

Off-site Levies Bylaw Infrastructure & Costs: Recreation

March 19, 2026



Agenda

1. Costing model overview
2. Infrastructure list overview
3. Questions and feedback

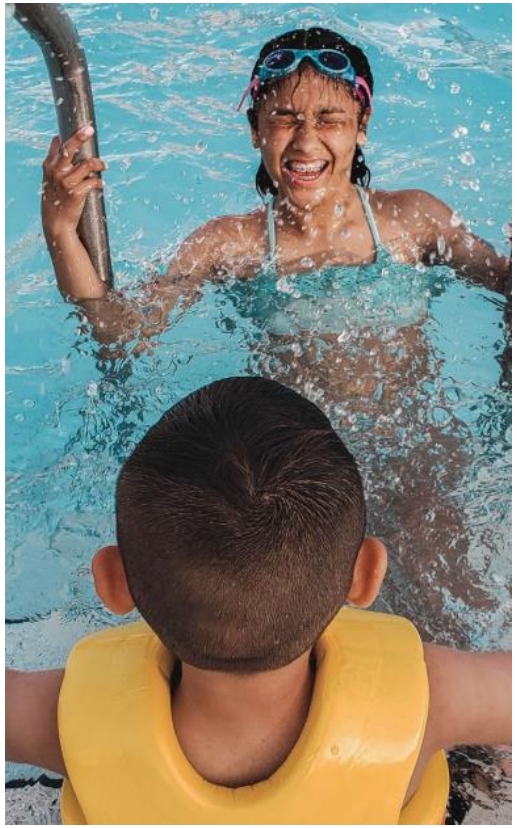


Recreation 25 Year Capital Plan – Costing Presentation

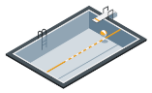
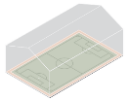
Presentation Overview

Costing Model

- Overview
- Service Standards
- Facility Status
- Facility Pricing Model
- Model Facility Plan
- Facility Pricing/Cross Referencing



Costing Model

Facility Type	Service Standard	Average Cost Per Facility (In Millions)
Aquatics & Fitness 	1:75,000	$141M Per Aquatics Facility
Ice Sheets 	1:32,000	$108M Per Arena (2 Sheets)
Fieldhouses 	1:150,000	$97M Per Fieldhouse
Athletic Park Fields 	1:22,000	$36M Per Athletic Park (2 Fields Class A/B, or AT)

GamePLAN Costing Model - Explained

1. Service Standards

↓

2. Status of Facility

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3. Facility Pricing Model

X

4. Model Facility Plan

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5. Facility Prices

FACILITY TO POPULATION RATIO: How many Calgarian's are allocated per facility.

WHAT: Using a decision tree, sites/facilities are designated with a future status.

HOW MUCH: A pricing model using per-amenity facility elements, cross referenced against current project estimates.

HOW BIG/TYPES OF AMENITIES: A list of standard facility amenities, with sizes and high-level specifications.

INDIVIDUAL FACILITY COST: A final price for each facility, based on cross referenced amenities, average amenity size, average amenity cost, based on the status of each facility in the future, dependent on service standard rates, condition, and area of service.

GamePLAN Costing Model - Explained

1. Service Standards
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2. Status of Facility
↓
3. Facility Pricing Model
X
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Service Standards

The service standards used for this OSL bylaw update come directly from the council approved GamePLAN document, which establishes the following service standards for facilities:

Aquatics – 1:75,000

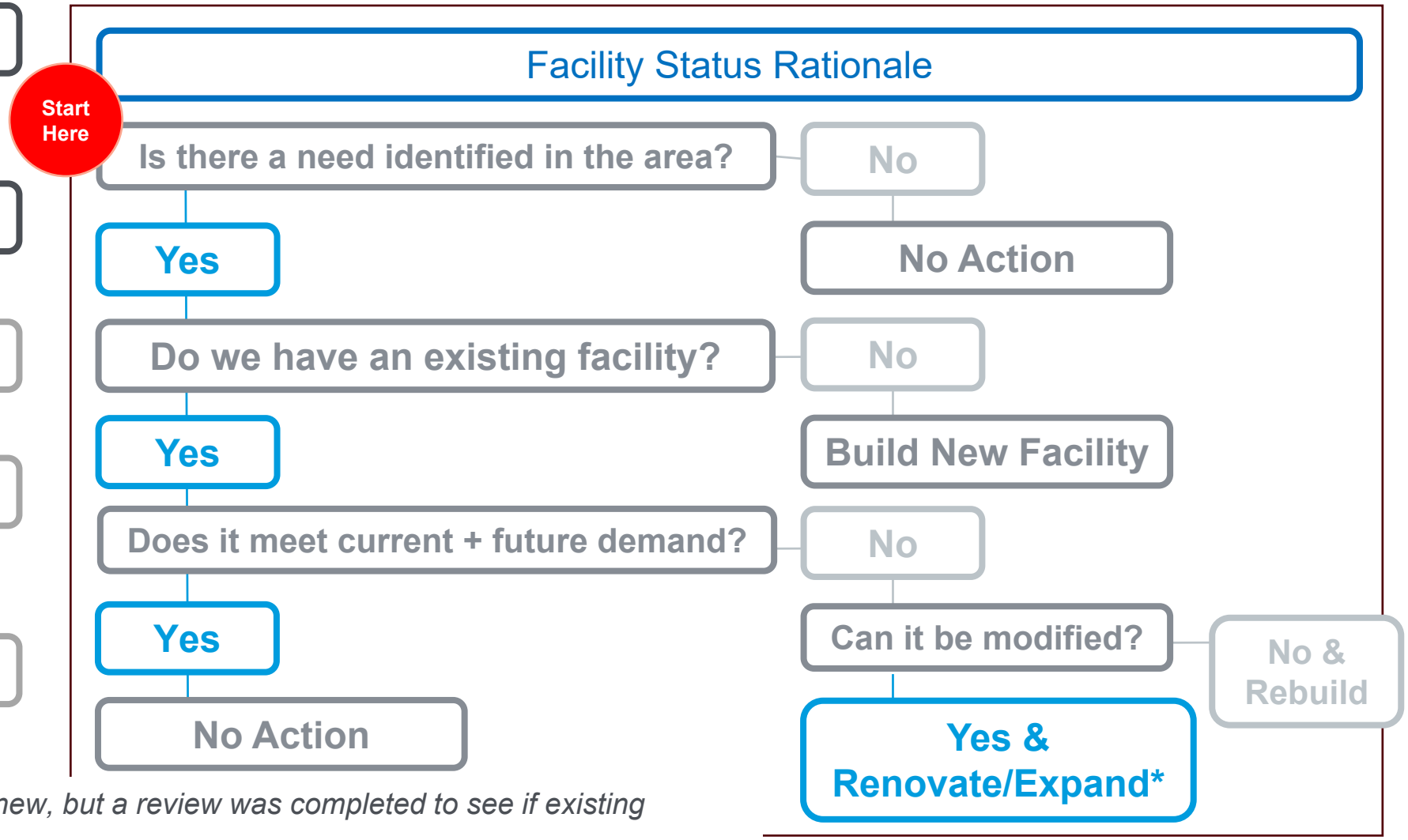
Arenas – 1:32,000 (Per ice sheet)

Fieldhouses – 1:150,000

Athletic Park Fields (A,B or AT Fields) – 1:22,000 per field

GamePLAN Costing Model - Explained

1. Service Standards
2. Status of Facility
3. Facility Pricing Model
X
4. Model Facility Plan
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5. Facility Prices



Note: OSL eligible projects are primarily new, but a review was completed to see if existing facilities could be leveraged or expanded

** Existing facilities in the greenfield would only be considered for an expansion, not renovation*

GamePLAN Costing Model - Explained

1. Service Standards
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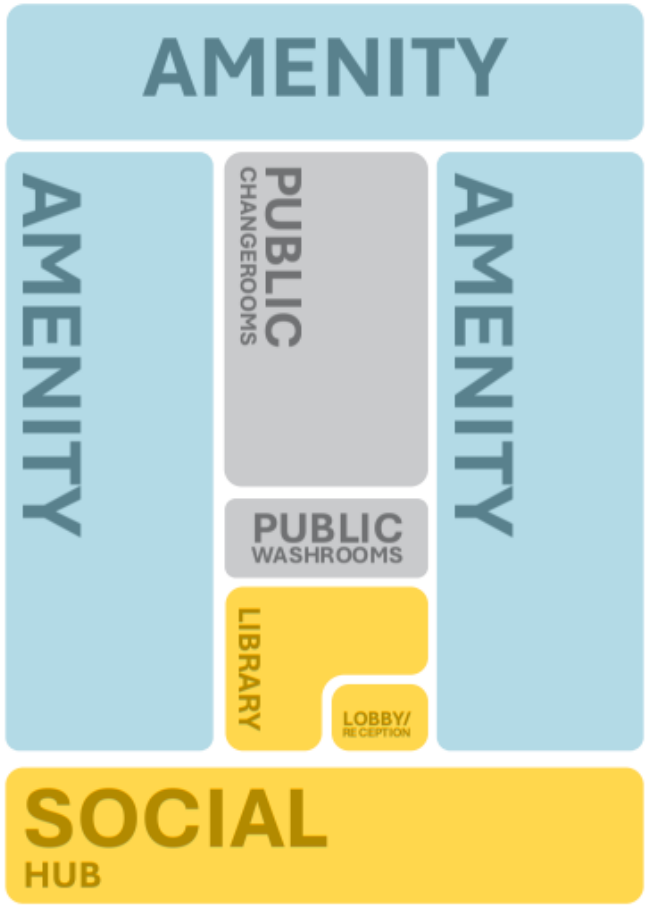
Recreation Amenity	Range of cost per sq ft	Functional area (sq ft)	Cost per Amenity
Lap Pool			
Fitness Area			
Lobby			
Public Washrooms			
Changerooms			

Costing Model

GamePLAN used the consultant, Costplan, to develop a per-amenity costing model. The model allows for a higher degree of cost specificity, without the use of a drawing package.
This method was used to estimate facility costs for all four facility types.

GamePLAN Costing Model - Explained

1. Service Standards
↓
2. Status of Facility
↓
3. Facility Pricing Model
X
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5. Facility Prices



What is the model facility plan?

The Model Facility Plan outlines the desired characteristics and organization of various components within a facility.

Integrating social space is a central priority that has shaped the layouts proposed for facilities.

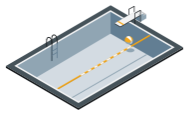
Each plan emphasizes spatial relationships and connections that align with the requirements of their sport and recreational programming, as well as the needs and preferences of their participants.

GamePLAN Costing Model - Explained

1. Service Standards
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*What types of Facilities are found in the Model Facility Plan?**

The Model Facility Plan addresses four core public recreation facility types.



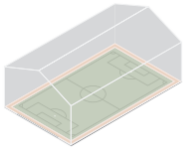
Aquatics & Fitness Facilities – Indoor facilities with swimming pools and other water-based or related amenities.



Arenas – Indoor facilities featuring two or more arenas and other supporting or related amenities.



Athletic Parks – Outdoor facilities with one or more play fields, class A/B or AT fields, and supporting buildings and structures.



Indoor Fields (Fieldhouses) – Indoor facilities with artificial turf fields and supporting amenities.

**In greenfield areas*

GamePLAN Costing Model - Explained

1. Service Standards
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What Amenities are included in the Model Facility Plan?

Social Space – Conceptually modeled after the central social space at the Genesis Centre, social space aims to facilitate the informal atmosphere of community.

Admin Space – Any spaces required for staff to operate the facilities' administrative functions.

Recreation Space – Amenities specific to the recreation and formal social activities at the facility.

Ancillary Space – Supporting spaces to the recreational and operational function of the facility.

Each amenity, their adjacencies, and proportionality to one another have been considered, compared, cross-referenced, optimized. Existing facilities and their associated amenities were also considered and leveraged where possible.

GamePLAN Costing Model - Explained

1. Service Standards
↓
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What Documents Does the Model Facility Plan Reference?

- The City of Calgary Recreation Design Guidelines (2021)
- The City of Calgary's Winter City Strategy (2022)
- The Sustainable Building Policy (CS005) (2019)
- Calgary Climate Strategy: Pathways to 2050 (2022)
- The City of Calgary Access Design Standards (2016)
- The Citywide Growth Strategy Report (2022)
- Municipal Development Plan (2020)
- The National Building Code of Canada, Alberta Edition (2019)

Note: Facility needs are grounded in long-term planning and policies.

GamePLAN Costing Model - Explained

The cost formula (A-G)

A Facility size / program requirement
Defines scope

B Construction unit cost ($/sq.ft.)
Market-based unit rates

C Construction cost = A × B
Build cost

D Land required (acres)
Site needs

E Land unit cost ($/acre)
Market land value

F Land cost = D × E
Land cost

G Levy-specific items to operationalize service
e.g., apparatus / specialized equipment

Total capital cost = C + F + G

GamePLAN Costing Model – Typical Cost Drivers

1. Service Standards
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2. Status of Facility
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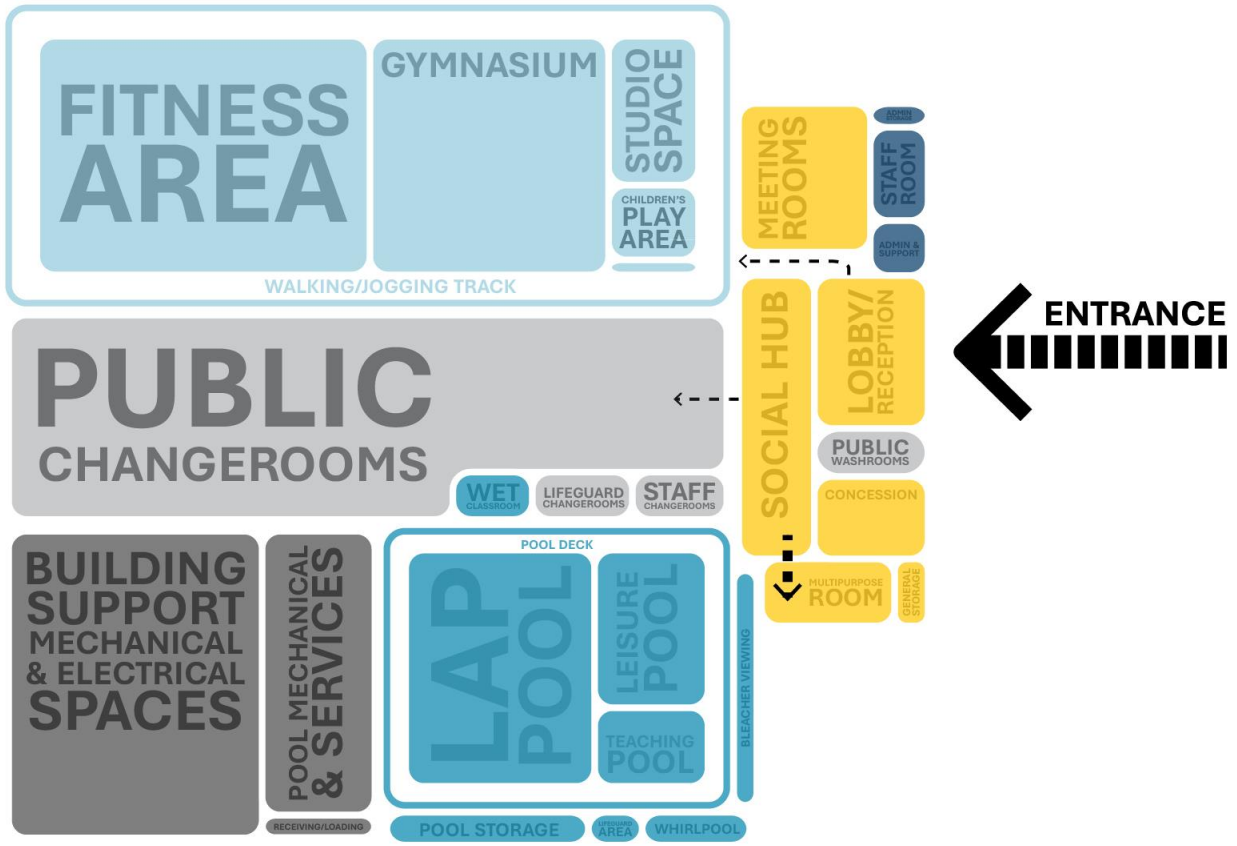
Typical Cost Drivers Amongst New Facility Estimates

- **Costing Approach:** Previous estimates used a high gross up area to size their facilities. Gross-up space is general space, typically dedicated to hallways and corridors. The updated costing approach decreases gross-up space but increases the amount of amenity specific space within the estimate. Using more amenity specific space creates more accuracy in our estimates.
- **Land Prices:** Land prices have increased. These increased average land costs are supplied by Real Estate and Development Services or REDS.
- *Note: Gross-up is non-specific amenity space found within buildings (Ex: Wall cavities, hallways, lobby area, etc)*

GamePLAN Costing Model - Explained

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Aquatics and Fitness Facility Diagram



GamePLAN Costing Model - Aquatics

1. Service Standards
↓
2. Status of Facility
↓
3. Facility Pricing Model
X
4. Model Facility Plan
=
5. Facility Prices

Aquatics and Fitness Cost Drivers

The key drivers for the cost increases around aquatics facilities includes:

- Facility sizes will range from 125,000 to 150,000 sq ft

- Remington YMCA is the most similar facility comparison to the model facility plan. Lessons learned from this facility helped inform refinements to the requirements for new Aquatics and Fitness Facilities including:
  - The facility is not flashy, but the level of finish provides effective service for clients
  - Multi-purpose rooms need to be larger to accommodate user and programming needs
  - Universal changerooms are more responsive to the community. They create more options for users and are more functional for families.
  - A Larger natatorium is needed to meet the demand for lane swims, public swims and swimming clubs
  - Demand for gym space is high, a larger gym space would help meet demand

GamePLAN Costing Model - Explained

Aquatics and Fitness Facility Price Breakdown

Cost type	2024 OSL Bylaw	Updated OSL Bylaw	Difference, %
Facility size (sq.ft.)	150,000	125,000	-18%
Building cost ($/sq.ft.)	721	1,044	45%
Building cost per facility ($)	108,150,000	129,110,000	19%
Land required for each facility (acre)	12	6	-50%
Land acquisition cost ($/acre)	1,200,000	1,500,000	25%
Land acquisition cost per facility ($)	14,400,000	9,000,000	-38%
Site development cost ($)	8,611,756	2,770,000	-68%
Public art ($)	0	0	0%
Total levy eligible cost ($)	131,161,756	**140,880,000**	7%
Total facility cost ($)	132,435,854*	**140,880,000**	6%

**Note: If the 2024 OSL Bylaw total was adjusted to reflect a 6-acre site, the total cost would have been $125,235,854*

GamePLAN Costing Model - Explained

Aquatics and Fitness Facility Price Breakdown - Reasoning

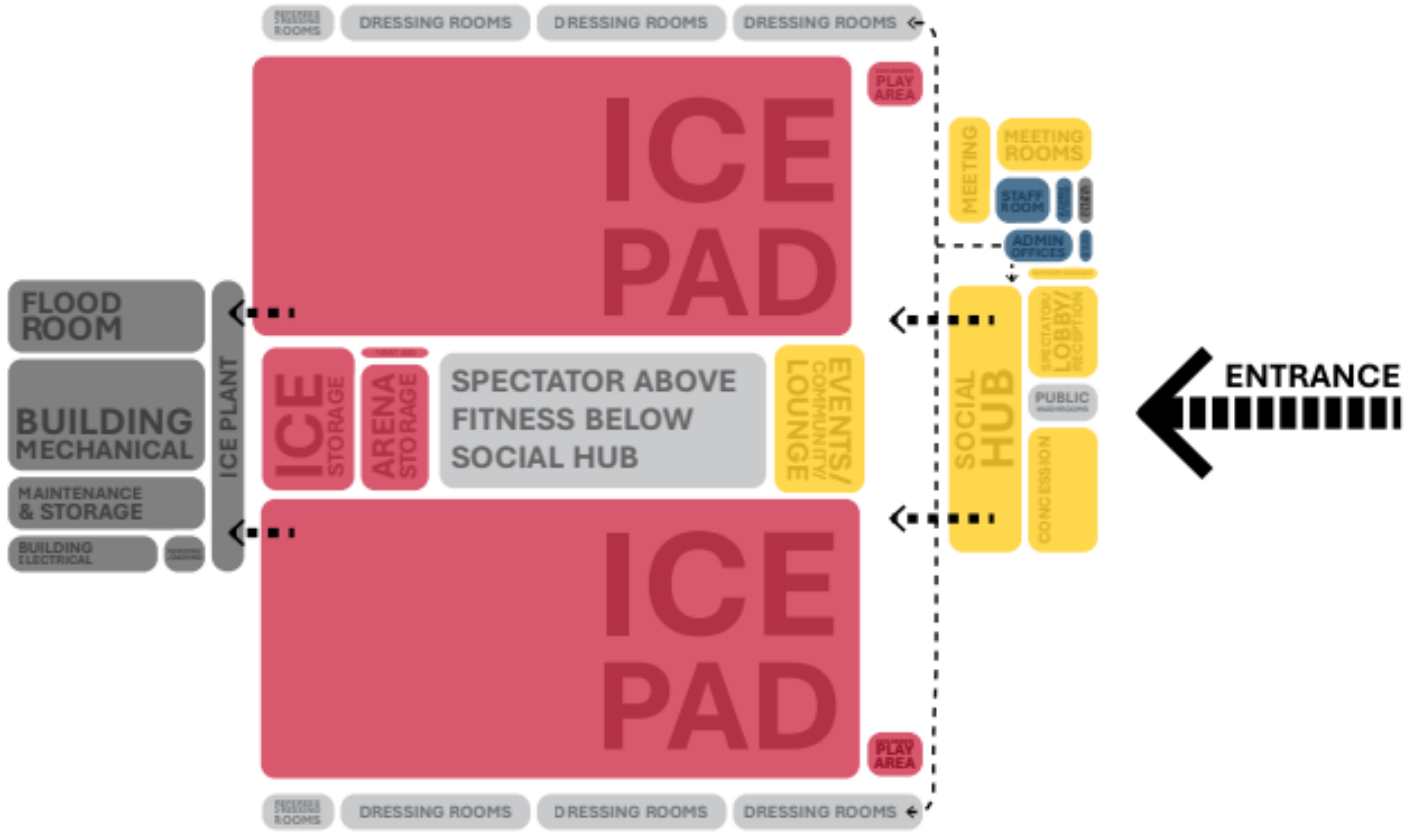
Cost type	Difference %	Reasoning
Facility size (sq.ft.)	-18%	Previously in the 2024 OSL bylaw, facilities were sized with approximately 150,000 sq.ft. to serve 75,000 people, whereas the model facility plan identifies specific amenities and their proportional spatial requirements, which allowed for up to an 18% square footage reduction.
Building cost ($/sq.ft.)	45%	The 2024 recreation facility model used an average dollar-per-square-foot approach based on generalized space. The updated model is amenity based, which typically carries higher costs than generalized* square footage, resulting in a cost increase.
Building cost per facility ($)	19%	This is the cumulative increase between a reduced building footprint, and an increased cost-per-square-foot value for the facility.
Land required for each facility (acre)	-50%	In the 2024 OSL bylaw, 12-acres were required to build an aquatics and fitness facility and have the option for outdoor fields. In the current updated bylaw update, the land requirements for all four facility types are specified separately, so the requirement for an aquatics and fitness facility has been reduced to 6-acres. The amount of land required for other facility types is also specified later in the presentation.
Land acquisition cost ($/acre)	25%	Land pricing has increased since the 2024 OSL bylaw update, and the current price is determined by Real Estate and Development Services (REDS).
Land acquisition cost per facility ($)	-38%	This is the cumulative decrease between a reduction in land, and an increase in cost-per-acre.
Site development cost ($)	-68%	Methodological differences limit the comparability between the 2024 and updated site development costs. The updated model uses defined, facility-specific site requirements rather than an average per-square-foot cost and includes a 6-acre reduction in site area.
Public art ($)	0%	Art costs were not previously included in the OSL bylaw and have not been included in this current OSL bylaw update.

**Generalized square footage means an average cost per-square-foot value for an entire facility.*

GamePLAN Costing Model - Areas

1. Service Standards
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2. Status of Facility
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Arenas Facility Diagram



GamePLAN Costing Model - Arenas

1. Service Standards
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Arenas Specific Cost Drivers

- Facility sizes will range from 100,000 to 125,000 sq ft
- Includes 2 ice sheets, spectator area, social hub, lobby, changerooms, mechanical and service areas, multi-purpose rooms, and a fitness area.
- Great Plains Arena is the closest comparable facility to the current specifications seen in the model facility plan.
- Key Considerations
  - Large multi-purpose spaces
  - Fitness Area
  - A minimum of 2 icesheets (for facility efficiency)
  - Multiple team changerooms

GamePLAN Costing Model - Explained

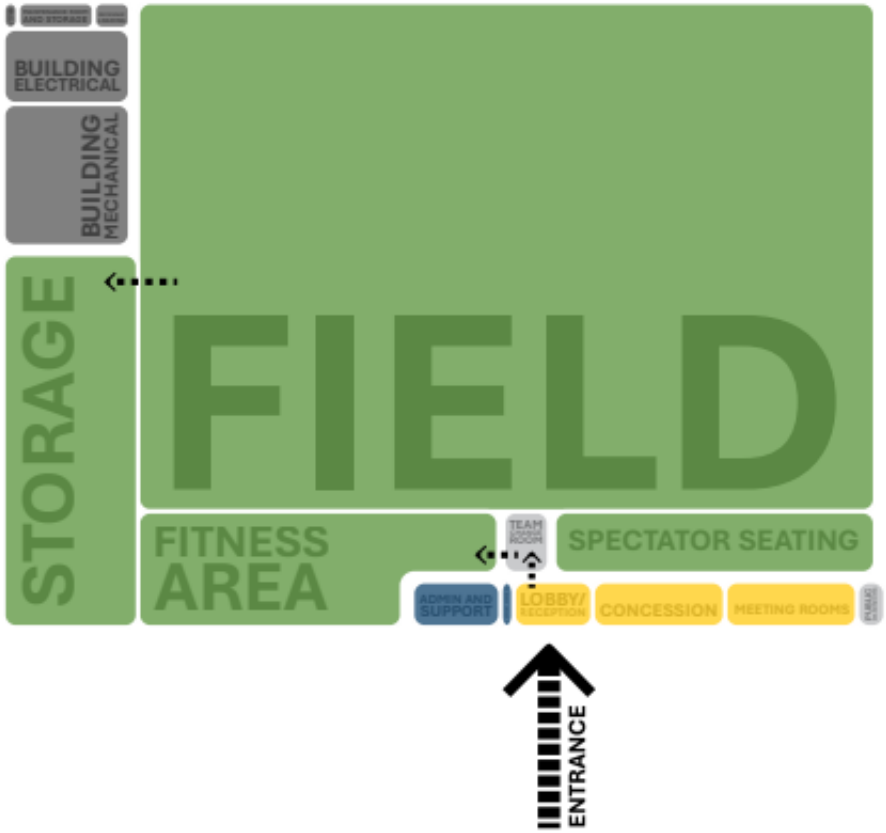
Arenas Facility Price Breakdown

Cost type	Updated OSL Bylaw	Reasoning
Facility size (sq.ft.)	101,295	Arenas includes 2 ice sheets, spectator area, social hub, lobby, changerooms, mechanical and service areas, multi-purpose rooms, and a fitness area. The sizes of all social, administrative and ancillary space is proportionate to the needs of the 2 ice sheets at peak usage.
Building cost ($/sq.ft.)	942	
Building cost per facility ($)	95,400,000	
Land required (acre)	6	An arena with 2 ice sheets, and corresponding social, administrative and ancillary space, with parking requirements, typical building setback allocations, and landscaping requires a minimum 6-acre site.
Land acquisition cost ($/acre)	1,500,000	
Land acquisition cost per facility ($)	9,000,000	
Site development cost ($)	3,850,000	The costs associated with site development represent the proportional site requirements for an arena with 2 ice sheets and their corresponding amenities.
Public art ($)	0	Public art costs are not included in this current version of the OSL bylaw update.
Total levy eligible cost ($)	108,250,000	
Total facility cost ($)	108,250,000	

GamePLAN Costing Model - Fieldhouses

1. Service Standards
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2. Status of Facility
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3. Facility Pricing Model
X
4. Model Facility Plan
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5. Facility Prices

Fieldhouse Facility Diagram



GamePLAN Costing Model - Fieldhouses

1. Service Standards
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2. Status of Facility
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3. Facility Pricing Model
X
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Fieldhouse Cost Drivers

- Facility sizes will range from 125,000 to 150,000 sq ft
- The major amenities at this facility include 1 full sized FIFA field, multi-purpose rooms and a fitness area.
- Fieldhouse's primary cost centre is the open span field. The open span of the field requires larger structural components which make up a large portion of the facilities cost.
- Belmont Fieldhouse is the closest comparable project to the facilities specified in the model facility plan. The facilities tentative opening date is Q2 2027.
- Key Considerations
  - Ceiling height (minimum 10 metres)
  - Spectator seating
  - Team rooms

GamePLAN Costing Model - Explained

Fieldhouse Facility Price Breakdown

Cost Type	Updated OSL Bylaw	Reasoning
Facility size (sq.ft.)	119,889	This includes 1 full sized FIFA field, which can be divided into smaller fields, multi-purpose rooms and a fitness area. Fieldhouse's primary cost centre is the open span field.
Building cost ($/sq.ft.)	469	
Building cost per facility	56,175,810	
Land required (acre)	6	A fieldhouse with a full-sized FIFA field, it's corresponding amenity spaces, parking and setbacks require a minimum 6-acre site.
Land acquisition cost ($/acre)	1,500,000	
Land acquisition cost per facility ($)	9,000,000	
Site development cost ($)	3,886,114	The costs associated with site development represent the proportional site requirements for a fieldhouse with a full-sized field and corresponding amenities.
Public art ($)	0	Public art costs are not included in this current version of the OSL bylaw update.
Total levy eligible cost ($)	**69,061,924**	
Total facility cost ($)	**69,061,924**	

GamePLAN Costing Model - Athletic Park

1. Provision Rates
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2. Status of Facility
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3. Facility Pricing Model
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4. Model Facility Plan
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Athletic Park Facility Diagram



GamePLAN Costing Model - Athletic Park

1. Provision Rates
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X
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Athletic Park Fields Cost Drivers

- This includes 2 full sized class a/b or AT fields, storage area, washrooms, parking, pathways, lighting and secondary green space for setbacks. 2 fields typically requires 8 acres.
- Artificial turf, and A/B class fields need to be compacted and leveled for higher performance play and injury reduction.
- Belmont Athletic Park is the closest comparable facility to the design guidelines found in the model facility plan.
- Key Considerations:
  - 2 Full sized FIFA fields, either class A, class B, or AT fields
  - Washrooms
  - Small storage and maintenance area
  - Lighting

GamePLAN Costing Model - Explained

Athletic Park Facility Price Breakdown

Cost type	Updated OSL Bylaw	Reasoning
Facility size (sq.ft.)	174,883	This includes 2 full sized FIFA fields, storage area, washrooms, parking, pathways, and secondary green space for setbacks. The fields will be either class A, class B or artificial turf.
Building cost ($/sq.ft.)	127	
Building cost per facility ($)	22,230,000	
Land required (acre)	8	An outdoor athletic park, with 2 full sized fields, corresponding amenities, and parking requires a minimum 8-acre site.
Land acquisition cost ($/acre)	1,500,000	
Land acquisition cost per facility ($)	12,000,000	
Site development cost ($)	1,730,000	Site development costs for athletic park fields are less than other facilities because of the reduced amount of built structure, parking requirements, paved surfaces, walkways, and servicing.
Public art ($)	0	Public art costs are not included in this current version of the OSL bylaw update.
Total levy eligible cost ($)	**35,960,000**	
Total facility cost ($)	**35,960,000**	

GamePLAN Costing Model - Explained

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Costing Model Cross Referencing

1. Lists & Sizes of Amenities

We consulted internal operators, facility planning staff, did public engagement and used external consultants to cross reference the list of amenities, making sure they are responsive to publics recreation needs, now and in the future.

2. Costs of Amenities

Costs of amenities were cross referenced against other comparable projects, other 3rd party estimates for recreation facilities, and historic costs of City projects.

Making Waves – Advantages to New Homeowners

Aquatics	• *More swim lessons for children – less waitlists. More public family swimming time.*
Arenas	• *More available ice time – reduced drivetimes, earlier games, more available teams* • *More recreational skating*
Athletic Parks	• *The inclusion of A,B, or AT class fields. These provide quality pitches for competition and reduce injury.*
Fieldhouses	• *More available indoor field-time – more kids can participate in indoor soccer through winter months.*
Overall Community	• *Creates more holistic, family friend communities, that allow for growth of children, and a comprehensive array of recreation amenities fiscally available and within driving distance.*



OSL Recreation Infrastructure List and Projects Costs

Recreation facilities list

Infrastructure type: Recreation Centre

Where to find: Recreation levy rate model 2024 Off-site Levies Bylaw, *Tab 4 - Infrastructure*

Row	Item	2024 OSL Bylaw	Updated OSL Bylaw
A	Total greenfield ASP population at full buildout (people)	946,835	979,839
B	Existing/funded facility capacity in greenfield (people)	354,886	354,886
C = A-B	Additional facility capacity needed at full build out (people)	591,949	624,953
D	Per facility capacity (people)	75,000	75,000
E = C / D	**Number of facilities needed**	**7.9**	**8.3**

New Area Structure Plans population:

- Saatoohtsi ASP and Naato'siyinnipio ASP: 33,003 people
- Added to Row A- *Total greenfield ASP population*

Recreation facilities list: Updated OSL Bylaw

Row	Item	Aquatic & Fitness	Arena*	Athletic Park**	Fieldhouse
A	Total greenfield ASP population (full buildout)	979,839	979,839	979,839	979,839
B	Existing/funded facility capacity in greenfield (people)	354,886	201,327	265,863	109,144
C = A-B	Additional facility capacity needed at full build out (people)	624,953	778,512	713,976	870,695
D	Per facility capacity (people)	75,000	64,000	44,000	150,000
E = C / D	**Number of facilities needed**	**8.3**	**12.2**	**16.2**	**5.8**

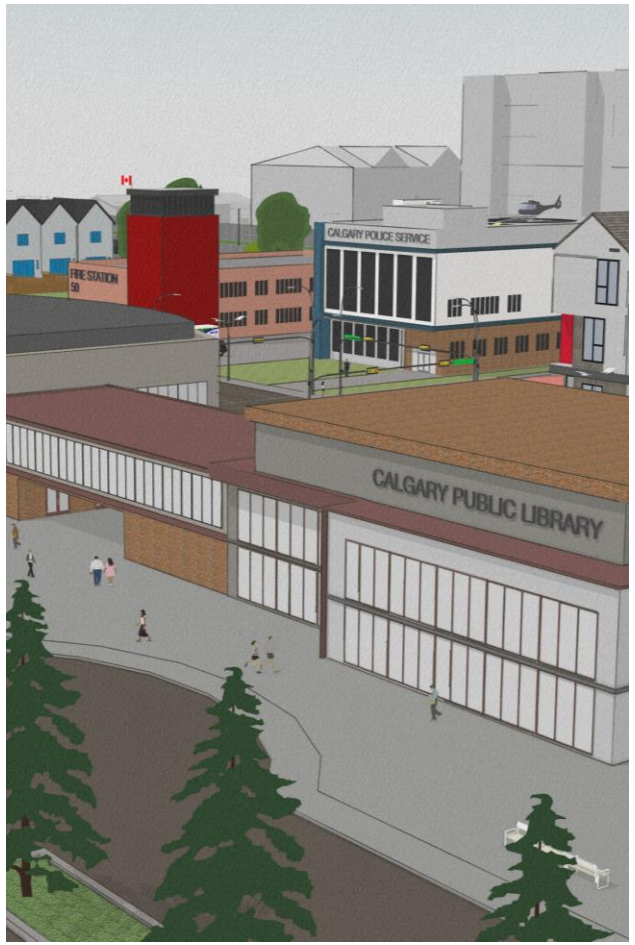
Notes: *Arena = 2 ice sheets; ** Athletic park = 2 fields

Recreation: Facility Costs



Average Cost per Facility

- Aquatics & Fitness: $141M
- Arena (2 ice sheets) $108M
- Fieldhouse: $97M
- Athletic Park (2 fields Class A/B, or AT): $36M



Total Infrastructure Cost Summary* (March 19, 2026)

Infrastructure Type	# of projects (Old + New)	2024 OSL Bylaw	2025 Costs (Existing projects only)	2025 Additional Project Costs (New projects only)	2025 Updated Costs (Total)
Aquatic Centre	7.9 + 0.4	$131M	$1,127M	$47M	$1,174M
Arena**	0 + 12.2	$0M	$0M	$1,316M	$1,316M
Athletic Park***	0 + 16.2	$0M	$0M	$583M	$583M
Fieldhouses	0 + 5.8	$0M	$0M	$562M	$562M
Total	**7.9 + 34.6**	**$1,035M**	**$1,127M**	**$2,509M**	**$3,636M**

Notes: *This represents the total infrastructure cost, the benefit allocation for the off-site levy will be determined.
**Arena = 2 ice sheets
***Athletic park = 2 fields

Number rounding occurring. Hence, numbers may not add up as typical.
Purple text: Projects included in update.



Follow-Up Items

Facility amenities

2024 Off-site Levies Bylaw

- **Recreation centre:** A recreation facility offers a wide variety of activities and services. It provides at least one indoor pool and a combination of gymnasium, fitness, meeting spaces and support services (such as daycare and food services). Outdoor amenities (e.g., outdoor fields) may also be part of the facility.

Updated Off-site Levies Bylaw

- Aquatic and Fitness facility will exclude the outdoor amenities and corresponding land requirement which is now a separate facility type in the updated bylaw as Athletic Field.
- This is required to meet Council approved service level standards.



Closing

Recreation Off-site Levy:

- 42.5 infrastructure projects
- Regular reviews, discussions, feedback, refinement and updates keep the levy aligned to City planning and market conditions



Question Period