MAINE DEPARTMENT OF TRANSPORTATION
American Council of Engineering Companies (ACEC-Maine)
Multimodal Subcommittee
2024-09-18 Meeting Minutes – Via Teams

MEMBERS PRESENT	Brad Lyon, Sebago Technics (Co-Chair) Jeff Tweedie, MaineDOT Brandon Havu, Gorrill Palmer	Owen Chaplin, Wright-Pierce Ariel Greenlaw, HNTB Travis Wolfel, Stantec
GUEST PRESENTERS	Shayna Bramley, Michael Baker International	

Subcommittee Mission: Improve communication between MaineDOT and Consultants and assist MaineDOT in achieving Multimodal Program goals.

Discussion Items:

1. Department updates (staffing, deliverables, projects, trends, issues, training, etc.).

   - Staffing Changes: Jerry Dostie has moved to the Bridge Program. His position is vacant, with interviews ongoing.

   - Work Plan: Developing the Work Plan for 2026-2028. Consultants were asked to updated estimates by the end of September.

   - Project Deliverables: Expecting to advertise thirty (30) projects next year, an increase from the usual 22-25.

   - New Construction Manager: Tom Stevens replaced Joe Stillwell as a construction manager.

2. Bidding Climate Discussion

   - **Brad Lyon** raised concerns about the volatility in the bidding climate, with bids coming in significantly above or below estimates.

   - **Jeff Tweedie** shared insights:
     - Advertised 18 projects, with only two significantly over budget.
     - Multimodal projects have not been as affected by high asphalt prices.
     - Prices for conduit have stabilized.

3. Review of New Pedestrian Lighting Guidelines (Shayna Bramley, Michael Baker International)
   - **Background and Purpose:** The pedestrian lighting guidelines were developed to address the need for comprehensive and consistent lighting standards for pedestrian crosswalks. The goal is to enhance safety by ensuring that crosswalks are well-lit, making pedestrians more visible to drivers. The guidelines consolidate various state and national standards, providing a clear and practical approach to pedestrian lighting design.

- **Design Process:** The guidelines outline a step-by-step process for designing pedestrian lighting:
  - **Select Application Type:** Determine if the crosswalk is at an intersection or mid-block.
  - **Identify Roadway Type:** Assess whether the approaching roadway is lit or unlit and the number of lanes.
  - **Warrants for Lighting:** Use a newly developed warrant system to justify and prioritize lighting installations. This system considers factors such as accident history, proximity to schools or elderly care facilities, and the presence of parking.
  - **Design Criteria:** Select appropriate design criteria based on the type of crosswalk and roadway. The guidelines recommend using ASHTO standards over IES for intersection lighting due to better alignment with traffic engineering needs.
  - **Horizontal and Vertical Grid Layout:** Establish horizontal and vertical grids for lighting calculations. Vertical lighting is emphasized to ensure pedestrians are visible from all angles.
  - **Luminaire Selection:** Choose luminaires that provide adequate lighting while minimizing glare and light pollution. The guidelines advocate for full cutoff fixtures to reduce skyglow and light trespass.
  - **Pole Placement:** Determine optimal pole locations to ensure even lighting coverage and enhance pedestrian visibility.
  - **Complete Calculations:** Perform photometric calculations to verify that the lighting design meets the required standards.

- **Warrants for Pedestrian Lighting:** The warrant system is a key component of the guidelines, helping to prioritize intersections and crosswalks for lighting based on several factors:
  - **Geometry:** Includes factors like channelization and the presence of dedicated turn lanes.
  - **Operational:** Considers traffic volume, pedestrian activity, and the presence of traffic signals.
  - **Environmental:** Takes into account the surrounding area, such as the presence of parking and crime rates.
  - **Safety:** Evaluates accident history and proximity to schools, parks, and other areas with vulnerable populations.

- **Design Criteria and Vertical Luminance:** The guidelines emphasize the importance of vertical luminance, which ensures that pedestrians are visible from a driver's perspective. This involves calculating the light levels on vertical planes representing pedestrians at various points in the crosswalk. The goal is to create contrast, making pedestrians stand out against their background.

- **Implementation and Review Process**
  - **Practical Application:** The guidelines are designed to be practical and adaptable, allowing for flexibility based on specific site conditions.
  - **Review Process:** Lighting designs should be signed and sealed by an electrical engineer. The review process will involve checking photometric calculations, ensuring compliance with the guidelines, and considering practical aspects like power supply and utility coordination.

- **Future Updates:** The guidelines are intended to be a living document, with updates and additions based on feedback and evolving standards. Future updates will include a list of deliverables for lighting design submissions and standard fixtures to streamline the design process.

- **Conclusion:** The pedestrian lighting guidelines provide a structured approach to designing safe and effective lighting for pedestrian crosswalks. By following these guidelines, designers can ensure that crosswalks are well-lit, enhancing safety for all road users.

4. Future Topics:

    - Ariel Greenlaw suggested discussing speed limit worksheets and safety tools in future meetings.

5. Date of 2024 Q4 meeting:

    - December 18th, 2024 *(note this meeting was ultimately canceled due to lack of content to discuss)*