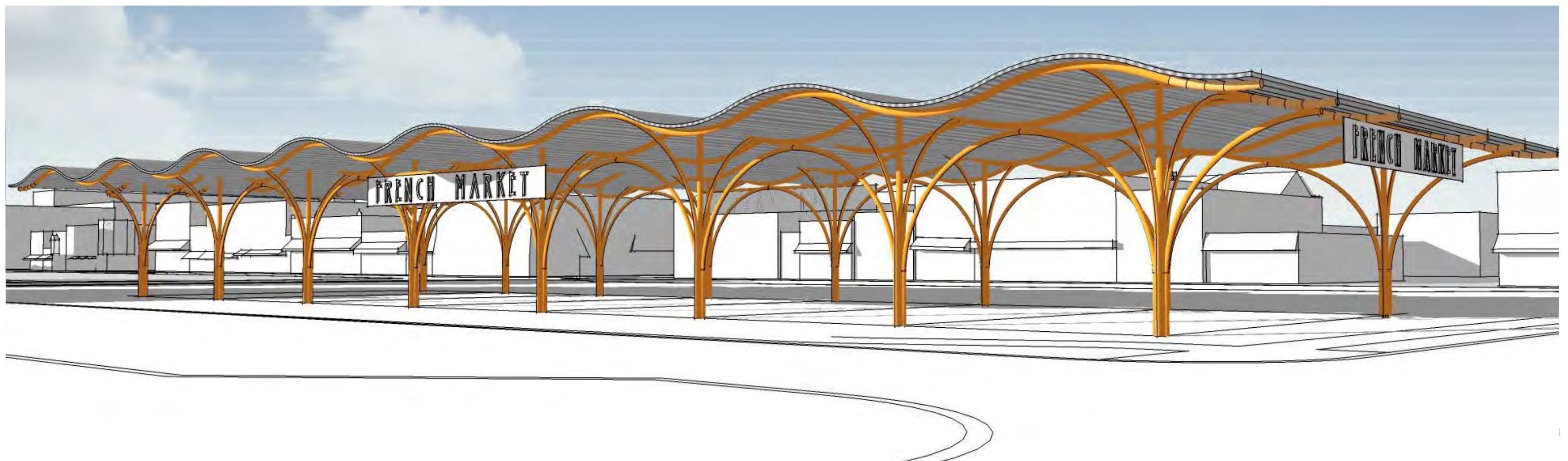
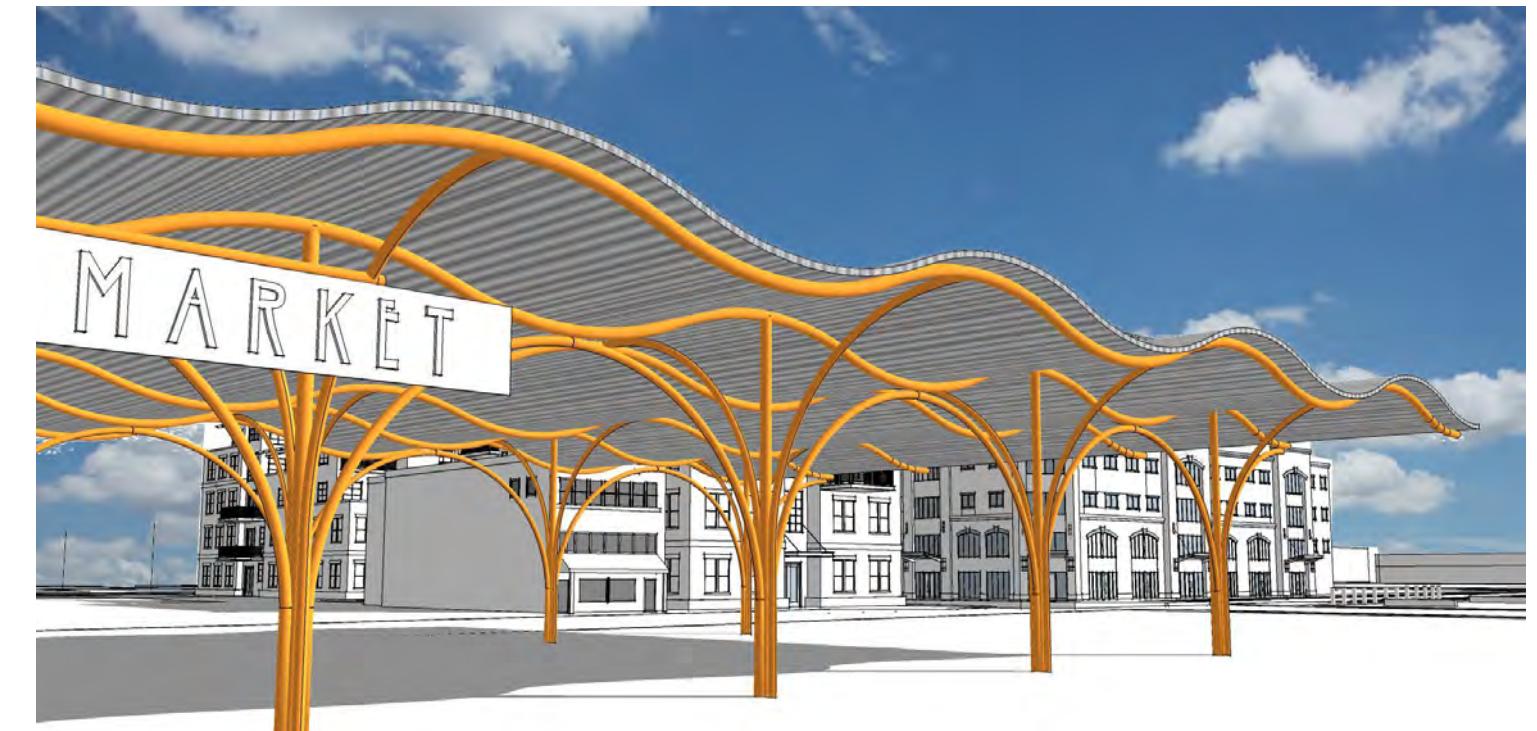
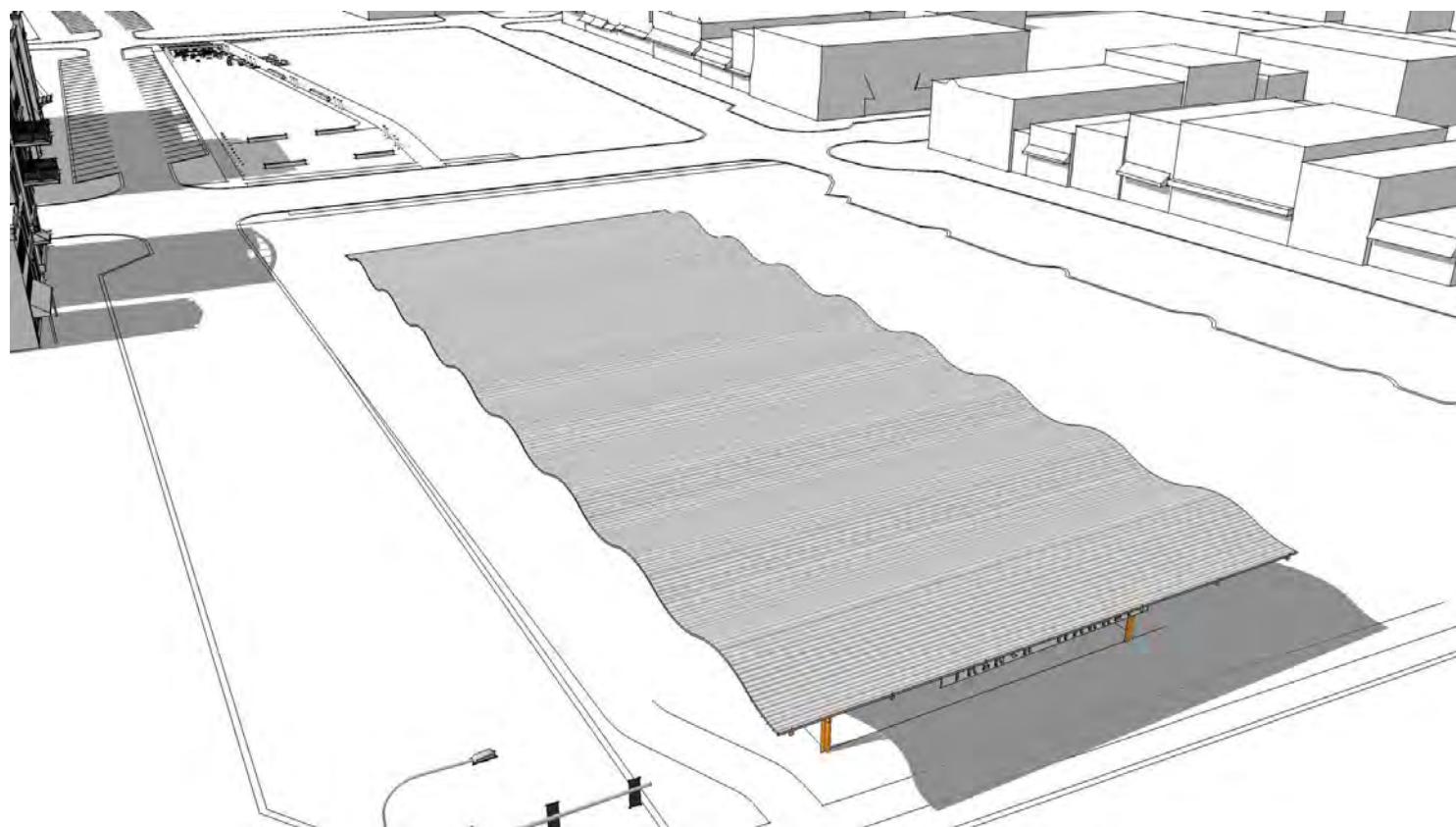
# FRENCH MARKET STRUCTURE

## Option 2 – Art Nouveau

The Art Nouveau Scheme is an abstraction of the historic style prevalent in the architecture of early 20th century Paris. It is composed of a painted undulating open air tubular steel structure supported on composite tube steel columns with a corrugated metal roof form.



# FRENCH MARKET STRUCTURE



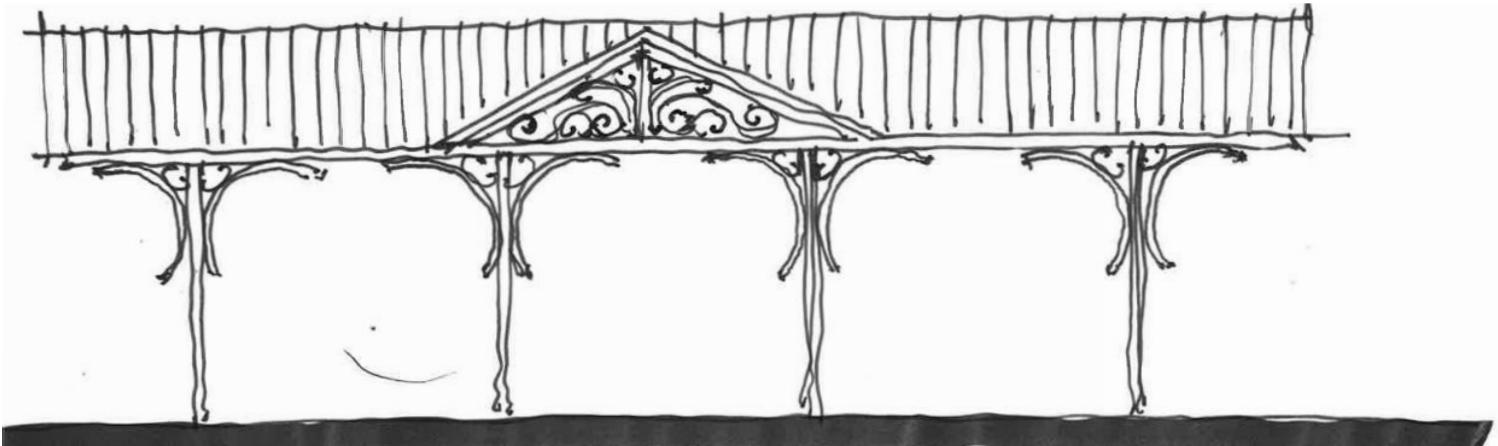
# FRENCH MARKET STRUCTURE



# FRENCH MARKET STRUCTURE

## Option 3 – Traditional French

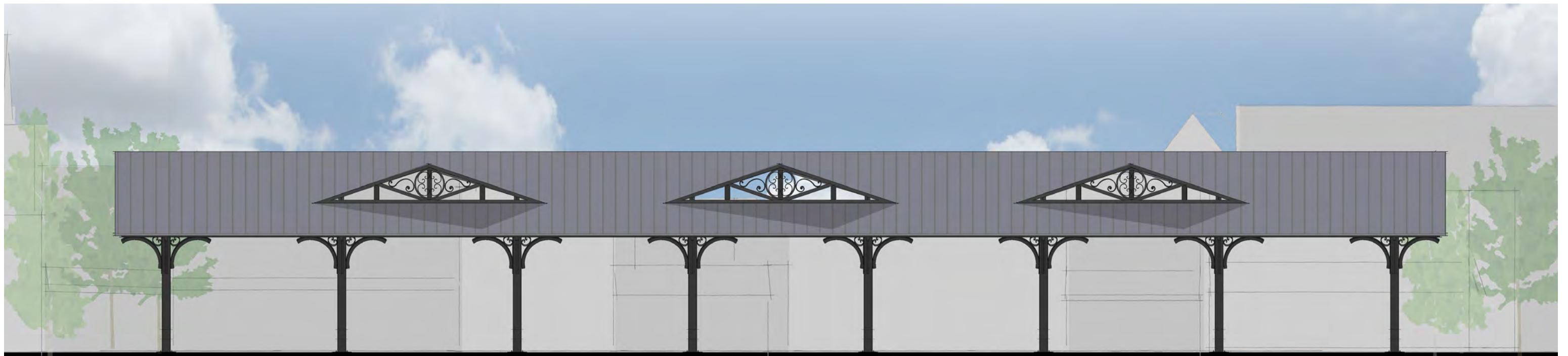
The Traditional French option for consists of a simple standing seam metal gable roof form created by steel scissors trusses. Additionally, dormers have been added to create a more interesting form and allow for clerestory lighting. Within the trusses, ornamental steel scrollwork would be applied to create a more elegant traditional aesthetic. The trusses would be supported on wide flange columns with curved steel angle brackets to further enrich the design.



# FRENCH MARKET STRUCTURE



# FRENCH MARKET STRUCTURE



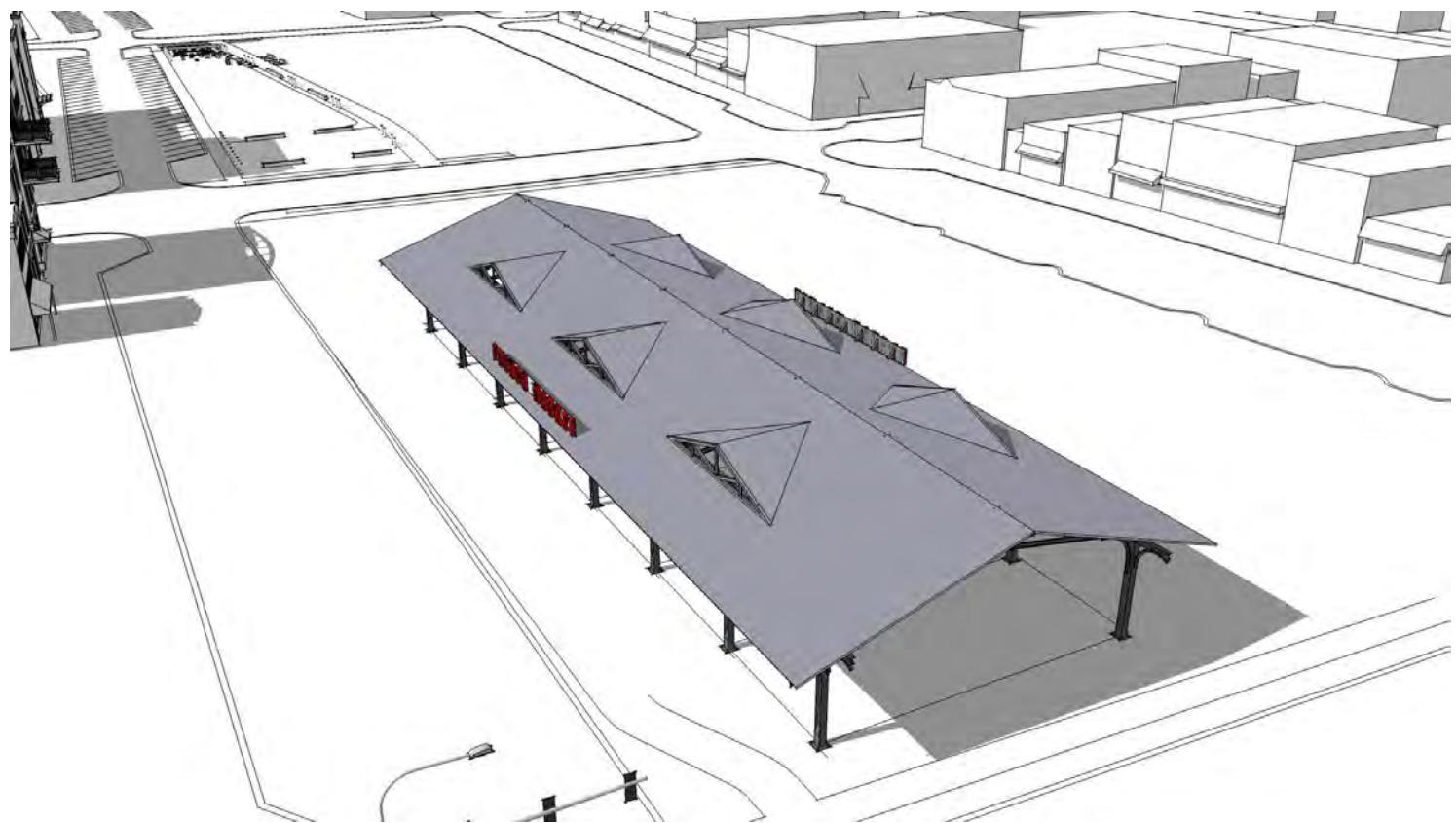
# FRENCH MARKET STRUCTURE

## Option 4 – Industrial

Similar to the Traditional French, this option consists of a simple standing seam metal gable roof form created by steel scissors trusses. Dormers have been added, but the traditional scrollwork has been removed as a decorative element leaving only the basic steel work exposed. The trusses would also be supported on wide flange columns with curved steel angle brackets to further enrich the design.



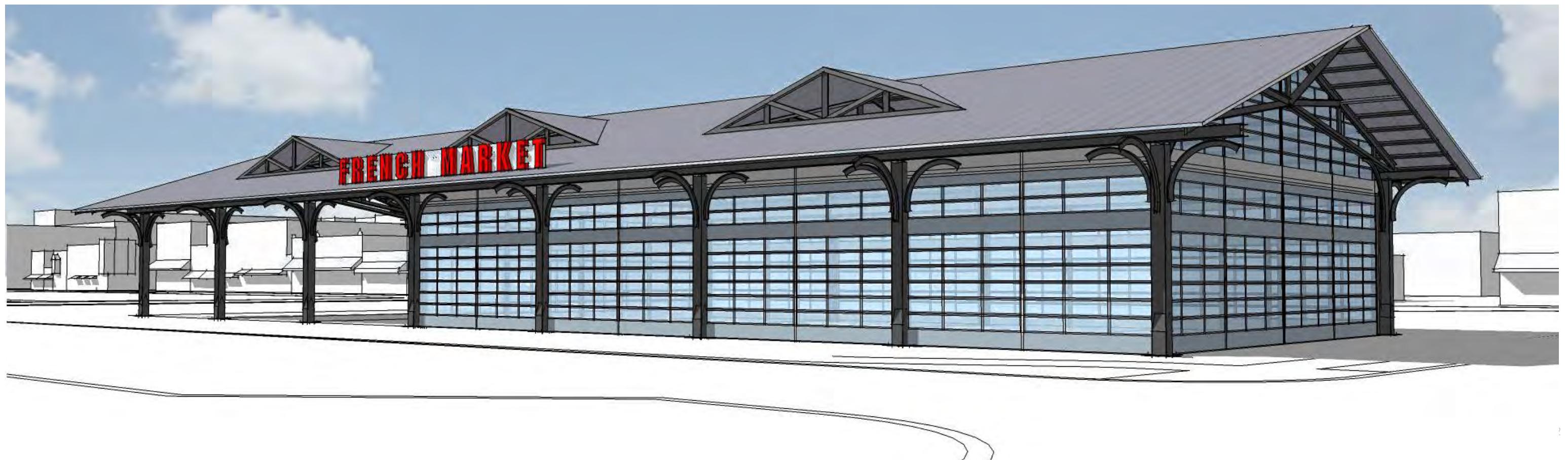
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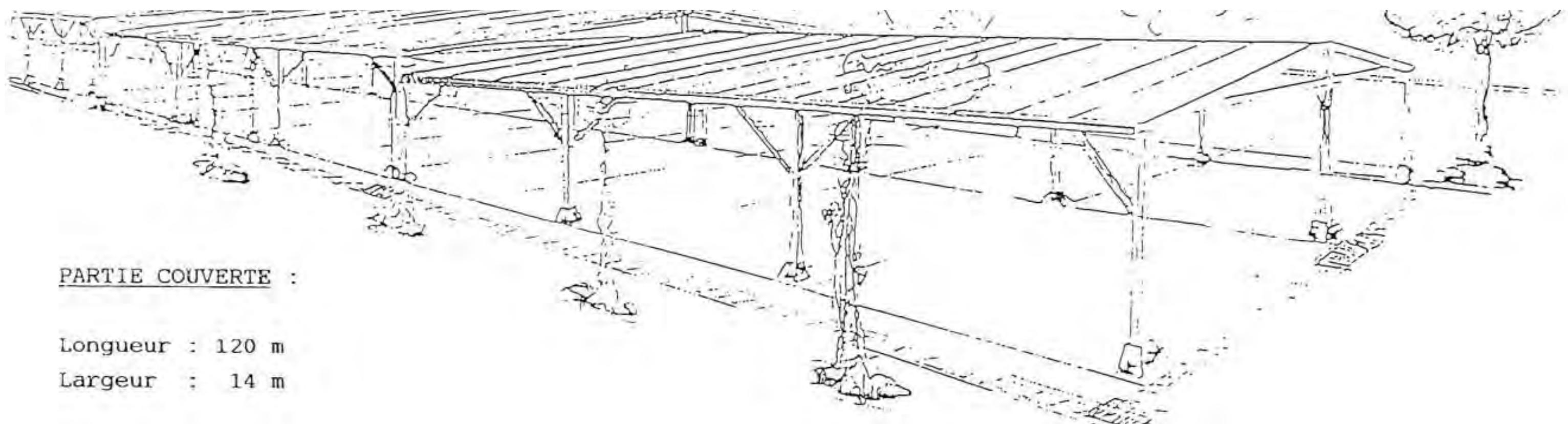
# FRENCH MARKET STRUCTURE



# FRENCH MARKET STRUCTURE



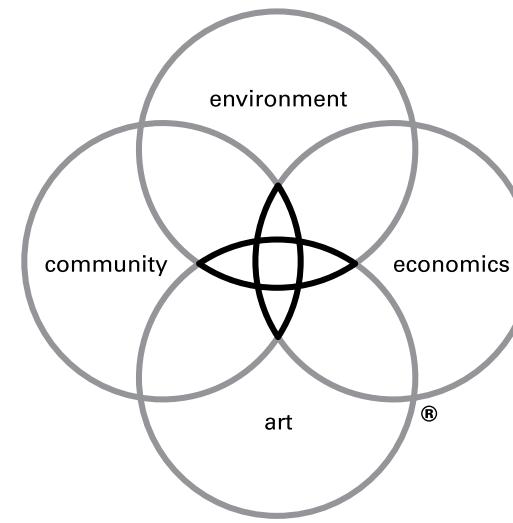
# FRENCH MARKET STRUCTURE



PARTIE COUVERTE :

Longueur : 120 m

Largeur : 14 m



## DW LEGACY DESIGN®

We believe that when environment, economics, art and community are combined in harmony with the dictates of the land and needs of society, magical places result — sustainable places of timeless beauty, significant value and enduring quality, places that lift the spirit.

Design Workshop is dedicated to creating Legacy projects:  
for our clients, for society and for the well-being of our planet.

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