JOINT STUDY SESSION MEMORANDUM

To: Members of the Colorado Chautauqua Association and the Landmarks Board

From: Lesli Ellis, Comprehensive Planning Manager, PH&S, COB
Marcy Cameron, Historic Preservation Planner, PH&S, COB
Michael Matts, Director of Cultural Resources and Operations, CCA
James Hewat, Senior Historic Preservation Planner, PH&S, COB

Date: July 26, 2017

Subject: Joint Colorado Chautauqua Association and Landmarks Board Discussion on the Development of the Chautauqua Lighting Plan and Design Guidelines

PURPOSE OF STUDY SESSION
The purpose of this Joint Study Session with the Colorado Chautauqua Association (CCA) and Landmarks Board is to solicit feedback on the development of the Chautauqua Lighting Plan and Design Guidelines project. The second study session will focus on the proposed Character Areas and Draft Desired Lighting Qualities. A final joint study session will be held in September, to review the draft plan and provide feedback on draft design guidelines. The final plan and design guidelines will be brought to CCA and the Landmarks Board for review and adoption in late September 2017. The City of Boulder has hired Bishop Mundus and Clanton and Associates to develop the plan and design guidelines. For information on the background and process for the project, please reference the June 26, 2017 Joint CCA/LB Study Session Memo.

JOINT BOARD DISCUSSION

1. Do the boards have feedback on the revised Guiding Principles?

2. Do the boards have feedback on the proposed character areas for lighting approaches? Public spaces, residential, Parking/Vehicular, Primary Pedestrian, Secondary Pedestrian, Park, Open Space, Baseline. See Attachment A: Draft Character Areas and Draft Desired Lighting Qualities.

3. Do the boards have feedback on the existing lighting, needs assessment or desired lighting qualities shown in Attachment A: Draft Character Areas and Draft Desired Lighting Qualities?
PROJECT PURPOSE AND GOALS
The City of Boulder and the Colorado Chautauqua Association are jointly developing the Chautauqua Lighting Plan and Design Guidelines using the Collaborative Stewardship Framework. The purpose of this project is to aid in decision making for exterior lighting proposals within the boundaries of the Chautauqua Historic District, designated as a local historic district and as a National Historic Landmark. The document will provide a framework for decision-making through the documentation of the historic use of lighting at Chautauqua, assessment of current needs, guiding principles, recommendations and the development of design guidelines.

PROJECT GOALS
The following project goals were presented to the Core Team, Working Group, and to the Colorado Chautauqua Association and Landmarks Boards at the first Joint Study Session.

1. Provide context for the historic intent and use of lighting at Chautauqua;
2. Identify and assess the need for lighting at Chautauqua;
3. Utilize feedback from the Internal Core Team, External Working Group, Boards, and members of the public in making recommendations
4. Provide performance-based design guidelines that are broad, direction based, to aid in the decision-making process for exterior lighting.

Draft Project Objectives
• Determine the range of acceptable lighting approaches;
• Determine the appropriate amount of exterior lighting;
• Determine appropriate lighting levels;
• Determine acceptable materials.

PROCESS
The Lighting Plan project has five phases:

The initial phase will focus on evaluating existing conditions, researching the history of lighting at Chautauqua, assessing the appropriateness and need for lighting, developing project goals and draft lighting principles.

2. Options Development (July-August). The second phase will include the development of lighting options, shaped by the historic research, lighting principles, and feedback from the working groups, boards and community members.

3. Recommendations (August). In this phase, the consultant will develop draft recommendations for the plan, including character areas and desired lighting qualities.

4. Draft Design Guidelines (September). Following the development of the plan recommendations, the consultant will develop specific design guidelines to aid in future decision-making related to exterior lighting within the boundaries of the historic district.
5. **Finalize Plan and Design Guidelines (September 2017).**

The last phase will involve finalizing recommendations and design guidelines based on the consultant work, community, board and working group feedback. The plan will be brought to the Colorado Chautauqua Association Board or Directors and the Landmarks Board for adoption.

Following the development and adoption of the plan and design guidelines, Public Works staff will submit a Landmark Alteration Certificate application for the lighting component of the Community, Culture and Safety tax for review, using the developed design guidelines as a basis for the proposal. The application will be reviewed by the Landmarks Board and the Colorado Chautauqua Buildings and Grounds Committee.

**GUIDING PRINCIPLES**

The guiding principles were developed through feedback from the interdepartmental staff team and community working group, and revised to incorporate feedback from the community feedback and Joint Study Session on July 26. The Guiding Principles will inform the recommendations and lighting design guidelines.

- Preserve the camp-like character and architectural and historical integrity of the Chautauqua Park Historic District/National Historic Landmark when proposing lighting for the district or surroundings.
- Respect a dark sky environment for Chautauqua that meets or exceeds local regulations and International Dark Sky Association (IDA) guidelines for light level, trespass, pollution and glare.
- Ensure energy efficiency and sustainability in all new and retrofitted lighting proposals.
- Provide lighting only where need is clearly identified for safety, security, programming, accessibility or wayfinding, using the basic approach of providing a balance or consistency of light through use of light color and levels, controls, and placement of fixtures.
- Maintain dark areas within Chautauqua and surroundings to protect wildlife, open spaces and park areas, and scenic viewsheds.
- Ensure Chautauqua is open and accessible to all members of the community.

**HISTORY OF LIGHTING AT CHAUTAUQUA – KEY POINTS**

An important component of the lighting design guidelines is understanding the history of lighting at Chautauqua. Through archival research, the consultants and staff have determined the following:

- Lighting was installed for the inaugural 1898 season, and was improved as the Chautauqua developed in the early twentieth century;
- Lighting has historically been utilitarian in nature, located at key intersections and public buildings;
- Electrical service was upgraded in the 1940s and 1960s;
- No original street-lights exist; the earliest public fixture are the globe lights at the Auditorium, installed in the 1940s;
- The stone columns at King’s Gate, sometimes referenced as “lanterns” were not historically lit.
FEEDBACK TO DATE
Input on the development of the Lighting Plan and Design Guidelines has been gathered through the interdepartmental staff Core Team, community Working Group, the Joint CCA/Landmarks Board Joint Study Session, a community open house, a feedback booth during a Colorado Music Festival event, outreach to Dining Hall employees, and an online questionnaire. The questions asked of these groups focused on the Draft Project Goals, Draft Lighting Principles, assessment of the need for exterior lighting within the historic district boundary, and the approach to lighting. Feedback has also been collected on the assessment of existing lighting and the draft historic context.

In general, we have heard general support of the Draft Lighting Principles (see above); that the approach to lighting should be conservative; controls should be used so lighting is used only when it is needed; that the need for lighting should be clearly defined; that there is a need for lighting for safety and wayfinding; there was mixed feedback on whether lighting is needed for security or if architectural lighting is appropriate; lighting should be carefully considered to minimize light pollution, light trespass, etc. See Attachment B: Summary of Feedback to Date.

DRAFT CHARACTER AREAS AND DRAFT DESIRED LIGHTING QUALITIES
To recognize that there are distinct zones within the Chautauqua Historic District/NHL boundary, seven “character areas” have been identified to help establish “Desired Lighting Qualities.” These qualities were developed from historic research, needs assessment, and feedback to date and will inform the Lighting Design Guidelines. See Attachment A: Draft Character Areas and Draft Desired Lighting Qualities

Common to All Areas within the Chautauqua Historic District/NHL Boundary
Minimize lighting at Chautauqua; - Lighting should follow a conservative approach; Low Glare; Dark Sky friendly - Minimize Light Pollution and Trespass; Light only what is necessary; Neutral design - Fixtures should not be decorative, but should have a timeless quality; Warm color; Lighting must not distract from the scenery or mountain views.

NEXT STEPS
The third and final open house and joint LB/CCA study sessions is anticipated to be held in September. The date has not been confirmed and will be available on the city’s website. In addition to the open houses, community members may also provide input through our project webpage: https://bouldercolorado.gov/historic-preservation/chautauqualightingplan.

Staff will work with board members to schedule a tour of the Chautauqua grounds in the evening. Information will be posted on the project website.

Contact Marcy Cameron, City of Boulder Historic Preservation Planner, or Michael Matts, CCA Director of Cultural Resources and Operations with questions or comments on the process.
Marcy Cameron - cameronm@bouldercolorado.gov or (303) 441-3209.
Michael Matts - michael.matts@chautauqua.com or (303) 513-300-1512.
ATTACHMENTS
A: Draft Character Areas and Draft Desired Lighting Qualities
B: Summary of Feedback to Date
C: Draft Joint Study Session Summary from June 26, 2017 Meeting
### Public Spaces

Frequently visited by non-residents. Includes area around public buildings: Auditorium, Dining Hall, Academic Hall

<table>
<thead>
<tr>
<th>Existing Lighting</th>
<th>Meets Needs?</th>
<th>Issues/Problems?</th>
<th>Draft Desired Qualities</th>
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</thead>
<tbody>
<tr>
<td>Decorative pole-mounted lighting from acorn and globe style fixtures. Porch and ceiling lights on the decks at the dining hall. Various egress fixtures at public building doorways.</td>
<td>Lighting could be improved at public buildings: Existing lighting levels are adequate although the equipment should be updated to meet Guiding Principles- existing landscape lighting is not Dark Sky friendly due to glare.</td>
<td>Public spaces need adequate lighting to address safety and wayfinding concerns. Improved color of light. Different types (event nights only) at major buildings. Automatic on/off schedule to meet daily, weekly and seasonal needs.</td>
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### Residential

Cottage areas; southern end of campus, including roads within this area

<table>
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<tr>
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<td>Cobrahead-style streetlights on wooden poles at the corners with porch lights on the cabins.</td>
<td>East-West streets are dark for pedestrians walking on these streets; need for lighting to address safety concerns. Porch entry light is not consistent. The 500 block of Astor Lane could be an example for the appropriate level of lighting.</td>
<td>Increased sense of safety (illuminate tripping hazards) No light trespass Low level Visually comfortable with no glare Uniform, consistency in color, light level.</td>
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### Parking /Vehicular Circulation

Parking areas; major intersections; tennis court; Academic Hall parking; 12th St. between Picnic Shelter and Tennis Court parking.

<table>
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<td>The public lot near the Ranger Station is lit with a single cobrahead-style streetlight. The Tennis Court lot and the 12th street lot are not consistently illuminated.</td>
<td>The parking areas need lighting both for wayfinding and for an increased sense of safety and security. Expressed desire by Dining Hall employees for light schedule rather than motion sensors at tennis parking lot.</td>
<td>Increased sense of safety, security and wayfinding Lighting should be designed with very minimal spill light outside of parking area with low intensity levels in the parking area. Lighting should only be on when there is an event or when there is anticipated usage in that specific area (e.g. Dining Hall employee use of the parking lot);</td>
<td></td>
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<tr>
<td>There are typically streetlights at intersections, otherwise there is no dedicated pedestrian lighting other than near the buildings. The path from King’s Gate and the trolley stop shelter are not lit.</td>
<td>Expressed need for additional lighting from King’s Gate to the Dining Hall and Auditorium to facilitate wayfinding and reduce tripping hazards (safety).</td>
<td>Primary pedestrian areas need adequate level of lighting to address safety and wayfinding concerns. Visually comfortable without glare Facilitate wayfinding, visibility</td>
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</table>

### Primary Pedestrian

Pedestrian crossings; select pedestrian circulation routes and sidewalks; Auditorium to Kings Gate; Dining Hall to Tennis Courts; South side of Clematis

<table>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Increased sense of safety, security and wayfinding</td>
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**Chautauqua Lighting Design Guidelines**

**July 2017**

**DRAFT July 26, 2017**
# Chautauqua Lighting Design Guidelines

## Park

- **Chautauqua Green; Waterwise Garden; Centennial Garden**

  **Existing Lighting:** These spaces are not currently illuminated.

  **Meets Needs?** Current lighting meets needs and Guiding Principle to maintain the historical and architectural integrity of the historic district by minimizing light in these historically un-lit areas; minimal light within the gardens; no light in the center of the Chautauqua Green. The road is illuminated for wayfinding.

  **Draft Desired Qualities:** The interior of the Chautauqua Green should remain dark; the Waterwise and Centennial Garden should remain dark except for wayfinding light that is low level with minimal spill. Low-level way-finding light with minimal spill should be located along the road around the Green to facilitate wayfinding.

## Open Space

- **Perimeter and exterior of historic district/NHL boundary**

  **Existing Lighting:** These spaces are not currently illuminated.

  **Meets Needs?** Current lack of lighting meets Guiding Principle to maintain dark areas within Chautauqua and surroundings to protect wildlife, open spaces and park areas, and scenic viewsheds.

  **Draft Desired Qualities:** Open Space should be unit with no or minimal light trespass from other areas. Perimeter and transition zones into OSMP lands should remain unit. No lighting on trails or trailheads.

## Baseline

- **Road; pedestrian crossings; parking and intersections**

  **Existing Lighting:** There is currently a cobrahead-style streetlight on wooden poles at each Baseline crosswalk.

  **Meets Needs?** Additional lighting would facilitate safer pedestrian crossings at Baseline.

  **Draft Desired Qualities:** Sufficient lighting to provide safe pedestrian crossing at crosswalks and King’s Gate. Lighting at bus stops. Lighting at vehicular entrance into Chautauqua from Baseline.
Attachment B: Summary of Feedback to Date

In Chronological Order:

Core Team Feedback – May 23, 2017
The Core Team is an interdepartmental team comprised of representatives from Public Works, Open Space and Mountain Parks, Parks and Recreation, and Planning, Housing and Sustainability, and the Colorado Chautauqua Association. The group met on May 23 to provide feedback on the Draft Lighting Principles, Needs Assessment, Draft Historic Context and Existing Conditions.

• General support for the Draft Lighting Principles; Suggestion that different areas be identified within the park for specialized approaches; request for additional information on the original intent of lighting in the historic context report (e.g. newspaper accounts of lighting); identify areas that should remain dark.

Working Group Feedback – May 25, 2017
The Working Group is comprised of members from Friends of Chautauqua, Historic Boulder, Inc., History Colorado, Chautauqua Cottagers, Friends of Boulder Open Space, and the Sierra Club – Indian Peaks Chapter. The group met on May 23 to provide feedback on the Draft Lighting Principles and Needs Assessment.

• Draft Lighting Principles: General support for draft lighting principles; Suggestions included taking a conservative approach to lighting; ensure the design guidelines allow for new technologies; encourage neutral fixtures rather than historically “themed” fixtures; very important to document the need for lighting; Critical to document the historic context for lighting.

Community Open House #1 – June 26, 2017
On June 26, approximately 12 community members attended an Open House at Chautauqua. The following feedback was collected:

• On the need for lighting:
  o There was general agreement that lighting approaches should minimize light pollution, minimize light trespass, and provide lighting only when and where it is necessary;
  o Most participants indicated that lighting was needed for safety and wayfinding;
  o There were varying opinions on whether lighting vertical surfaces (architectural lighting) was appropriate or that there was a need for lighting for security.

• On the need for lighting – Location:
  o The area surrounding the historic district boundary and Chautauqua Green should remain dark;
  o Lighting could be improved at the Auditorium, Dining Hall, Tennis Court Parking Lot, and intersection of Kinnikinic Road and Clematis Drive.
  o There were varying opinions on whether lighting is needed between the Auditorium and King’s Gate.

At the June 26 Joint Study Session, representatives of the Colorado Chautauqua Association and the Landmarks Board provided the following feedback:

- Revise the Draft Guiding Principles to combine (5 and 8);
- Important to take a conservative approach to lighting;
- Acknowledgment that a lot of work and analysis that went into CCA’s Master Exterior Lighting Plan was not reflected in the final document; desire for the current plan to clearly assess the need for lighting.
- Lights should be programmed to turn off when they are not needed; recognize the variety of use throughout the week/year.
- General agreement that lighting could be improved at the public buildings;
- Variety of opinions on whether lighting should be added between the Auditorium and King’s Gate.

Feedback Booth – Concert-Goers – July 11, 2017
Following the Open House and Joint Study Session, two staff members hosted a booth outside the Auditorium during the Colorado Music Festival Happy Hour event prior to the “Time for Three” concert. An estimated 100 people passed by the booth, and about twenty stopped to provide feedback. A summary of feedback from concert-goers, ushers, neighbors and parents who stopped to provide feedback:

Lighting Needs Assessment – Approach
- Majority of respondents thought that lighting is needed for safety and architectural lighting; and that minimizing light trespass and lighting only what and when it was necessary were important considerations.
- Mixed feedback on the need for lighting for security;

Lighting Needs Assessment – Location
- Respondents considered that primary pedestrian paths, porches and sign lighting were very important to light; parking areas and primary and secondary roads were somewhat important to light;
- Specific areas suggested for lighting improvement: the Hop Stop east of the Auditorium; at the stairs near the Tennis Courts; along the path between the auditorium and Tennis Court parking lot; the path between the Auditorium and King’s Gate (Baseline Rd.); at the Baseline crosswalks, and; at main intersections along Kinnikinic.

Other Comments
- Two people remarked they brought flashlights when attending a concert, but that they would prefer an illuminated path;
- Two ushers noted that they would appreciate light for safety, but they didn’t feel a need for security- they walk in groups and have never felt unsafe;
- One person suggested the auditorium be illuminated with different colored lights;
- Multiple suggestions were made for using controls- only light the area when needed;
- Suggestion for illuminating the Arbor as a visual landmark at night and to deter people from sleeping on the benches.
Online Questionnaire
An online questionnaire was created to gather additional feedback on the needs assessment for lighting. From June 26 until July 17, the city received 7 responses. A summary of feedback includes:

- On the Draft Lighting Principles, one participant responded that hikers should carry personal lights and that motion sensors should be used for fixed lights.
- On the need for lighting - Approach:
  - Safety, Security and Wayfinding: Three people responded that they “strongly disagreed” and two people responded that they “disagreed” that lighting is needed for safety and security; one person responded neutrally.
  - Additional comments including that lighting buildings for an aesthetic effect is inappropriate; that Boulder is very safe and secure and less lighting (decreased light pollution and energy use) is needed, and; that lighting can create a desirable ambiance at Chautauqua.
- On the need for lighting – Location
  - General agreement that the parking areas, primary and secondary roads did not need improvement and are adequate as is;
  - Two people responded that the pathways could be improved; three responded that no change is needed to pathway lighting;
  - One person responded that lighting of signs could be improved; four responded that it is adequate as is.
  - When asked what areas should remain dark, three responded that all areas should remain dark and two responded that it should remain as is.

Dining Hall Employees
From July 12 to July 20, 2017, informational fliers and comment cards were posted in the Dining Hall kitchen and employees were encouraged to respond. Thirteen responses were received. A summary of feedback includes:

How can lighting be improved at Chautauqua?
- Add lighting along the path from the Dining Hall to the Tennis Court Parking lot, specifically at the playground;
- Motion lights are not adequate- they often do not work;
- Hiking trails should remain as natural as possible;
- Light pathways and stairs;
- Lighting is needed between the Dining Hall and Community House (along Clematis);

Where is lighting working? Not Working?
- Need more lighting on walkways and parking areas;
- Concerns include safety from homeless population and bears;
- Tennis Court parking lot is often pitch black.
Attachment C:  Draft Joint Study Session Summary from June 26, 2017 Meeting

Colorado Chautauqua Association/Landmarks Board Joint Study Session Summary
Chautauqua Lighting Plan and Design Guidelines
June 26, 2017

Colorado Chautauqua Association: Tom Thorpe, Nan Anderson, Barbara Guthery (John Kenyon and Kristin Lewis absent)
Landmarks Board: Eric Budd, William Jellick, Fran Sheets, Deborah Yin (Ronnie Pelusio absent)

City of Boulder Staff: Marcy Cameron James Hewat, Holly Opansky, Tony Wiese
Colorado Chautauqua Association Staff: Michael Matts, Jeff Medanich
Consultants: Tina Bishop, David Roederer, Kate Bolton

Purpose: The purpose of this study session was to solicit feedback on the development of the Chautauqua Lighting Plan and Design Guidelines project. The initial study session focused on the Draft Guiding Principles, Needs Assessment, and assessment of the 2012 Master Exterior Lighting Plan (MELP).

Overview of the Presentation:
Staff and the consultant presented an overview of the work to date on the Chautauqua Lighting Plan and Design Guidelines, including the existing lighting conditions, history of lighting at Chautauqua, project goals and draft lighting principles.

Board Response to Study Session Questions:

Summary of Board Feedback:

1. Do the boards have feedback on the Draft Guiding Principles?
   (1) Preserve the special character of Chautauqua Historic District.
   (2) S sensitively integrate lighting into Chautauqua’s camp-like aesthetic.
   (3) Meet or exceed the City of Boulder’s Dark Sky Ordinance, addressing lighting levels, trespass, pollution and glare.
   (4) Ensure energy efficiency and sustainability are considered.
   (5) Only light areas where the need is clearly defined (i.e. safety, security, wayfinding, wildlife conflicts, etc.)
   (6) Ensure Open Space and Mountain Parks lands are dark for evening programs and wildlife protection.
   (7) Ensure Chautauqua remains open and accessible to all members of the community.
   (8) In areas where lighting is appropriate, create a balance and consistency of light where it is needed, using light color, light levels and placement of fixtures.
Board Feedback:

- General agreement on the Draft Lighting Principles;
- Discussion on whether “Preserve” or “Respect” is appropriate in (1). General agreement to keep “Preserve;”
- Combine (1) and (2) to acknowledge the importance of preserving Chautauqua’s special, camp-like feeling;
- Incorporate suggestion from open house to add “integrity” to (1);
- Discussion on how existing and future lighting regulations will impact the lighting plan. Suggestion that national standards on dark skies be met or exceeded, in addition to local regulations; and
- Combine (5) and (8) to highlight the importance of defining the need for lighting, and ensuring it is sensitively designed.

2. What aspects of the Master Exterior Lighting Plan (MELP) should be integrated into the current Lighting Plan and Design Guidelines? See Attachment B: Master Exterior Lighting Plan (MELP).
   a. Acknowledgement that much of the work that went into the MELP. However, the establishment of need was not represented in the final document, and it is important to document the need in the development of the current lighting plan.

3. What does the board consider the practical need for lighting within the boundary of the Chautauqua Historic District and National Historic Landmark site (e.g. Safety, Security, Wayfinding)?
   a. Differing opinions on the need for lighting; tripping hazards in the residential area (swales) is of concern; others felt security is not an issue at Chautauqua;
   b. Differing opinions on whether architectural lighting is appropriate;
   c. Lighting at the auditorium and kiosks should be controlled to light only when it is needed; reflect the use over the week/year.

4. Where can lighting be improved at Chautauqua (e.g Primary and secondary roads, pathways, parking, signage and lighting of public buildings)? What areas should remain dark? See Map on page 5 of the MELP (Attachment B).
   a. Boundary of the historic district and the Chautauqua Green should remain dark;
   b. Lighting should be located at intersections along primary streets, at the King’s Gate and Kinnikinic Entrance, and at the Tennis Court Parking Lot;
   c. Mixed opinions on the need for lighting along the pedestrian path from the Auditorium to King’s Gate; at the intersection of Kinnikinic Road and Lupine Lane and at the end of Boggess Circle; and along the road north of Chautauqua Green.