

THE TOWN OF DEVON

NEW RECREATIONAL FACILITY STUDY

DECEMBER 13, 2019

Prepared By:

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1.0 SITE ANALYSIS

Over the last few years, the Town of Devon has explored a number of options for the design and construction of a new and improved recreational facility. Past options have looked at the viability of expanding the existing Dale Fisher Arena, as well as the construction of a brand new recreational centre on an alternate site.

This study combines both options and evaluates the potential for utilizing the existing Dale Fisher Arena and Devon Community Pool to create a new recreational facility, complete with multi-purpose spaces and recreational amenities. Our high-level evaluation of this option presents an exciting opportunity for the Town of Devon to optimize the use of two existing and well-loved facilities by creating an all-in-one community hub that incorporates a new ice rink and covering for Devon Community Pool. Our review of programming options and preliminary cost estimates further highlights the viability of this project. Simply put, this option may very well be the solution that the Town has been looking for with respect to creating a vibrant and thriving community hub.

The existing Dale Fisher Arena and Devon Community Pool are both located on Haven Avenue and St. Clair Street (Block G, Plan 2974HW) on 4.4 acres of Town-owned land. The new recreational facility adds approximately 2.55 acres to the existing property's boundaries to accommodate additional parking. Our analysis of the proposed site (total of ~6.95 acres) includes a review of the information provided by the



Aerial Image of Existing Site West of Highway 60, Town of Devon

Town of Devon (i.e. existing drawings and land survey reports) and additional research that was undertaken to define preliminary programming and building design components.

Preliminary site and building design involved a review of existing utilities, building areas, occupant load, parking calculations and other critical design data with a view to exploring viable options for expansion. Given that the existing site is nestled in a mature residential area, it was also important to consider the proposed expansion in relation to its surroundings to ensure that the new building could be well-integrated into the neighbourhood. With respect to the long-term feasibility of an expanded recreational facility, this Study also addresses the impact the project will have in terms of projected growth and the ways in which the overall development addresses the Town of Devon's current and future needs.

1.1 EXISTING STRUCTURES

As mentioned, the proposed site is currently home to the Dale Fisher Arena and Devon Community Pool. In addition to an outdoor rink, the existing Dale Fisher Arena consists of an NHL-size ice surface with a 330-seat capacity, dressing rooms, maintenance/storage spaces, a concession area and a lobby/reception area that was added around 2010. Devon Community Pool consists of 25-meter outdoor pool with a wading and play area, dressing rooms, staff areas and a mechanical room.



1.2 GEOTECHNICAL INVESTIGATION

A Geotechnical Consultant was not engaged for the completion of this Study. It is our recommendation that a Geotechnical Investigation of the proposed site be completed prior to the start of the design phase of the proposed expansion project.

1.3 SITE + TOPOGRAPHICAL SURVEY

A certified Land Surveyor was not engaged for the completion of this Study. It is our recommendation that a Topographical Survey of the proposed site be completed prior to the start of the design phase of the proposed expansion project.



Dale Fisher Arena and Devon Community Pool, Town of Devon

1.4 UTILITY REVIEW

It is our recommendation that the proposed site's existing utilities be reviewed prior to the start of the design phase of the proposed expansion project.

2.0 PROGRAMMING REVIEW

2.1 THE CURRENT PROGRAM

The current space program for the proposed recreational facility expansion is based on numerous discussions with the Town of Devon regarding the specific needs and requirements for an expanded recreational facility. The programming was further developed through a review of precedent projects with similar requirements and industry standards for the design of recreational facilities, as well as research that focused on the needs specific to rural communities.

It is our recommendation that programming options be further explored and refined through the facilitation of user-group interviews and community consultation sessions to ensure that the full spectrum of needs and requirements are evaluated and prioritized prior to the start of the design phase. The aim here is to create a spatial program that is uniquely tailored to meet both the current and future needs of the Town as the municipality continues to grow.

This section provides programmatic and spatial calculations based on our current understanding of the Town's needs and requirements for an expanded recreational facility.

2.2 OVERALL FLOOR AREAS (EXISTING + PROPOSED NEW)

- **Building Footprint:** 96,326 ft²
- **Arena – Main Floor Area:** 59,460 ft² (30,090 ft² Existing)
- **Arena – Second Floor Area (Seating/Track):** 9770 ft²
- **Arena – Total Floor Area:** 66,460 ft²
- **Aquatic Centre – Main Floor Area:** 18,180 ft²
- **Mixed Use – Main Floor Area:** 15,550 ft²
- **Mixed Use – Second Floor Area:** 15,590 ft²
- **Mixed Use – Total Floor Area:** 31,140 ft²
- **Total Floor Area:** 115,780 ft²

ARENA BASED AREAS	AREA (FT ²)
Arena A (Existing – 330 Seat Capacity)	23,640
Arena B (New)	21,350
Public Use Dressing Rooms (12 Total – 6 Existing)	6,930
Private Use Dressing Rooms (4 Total)	3,160
Pro Shop (New)	190
Rink Office/Storage/First Aid (Existing)	570
Arena B Viewing (389 Seat Capacity)	1,540
Zamboni/Service Space (1,280 ft ² Existing)	3,160
Support Spaces Not Included (Washrooms, Circulation, Storage)	

POOL AREAS	AREA (FT ²)
Pool (9,680 ft ² Existing Pool Deck)	12,275
Steam Room (New)	220
Sauna (New)	225
Public Use Dressing Rooms (Men's, Women's, Universal)	3,760
Pool Lobby (New)	1,420
Pool Staff (370 ft ² Existing)	650
Pool Mechanical (Existing)	640
Support Spaces Not Included (Washrooms, Circulation, Storage)	

SHARED AREAS	AREA (FT ²)
Arena Lobby (1 st Floor + 2 nd Floor) (815 ft ² Existing 1 st Floor)	2,390
Arena Concession (Existing)	1,500
Recreation Lobby (New)	820
Food Service (New)	240
Child Care (Option 1)	380
Child Care (Option 2)	500
Play Area (New)	380
Flex - Gym (Option 1)	1,380
Flex - Gym (Option 2)	3,840
Multi-Purpose (4 Total Spaces)	2,420
Private Use/Staff/Offices (New)	1,250
Undeveloped Floor Space (New - 2 nd Floor Only)	5,493
Support Spaces Not Included (Washrooms, Circulation, Storage)	

3.0 BUILDING DESIGN + COST ANALYSIS

3.1 BUILDING DESCRIPTION

3.1.1 STRATEGIC OVERVIEW

The vision for the expansion of the recreational facility is to create a lively and thriving community hub that cultivates a strengthened sense of community and support for the Town of Devon and surrounding communities. Although the twin arena and community pool will remain the focal points of the new recreational facility, there is an exciting opportunity to incorporate multi-purpose spaces for use by a wide variety of community-based organizations, businesses, community members and visitors. In this light, the new recreational facility is viewed as an opportunity to spur local economic growth and promote stable businesses, a healthy environment, sustainable agriculture and tourism for the residents of Devon and surrounding communities. This project will also serve to cultivate a long-standing relationship with a private hockey academy

3.1.2 PRELIMINARY PROJECT DETAILS

The new recreational facility combines approximately 30,000 ft² of a pre-engineered addition to the existing Dale Fisher Arena, as well as a running track with an arena seating capacity of 389.

The new aquatic facility consists of approximately 18,500 ft² of a pre-engineered addition that covers the existing community pool and expands the existing pool deck to include a children's spray park and 30-person capacity hot tub. The design also incorporates a lobby/reception area, dressing rooms, steam room,

and sauna; other spaces will be further defined (e.g. washrooms, circulation areas, storage).

The expanded recreational facility also incorporates a two-storey, 17,000 ft² conventionally built multi-purpose area that connects the twin arena to the aquatic facility, providing a wide variety of multi-purpose spaces for public and private use. These multi-purpose spaces can be potentially used for staff offices, a play area and child care space, a workout facility and other flex spaces that be utilized for community events or private function rentals. This portion of the expansion project integrates the existing arena's concession area (added in 2010) and includes the footprint of the existing community pool building. With respect to meeting parking requirements, we recommend a shared land-use parking agreement between all of the occupancies within the building.

3.1.3 LOCATION

As mentioned earlier, the existing site consists of approximately 4.4 acres of Town-owned land (Block G) on the corner of Haven Avenue and St. Clair Street. The current zoning of Block G is Public Service 1 (PS-1) as per the Town of Devon's Land Use Bylaw. It is assumed through Building Areas/Occupancy and local Land-Use Bylaws (including parking) that the addition of approximately 2.55 acres to the boundary of the overall property will be required for this project, bringing the total site area to ~6.95 acres.

At the time of this study, a professional topographical survey and geotechnical investigation were not completed.

3.2 CRITICAL DESIGN DATA

3.2.1 BUILDING HEIGHTS AND AREAS

Overall Site Areas	
Current:	~4.4 Acres (17,785 m ²)
Proposed Addition:	~2.55 Acres (10,302 m ²)
Proposed Total:	6.94 Acres (28,087 m ²)
Building Footprint:	96,326 ft ²
Landscaped Area:	5,650 m ² (20%)
Site Coverage:	32%
Construction:	Non- Combustible
Sprinklered:	Yes
Fire-Resistance:	As required by NBC – 2019 AE
Building Height (Varies – See Elevations)	
(2) Storey; Total Height:	29'-6" (T.O. Parapet) 40'-6" (T.O. Arena Roof Peak)
Floor to Floor:	11'-9" Finished Floor to Suspended Ceiling: TBD – Ceiling to be left open to structure in majority of building
Foundation:	Concrete slab, grade beam supported by steel-driven piles.
Thermal Efficiency:	As per National Energy Code 2017 minimums - Walls are to be R-27 and roof is to be R-35.

3.2.2 OCCUPANCY LEVELS

For the purpose of our calculations, the following occupancy levels are used:

Major Occupancies:

- Group A, Division 3 (Assembly of a Rink, Indoor Swimming Pool type);
- Group A, Division 2 (Assembly type not elsewhere classed in Group A);
- Group D (Office/Personal Services)

Number of Occupants:

Group A, Division 3: 411 (Pool) + 330 (Arena A Viewing) + 389 (Arena B Viewing) + 192 (Arena Dressing Rooms) + 4 Rink Staff + 4 Pool Staff = 1,388 Occupants

Group A, Division 2: 398 Occupants (Staff Included);
Group D: 61 Occupants
Total: 1,797 Occupants

**N.B. Occupancy/Occupant Loads may change due to Tenant Requirements/Development Variances.*

Plumbing Facilities:

- Group A, Division 3: 8 Male – 16 Female
- Group A, Division 2: 4 Male – 8 Female
- Group D: 1 Male – 2 Female

**N.B. Plumbing Facilities may change due to changes in Occupant Load/Development Variances.*

Elevators: 1 centrally located elevator provided.

3.2.3 SITE REQUIREMENTS

Parking Stalls Required: To be determined in conjunction with Development Officer/Cross Access Agreement with adjacent Sites (Devon does not currently have parking requirements for PS1 Zoning).

Stalls provided as following (taken from Devon Land-Use Bylaw as well as research from adjacent Municipalities Land-Use Bylaws):

- Arena: 1 stall per 5 seats (689 Seat Capacity) = 144 stalls
- Pool: 1 stall / 5m² of pool area (476.5m²) = 96 stalls
- Gym (Option 1 used): 1 stall / 10m² of floor area (128m²) = 13 stalls

- Daycare (Option 1 used): 2 employee + 1 visitor stall = 3 stalls
- Multi-Purpose/Public/Private Use: 1 stall / 45m² (621m²) = 31 stalls

**N.B. Dependent options/flex space uses.*

- Food Service: 1 stall / 13m² (50m²) = 4 stalls
- TOTAL = 291 stalls (285 proposed)

3.2.4 SITE ACCESS

Multiple access points will be provided to the site from the new development.

3.2.5 LOADING/GARBAGE

Loading and garbage areas will be located at the rear of the twin arena facility.

3.2.6 STRUCTURE

Framing - All Floors: The structure will consist of a combination of pre-engineered and conventional steel construction. Roofs/Floors will consist of steel decking (concrete topping at 2nd floor).

3.2.7 AMENITIES

Food Service: Food Services will be incorporated to service the Arena, Office, and Recreation areas. This includes the existing commercial kitchen for the arena concession, as well as a provision for a small brick and mortar location.

Washrooms/Locker Rooms: Each washroom will have toilets (complete with partitions), lavatories with mirror and vanity, valence lighting, change tables, and all necessary supporting hardware. In addition to lockable storage and shower facilities, pool locker rooms will be complete with washroom fixtures.

Pool: The pool will include the existing community pool and the pool deck with expanded areas to include a children's spray park and hot tub (30-person capacity). The existing shower/bathroom areas will be retrofitted/updated into new steam and sauna areas.

Gym: The Gym will be equipped with proper flooring

and lighting. Proper plumbing fixtures will be installed for water (drinking fountains, bottle fill ups, etc). Backing will be installed where necessary for gym use. The gym layout will be design-build as the gym equipment will be supplied either by the Town of Devon or the end-user (private gym tenant). The running track will be included with gym use (membership) and will include ~300 m two-lane track with non-slip surface and painted lane lines.

Public/Private Space: These spaces will be equipped with Code compliant Electrical (lighting/feeds) and Mechanical (plumbing/ HVAC) fixtures and rough-ins.

Arena Dressing Rooms: Dressing rooms will be outfitted with benches, hangers, and proper flooring and lighting. Hockey stick storage areas and coaching white-boards will be supplied. Each dressing room will have shower, lavatory, water closet, and urinal directly attached.

3.3 COST ANALYSIS

For the purpose of this Study, a cost per square foot is associated with different floor areas as listed in Section 2.0 - Programming Review.

Ice Arena: 36,370 ft² @ \$205/ft² = \$7,455,850.00

Aquatic Centre: 18,180 ft² @ \$340/ft² = \$6,181,200.00

Multi-Use: 31,140 ft² @ \$235/ft² = \$7,317,900.00

TOTAL: \$20,954,950.00

*Cost per square foot as per 2019 Canadian Cost Guide (Altus Group)

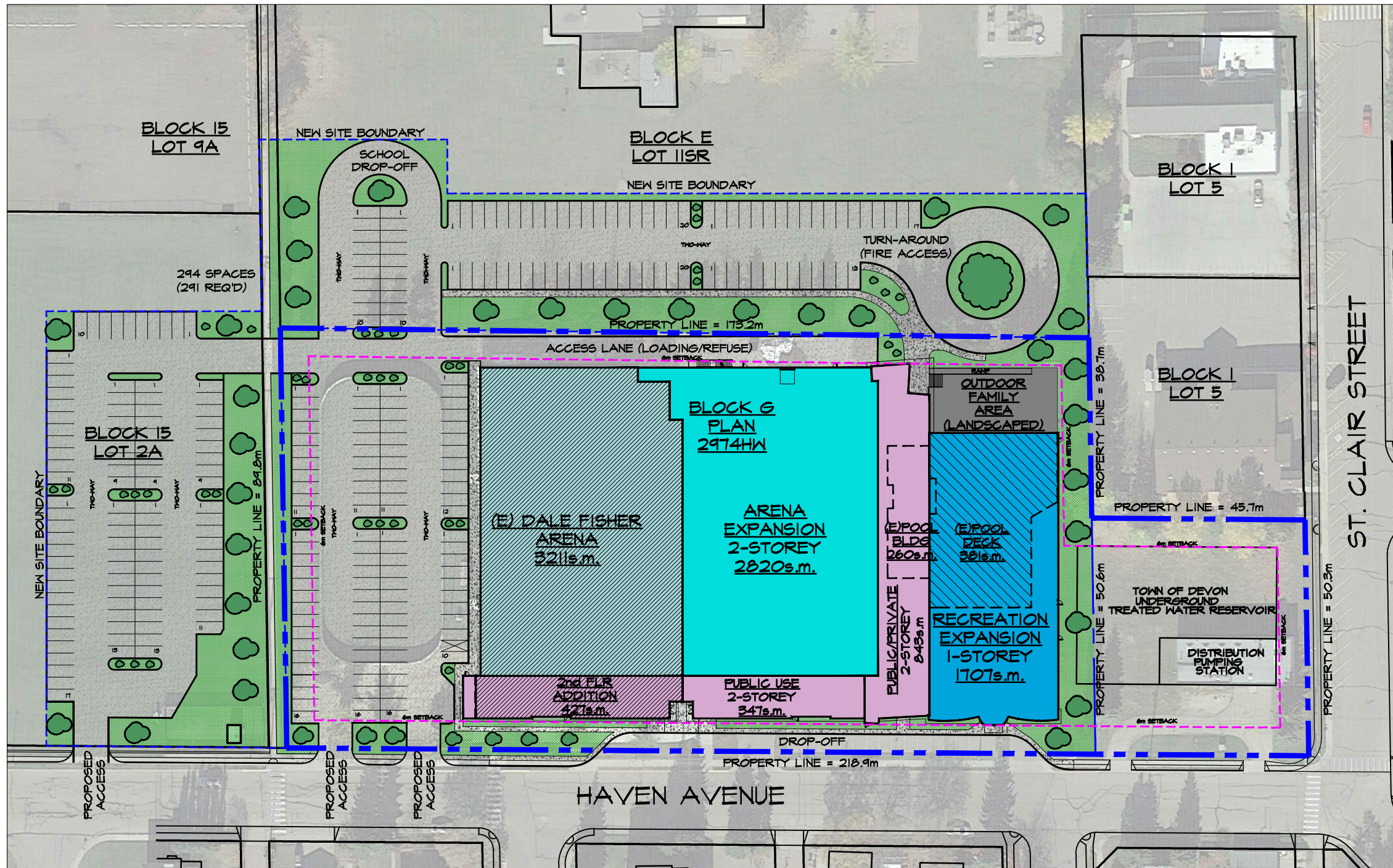
**The costs provided above are estimates only and are subject to change based on fluctuations in market/material values, inflation and unforeseen circumstances. These costs do not include any necessary renovations within the existing facilities.



APPENDIX A

ARCHITECTURAL DRAWINGS





SITE INFORMATION:

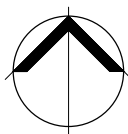
LEGAL DESCRIPTION:
BLOCK G, PLAN 2974HW
PROJECT ADDRESS:
32 HAVEN AVENUE, DEVON, AB
ZONING:
PUBLIC SERVICE 1 (PS-1)
MAJOR OCCUPANCY:
VARIES AS PER USE

SITE AREA:

(E) = ~17,785sq.m
NEW = ~10,302sq.m
TOTAL = ~28,087sq.m
BUILDING FOOTPRINT (TOTAL):
8949sq.m
SITE COVERAGE:
32%
LANDSCAPED AREA:
5650sq.m
LANDSCAPE COVERAGE:
20%

PARKING INFORMATION:

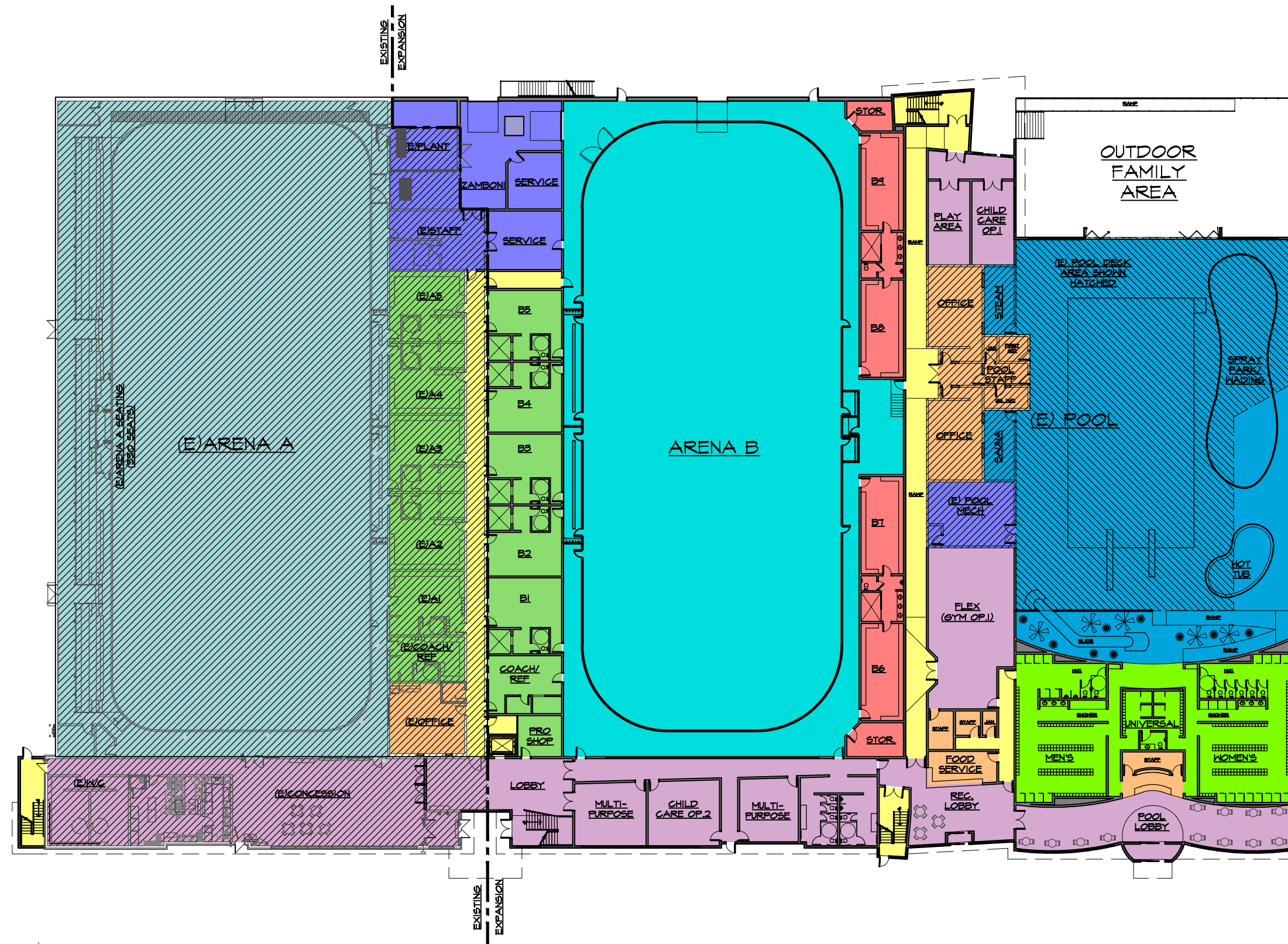
TOTAL PARKING STALLS REQUIRED
(ALL OCCUPANCIES):
291 STALLS
TOTAL PARKING STALLS PROPOSED
(ALL OCCUPANCIES):
294



1

SITE PLAN SCHEMATIC

Scale: 1:1000



DALE FISHER ARENA

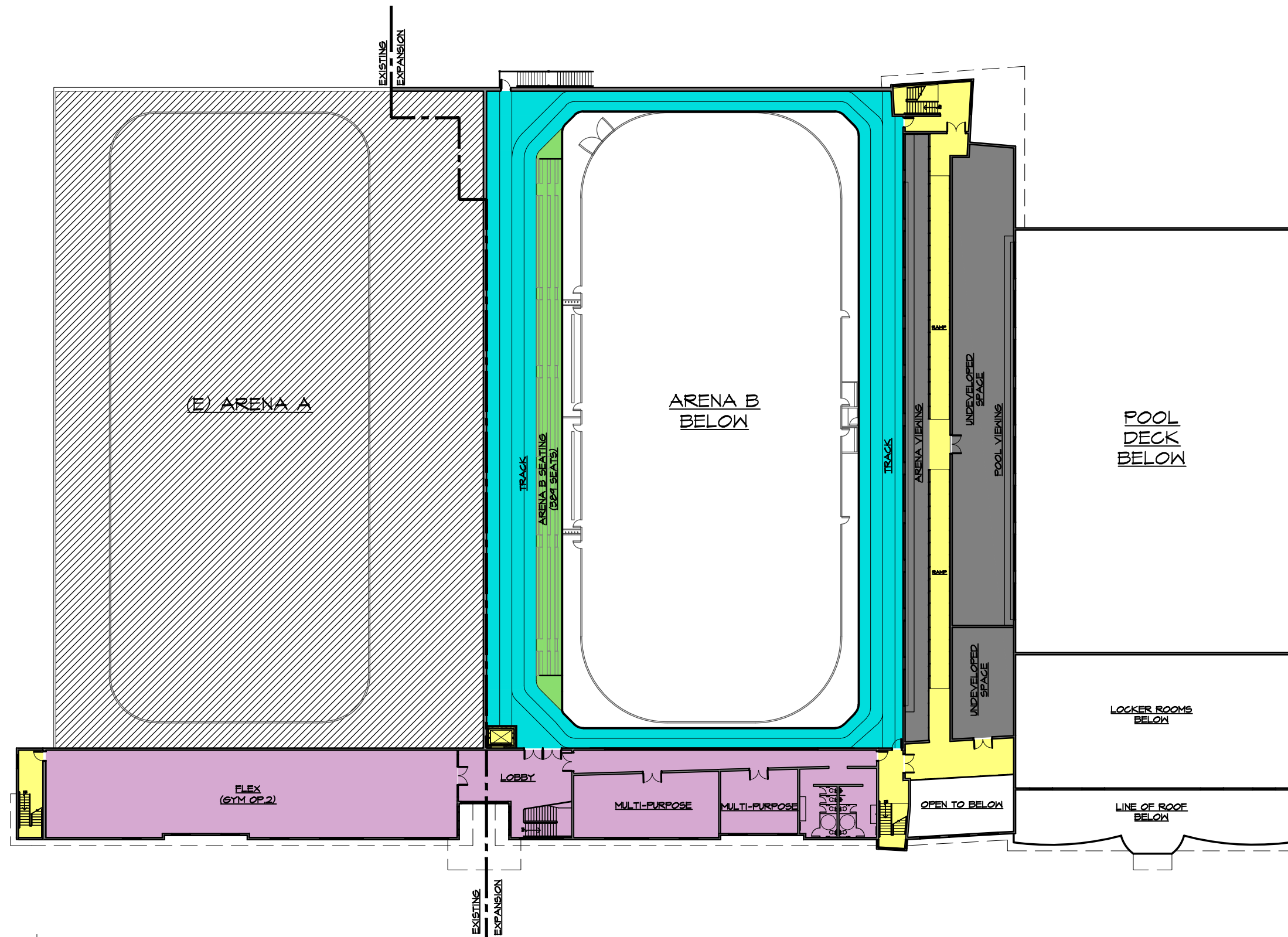
(E) FLOOR SPACE
~36,910sq.ft
NEW FLOOR SPACE
~57,240sq.ft
TOTAL FLOOR SPACE:
~94,150sq.ft

FLOOR SPACE LEGEND

- (E) ARENA A
~23,600sq.ft
- ARENA B
~21,350sq.ft
- POOL
~12,720sq.ft
- LOBBY/PUBLIC USE SPACE
~12,200sq.ft
- PUBLIC DRESS'G RMS (ARENA)
~6,930sq.ft
- PUBLIC DRESS'G RMS (POOL)
~3,760sq.ft
- PRIVATE USE OFFICE/STAFF
~3,020sq.ft
- PRIVATE DRESS'G RMS (ARENA)
~2,590sq.ft
- CIRCULATION
~3,790sq.ft
- SERVICE AREA
~3,800sq.ft
- (E) BLDG AREA
~36,910sq.ft
- (E) POOL DECK AREA*
~9,680sq.ft

*POOL DECK AREA NOT
INCLUDED IN (E) AREA CALC.

1 FIRST FLOOR PLAN
NTS

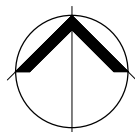


DALE FISHER ARENA

TOTAL FLOOR SPACE:
~25,025sq.ft

FLOOR SPACE LEGEND

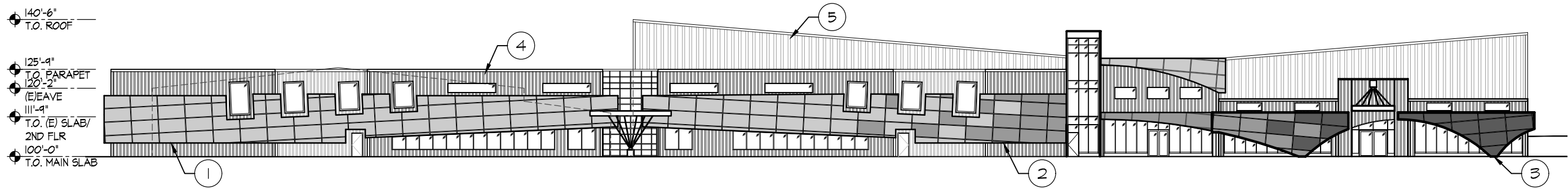
- TRACK
~8230sq.ft
- ARENA B SEATING*
~1540sq.ft
*SEATING FOR 384 OCC.
- LOBBY/PUBLIC USE SPACE
~7540sq.ft
- CIRCULATION
~2222sq.ft
- UNDEVELOPED AREA
~5493sq.ft



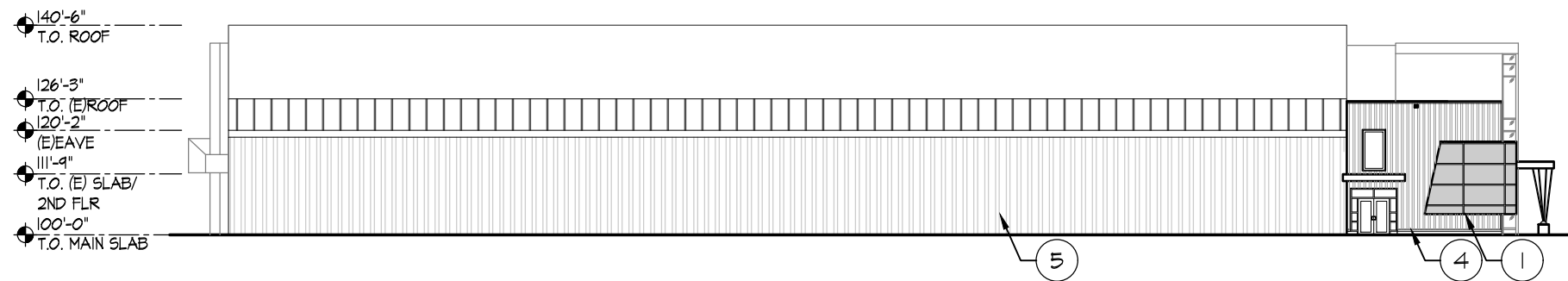
1

SECOND FLOOR PLAN

NTS



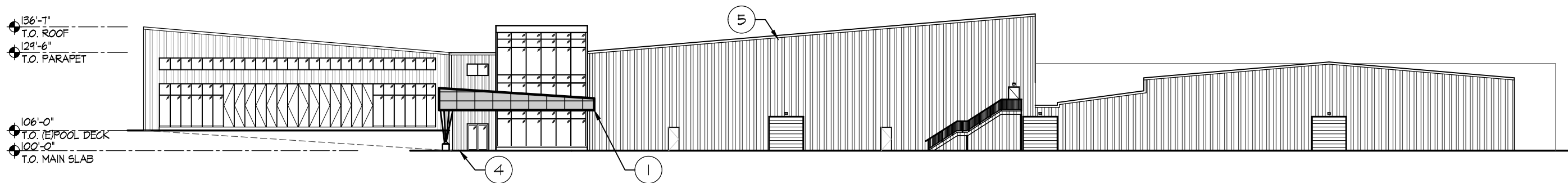
1 SOUTH ELEVATION
Scale: 1/32" = 1'-0"



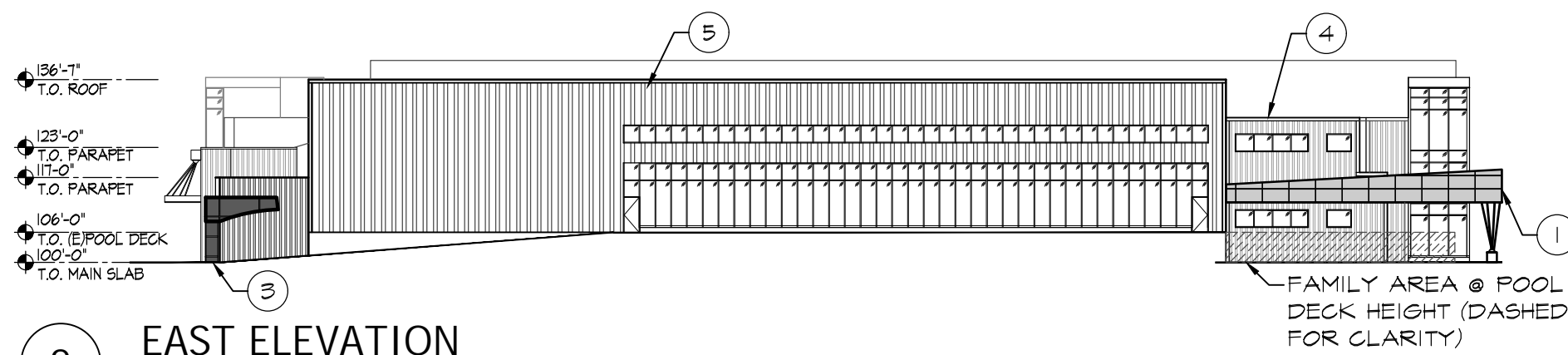
2 WEST ELEVATION
Scale: 1/32" = 1'-0"

FINISH NOTES:
SEE RENDERING FOR CLR CLARIFICATIONS

- ① MTL PANEL
CLR: GREY - MATCH (E)
- ② MTL PANEL
CLR: BLUE
- ③ MTL PANEL
CLR: GREEN
- ④ MTL CLADDING
CLR: BLACK - MATCH (E)
- ⑤ MTL CLADDING
CLR: GREY - MATCH (E)



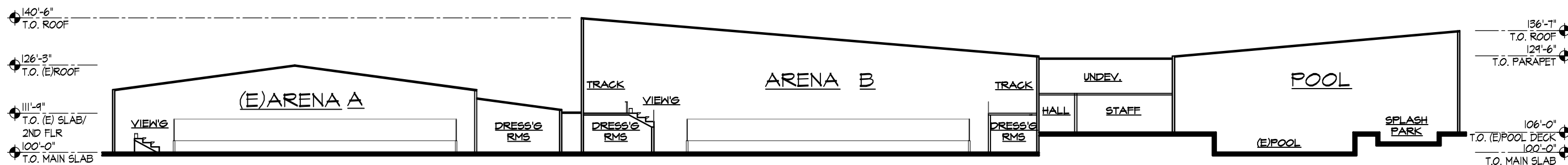
1 NORTH ELEVATION
Scale: 1/32" = 1'-0"



2 EAST ELEVATION
Scale: 1/32" = 1'-0"

FINISH NOTES:
SEE RENDERING FOR CLR CLARIFICATIONS

- ① MTL PANEL
CLR: GREY - MATCH (E)
- ② MTL PANEL
CLR: BLUE
- ③ MTL PANEL
CLR: GREEN
- ④ MTL CLADDING
CLR: BLACK - MATCH (E)
- ⑤ MTL CLADDING
CLR: GREY - MATCH (E)



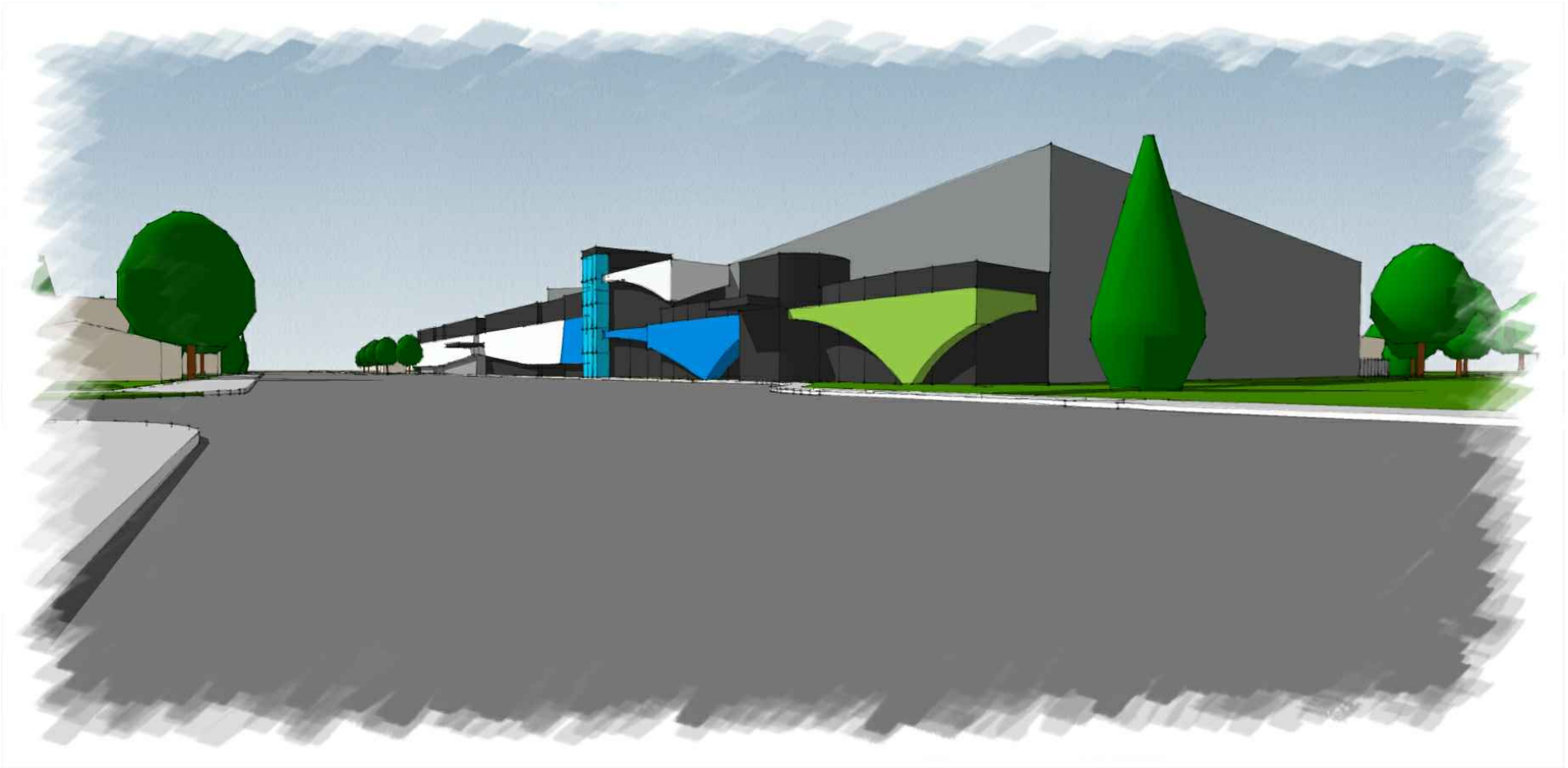
3 OVERALL BUILDING SECTION
Scale: 1/32" = 1'-0"



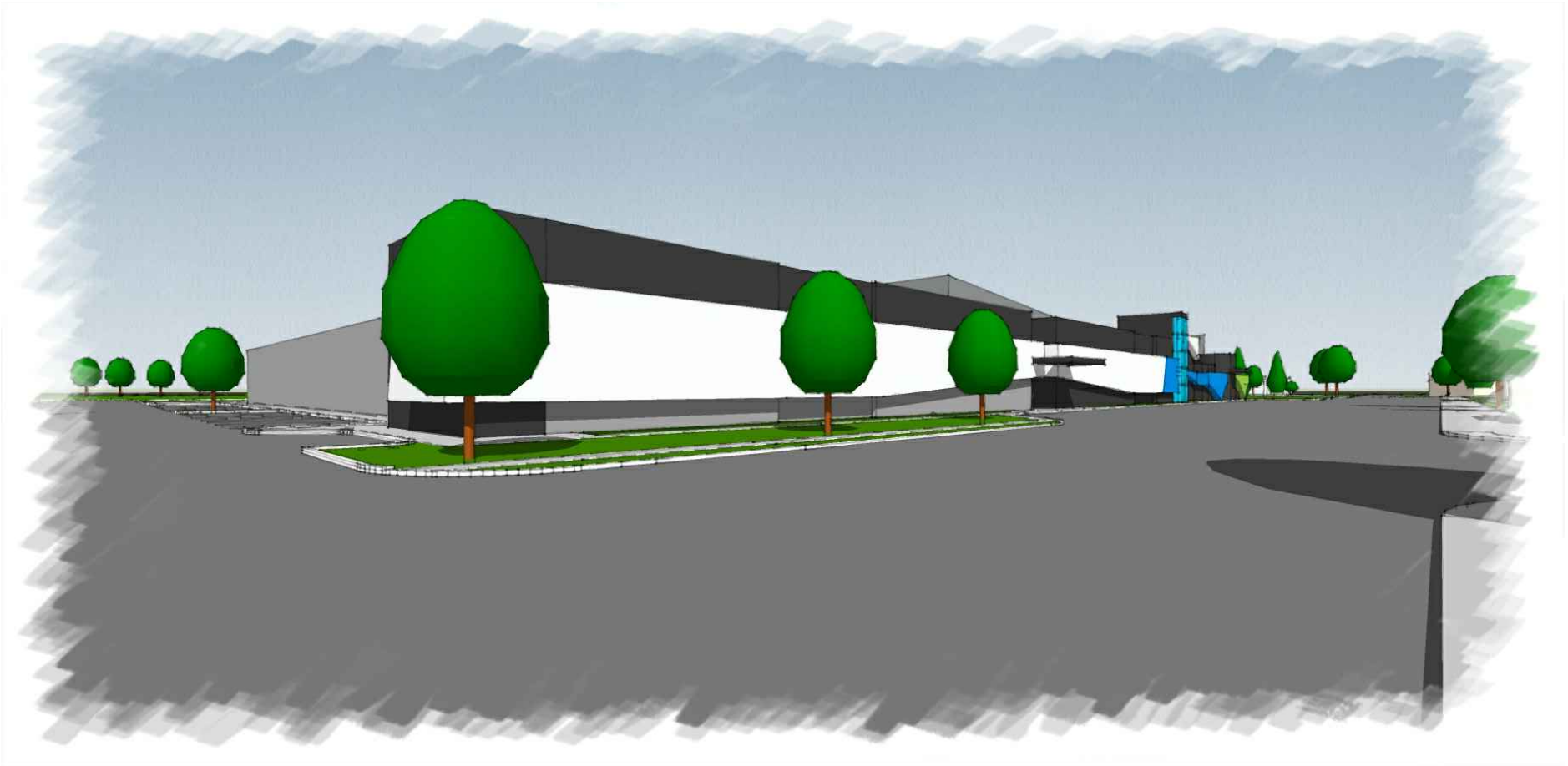
APPENDIX B

MASSINGS



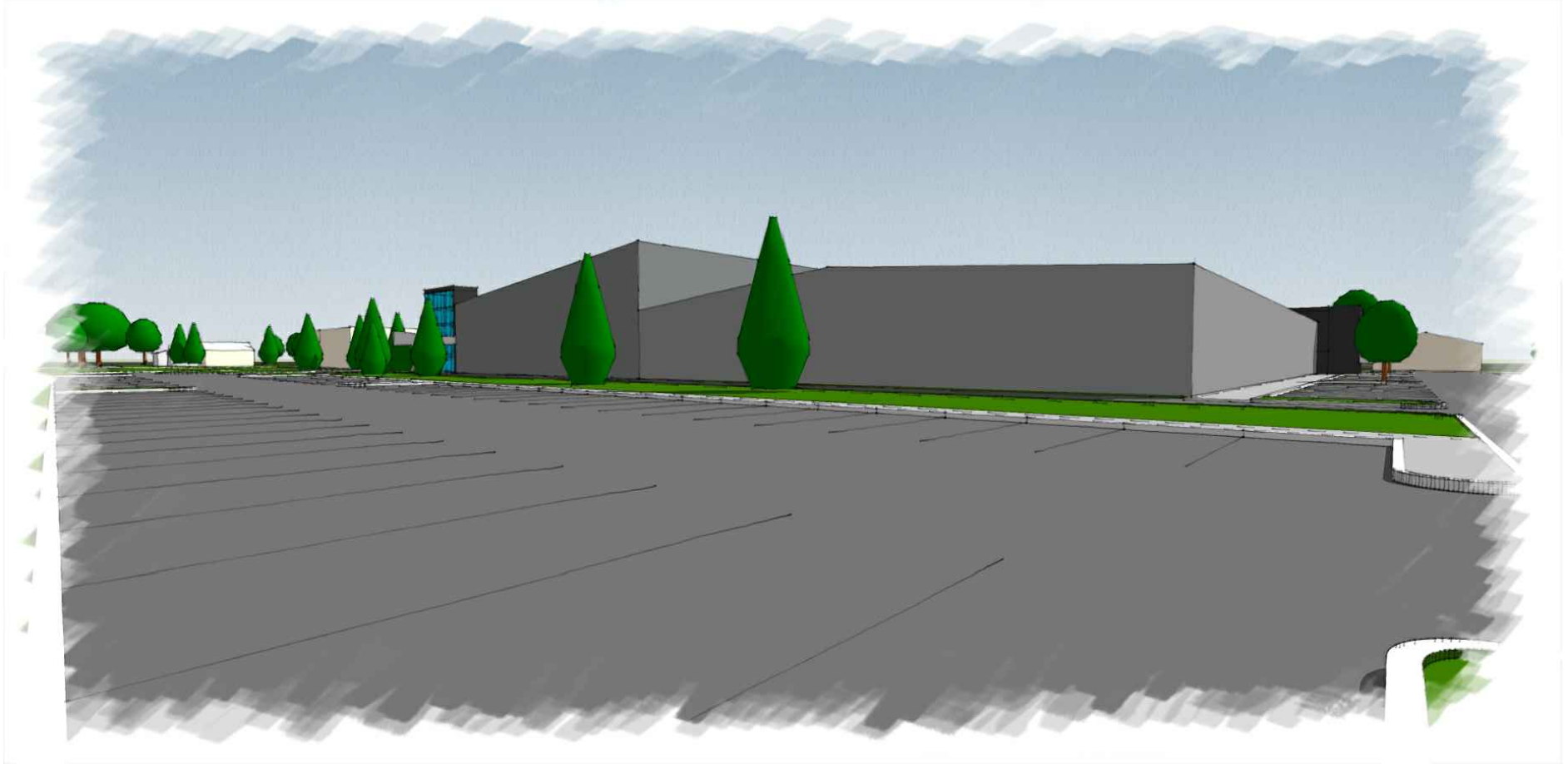


1 MASSING VIEW 1 - SE



1

MASSING VIEW 2 - SW



1

MASSING VIEW 3 - NW



1

MASSING VIEW 1 - SE

APPENDIX C

RENDERINGS

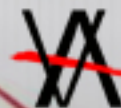








TOWN OF
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INSPIRE DESIGN REPEAT

