



Street Light Design Procedure (for Roadway and Bridge lighting)

1. Prequalified consultant contacts Street Light Design Department to start new project (prequalified list can be provided by Streetlight team as required)
2. Consultant design is in accordance with City of Calgary Street Light Design Guidelines document
3. Consultant sends streetlight design to appropriate person based on contact list below; send to team leader if in doubt; temporary lighting plans are always required; the prequalified electrical designer is required to submit this as part of the design package
4. The consultant sends design to ULA via the CROWM system for approval after receiving a noobjection from appropriate quadrant SL design tech
 - Consultant must work draft to city standard or be prepared to work with City drafting department to draft to City standard for line assignment approval and also for loading of GIS data into asset management system; this must occur two times, GIS data to be loaded for APRCON drawing and finally for Asbuilt drawing; consultant is responsible for this scope of work
5. Prequalified street light consultant to provide a schedule of quantities to the contractor. Enough lead time must be provided to the warehouse (1-3 months depending on material request and volume required)
6. If warehouse is not sourcing the material, the schedule of quantities should be adjusted to clarify what city stores will supply versus what the contractor is expected to supply and install separately
7. The schedule of quantities is the responsibility of the consultant to provide for tender preparation
8. Prequalified street light contractor requests SL materials from SL design tech with a PO # (this can also be through a subcontractor as long as the prime is prequalified).
9. Qualified Utility Employees (QUE) must perform work as required by AEUC. This is typically work falling within safe electrical limits of approach but is not limited to that stipulation alone.
10. Design Tech confirms that consultant has uploaded approved for construction drawings (APRCON) to drafting department. If not, the request is made and Tech waits for confirmation of upload from drafting.
 - APRCON drawings require line assignment; line assignment requires roughly 3-4 weeks from submission of APRCON drawings; line assignment will be applied for by the consultant via CROWM
11. If materials match design SL tech approves and sends to City's supply management
12. Material pickup from City stores by sub or contractor; non-standard material must be ordered by the project and material must be approved by the Sr. Street Light Engineer; standard bases must always be used (280mm BCD and 330mm BCD); non-standard material is to be metered separately through a separate siteid; nonstandard lighting is approved at the discretion of the Sr. Street Light Engineer; in general only standard material is approved; guidelines for non-standard lighting are:

Pole requirements:

- 10-year factory warranty (our galvanized steel is expected to last 50-year, warranty is for 10 years);
- Must be galvanized steel, powder coated galvanized steel or stainless steel
- CSA label applied to the pole (should adhere to class # 3426-03 luminaires-luminaires poles); (CSA 22.2, CSA G164/ASTM A123, CSA W59, W47.1)
- Provide engineered shop drawings showing max fixture weight and effective projected area); mounting height of banners, signs, wind load to be designed to 1/25-year wind; provide prior to project start

Luminaire requirements:

- Provide the IES file to the street light design team
- CSA, CUL, CETL luminaire certification (certification is UL1598); luminaires shall bear CSA, CUL, CETL label
- prior to project start
- Temperature rated to -40 degrees Celsius to +40 degrees Celsius
- Zero uplight
- IP 66 rated
- Luminaires normally have a 10-year warranty with a stated lifespan of twenty years (100,000 hours)
- Backlight on greater than 2, glare no greater than 2
- 1-3G vibration rated
- Photocell receptacle should be NEMA c136.41 (5 pin or 7pin with dimming ability on drivers)
- Surge protected to TAC standards

13. Redline drawings to be provided to Tech prior to CCC

14. If the project has special architectural lighting the following ERP documentation may be required for final CCC:

- Confined space procedure
- Work practice for manholes (evacuation and rescue)
- Fall arrest

15. Contractor is responsible for electrical permits and submission of unmetered service request form

16. CCC is applied for by the consultant for the project directly to streetlight team after project completion for pre CCC inspection to address deficiencies; CCC to be granted when there are no deficiencies. Asbuilts must be provided before CCC. Drafting APRCON to GIS must be completed prior to CCC.

17. All work requests for lighting in the project area will be the responsibility of the contractor until FAC

Streetlight Design Team Contacts

Name	Title	Email	Phone	Area of Responsibility
Michael Gray	Team Leader	michael.gray@calgary.ca	403-801-1411	Citywide
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Gavin Marshall	Street Light Design Tech	gavin.marshall@calgary.ca	587-572-0628	South East subdivisions, development permits and projects
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Jocelyn Klyne	Street Light Design Tech	jocelyn.klyne@calgary.ca	403-268-4088	North West Subdivisions, development permits, projects
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