Street Lighting & Electrical | Mobility
The City of Calgary | Mail code: #4009
streetlighting@calgary.ca | calgary.ca

Intent

The City of Calgary wishes to partner with developers and associated stakeholders to address safety and legislative compliance issues related to street lighting infrastructure in new subdivisions. This document summarizes The City's systems and processes to support street lighting in new developments.

Project Initiation

Notification of the street light designer (either The City of Calgary or a third-party street light consultant), is required a minimum of 15 business days before the Underground Residential Distribution Integrated Design Process (UIDP) Co-Location meeting.

This notification is required directly to streetlighting@calgary.ca, separately from the UIDP checklist, and must include the following:

- Subdivision name and phase #
- The developer's legal entity and contact information
- The prime consultant's company name and contact information
- The street lighting & electrical design consultant (i.e., The City of Calgary Street Lighting & Electrical department or an approved Street Lighting Design Permit Holder)

Failure to identify any of the preceding requirements by the deadline will result in the automatic assignment of street lighting design to The City of Calgary. Following the missed deadline (i.e. fourteen (14) business days prior to the UIDP Co-Location meeting), The City of Calgary will provide a fee letter to the Developer via email informing them of The City's automatic assignment as designer. For clarity in respect to design costs, The City utilizes a cost recovery model.

ULA (Utility Line Assignment)/UAP (Utility Alignment Permit)

Approved Street Lighting Design Permit Holders will be granted access to the Calgary Rights-of-Way Management (CROWM) portal to apply for and manage approved street lighting UAPs on The City's behalf.

Approved Street Lighting Design Permit Holders must maintain full compliance with City bylaws and UAP requirements and conditions. There is zero tolerance for non-compliant ULA applications. Consultants are notified in advance of any expiring or non-compliant ULA applications via CROWM's automated messaging system.

Outstanding ULAs Pre-2026

Approved Street Lighting Design Permit Holders will have until December 31, 2026 to resolve any non-compliant ULA applications outstanding as of January 1, 2026 to The City of Calgary Street Lighting & Electrical Team's satisfaction. The City will provide a list of non-compliant ULA applications by September 30, 2026 and work with the street light consultant to determine a resolution for each instance.

Street Lighting Design Permit

Termination clause from Street Lighting Design Permit:

If the street lighting design permit holder fails to perform any of its material obligations after having been given thirty (30) days prior written notice in respect of such failure, or such longer period of time as mutually agreed by the parties, The City of Calgary, at its sole discretion, may terminate this permit. In the case that a terminated permit holder has outstanding project submission requirements, The City of Calgary will work with the permit holder to either allow the permit holder to complete all outstanding requirements within a City of Calgary determined period of time or assume those requirements from the permit holder. The City of Calgary will calculate any costs incurred due to resolution of outstanding permit holder requirements and present those costs as a termination invoice. Upon notice of termination, The City of Calgary will halt approval of any outstanding Utility Alignment Permit (UAP) Applications, and completely remove permit holder access to the Street Lighting Calgary Rights-of-Way Management (CROWM) system, the Street Lighting GIS portal, and the Street Lighting approval submission folder.

Warning System – ULA Submissions

The ULA team provides a 7-day grace period to consultants to fix missed deadline non compliances. When an application is deemed ULA non-compliant and the grace period has passed, there is no ULA resolution.

When the City of Calgary Street Lighting & Electrical Team becomes aware of a non-compliance, street light consultants will be given thirty (30) days' notice to explain the non-compliance and request a review. Developers and prime consultants engaged in active projects with the non-compliant street light consultants will be notified by the City of Calgary immediately.

Non-excused non-compliance of all ULA submissions are subject to Street Lighting Design Permit termination. Street light consultants that design twenty (20) or more street light projects per year and receive three (3) non-excused non-compliances of all ULA submissions for a third-party street light consulting company within twelve (12) months will result in automatic termination. Street light consultants that design nineteen (19) or less street light projects per year and receive two (2) non-excused non-compliance of all ULA submissions for a third-party street light consulting company within twelve (12) months will result in automatic termination. The consultant will be prohibited from obtaining a permit for two (2) years from the termination date.

Non-excusable ULA non compliances include:

- Missed deadlines.
- Failure to apply for an excavation permit in areas that are not subject to a Development Agreement.

- Design deviations that were not pre-approved by the City of Calgary Street Lighting & Electrical department. Contractor field changes completed without the consultant's knowledge will be considered a mitigating factor and must be identified in the Review Request.

All non-compliances will be reviewed and assessed at the discretion of the City of Calgary.

Developers who retain street light consultants and receive a combined total of three (3) non-excused ULA non-compliances within a twelve (12) month period will be prohibited from participating in the developer-choice model for street light design for a period of twelve (12) months following written notification from the City of Calgary. During this period, all street lighting designs for the developer will be completed by The City of Calgary. This restriction applies solely to street lighting design services. During the restriction period, the Developer remains responsible for retaining a contractor holding a valid and subsisting Street Lighting & Electrical Construction Permit issued by The City to construct all street lighting and electrical infrastructure. No other aspect of the UIPD process, or any contractual arrangements between the Developer and other utilities will be affected by this restriction.

Zero Tolerance – Record Drawings

Street light record drawings must be submitted to streetlighting@calgary.ca at the end of the project in both authenticated pdf and CAD formats.

When the City of Calgary Street Lighting & Electrical Team becomes aware of the completion of a project and a failure of the street light consultant to submit records, the street light consultant will be given ninety (90) days' notice to submit the records to streetlighting@calgary.ca. Developers and prime consultants engaged in active projects with the non-compliant street light consultant will be notified by the City of Calgary immediately.

There is no tolerance for failure to submit a record drawing. This requirement does not reset annually. Failure to submit an acceptable record drawing within ninety (90) days of construction completion will result in the automatic termination of the Street Lighting Design Permit. The street lighting consultant will be ineligible to obtain a new Street Lighting Design Permit until the outstanding record drawing has been submitted and accepted by The City of Calgary. Following permit termination, the consultant must submit a new Street Lighting Design Permit application and obtain approval from The City prior to undertaking any new Street Lighting Design Permit work.

If the consultant has not received as-built drawings from the contractor within the ninety (90) day period, the consultant must contact streetlighting@calgary.ca before the submission deadline to request an extension. The consultant will provide the contractor's name and contact information, and The City will follow up with the contractor directly. Where an extension is granted due to the late receipt of as-built drawings from the contractor, the record drawing submission deadline will be extended by thirty (30) days from the date the as-built drawings are received by the consultant.

Developers who retain street light consultants and receive a combined total of two (2) record non-compliances within a twelve (12) month period will be prohibited from participating in the developer-choice model for street light design for a period of twelve (12) months following written notification from the City of Calgary. During this period, all street lighting designs for the developer will be completed by The City of Calgary. This restriction applies solely to street lighting design services. During the restriction period, the Developer remains responsible for retaining a contractor holding a valid and subsisting Street Lighting & Electrical Construction Permit issued by The City to construct all street lighting and electrical infrastructure. No other aspect of the UIPD process, or any contractual arrangements between the Developer and other utilities will be affected by this restriction.

Street Lighting and Electrical on Third-Party Utility Poles

The City maintains a third-party attachment agreement with ENMAX. All requests for street lighting infrastructure on third-party utility poles must be made to the City and shall not be completed by a third-party street lighting consultant. This includes street light sweeps, overhead transformer connections and laterals. The City of Calgary will serve as the street light designer and will comply with the ENMAX Telecom Choice process, including the engagement of an approved ENMAX Telecom Choice Design-Build Contractor (DBC), at the developer's expense. The City of Calgary can design the entire project, or the project scope can be split such that all ENMAX attachment infrastructure is designed by the City, while the remaining stand-alone street lighting infrastructure is designed by a third-party street lighting consultant. The City will establish the demarcation point between the two design scopes and provide written confirmation to the Developer, prime consultant and third-party street lighting consultant.

The City will assume ownership and maintenance of all infrastructure on third-party utility poles immediately upon CCC acceptance. The developer shall be responsible for all maintenance and administrative costs during the standard two (2) year pre-FAC warranty period.

Street Lighting and Electrical in FAC'd ("Brownfield") Areas

Where street light circuits and infrastructure have been FAC'd, the City retains sole design authority. All requests for street lighting infrastructure additions or modifications on FAC'd electrical circuits must be submitted to the City at streetlighting@calgary.ca. The City of Calgary will serve as the street light designer; or, at its sole discretion, may provide written authorization for the developer to retain a third-party street light consultant under City oversight.

<u>New Street Light Power Services on existing ENMAX transformers</u>

Only the City of Calgary can request new services from existing ENMAX transformers for street light power services. The City of Calgary can design the entire project, or the project scope can be split such that the street light power service is designed by the City, while the remaining street lighting infrastructure is designed by a third-party street lighting consultant. The City will establish the demarcation point (generally at the new cabinet or first street light pole with relay), and provide written confirmation to the Developer, prime consultant, and third-party street lighting consultant. The construction scope can be combined and completed by a single

contractor holding a valid and subsisting Street Lighting & Electrical Construction Permit, with City supervision and oversight of the ENMAX power connection scope.

Additional street light poles on existing FAC'd street light circuits – Cabinets and Relays

Only the City of Calgary can make design modifications or additions to FAC 'd electrical circuits. The City of Calgary can design the entire project, or the project scope can be split such that all FAC'd attachment infrastructure is designed by the City, while the remaining greenfield street lighting infrastructure is designed by a third-party street lighting consultant. The City will establish the demarcation point between the two design scopes and provide written confirmation to the Developer, prime consultant, and third-party street lighting consultant. The construction scope can be combined and completed by a single contractor holding a valid and subsisting Street Lighting & Electrical Construction Permit, with City supervision, direction and oversight of the FAC'd connections, construction staging and temporary lighting requirements.

The City will assume ownership and maintenance of all infrastructure added to an existing FAC'd relay or FAC'd cabinet immediately upon CCC acceptance. All deficiencies identified during the CCC inspection must be corrected by the Developer's contractor prior to CCC acceptance (i.e., no deficiencies will be permitted to remain outstanding until FAC). Following CCC acceptance, The City of Calgary will perform all required maintenance, and the Developer shall be responsible for all associated maintenance and administrative costs during the standard two (2) year pre-FAC warranty period.

Where the City determines that a street light consultant has undertaken street lighting design work on FAC'd street light circuits or infrastructure, or past the established demarcation point, without prior written authorization from The City of Calgary Street Lighting & Electrical Team, this will result in immediate removal of the street light consultant from the project. The City of Calgary will complete the remaining project requirements at the developer's expense. The City of Calgary will provide a fee letter to the Developer via email informing them of The City's automatic assignment as designer. For clarity in respect to design costs, The City utilizes a cost recovery model.

More than one (1) removal from an FAC'd area project due to lack of City of Calgary written authorization within a twelve (12) month period for a street light consulting company will result in automatic termination of the consulting company's Street Lighting Design Permit. Following termination, the consultant will be prohibited from obtaining a Street Lighting Design Permit for a period of two (2) years from the termination date.

Developers who retain street light consultants that receive a combined total of two (2) removals from FAC'd area projects due to no City of Calgary written authorization within a twelve (12) month period will be prohibited from participating in the developer-choice model for street light design for a period of twelve (12) months following written notification from the City of Calgary. During this period, all street lighting designs for the developer will be completed by The City of Calgary. This restriction applies solely to street lighting design services. During the restriction

period, the Developer remains responsible for retaining a contractor holding a valid and subsisting Street Lighting & Electrical Construction Permit issued by The City to construct all street lighting and electrical infrastructure. No other aspect of the UIPD process, or any contractual arrangements between the Developer and other utilities will be affected by this restriction.

To confirm if a project qualifies for the use of a third-party street light consultant including the identification of the demarcation point, contact streetlighting@calgary.ca.

Street Lighting and Electrical – Non-Standard Installations

Where proposed street lighting or electrical installations involve non-standard conditions (including, but not limited to, new or custom materials not identified in the DDS, custom electrical wiring configurations, or atypical utility alignments), the City retains sole design authority. The developer or prime consultant must engage the City during the planning of any non-standard street lighting project. All requests involving non-standard installations must be submitted to the City at streetlighting@calgary.ca for review and direction.

Standard and Non-Standard Materials

Standard decorative materials identified with a rate in the DDS include:

Materials Description	City Drafting Code	City Item ID
9m Black Single Davit (Cranston)	105	171277
9m Black Double Davit (Cranston)	106	171278 & 171279
15m Black Single Davit	127	195513 & 195514
15m Black Double Davit	128	Special Order
LED Black Cobrahead Luminaires	SLB, SMB, SNB, SOB, SPB	198814, 198816, 198818, 198820, 198822
LED Black Cobrahead Luminaires	SQB, SRB, SSB, STB, SUB	Special Order
7.8m Single Davit (McKenzie)	52	151305
7.8m Double Davit (McKenzie)	60	185789
Domus/Domia Luminaires (for use on McKenzie Poles)	OF, OG, OH	185923, 185924, 185925
7m Traditional Pole with Banner Arms	139	19662
Acorn luminaire (for use on Traditional poles)	OU, OV, OW	186136, 186137, 186138
9m Black Square Steel Pole	42	181932
Black Shoebox Luminaires (for use on square steel poles)	SF, TBD, TBD	196685, 196683, 196684

Standard materials not identified in the DDS include:

Materials Description	City Drafting Code	City Item ID
'B' Concrete Base	PCB-B2	194785
'C' Concrete Base	PCB-C2	194786
Wood Pole Sweep	N/A	151364
9m Galvanized Single Davit	9	151321
9m Galvanized Double Davit	10	160360 & 183100
15m Galvanized Single Davit	61	151323 & 151327
15m Galvanized Double Davit	63	160362 & 183100
LED Galvanized Cobrahead Luminaires	SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU	198813, 198815, 198817, 198819, 198821, 198823, 198824, 198825, 198827, 198828
5m Walkway Pole	32	196995
Walkway Luminaire	PM	197846
Walkway Bollard	VT120	201446

In addition, conduit, cabinets, relays, break-away bases, shorting caps, photo-eyes and consumables are considered standard materials when procured through the City of Calgary warehouse.

Contractor-supplied materials considered standard include the Wire Sentry Anti-Theft device, Class 3 wood poles, standard wire gauges/types identified in the Design Guidelines for Street Lighting and any consumables not available through the City of Calgary Warehouse.

Where the developer and prime consultant wish to introduce a new non-standard pole or luminaire to City inventory, they may engage the City of Calgary to research and develop the proposed material, or utilize a third-party street lighting design consultant with the following conditions:

1. A minimum of 12 months' notice is required.
2. Approval will be required by City of Calgary Street Lighting & Electrical and supported by Development Engineering for the new DDS Rate.
3. City of Calgary Street Lighting & Electrical will review the proposed material and determine whether it is suitable for a pilot installation.
4. If approved for a pilot project, the pole or luminaire shall be installed within a single phase of the subdivision. A Pilot Project Evaluation Report shall be completed at CCC by the designer of record, either the City of Calgary or the third-party street lighting consultant. City of Calgary Street Lighting & Electrical will review the pilot project findings and formally notify the developer if the custom material will be brought into the warehouse and adopted as a standard material. This adoption is at the sole discretion of the City of Calgary.

5. Minimum pole requirements:
    a. 10-year factory warranty (our galvanized steel is expected to last 50-years, warranty is for 10 years);
    b. Must be galvanized steel, powder coated galvanized steel or stainless steel
    c. 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);
    d. 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;
    e. Must fit and be structurally compatible with current BCD for either the 'B' pre-cast base or 'C' pre-cast base;
6. Minimum luminaire requirements:
    a. Provide the IES file to City of Calgary Street Lighting & Electrical for evaluation;
    b. CSA, CUL, CETL luminaire certification (certification is UL1598); luminaires shall bear CSA, CUL, CETL label;
    c. Temperature rated to -40 degrees Celsius to +40 degrees Celsius
    d. Zero uplight;
    e. IP 66 rated;
    f. 10-year warranty with a stated lifespan of twenty years (100,000 hours);
    g. Backlight no greater than 2, glare no greater than 2;
    h. 1-3G vibration rated;
    i. Photocell receptacle should be NEMA c136.41 (7pin with dimming ability on drivers);
    j. Surge protected to TAC standards;

Custom Electrical Wiring Configurations

Any approved non-standard wiring configurations will be designed and piloted by the City prior to being considered for adoption as an accepted design practice for consultant use. Examples include voltages other than 240V, joint-use street light poles with telecommunications attachments, receptacle-integrated street light poles, and similar non-standard installations.

Custom Utility Alignments

Any approved atypical utility alignments will be designed and piloted by the City prior to being considered for adoption as an accepted design practice for consultant use. Atypical wire alignments are utility alignments that require evaluation through collaborative review with the 4Party Consortium. This does not include alignments identified in the DGSS, previously adopted and pre-approved alignments, or custom alignments that do not affect other shallow utilities.

Pre-FAC Warranty Period Requirements

During the pre-FAC warranty period, developers, prime consultants, and street light consultants shall report the following to The City (streetlighting@calgary.ca):

- Utility Strikes

- Issues with underground utility locates (e.g., missing locates)
- Incidents of wire theft, when known

Pre-FAC Warranty Period PDOR and damage response and 311

Developers, prime consultants, and street light consultants will be notified of any and all damage The City has actioned within pre-FAC project areas. Contacts for all three (3) parties must be provided to The City (streetlighting@calgary.ca) prior to the UIDP Co-Location meeting. The City will provide locations of outages reported by citizens to the three (3) established contacts.

Smartsheets

The Smartsheets application is single user only. All files to be uploaded to Smartsheets must be sent to The City (streetlighting@calgary.ca) for upload. The City will timestamp upload time for the prime consultants and street light consultants. The timestamp in the Smartsheets comment will be the time/date that the email was received to streetlighting@calgary.ca

Key Contacts

BILD to establish a working committee of 5 representatives who will speak for industry. Street Lighting & Electrical to provide 5 individuals to represent the City of Calgary. Monthly or quarterly meeting to be scheduled by BILD/City.

Residential Development Street Lighting & Electrical Design Process Requirements

1. Attend monthly project update meetings either in-person or on Teams, at the discretion of the City of Calgary.
2. Coordinate with third-party stakeholders as required.
3. Complete pre-design field review and confirm field visit date on drawing title block.
4. Use field review results and TRACE-ID, records (GIS), and civil design drawings (e.g., civil roadway development drawings) to design street lighting, including photometric and electrical (e.g., voltage drop) analysis as required.
5. Procure sub-consultant services and deliverables as required (e.g., geotechnical investigation).
6. Submit preliminary Co-Location package a minimum of five (5) business days before the scheduled Co-Location meeting. Package includes:
   a) BlueBeam PDF markup showing light locations and circuitry overlaid onto ENMAX design
   b) Previous Phase tie-ins
   c) AGi file
7. Submit revised Co-Location package, incorporating all required City of Calgary's changes, within two (2) business days after receiving City of Calgary Street Lighting & Electrical comments.
8. Attend Co-Location meeting in person.

9. Submit authenticated preliminary design (i.e., IFR) to The City for approval a minimum of seven (7) business days before the UIDP IFR due date. IFR Package includes:
   a) Drafted/authenticated IFR
   b) Authenticated AGi
   c) AGi file (in .agi format)
   d) Authenticated Voltage drop table
   e) Voltage drop diagram showing longest cable length and voltage drop values
10. Submit revised IFR, incorporating all required City of Calgary's changes, within two (2) business days after receiving City of Calgary Street Lighting & Electrical comments.
11. For offsites and non-URD projects, coordinate with The City to request new electrical transformers from ENMAX, as required, including ENMAX required single line diagram and loading information. *Any designs where new attachments are required to existing ENMAX transformers or on existing ENMAX utility poles cannot be performed by a third-party consultant. See *Street Lighting and Electrical in FAC'd Areas and on Third-Party Utility Poles* above.
12. Create and manage ULA application in CROWM system, and coordinate approvals with existing utility owners as required. streetlighting@calgary.ca shall be included on all ULA applications as an alternate contact.
13. After prime consultant/developer review, submit authenticated preliminary design (i.e., IFR) required changes to The City for approval a minimum of 5 business days before the UIDP RE-IFR due date. RE-IFR Package includes:
   a) Drafted/authenticated RE-IFR
   b) Authenticated AGi
   c) AGi file (in .agi format)
   d) Authenticated Voltage drop table
   e) Voltage drop diagram showing longest cable length and voltage drop values
14. Submit authenticated IFC drawing package, complete with schedule of quantities and technical specifications to The City for approval a minimum of 5 business days before the UIDP IFC due date.
15. Provide construction administration support including but not limited to:
   a) Provide the name and contact information for the consultant's representative from the engineering company named in, and authorized under, the Utility Alignment Permit who is supervising the performance of the approved work.
   b) While the work approved in the Utility Alignment Permit is being performed, the consultant's representative identified above, or their designate from the same engineering company authorized under the permit, must be available at the physical location of the work within two (2) hours of being contacted by The City.
   c) *Attend UIDP Pre-Construction Meeting in person. Confirm attendance with signature on sign-in sheet and submit a copy to the City of Calgary. Meeting invite will be forwarded by City of Calgary.
   d) Attend site meetings as required.
   e) Submit authenticated construction drawing package revisions for approval by the City of Calgary as required.

f) Submit ULA deviation requests in CROWM system as required.
g) *Attend UIDP Post-Construction Meeting in person. Confirm attendance with signature on sign-in sheet and submit a copy to the City of Calgary. Meeting invite will be forwarded by City of Calgary.
h) *Attend UIDP Project Completion Meeting in person. Confirm attendance with signature on sign-in sheet and submit a copy to the City of Calgary. Meeting invite will be forwarded by City of Calgary.

16. Review and approve contractor as-builts.
17. Complete ENMAX unmetered service request with any add/remove/change loads as required and submit to The City for approval.
18. Submit authenticated record drawing package complete with street lighting asset topographical survey and all completed permits (e.g., electrical and excavation permits) to The City.

*While Approved Street Lighting Design Permit Holders are strongly encouraged to begin attending construction meetings immediately, attendance will not be mandatory until January 1, 2027.

Deliverables: UIDP Co-Location package, UIDP IFR package(s), UIDP RE-IFR package(s), ENMAX new transformer request(s), CROWM UAP application drawing(s), CROWM UAP application approval, UIDP IFC drawing and specification package, contractor as-built approval, electrical and excavation permits, ENMAX unmetered request, and record drawing package complete with street lighting asset topographical survey.

Revision History

REV	DATE	Description	BY
0	August 25, 2026	Issued to Industry	Jocelyn Klyne