

Topic	Stakeholder Comment	MaineDOT Response
Construction	<p>Light Pollution Concerns: They should only be on when needed. Only illuminate the area that's required (no spillover) Be no brighter than necessary. Some ordinances require motion sensor lights to be limited to 850 Lumens Minimize blue light emissions – use warm white light (Kelvin range 2000K – 3000K) Be fully shielded to prevent light from shining upward (the fixture should point downward) Fully shielded light fixtures are the best choice as they prevent glare, light trespass, and skyglow.</p>	<p>In general, lower values of color temperature will provide fewer lumens per watt of fixture wattage. MaineDOT's current color temperature standard is 4000K for highway lighting. Luminaires for this project will use the same color temperature for maintenance standardization of lighting equipment inventory.</p>
Construction	<p>If the Town of Brunswick or County of Cumberland has no specific light ordinances, please consider the Maine lighting guidelines.  <a href="https://www.maine.gov/dacf/municipalplanning/docs/lightingmanual.pdf">https://www.maine.gov/dacf/municipalplanning/docs/lightingmanual.pdf</a> Please remember you're lighting a highway through a forested area, so we may not need so many lumens to improve the driver's experience.</p>	<p>Average illumination levels within the conflict areas on the roadway will range from 0.6 fc to 0.8 fc, which is the range recommended by both AASHTO and IESNA for this class of highway in non-commercial areas. That range is far below the maximum average light levels addressed for various land uses in the sample ordinance of the Maine State Planning Office technical assistance bulletin referenced in the comment.</p>
Construction, Funding/Cost, Safety	<p>I commute through this intersection both ways, usually pre dawn in the morning. Lighting seems unnecessary. I've never had issues with lack of visibility. Funds might be better spent improving traffic light coordination on rt 1 in Brunswick to keep traffic flowing as congestion there is a serious safety issue particularly during tourist season.</p>	<p>No response requested.</p>

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Construction, Funding/Cost, Safety	If the existing lumination consists of Cobra type illumination on 40 foot high poles and the proximity of the poles to traffic poses a hazard to traffic when they are knocked down, won't it require at least a 90 - 100 foot set back from the road to prevent vehicle strikes? Is compensation to property owners part of the budget for taking the land to assure whatever lighting solution can meet the safety criteria?	The proposed towers will be at the required safety clear zone distance for interstate highways of 30' or more from the edge of the nearest travel lane, unless behind guardrail, and will not have breakaway bases. Conventional light standards typically are installed closer to the travel lanes on breakaway bases. The closer proximity of the shorter conventional poles is necessary to achieve required illumination coverage on the highway, but it makes them more susceptible to vehicle strikes. The location of the proposed light towers are still within the existing Right of Ways of I-295 and the Route 1 connector and will not require private property acquisition.
Construction, Maintenance	Please consider alternatives to the erection of new towers -- for example, can the 40 foot towers be fitted with fixtures to provide better illumination and moved further back from the road to keep them from striking the road way or vehicles?	This cannot be accomplished as we are required to use full cutoff luminaires. Locating 40 foot poles further away from the road and the use of full cutoff luminaires will not achieve the required light levels.
Construction, Other	Highway expansion always has an environmental impact, not only on the animals making their homes in this area, but the humans. The environmental effects of changing the light on the population, behavior and habitat diurnal, crepuscular, and nocturnal animals need to be characterized and analyzed carefully as much of the area to the south of I-295 is characterized as forest and farmland by the town of Brunswick. I want to know whether a study has been done, and if not, why not? If not performed, when will it be performed?	MaineDOT is required to meet the requirements of the National Environmental Policy Act (NEPA) and the federal regulations included under NEPA. The work for the project will take place within the right-of-way for I-295 and is not expanding the highway. The effects of lighting at this interchange is consistent with lighting upgrades in other areas along the I-295 corridor for improving safety. The lights would benefit drivers seeing wildlife that may attempt to cross the highway and minimize wildlife-vehicle collisions. This would also avoid the hazard of species in the roadway that are attracted to carrion. We will review options to minimize the impacts of the lights to wildlife as the project moves to final design.

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Construction, Safety	Has MaineDOT consulted with the Federal Aviation Administration (FAA)? When most systems are within 4 miles of the airport, FAA Obstruction Evaluation should be performed. As a proxy, think of the straight-line distance between the westernmost towers on I-295 and the Fat Boy Drive In on Bath Road.	Form 7460-1 will be submitted for this project for FAA consideration.
Funding/Cost	I do not think this is necessary. Lighting there is fine. Save the money and put it towards other things Brunswick needs like fixing Route 1 Pleasant Street or the GreenBridge.	I would like to thank you for your interest and comments regarding this project. MaineDOT has a very stringent project development process and has determined that this project is a priority. I have forwarded your comments regarding Route 1 Pleasant Street to our Region 1 Manager. As for the "GreenBridge", I am assuming that you are referring to the Frank J. Wood bridge between Brunswick and Topsham? If so, this bridge is slated to be replaced within the next few years. Thank you once again. Jerry Dostie MaineDOT.
Funding/Cost	The presentation never explains why this lighting is needed. This is a limited-access highway. The only permitted users already have sufficient lighting on their vehicles to see the road ahead.	No response requested.
Funding/Cost	The more I think about it the less I'm convinced there is a need for such lighting. Please provide me with accident rates that you're so concerned about. There are very few accidents in that section of highway and the crews that work on the roads bring their own lights (which I can see from my house). This seems like a complete waste of money and would strongly encourage you to find somewhere else in the state to waste your money.	No response requested.

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Funding/Cost, Other	I request that any and all comments in the virtual forum be made public in an electronic format for review after the state government and MaineDOT have read and responded to them, including the text of the response from MaineDOT.	All comments and responses will be made available after the comment period has closed.
Funding/Cost, Safety, Other	I strongly oppose this project. As your research states, this is a safe interchange. I have commutes through here for 15 years and I see zero issue with the interchange design as it pertains to safety (that is until you get to the very end of the off ramp, which is very dangerous, but you are not addressing that). I find this is wasteful of tax dollars. I find it will contribute to light pollution. This is not a worthy upgrade. Please get back to me if you want to discuss the very dangerous situation at the bottom of the hill at the very end of the off ramp.	<p>The goal of the Highway Safety Improvement Program (HSIP) is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads through the implementation of infrastructure-related highway safety improvements. We are required to expend HSIP funds to support the focus areas and strategies outlined in Maine’s Strategic Highway Safety Plan (SHSP). This project was identified as such.</p> <p>If you would like to provide additional information as to your concern of the "dangerous situation at the bottom of the hill at the very end of the off ramp", please do so in a response and I will forward the information to the appropriate person</p>
None Provided.	How does the Highway_Safety_Improvement_Program (2018) differ from the program that's in effect for 2020	It is the same program, just funded during a different fiscal year.

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None Provided.	<p>While the video made mention of the projection of light from the high mast towers to the ground and the likely illumination contours at the ground level, there was no mention of light dispersion patterns at the height of 90 to 100 feet. Please describe the dispersion of light in an upwards direction (from 90 to 100 feet above the ground going upwards). Please describe the dispersion of light radiating laterally (from the point of a luminaire 90 to 100 feet above and travelling in a horizontal plane in all directions). Please describe the visibility of the high mast towers both during the day and at night when operational assuming no trees, vegetation and landforms could block their visibility. Please describe the visibility of the high mast towers both during the day and at night when operational given the data from ESRI or Maine Geolibraries, or other authority given the trees, vegetation and landforms that could block their visibility in winter, autumn, spring, and summer seasons. When possible, please respond with specific gradient information in foot-candles for vertical and horizontal distances, and describe actual measurements taken, assumptions, or models used for estimation.</p>	<p>The manufacturer’s photometry report for the proposed fixtures is attached for reference. These fixtures are full cutoff and will produce zero uplight. The report provides data that will address the lateral dispersion questions. Tower locations were selected primarily to meet requirements for coverage of roadway conflict areas, but also with consideration of avoidance of illumination impacts on residential properties. There will be zero footcandles of illumination from the proposed towers on developed portions of residential properties in the vicinity of the interchange. There will be wooded buffers between all proposed towers and developed portions of residential properties. It cannot be assured that one or more of the towers would not be visible from residential properties during winter conditions after loss of foliage, although, as noted, the towers would not actually cast any illumination on those areas in any season.</p>
Other	<p>The red points and blue points... aren't discernible on the video, nor was it clear where the 25 foot grids were established for the analysis of illumination contours. Where can I view the project documents from TMSI or MaineGov on this proposal?</p>	<p>The photometric software established the 25 foot grid. Blue figures indicate 0.0 footcandles with red indicating where measurable light is located. Please re-visit the Virtual Public Involvement website as we have placed the photometrics for the towers on the project site for the public to view.</p>

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Other	I would like to know where in Freeport I can go to get an idea of how much my home is effected. What sort of guarantee can you provide that I will not be dealing with any effects of these lights in my back yard?	I believe you are located at (a location) indicated as the home circled in red below? If this is correct, the photometrics generated by our consultant indicate 0.0 foot candles of light on your property (the numbers shown in blue have the value of 0.0)
Other	You are correct in that this is my house. Where will the one on the other side of me be located? They will not overlap?	The next light tower is located east of your home but is not shown on the image. You can see at the right side of the image that the blue numbers begin to appear again and they increase as you approach the next light but I believe that is well beyond your property
Other	The lot is in my fathers name but for all intents and purposes is mine, so I was interested in knowing the location. Thanks.	Below is the photometrics for the lot. There is zero foot candles at the ponds but a slight amount at the far northeast corner of the field (0.1). However, this photometric design does not take into account the trees located between the tower and the field which will reduce the amount of light.
Other	Thank you.	No response requested.
Safety	I approve and support the I-295 Exit 28 Lighting Project because installing high mast lighting at the Exit 28 interchange will improve safety and driver visibility especially during the winter.	No response.
Safety	I am happy to see this project coming to exit 28	No response requested.

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Safety, Other	<p>These 90-100' poles are too tall for our rural state and small highways. They belong in Massachusetts and other urban high traffic areas. They also cause high amounts of light trespass and light pollution into adjacent properties, forest, and the night sky. Better light delivery and trespass can be achieved by shorter poles with precise LED optics. The light poles in Freeport are very ugly and throw light over the whole wooded area.</p>	<p>Thank you for your interest and comments regarding this project. MaineDOT is transitioning away from the shorter poles towards the taller towers for several reasons. Some of which include driver safety by placing the towers further from the road thus reducing the possibility of vehicle impacts. The location of the towers also increases the safety to workers that may need to perform maintenance on them. The proposed lighting consists of full cut off LED luminaires. The photometric analysis of the proposed lighting indicates very little light trespass beyond the Interstate Right of Way with the exception of a minimal amount of light onto a commercial property.</p>