

Project overview

Calgary Transit is introducing four-car CTrains, which require more power to operate than three-car CTrains. The power system needs to be upgraded and several additional substations are being built around the city. A new substation needs to be installed between Canyon Meadows and Anderson stations, and a small City-owned greenspace located between Cantrell Dr and Canfield Rd SW has been identified as the location.

Traction power substations provide electrical power to CTrains through the overhead catenary system (wires above CTrain). The overhead catenary system has direct power (DC) running through it, but the electricity provided to the city is alternating current (AC). The substation transforms AC into DC electricity so it can be used to power the CTrains.

Substations are quiet, very safe and regularly used for light rail projects. They do not emit radiation, electricity or any harmful pollutants. They can be found in residential neighbourhoods throughout North America and around the world. All electrical equipment is enclosed within a locked building providing security and sound absorption. Equipment is enclosed by sturdy, grounded metal compartments that contain the electricity.

Engagement overview

This report covers the questions and responses asked during an online feedback form from October 12-26, and a public open house which took place on October 19, 2016.

What we asked

Stakeholders were asked the following questions:

How do you currently use the park?

**When looking at the options for horizontal alignment shown below, which option do you prefer?
Why did you select this option?**

Horizontal Alignment – Option 1



Offers the easiest access for maintenance and the smallest footprint in the park. It is the most cost effective option.

Horizontal Alignment – Option 2



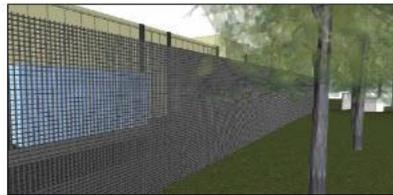
Features a recessed footprint, with retaining walls keeping the height of the substation at a minimum. It is the most expensive option.

Horizontal Alignment – Option 3

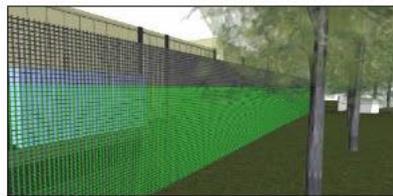


Option 3 is similar to Option 2 in that it features a recessed footprint. The site features no ramp, and as such the height of the substation relative to the street is increased. The cost is comparable to Option 2.

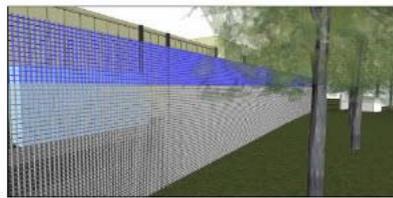
**When looking at the options for fencing shown below, which option do you prefer?
Why did you select this option?**



Fence Option 1: This fence is a black square hole design made of fibreglass reinforced polymer.



Fence Option 2: This fence is composed of two sections. Behind, is a black square hole design. Out front, there is a green square hole accent fence. These are both made of fibreglass reinforced polymer.



Fence Option 3: This fence is composed of two sections. Behind, is a blue square hole design. Out front, there is a grey square hole accent fence. These are both made of fibreglass reinforced polymer.

Do you have any additional comments on the Canyon Meadows Traction Power Substation?

What we heard

Themes for the question: **“How do you currently use the park?”** in order of most frequent to least frequent themes:

- Do not utilize the park
- Walking and dog walking (equal number of input on these themes)
- Biking

Note: Please see verbatim section for responses that did not have a consistent theme.

Responses for the question: **“When looking at the options for horizontal alignment shown below, which option do you prefer?”** in order of most frequent to least frequent responses:

- Horizontal alignment option 1 (8 respondents preferred this option)
- Horizontal alignment option 2 and 3 had equal responses (2 respondents preferred option 2 and 2 respondents preferred option 3)



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Themes for the question: **“When looking at the options for horizontal alignment shown below, which option do you prefer? Why?”** in order of most frequent to least frequent themes:

Horizontal alignment option 1 themes:

- Smallest footprint
- Greatest preservation of greenspace
- Most cost effective

Note: Please see verbatim section for responses that did not have a consistent theme.

Horizontal alignment option 2 and 3 did not have consistent themes. Please see the verbatim section to view the responses.

Responses for the question: **“When looking at the options for fencing shown below, which option do you prefer?”** in order of most frequent to least frequent responses:

- Fence option 2 and 3 had equal number of responses (5 respondents preferred fence option 2 and 5 respondents preferred fence option 3)
- Fence option 1 (1 respondent preferred this option)

Themes for the question: **“When looking at the options for fencing shown below, which option do you prefer? Why?”** in order of most frequent to least frequent themes:

Fencing option 1 has only a single responses which can be viewed within the verbatim section.

Fencing option 2 themes:

- No rationale provided
- Green fence blends in with the park’s natural colors

Note: Please see verbatim section for responses that did not have a consistent theme.

Fencing option 3 themes:

- General aesthetically pleasing

Note: Please see verbatim section for responses that did not have a consistent theme.

Themes for the question: **“Do you have any additional comments on the Canyon Meadows Substation?”** in order of most frequent to least frequent themes:



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- General concern of sound pollution emission from substation and how this can be mitigated
 - Concern for increased crime in the area as a result of the substation
 - Comments and questions of how substation project can enhance the community
- Note: Please see verbatim section for responses that did not have a consistent theme.*

Verbatim Comments

Content is captured as it was provided by stakeholders. ****No edits have been made.****

Verbatim comments for **“How do you currently use the park?”**

- *I don't. It's in my neighbourhood and adds to the overall niceness of the neighbourhood.*
- *I use the pathway through this park when walking and riding my bike.*
- *Only in passing by while walking*
- *I do not use this park.*
- *I do not use this park. Only those with dogs mainly use this park. I watch people with dogs in this park as I pass by the park.*
- *I don't use the park*
- *We walk our dog in this park sometimes though we have been concerned with the gaps in the fencing on the east side so we don't use it too often.*
- *Just walk by out exercising*
- *Not currently used (C train rider)*
- *Occasional visit the greenspace to walk my dog*
- *We ride our bikes past the park on a regular basis. Two times a week*
- *I don't use the park. I use the station*

Verbatim comments for **“When looking at the options for horizontal alignment shown below, which option do you prefer? Why”**

Horizontal alignment option 1:

- *Smallest overall footprint, greatest preservation of green space.*
- *It looks the best to my eye*
- *Because it is least expensive option, which meets the requirements, is easy to access for maintenance and fit for purpose.*
- *The description suggested this would leave the smallest footprint in the park.*
- *least expensive*



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- *Cheapest and smallest footprint*
- *Smallest impact on Park*

Horizontal alignment option 2:

- *I think it is the most respectful to the neighbours bordering on this substation in that it is in keeping with the scale of the houses around it. I also think that it is the aesthetically appealing.*

There were no comments for horizontal alignment option 3.

Verbatim comments for “When looking at the options for fencing shown below, which option do you prefer? Why”

Fence option 1:

- *Simple clean design*

Fence option 2:

- *Mainly because it has green color outer fence which will blend with greenery around. Also it has double fence (more secured). Black fence would be eye sore, I think.*
- *The green looks like it belongs in the park and also is a reminder that C-train riders are thinking green.*
- *Strongest*

Fence option 3:

- *I think this provides a neutral background in the grey but that the blue adds a visual appeal. Having 2 layers that you can see through would block the view of the substation more than the one layer and be less of a "wall" surface.*
- *Looks very attractive and secure*
- *least ugly*
- *I find this the most attractive and visually interesting design. Option 2 seems acceptable as well. Option 1 appears too utilitarian. I feel that if we're going to need these types of facilities in the neighbourhood it is important to try and make them as attractive and interesting as possible.*

Verbatim comments for “Do you have any additional comments on the Canyon Meadows Substation?”

- *I would like to see as much sound absorption as possible to reduce sound pollution. Low, constant hums can have a detrimental effect on the enjoyment of those around the substation, including those living nearby and those who visit the green space.*



- *"1) Can this infrastructure be used in anyway to enhance the community? For instance an area in front (facing south) that is stage like with amphitheater seating (facing north) or a place to build a shed (again in front of the building's south facing wall) and develop an urban orchard around the shed where tools are stored. Both of these would use the wall as a background while adding value to the community.*
- *2) I worry about the ""ghettoization"" (not a word in google land but I think you'll know what I mean!) of this stretch of the neighbourhood. There are already several utilitarian structures here and I think we all need to be very cognizant of how this affects the area and the people that live here. By paying attention to the built environment we can make it more or less valuable to residents' well being. I understand the need for this infrastructure but let's not marginalize the people and land by undervaluing how these decisions affect each of us."*
- *How much of this will be paid for by the City of Okotoks, as they seem to be the majority of people using this branch of the transit line after boarding in Somerset?*
- *No*
- *I am a non-driver and I count on the C-train and I also live half a block away from that park where the substation will be. I want to see the C-train lines expanding and the number of train cars increased. I see no problem with the substation and know the City will choose what is best for the C-train line. Thank you.*
- *Our house is two houses west of this park and from our master bedroom there is an audible hum (possibly 60hz) from the existing electrical facilities. I believe this to be related to the c-train as it does seem to shut off every night around 1:40am. While this noise is tolerable at this point, I would be quite upset if this new electrical station increased this problem.*
- *Look at integrating artwork/ design into fence*
- *Lighting: Crime prevention through environmental design*
- *Mindful of heavy rainfall/ drainage*
- *Many young children in the area. Be mindful of safety during construction/ maintenance*
- *Will it have temporary Ctrain closures while installing?*