

Feedback Form

Regional District of Okanagan Similkameen

101 Martin Street, Penticton, BC, V2A-5J9

Tel: 250-492-0237 / Email: planning@rdos.bc.ca

TO: Regional District of Okanagan Similkameen **FILE NO.:** X2021.017-ZONE

FROM: Name: _____ Bob & Diane Sterne _____
(please print)

Street Address: _____, Coalmont, BC, VOX 1W0 _____

Date: _____ Nov. 26, 2021 _____

RE: **Regional District of Okanagan-Similkameen Street Lighting Policy Update
Official Community Plan (OCP) Amendment Bylaw No. 2944, 2021**

My comments / concerns are:

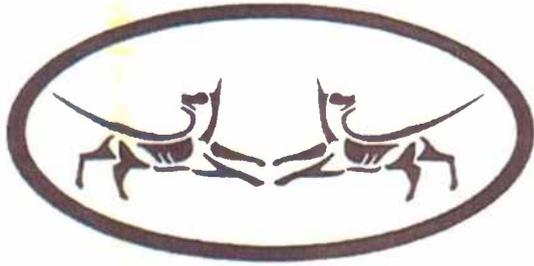
- I do support the proposed Street Lighting objectives and policies.
- I do support the proposed Street Lighting objectives and policies, subject to the comments listed below.
- I do not support the proposed Street Lighting objectives and policies.

Written submissions received from this information meeting will be considered by the Regional District Board prior to 1st reading of Amendment Bylaw No. 2944.

_____ We do not want to see any additional street lighting in Coalmont, in fact we would prefer if any street lights currently in place be removed. We value our "Dark Skies" very much, and use our telescope to observe the stars and planets whenever possible. The first time my wife ever saw the Milky Way was when we moved up here. Please put us down firmly in the column against light pollution in Coalmont. _____

Feedback Forms must be completed and returned to the Regional District prior to noon on the day of the applicable Regional District Board meeting.

Protecting your personal information is an obligation the Regional District of Okanagan-Similkameen takes seriously. Our practices have been designed to ensure compliance with the privacy provisions of the *Freedom of Information and Protection of Privacy Act* (British Columbia) ("FIPPA"). Any personal or proprietary information you provide to us is collected, used and disclosed in accordance with FIPPA. Should you have any questions about the collection, use or disclosure of this information please contact: Manager of Legislative Services, RDOS, 101 Martin Street, Penticton, BC V2A 5J9, 250-492-0237.



Penticton Indian Band
Natural Resources Department
841 Westhills Drive | Penticton, B.C.
V2A 0E8
Referrals@pib.ca | www.pib.ca
Telephone: 250-492-0411
Fax: 250-493-2882

Project Name:

X2021.017-ZONE - Street Lighting Policy Review

FN Consultation ID:

X2021-017-ZONE

Consulting Org Contact:

Planning RDOS

Consulting Organization:

[Regional District of Okanagan Similkameen](#)

Date Received:

Friday, August 20, 2021

WITHOUT PREJUDICE AND NOT TO BE CONSTRUED AS CONSULTATION

August 25, 2021

Attention: Planning RDOS

File number: 2944

RE: 40 (forty) day extension

Thank you for the above application that was received on 2021-08-20T00:00:00.

This letter is to inform you that due to current levels of internal capacity, we are unable to review your referral in your proposed timeline. With additional time, the Penticton Indian Band will be able to ensure that an informed review process will occur. We are setting the new timeline to be 40 days from the existing timeline.

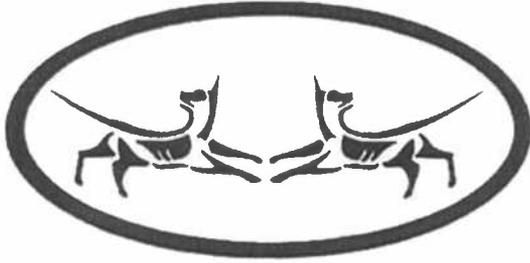
Most recently, the Supreme Court of Canada in the Tsilquot'in case confirmed that the province has been applying an incorrect and restrictive test to the determination of Aboriginal Title, and that Aboriginal Title includes the exclusive right of a First Nation to decide how that land is used and the right to benefit economically from those uses.

Please note that not receiving a response regarding a referral from Penticton Indian Band in the pre-application, current or post-application stage does not imply our support for the project.

I appreciate your co-operation.

limlæmt,

Heather McDougall
Referrals Clerk
Natural Resources Department
Penticton Indian Band
P: 250-492-0411
Referrals.clerk@pib.ca



Penticton Indian Band
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841 Westhills Drive | Penticton, B.C.
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Project Name:
X2021.017-ZONE - Street Lighting Policy Review

FN Consultation ID:
X2021-017-ZONE

Consulting Org Contact:
Planning RDOS

Consulting Organization:
Regional District of Okanagan Similkameen

Date Received:
Friday, August 20, 2021

File number:
2944

WITHOUT PREJUDICE AND NOT TO BE CONSTRUED AS CONSULTATION

Attention: Christopher Garrish

We are in receipt of the above referral. This proposed activity is within the PIB Area of Interest within the Okanagan Nation's Territory, and the lands and resources are subject to our unextinguished Aboriginal Title and Rights.

The Supreme Court of Canada in the *Tsilhqot'in* case has confirmed that the province and Canada have been applying an incorrect and impoverished view of Aboriginal Title, and that Aboriginal Title includes the exclusive right of Indigenous People to manage the land and resources as well as the right to benefit economically from the land and resources. The Court therefore concluded that when the Crown allocates resources on Aboriginal title lands without the Indigenous peoples' consent, it commits a serious infringement of constitutionally protected rights that will be difficult to justify.

PIB has specific referral processing requirements for both government and proponents which are integral to the exercise of our management right and to ensuring that the Crown can meet its duty to consult and accommodate our rights, including our Aboriginal title and management rights. According to this process, proponents are required to pay a \$500 processing fee for each referral. This fee must be paid within 30 days. Proper consultation and consideration of potential impacts cannot occur without the appropriate resources therefore it is only with payment that proper consultation can begin and the proposed activity/development can be reviewed.

1. Invoice Number: X2021-017-ZONE
Referrals Processing Fee
Sub Total \$ 500.00
Tax \$ 0.00
Total \$ \$500.00

INVOICE AMOUNT FOR PRELIMINARY OFFICE REVIEW \$500.00

Please make cheque or cash payable to Penticton Indian Band. re: P.C.132 and send to 841 Westhills Drive, Penticton, British Columbia, Canada V2A 0E8

Upon receipt of the processing fee, we will commence our review. You may then expect to receive a letter from us notifying you of the results of our review of potential impacts of the project within 30 to 90 days.

If the proposed activity requires a more in-depth review, PIB will notify the proponent and all parties will negotiate a memorandum of agreement regarding a process for review of the proposed activity.

Please note that our participation in the referral and consultation process does not define or amend PIB's Aboriginal Rights and Title, or limit any priorities afforded to Aboriginal Rights and Title, nor does it limit the positions that we may take in future negotiations or court actions.

If you require further information or clarification, please do not hesitate to contact me.

limlæmt,

Heather McDougall
Referrals Clerk
Natural Resources Department
Penticton Indian Band
W: 250-492-0411
Referrals.clerk@piib.ca

From: [Huber, Sara ALC:EX](#)
To: [Christopher Garrish](#)
Cc: [Gyug, Philip AFF:EX](#)
Subject: RE: Bylaw Referral - Street Lighting Policy Review - Bylaw No. 2944 (Project No. X2021.017-ZONE)
Date: September 20, 2021 8:30:57 AM
Attachments: [image003.png](#)
[image004.png](#)

Hi Chris,

Thanks for referring the draft bylaw for street lighting. The ALC's interests appear to be unaffected and for this reason have no objection to the bylaw.

Warm regards,

Sara Huber, Regional Planner
Agricultural Land Commission (ALC)
Email: Sara.Huber@gov.bc.ca
Phone: 236-468-3258

From: Christopher Garrish <cgarrish@rdos.bc.ca>
Sent: August 20, 2021 9:21 AM
To: Huber, Sara ALC:EX <Sara.Huber@gov.bc.ca>; Gyug, Philip AFF:EX <Philip.Gyug@gov.bc.ca>; 'HBE@interiorhealth.ca' <HBE@interiorhealth.ca>; 'ofid@telus.net' <ofid@telus.net>; 'Kaleden Irrigation District' <k.i.d@shaw.ca>; 'jcvitko@sd53.bc.ca' <jcvitko@sd53.bc.ca>; XT:Shongrunden, Ron FIN:IN <rs@summer.com>; 'kblack@sd58.bc.ca' <kblack@sd58.bc.ca>; 'NRC.DRAO-OFR.CNRC@nrc-cnrc.gc.ca' <NRC.DRAO-OFR.CNRC@nrc-cnrc.gc.ca>; 'FBCLands@FortisBC.com' <FBCLands@FortisBC.com>
Subject: Bylaw Referral - Street Lighting Policy Review - Bylaw No. 2944 (Project No. X2021.017-ZONE)

[EXTERNAL] This email came from an external source. Only open attachments or links that you are expecting from a known sender.

Friends,

The Regional District of Okanagan-Similkameen (RDOS) is seeking input from agencies/organizations whose interests may be affected by proposed textual amendments to the Electoral Area Official Community Plan (OCP) Bylaws regarding new objectives and policies related to Street Lighting. We are requesting that comments be provided by **September 20, 2021**.

Attached to this email is the Bylaw Referral Sheet that can be used to provide comment to the Regional District, however, emails and/or formal letters are also gladly accepted and can be sent to planning@rdos.bc.ca.

Additional information, including copies of Draft Amendment Bylaw No. 2944 is also available for

RESPONSE SUMMARY

AMENDMENT BYLAW NOS. 2944

Approval Recommended for Reasons Outlined Below

Interests Unaffected by Bylaw

Approval Recommended Subject to Conditions Below

Approval Not Recommended Due to Reasons Outlined Below

The Dominion Radio Astrophysical Observatory (DRAO) generally supports the adoption of the amended street-lighting regulations, subject to the following considerations:

- Many types of lighting can emit radio-frequency interference (RFI) at levels that may be harmful to DRAO operations. This is a form of “light pollution” – albeit one that is not visible to the human eye – suppression of which is explicitly stated to be an objective of the changes under consideration.
- Hence the installation of new or replacement street-lights in the region poses an RFI risk to DRAO.
- Bylaws 2683 and 2452 (Official Community Plans for Areas I and C, respectively) contain policies and objectives that explicitly aim to protect DRAO from RFI, including the establishment of an “RFI Area” in which RFI-generating development is discouraged.
- DRAO would like to see explicit consideration in the street-lighting regulations of potential impacts to DRAO in relation to decisions on street-lighting within the DRAO RFI Area.

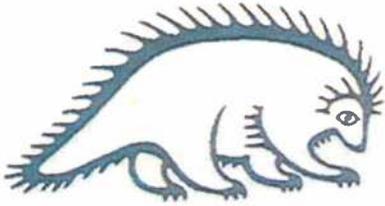
Signature: Gray, Andrew 2021.09.17
14:38:15 -07'00'

Signed By: Andrew Gray

Agency: National Research Council Canada,
Dominion Radio Astrophysical Observatory

Title: Telescope Operations Manager

Date: 2021-09-17



Okanagan Indian Band

12420 Westside Road • Vernon, BC, • V1H 2A4

Telephone: 250-542-4328 • Facsimile 250-542-4990

Email: okibreferrals@okanagan.org

"This correspondence will not be construed so as to to prejudice, limit, or derogate from any rights, claims or interests in respect of any Aboriginal title, rights and interests of Okanagan or Syilx Nation recognized and affirmed under Section 35 of the Constitution Act, 1982 and nothing in this letter indicates acceptance by Okanagan of federal or provincial Crown jurisdiction over or ownership of land, water or other resources within the Territory."

Project Name:

X2021.017-ZONE - Street Lighting Policy Review

FN Consultation ID:

X2021.017-ZONE

Consulting Org Contact:

Chris Garrish

Consulting Organization:

[Regional District of Okanagan Similkameen](#)

Date Received:

Friday, August 20, 2021

Attention: Chris Garrish

The Territorial Stewardship Division would like to acknowledge receipt of the above referral. The Okanagan Indian Band has conducted a desk top review of the project and would like to keep informed of any additional changes. At this time the Okanagan Indian Band will be deferring this project to Penticton Indian Band and Lower Similkameen Indian Band for a more in depth review.

Regards,

Colleen Marchand

Director, Territorial Stewardship Division

250.542.7132 (office)

250.306.9796 (cell)

Colleen.Marchand@okanagan.org

Lauri Feindell

From: Gyug, Philip AFF:EX <Philip.Gyug@gov.bc.ca>
Sent: September 14, 2021 4:00 PM
To: Planning
Cc: Fox, Alison AFF:EX; Huber, Sara ALC:EX
Subject: Bylaw Referral - AFF comments for X2021.017-ZONE Street Lighting

Dear Chris Garrish,

Thank you for referring the bylaw amendment related to street lighting for AFF staff to comment. Upon reviewing the street light policy and supporting documents there does not appear to be an impact to agricultural concerns and so AFFs interests are unaffected by the referral at this time.

Regards,

Philip



Philip Gyug, P.Ag
Regional Agrologist,
Extension & Support Services
Branch, Regional Development
Unit

Phone: 250-378-0573
Email: Philip.Gyug@gov.bc.ca



Penticton Indian Band
Natural Resources Department
841 Westhills Drive | Penticton, B.C.
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Planning RDOS

Consulting Organization:

Regional District of Okanagan Similkameen

Date Received:

Friday, August 20, 2021

File number:

2944

WITHOUT PREJUDICE AND NOT TO BE CONSTRUED AS CONSULTATION

November 23, 2021

Attention: Planning RDOS,

Re: X2021.017-ZONE - Street Lighting Policy Review

Invoice # -X2021-017-ZONE

We write regarding your failure to pay invoice -X2021-017-ZONE- to conduct a review to obtain additional information in the area of the above referral. To date, no payment has been received and we have therefore been unable to conduct a review of this referral; we must therefore put you on notice that we do not consent, agree or otherwise approve of the activity / development referred to by you in your letter to us dated August 20, 2021.

Invoice Number: X2021-017-ZONE

Subtotal Tax Total

Referral Processing \$ 500.00 \$ 0.00 \$ 500.00

Total \$ 500.00 \$ 0.00 \$ 500.00

INVOICE AMOUNT FOR PRELIMINARY OFFICE REVIEW \$500.00

The syilx/Okanagan Nation holds unextinguished aboriginal title to the land and resources within our traditional territory. The above-noted activity / development is within PIB's Area of Responsibility within syilx/Okanagan territory and as such, is subject to syilx/Okanagan title, jurisdiction, rights and interests, and PIB decision making and responsibility.

Over the last two decades, the Supreme Court of Canada has clarified the law respecting the rights of aboriginal people in British Columbia, which includes the Penticton Indian Band, syilx/Okanagan Nation. The Court has clarified that Aboriginal title continues to exist in British Columbia, and is protected by s. 35 of the Constitution Act, 1982.

Aboriginal title:

- Aboriginal title is not limited to intensively used sites; it extends to lands physically occupied and lands over which Indigenous peoples exercised control. Regular use of territories for hunting, fishing, trapping and foraging, with an intention and capacity to control the lands, grounds Aboriginal title.
- The Crown has no beneficial interest (the right to use, enjoy and profit from the economic development of lands) in Aboriginal title lands and resources; the beneficial interest is held by the Aboriginal title holding group. Allocations of Aboriginal title lands or resources to third parties are serious infringements of Aboriginal title.
- Aboriginal title includes the right to proactively use and manage the resources.
- Once Aboriginal title is “established”, the constitution prohibits incursions without the consent of the Aboriginal title holders unless the Crown can justify the infringement, which in turn requires a compelling and substantial public purpose as well as consistency with the Crown’s fiduciary duty to the Aboriginal title holders, requiring the involvement of the Aboriginal title holding group in decisions.
- Before Aboriginal title is “established”, the only way to ensure certainty is to obtain consent; in the absence of consent, the Crown must consult and accommodate. If consultation or accommodation is inadequate, the Crown decision can be suspended or quashed. Moreover, fulfilling the duty to consult and accommodate does not provide the certainty that consent provides; once Aboriginal title is established, the Crown may be required to cancel projects where there was no consent and the justification test noted above cannot be met.

Most recently, in November 2019, the province of British Columbia implemented the United Nations Declaration on the Rights of Indigenous Peoples which aims to emphasize the Indigenous peoples' rights to live in dignity, to maintain and strengthen Indigenous institutions, cultures and traditions and to pursue self-determined development, in keeping with Indigenous needs and aspirations. The United Nations Declaration on the Rights of Indigenous Peoples (“the Declaration”) recognizes and affirms:

- Article 3: Indigenous peoples have the right to self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development.
- Article 4: Indigenous peoples, in exercising their right to self-determination, have the right to autonomy or self-government in matters relating to their internal and local affairs, as well as ways and means for financing their autonomous functions.
- Article 8(2): States shall provide effective mechanisms for prevention of, and redress for: (b) Any action which has the aim or effect of dispossessing them of their lands, territories or resources;
- Article 18: Indigenous peoples have the right to participate in decision-making in matters which would affect their rights, through representatives chosen by themselves in accordance with their own procedures, as well as to maintain and develop their own indigenous decision-making institutions.
- Article 26(2): Indigenous peoples have the right to own, use, develop and control the lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired.
- Article 32(2): States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources particularly in connection with the development, utilization or exploitation of minerals, water or other resources.

At this time there has been no reconciliation of our interests with those of the Province of British Columbia and Canada and no process in place to adequately recognize and negotiate co- existence or accommodation of our jurisdiction and title. The Province continues to act as though we have no beneficial interest or authority, and it takes for itself the revenues derived from our lands and resources. The payment of the referral fee is necessary in order for us to assess your proposal, assess potential impacts and determine whether it should be approved and if so, on what conditions. Because we are unable to undertake such an assessment, we must at this time advise you that we are opposed to your proposed development/activity.

limlæmt,

Heather McDougall
Referrals Clerk
Natural Resources Department
Penticton Indian Band

To: Bill Newell, CAO
From: Arlene Arlow
Date: October 24, 2021
Subject: Street Lighting Policy Review

Below are my critical observations of the information available for the RDOS "Street Lighting Policy Review":

OBSERVATION #1:

Both the web page <https://www.rdos.bc.ca/development-services/planning/strategic-projects/street-lighting-policy-review/>

and

your September 13th Administrative Report

<https://www.rdos.bc.ca/assets/PLANNING/AreaA/2021/APC/2021-09-13/2021-09-13/51.pdf> refer to "Town Centre of Village Centre area". Is that simply a type-o? If not, what is a "Town Centre of Village Centre area"?

OBSERVATION #2:

Your September 13th Administrative Report

<https://www.rdos.bc.ca/assets/PLANNING/AreaA/2021/APC/2021-09-13/2021-09-13/51.pdf>

states there are four (4) different service areas including Heritage Hills; West Bench; Schneider Road and Naramata. However, this RDOS web page <https://www.rdos.bc.ca/public-works/street-lights/> lists eight (8): Husula Highlands, Naramata, Olalla, Faulder, Keremeos, Schneider Subdivision, West Bench and Heritage Hills.

OBSERVATION #3:

Your September 13th Administrative Report

<https://www.rdos.bc.ca/assets/PLANNING/AreaA/2021/APC/2021-09-13/2021-09-13/51.pdf>

Downplays the significance of Bylaw 2000, 2002:

As a result, the prioritization of street light locations and service areas has been left to the Subdivision Servicing Bylaw, which is a regulatory document and not well suited to this task.

I disagree. If WATER SUPPLY and SANITARY SEWERS utilities can be reasonably regulated under Bylaw 2000, 2002, what makes the utility of STREET LIGHTS so much different? What body will oversee the night-time safety of the general public in populated rural areas where night predators have the advantage? Has the RDOS concluded that subdivisions in rural areas don't need any lighting unless there are mailboxes or an intersection?

OBSERVATION #4:

(Your September 13th report "Analysis"):

Administration is concerned that the Subdivision Servicing Bylaw is a poor predictor of where street lighting priorities are within an Electoral Area and is leading to sub-optimal outcomes.

I believe a Servicing Bylaw shouldn't be a "predictor of where street lighting priorities are", it should be an "indicator of where street lighting priorities are". Developers spend as little money as possible to make as big of a profit as possible. If it weren't for regulations, developers would cut corners everywhere, including but not limited to water supply and sewer.

For whom do "Sub-optimal outcomes" represent? RDOS staff? Or the general public? If "sub-optimal outcomes" have been identified, it would follow that OPTIMAL OUTCOMES can be identified and regulated. Maybe the "Street Lighting" section of Bylaw 2000, 2002 needs to be updated instead of being scrapped?

...the subdivision servicing bylaw cannot properly account for situations where:

- there is no service area established, and the creation of such a service area may run counter to other Board objectives (i.e. focusing services on designated Growth Areas under the RGS);
- an existing service area is administered by a separate entity (i.e. an Irrigation District) that may not support the installation of additional street lighting as required by the RDOS; or
- the location of the street light would be at a location that has not been deemed a priority (i.e. schools, parks, community mailboxes, hazardous intersections, etc.).

I don't get the "no service area established". Are you implying the RDOS has no authority over WATER SUPPLY and SANITARY SEWERS in unincorporated parts of the RDOS, even though Section 2.1 states otherwise?

As for administration by bodies such as an Irrigation District, that type of body can own property and infrastructure, but it doesn't own the streets in a subdivision. "Street Lighting" on public streets is not the purview of an Irrigation District.

Regarding locating street lights at a location that hasn't been deemed a "priority", that's where conditions such as 2/3rds of owners and 50% of land would apply.

OBSERVATION #5

The relevance of the following statement in your September 13th Administrative Report is unclear (what position does the statement intend to support?):

A general principle of a street lighting service area is that the benefitting properties *can* extend far beyond the physical location of the street lights. Consequently, a service area can be far more extensive than the actual location of the lights.

OBSERVATION #6:

You propose changing Section 6.7 of Bylaw 2000, 2002 to include an "Approved Products List" but there is no such list nor a "draft" list available for the general public. Some thought needs to be put into providing at least a "draft" list.

OBSERVATION #7:

Your web page <https://www.rdos.bc.ca/development-services/planning/strategic-projects/street-lighting-policy-review/> states the following:

The Regional District is proposing to include new objectives and policy statements for street lighting under the "Infrastructure & Servicing" sections of the Electoral Area Official Community Plan (OCP) Bylaws.

Obviously, some areas of the RDOS (Area B and Area G for example) do not have an Official Community Plan. If your goal is to include new objectives of street lighting in Official Community Plans, the precedence of Section 2.1 of Bylaw 2000, 2002 must reasonably remain over any Official Community Plan. When I served as a Councillor for the Village of Keremeos, I was told that a "Bylaw" takes precedence over an "Official Community Plan" because an OCP is a vision, not a point of fact.

2.1 This Bylaw applies to all unincorporated lands within the boundaries of the Regional District.

OBSERVATION #8:

You are proposing to delete Section 6.0 of Schedule A but I disagree that a Subdivision Servicing Bylaw is "not well suited" to the task of regulating outdoor public safety. And I disagree with not having a Street Lighting bylaw for rural areas of the RDOS not covered by an OCP.

OBSERVATION #9:

You are proposing to prohibit HPS lights but you have not provided alternatives nor have you provided a rationale for those alternatives (upfront costs, lifespan, efficiency, lighting radius, maintenance, brightness...).

OBSERVATION #10:

A lack of Street Lighting bylaws in other regional districts doesn't mean those bylaws aren't needed. If Street Lighting bylaws weren't important AND if there wasn't a legal liability involved with failing to provide public lighting, cities wouldn't implement such bylaws.

I've attached a few pages from the City of Calgary Street Lighting bylaw for your perusal.

Sincerely,



Attach x 1



Design Guidelines for Street Lighting

2016



14. PEDESTRIAN WALKWAY, PATHWAY AND BIKEWAY LIGHTING

14.1 GENERAL

The purpose of pedestrian walkway, pathway and bikeway lighting is to provide for night time vision. Where a walkway is considered the primary access to residence, the lighting shall be designed as a Walkway/ Emergency Access and lighting is to be designed following the Design Guidelines for Subdivision Servicing

14.2 PEDESTRIAN WALKWAY, PATHWAY & BIKEWAY LIGHTING WARRANTS

Lighting for pedestrian walkways, pathways and bikeways (i.e. separate from the roadway lighting and with no potential for vehicle/pedestrian conflicts) is required in the following circumstances:

- Ramps to pedestrian overpasses
- Locations with stairs more than 2 risers high
- Walkways and pathways in known high security areas as determined by the public safety authorities
- Where Calgary Transit has designated pedestrian walkways and pathways as "Transit Pedestrian Corridors"
- Where a pathway exists between residences, connecting two roadways and is greater than 50m. Lighting levels do need to be achieved in this application. A 50m pole spacing is suggested

14.3 PEDESTRIAN WALKWAY, PATHWAY & BIKEWAY LIGHTING MATERIALS

Walkways, pathways and bikeways requiring a separate lighting system are generally illuminated with City standard LED post top luminaires mounted on 5.0m poles. However, decorative style HPS, metal halide, or LED luminaires may also be considered. Glare shields shall be used to reduce or eliminate light trespass and glare with respect to adjacent residences.

Luminaires and poles shall be as provided in the list of City Approved Street Lighting Luminaires. For a copy of the list, please contact The City Street Light Design Team.

14.4 PEDESTRIAN WALKWAY, PATHWAY & BIKEWAY LIGHTING DESIGN

Recommended lighting design criteria for pedestrian walkways, pathways and bikeways associated with public road right-of-way are detailed in IES RP-8 Tables 4, 5, 6, and 7.

If a walkway or bikeway runs adjacent to a roadway lighting system, lighting designers shall determine whether spill lighting from the roadway lighting system provides adequate lighting on the walkway.

14.5 PEDESTRIAN WALKWAY, PATHWAY & BIKEWAY LIGHTING LAYOUT

The typical pathway and bikeway lighting luminaire spacing is shown in Figure 27 below is to be considered as a guide only. Final pole spacing shall be confirmed by computer design, and approved by the City Senior Street Lighting Engineer.

The required setback from the edge of the pathway or bikeway to the face of the pole is 1.0m and must be achieved. Where available space does not permit the 1.0m offset to be achieved and clear zone requirements to be met, the clear zone may be reduced by 0.25m. Breakaway bases will be used in this instance when directed by The City.

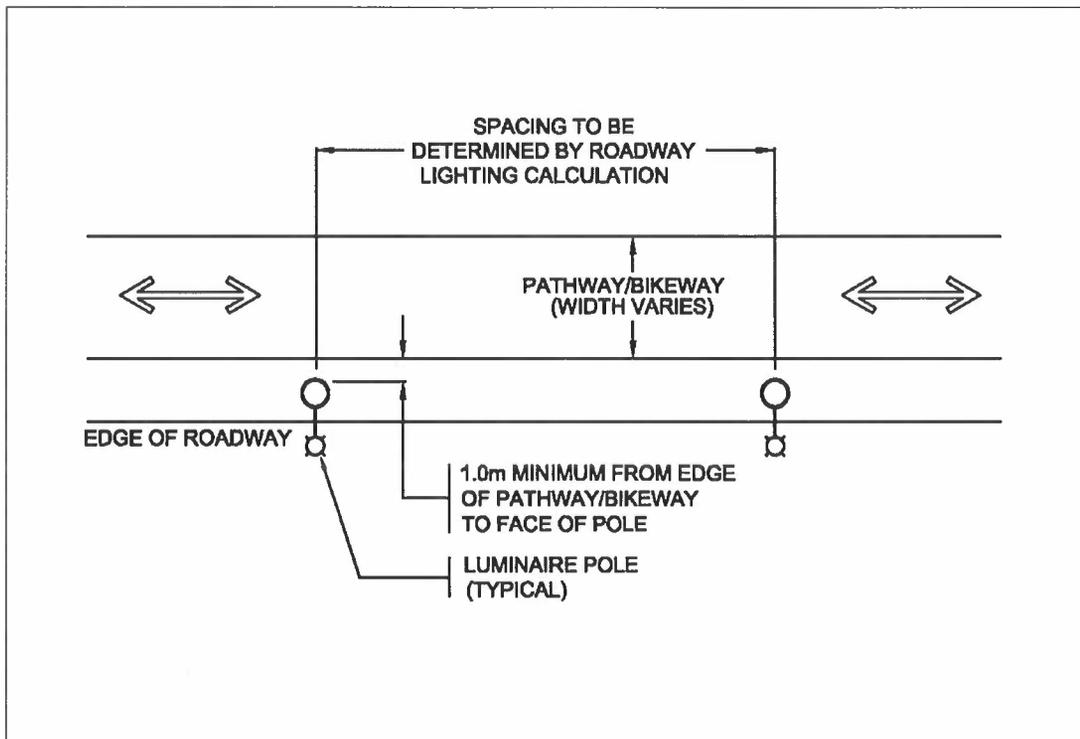


Figure 27: Typical Pathway or Bikeway Lighting



The typical walkway lighting luminaire spacing is shown in Figure 28 below is to be considered as a guide only. Final pole spacing shall be confirmed by computer modeling, and approved by The City Senior Street Lighting Engineer.

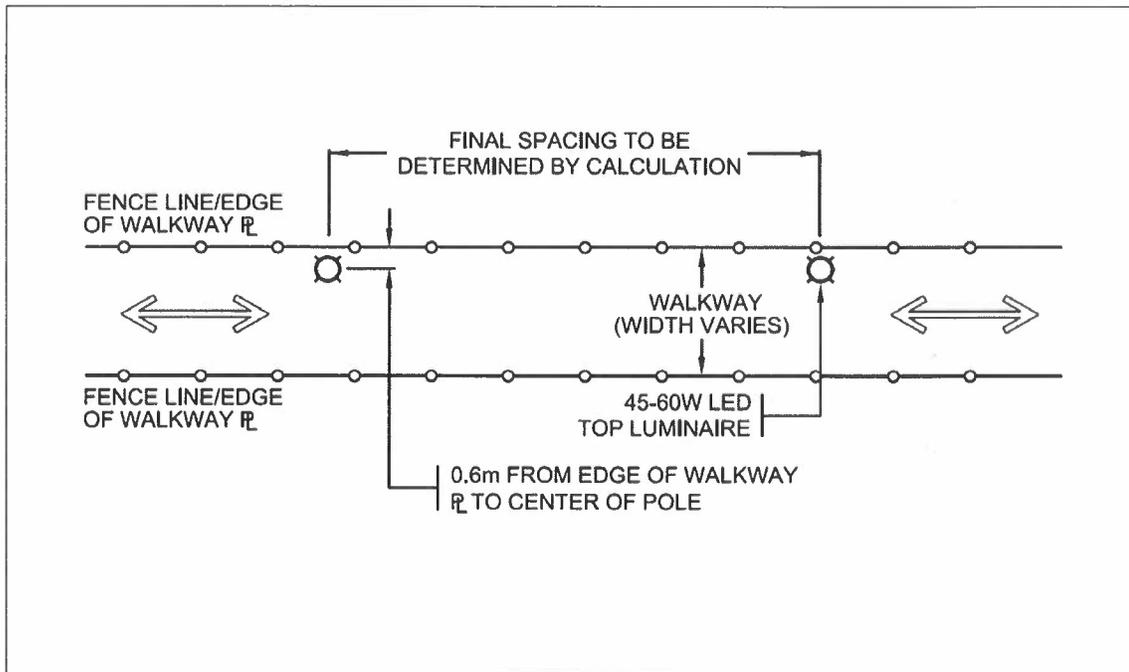


Figure 28: Typical Walkway Lighting

15. CONSTRUCTION DETOUR & TRANSITION ZONE LIGHTING

15.1 GENERAL

Refer to Section 3 – Lighting Design for construction detour and transition zone general lighting design criteria.

15.2 CONSTRUCTION DETOUR & TRANSITION ZONE LIGHTING WARRANTS

In the City of Calgary, lighting is required at all temporary construction detours where roadway lighting existed before the detour.

Lighting is required at detours, as determined by the City Senior Street Lighting Engineer, where one of the following conditions exists:

- The road geometry is overly complex
- There is a medium to high level of night time pedestrians
- Safety is a concern

Lighting is only required at detours that will be in use during night time hours.

The above warrants apply to lighting for vehicular and pedestrian traffic only. These are not warrants for task lighting that may be required for night time construction work. The lighting for construction work is the contractors' responsibility and is regulated by the Occupational Health and Safety Act.

15.3 CONSTRUCTION DETOUR & TRANSITION ZONE LIGHTING MATERIALS

All lighting materials used for temporary lighting shall as provided in the list of City Approved Street Lighting Luminaires. For a copy of the list, please contact The City Street Light Design Team. If it is impractical to use the City approved lighting equipment for the temporary lighting, a temporary wood pole system with overhead wiring is permissible. All luminaires used must be flat glass cobra head to provide appropriate glare control.

Floodlights are not permissible for temporary detour lighting unless it can be shown to the City Senior Street Lighting Engineer's satisfaction that proper glare and light pollution control can be achieved.

15.4 CONSTRUCTION DETOUR & TRANSITION ZONE LIGHTING DESIGN

All lighting designs for temporary construction detours and transition zones must meet the roadway lighting design requirements as defined in Section 7 – Roadway Lighting, Section 8 – Intersection Lighting and Section 9 – Interchange Lighting, including the secondary criteria such as uniformity spill light and glare.



Where possible, construction detour and transition zone lighting shall be provided in whole, or in part, by the permanent lighting installation of the project. This can many times be achieved by the early installation of the electrical systems in a project.

Where construction detour and transition zone lighting cannot be provided by the permanent lighting installation, must be supplemented by additional lighting. All lighting materials used for temporary lighting shall be from the Approved Street Lighting Luminaire list, and then subsequently be re-used as part of the permanent installation elsewhere in the project.

To ensure safety, roadway lighting on temporary construction detours may require higher lighting levels than those noted in IES RP-8. Issues such as speed, road geometrics, number of detour stages, proximity of roadside hazards, volume of traffic, and driver safety will affect detour lighting levels.

If lighting of temporary construction detours is required (as outlined in Section 15.2), the design criteria for the class of roadway in question shall be selected, and the required lighting level increased by 50%. (This is based on the principle outlined in IES RP-8 Paragraph 5.1.3, which recommends increasing roadway lighting levels by 50% for special traffic conflict areas).

The determined lighting levels for temporary construction detours shall be confirmed with the City Senior Street Lighting Engineer prior to proceeding with the detailed design.

These construction lighting recommendations apply to lighting for vehicular and pedestrian traffic only. These are not recommendations for task lighting that may be required for night time construction work. Lighting specifically for construction work is the contractors' responsibility and is regulated by Occupational Health and Safety.

15.5 CONSTRUCTION STAGING

In the City of Calgary, existing street lighting must be maintained throughout the duration of construction.

The lighting designers shall review construction staging designs and schedules, and shall insure that the required street lighting is in place through all stages of the construction.



16. DESIGN SUBMISSIONS

Design submissions made to The City should include but is not limited to the following information with the purpose to provide all relevant information to aid design review.

The lighting designers must include the project AGI32 design file(s) in PDF format, as part of all design folder submissions to prove the validity of the lighting design results.

The IES formatted photometrics for the luminaire(s) used shall be provided electronically or external hard drive with the project design file(s), for special considerations.

The lighting designers are encouraged to include, as a minimum, all correspondence related to:

1. Confirmation of design requirements
2. Confirmation of electrical service location by Enmax
3. All correspondence with Roads
4. Any other correspondence that, in the opinion of the lighting designers, provides support to the street lighting design submitted

All street lighting designs submitted to The City for approval shall be signed and sealed by an APEGA Registered Professional Engineer. This requirement shall only apply to final design submissions.

Designs must make use of materials (poles, fixtures, bases, conduit, relays, etc) utilized by The City. Non City material designs will NOT be approved.

16.1 INFORMATION FIELDS

- A. Project Information (REQUIRED – all submissions)
- B. Project Contact List (REQUIRED – all submissions)
- C. Design Requirements & Summary Sheets (REQUIRED – all submissions)
- D. Verification of Lighting Levels (REQUIRED – all submissions)
- E. Load Calculations (REQUIRED – all submissions)
- F. Voltage Drop Calculation (REQUIRED – final submission only)
- G. Engineers Construction Estimate (REQUIRED – final submission only)
- H. Material List (REQUIRED – final submission only)
- I. Site Pictures (OPTIONAL)

16.2 ENGINEERS CONSTRUCTION COST ESTIMATE

The construction cost estimate for the street lighting project shall be prepared in a "unit price" format, and shall be of sufficient detail to clearly identify the various

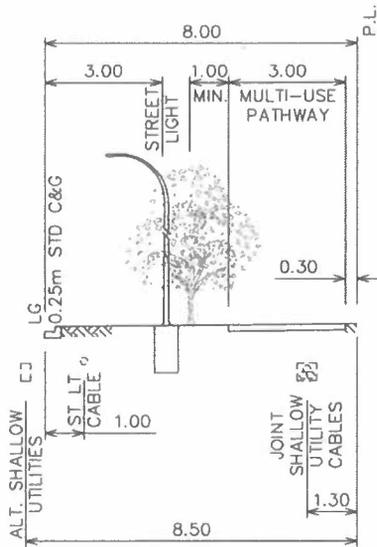


distinct items of the work. The format to be used shall be left to the lighting designers, but it is suggested that this format be submitted to The City for review and approval.

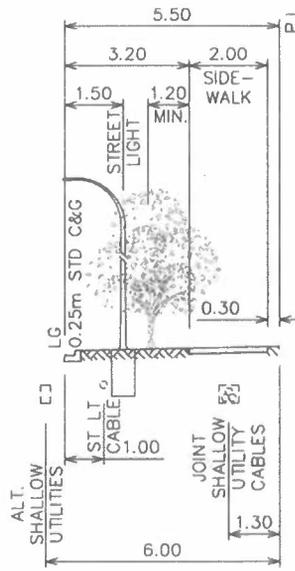


APPENDIX A: TYPICAL ROADWAY CROSS-SECTIONS

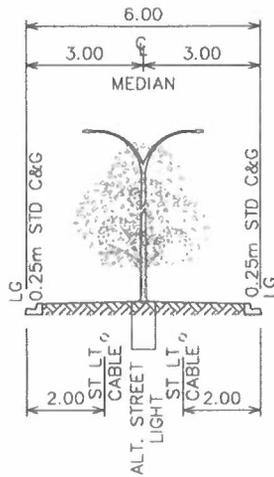
(From Design Guidelines for Subdivision Servicing 2014)



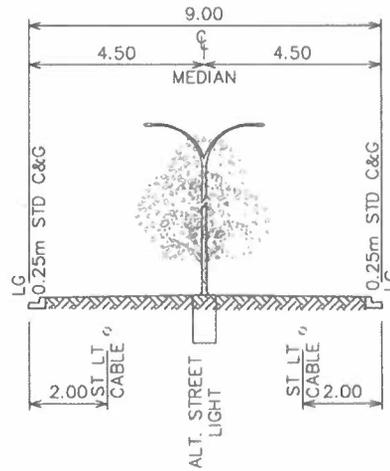
WITH MULTI-USE PATHWAY



WITH SEPARATE SIDEWALK



MEDIAN - 4 LANES



MEDIAN - 6 LANES

DIMENSIONS ARE MILLIMETRES
UNLESS OTHERWISE NOTED



PERMIT

PERMIT TO PRACTICE
THE CITY OF CALGARY
Signature: *[Signature]*
Date: 2015 Mar 17
PERMIT NUMBER: P 4428
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

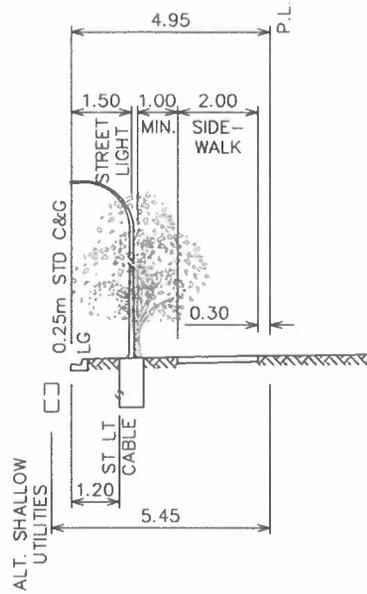
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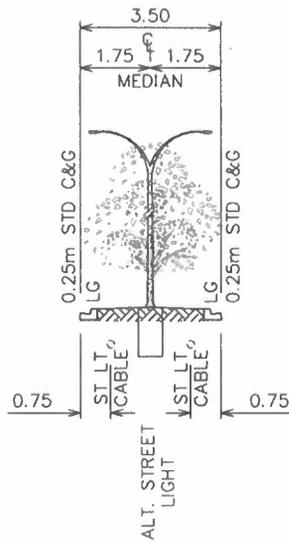
**CROSS SECTION
ARTERIAL STREET**

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NO.	REVISION	DATE	

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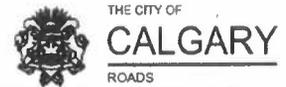


WITH SEPARATE SIDEWALK



MEDIAN

DIMENSIONS ARE MILLIMETRES
UNLESS OTHERWISE NOTED METRIC



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PERMIT TO PRACTICE
 THE CITY OF CALGARY
 Signature: *[Signature]*
 Date: 2015 May 17
 PERMIT NUMBER: P 4428
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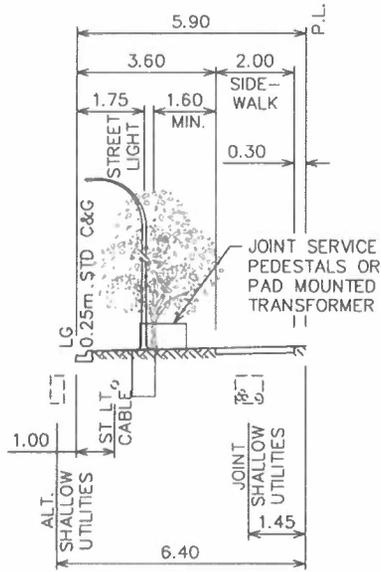
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NO.	REVISION	DATE	

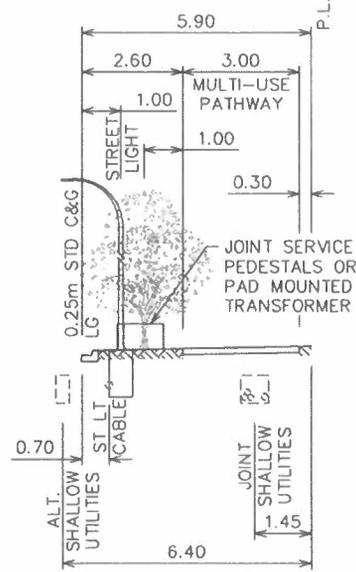
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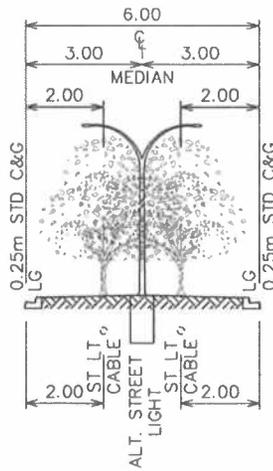
DESIGN GUIDELINES FOR STREET LIGHTING



WITH SEPARATE SIDEWALK



WITH MULTI-USE PATHWAY



MEDIAN

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE NOTED METRIC



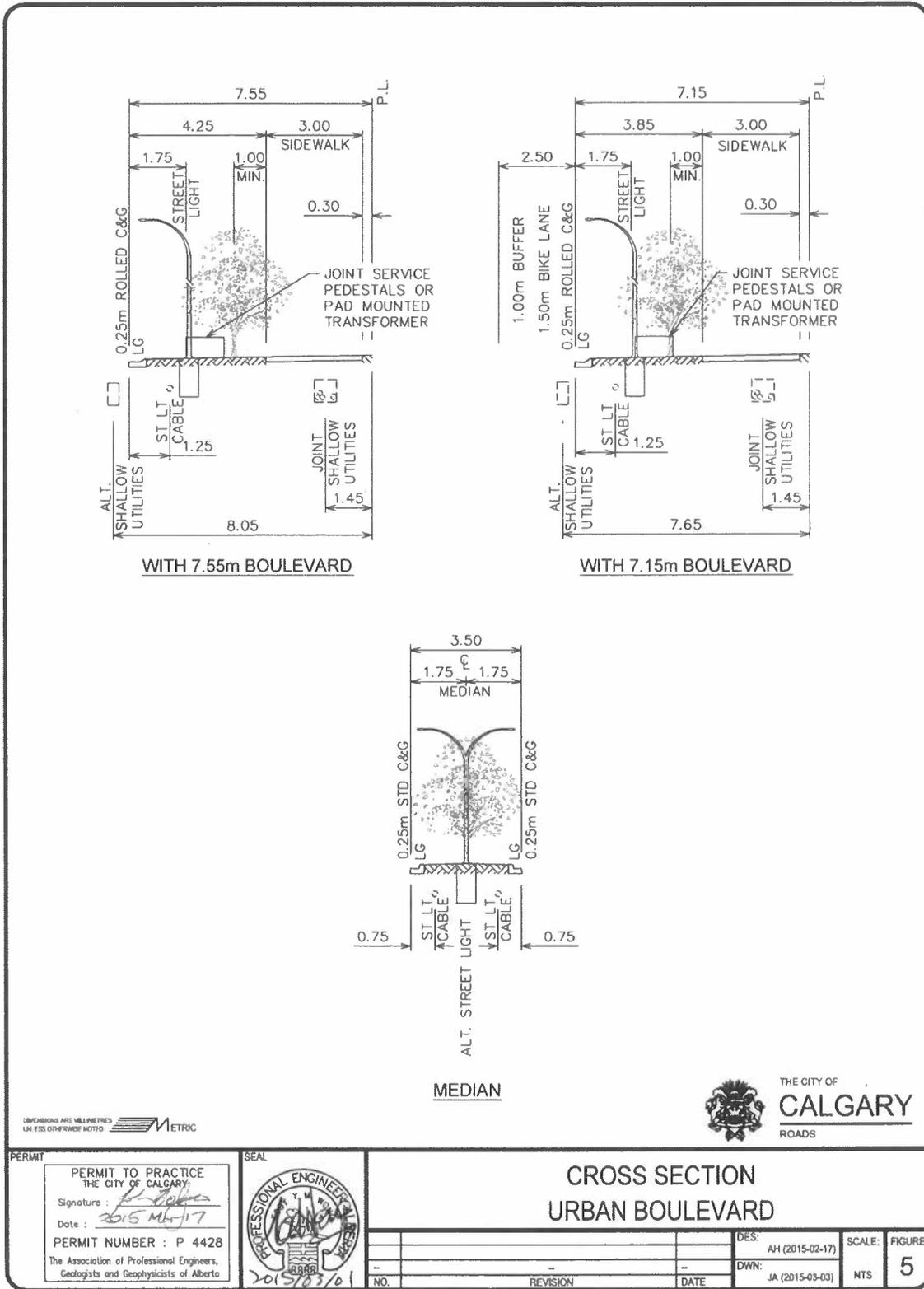
PERMIT
PERMIT TO PRACTICE
THE CITY OF CALGARY
Signature: *[Signature]*
Date: 2015 Mar 17
PERMIT NUMBER: P 4428
The Association of Professional Engineers,
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**CROSS SECTION
PARKWAY**

DES:	AH (2015-02-17)	SCALE:	FIGURE
DWN:	JA (2015-02-18)	NTS	4
NO.	REVISION	DATE	

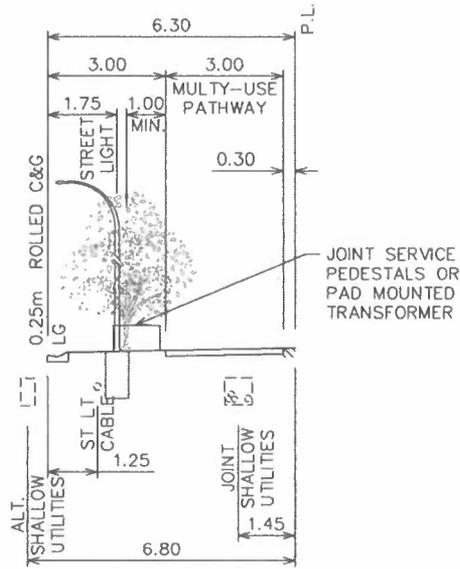
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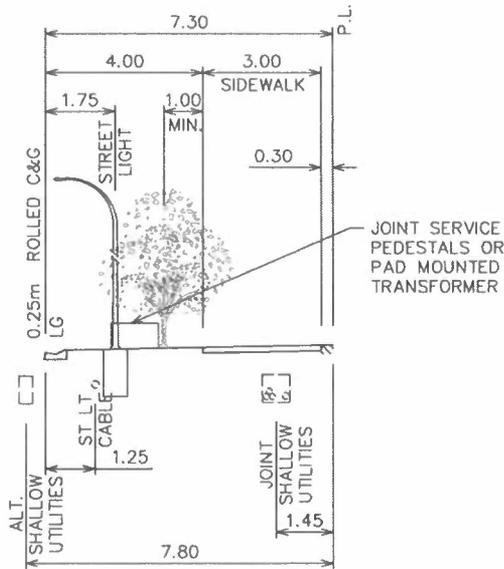
DIMENSIONS ARE IN METRES
UNLESS OTHERWISE NOTED METRIC

<p>PERMIT</p> <p>PERMIT TO PRACTICE THE CITY OF CALGARY</p> <p>Signature: <i>[Signature]</i></p> <p>Date: 2015 ML-17</p> <p>PERMIT NUMBER : P 4428</p> <p>The Association of Professional Engineers, Geologists and Geophysicists of Alberta</p>	<p>SEAL</p> <p>2015/03/01</p>	<p>CROSS SECTION URBAN BOULEVARD</p>		DES:	AH (2015-02-17)	SCALE:	FIGURE
		NO.	REVISION	DATE	DWN:	JA (2015-03-03)	NTS

O:\tran\streetlight\spec_sheets\2015\2015 Spec Cross Section Updates\05_Urban Boulevard.dwg, 3/11/2015 2:07:48 PM, 1:1



WITH 6.30m BOULEVARD



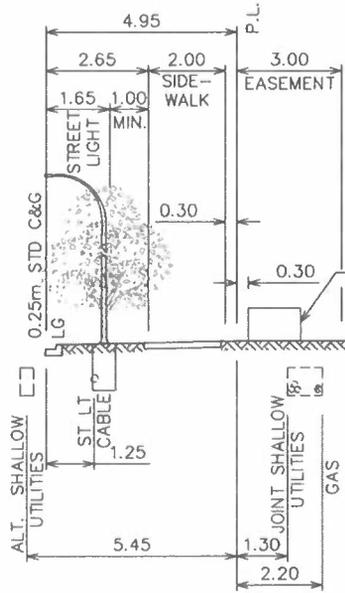
WITH 7.30m BOULEVARD

DIMENSIONS ARE MILLIMETRES
UNLESS OTHERWISE NOTED METRIC

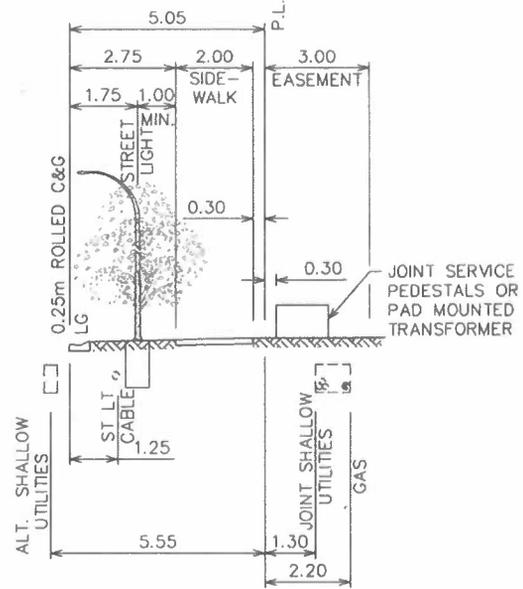


<p>PERMIT</p> <p>PERMIT TO PRACTICE THE CITY OF CALGARY</p> <p>Signature: <i>[Signature]</i></p> <p>Date: 2015 May 17</p> <p>PERMIT NUMBER : P 4428</p> <p>The Association of Professional Engineers, Geologists and Geophysicists of Alberta</p>	<p>SEAL</p> <p>201503/01</p>	<p>CROSS SECTION</p> <p>NEIGHBOURHOOD BOULEVARD</p>		DES: AH (2015-02-17)	SCALE: NTS	FIGURE: 6
		NO. -	REVISION -	DATE -	DWN: JA (2015-02-18)	NTS

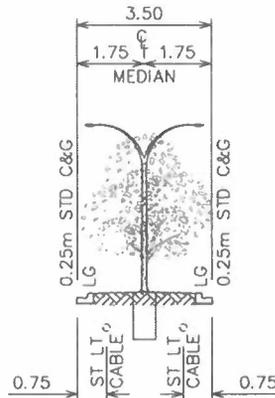
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WITH 4.95m BOULEVARD



WITH 5.05m BOULEVARD



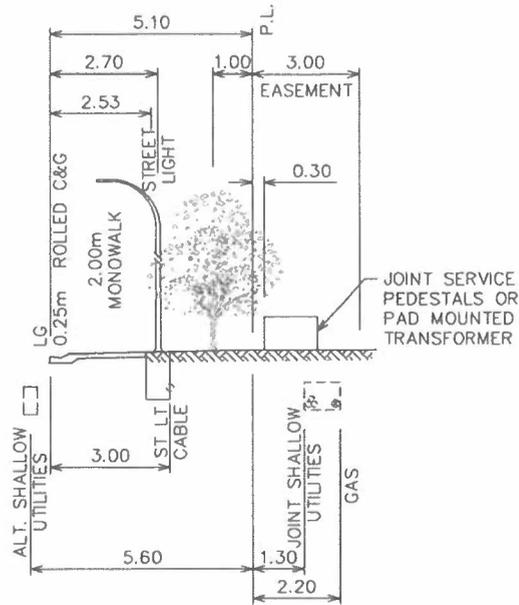
MEDIAN

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE NOTED METRIC

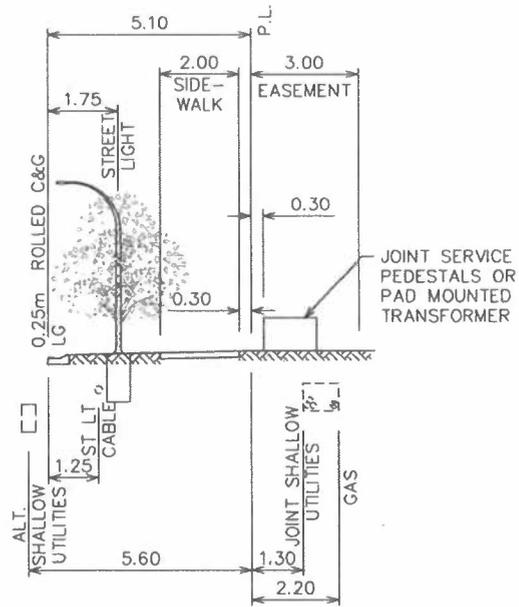


<p>PERMIT</p> <p>PERMIT TO PRACTICE THE CITY OF CALGARY</p> <p>Signature: <i>[Signature]</i></p> <p>Date: 26th May 17</p> <p>PERMIT NUMBER: P 4428</p> <p>The Association of Professional Engineers, Geologists and Geophysicists of Alberta</p>	<p>SEAL</p>	<p>CROSS SECTION</p> <p>PRIMARY COLLECTOR STREET</p>		DES: AH (2015-02-17)	SCALE: NTS	FIGURE: 7
		NO.	REVISION	DATE	DWN: JA (2015-02-18)	NTS

O:\tran\streetlight\spec_sheets\2015\2015 Spec Cross Section Updates\07_Primary Collector St.Lwg, 3/11/2015 2:08:43 PM, 1:1



WITH MONOLITHIC SIDEWALK



WITH SEPARATE SIDEWALK

DIMENSIONS ARE MILLIMETRES
LAW 586 (11-6-10) 08/1011/02 METRIC



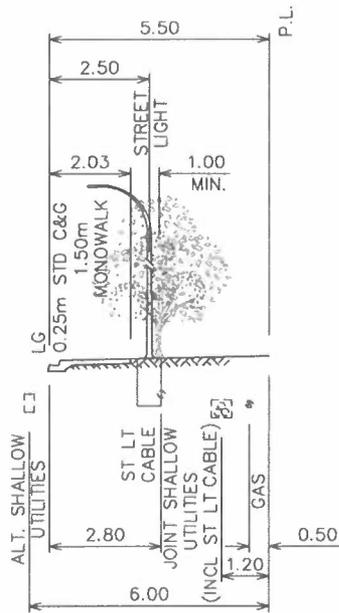
PERMIT
PERMIT TO PRACTICE
THE CITY OF CALGARY
Signature: *[Signature]*
Date: 2016 Mar 17
PERMIT NUMBER: P 4428
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

SEAL
PROFESSIONAL ENGINEER - ALBERTA
[Seal]
2015/05/D1

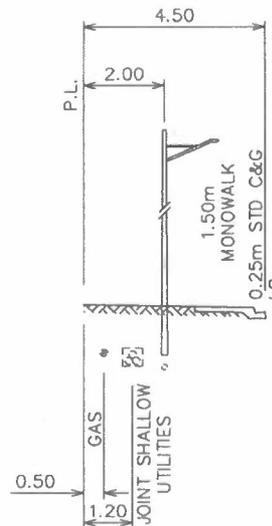
**CROSS SECTION
COLLECTOR STREET**

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DWN:	JA (2015-02-18)	NTS	8
NO.	REVISION	DATE	

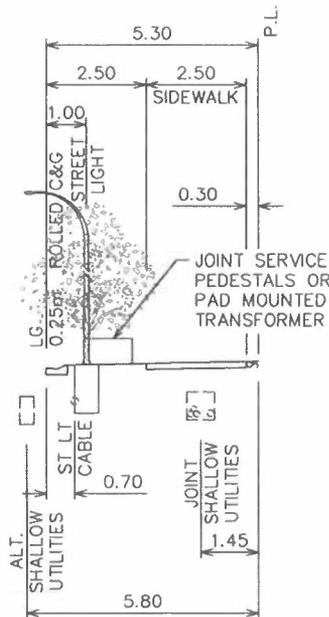
C:\Urban\streetlight\spec_sheets\2015\2015 Spec Cross Section Updates\08_Collector St.dwg, 3/10/2015 7:48:43 PM, 1.1



INDUSTRIAL STREET



**INDUSTRIAL STREET
BASE WITH OVERHEAD POWER POLE**



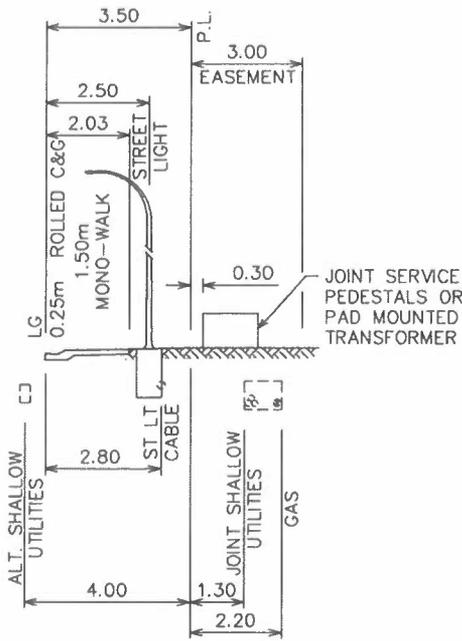
ACTIVITY CENTRE STREET

DIMENSIONS ARE METRIC UNLESS OTHERWISE NOTED

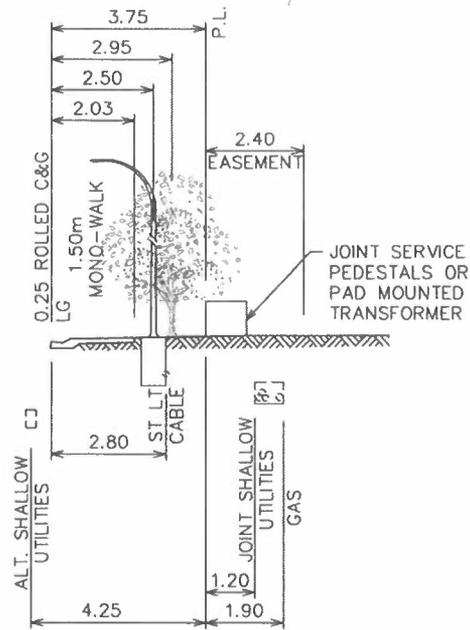


<p>PERMIT</p> <p>PERMIT TO PRACTICE THE CITY OF CALGARY</p> <p>Signature: <i>[Signature]</i></p> <p>Date: 2015 MARCH</p> <p>PERMIT NUMBER: P 4428</p> <p>The Association of Professional Engineers, Geologists and Geophysicists of Alberta</p>	<p>SEAL</p>	<p>CROSS SECTION</p> <p>INDUSTRIAL & ACTIVITY CENTRE STREETS</p>		DES:	SCALE:	FIGURE
		NO.	REVISION	DATE	AH (2015-02-17)	NTS

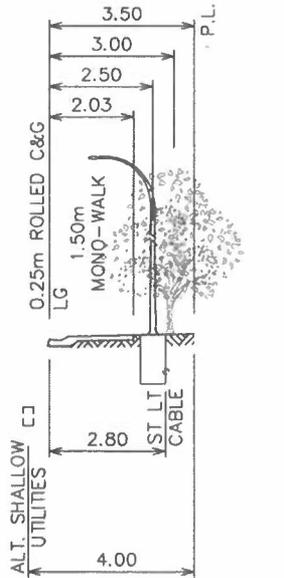
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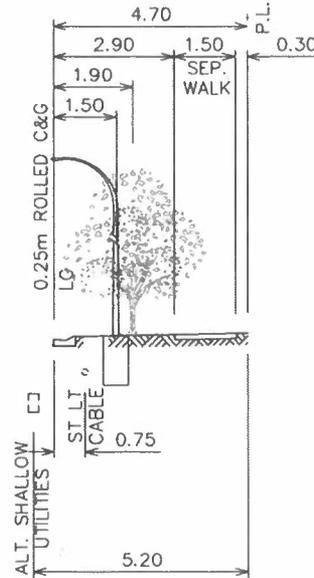
RESIDENTIAL ENTRANCE STREET



**RESIDENTIAL STREET "M"
MONO-WALK, NO REAR LANE**



**RESIDENTIAL STREET "M-L"
MONO-WALK WITH REAR LANE**



**RESIDENTIAL STREET "SW-L"
SEPARATE-WALK WITH REAR LANE**

DIMENSIONS ARE MILLIMETRES
UNLESS OTHERWISE NOTED



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THE CITY OF CALGARY
Signature: *[Signature]*
Date: *2015 May 7*
PERMIT NUMBER: P 4428
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SEAL



**CROSS SECTION
RESIDENTIAL STREET**

NO.	REVISION	DATE	DES:	SCALE:	FIGURE
			AH (2015-02-17)	NTS	10
			DWN:		
			JA (2015-02-18)		



BLOCK	SYMBOL	DESCRIPTION
(CR3H)		PROPOSED HIGHMAST STREETLIGHT POLE (3 LUMINAIRE)
(CR4H)		PROPOSED HIGHMAST STREETLIGHT POLE (4 LUMINAIRE)
(CRSD)		PROPOSED LUMINAIRE POLE
(CRDD)		PROPOSED DOUBLE DAVIT STREETLIGHT POLE
(CRPTS)		PROPOSED STREETLIGHT ON PROPOSED TRAFFIC SIGNAL POLE
(CRETSPL)		PROPOSED STREETLIGHT ON EXISTING TRAFFIC SIGNAL POLE
(CRETS)		EXISTING STREETLIGHT ON EXISTING TRAFFIC SIGNAL POLE
(CRE3H)		EXISTING HIGHMAST STREETLIGHT POLE (3 LUMINAIRE)
(CRE4H)		EXISTING HIGHMAST STREETLIGHT POLE (4 LUMINAIRE)
(CREDD)		EXISTING DOUBLE DAVIT STREETLIGHT POLE
(CRESDD)		EXISTING DAVIT STREETLIGHT POLE
(CRPFL)		PROPOSED FLOOD LIGHT
(CREFL)		EXISTING FLOOD LIGHT
(CRBB)	B	DENOTES BREAKAWAY BASE
(CRFB)	F	DENOTES FRANGIBLE BASE

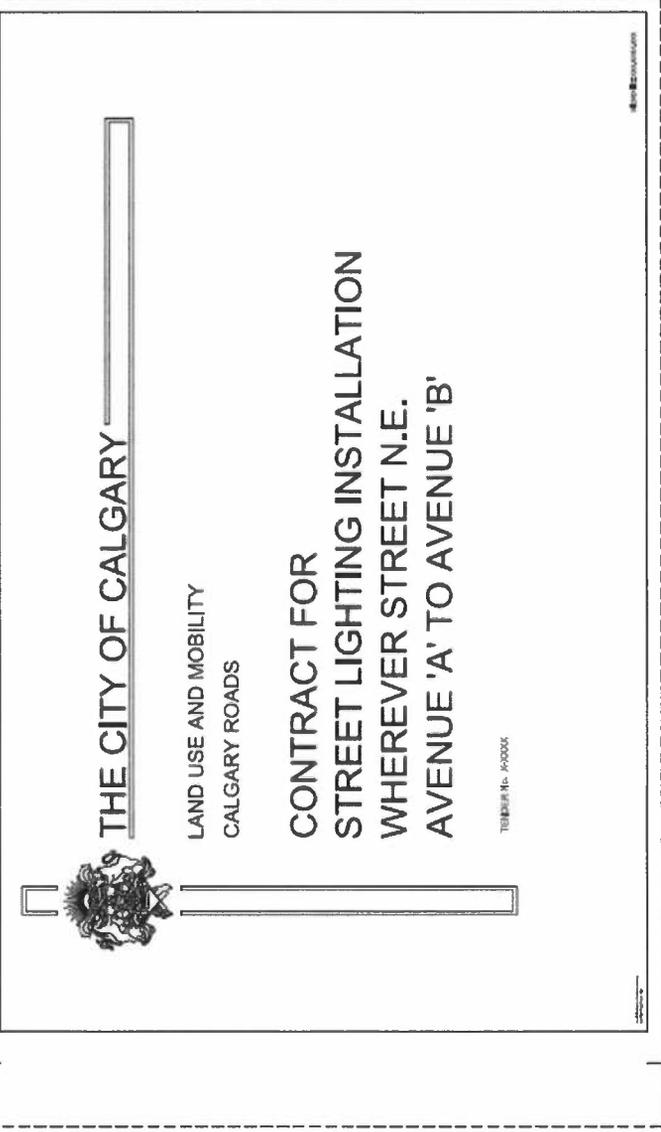
<small>DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED</small>					
STANDARD SYMBOLS FOR STREET LIGHTING DESIGN DRAWINGS					
Issue	Revision	Issue Date	DES: CRC	SCALE:	DRAWING No.
Date	Approved By		DWN: SSC	NOT TO SCALE	DS-BL
For General Manager Calgary Roads					SHEET 1



BLOCK	SYMBOL	DESCRIPTION
(CRPJB)		PROPOSED JUNCTION BOX
(CREJB)		EXISTING JUNCTION BOX
(CRRJB)		EXISTING JUNCTION BOX TO BE REMOVED
(CRPW)		PROPOSED WALL MOUNT LUMINAIRE
(CREW)		EXISTING WALL MOUNT LUMINAIRE
(CRDK)		STREET LIGHTING SERVICE CABINET
(CRSP)		STREET LIGHTING SERVICE PANEL
(CRPER)		30AMP 1Ø 'PER' SERVICE UNIT
(CRCAP)		CONDUIT CAP
(CRPP)		UTILITY POWER POLE
(CRTP)		UTILITY TELEPHONE POLE
(CRPTP)		UTILITY POWER/TELEPHONE POLE
(CRPT)		UTILITY POWER TRANSFORMER
(NORTH)		NORTH ARROW

<small>INTERNATIONAL METRIC SYSTEM</small> <small>UNITS ARE METRIC</small> <small>UNLESS OTHERWISE NOTED</small>			
STANDARD SYMBOLS FOR STREET LIGHTING DESIGN DRAWINGS			
Issue	Revision	Issue Date	
Date	Approved By	DES: CRC	SCALE:
	For General Manager Calgary Roads	DWN: SSC	NOT TO SCALE
		DRAWING No.	SHEET
		DL-BL	2





THE CITY OF CALGARY

LAND USE AND MOBILITY
CALGARY ROADS

CONTRACT FOR
STREET LIGHTING INSTALLATION
WHEREVER STREET N.E.
AVENUE 'A' TO AVENUE 'B'

TEL: 403.243.4000

BLOCK (covsht)

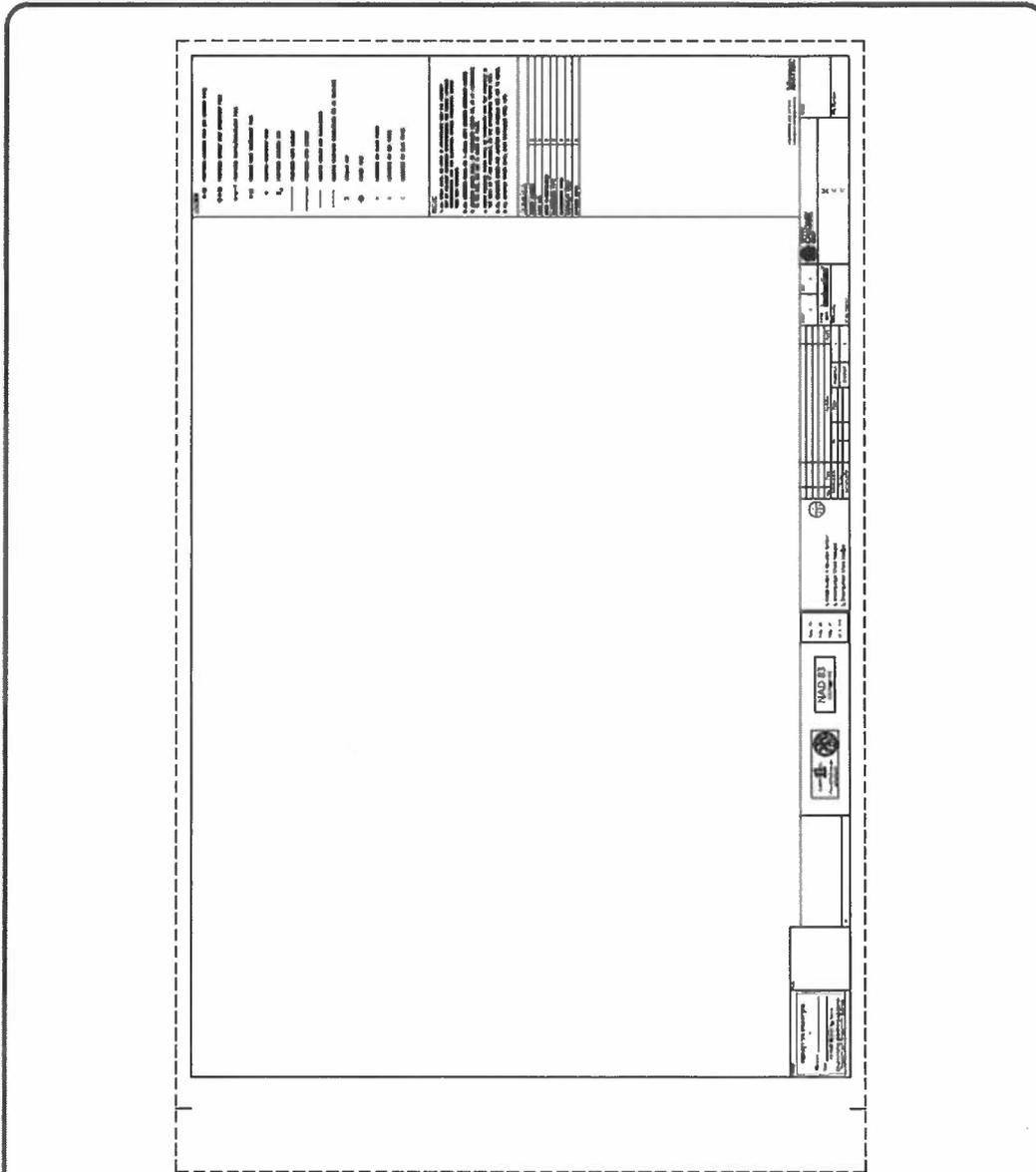
UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN MILLIMETERS
UNLESS OTHERWISE NOTED





THE CITY OF
CALGARY
ROADS

STANDARD COVER SHEET FOR STREET LIGHTING DESIGN DRAWINGS		
Issue	Revision	Issue Date
Date	Approved By	DES: CRC
For General Manager Calgary Roads		DWN: GJ
SCALE:		DRAWING No.
NOT TO SCALE		DL-BL
		SHEET
		3



NOTE

1. DRAWING SCALE TO BE 1:500

BLOCK (CRSHT)

ENGINEERING AND CONSULTING SERVICES
CALGARY (403) 243-4100
 METRIC



			STANDARD DRAWING SHEET FOR STREET LIGHTING DESIGN DRAWINGS			
Issue	Revision	Issue Date	DES: CRC	SCALE:	DRAWING No.	SHEET
Date	Approved By		DWN: SSC	NOT TO SCALE	DL-BL	4
For General Manager Calgary Roads						



**APPENDIX C: STREET LIGHTING DESIGN AND
CONSTRUCTION PROCESS DIAGRAMS**

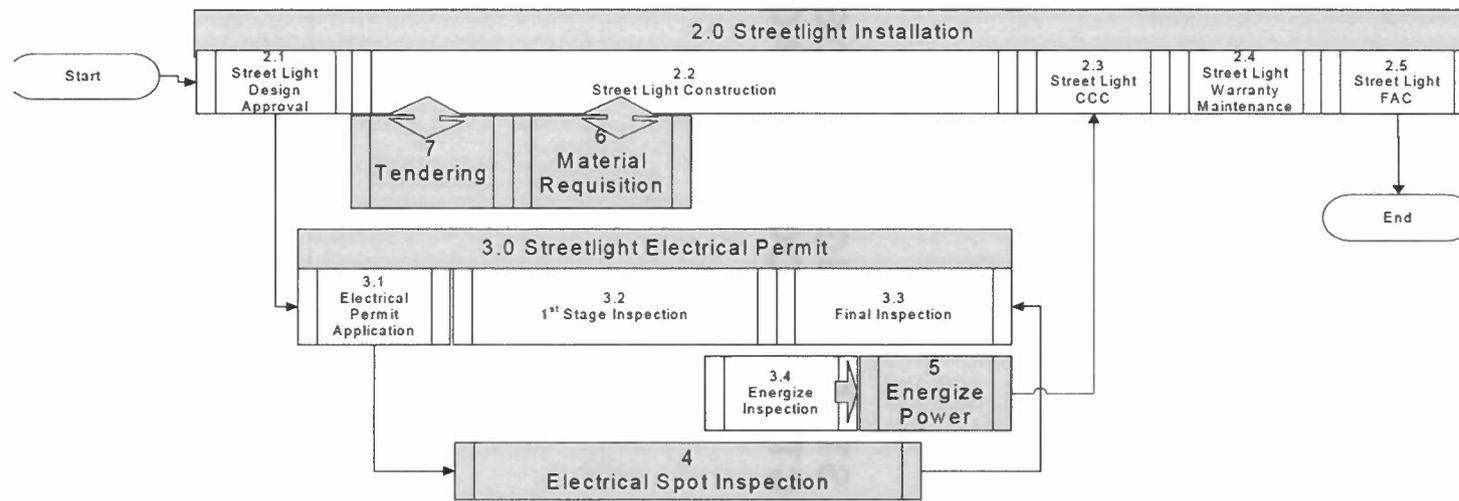


Figure 29: The City of Calgary Roads Business Unit Electrical Street Light Installation Project Process

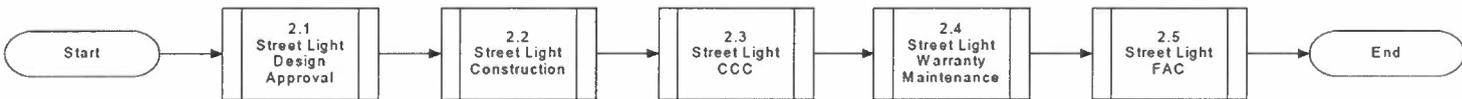


Figure 30: Asset Management Project Street Light Installation Process

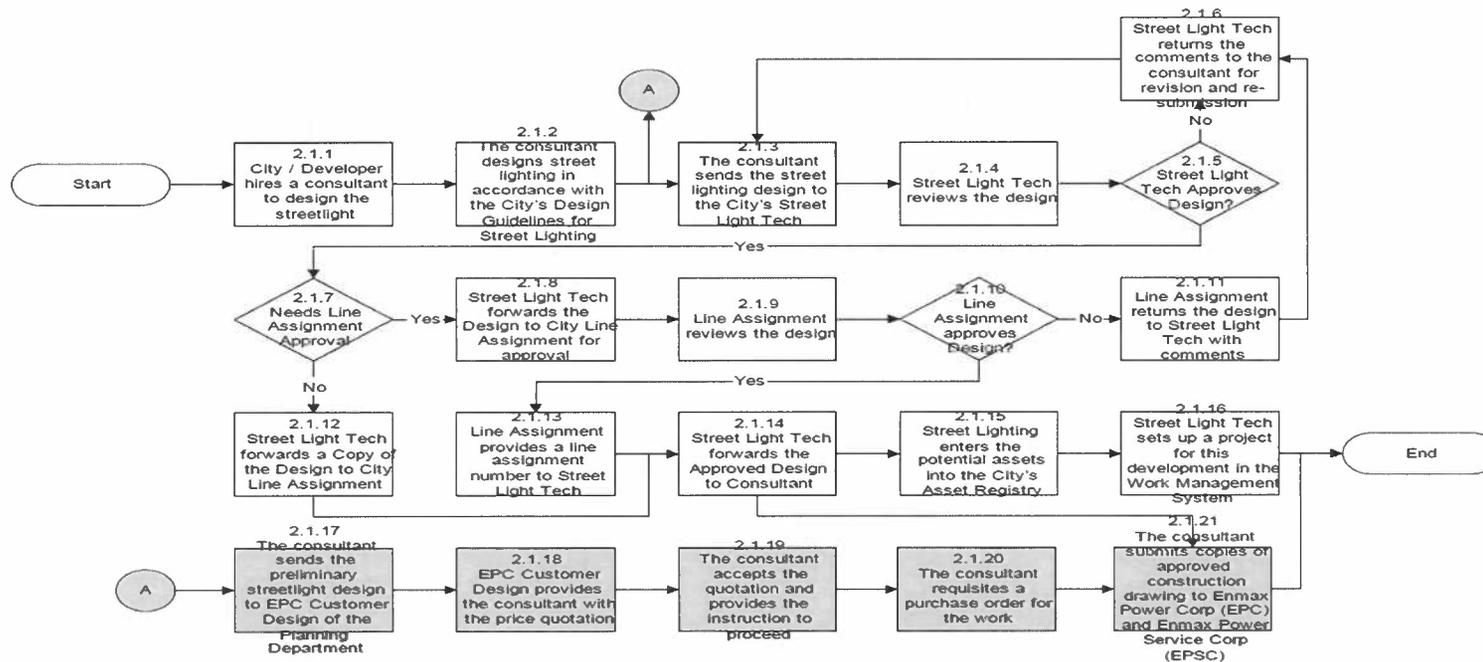


Figure 31: Street Light Approval

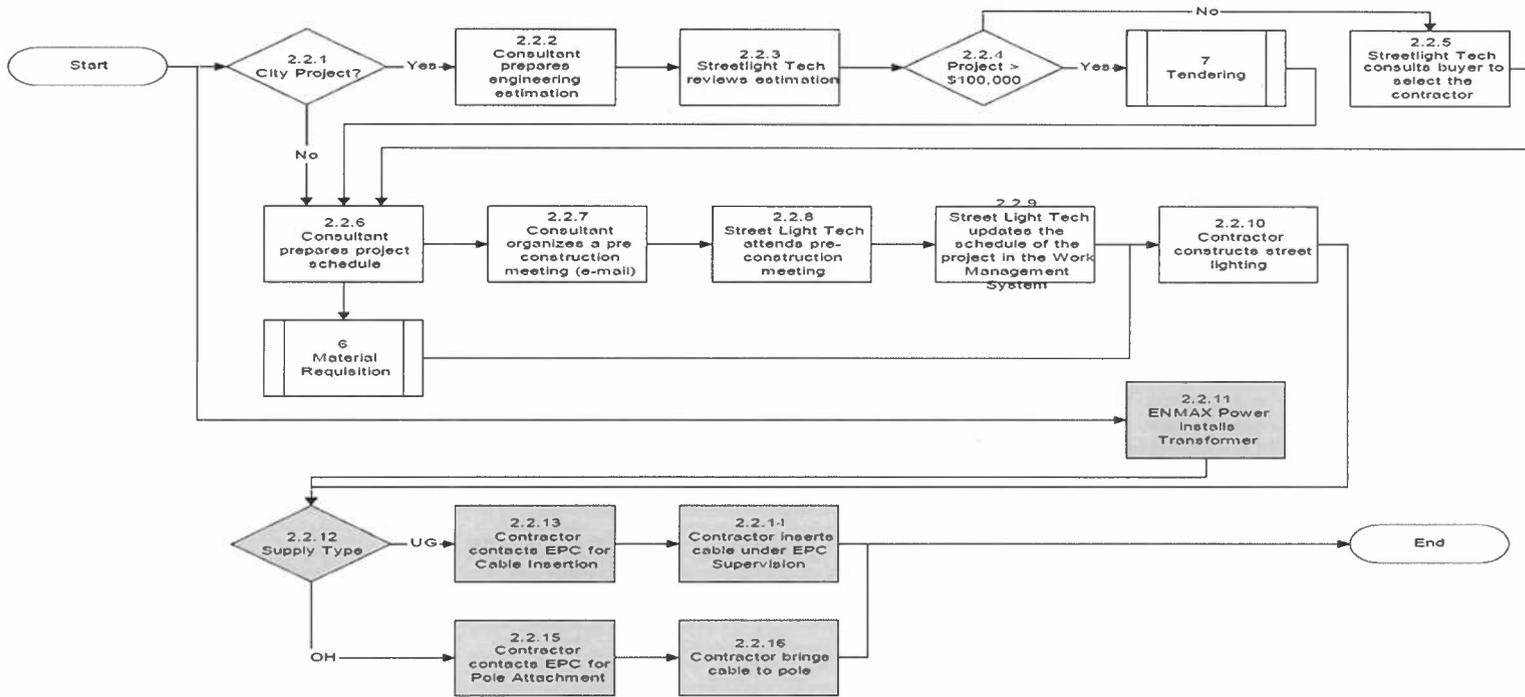


Figure 32: Street Light Construction

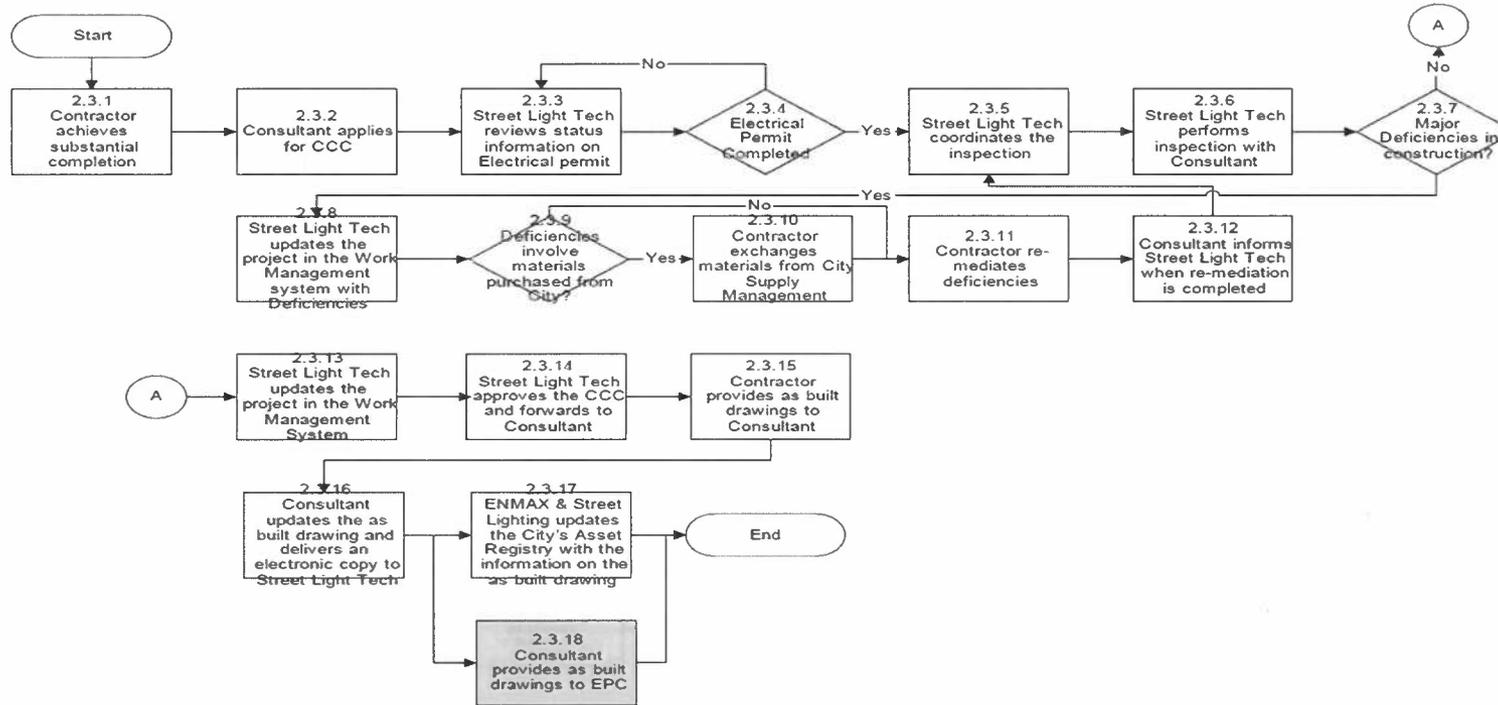


Figure 33: Street Light Construction Completion Certification (CCC)

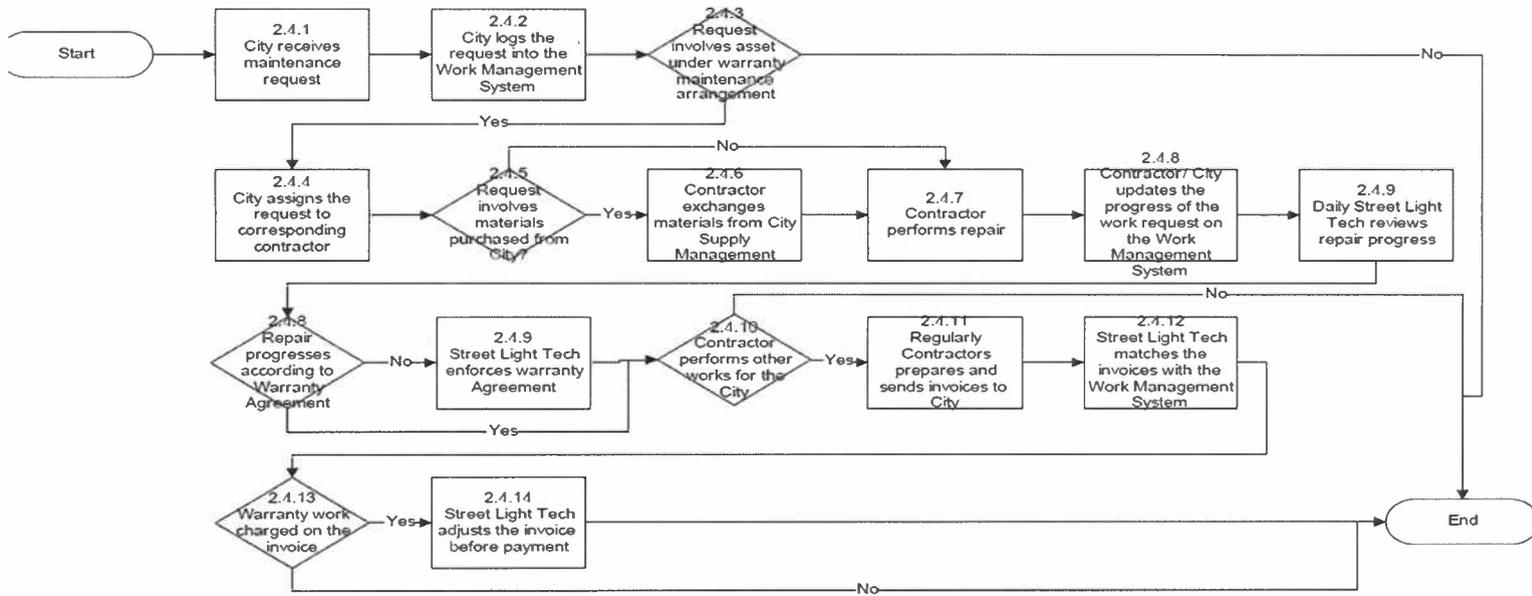


Figure 34: Street Light Warranty Maintenance

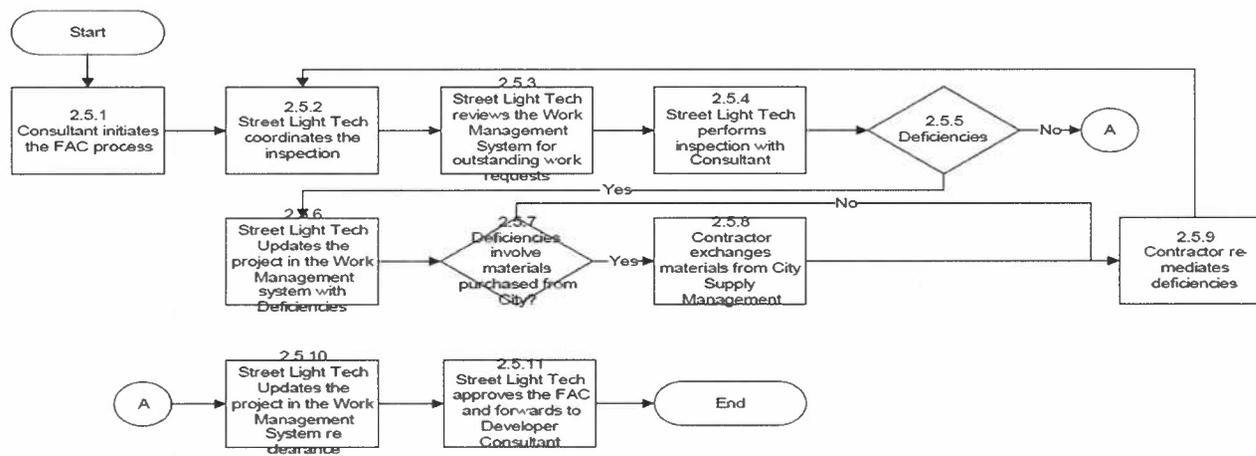


Figure 35: Street Light Final Acceptance Certificate (FAC)

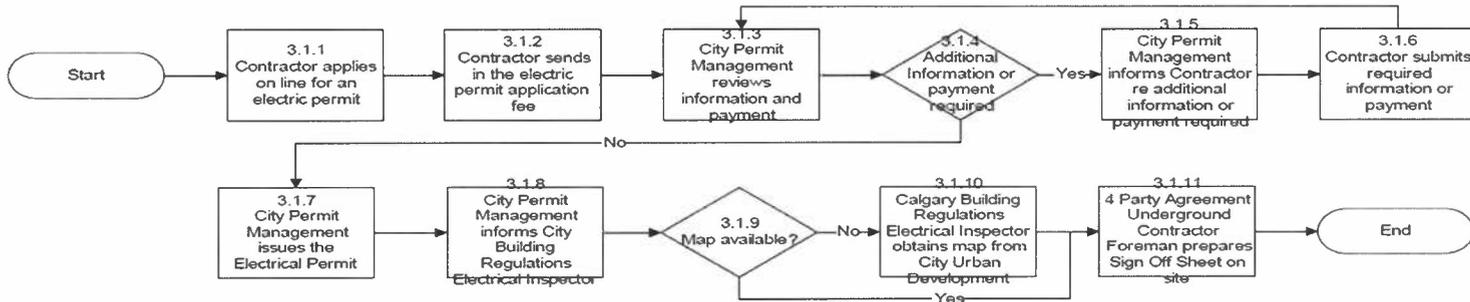


Figure 37: Electrical Permit Application

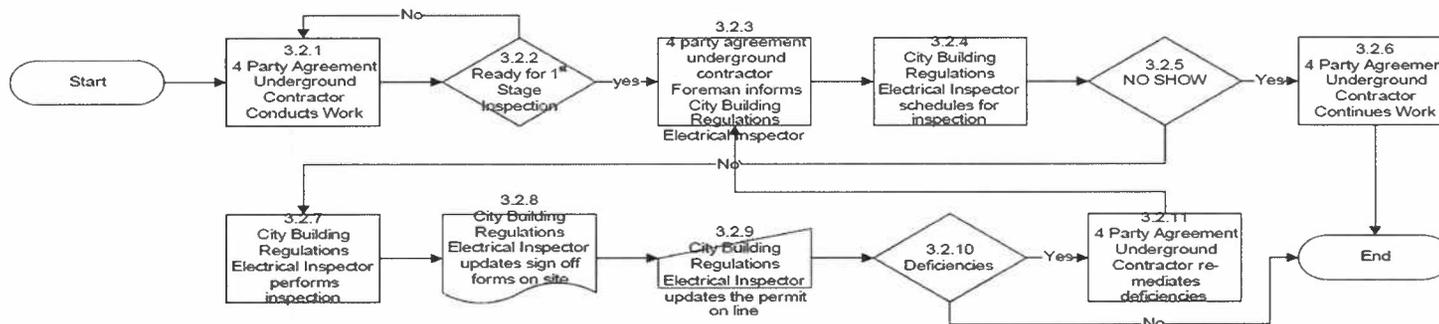


Figure 38: 1st Stage Inspection

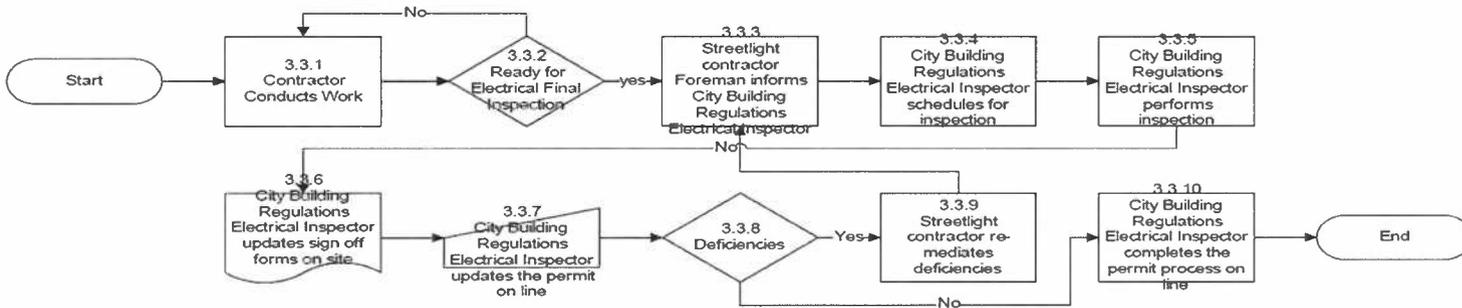


Figure 39: Electrical Final Inspection

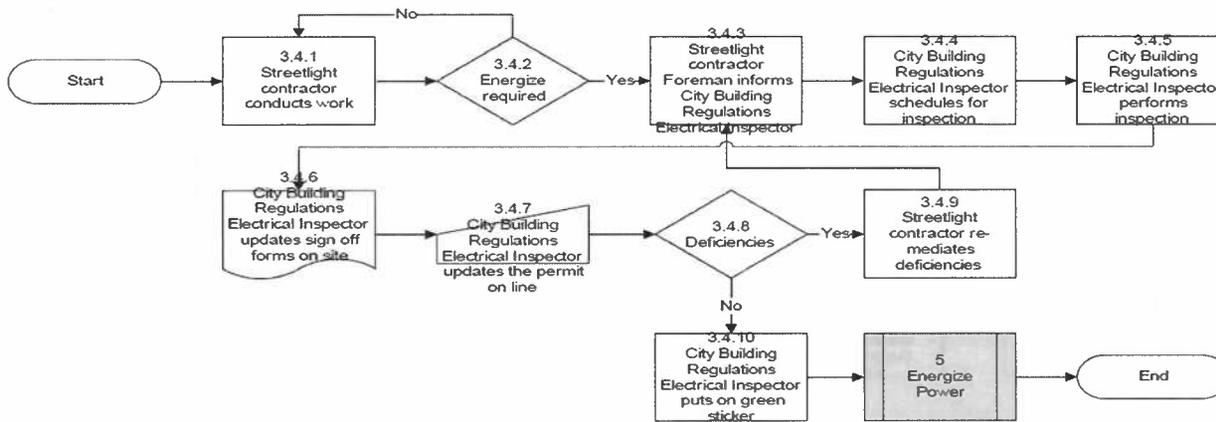


Figure 40: Energize Inspection

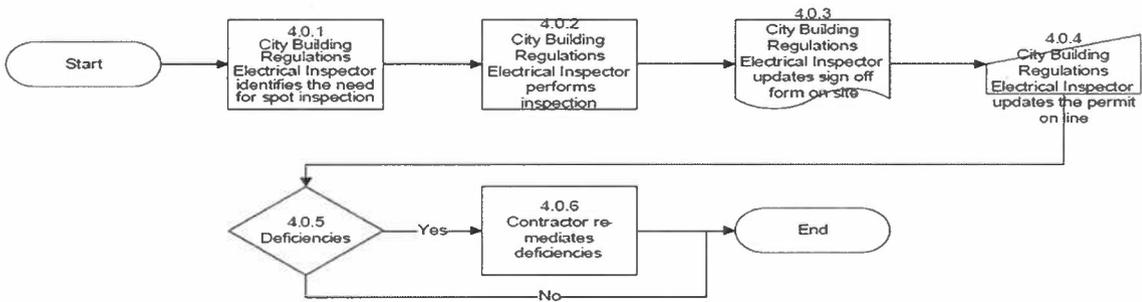


Figure 41: Electrical Spot Inspection

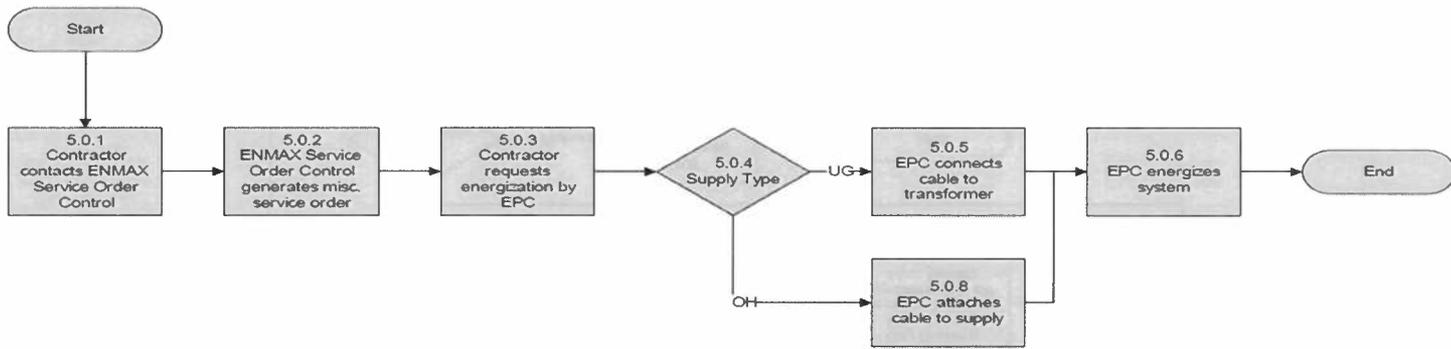


Figure 42: Energize Power

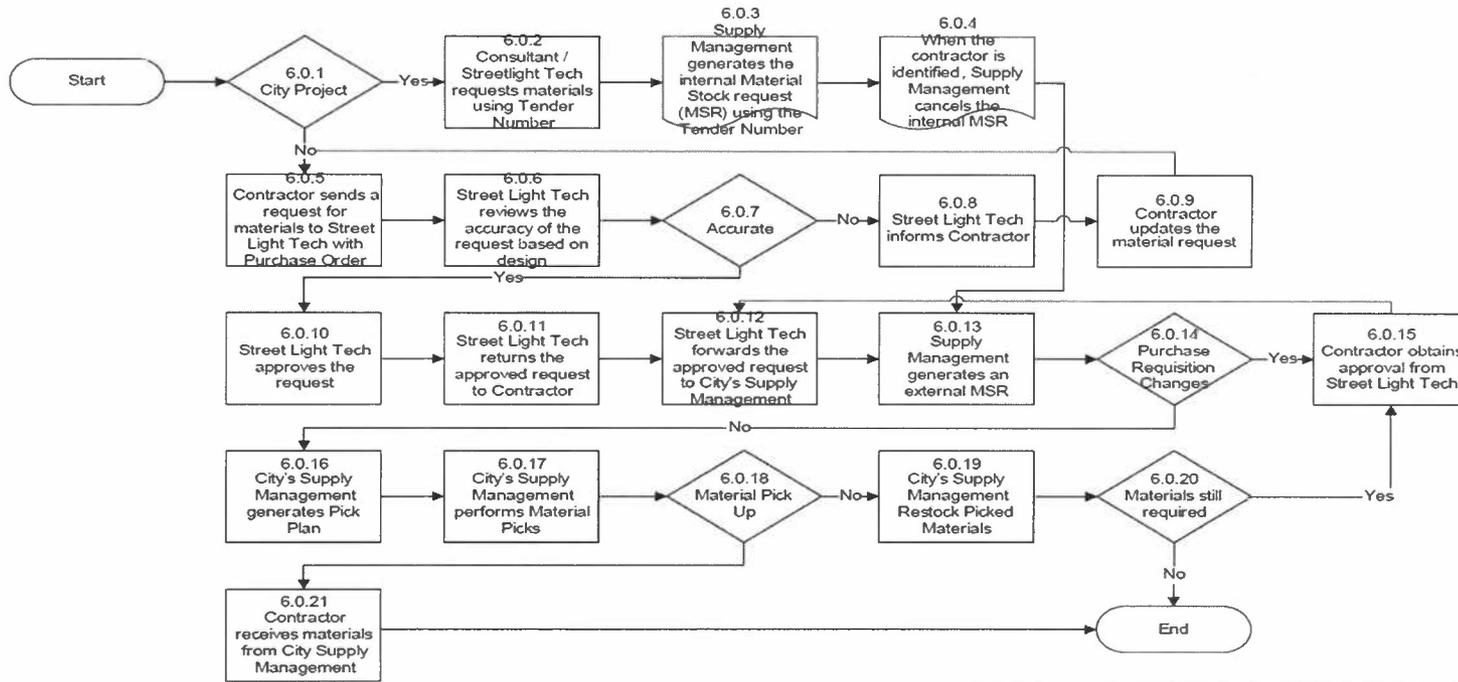


Figure 43: Material Requisition

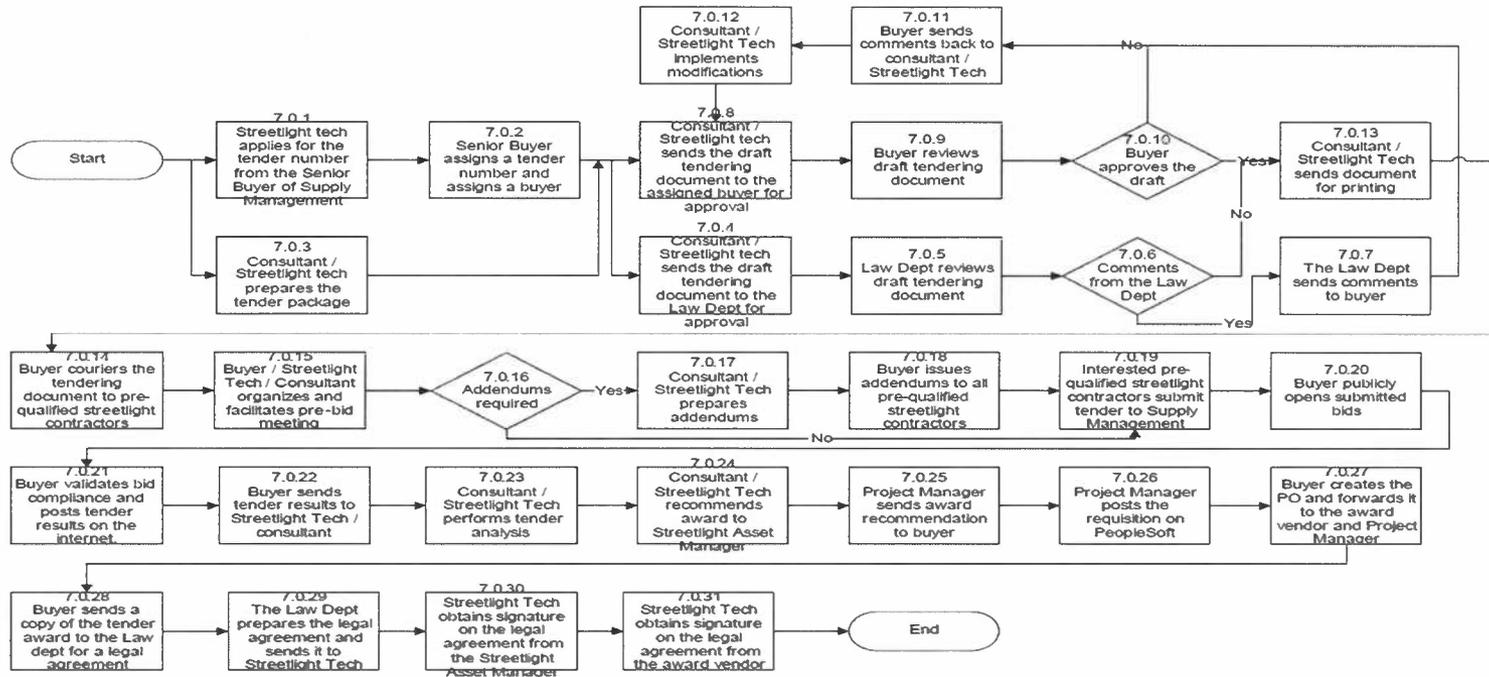


Figure 44: Tendering

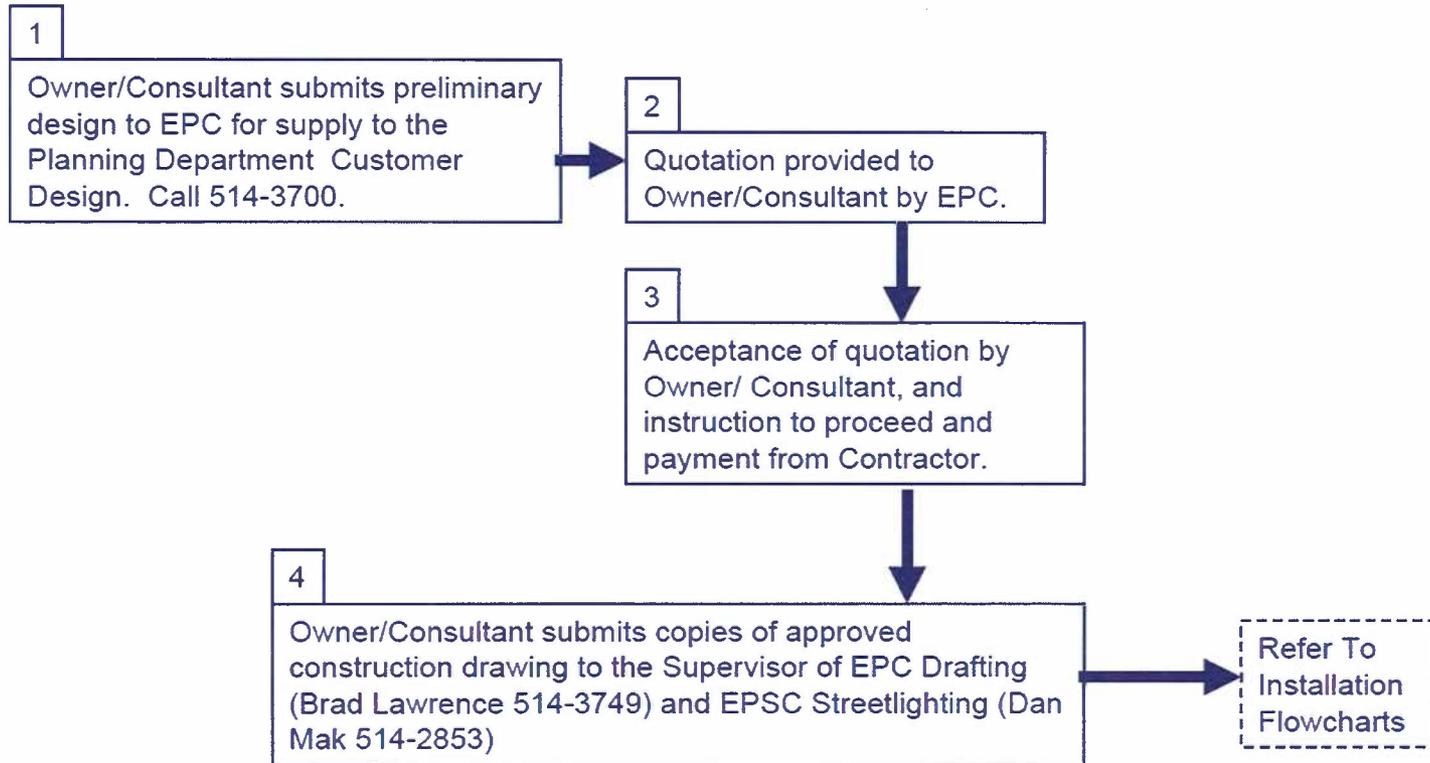


Figure 45: Street Light/ Traffic Power Installation Flowchart

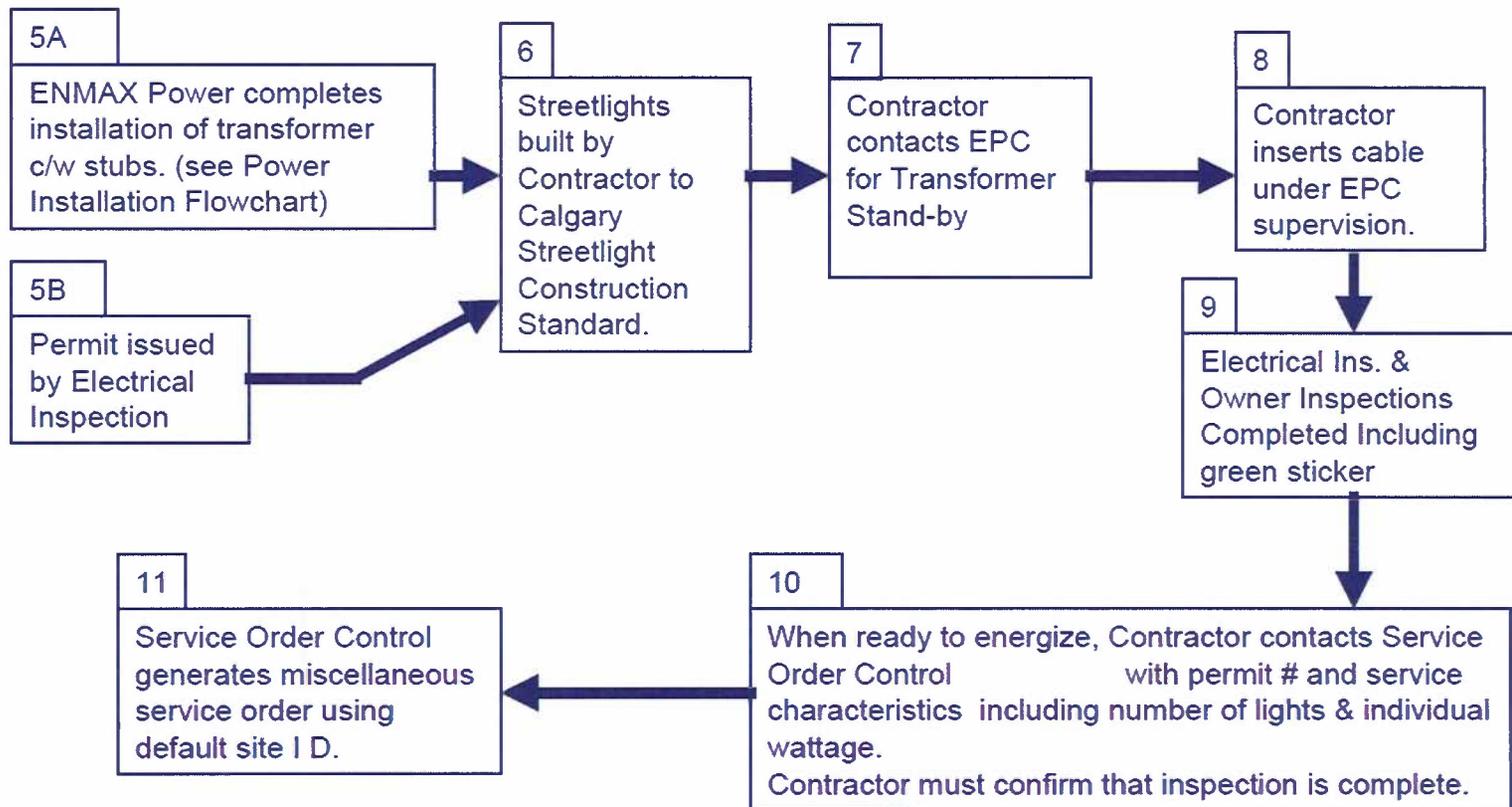


Figure 46: Street Light/ Traffic Installations - UG Supply

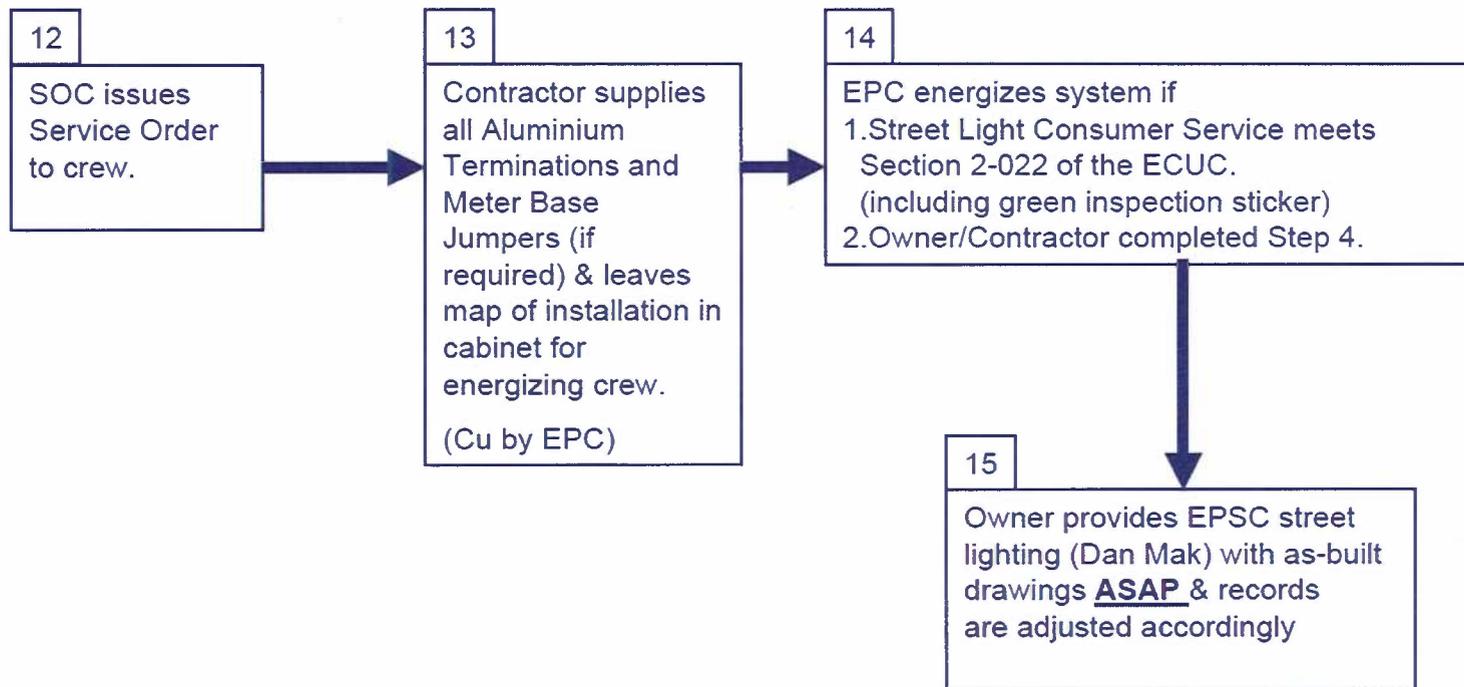


Figure 47: Street Light / Traffic Installation - UG Supply



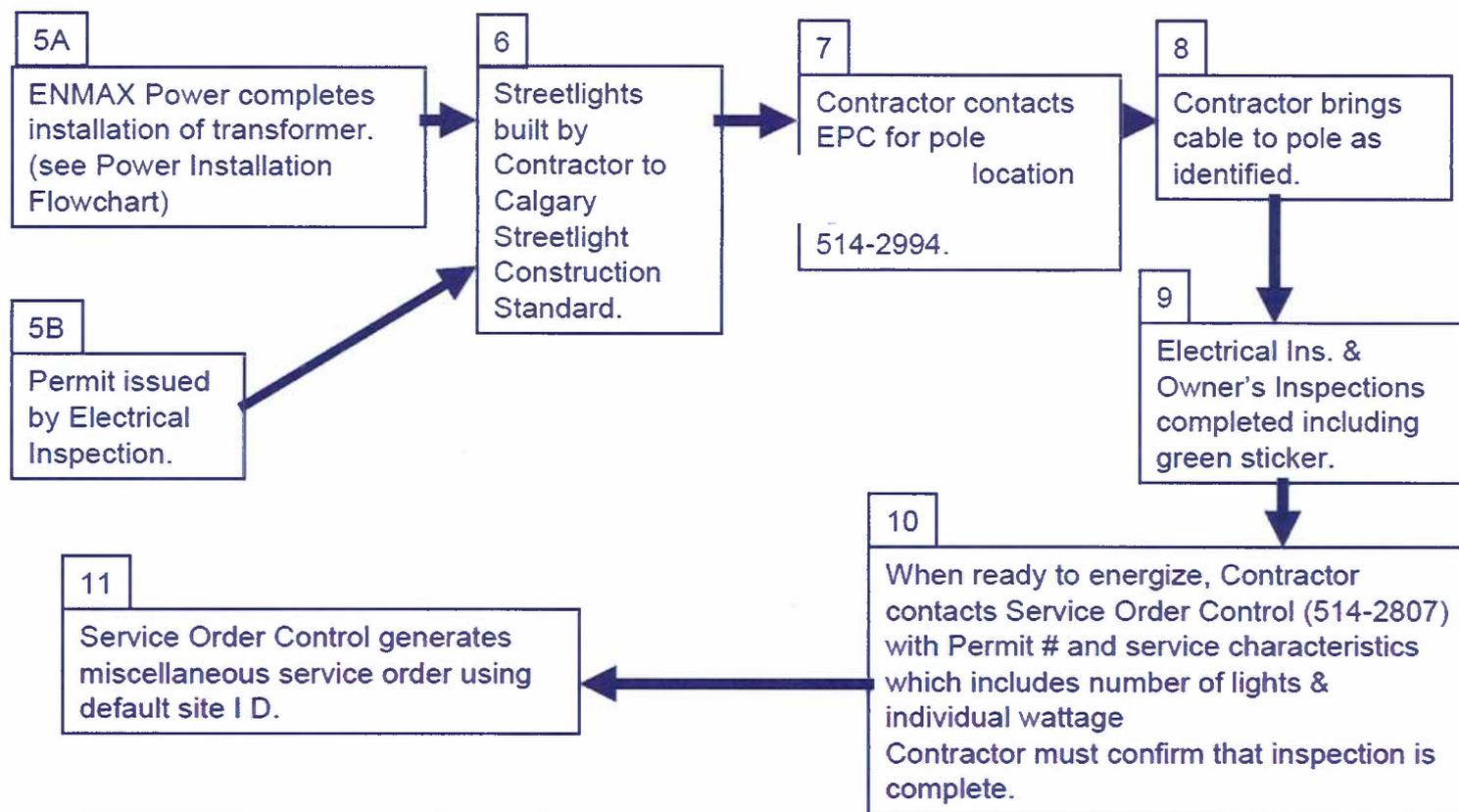


Figure 48: Street Light/ Traffic Installation - O/H Supply

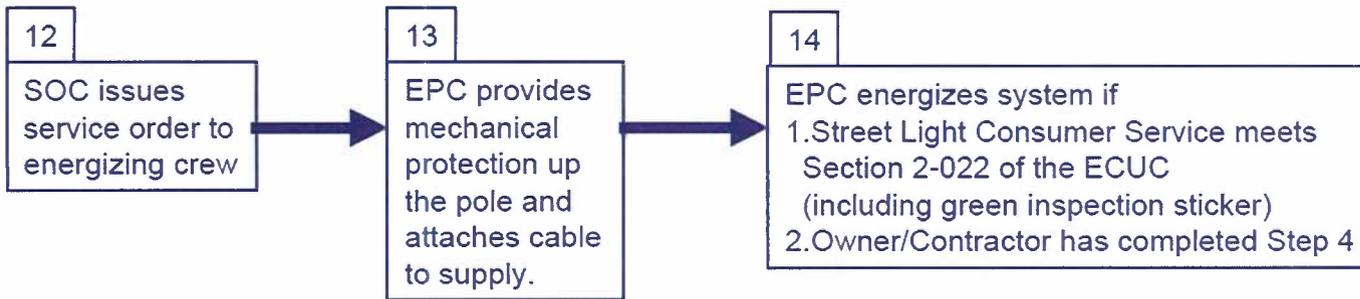


Figure 49: Street Light Installations - O/H Supply