



THE NEW ZOO AT ELK GROVE

Elk Grove, CA

LIGHTING DESIGN CONCEPT BOOK

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OVERVIEW

The purpose of the following presentation is to develop the lighting aesthetic for the overall experience at The New Zoo at Elk Grove. The presentation will consist of the following items:

- A narrative describing the feeling of the lighting and description of the approach to achieving it
- Conceptual fixture and application imagery that conveys the feeling and features for the areas indicated
- Conceptual Glow Plan to convey the general design approach to light dispersal

This presentation of ideas and approaches to the lighting environment will achieve the project lighting needs for the safety, security and enjoyment of the guests and staff.

In a walk through narrative approach and through the use of 'look of' visual images, this presentation will express the design intent for the general illumination of the patron accessible areas and supporting spaces within EXP's scope.

Above all, the lighting will become a seamless element of the overall interior design and landscape architecture.

PROJECT WIDE CONSIDERATIONS

CONTROL

It is desirable to develop a project-wide lighting control system of controlled dimming devices and controlled switching devices. The control system should be of a type that allows subdivision into control zones that can operate autonomously. Localized dimming and switching racks shall be linked through a project wide communications loop that offers centralized control with local access as needed.

This control system would apply to all lighting within the scope of this document and may include all remaining general lighting project-wide. If not included, this lighting system would integrate fully with other automated control systems within the project. This control system would also have an internal astronomical time clock to allow automatic changes due to variations in events keyed to rising or setting of the sun.

A system such as this has the following advantages:

- Maintenance of design aesthetic
- Energy conservation
- Conservation of maintenance personnel resources
- Repeatability
- Flexibility in providing changes for special events or season variations in operations

Exterior lighting shall be controlled by the same project wide system and shall be able to be linked to or triggered by the Night Show control system.

PROJECT WIDE CONSIDERATIONS

ILLUMINATION LEVELS

Continuous, even illumination is neither required nor desirable. Shadow is as important in defining the quality of a space as light.

Each space shall be strategically reviewed and designed using layering of light. Ambient lighting shall provide the base level of illumination in an area. Accent lighting shall be used to create drama in the space, producing contrast and helping to draw the eye to the focal features. Task lighting shall be added for the functional level of lighting to accommodate fine visual tasks that require higher levels of visibility.

From a safety standpoint, in areas where illumination is lower, the following requirements shall be met:

- All walking areas should have no obstructions that could cause tripping.
- All changes of elevation, including beginning and end of ramps, are illuminated to a minimum of 1 footcandle.
- All changes of elevation, including stairs, are illuminated to a minimum of 10 footcandles.
- All obstructions are either illuminated to define their shape or have some type of restraining device to prevent direct approach. Defining a shape by illumination does not necessarily mean that it needs to be lit directly. For example, a lit area behind a unit obstruction could define the edges of the obstruction enough to provide a safe level of illumination.

Illumination levels for the project shall be in accordance with the recommendations of the Illuminating Engineering Society (IES) Lighting Handbook.

PROJECT WIDE CONSIDERATIONS

LIGHT QUALITY

Quality of light is as important, if not more so, than quantity. Our eyes are stimulated not only by the amount of light, but also by the color. Generally, we feel safer in environments lit by warm, bright light where colors are vibrant and easily identifiable. Recent advances in lamp technology now offer light sources with long life, dimmability, and high color rendering ability. LEDs will be the principle star of this project. Wherever possible, this source will be used.

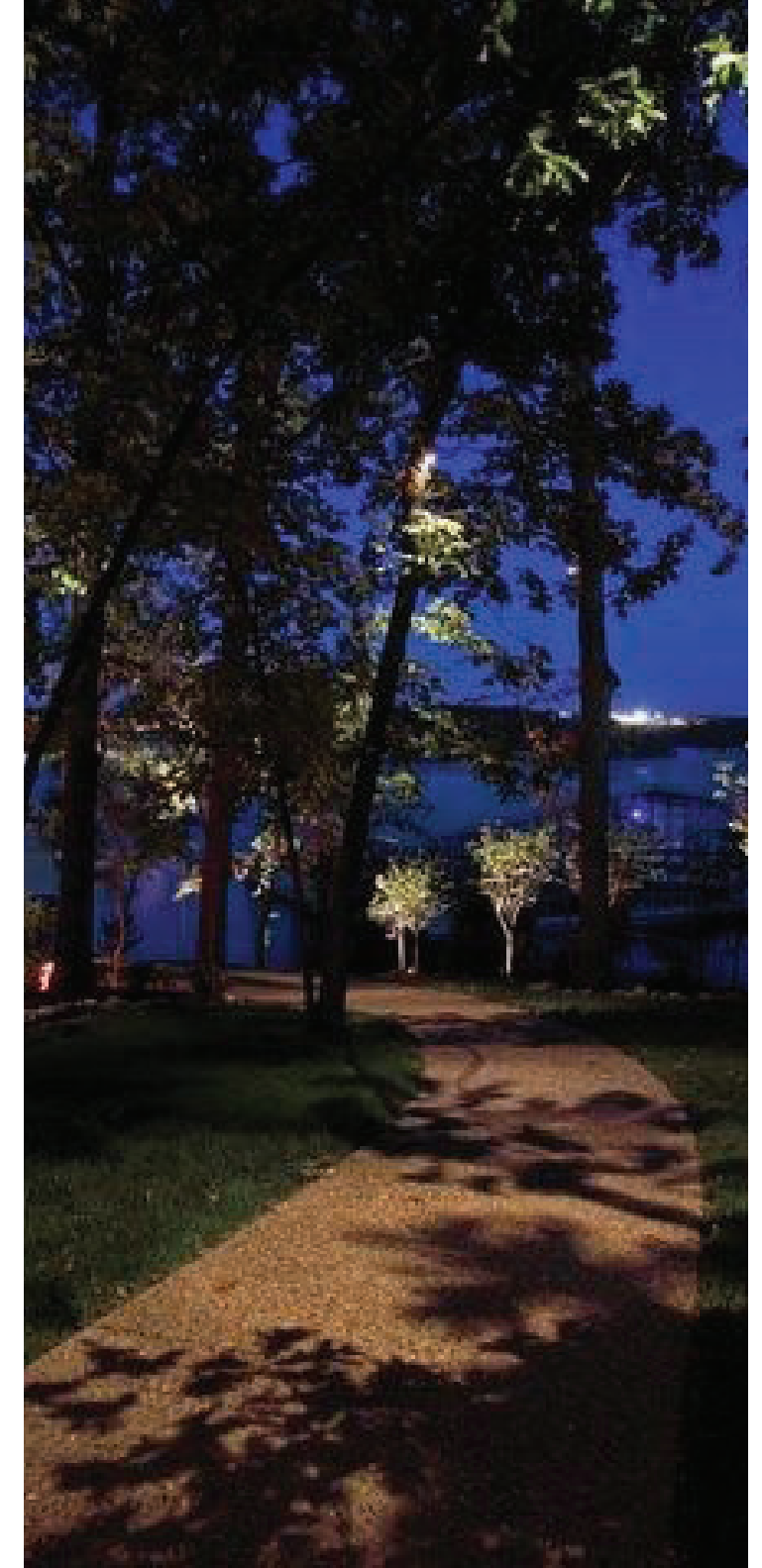
The overall approach will be warm and inviting. Complimenting the architecture and interior design of the space, we will highlight selected areas and expose shadows in others. As the user progresses through the property, the lighting will provide balance while activating certain elevations.

LIGHT FIXTURE STYLES

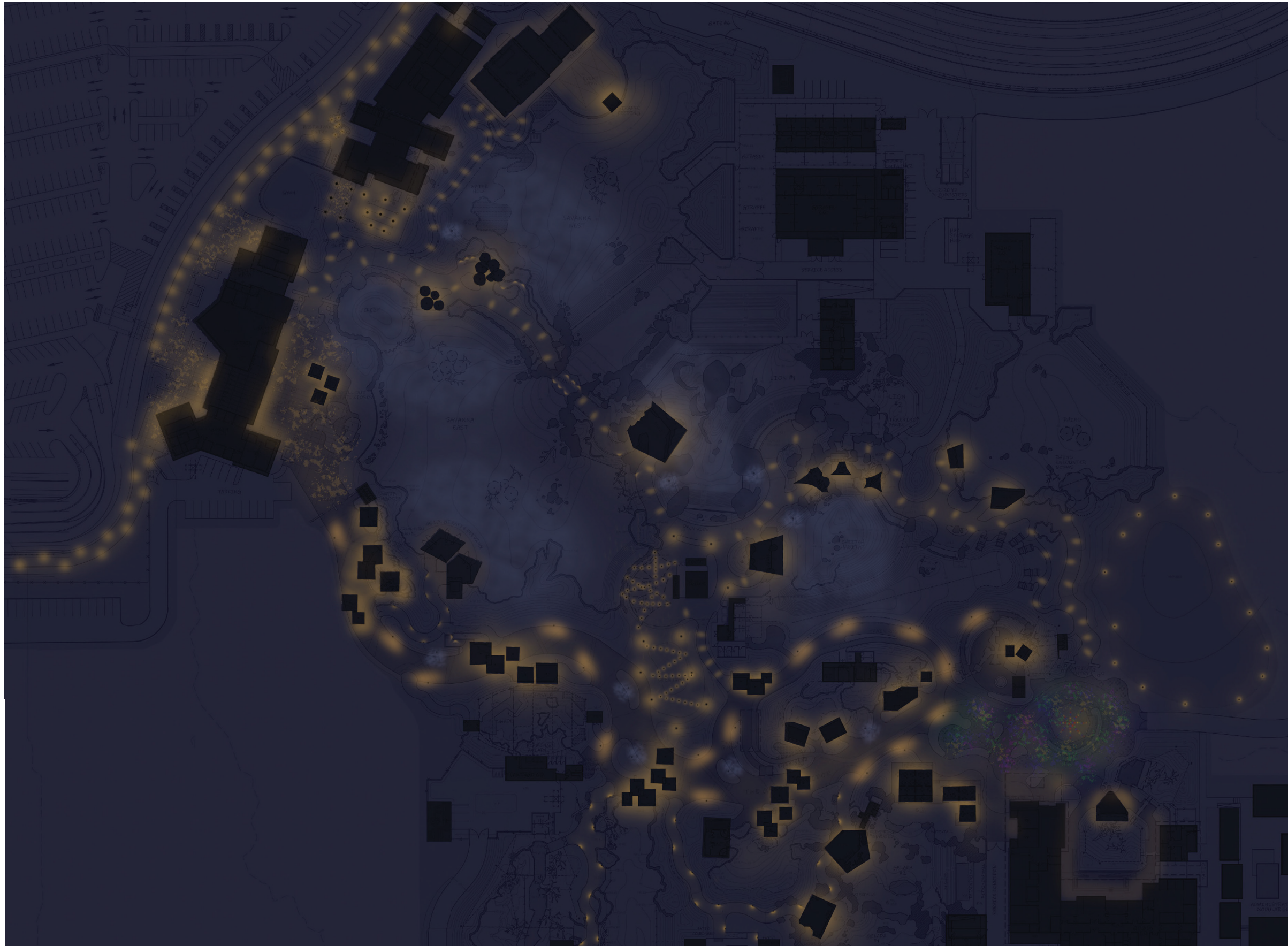
Fixtures located exterior to the building and/or in unconditioned wet spaces and in direct contact with the weather or in washdown areas shall be UL listed as "Suitable for Wet Locations" unless noted otherwise. Fixture material and finish should be durable and corrosion resistant. Fixtures located on the interior shall be UL listed as "Suitable for Damp Locations" unless otherwise noted.

Lighting Concept Statement:

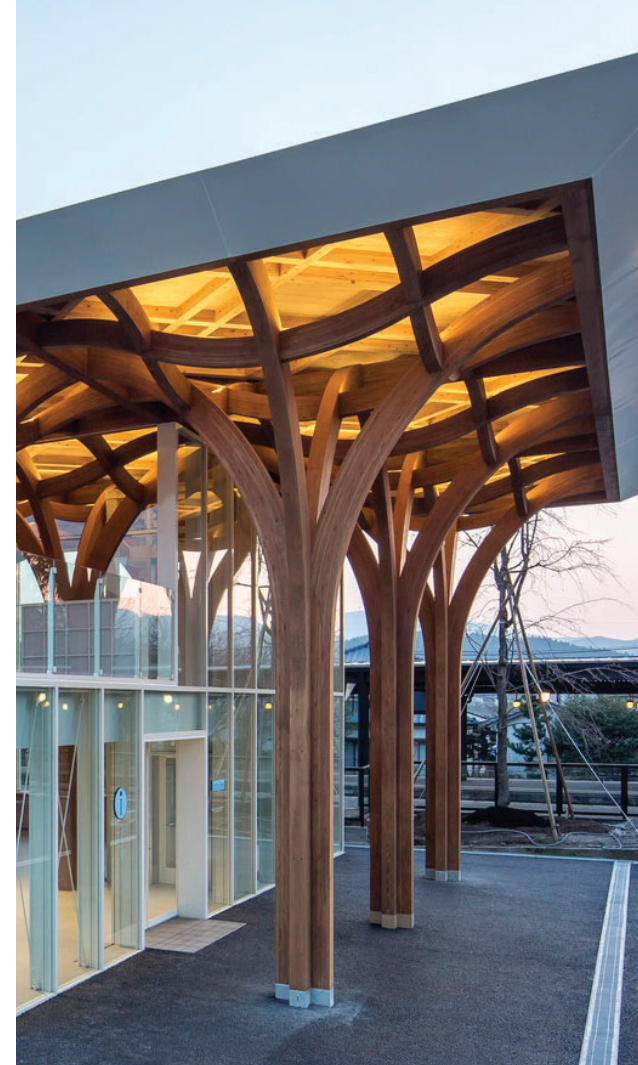
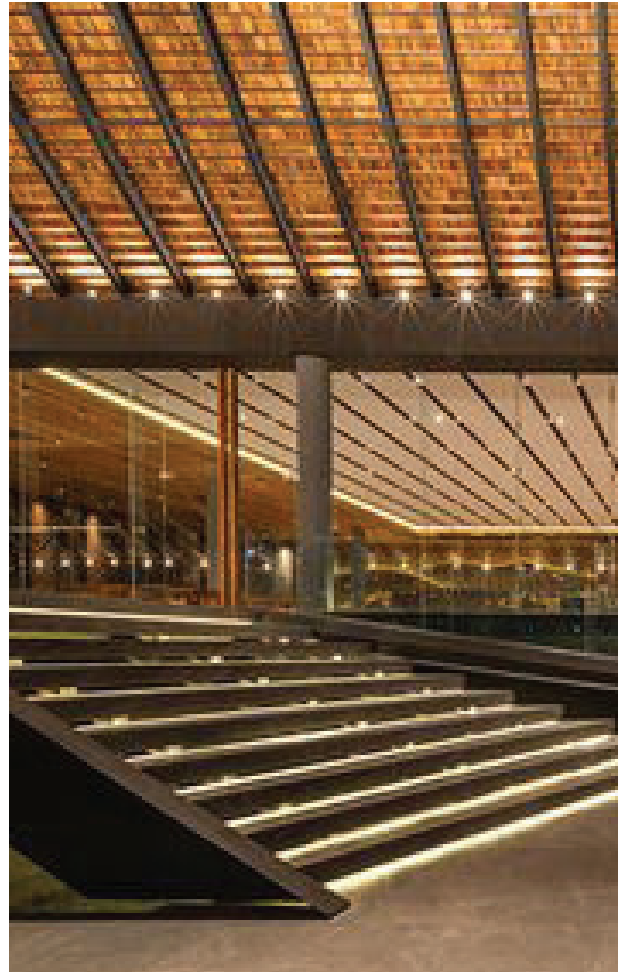
LIGHT hidden within nature producing wonderful evening environments for the guests, gracefully enhancing the architecture, while protecting animal habitats and the sky above.



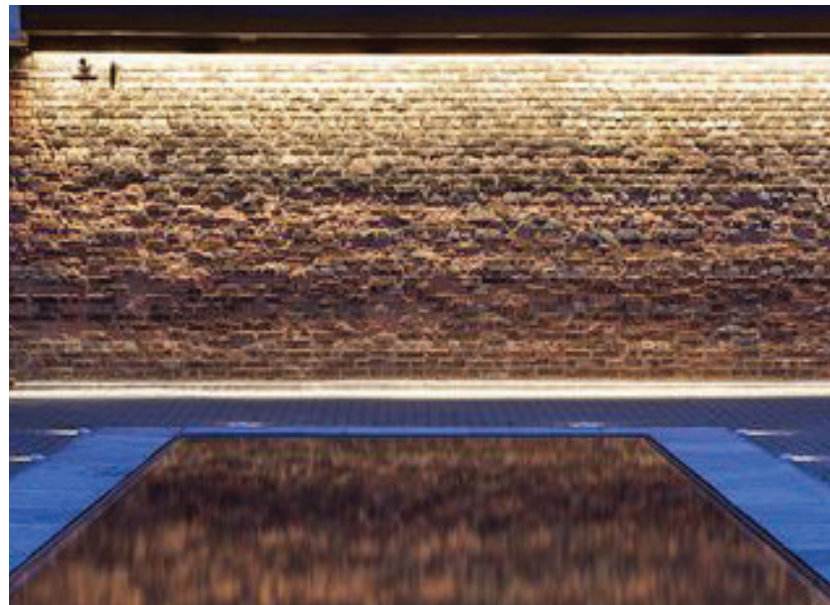
Exterior Site FOH Lighting Glow Plan



MAIN ENTRY COMPLEX



grand • inviting • sculpted



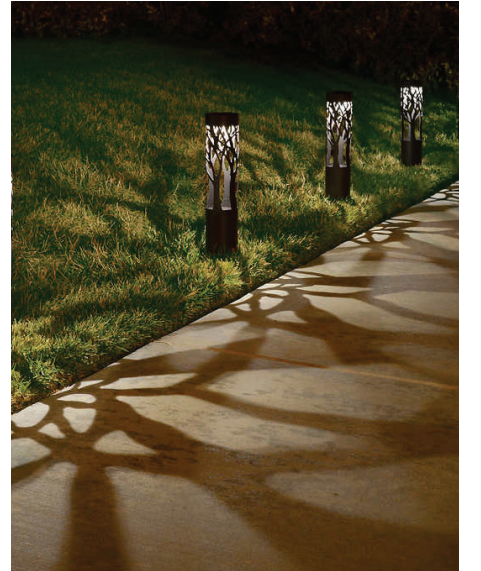
Up lighting at the base of the tree columns to highlight them as a feature and glow the ceiling canopy.



Dark sky friendly down grazing of the textured plaster facades.

Additional option of downlighting through the branches of the tree columns.

THE LODGE



elegant • adventure • warm



Surface mounted accents at patio trellis.



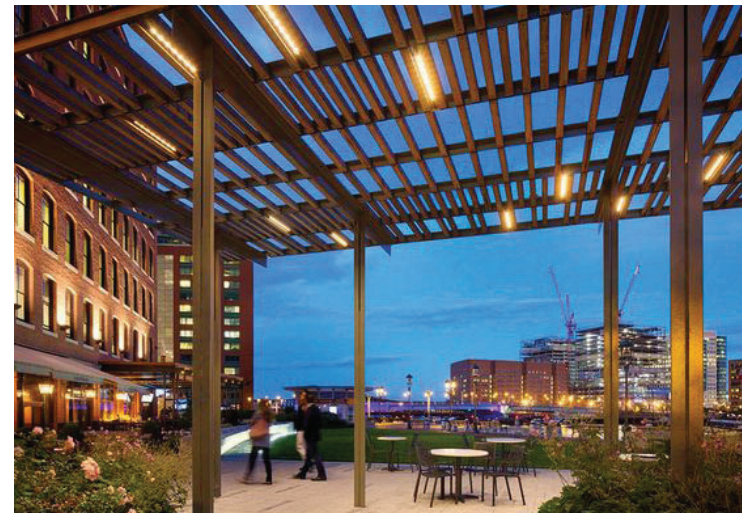
Entry and site lighting features



Catenary pendants from the patio roof to poles for Games Lawn illumination.

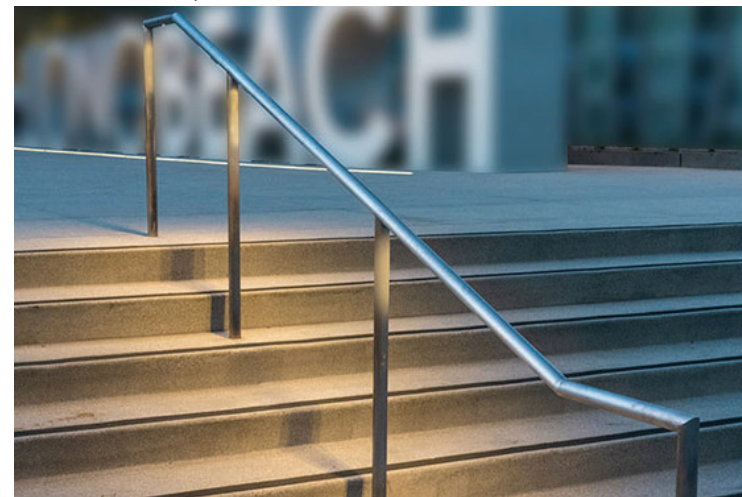
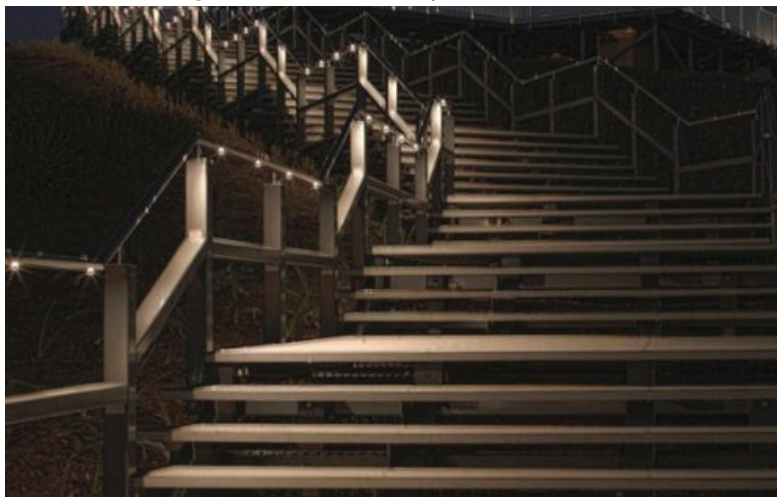
THE GREEN CORRIDOR

flow • vibrant • lively



Pedestrian poles and bollards for general pathway illumination as needed; streamlined design with wood patterned powder coated finish.

Lighting integrated into or mounted onto shade structures to provide general illumination for surrounding area. Pathways to be lit from structures primarily wherever possible.



LED nodes integrated into railings at stairs.



Adjustable luminaires mounted in trees for a downward moonlighting effect at large feature trees along main pathway.

THE FUN ZONE



Color-changing string lights mounted to shade canopies.



Multi-colored marquee bulbs and accent floods at the Carousel.



Image projectors creating colorful patterned light at the pathways and gathering areas.



Sparkle detail in pathway material to reflect sunlight or glow at night.



color • sparkle • fun

Fixture and Application Concept Imagery

GELADA CAFE AND ANIMAL CARE CENTER



Adjustable accents mounted to shade structure to illuminate Cafe queue.



cheerful • welcoming



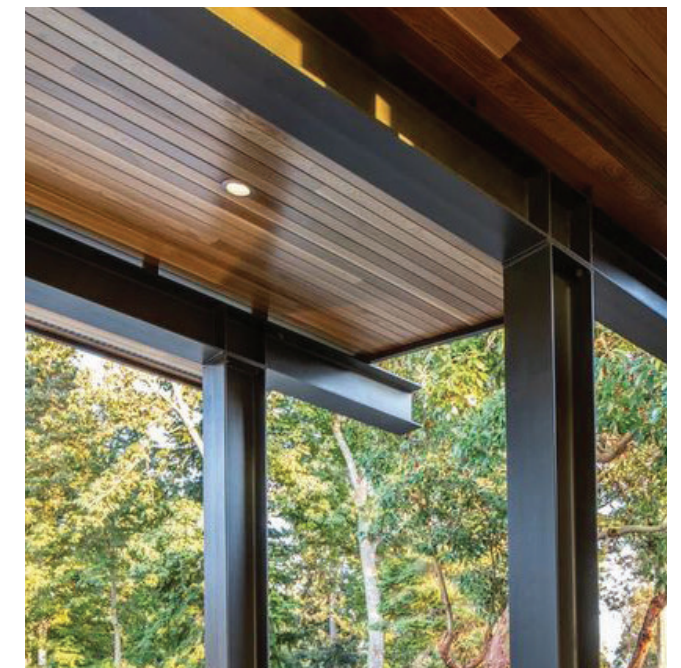
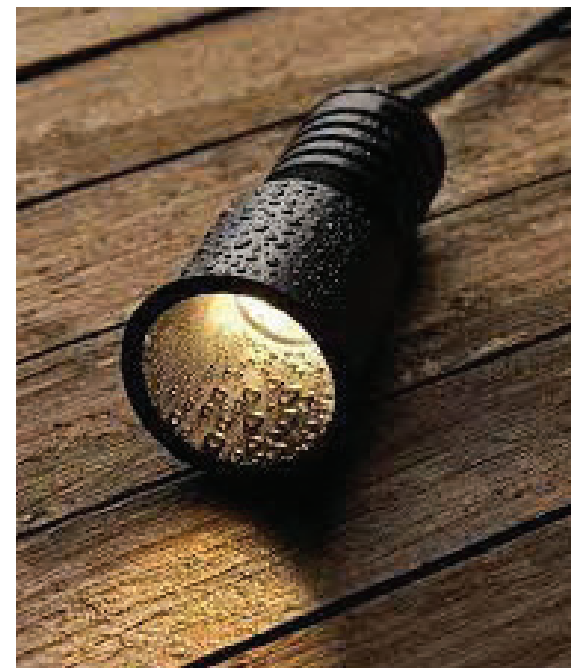
Gasketed low-glare recessed lighting for Animal Care Lab and Treatment rooms.



Outer glow emanating from behind Cafe order window, providing a soft glow on the tile wall.



Small recessed downlights along guest path at Animal Care viewing windows. Downlights to have deep recessed apatured lighting to reduce lighting glare on glass.



THE NEW ZOO AT ELK GROVE

BEER GARDEN



modern • industrial • comfort



String lighting with shades festooned below sale shades.

Pole mounted RLM shades for general illumination in open areas.



Industrial pendants and task lighting at bar.

RLM sign lighter at graphics.

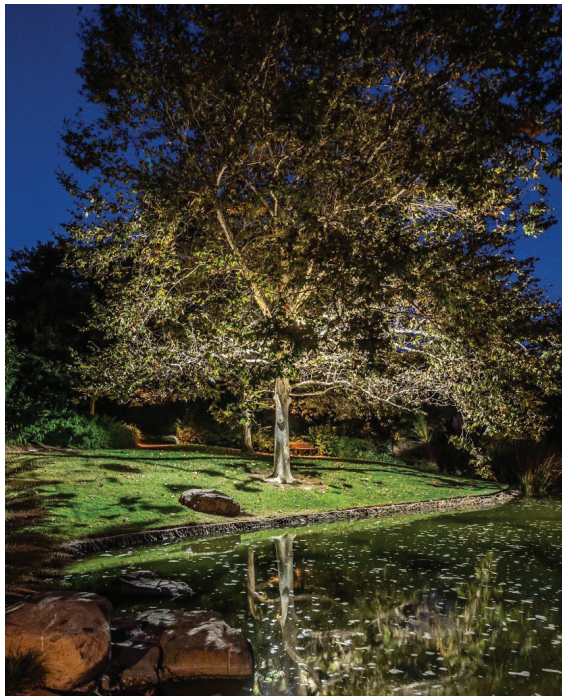


Fixture and Application Concept Imagery

AFRICA



Low level pathway lighting at all paths and stairs.



Habitat illumination via moonlighting from trees, where possible.



Surface mounted downlighting at viewing shade structures for general illumination.



Habitat illumination via shade structure mounted gobo projectors with visors. Where surrounding structures are not tall enough and there are no appropriate trees for moonlighting, discrete poles with will be utilized for mounting.



Surface mounted adjustable accents to illuminate pathways adjacent to shade structures.



organic • integrated • subtle



Fixture Imagery

