

# Jefferson Street Lighting Project Syracuse, NY

Connective Corridor Lighting Proposal  
Submitted February 27, 2017

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*A city exists, not for the constant  
passage of motorcars, but for the care  
and culture of people.*

*— Lewis Mumford*



## DESIGN SUMMARY

## The city illuminated at night is the icon of America.

### Introduction

The Jefferson Street Lighting Project extends an invitation to Syracuse residents, visitors, shoppers, and pedestrians. The goal of this project is to increase year-round engagement and use of the public way from Armory Square to Columbus Circle, facilitate economic development, and enhance everyone's enjoyment of this vibrant downtown community space.

### Street lighting and the automobile

Beginning with the Great White Way of New York City, rural electric utilities marched across the country in the early 1900s demonstrating that small cities could also have their own white ways. Electric lighting, which has always excited our love of progress, motion, speed, and possibility, showcased the luminous brilliance of urban streets after dark. Yet, along with progress these same downtown streets, once oriented toward the daily rhythms of their inhabitants, gradually yielded to the motorcar.

*Roadways in this country are now primarily lit for automobiles, not people.*

Neither the automobile nor the electric light instantly appeared in this country. Both were slowly adopted and eventually fully harnessed. Just as the automobile had its consequences, electric lighting also had a dark side, for driving beneath today's forest of highway streetlights has relegated downtown pedestrians to the sidelines.

### Purpose of the Project

As the Connective Corridor aims to weave together the City of Syracuse, the Jefferson Street Lighting Project aims to re-orient the nighttime landscape. The purpose of the project is simple:

- Reclaim a walking initiative for the pedestrian along this passageway
- Attract more people to this central area
- Spur further economic development

### More light is not better sight

Shedding vast amounts of light upon a roadway has never made a street feel safer, welcoming or more vibrant. In fact, this typically produces the opposite effect by making pedestrians less visible and encouraging greater vehicle speeds, leaving the pedestrians to fend for themselves.

Jefferson Street encompasses critical junctions where people and cars meet, so drivers must clearly distinguish local foot traffic from anything else in their view. The new lighting aims to increase the visibility of all to meet their needs.

### The urban experience

With the evolution of LED illumination, the power and reach of lighting technology once again appears limitless, much like the original illuminated boulevards promoted. By utilizing Jefferson Street's historic buildings, we use light with an eye toward people, rekindling experiences of social interaction, physical activity, and connection to place. Here we can foster a greater variety of users and use.

### Lighting for people

Illumination is a fact of experience for city dwellers. By changing its focus, lighting can serve as an antidote to the isolating effects of the automobile. This lighting elevates and connects people to one another, lending any community a new experience of itself.

## JEFFERSON STREET OVERVIEW

### Three layers of lighting

Bustling with activity much as it has since the late 1800s, Jefferson Street can be the center of a renaissance. The Lighting Project supports resurgence by bathing the streetscape in a comfortable overall light level, articulated with highlights to lend sparkle and dynamics to human activity, plantings and vegetation.

The lighting design emphasizes the pedestrian, and is composed of three layers:

1. **Ambient street lighting** — A gentle, wide, smooth downwash from the overhead parapets of the taller buildings chosen for this project
2. **Spot accent lighting** — Narrow beams of white light emanating from the same locations, but more focused to capture a dynamic sense of movement and interaction.
3. **Storefront windows** — Glowing windowed storefronts illuminate pedestrian and sidewalk activity.

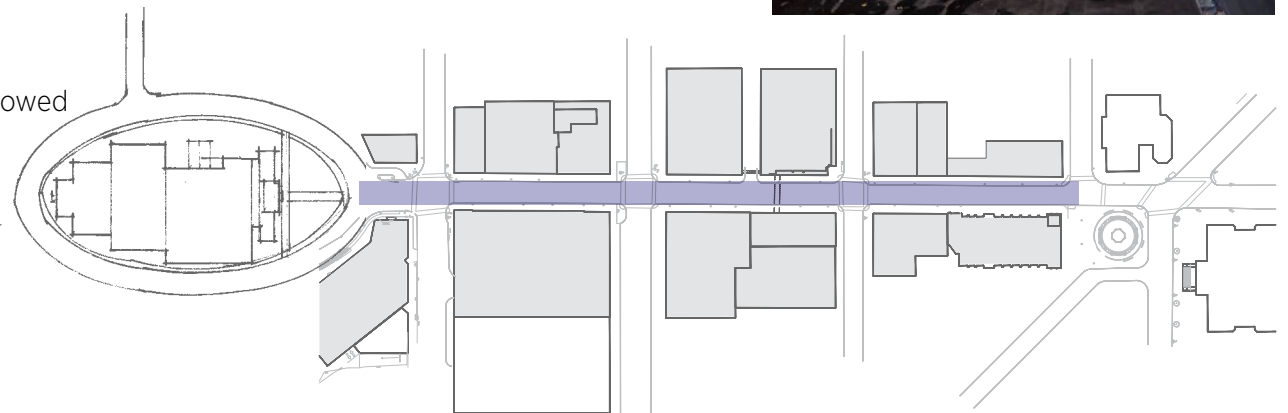
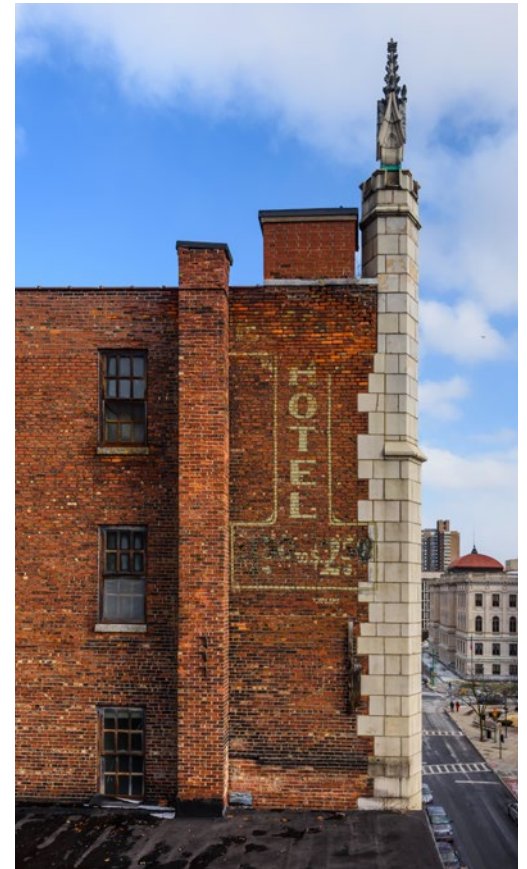
### Focused and diffuse

Blending these three forms of lighting will enhance the walking experience, increase pedestrian visibility, street activity, and the overall attractiveness of the area. The overhead units will not light the Jefferson buildings themselves, but rather the street and sidewalks below.

### Objective of the project

Our objective is to bring additional economic benefit to this area by elevating Jefferson Street's character, but with greater emphasis toward pedestrians, shop owners, and the historical fabric of the street itself.

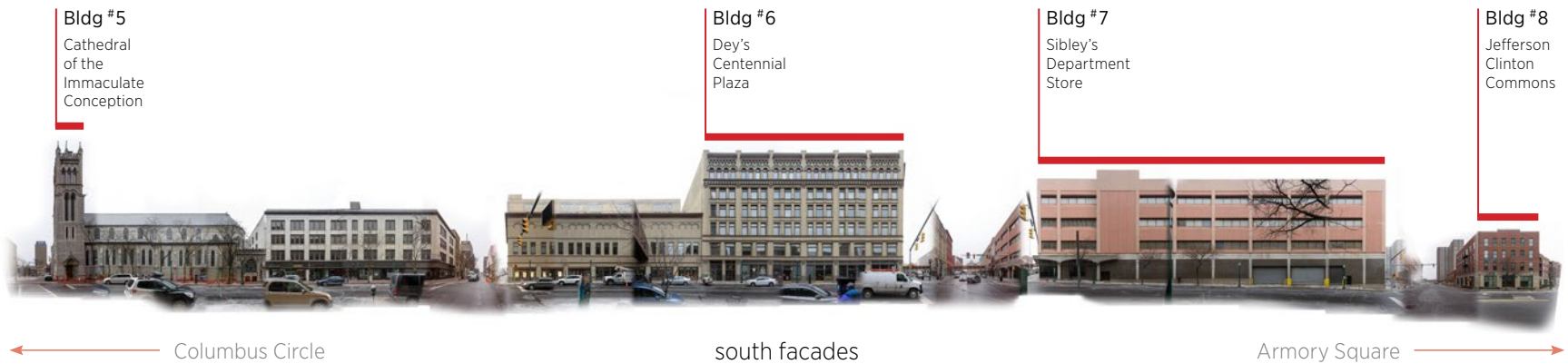
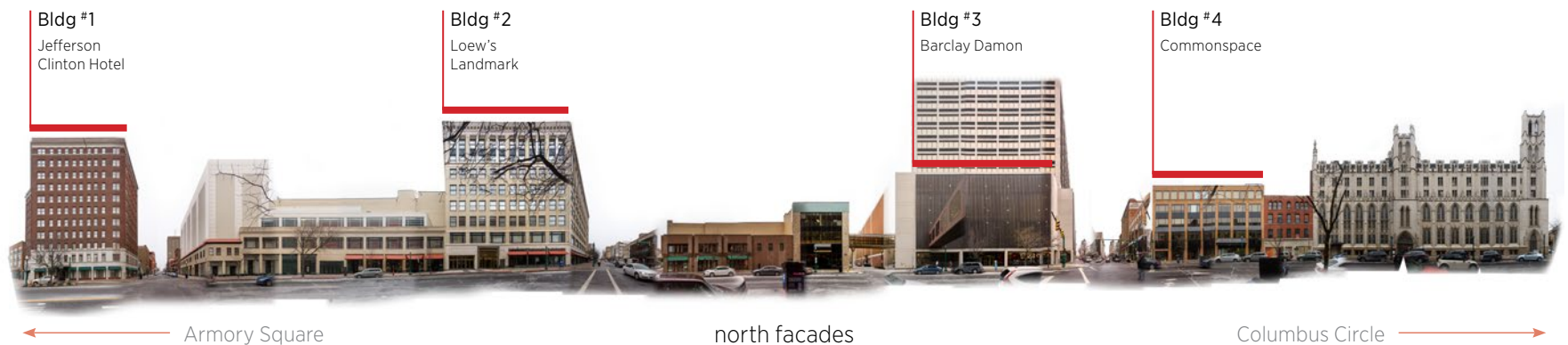
*We all have a need to access good places and find some respite from a busy life.*





## PROPOSED MOUNTING LOCATIONS

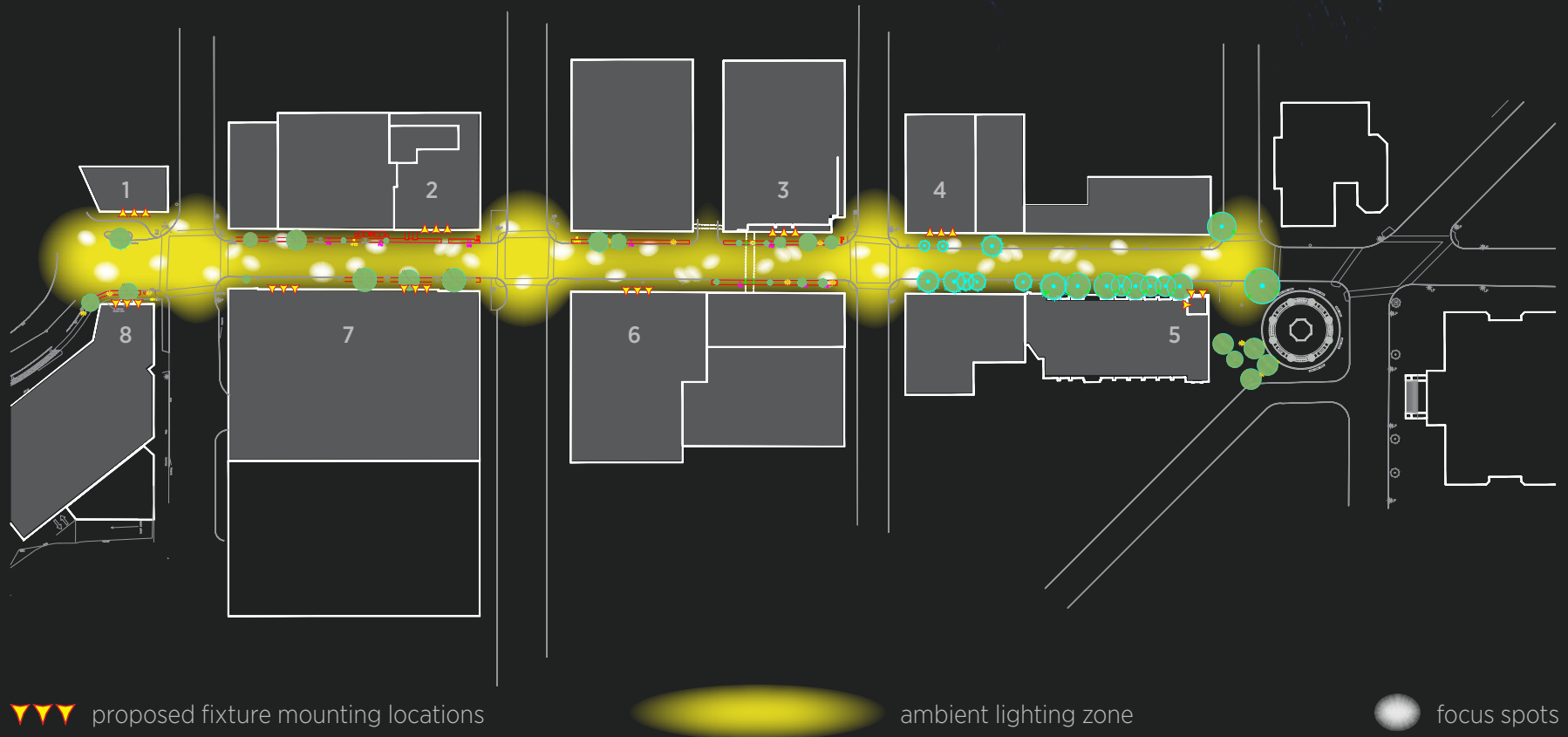
Eight building parapets have been surveyed as suitable mounting locations for lighting fixtures. By virtue of their height and spacing along the street, these locations will provide for a clean, even wash of light stretching from Armory Square to Columbus Circle.



## NIGHTTIME ILLUMINATED ZONE

Drivers will realize this downtown is not a generic place through which to pass quickly. This lighting reflects and supports the multiple needs of residents, visitors, shop owners and motorists.

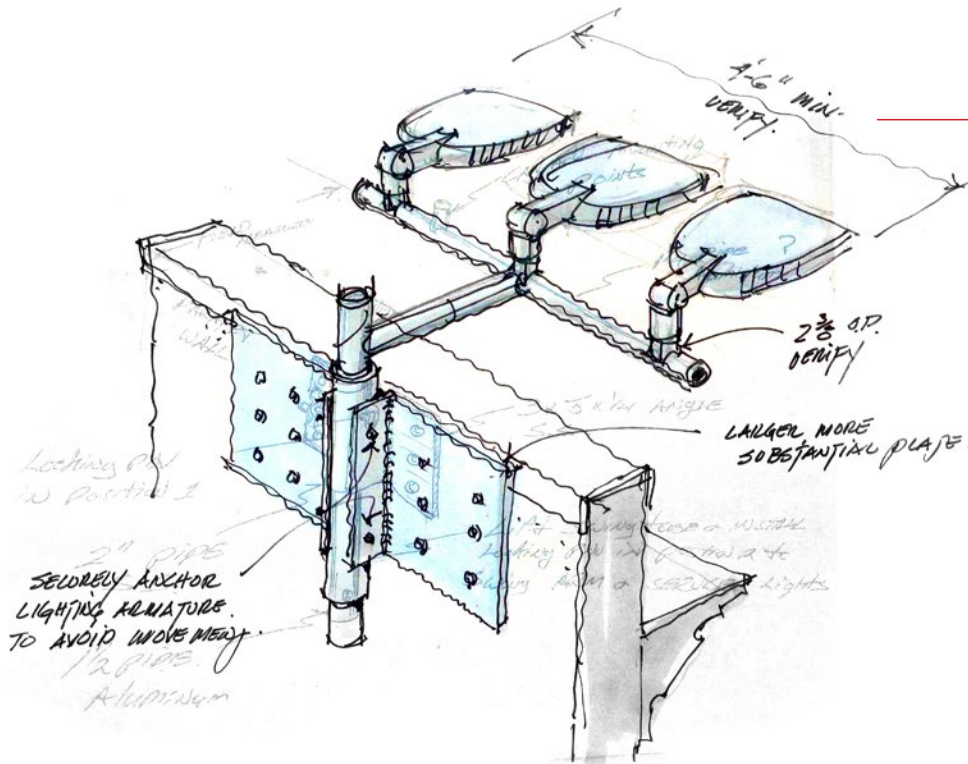
Small fixed spotlights accent the excitement of street-level activity as well as highlighting trees in their seasonal changes. These vertical beams will catch precipitation and atmospheric effects throughout the year — rain, snow and sleet — like diamonds falling from the sky.



## LIGHTING SPECIFICATIONS – FIXTURE MOUNTING

### Overhead positions

With the parapet mounting positions, overhead fixtures will be anchored in groups of two or three. All electrical connections and hardware will be wet-rated and built for outdoor exposure.

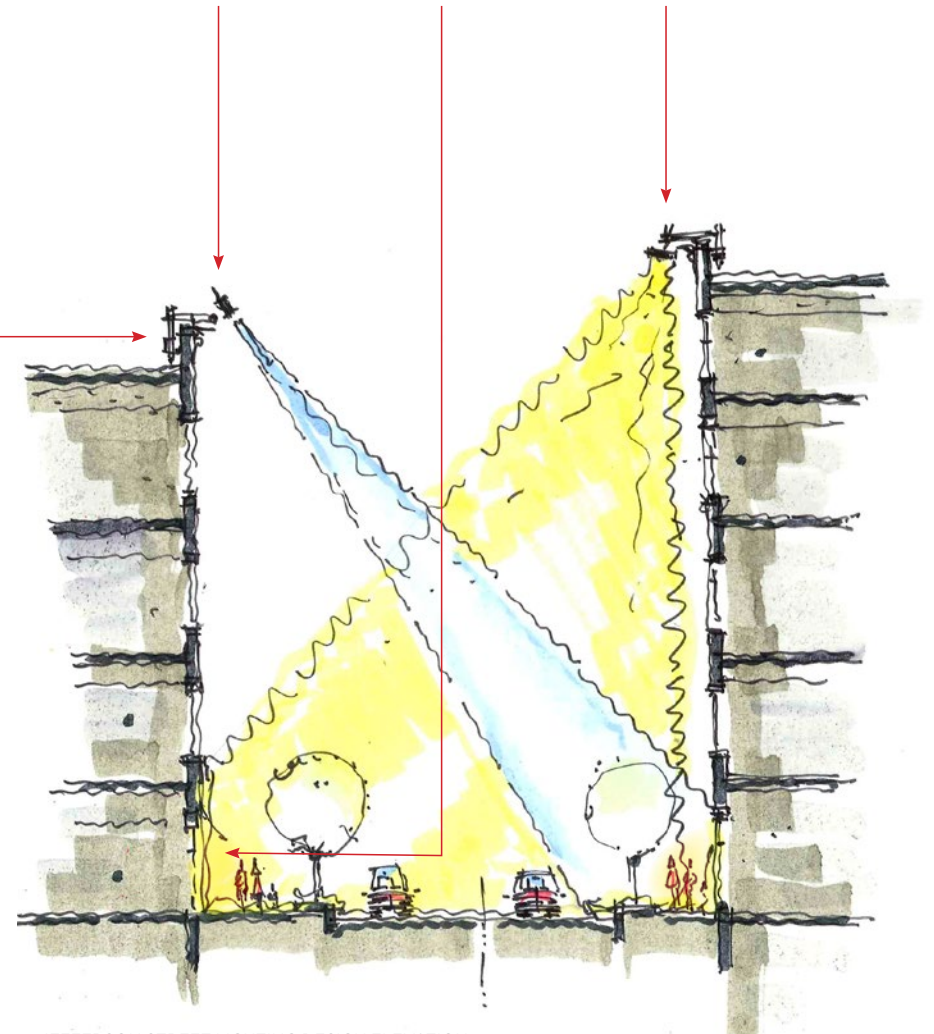


FIXTURE ARMATURE MOUNTED ON BUILDING PARAPET

SPOT ACCENT LIGHTS

STOREFRONT LIGHTING

AMBIENT FLOOD LIGHTS



JEFFERSON STREET LIGHTING DESIGN ELEVATION

# LIGHTING SPECIFICATIONS – FIXTURE TYPES

## Proposed area flood fixture (under test)

### OSQ Series

OSQ™ LED Area/Flood Luminaire – Medium

**Product Description**  
 The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weatherlight LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing even, quality illumination. The 'B' input power designator is a suitable upgrade for HID applications up to 250 Watt, and the 'K' input power designator is a suitable upgrade for HID applications up to 400 Watt.  
**Applications:** Parking lots, walkways, campuses, car dealerships, office complexes, and internal roadways

**Performance Summary**

NanoOptic® Precision Delivery Grid™ optic
Made in the U.S.A. of U.S. and imported parts
<b>Initial Delivered Lumens:</b> Up to 17,291
<b>Efficacy:</b> Up to 136 LPW
<b>CR:</b> Minimum 70 CRI (4000K & 5700K; 3000K asymmetric optics); 80 CRI (3000K symmetric optics)
<b>CCT:</b> 3000K (+/- 300K), 4000K (+/- 300K), 5700K (+/- 500K)
<b>Limited Warranty:</b> 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

\* See <http://lighting.cree.com/warranty> for warranty terms.

**Accessories**

Field-Installed	Hand-Held Remote
<b>Backlight Shield</b> OSQ-BLSMF - Front facing optics OSQ-BLSMF - Rotated optics	XA-SENSREM - For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required

**Ordering Information**  
 Fully assembled luminaire is composed of two components that must be ordered separately.  
 Example: **Mount: OSQ-AA-SV + Luminaire: OSQ-A-NM-2ME-B-40K-UL-SV**

Mount (Luminaire must be ordered separately)		Color Options:
OSQ-		
OSQ-AA Adjustable Arm		<b>SV</b> Silver <b>BZ</b> Bronze
OSQ-DA Direct Arm		<b>BK</b> Black <b>WH</b> White

**Weight**  
26.5 lbs. (12kg)

**Luminaire (Mount must be ordered separately)**

OSQ	A	NM	Optic		Input Power Designator	CCT	Voltage	Color Options	Options
OSQ	A	NM	<b>Asymmetric</b> 2ME+ Type II Medium 4ME+ Type IV Medium 3ME+ Type III Medium <b>Symmetric</b> SME 25° Type V Medium Flood SMH 40° Type V Medium Flood WSN 60° Wide Sign Flood L5D 15° Flood		B 86W K 130W 30K 3000K 40K 4000K 57K 5700K	UL Universal 120-277V UH Universal 347-480V	BK Black BZ Bronze SV Silver WH White	<b>DIM 0-10V Dimming</b> - Control by others - Refer to <a href="#">DIM_spec_sheet</a> for details - Can't exceed wattage of specified input power designator <b>F Fuse</b> - When code dictates fusing, use time delay fuse <b>ML Multi-Level</b> - Refer to <a href="#">ML_spec_sheet</a> for details - High: 100%, Low: 30% - Available with UL voltage only - Intended for downlight applications at 0° tilt <b>PML Programmable Multi-Level, 20-40° Mounting Height</b> - Refer to <a href="#">PML_spec_sheet</a> for details - Available with UL voltage only - Intended for downlight applications at 0° tilt	<b>PML2 Programmable Multi-Level, 10-30° Mounting Height</b> - Refer to <a href="#">PML2_spec_sheet</a> for details - Available with UL voltage only - Intended for downlight applications at 0° tilt <b>O9 Field Adjustable Output</b> - Refer to <a href="#">O9_spec_sheet</a> for details <b>R NEMA® Photocell Receptacle</b> - Intended for downlight applications with maximum 45° tilt - 3-pin receptacle per ANSI C136.10 - Photocell and shunting cap by others <b>RL Rotate Left</b> - LED and optic are rotated to the left <b>RR Rotate Right</b> - LED and optic are rotated to the right

\* Available with Backlight Shield when ordered with field-installed accessory (see table above)

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US: [lighting.cree.com/lighting](http://lighting.cree.com/lighting)

T (800) 236-6800 F (262) 504-5415

Canada: [www.cree.com/canada](http://www.cree.com/canada)

T (800) 473-1234 F (800) 890-7507

## Proposed spot highlight fixture (TBD)

TBD



## OWNER RESPONSIBILITIES and PROSPECTIVE TIMELINE

### Lighting alone is not enough

Sunlight is considered the author of all things visible. Lighting facilitates cultural development, where building owners and storekeepers provide the venue for their city and its people.

### Specifics

- This lighting installation takes advantage of the many tall buildings along Jefferson. Fixtures are located safely above all human activity.
- The project will assume the costs of equipment and installation of parapet lights.
- LED fixtures will be employed to reduce energy consumption, reduce weight, reduce maintenance, increase color perception, and increase visual comfort by virtue of glare control.
- The project will not illuminate building facades, but rather the areaways in front of buildings.
- To insure the success of our work together, building owners are asked to assume the cost of power consumption and re-lamping of fixtures. CREE, a major supplier to the commercial lighting market, manufactures the prospective exterior-grade LED fixtures.
- Fixtures require minimal, if any maintenance over the years. Average power consumption figures will be provided.
- Fixtures under consideration are projected to maintain 90% of their initial light output over 75,000 hours of operation.
- Shop owners will be asked to keep their windows lighted throughout the evening's dark hours.
- Howard Brandston will consult with individual owners pro bono to suggest low-cost window lighting solutions for the finishing touch to the Jefferson Street Lighting Project.

## JEFFERSON ARMORY – VISUAL FEATURE

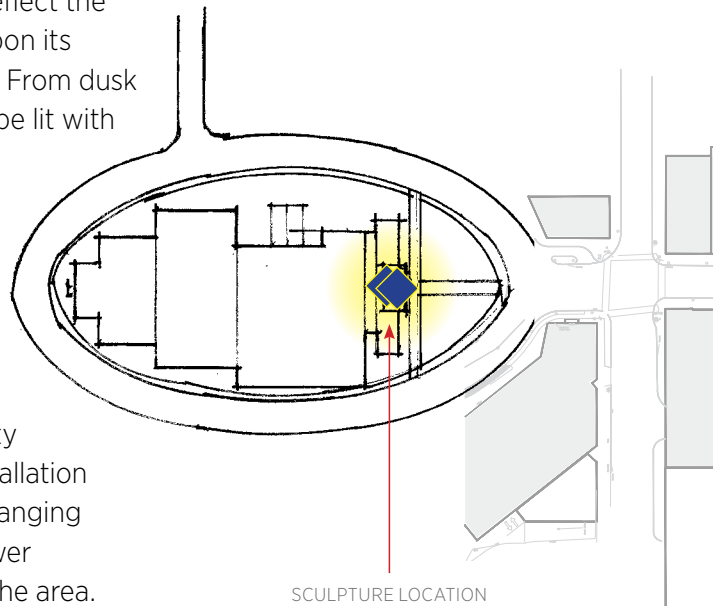
### A central focus

To achieve the goal of drawing people along Jefferson Street and from those streets crossing Jefferson, a central focus is created by installing an interesting, active visual feature at Armory Square. The feature will be installed on the roof of the Armory tower, to be visible along the entire length of Jefferson Street. This twenty-foot tall image of a salt crystal will be constructed from aluminum painted with a reflective, flexible auto finish.

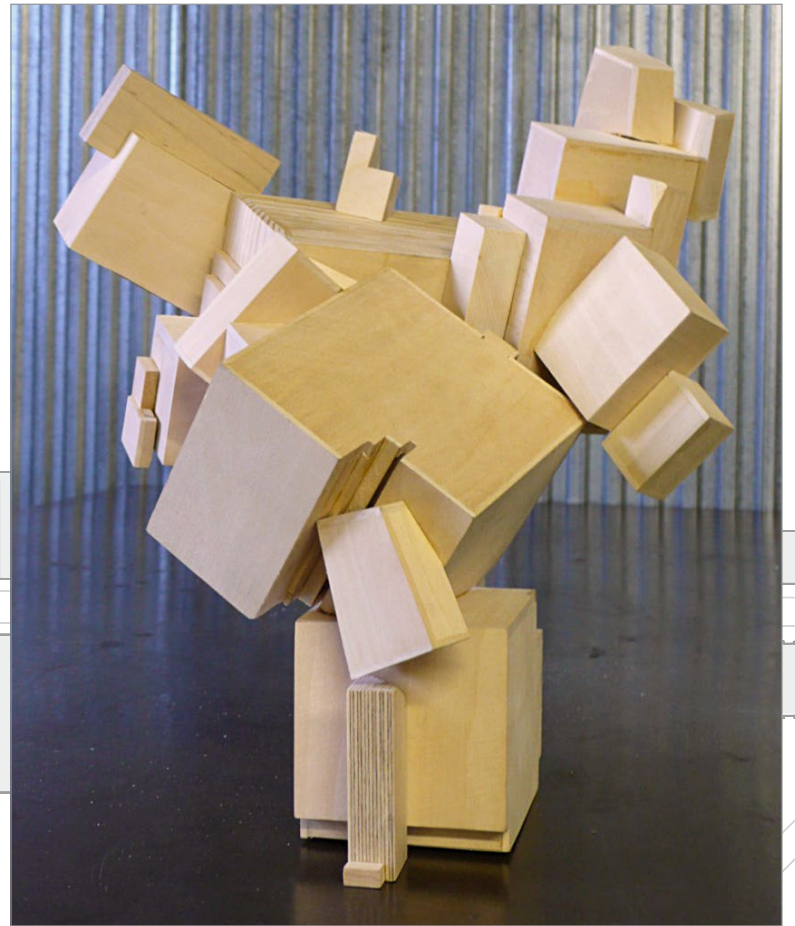
### Origins

Aside from achieving a cinematic nature due to the interaction of its construction and lighting, the salt crystal image was chosen to reference an important part of Syracuse's history as well as the mission of MoST, the science and technology museum housed within the Armory.

During the day it will reflect the natural light shifting upon its multi-angled surfaces. From dusk through twilight it will be lit with a series of strategically placed lighting fixtures programed to create subtle changes of focus upon its surfaces. Because of the constantly shifting light and the complexity of its surfaces, this installation will provide an ever-changing experience for the viewer whenever they revisit the area.



SALT CRYSTAL SCULPTURE MAQUETTE



## CREDITS

### Jefferson Street Plan

Howard Brandston  
Dan George

### Design Team

Kevin Simonson  
Steve MacKnight  
Ravi Raman  
Paul Lincoln