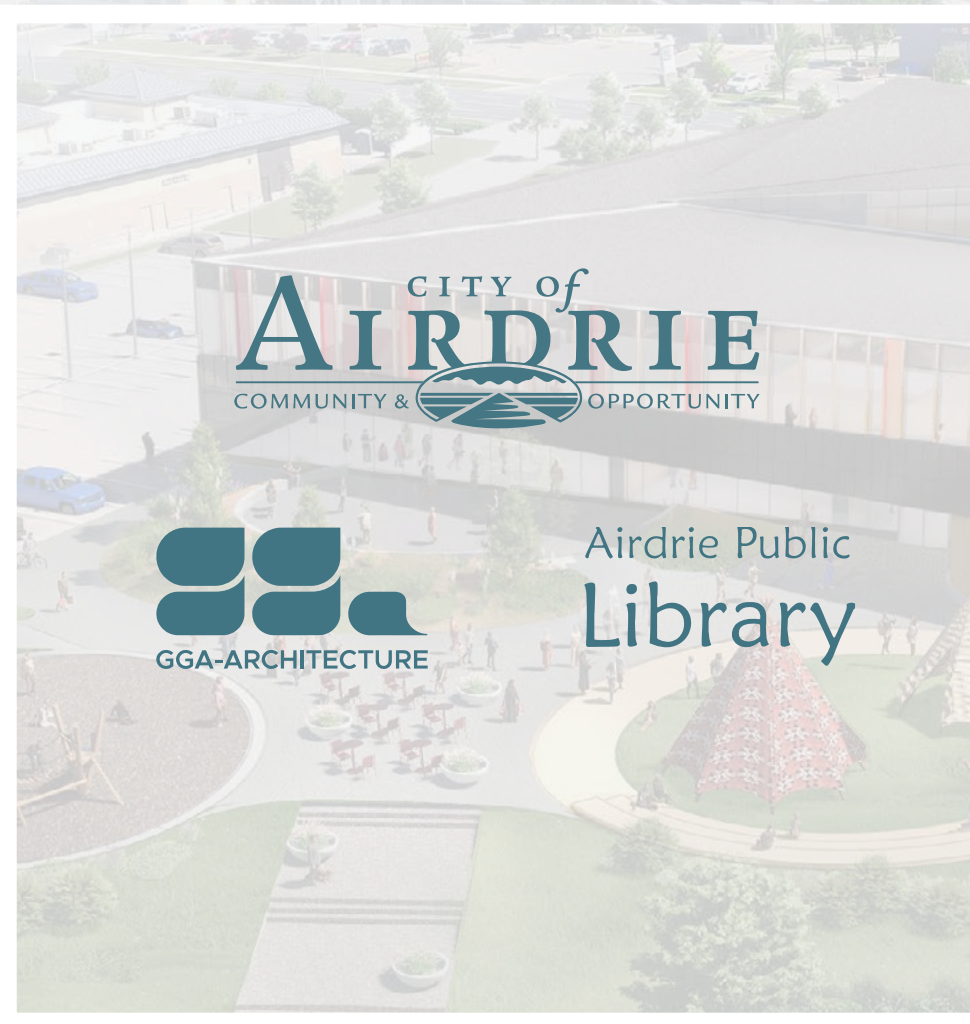




AIRDRIE
MULTI-USE FACILITY
& PUBLIC LIBRARY

SCHEMATIC DESIGN REPORT

MARCH 17, 2023



CITY of
AIRDRIE
COMMUNITY & OPPORTUNITY

GGA-ARCHITECTURE

Airdrie Public
Library

CONTENTS

00	EXECUTIVE SUMMARY
01	PROGRAMMING
02	SITE ANALYSIS
03	CONCEPT DESIGN
04	schematic DESIGN
05	interior DESIGN
06	sustainability SUMMARY
07	indigenous INCLUSIVITY
08	accessibility SUMMARY
09	landscape SUMMARY

00

executive summary

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EXECUTIVE SUMMARY

01

02

03

04

05

06

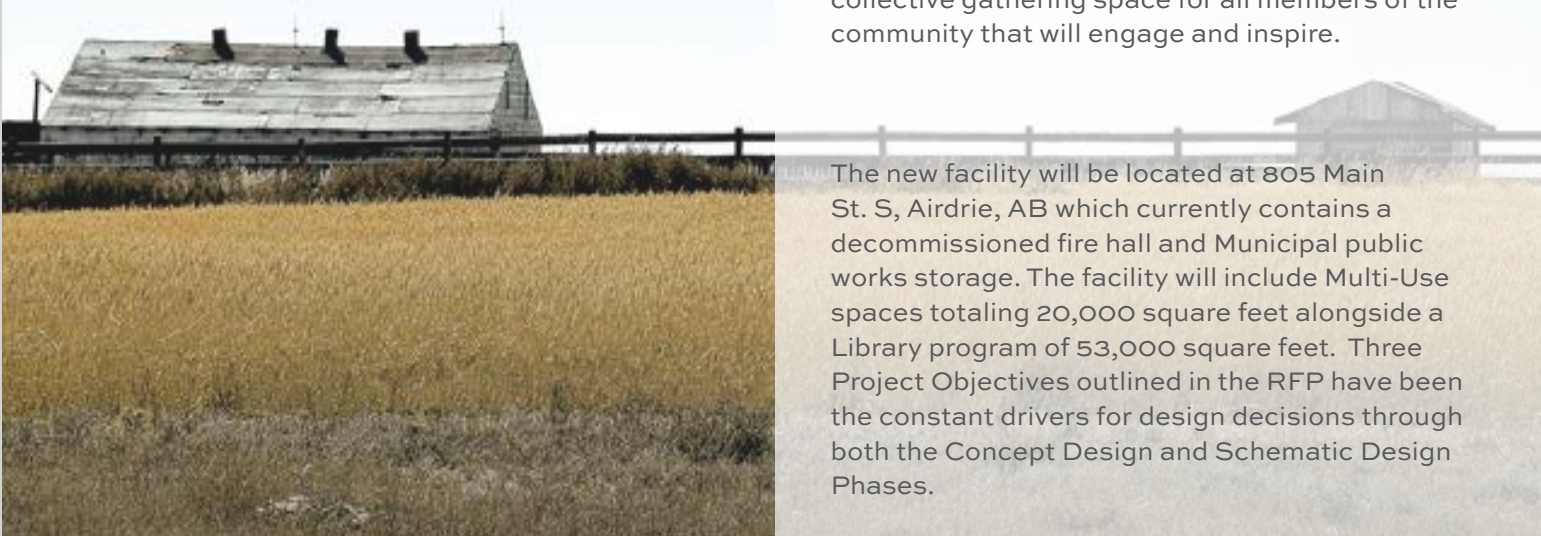
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PROJECT VISION
EXECUTIVE SUMMARY
PROJECT PROCESS

PROJECT VISION

Airdrie is a friendly, vibrant, and growing community that continues to expand at an incredible pace. The development of a new Multi-Use Facility and Library is necessary to support the increasing needs among its residents, providing a collective gathering space for all members of the community that will engage and inspire.

The new facility will be located at 805 Main St. S, Airdrie, AB which currently contains a decommissioned fire hall and Municipal public works storage. The facility will include Multi-Use spaces totaling 20,000 square feet alongside a Library program of 53,000 square feet. Three Project Objectives outlined in the RFP have been the constant drivers for design decisions through both the Concept Design and Schematic Design Phases.





A facility that is a Catalyst for the Downtown

This library has the potential to be a catalytic project to bring the focus back downtown. It is about encouraging the connectivity to people and programs that nurture mental well-being and build a healthy and vibrant community. With the library being centrally located, it will be supportive of more walkable neighborhoods, further contributing to a complete community

A facility that has Multiple Uses and Activities

A future library should incorporate one or more uses inside of the building that is owned and operated by a different business such as a café, a different cultural resource, a co-working space or retail. This will anchor the library as a node drawing on different residents to visit the building for different reasons thereby stimulating the building as an activity center. It will elevate the building to add up to more than the sum of its parts.

A facility that is a Hub for Community Development

How libraries are used is changing. Historically they were a space used to house books. Today, libraries are a place where people gather and celebrate their community. This can be achieved through event programming and designing multi-purpose flex spaces that can accommodate a range of uses. This library is to be used and enjoyed by the entire community and a destination for all. Broadening the visitor base and establishing a patronage of users from all demographics is a critical part of building a community hub.



EXECUTIVE SUMMARY

The following document presents the revised approach to the schematic design of the Airdrie Multi-use Facility and Library. This revised schematic design represents the ambition and intent originally described in the schematic design that was presented to Council in September of 2022. At that time, due to the inflation of construction costs and additional scope required, the project did not align with the budget available. Council provided direction to the design team with a small increase in the budget and a revision in scope from an 85,000 sf facility down to a 73,000 sf facility. This revision, coupled with a value analysis of the facility, prompted a redesign of the building to align with the project budget. While considerable redevelopment of the building and site was required to address the previous budget discrepancy, much of the intent and approach to the design has remained the same. The resulting project continues to embody a significant focal point in the City of Airdrie and represents a meaningful investment in the future of the City and its citizens. Outside of the City of Calgary, this new facility will be the largest Multi-use Facility and Library of its kind in southern Alberta.

As detailed in the following schematic design report, the design team believes the project meets the objectives of City Council, and reflects the extensive thinking, collaboration, and effort put in by the entire project team. Close collaboration with Colliers and CANA has resulted in a project that responds to the budget challenges and addresses the previous comments provided by Council and the Library Board. The result is a design that better reflects the objectives of the project as a welcoming hub for the community and a catalyst project for the downtown.

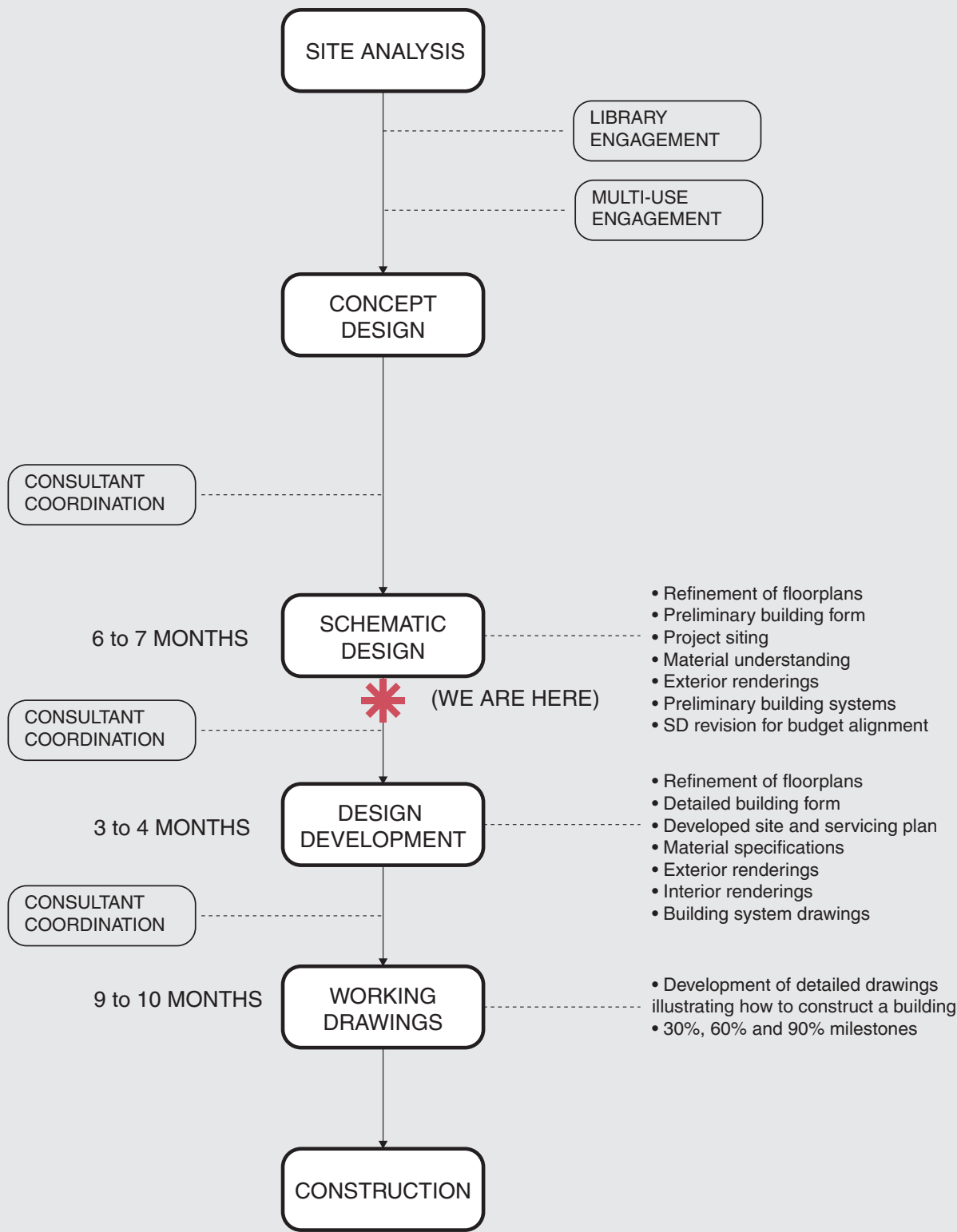
The design of the project has always focused on the importance of connectivity, and has evolved around a narrative of inflection. As a driving concept inflection is meaningful as the trajectory of city’s development embraces its exponential growth while maintaining connection to its historical roots. As a critical point in this growth and development, the Multi-use Facility and Library represents a building that elegantly responds to its context, linking pathways and connections both to the site and through the building. As a gateway element, the project looks to animate and celebrate the arrival into downtown — connecting site lines, circulation, and activities into the building with animated uses of the café and library community living room. As requested by Council, the expression of the building is more lively and vivid with a material expression that is warm yet sophisticated. The arrangement of interior spaces reinforces the connection of people, activities and spaces, and strengthens the design intent. In addition, connection to the West side of the site and the Nose Creek pathway has been maintained, providing a vibrant public space transitioning from the interior of the building to the exterior with great public spaces for gathering and learning.

The diversity of spaces within the project and Council’s continued effort to thoughtfully develop a multi-use program will ensure that this project is a hub for community development. The design team has developed the floor plan, interior concept, and finishes of the project to reflect a strong, durable project with appropriate sustainable solutions. Consideration into efficiency of material use that balances the initial cost with the long term operational and maintenance costs has influenced the schematic design refinement.

While much of the design requires further refinement and development in the design development stage, we are looking for support from Council to endorse the overall direction of the project. In Design Development, we will study in more detail the intricacies of the plan, focusing on the interior layout and finishes. Additionally, we will refine the exterior material palette, establishing the glazing, envelope details and sustainable features of the project in collaboration with our consultant team and the City project team.

We are confident that this revised direction maintains the excitement of the original schematic design and represents the vision the City of Airdrie has for the direction the project. With the alignment of the project budget we hope to advance the development of the project into the design details and aim to incorporate the input of Council and the Library Board into the finer details of the project and we very much look forward to Council’s input and feedback.

PROJECT
PROCESS



The Schematic Design Report for the Airdrie Multi-Use Facility and Library project summarized the progression and evolution of the design concepts that were outlined in the Concept Design Report issued on May 2, 2022. This report was originally presented to council on September 19th. At that time, the project budget was developed by CANA and then independently analyzed by a 3rd party Quantity Surveyor. Following this analysis, the project was determined to be significantly over budget. Over the course of the following 3 months, the budget was revisited through joint workshops between Council and the Library Board, as well as public meetings with Council.

On November 7th, Council increased the project global budget to \$65M, reflecting an increase of \$3M while maintaining a full underground parkade. On December 19th, Council directed administration and the consultant team to reduce the overall gross program of the building from 85,000 sf to 73,000 sf. The diagram on the following page illustrates the details of this area reduction.

This reevaluation, in combination with value analysis targets for the design and realignment of soft cost budgets, provided the design team with direction on developing a revised schematic design. The team has since evolved the previous design and report in close collaboration with the City project team and CANA to develop this current schematic design, which at this point in time, is within the project budget.

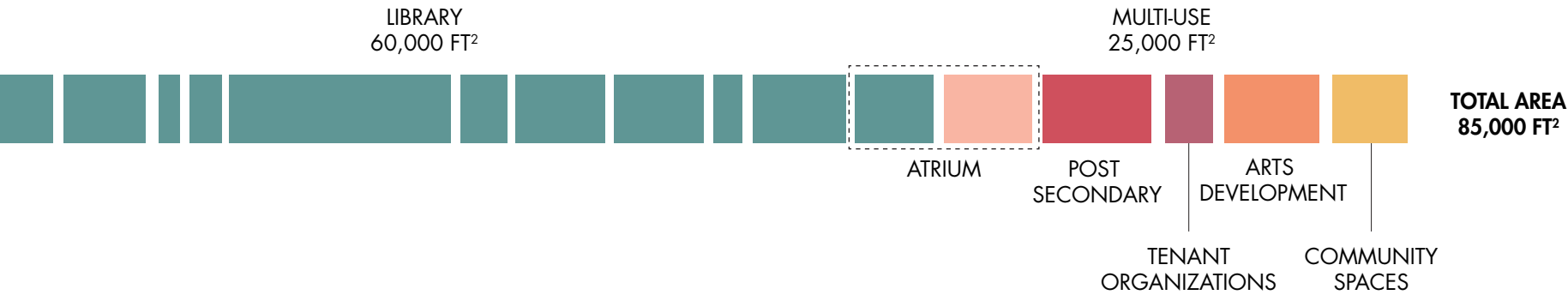
As part of the Schematic Design process, the design consultant team developed floorplans that respond to both the Library functional program, the approved Multi-Use Facility Hybrid program and Airdrie’s Downtown Plan. Biweekly collaborative sessions with the project team helped to further refine the elements to be included within the floorplans.

The Schematic Design phase has established the design intent for the facility from a concept, massing, site design, material, and programmatic perspective. This schematic design document forms the basis of a Class-C cost estimate from the construction management team. It is important to understand that revised schematic design marks a point in time of the project’s overall development. Capturing progress-to-date is important to confirm the project is on budget as the design team has had the benefit of collaborating on the redesign this time with CANA. Additionally, the revised schematic design looks to incorporate the feedback provided from Council and the Library Board on the overall design. Numerous design decisions were made through consultation with various stakeholders and the City Project team to chart a course for further refinement in the Design Development stage. Material options have been provided for commentary as part of the schematic design report to provide Council with ability to provide the design team with better recommendation on design intent.

The upcoming Design Development phase will further enhance the details of all the aforementioned components. It is also an opportunity to further refine the project to address any concerns that Council may have with the design progression. Final finishes and materials are yet to be determined, as are final program layouts, floorplans and furniture layouts. Interior Design will be a key area of focus during Design Development with refinement of furniture layouts, and material selections being critical to this process. In general, Schematic Design is an opportunity to test broader ideas - materials, forms, layouts. Elements that will be difficult to change include the positioning of the project on site that has been carried forward from the previous Schematic Design. While the project has modified some elements of the design from the previous Schematic Design to reduce costs of construction major feature locations on site and the general size of the project will remain fixed going forward. Beyond those items, much of what is explored in Schematic Design, including exterior materials, detailed program layouts, glazing, door locations, etc will have continued refinement through Design Development.

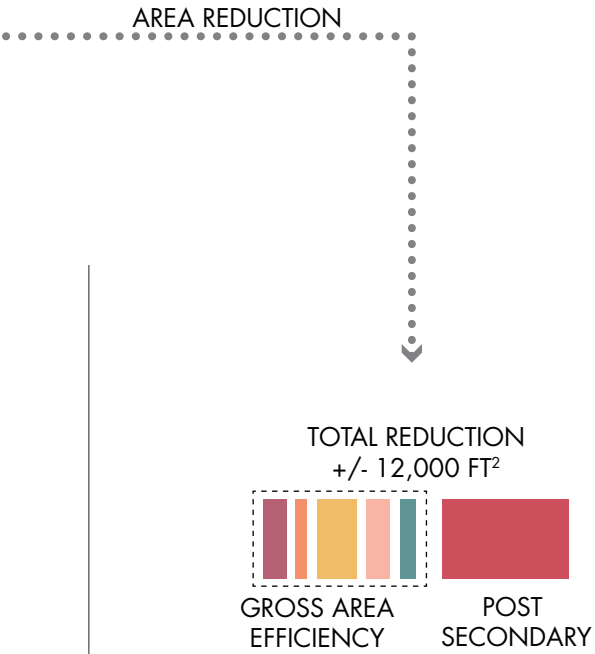
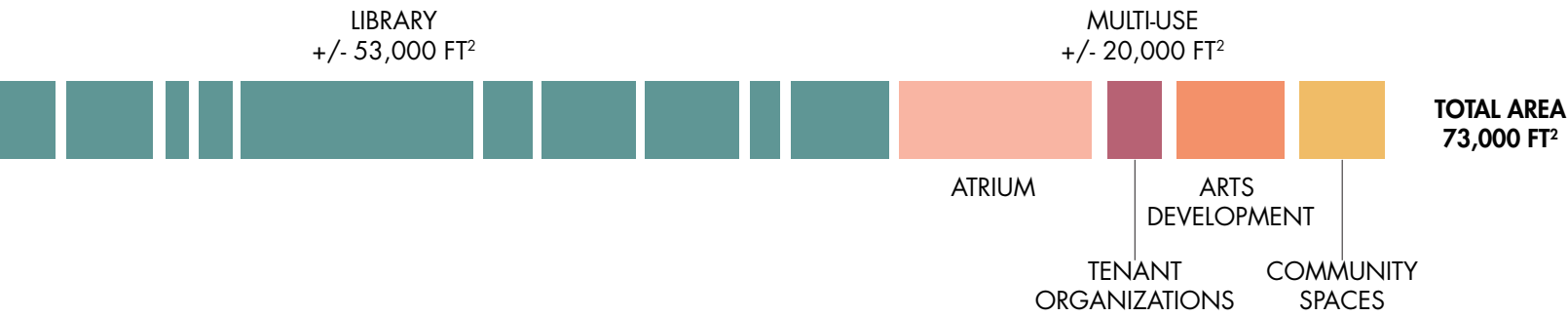
In December 2022 Airdrie City Council approved the reduction of the original 85,000 ft2 facility down to 73,000 ft2 gross floor area. This reduction of 12,000 ft2 was realized through the removal of the post-secondary program space in addition to efficiencies, primarily in mechanical and circulation spaces, across various Library and Multi-use programs.

ORIGINAL PROGRAM



RECOMMENDED SCENARIO

IMPACT TO SCHEDULE:
2-3 MONTHS



COMMENTS ON SEPT. 19th SCHEMATIC DESIGN REPORT

REVIEWER	REVIEW COMMENT	DESIGN TEAM RESPONSE
City Council	There is support for the west side of the building and the relationship to Nose Creek.	Massing and form of west elevation has been maintained.
City Council	There is a desire for the amphitheatre and outdoor amenities to support 4-season activities.	Outdoor spaces have been further developed to support a larger range of activities including year-round event rentals, potential playground location, and year-round plaza space.
City Council	There is a concern that the cladding is very institutional, and should be more inviting.	The addition of wood-look paneling and areas for colour integration have been proposed to create a warmer, family-friendly feel. A neutral zinc-like finished panel acts as a backdrop for the wood and glass. Final colour and material selection to occur in Design Development.
City Council	Interior feels institutional and there are concerns about interior seating.	The seating was shown for illustrative purposes only. Additional material finishes will be advanced in Design Development and final furniture selection to occur during tender process.
City Council	More consideration should be given to activity on Main Street side.	Second floor on main street side was eliminated to create a larger, more vibrant volume of space on Main Street. Additional glazing was added for high visibility into atrium. Main Street sidewalk and front entry have been designed to accomodate public gathering for events such as parades. Programs such as the cafe have been located near east entry to interface with Main Street.
City Council	Would like to see incorporation of more than just railway elements from Airdrie’s history.	Other influences from Airdrie’s history have been documented and reflected in the material palette, for instance Airdrie’s agricultural history and the importance of the Nose Creek passageway.
City Council	Concern of there being no external entry for the Library during events being held in the atrium.	Event spaces have been further developed to more closely align with building’s west entry. Airdrie Public Library Board has concerns with additional staff required to man a separate entrance and therefore direction from the Board was received that a separate entrance was not desired.
City Council	Aesthetic of proposed grass along south edge of site is of concern during dry and winter months.	This area is still under evaluation; drainage from the site, as well as a below grade utility right-of-way may limit material choices. Once these technical requirements are confirmed early in DD, alternatives to grass will be explored.
City Council	Concerns about green roof and potential pushback from residents.	Green roof has been removed due to concerns and budget constraints.
Library Board	Library Board appreciates openness, versatility, outdoor space, gardens, duality throughout the building, tall ceilings, open lighting, social stairs and green roof.	Revised Schematic Design proposal maintains these design concepts and features with the exception of the green roof.

TYPICAL PROCESS

1. Concept Design Phase

In this phase, the Architect and the Client work closely, to make sure all the necessary building program needs are covered in the project design. general approach to the site, major access points, circulation networks, location of parking as well as relationship diagrams that indicate how spaces will be laid out in plan are developed. The Multi-use program will be identified in a space list and how this space interacts with the library component is illustrated. Site analysis and urban contextual analysis as well as potential shadow development plan is considered. Conceptual approach to how the project will be formed to reflect the values of Airdrie will be presented

Council has reviewed, at a 30,000 foot level, how the project relates to the context. Direction on the program, major architectural themes and organization of the building on site related to servicing has been given. The Schematic Design report has responded to any concerns and progressed the design based on initial feedback.

2. Schematic Design Phase

The schematic design begins to articulate spatial and architectural elements, initial plans, sections and elevations will be produced. Floor plans relate to massing, elevations and materials on the exterior. Preliminary understanding of systems and other engineering elements such as acoustics, signage&wayfinding and others are developed and coordinated with the architectural plan.

Council will be reviewing the plan and site plan to understand how the rooms and spaces layout in relation to the site and context. This will be an important review of council to approve the direction of the project from which subsequent reviews will be measured against. Level of detail will be at the room level and reflect massing configuration at the door and window level of detail. The design is not complete or resolved in full detail as this is a snapshot in the design process. The form of the building will be set and support of that in principle is being sought. The cost of the building is estimated at this point with the ability for council to provide direction as a result to discrepancies.

3. Design Development Phase

This phase develops the design from schematic concept into a more refined architectural idea. This is where the Architect will deep dive into finishes, materials, and systems integration. Documents typically includes a standard architectural drawing set: site plan, floor plans, sections, elevations, and details. This also includes structural drawings, MEP (mechanical, electrical, and plumbing) drawings, civil engineering drawings, and landscape architecture drawings. Other consultants such as acoustics, fire protection, and envelope may provide drawings and documents as well. A draft project outlining the specifications for the project is also included. Details relating to interior finishes and millwork requirements as well as furniture and equipment layouts are initiated

In this phase council has the ability to understand the form and finish of all major spaces and systems to decide if the development of the design is proceeding in the direction consistent with the feedback provided in the Schematic Design.

4. Construction Documents Phase

Construction documents are directions from the Architect to the Contractor. These documents describe precisely how the Contractor will make the Architect’s design become a built object - through drawings and specifications. Construction documents serve two basic purposes: to obtain a building permit, and to get the design built.

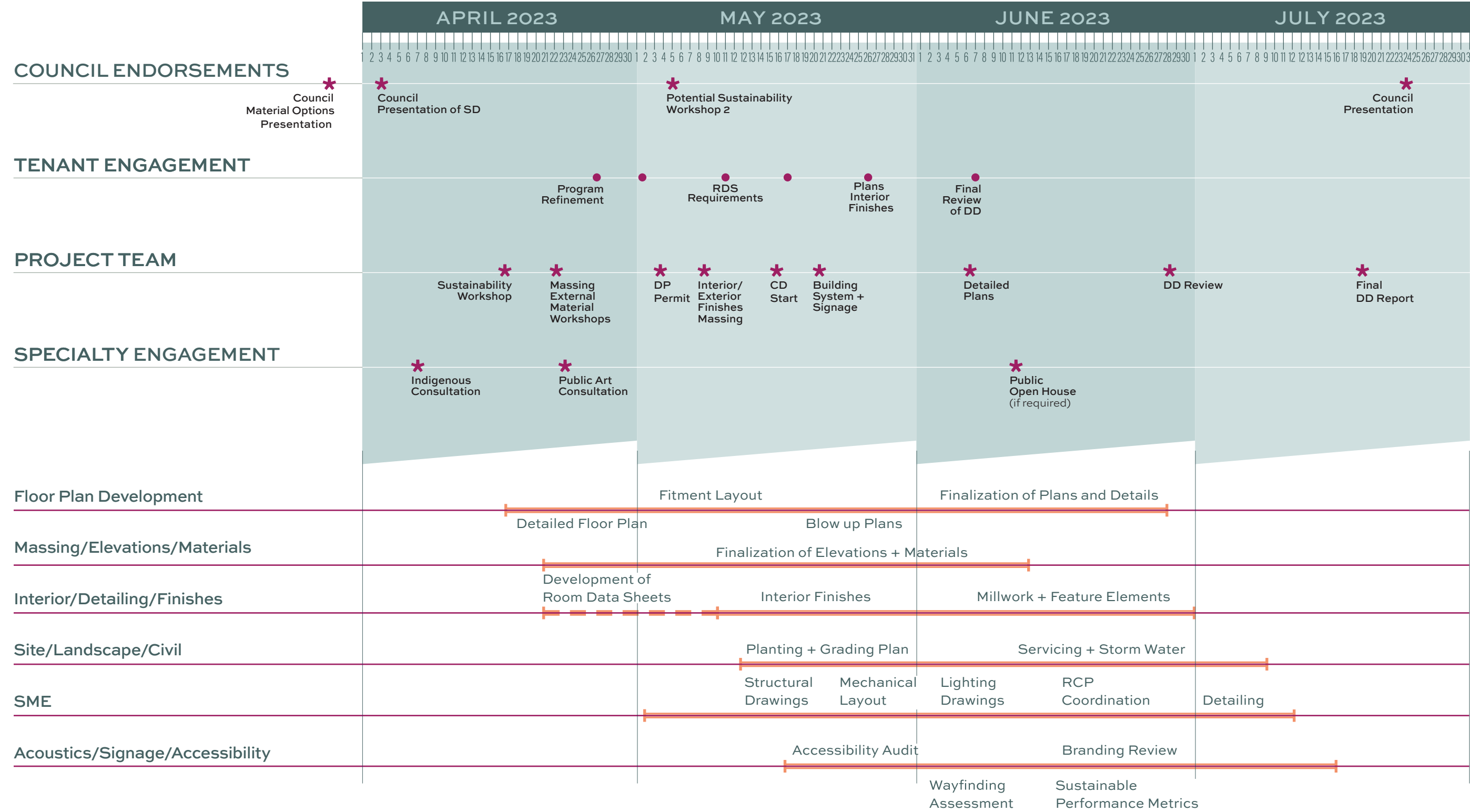
With several milestones in the progress, the level of detail may be too complex and time consuming for council to evaluate . Council’s focus will be on the progress level of information, consistency with their approved direction from the previous stage and the relationship of the design to the approved budget through milestone estimates.



DESIGN DEVELOPMENT WORKPLAN

MEETING SCHEDULE

PROJECT WORKFLOW



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05

PROGRAMMING

FUNCTIONAL PROGRAM
HYBRID PROGRAM
INDIGENOUS ENGAGEMENT

FUNCTIONAL PROGRAM

The program for the Airdrie Multi-use Facility and Library consists of two primary components: the Multi-use program and the Library program.

The approved Hybrid Multi-use Program endorsed by City Council on March 15, 2022 was further refined with Council’s informed decision in July, 2022. A portion of the Shared Community Resource space has been allocated to support various tenant organizations. Modification to the square footage requirements have been captured as part of this Schematic Design Report, and is outlined in the following pages. As a result of these changes, the requirements of each of these organizations has not yet been understood or incorporated into the design. The design team has provided assumptions to the layouts of these different tenant spaces, as well as modifications to the reduced shared community spaces, but further engagement is still required.

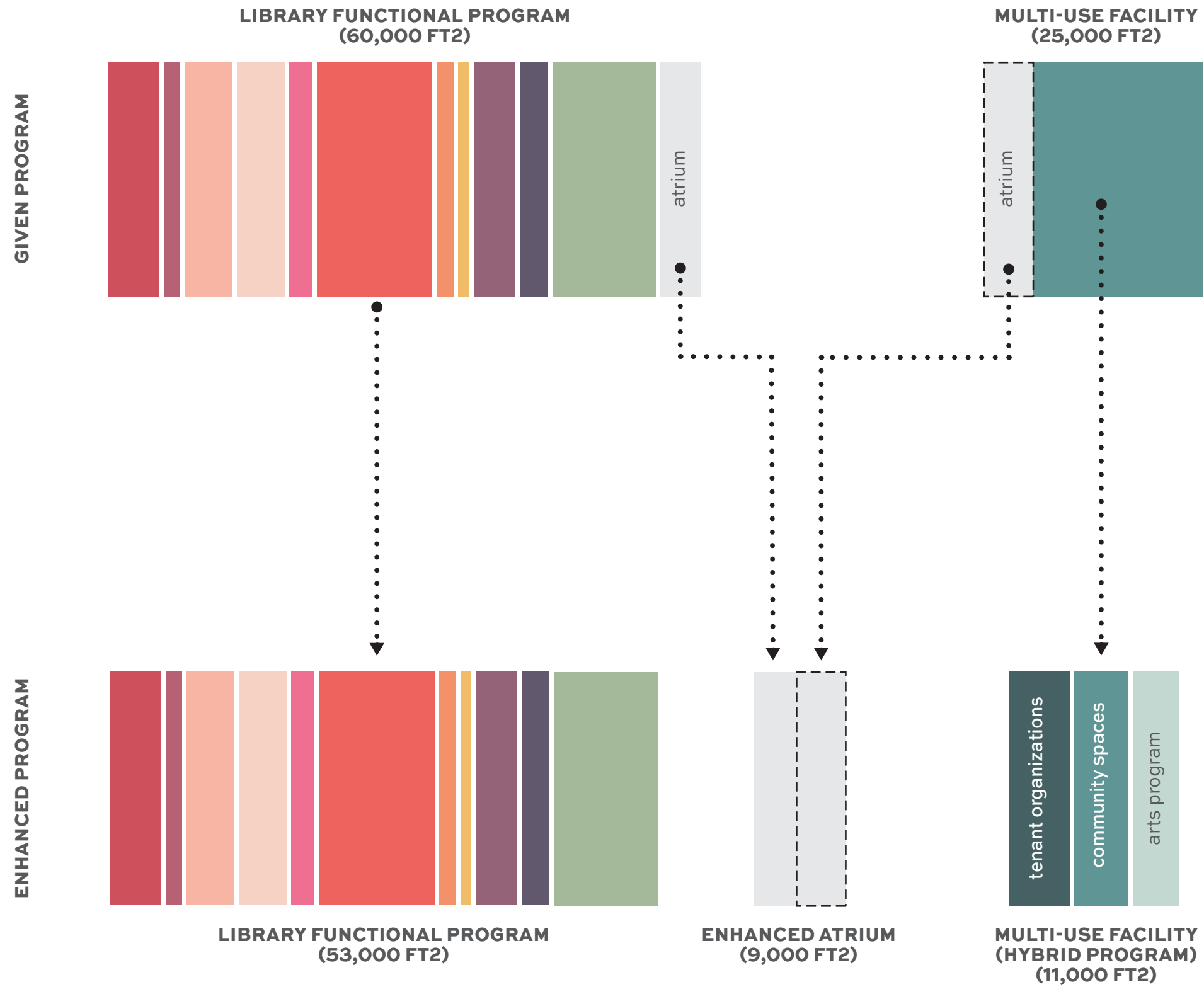
A further update to the Multi-use Program was provided to the Project Team in December 2022 which approved the removal of post-secondary education space. This report illustrates the most recent update with allotted square footages within the floorplans, but the design team recognizes that finalization of this program is still outstanding.

The Multi-Use Hybrid Program consists of two primary components: Tenant Organizations and Municipal Programs. Municipal programs are broken down into Arts Development, Community Resources, and the Atrium Space. These broader components have evolved since Concept Design and have been shown with relative the sizes and areas as approved by the City of Airdrie in the December 2022 program update. We are also in the process of developing the exterior program spaces which will emerge in more detail through the Design Development stage in concert with the operational considerations and the project budget.

The current program is based around the Hybrid program endorsed by council in April 2022, where the design team proposed a program suited to supporting the Library and Multi-Use Facility based on Council feedback. As an example, direction from Council at that time indicated a desire for a 100 seat theatre that could host a myriad of functions that are not currently possible in Airdrie. It is important for this event space to work with the program of the Airdrie Public Library to enhance the multi-use nature of the facility. GGA has developed a program that provides flexibility for this event space to function as a lecture hall, small reception/banquet facility, recital hall, and small performance space. The design of the facility looked for opportunities to connect to the entrance to provide foyer space to the theatre. As directed by council this space was not identified to compete with the T&C or Bert Church in their size and events. In the design team’s experience, supporting spaces for a theatre this size would also require a green room and control booth. Similarly for art studios that could facilitate children’s art camps and after-hours adult education, studio sizes at commensurate facilities was proposed.

Currently, the City of Airdrie’s programming team is validating these assumptions with guidance from the design team, and finalizing room sizes and functional requirements based on operational considerations. Once this is complete, modifications to the ultimate program area, as well as further design refinement for these uses can occur in Design Development. Depending on the degree of proposed changes, the building footprint may need to be modified.

01 programming



LEGEND

- entrance and large program room
- community living room
- pre-school children's area
- school age children's area
- young adult's area
- adult's area
- makerspace
- quiet study room
- staff workplace
- back of house functions
- atrium
- tenant organizations
- community spaces
- arts program
- green space

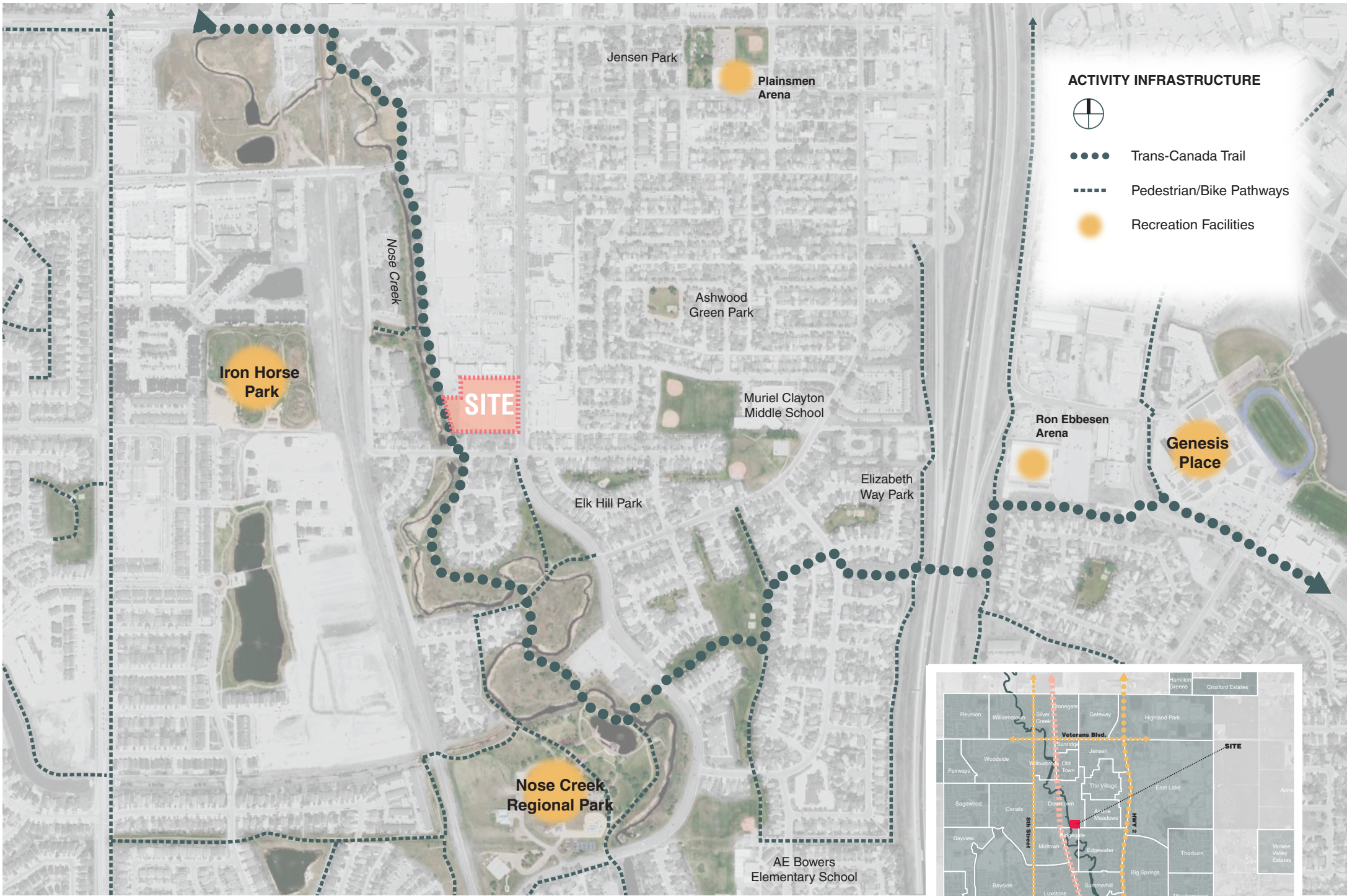
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CITY CONTEXT
SITE CONTEXT
ZONING/BYLAW REVIEW
TOPOGRAPHY
PHOTOS

CITY
CONTEXT

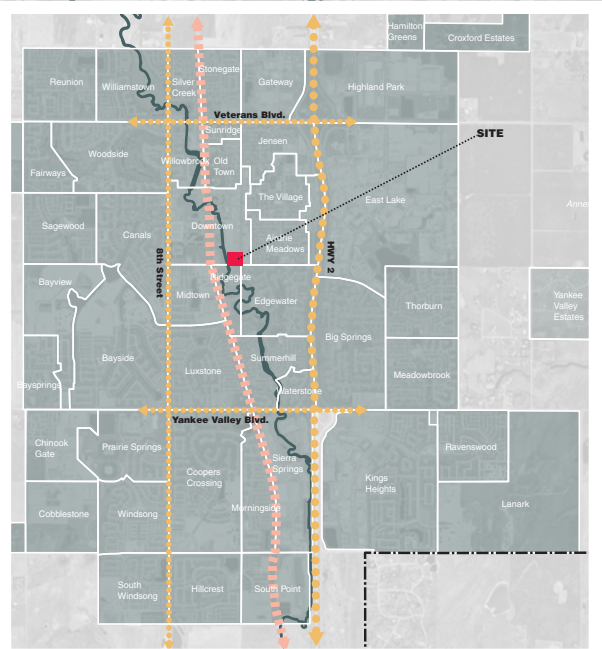
The project Site is located at the southern end of Downtown, Airdrie. It is bounded on the West by Nose Creek and on the East by Main Street. Within the larger City context the site is situated amidst a network of major transportation corridors. To the North is Veterans Boulevard and to the South is Yankee Valley Boulevard. To the West is the railway line which presents a significant barrier to east/west connections within the City. To the East is Highway 2 which bisects Airdrie and also impedes east/west connections across the City.

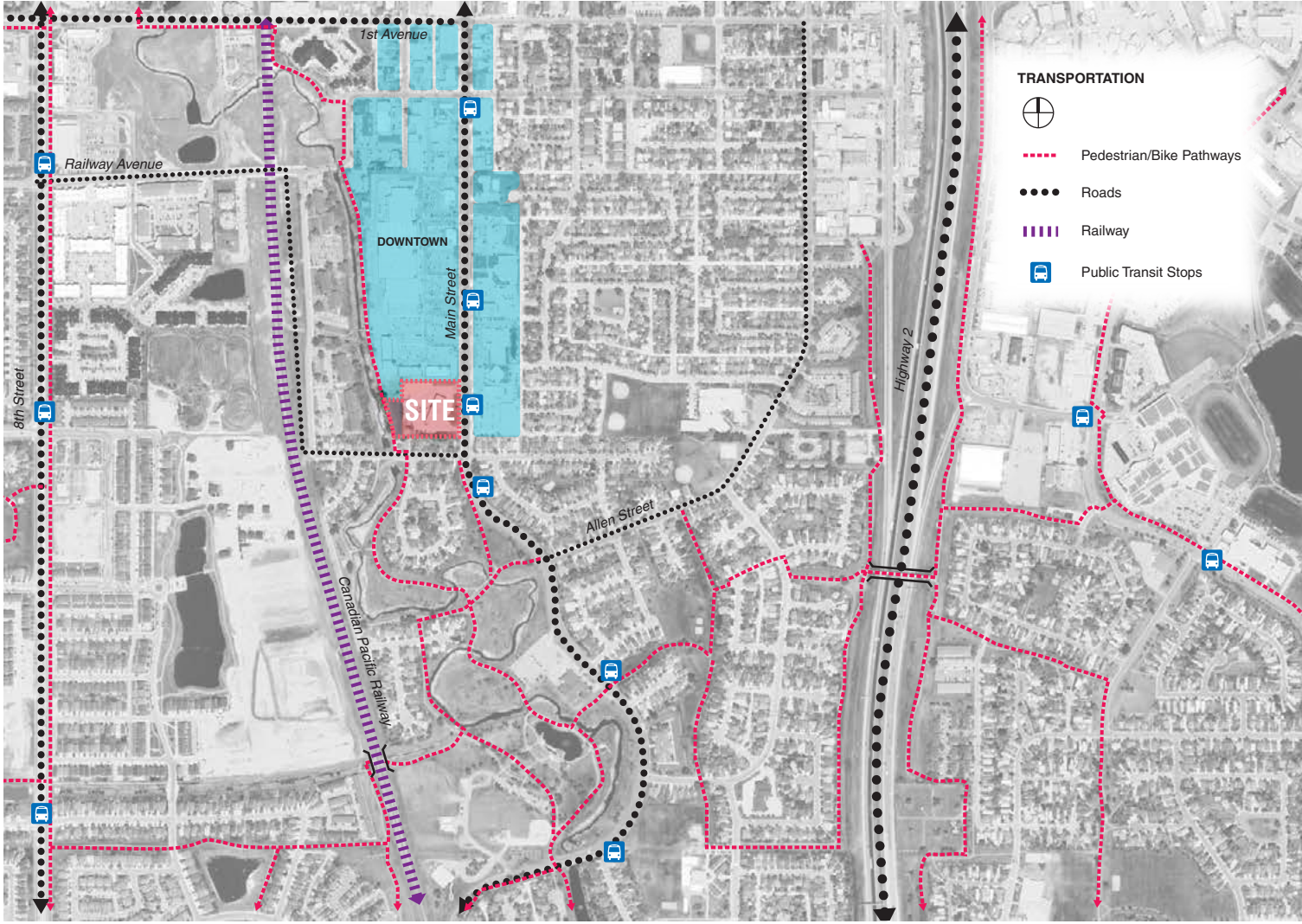
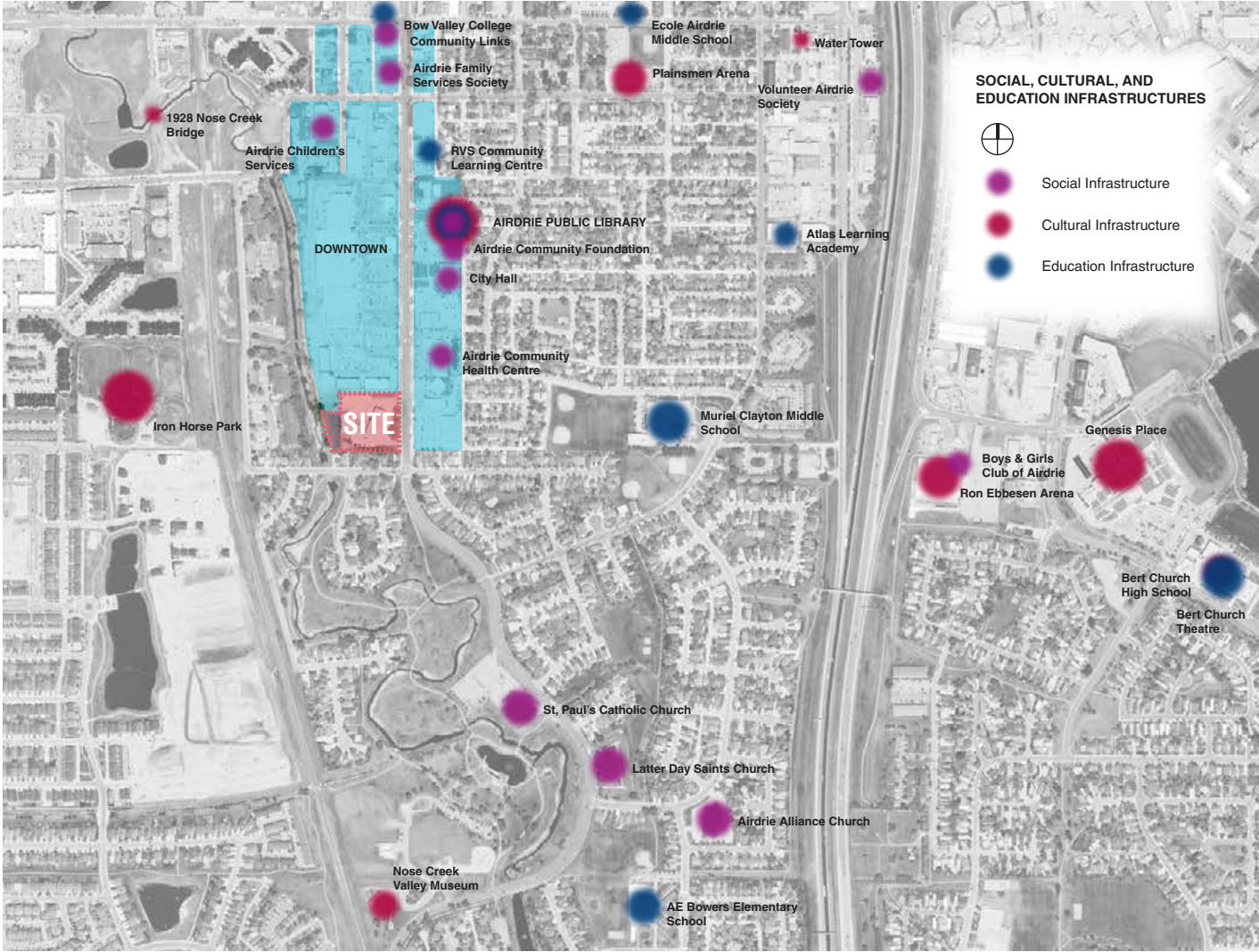
02 site analysis



ACTIVITY
infrastructure

Within the community context the project Site is situated amongst an extensive network of activity infrastructure comprised of pedestrian and bicycle pathways and recreation facilities. Most notably, the Site is immediately adjacent to the Trans-Canada Trail, a national network of multi-use recreational trails extending across the country. Within Airdrie, the Trans-Canada Trail provides opportunity for a pedestrian/cycle connection between major public and recreation nodes such as Genesis Place, Nose Creek Park, and the Library Site.



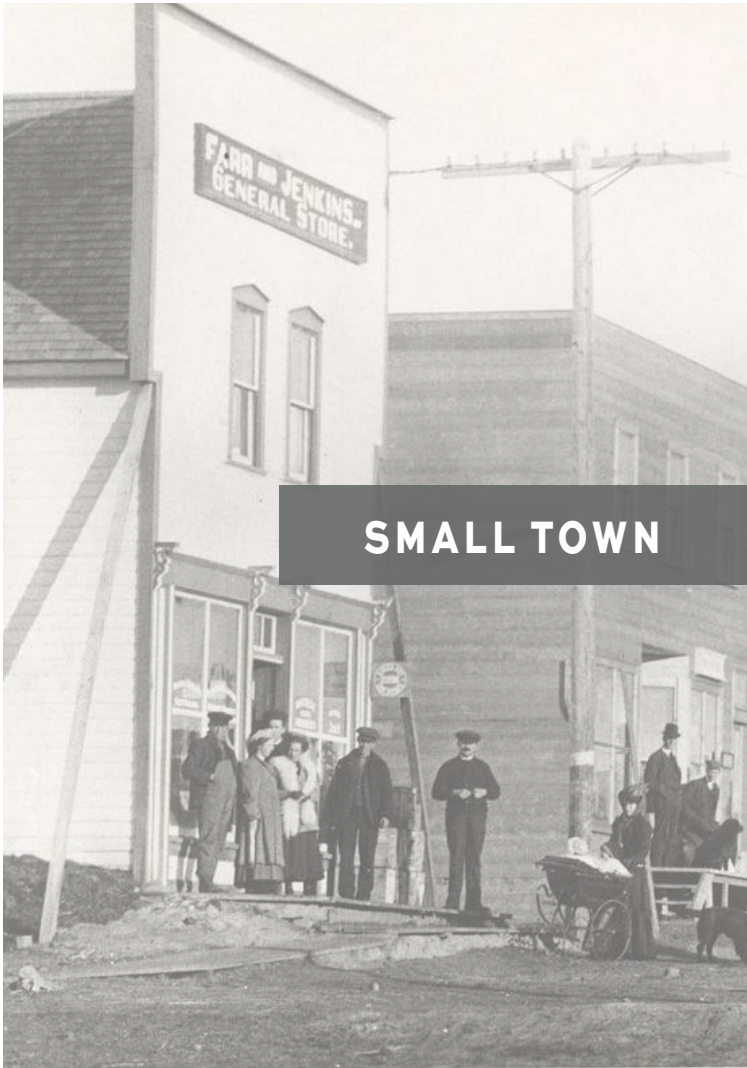


social, cultural, & education INFRASTRUCTURE

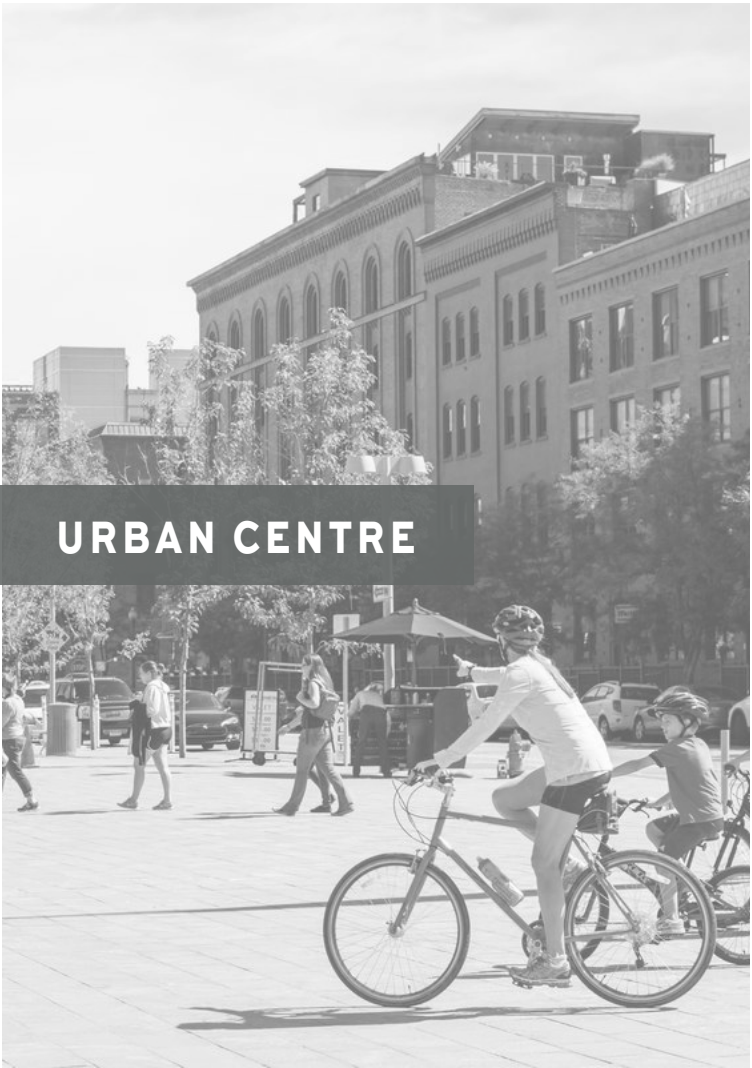
In addition to being located within an extensive network of Activity Infrastructure, the Site is also located amongst an extensive network of Social, Cultural and Education spaces and places. With both Multi-use (Lifelong Learning, Arts Development, Shared Community Resources) and Library program components, the project and it's location form a critical part of this network offering Social, Cultural and Education spaces.

transportation NETWORKS

Located at the southern end of Downtown between Main Street and Nose Creek the project Site has immediate multi-modal accessibility. The site is accessible by walking, cycling, public transit, and vehicular transportation.



SMALL TOWN



URBAN CENTRE



NATURE / CREEK



URBAN / MAIN STREET

sense of
PLACE

In order to develop a solution solely dedicated to the unique values of Airdrie, the design consultant team engaged in multiple visioning sessions with City Council, the Airdrie Public Library Board as well as the Library Project Team. These sessions helped illustrate what makes Airdrie unique, and what values define the city. As a city growing at an incredible pace, Airdrie finds itself on a spectrum between many dualities; preserving history while embracing the future, respecting long-time citizens and welcoming the new, and maintaining the values of a friendly small-town while developing into a metropolitan centre.

SITE
concept

The site itself also exists between two distinct poles; a natural winding creekbed flanks the entire eastern edge of the site, offering a quiet, pedestrian-centred experience. This contrasts the western edge, where the urban condition of Main Street offers high levels of traffic and hardscaping. These two different conditions offer multiple opportunities for the project, allowing for the creation of a range of visitor experiences, and influencing the massing and orientation of the project.

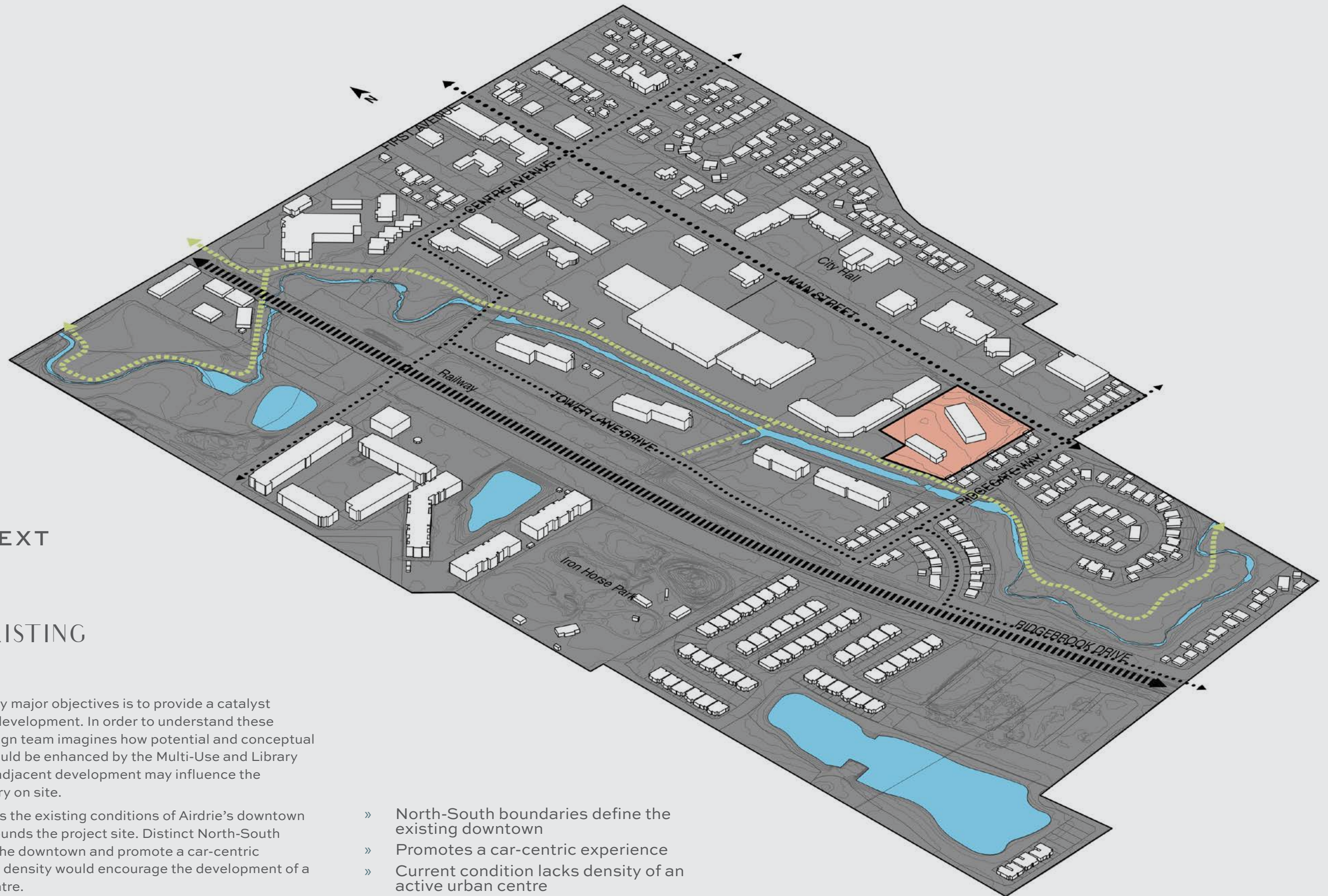
SITE CONTEXT

downtown EXISTING conditions

One of the project's key major objectives is to provide a catalyst for further downtown development. In order to understand these opportunities, the design team imagines how potential and conceptual future development could be enhanced by the Multi-Use and Library Facility, and how that adjacent development may influence the orientation of the library on site.

This diagram illustrates the existing conditions of Airdrie's downtown that immediately surrounds the project site. Distinct North-South thoroughfares define the downtown and promote a car-centric experience. Additional density would encourage the development of a more active, urban centre.

- » North-South boundaries define the existing downtown
- » Promotes a car-centric experience
- » Current condition lacks density of an active urban centre





encouraging downtown DENSIFICATION

In order to add the required density to the Downtown core, a potential strategy would be to enhance East-West connections, creating pathway loops for pedestrians or vehicles, and encouraging smaller parcels for higher-scale development. This would generate more street frontage, storefronts and corner plaza opportunities.

- » Establish grid
- » Secondary E-W pathways
- » Extend streets
- » Multi-modal public activity loops
- » Storefronts



GREENWAY / nose creek connections

The Nose Creek pathway could contribute to the development of additional E-W connections; multi-modal public activity loops do not necessarily need to be hardscaped roadways or pathways. Green park space would also encourage residents to cross over major barriers and enhance the pedestrian network.

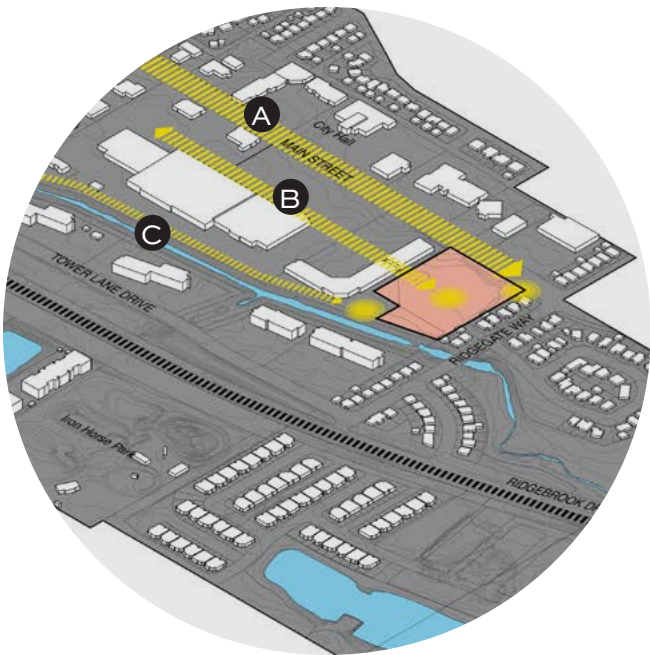
- » Extend green/pedestrian network
- » Some extensions are green (trees)
- » Some extensions are pathways
- » Nose Creek becomes new “thoroughfare”



potential adjacent DEVELOPMENT strategies

If enhancing E-W connections and increasing density on smaller parcels are desired strategies, a new, pedestrian-oriented “commercial commons” could offer a counterpoint to the car-centric experience on Main Street, encouraging increased density between the two N-S thoroughfares. While this illustration is highly conceptual, it suggests a potential opportunity for a unique pedestrian experience that would be enhanced by the positioning of a major community complex, such as the Multi-Use Facility and Library.

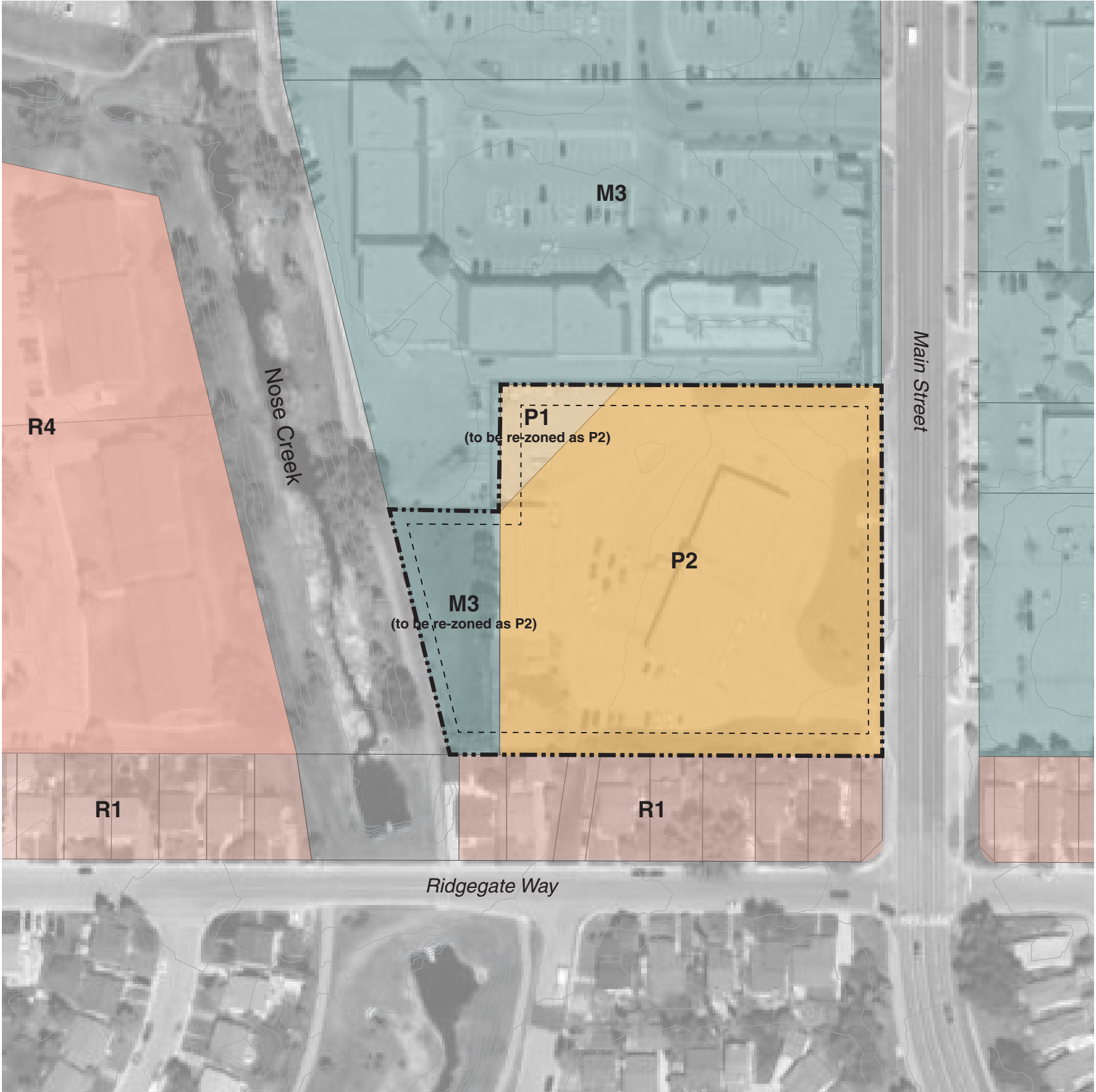
- » Commercial commons connecting to site
- » Active frontage along Main Street
- » Multi-use development
- » Densification
- » Engagement with Nose Creek thoroughfare



NEIGHBOURING influences

The site offers very distinct experiences that run N-S, and result in different anchor points on the project site. The design concept strives to recognize these opportunities with the siting and orientation of the project elements.

- A Main Street
- B Commercial Commons
- C Nose Creek thoroughfare



zoning &
BYLAW summary

The site currently captures three different zoning districts within it’s limits. These are P1, P2, and M3. Based on the Airdrie Land Use Bylaw BO12016 the relevant details of these districts are as such:

P1 PUBLIC OPEN SPACE DISTRICT

The intent of this district is to provide for low impact civic and community uses. This should primarily include various forms of open space and outdoor land uses.

Minimum exterior (front and rear) setback	4.0m
Minimum interior (side) setback	6.0m
Maximum building height	12.2 m
Maximum building coverage	20%

P2 PUBLIC FACILITIES DISTRICT

The purpose of this district is to provide for higher intensity civic and institutional uses that would normally exist within an urban context. This would include schools and more developed recreation uses, as well as Municipal offices, facilities and other essential public services.

Minimum exterior (front and rear) setback	4.0m
Minimum interior (side) setback	6.0m
Maximum building height	24m
Maximum building coverage	60%

M3 DOWNTOWN CORE MIXED USE DISTRICT

The intent of this district is to provide for low impact civic and community uses. This should primarily include various forms of open space and outdoor land uses.

Maximum front setback	3.0m
Maximum building height	8 storeys
Maximum building coverage	80%

To better align with the intended use for the site and to establish consistent requirements across the site, it is proposed that the existing P1 and M3 parcels on the site by re-zoned as P2 (Public Facilities District). The entire site will then be zoned as P2 which best suits the intended use for the site (library, educational, community resources, arts development). In addition, having consistent setback, building height and site converage requirements across the entire site will facilitate more integrated development of the site.



existing site SURVEY

A geolocated survey of the site was completed on October 25th, 2021 to capture the presence and location of existing buildings, utilities, vegetation, fences, hardscape, curbs, and other site features.

In addition, the survey of the site delineates the existing topography which slopes generally from east to west toward Nose Creek.

To facilitate the development of the Airdrie Multiuse Facility and Library the existing buildings will be demolished, existing utility locations will be coordinated with the proposed site layout, the topography will be graded to suit the intent of the project, and a new landscape plan will be developed.



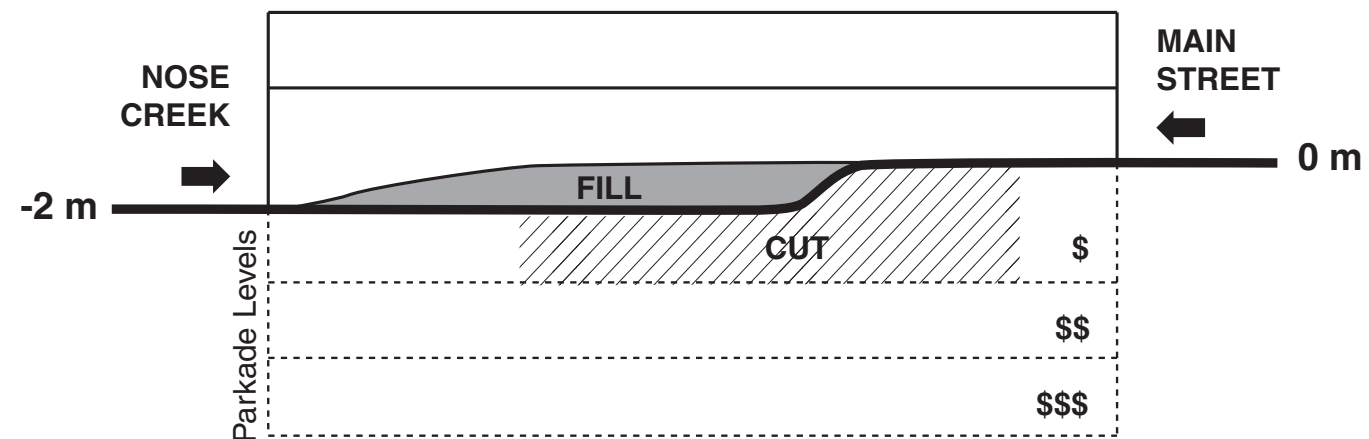
site TOPOGRAPHY

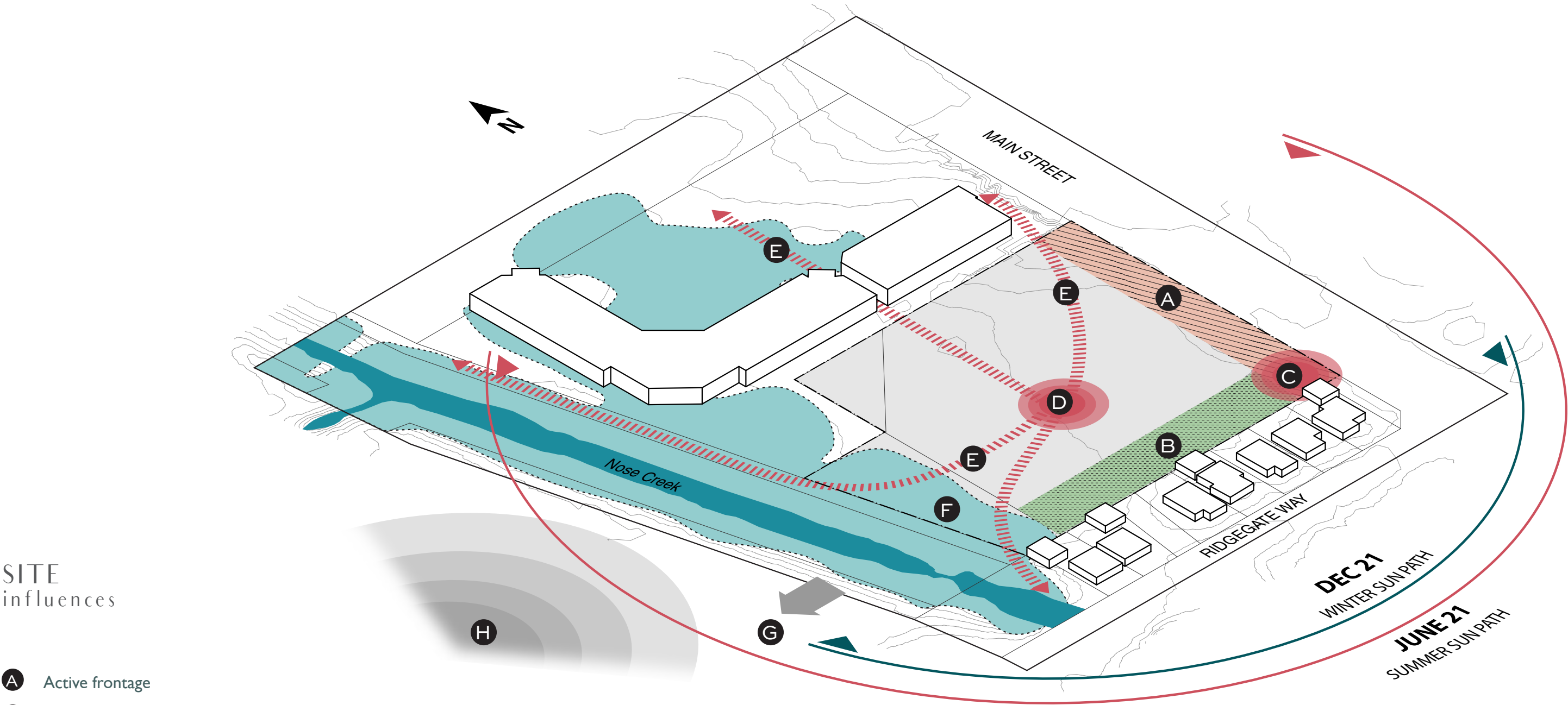
The site topography generally slopes from east to west with the steepest part of the slope adjacent to Main Street and the remainder of the site sloping more gradually. The elevation at the eastern boundary of the site is 1084.5 m above sea level. The elevation at the western boundary of the site is 1081.5 m above sea level. The 1:100 flood limit encroaches the western part of the site at approximately the 1082.0 m elevation. There also exist on the site several utility right of way (URW) corridors. It is understood that the underground URW running generally north-south through the middle of the site is abandoned and therefore developable (this URW is proposed to be removed during construction).

The 2m elevation difference between Main Street and the centre of the site provides an opportunity to create an urban street entrance and have a portion of the parking below grade. Below grade parking allows for more pedestrian scale access to the building from both Main Street and Nose Creek. A preliminary Parking Study estimated the required numbers of stalls to be in the range of 250-350. A forthcoming revised Parking Study will provide a more concrete recommendation of parking requirements.

The porosity and accessibility of having entries on both sides of the building creates walkability and a better interface with the urban and pedestrian environment. In order to achieve at grade entries on both the east and west side of the building, the west side of the site will be built up using material excavated for the below grade parking. The diagram below illustrates how the existing site topography and a cut-and-fill strategy is used to facilitate below grade parking and desirable entries at grade.

The project is currently referencing the 1:100 Flood Map which is the highest level of flood data currently available from the Government of Alberta for Nose Creek. This is likely dated information, but at present, no additional information is available. Flood data will be further reviewed through Design Development to ensure that an appropriate metric is being used to inform the design.





Existing conditions, environmental features and adjacent properties all contribute to the understanding of the site and design of the project.

The site offers both an opportunity for highly active frontage along Main Street, as well as a parkland connection along Nose Creek. The North and South edges of the site are bounded by residential and commercial development, and require a sensitive buffer in order to minimize impact of

new construction on adjacent landowners. The southeast corner is highly visible, and acts as a gateway to the Downtown core.

Mountain views, ample sunlight, and audible trains make up some of the unique environmental features for this site.

The 1:100 flood zone does not have large impact on the site.

The analysis undertaken culminates in the following illustration.

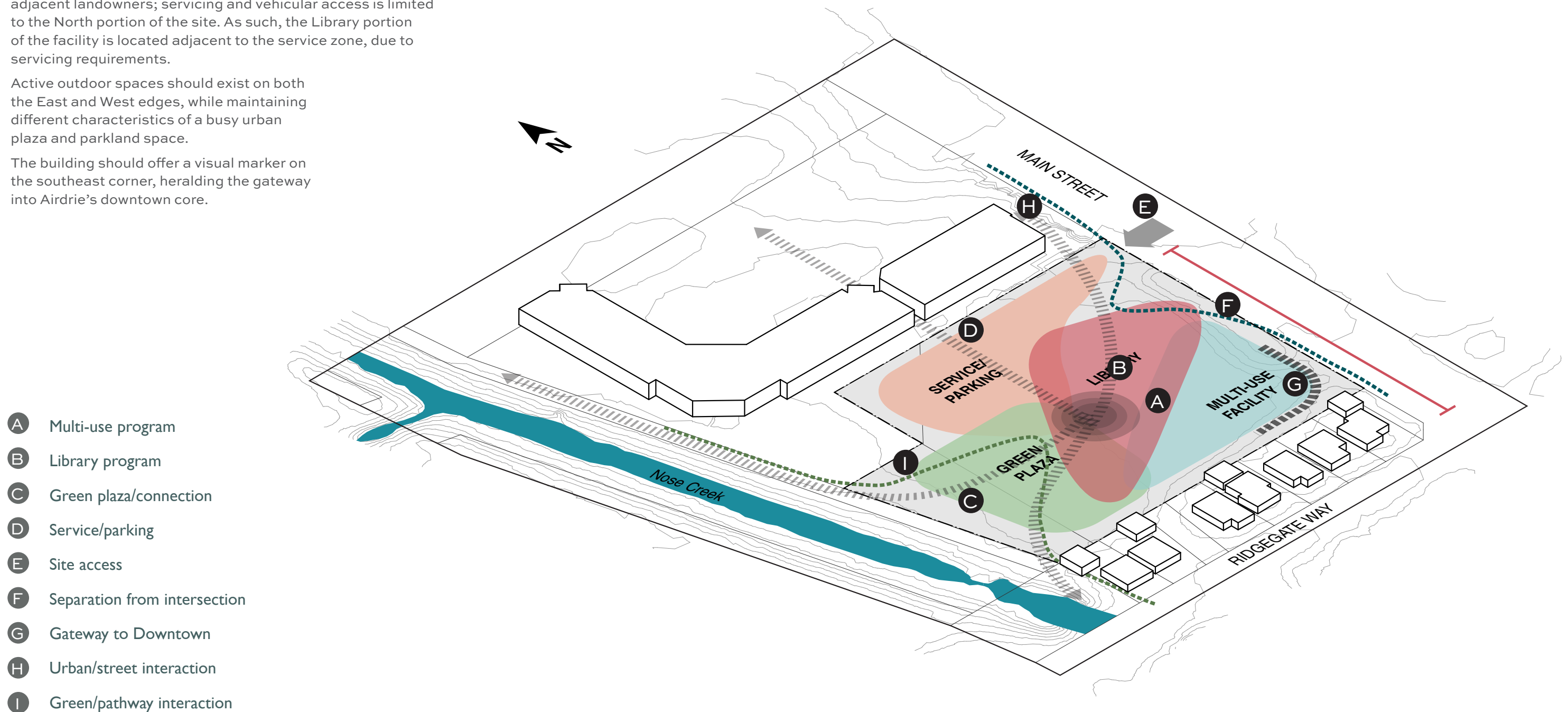
In order to best capture and encourage pedestrian use, access to the building needs to exist on both the East and West ends of the project.

Buffer zones to the North and South are required to protect adjacent landowners; servicing and vehicular access is limited to the North portion of the site. As such, the Library portion of the facility is located adjacent to the service zone, due to servicing requirements.

Active outdoor spaces should exist on both the East and West edges, while maintaining different characteristics of a busy urban plaza and parkland space.

The building should offer a visual marker on the southeast corner, heralding the gateway into Airdrie's downtown core.

site LAYOUT

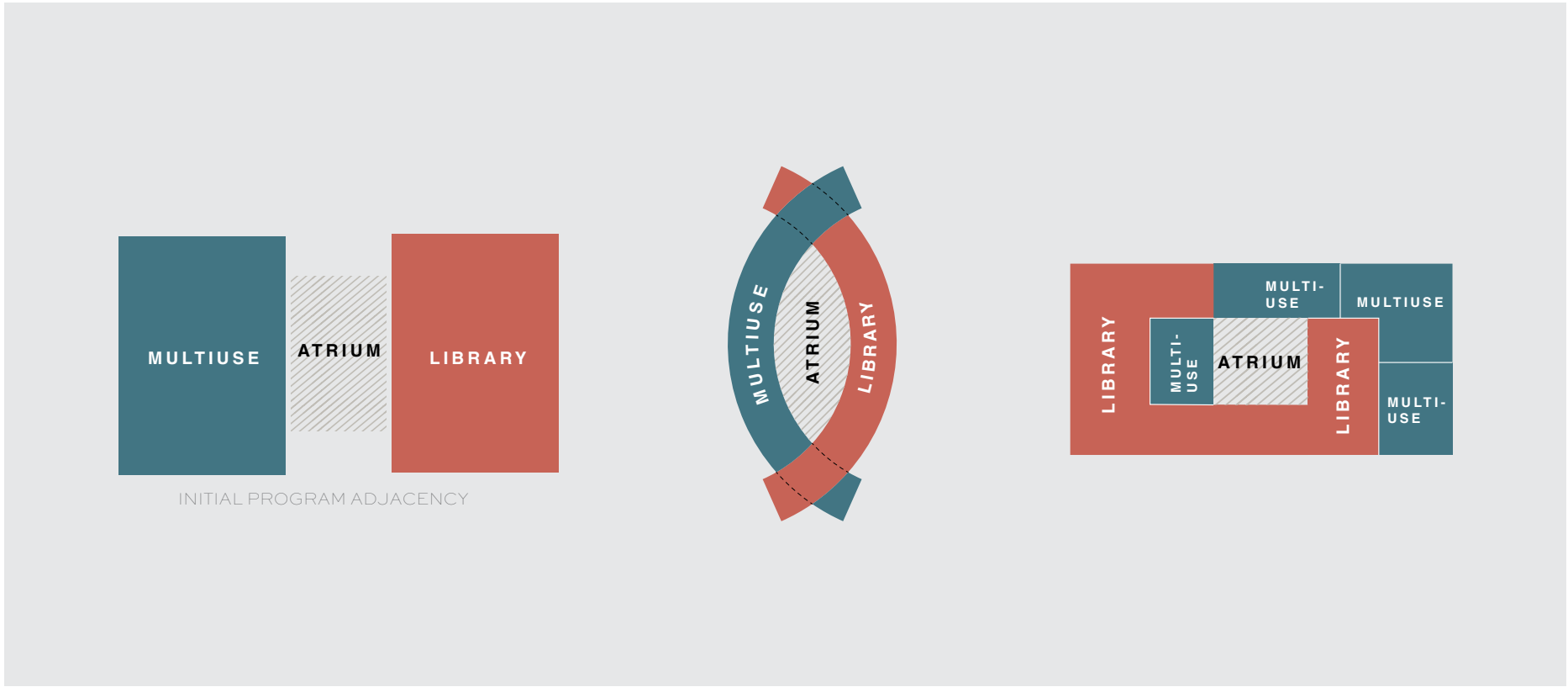


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DIAGRAMS
MASSING

03

concept design



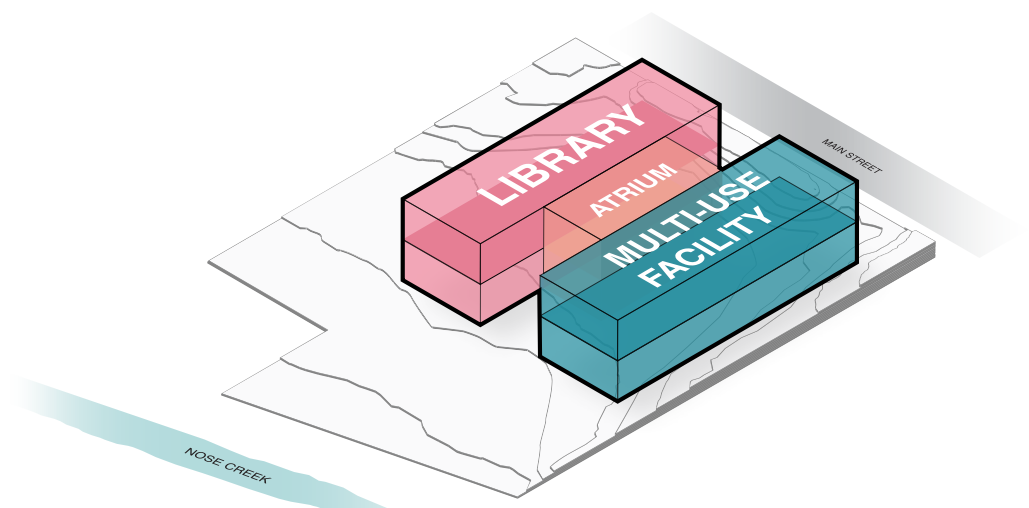
Using information learned from the site analysis and collaborative process, the design team developed two concept options for consideration. Much like the site conditions, a duality of program establishes a major unique component of this project, exploring how the Multi-Use and Library program elements interact.

Multiuse and Library functions conceptually intertwine to result in unique spatial conditions

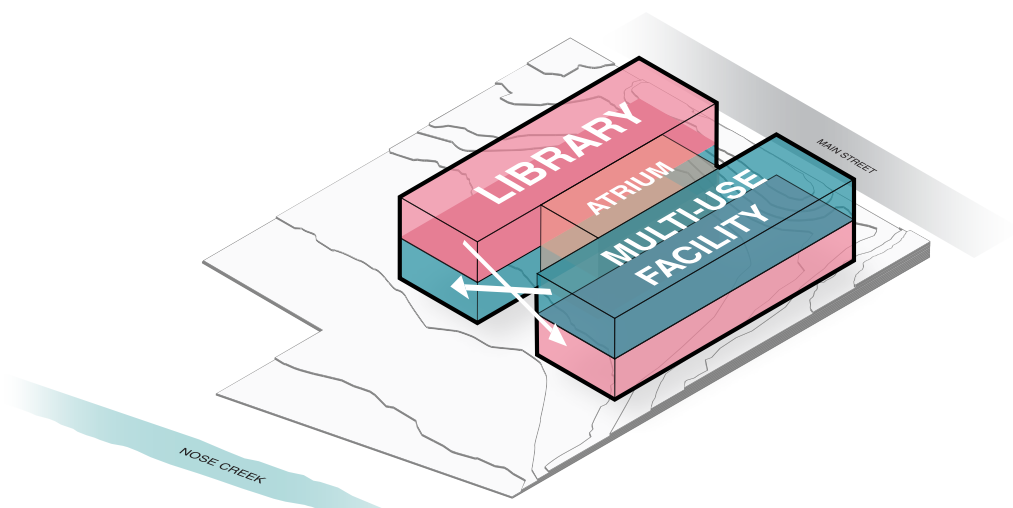
The atrium takes on a “room-like” quality, encouraging visitors to move between elements

CONCEPT DESIGN REPORT COMMENTS - MAY 2nd, 2022

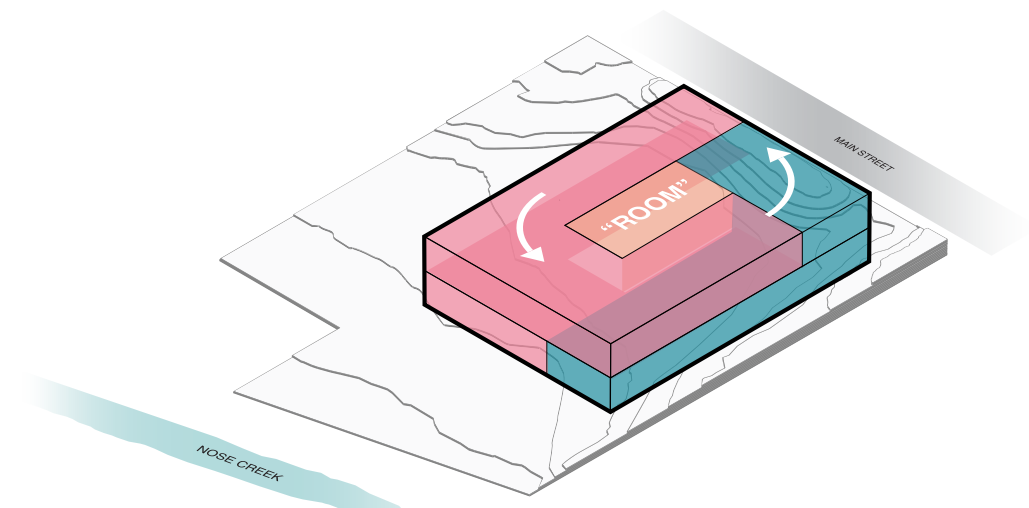
REVIEWER	REVIEW COMMENT	DESIGN TEAM RESPONSE
Library Board	There was a strong preference to leave the west green space completely open and without any parking. This green space should be for the enjoyment of the patrons and having parking there would reduce this as well as create some safety concerns with adjacent outdoor children spaces.	Parking counts will be further finalized and reviewed with neighboring sites. Through Schematic Design, the west green space has been left free of parking stalls and is dedicated to outdoor programs and activities.
City Council	Why there were no roof terraces on the multi-use side of the building?	The functional program for the library identified the need for outdoor spaces. To date, no conversations have been had with the multi-use tenants regarding the need for roof terraces.
City Council	There is a concern with having the multi-use portion of the building by the houses on the south instead of the library as these spaces will have later hours and create more noise.	The proximity to the residential development to the south has been addressed through the strategic use of material and screening (minimized glazing). As well, the volume of the building is stepped back on the south side to respond contextually to the height of the residential development. Programmed outdoor spaces have been pushed further north, away from the residences. Library servicing requirements require an adjacency to loading and servicing, which is ideally located on the north side of the site.
City Council	There should be accommodations for electric charging stations in the underground parking area.	The provision of EV charging stations is being considered through Design Development.
City Council	There are concerns regarding echoes in the double high atrium.	This will be addressed through design by selecting specific materials and geometries to help reduce echoes. Schematic design has begun to identify areas where acoustic baffles may be required. Additionally, an acoustic consultant will be engaged through the Design Development process.
City Council	Having the outdoor performance plaza shaded from the north winds is great but considerations should be taken to ensure safety and security as there is not a lot of visibility to that area.	In general, the landscape (including the performance plaza) has been designed to be highly visible and activated year round. The performance plaza specifically has been moved away from the southern boundary and faces in toward the main plaza for visibility.
City Council	Accessibility considerations should be taken to make sure that access from the parking lots and through the building is fully visible and easy to maneuver.	The project will adhere to or exceed all National Building Code requirements for accessibility, inclusivity and mobility. The scope of the project is currently considering Rick Hansen Certification.
City Council	Council unanimously endorsed option 1 of the concept report.	Schematic Design has proceeded with Option 1



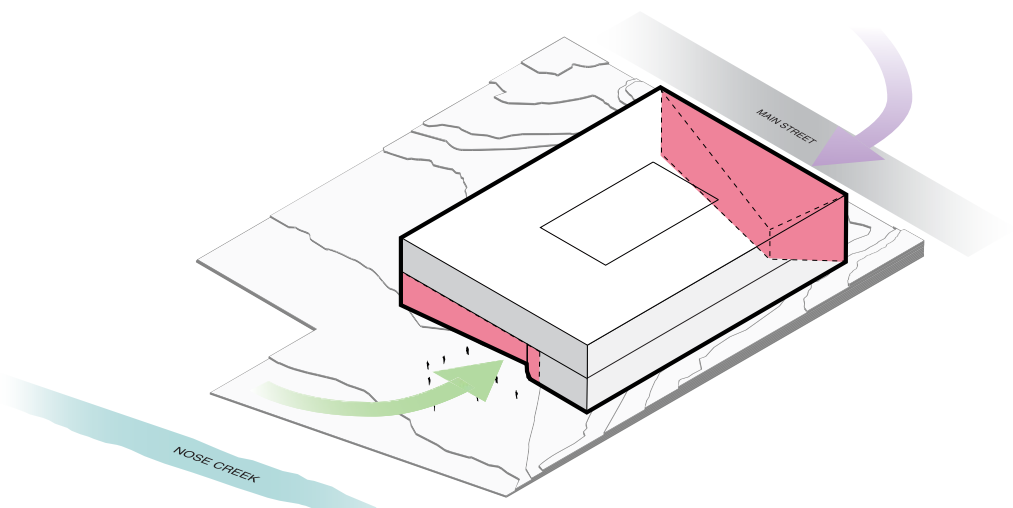
01. initial program adjacency
Multiuse and Library functions are separated by the atrium



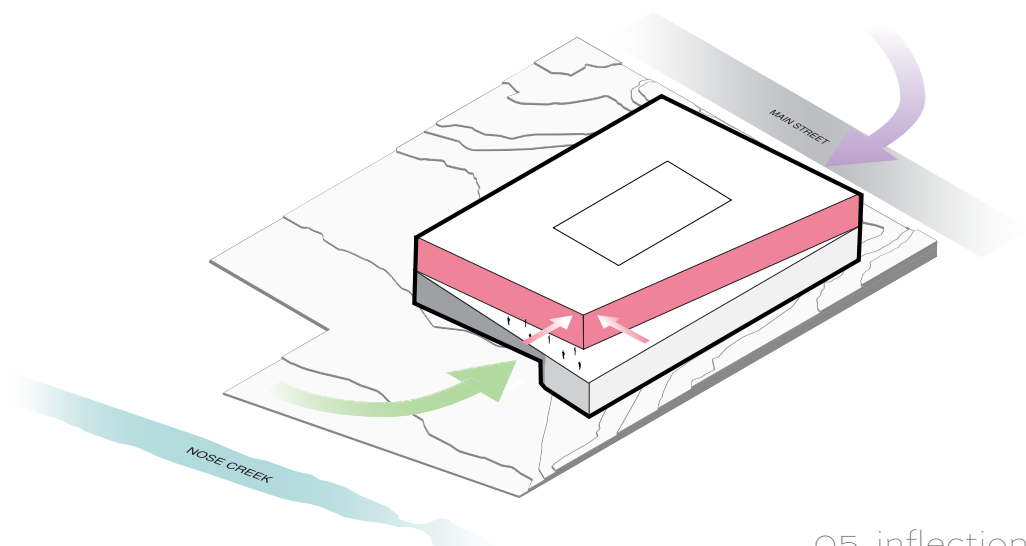
02. reorganize
Reorganize and split program stacking to enhance interaction between uses



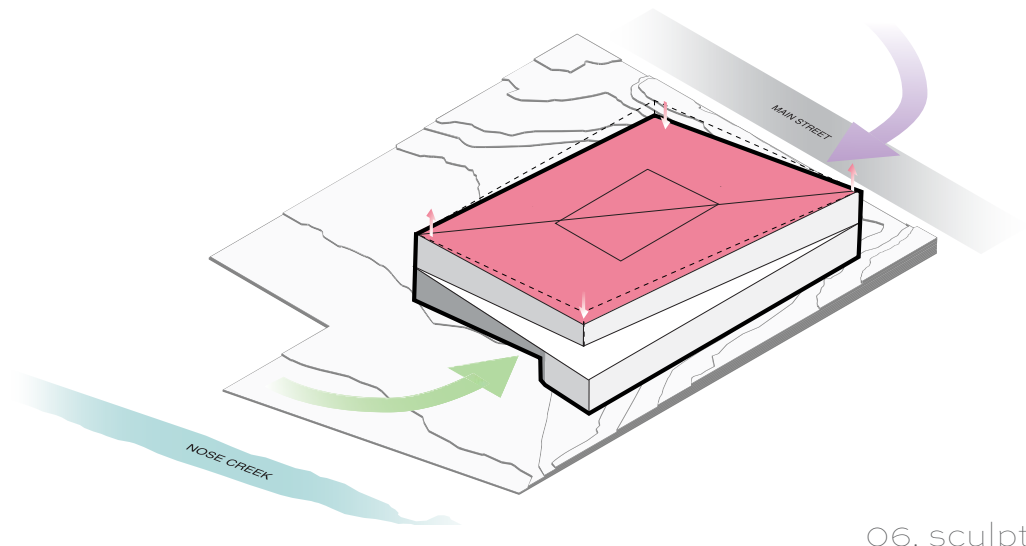
03. wrap
Wrap program around atrium to create room-like feel



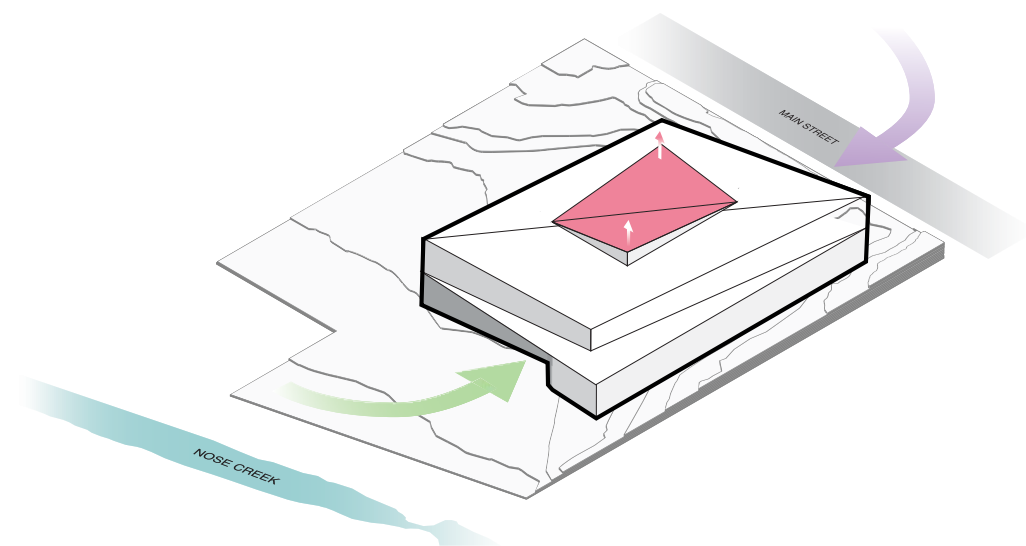
04. influences
Forces from pedestrian flows inflect the facade and establish entry points with a Street connection and Creek connection



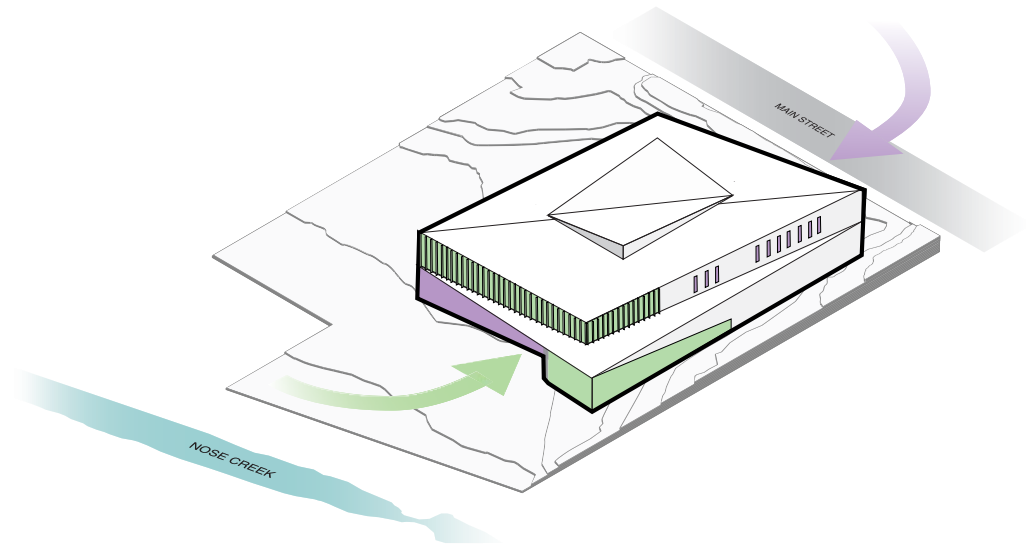
05. inflection
Adapt massing to outside forces, responding to adjacent context



06. sculpt
Sculpt roof to respond to influences and establish a Main Street Gateway and reflect a pedestrian scale at the Creek side



07. emphasize
To further express the notion of Atrium as Room, sculpting the roof to reflect the programmatic wrap of the interior



08. material
Lifting corners and framing viewpoints through an interplay of material and transparencies

04

schematic design



COLOUR STUDY

02
03

04

05
06

07

08

MATERIALITY

SITE PLAN

FLOOR PLANS

EXTERIOR ELEVATIONS

BUILDING SECTION

ENVELOPE SUMMARY

The project presents a comprehensive and cohesive design that responds sensitively to the surrounding context as desired by Airdrie's Downtown Plan. The west face of the building creates an active street front along main street. At street level more expansive views are given into community resource and retail space, and more mediated views are presented into library back of house functions. The diversity of views and glazing at street level create an exciting and variable street level experience. At the second level expansive views into active gathering spaces contribute to the excitement along main street.

The southeast corner of the building signifies the entrance into downtown with an iconic corner that acts as a location for signage as well as a beacon for both the building and the larger downtown area. The building has been designed as a two-storey volume, respecting and responding to the existing heights and densities of the downtown development. A sculptural and dynamic wooden soffit overhangs the east entrance to create an exciting and welcoming experience while offering a protected entrance to the building.

One of the two primary access points to the building (the other being on the eastern side facing Nose Creek) faces Main Street. Landscape features along Main Street are designed for pedestrian traffic, offering areas to sit and rest, boulevard trees, street lighting, and landscape planters, promoting activity, safety, and excitement along the Main Street corridor. A proposed vehicular layby along Main Street will serve as convenient drop-off for both the library and multiuse program, as well as a public transit stop. All of these elements, combined with the broader vision of downtown and Main Street contribute to the notion of a Complete Street, accommodating not only vehicular traffic, but pedestrian, cyclists, transit, landscape, and retail space in the design of the building and site.

The proposed materials for the building façade are reflective of Airdrie's history and creates an inviting and contemporary aesthetic as a cornerstone for the downtown. Proposed neutral metals integrated with warm wood highlights, speak to both the natural (Nose Creek) and metropolitan (Main Street) aspects of the site. In both form and material, the building responds to these elements as well as the topographic change that couples them from east to west. Creating active, multimodal spaces, using a warm, elegant material palette, and offering a contextually sensitive form, the project enhances the character of the Downtown and signifies an exciting, contemporary, and thoughtful place in the City.

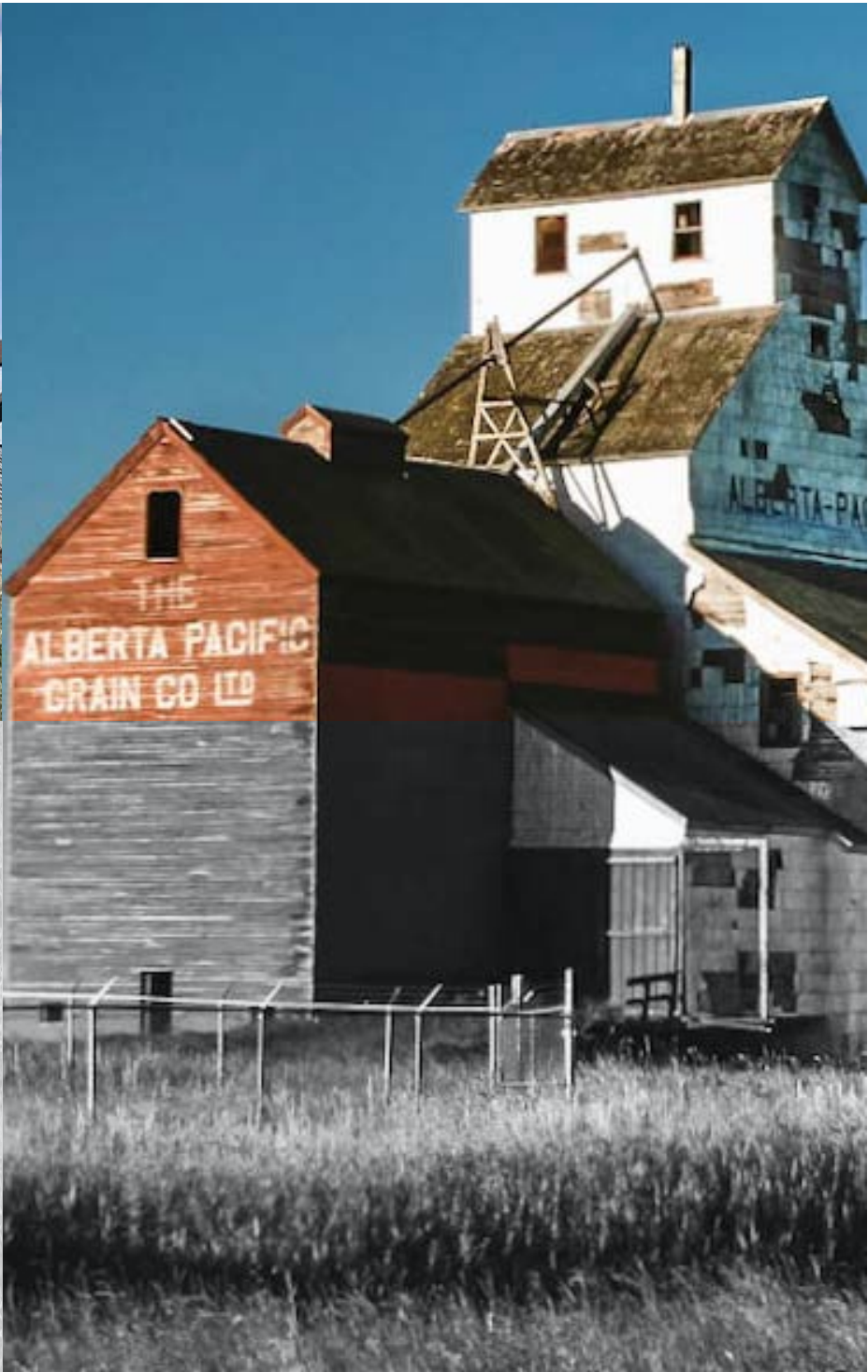
MATERIALITY

Through the visioning sessions held with Airdrie Council, a theme of marrying the history of Airdrie with the future aspirations of the city emerged. Using this concept as a springboard, the design team was inspired by the railway and agricultural roots of the city, as well as the importance of the nose creek passageway to the land.

The initial Schematic Design proposed utilizing a warm, earth-toned material palette to pay homage to Airdrie’s history, but doing so with high-performance, state of the art, contemporary materials. Through review of the initial Schematic Design report the design team heard that Council was not supportive of the proposed colour palette of the cladding and the use of metal mesh screening. The revised Schematic Design proposes softer, more neutral coloured metal cladding and replaces the mesh

screen with a glazing strategy to retain a dappled light feeling on the interior. Additionally, the revised schematic design still makes use of a wood-look material on the exterior. Many options for materiality are being investigated, and will be finalized in the Design Development phase. These include zinc metal cladding, natural wood cladding, fibre-reinforced concrete panels, wood-look metal cladding and high-performance glazing systems. Detailing and texture will elevate these materials in a contemporary manner.

The adjacent images are real-world examples of some of the aforementioned materials. These examples are seen in many high-calibre projects around the world with similar climates. Ease of maintenance, high-performance value and aesthetic qualities are all being considered.





Our intention is to create warm and inviting experiences that flow from exterior to interior. Drawing inspiration from the adjacent Nosecreek park context, the design seeks to emulate the experience of reading a book under a tree canopy, allowing soft, modulated and dappled light to create a calming environment. Along the west glazed façade, with views overlooking the creek and park, some material options are under exploration to create this experience. Coloured fins and ceramic frit glass patterning on select window panes will create an ever-changing interior feel, depending on the amplitude of the sun. An alternative to a ceramic frit is the installation of coloured film to the glazing, allowing strips of coloured light to modulate the interior feel of the space. These options will be further developed through the Design Development phase.

SITE PLAN
1:350

SITE STATISTICS
SITE AREA: 134002 (3.31 acres)
SITE FOOTPRINT: 4046 M2 (43,550 ft2)
GFA: 6832 M2 (73,500 ft2)
SURFACE PARKING: +/- 76 stalls
UNDERGROUND PARKING: +/- 103 stalls
EAST ENTRANCE GEODETIC: 1084.56 m
WEST ENTRANCE GEODETIC: 1084.56 m

- EXTERIOR
- 1. bus and car dropoff
 - 2. access forecourt
 - 3. library book drop
 - 4. potential flag pole
 - 5. parkade ramp
 - 6. sloped sidewalk
 - 7. garbage/recycling
 - 8. roof deck
 - 9. library program area
 - 10. plaza
 - 11. temporary loading
 - 12. learning garden
 - 13. casual lawn/future playground
 - 14. outdoor ampitheatre
 - 15. green space
 - 16. future site utilities
 - 17. regional pathway
 - 18. proposed realignment of underground services

★ public art opportunity



FLOOR PLAN PARKADE

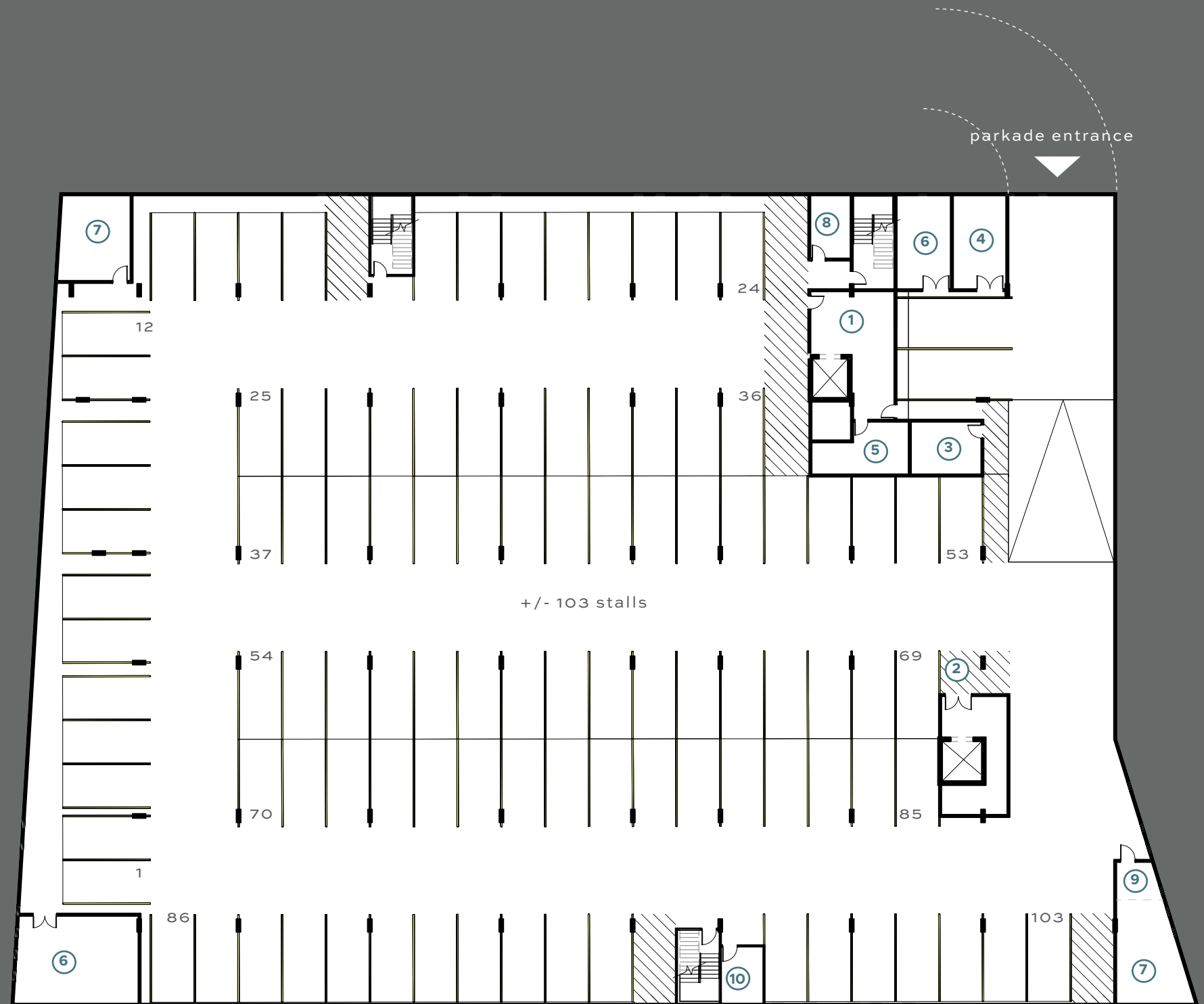
Library and Multi-Use loading and servicing is under development.

Conceptually, Library loading occurs predominantly in the loading bay in the northeast corner of the plan. Multi-Use loading occurs at grade to support specialty events.

As Multi-Use programming and events are finalized in Design Development, the design team will have a better understanding of specific loading and servicing requirements which can be addressed at that time.

PARKADE

1. library materials loading/elevator
2. multiuse loading area/elevator
3. bike storage
4. garbage/recycling room
5. storage room
6. multiuse facility storage
7. mechanical room
8. electrical room
9. water meter room
10. electrical/communications room



LIBRARY ENTRANCE and COMMUNITY LIVING ROOM

- 1 security/entry
- 2 service desk
- 3 fireside lounge
- 4 office manager/workstations
- 5 public services workroom
- 6 large program room
- 7 programming work area
- 8 first aid

BACK OF HOUSE/STAFF

- 9 materials handling
- 10 workstations
- 11 IT workstations
- 12 server room

PRE-SCHOOL CHILDREN'S AREA

- 13 gateway/orientation/arrival
- 14 literacy play area
- 15 collections
- 16 program nook
- 17 open program area
- 18 group table
- 19 casual seating
- 20 parent child reading alcoves
- 21 quiet room
- 22 computer stations

SCHOOL AGE CHILDREN'S AREA

- 23 gateway/orientation/arrival
- 24 collections
- 25 casual seating
- 26 group table
- 27 computer station
- 28 tutoring pods
- 29 makerspace



ENHANCED ATRIUM

- 30 atrium
- 31 open exhibition space
- 32 retail pop-up
- 33 cafe / bistro
- 34 social stair

SHARED COMMUNITY RESOURCES

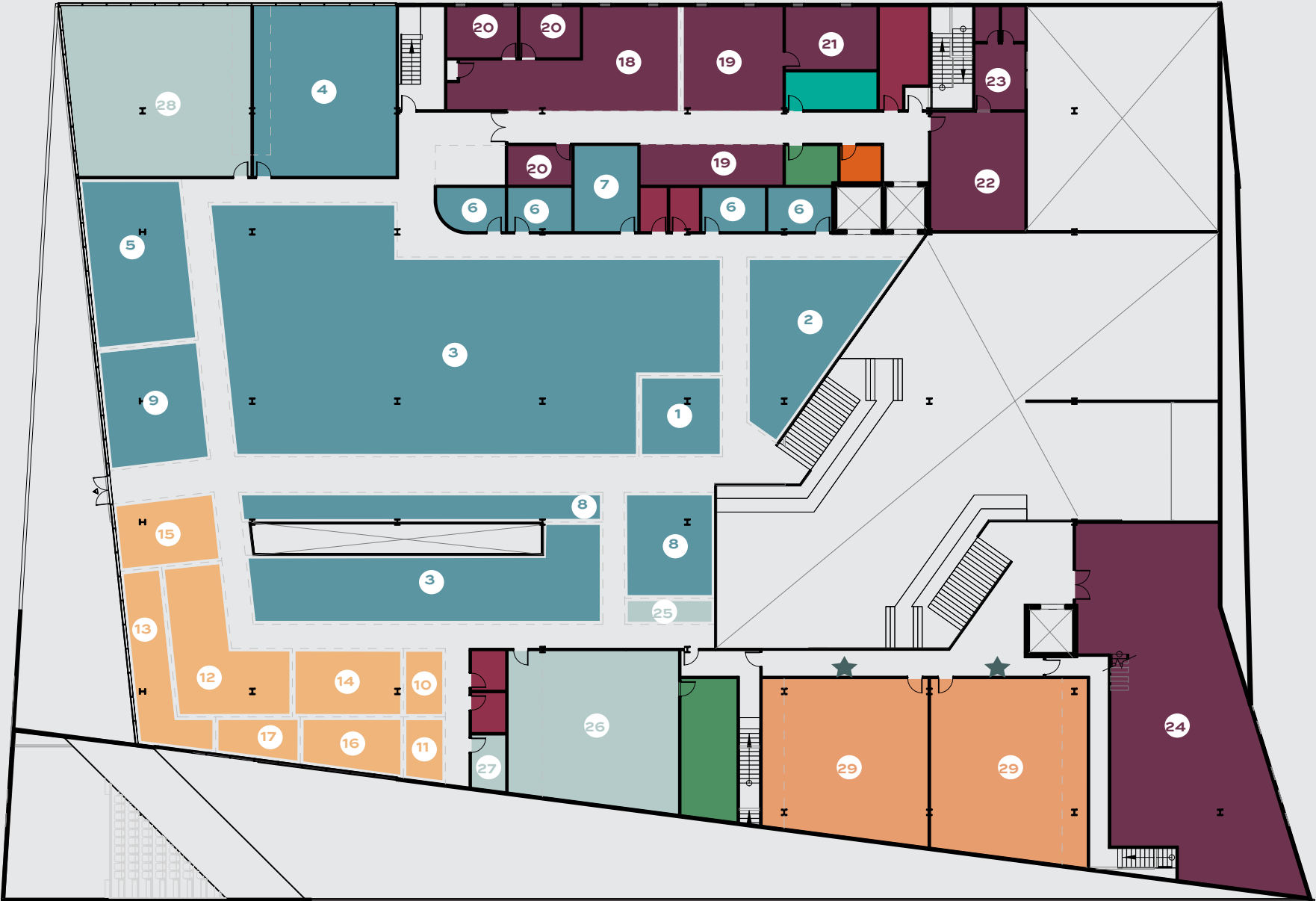
- 35 tenant 1 space
- 36 tenant 2 space
- 37 tenant 3 space
- 38 conference room
- 39 kitchenette/staff lounge
- 40 small meeting room
- 41 medium multipurpose room
- 42 large multipurpose room

ARTS DEVELOPMENT

- 43 performance space
- 44 green room
- 45 video/audio production
- 46 servery kitchen/loading
- 47 city of airdrie offices
- 48 arts council offices

- washrooms
- storage
- custodial
- electrical/server room
- ★ public art opportunity

FLOOR PLAN
LEVEL 1



- ADULT COLLECTIONS
- 1 arrival/orientation
 - 2 computer commons
 - 3 collections
 - 4 program room
 - 5 reader's lounge
 - 6 small group room
 - 7 meeting room
 - 8 single table seating
 - 9 lounge chairs

- YOUNG ADULT COLLECTIONS
- 10 arrival/orientation
 - 11 computer station
 - 12 collections
 - 13 group tables
 - 14 open program area
 - 15 informal seating
 - 16 console gaming
 - 17 computer gaming

- STAFF / BACK OF HOUSE
- 18 workstations
 - 19 work area
 - 20 office
 - 21 meeting room
 - 22 staff lunch room
 - 23 lockers
 - 24 mechanical room

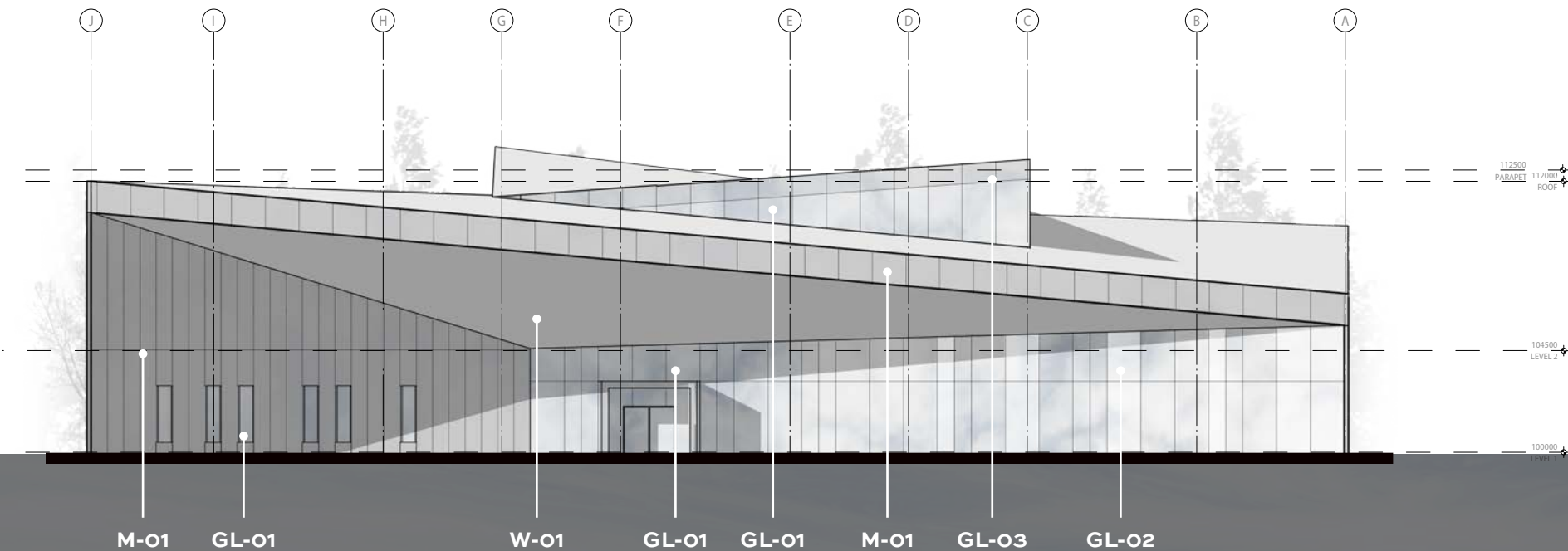
- MAKER SPACE/QUIET STUDY
- 25 arrival/orientation
 - 26 makerspace
 - 27 video recording room
 - 28 quiet study room
- ARTS DEVELOPMENT
- 29 art studio

- washrooms
- storage
- custodial
- electrical/server room
- ★ public art opportunity

FLOOR PLAN LEVEL 2

EAST ELEVATION

- M-01 GREY METAL PANEL
- W-01 LIGHT WOOD
- F-01 ARCHITECTURAL FINS
- GL-01 GLAZING
- GL-02 FRIT GLASS/ COLOUR FILM TYPE
- GL-03 SPANDREL GLASS



BUILDING ENVELOPE

The exterior enclosure of the building will consist of high performance construction systems. Exterior wall construction will be based on rain-screen principals, and typically supported by structural studs. All opaque walls will include an air/vapour barrier membrane and insulation. Cladding will be a selection of pre-finished metal panels, cedar wood (or wood-look) panels, and glazing systems. Exterior solar shading will be achieved through a combination of elegant vertical fins and strategically placed frit glass. High-performance sealed unit glazing with low-e coatings will be selected.

Roofing systems will consist of conventional SBS roofing, with additional insulation to be considered based on future sustainability targets. An accessible roof deck is also included.

The following wall and roof systems are being considered as the basis for schematic design:

WALL ASSEMBLIES

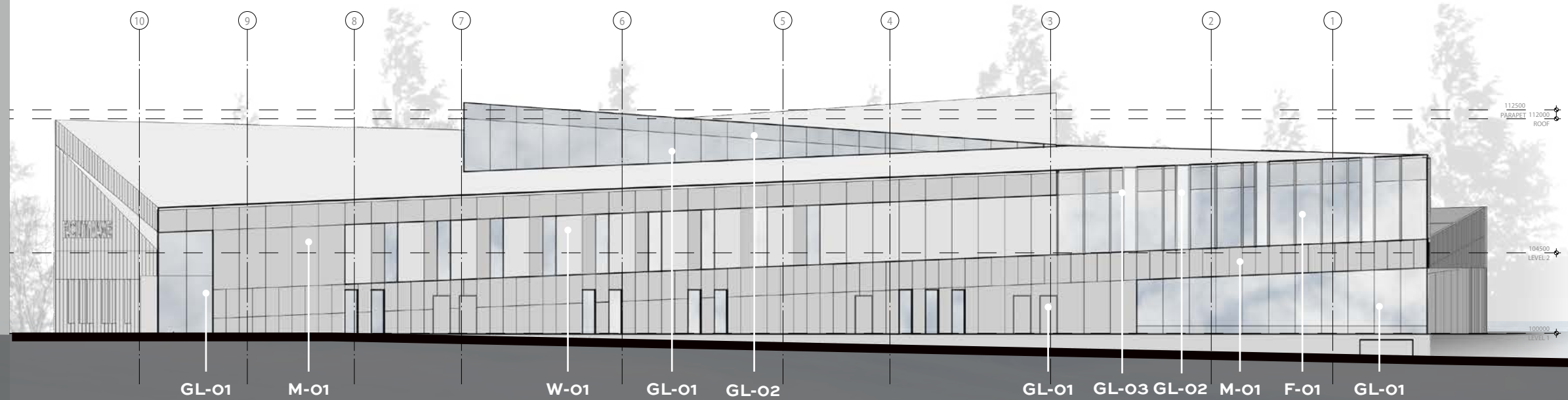
- W1 EFFECTIVE R VALUE = 18.6**
COMPOSITE METAL PANEL CLADDING
25MM AIR SPACE
75MM BOARD INSULATION (R-4.2/INCH)
100MM METAL Z-GIRTS@ 600MM O.C. (VERTICAL)
75MM BOARD INSULATION (R-4.2/INCH)
75MM METAL Z-GIRTS@ 600MM O.C. (HORIZONTAL)
AIR/VAPOUR BARRIER
15.9MM EXTERIOR GYPSUM SHEATHING
203MM STEEL STUDS @ 400MM O.C.

- W2 EFFECTIVE R VALUE = 18.6**
WOOD CLADDING
25MM AIR SPACE
75MM BOARD INSULATION (R-4.2/INCH)
100MM METAL Z-GIRTS@ 600MM O.C. (HORIZONTAL)
75MM BOARD INSULATION (R-4.2/INCH)
75MM METAL Z-GIRTS@ 600MM O.C. (VERTICAL)
AIR/VAPOUR BARRIER
15.9MM EXTERIOR GYPSUM SHEATHING
203MM STEEL STUDS @ 400MM O.C.

CW CURTAIN WALL

NORTHELEVATION

- M-01 GREY METAL PANEL
- W-01 LIGHT WOOD
- F-01 ARCHITECTURAL FINS
- GL-01 GLAZING
- GL-02 FRIT GLASS/ COLOUR FILM TYPE
- GL-03 SPANDREL GLASS



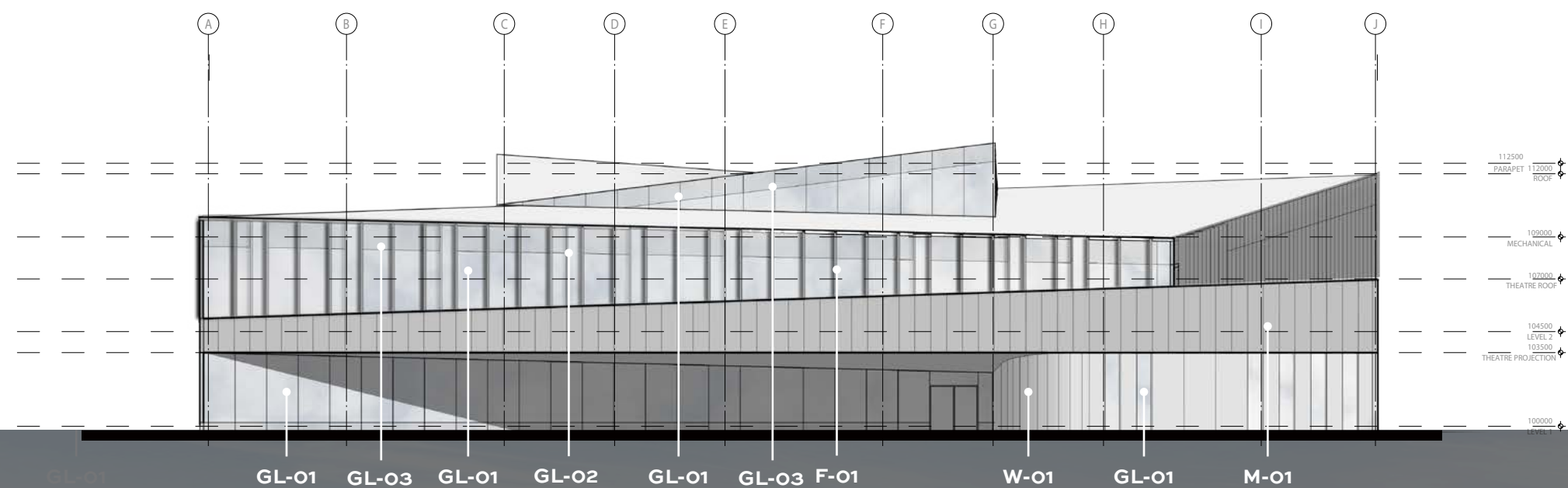
ROOF ASSEMBLIES

R1 EFFECTIVE R VALUE = 36.8

SBS ROOF MEMBRANE
MODIFIED 2 PLY BITUMEN MEMBRANE SYSTEM
FIBERBOARD ROOF SHEATHING
200MM Z-GIRTS @ 400MM O.C.
2 LAYERS OF 100MM RIGID INSULATION
AIR/VAPOUR BARRIER
15.9MM EXTERIOR GRADE GYPSUM SHEATHING
STEEL ROOF DECK
SLOPED STEEL STRUCTURE

R2 EFFECTIVE R VALUE = 40

WOOD DECKING ON ADJUSTABLE PEDESTALS
200MM RIGID INSULATION
DRAINAGE MAT
SBS ROOFING MEMBRANE
15.9MM EXTERIOR GYPSUM SHEATHING
STEEL ROOF DECK



WEST ELEVATION

M-01 GREY METAL PANEL

W-01 LIGHT WOOD

F-01 ARCHITECTURAL FINIS

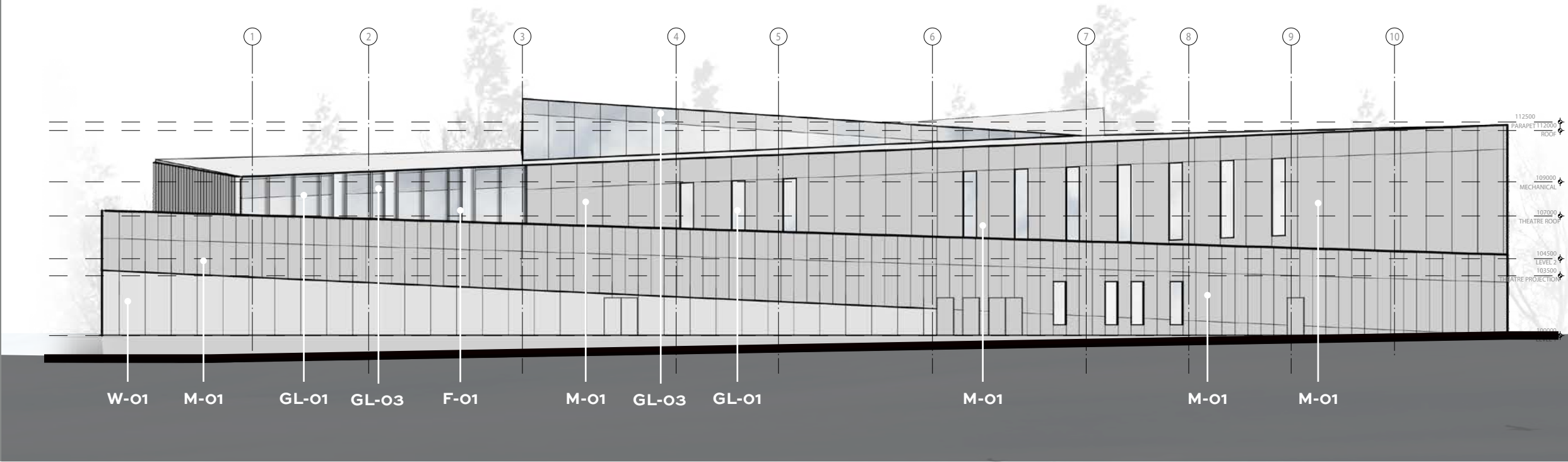
GL-01 GLAZING

GL-02 FRIT GLASS/ COLOUR FILM TYPE

GL-03 SPANDREL GLASS

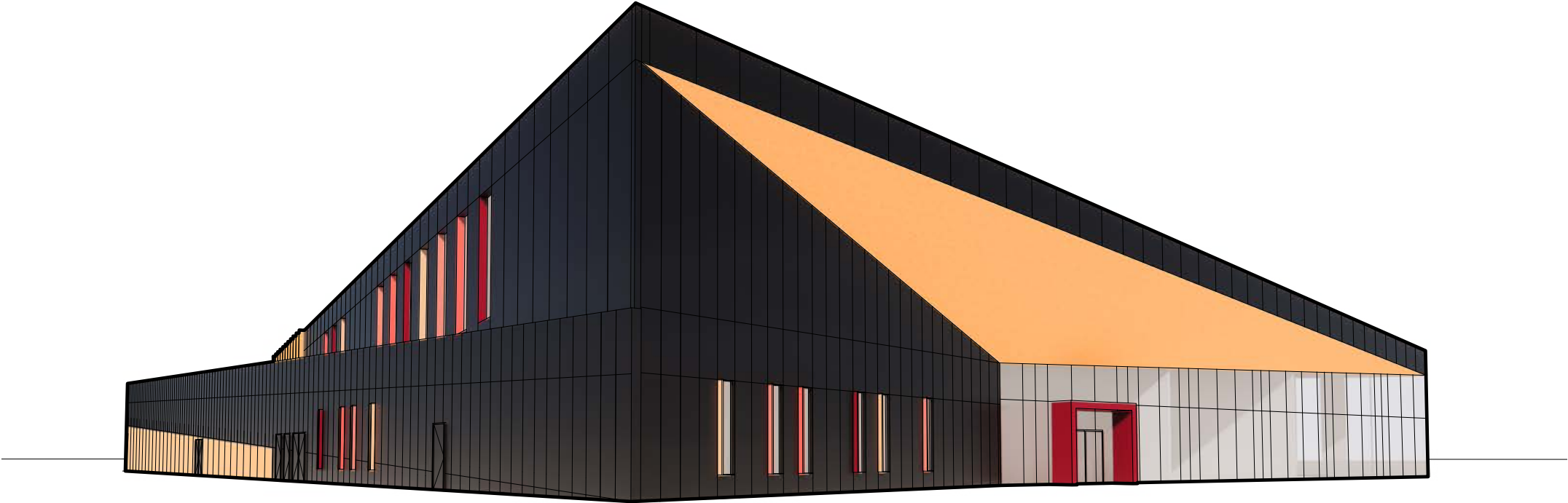
SOUTH ELEVATION

- M-01 GREY METAL PANEL
- W-01 LIGHT WOOD
- F-01 ARCHITECTURAL FINS
- GL-01 GLAZING
- GL-02 FRIT GLASS/ COLOUR FILM TYPE
- GL-03 SPANDREL GLASS



Final material selection is still under consideration, and two options are being developed. In both options, a neutral grey composite-metal panel is proposed for the field, creating a backdrop for the warm wood tones and elements of colour to be expressed. Colour is being proposed in two ways:

Neutral Grey Panel - A darker metal panel is expressed in Option 1, whereas a mid-grey is being illustrated in Option 2. These two greys have been carefully considered to be able to support either proposed colour concept.



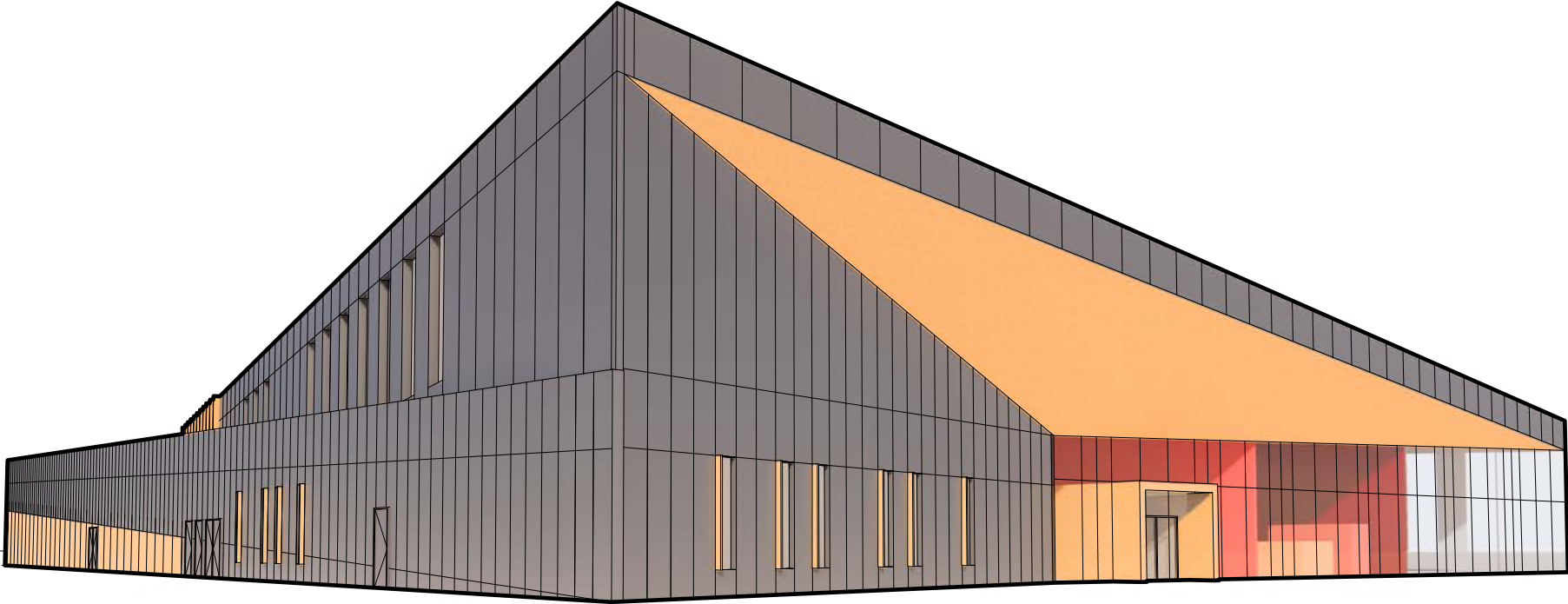
SE CORNER



NW CORNER

COLOUR OPTION 1

Option 1 - the predominant expression of colour comes from the interior of the building. Glazing will be highly transparent and non-reflective, allowing the colour of the interior spaces, volume and activities to be seen from the outside of the building. Colourful finishes on the façade are more subtle to support this concept, where window frames and glazing fins are the only vibrant, colourful exterior elements.



SE CORNER



NW CORNER

COLOUR OPTION 2

Option 2 – in this option, the expression of colour is established on the exterior of the building. Coloured glass panels are added to the façade, along with additional vibrant panels. Interior finishes will carry more neutrality.

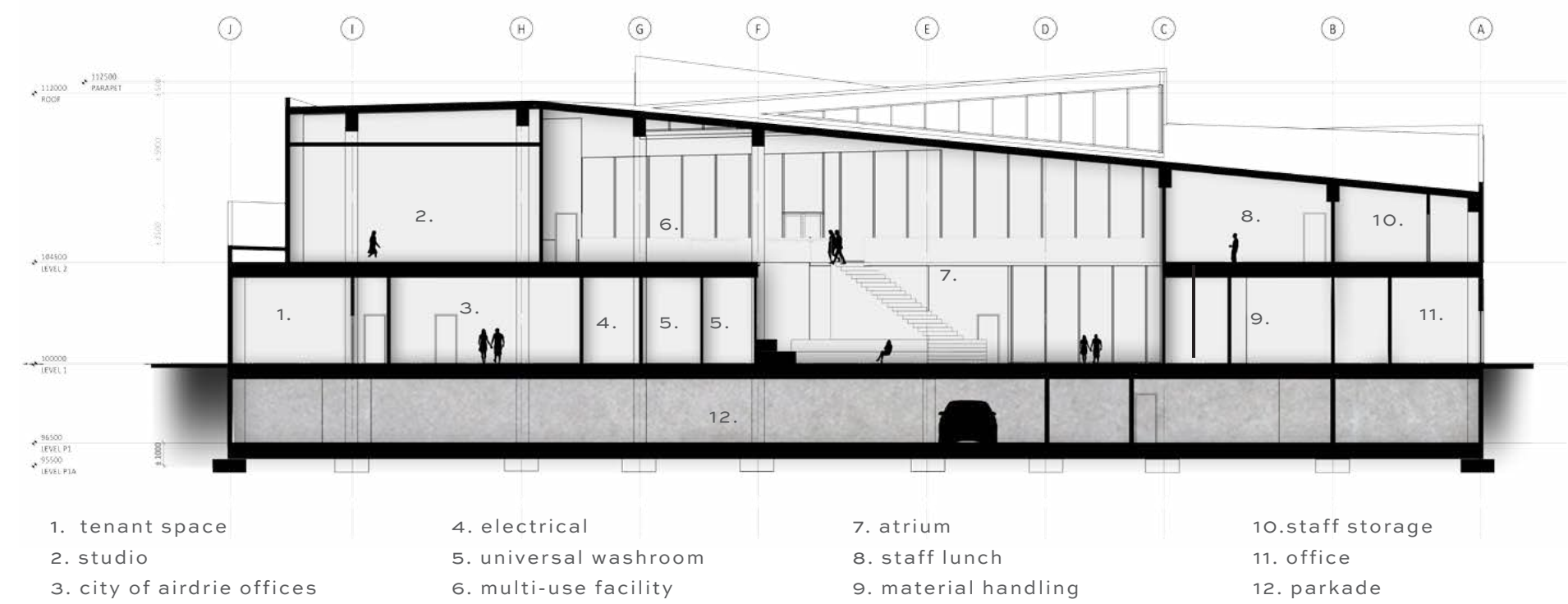


RENDERING. Main Street view on parade day highlighting iconic gateway to Downtown and active Main Street frontage

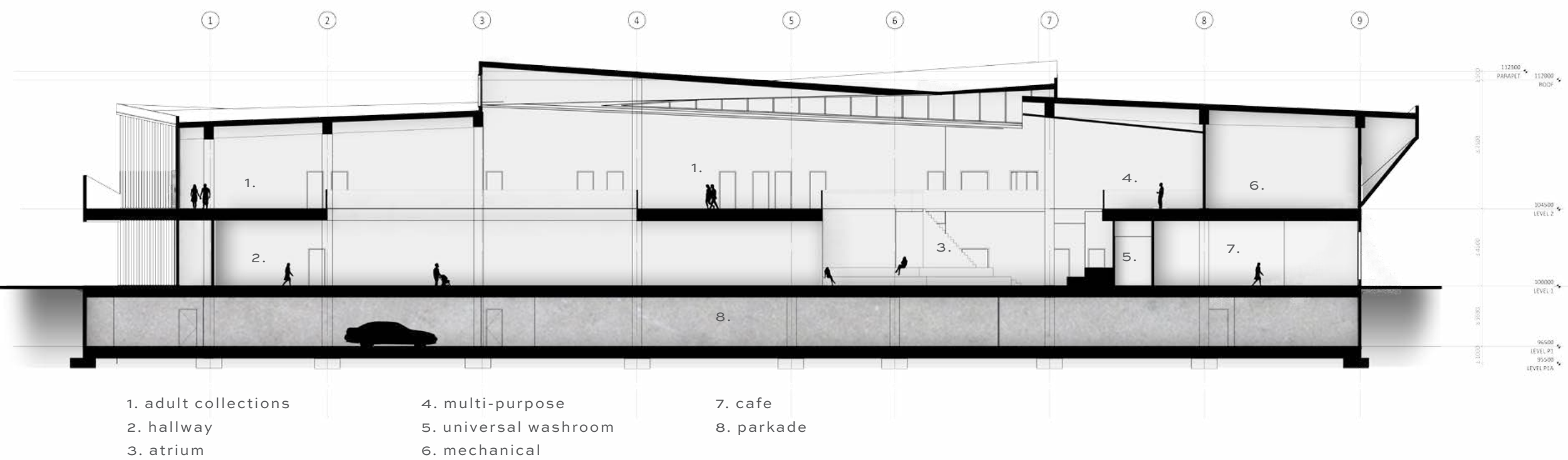


RENDERING. West side view showing Nose Creek plaza and active landscape features

BUILDING SECTIONS



SOUTH - NORTH



WEST - EAST

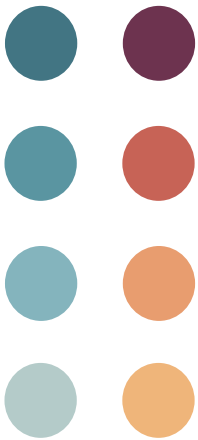


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MATERIAL PALETTE
INTERIOR CONCEPT
FLOOR FINISH PLANS
REFLECTED CEILING PLANS

05 interior design





The Schematic Design of the interior space is meant to evoke openness, brightness and a sense of connectivity between uses. Long sightlines from Main street to the Creek beyond extend throughout the facility, with large volumes that sweep over the library and multi-use areas. Views between the different levels are celebrated, revolving around the atrium room space, where gathering, informal performance and casual seating establish a place of pause and respite. Clerestory glazing in the angled roof planes illuminate the common areas and provide an ever-changing and dynamic quality of interior light. A neutral palette supports intentional, vibrant moments of colour throughout the spaces.

These principles will further be developed in Design Development; final material selection, colour palette, spatial definition and furniture selection are still to be refined

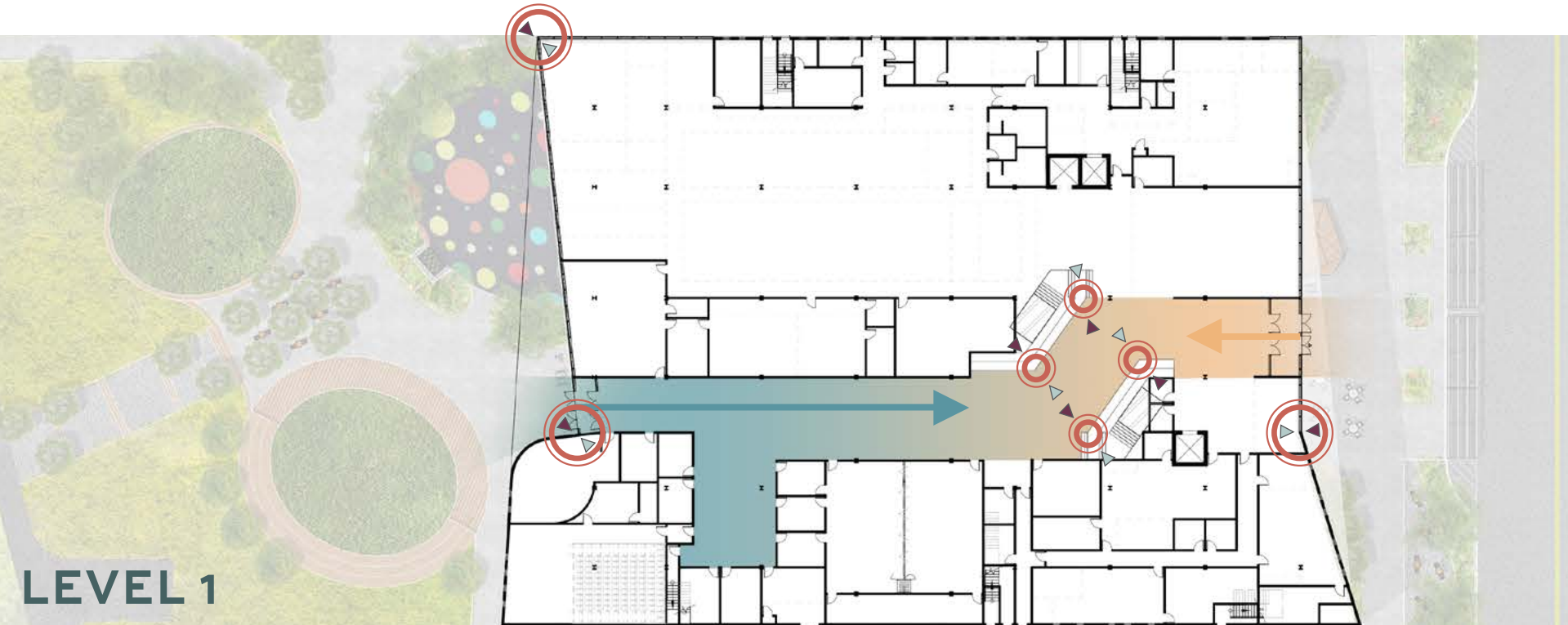
INTERIOR CONCEPT

Originating from the two major points of entry, the East entry from Main street and the West entry from the Nose Creek pathway, two forces collide that shift, pull and twist together - creating an inflection and deflection of space.

The interior is articulated with expressions of the act of jointing, a connection between materials of wood and metal, colour and light.

Movement through the space reveals the duality of the contrasting forces, juxtaposing and coexisting together within the built environment.

- east entry: main street
- west entry: creek entry
- Inflection
- deflection
- moments of jointing

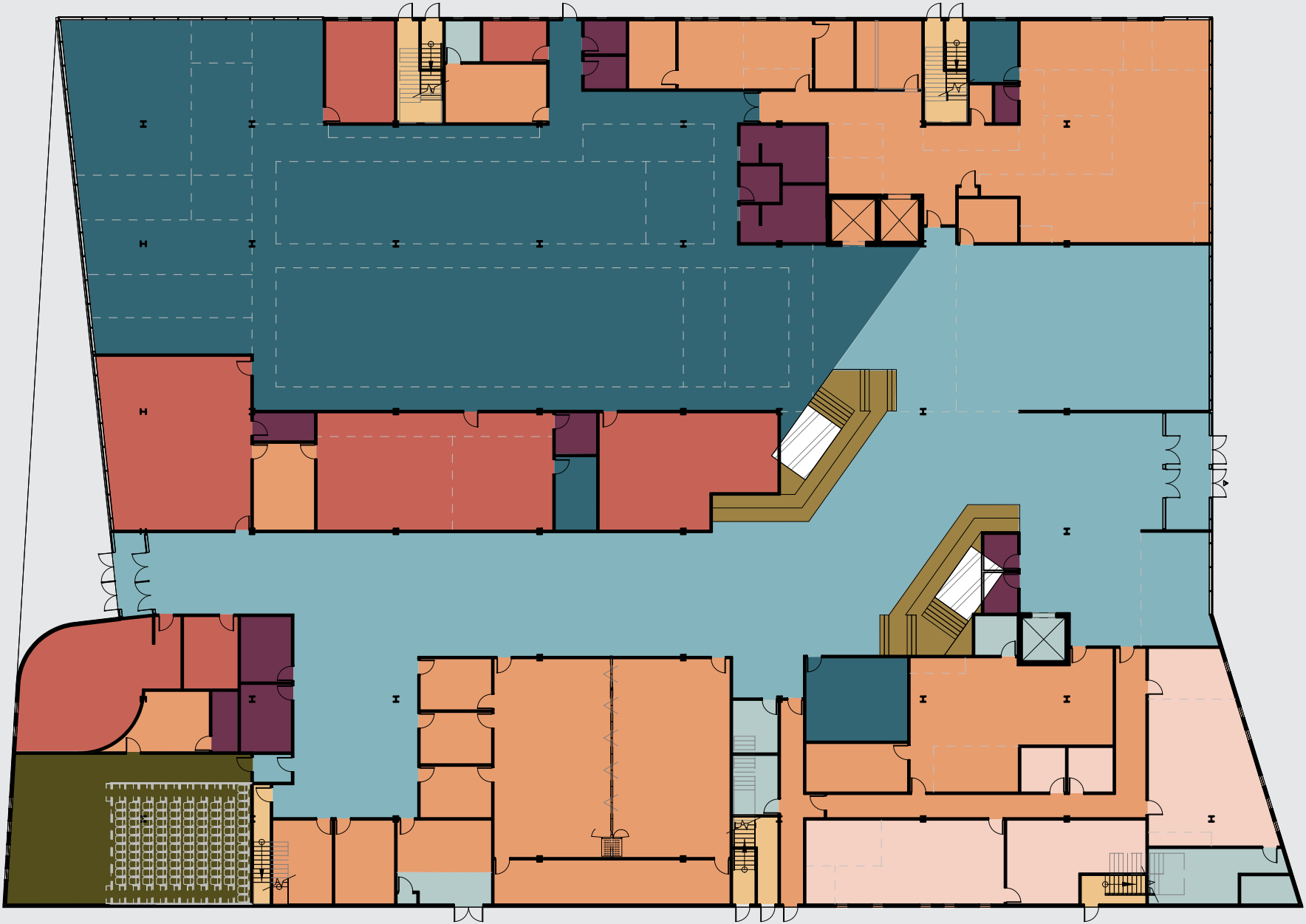




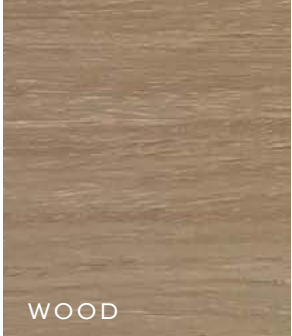
The interior finishes and materials are designed using neutral tones and metals to create a backdrop for bursts of colour and textures to stand off of. This expanded range creates a playful gradient of colours complementary to both the Library and Multi-use facility.

Utilizing neutral tones as a base palette provides flexibility for any future modification to branding colors, or the incorporation of additional hues. Maintaining flexibility will allow the interior design to stay fresh and contemporary.

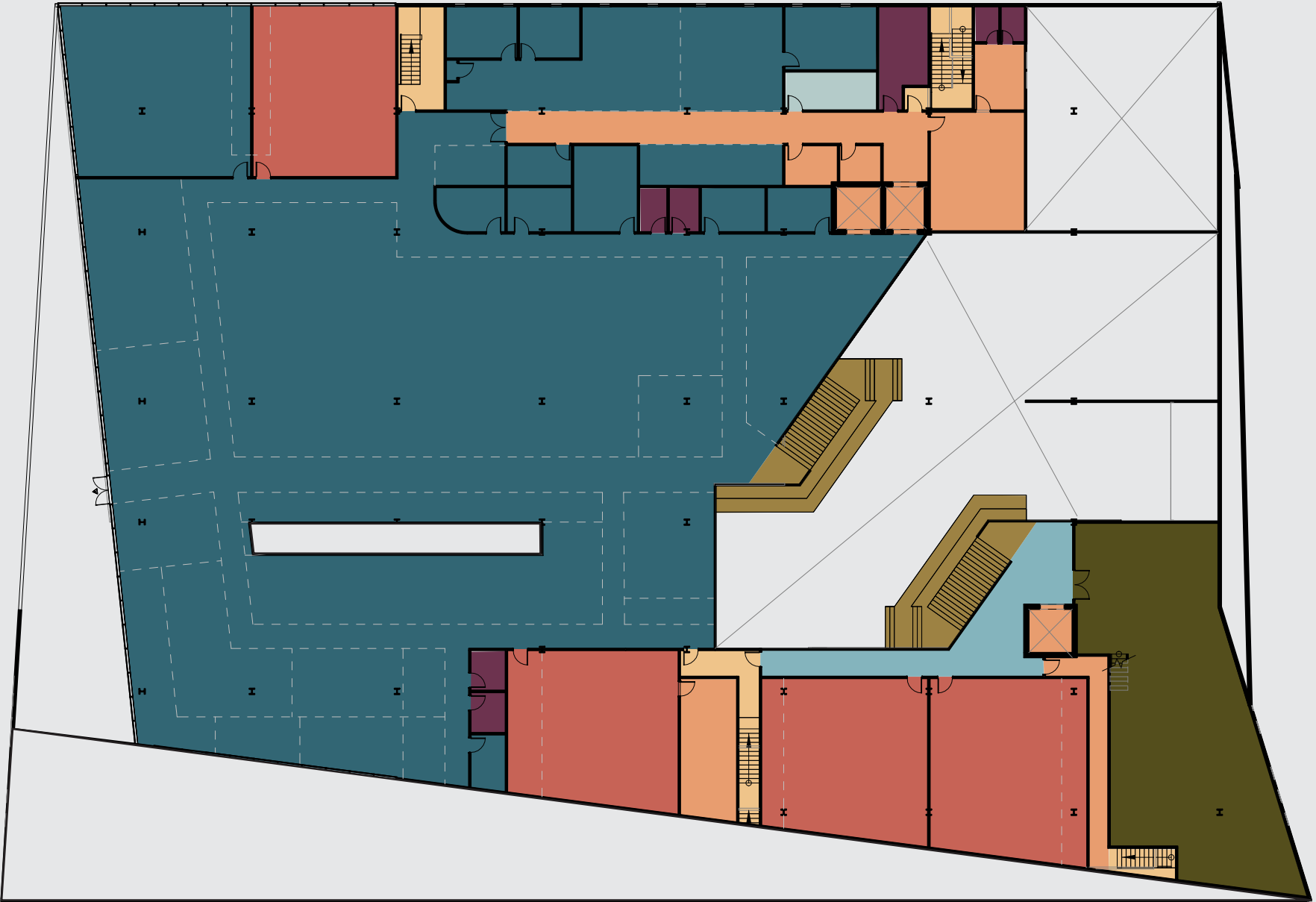
- FLOOR FINISH PLAN
- porcelain floor tile [T-1]
 - resilient flooring - upgraded [RF-1 + RF-2]
 - resilient flooring - standard [RF-3]
 - rubber stair integrated tread [S-1 + RF-4]
 - carpet tile [CPT-1/2/3/4]
 - polished concrete [CONC-1]
 - sealed concrete [CONC-2]
 - wood sprung floor [WDF-1]
 - wood and metal feature stairs
 - tenant improvement



FLOOR FINISH PLAN
LEVEL 1



- FLOOR FINISH PLAN
- porcelain floor tile [T-1]
 - resilient flooring - upgraded [RF-1 + RF-2]
 - resilient flooring - standard [RF-3]
 - rubber stair integrated tread [S-1 + RF-4]
 - carpet tile [CPT-1/2/3/4]
 - polished concrete [CONC-1]
 - sealed concrete [CONC-2]
 - fluid applied flooring [FAF-1]
 - wood and metal feature stairs
 - open to below



FLOOR FINISH PLAN
LEVEL 2



feature ceiling: interiors for children

- various dropped ceilings with cove lighting
- suspended acoustic baffles/clouds



suspended light fixture:

- architectural and/or cluster of pendants

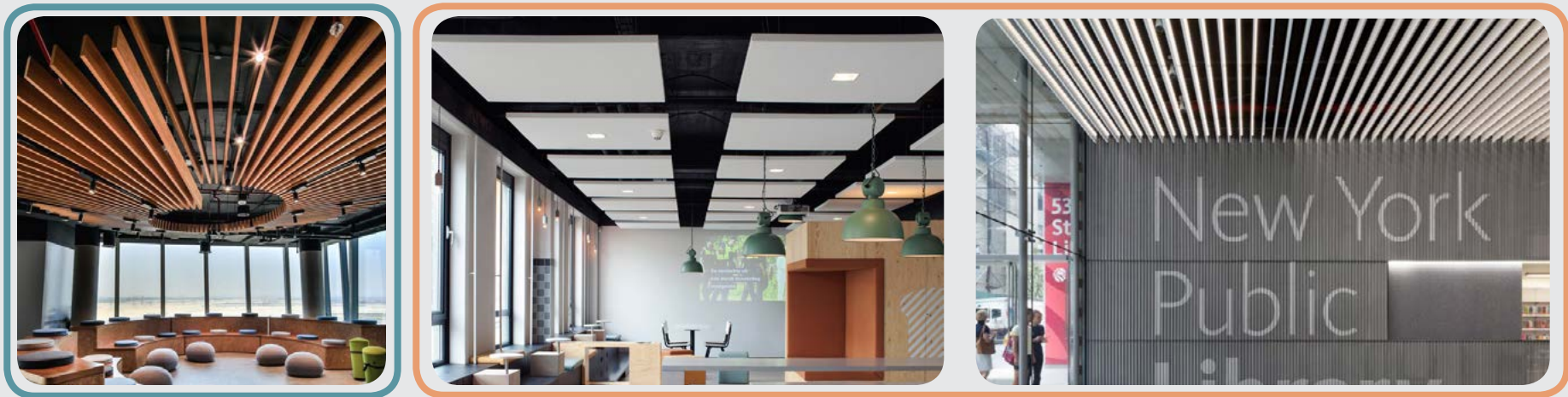
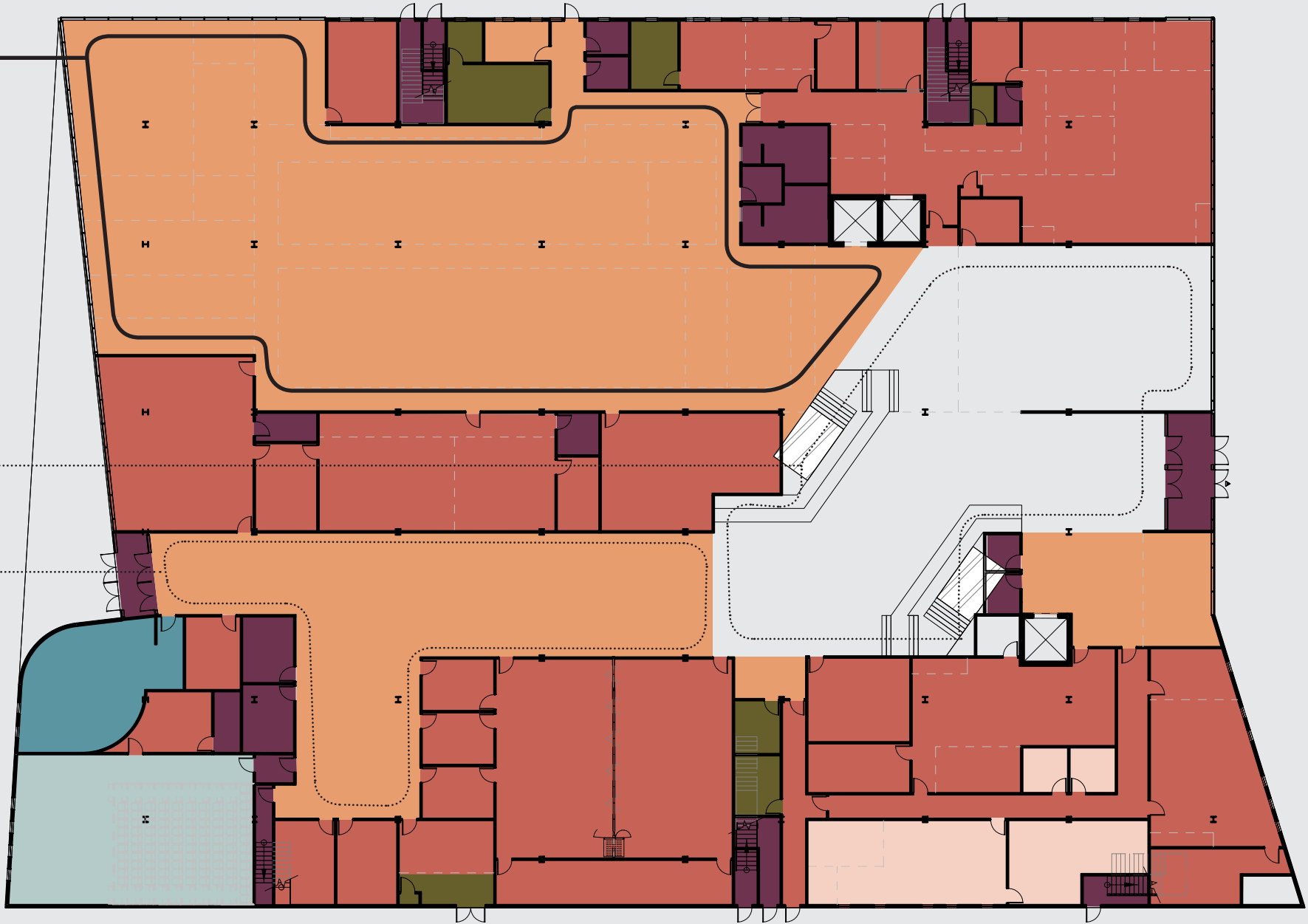
suspended light fixture:

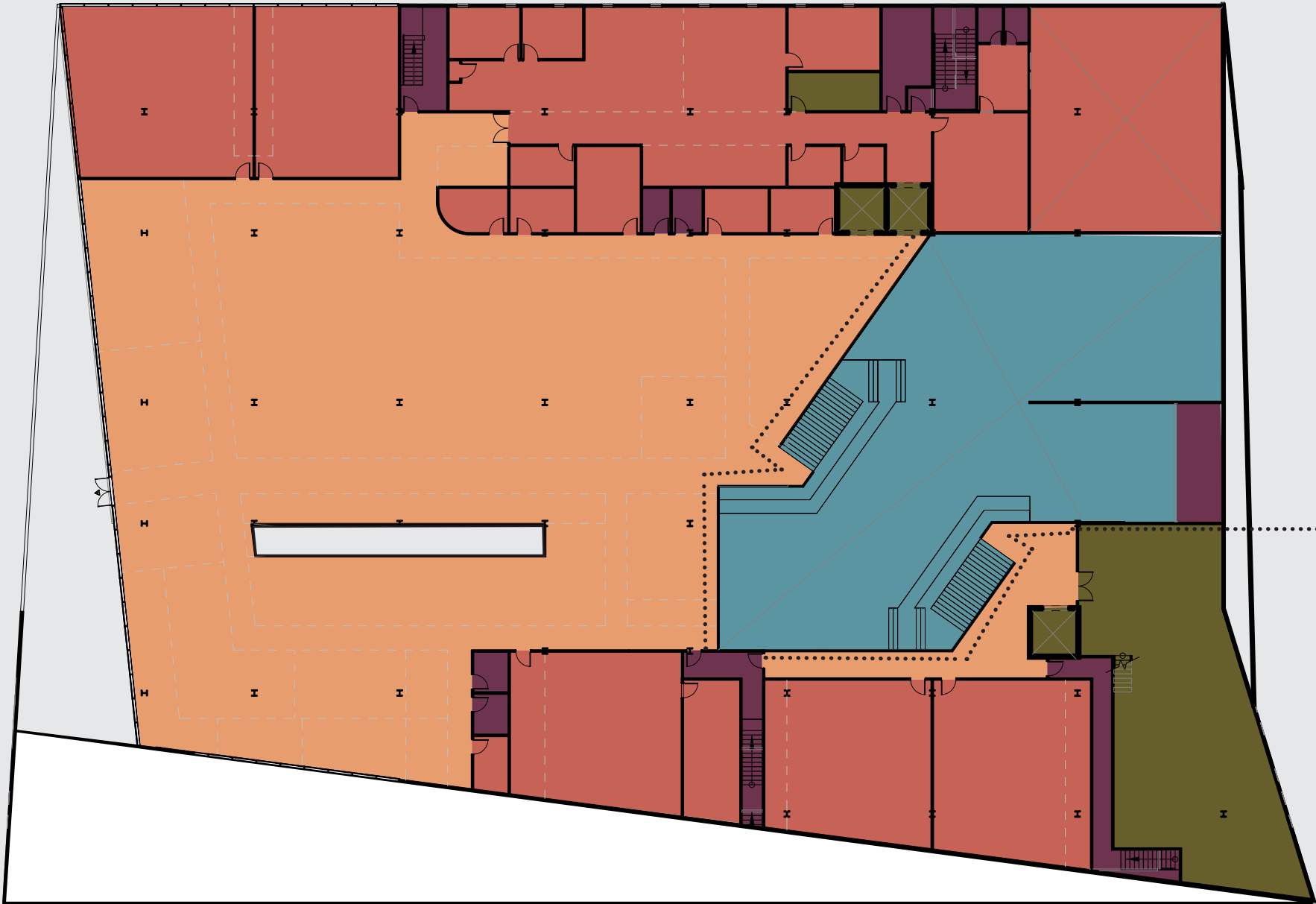
- dropped ceiling with integrated lighting
- cluster of pendants

REFLECTED CEILING PLAN LEVEL 1

REFLECTED CEILING PLAN

- gypsum wallboard
- acoustic ceiling tile
- exposed steel structure and metal deck with acoustic baffles/clouds
- exposed steel structure and metal deck with feature wood
- exposed steel structure and acoustic metal deck
- exposed steel structure and metal deck
- open to volume above
- tenant improvement





suspended light fixture:
- pendants over balcony seating



REFLECTED CEILING PLAN LEVEL 2

REFLECTED CEILING PLAN

- gypsum wallboard
- acoustic ceiling tile
- exposed steel structure and metal deck with acoustic baffles/clouds
- exposed steel structure and metal deck with feature architectural and/or cluster of pendants
- exposed steel structure and acoustic metal deck
- exposed steel structure and metal deck





RENDERING. Atrium.



RENDERING. Atrium.

During the Concept Design phase, the design team heard Council’s desire for this facility to be responsibly-designed, make use of feasibly sustainable approaches where possible and that a targeted certification was not required. The design team has translated this desire to an approach that promotes a balanced blend of aesthetics and innovation with utility, simplicity, and authenticity through the Schematic Design phase. The project is guided by three principles of sustainability; social, economic and environmental.

Social – This project will be successful if it fulfills the social obligations of the program for the Library, the City of Airdrie, and any tenant spaces within the Multi-Use Facility. Spaces need to be well used, durable and well-maintained to extend the life of the project beyond a projected 30 years.

Economic - Understanding the many levels of economic impact—from the initial capital cost to the ongoing maintenance costs, will continue to be considered as part of this design. This life-cycle approach to the selection of building materials, systems, and products includes the sourcing, transportation, installation, as well as the embodied energy of the products.

Environmental – This project aims to reduce its carbon footprint and increase energy efficiency as much as possible. Several strategies and architectural, mechanical and electrical elements have been proposed. These items have been broken out individually to be a consideration within the overall capital cost; however more study is required to understand the long-term savings and benefits to the project and to overall council goals regarding sustainable initiatives.

December 6, 2021 - Council Visioning Session

During the initial Council Visioning Session, Council expressed a desire to achieve sustainable concepts in lieu of sustainable targets. Other key ideas and statements expressed included demonstrating leadership in sustainability for the community, having sustainable features the public can tangibly see, balancing the need for glass and a high-performance envelope, among others. Council stated there was no targeted certification. Building budget was based on a highly energy-efficient, modern building that supports sustainability features without certification.

May 20, 2022 - Sustainability Credentials Memo

Colliers prepared a Sustainability Credentials Summary Memo that outlined various industry credentials that are available when sustainability is an objective for the project. These include LEED, BOMA Best, Net Zero, ENERGY STAR, Passive House and WELL. Sustainability Targets Without Certification was also presented in this memo as a way of outlining different ways to achieve sustainable objectives without recognized accreditations.

June 6, 2022 - Council Meeting

At the June 6, 2022 meeting, Council was presented with the option to consider a high-performance building design, including lifecycle utility cost savings and GHG reductions compared to a NECB 2017 construction, and potential project grant application. Council decided to maintain “the current state for the project, which includes sustainable features without looking for a sustainable certification,” confirming the desire not to increase the budget in order to meet certification targets.

February 27, 2023 - Council Sustainability Workshop

Our initial sustainability workshop between Council and the Sustainability Consultant team was held on February 27, 2023. Sustainability features that support an energy-efficient, modern building and are included as part of the Schematic Design were presented. These elements were selected by the project team based on previous experience, best-practice for similar project types, and best value, including a high-performance envelope and highly efficient mechanical and electrical systems. Options for additional sustainability features still under consideration were proposed, and will be further evaluated during the Design Development stage and as budget allows.



06 sustainability summary

Elements still under consideration:

ARCHITECTURAL

- Enhanced wall insulation with thermal isolation clips
- Enhanced roof insulation with a target of R40
- Exterior sun shading via extended caps or frit glazing
- Thermally isolated curtain wall glazing
- Triple glazing where possible
- Use of locally sourced materials where possible

LANDSCAPE

- Rainwater harvesting
- Xeriscaping

STRUCTURAL

- High fly ash content or carbon cured concrete

ELECTRICAL

- Light pollution reduction
- Fundamental building systems commissioning
- Optimized lighting systems c/w occupancy sensors and local control
- Enhanced measurement and verification
- Daylighting and daylighting controls
- Solar PV - ready
- Parking lot receptacle control

MECHANICAL

- CFC and HCFC free refrigerants
- Low-water consumption plumbing fixtures
- Heat-recovery system
- Efficient perimeter combined heating and cooling
- Zoning differentiation
- High-efficiency condensing boiler
- Energy efficient pumps and air-handling systems
- Regulated ventilation via CO2 sensors where appropriate
- Enhanced energy management control system



xeriscaping



solar photovoltaic opportunities



strategic daylighting

indigenous
inclusivity

During the Concept Design phase of the Airdrie Multi-Use Facility & Library project design, the design team expressed an interest in engaging with Indigenous Communities as part of the design process. GGA-Architecture, in collaboration with a community engagement consultant Eleven Eleven, designed an Indigenous engagement process tailored around the program requirements of this facility, as well as the resources and interested Indigenous communities available in and around Airdrie.

As part of the design process, the goal of Indigenous engagement for this project is:

To assist the design team in creating a building that is welcoming to all. Through the integration of design elements like colour, material, art, and shape; these engagement sessions will provide the team with a direction forward that is both inclusive and meaningful.

This Indigenous engagement process is not intended to supercede any pre-established functional programming for the Airdrie Library or Multi-Use spaces, however is meant to inform the design and shaping of established spaces.

The first Indigenous engagement session took place at the Airdrie Nose Creek Valley Museum on June 15, 2022. Attendees included members of the project team from GGA-Architecture, Eleven Eleven, City of Airdrie, Airdrie Public Library and representatives from the different First Nations groups who are directly connected to the City of Airdrie.

The design team has distilled the comments from the session into the following key takeaways as it pertains to building and landscape design, their alignment with the project objectives and proposed next steps. Other commentary that relates to programming of spaces and more specific ornamentation will be tabled until the Design Development phase.



1. REQUEST FOR INTENTIONAL SPACE

Desire for a welcoming space that is round, represents Indigenous culture through art and/or material, and can support smudging. This space is to be occupied by any user or cultural group.

Potential Opportunities

Shared community multi-use space is still undefined in terms of design. An opportunity exists to define one of the medium, 50sm multi-purpose rooms as an intentional, round room. Implementing a round space into the project would be a key contributor to making Indigenous groups feel welcome within the space. The unique qualities of a round multi-purpose room could also provide additional opportunities for programming for the overall facility.

Potential Risks

Designing a round space that represents Indigenous culture may be perceived as overrepresenting one cultural group at the detriment of the other.

Alignment with Project Objectives:

A Facility that is a Catalyst for Downtown

- Creating a space that is inviting for a broader group of users will contribute to diversifying the Downtown.

A Facility that has Multiple Uses and Activities

- Designing one of the proposed multi-purpose spaces into a round space offers a different type of room that can support alternative programming and events. Other multi-purpose spaces would be designed as standard, rectilinear spaces.

A Facility that is a Hub for Community Development

- Inviting and welcoming a broader community, whether indigenous or otherwise, contributes to fulfilling this project objective.

2. INTENTIONAL LANDSCAPE DESIGN

Incorporating intentional Indigenous elements into the landscape design was desired. Respecting the history of the adjacent Nosecreek River passage, providing gathering spaces for ceremony and teaching, as well as offering an area for an educational medicine garden made up on native plantings, were all suggestions made during the session.

Potential Opportunities

As landscape design progresses, hard-scaped areas for gathering and soft-scaped gardens will evolve. Options that include intentional Indigenous elements can be developed as part of the overall design, and will serve all visitors to the facility.

Potential Risks

Understanding the scale of gathering space for ceremony still needs to be determined in order to see if the current square footage of the site can accommodate the request.

Alignment with Project Objectives:

A Facility that is a Catalyst for Downtown

- Enhancing green space for public use will invite a broad group of users and ultimately contribute to diversifying the downtown.

A Facility that has Multiple Uses and Activities

- Providing venues and outdoor space that can support additional cultural activities will facilitate multiple uses and activities.

A Facility that is a Hub for Community Development

- Inviting and welcoming a broader community, whether indigenous or otherwise, contributes to fulfilling this project objective.

3. ELDER'S ROOMS

A request for designating one or two rooms as Elder's rooms was proposed. These rooms would equate to the size of a small office and allow Elders to conduct one-on-one teaching sessions.

Potential Opportunities

As shared community multi-use space is still undefined from a design perspective, there is a potential to reallocate one or two 10-15sm offices as an Elder's room. Depending on usage, these offices could still be potentially shared with the non-Indigenous community. There is additional opportunity for this request to be captured within the Airdrie Public Library space, with the understanding that use of these rooms would need to be shared with the broader community.

Potential Risks

A better understanding of demand and usage is required in order to determine the allocation of space and alignment with the project objectives.

Alignment with Project Objectives:

A Facility that is a Catalyst for Downtown

- Creating a space that is inviting for a broader group of users will contribute to diversifying the Downtown.

A Facility that has Multiple Uses and Activities

- Understanding desired usage, ie. dedicated to an indigenous community or available as a shared community resource, will help determine the alignment with this project objective.

A Facility that is a Hub for Community Development

- Inviting and welcoming a broader community, whether indigenous or otherwise, contributes to fulfilling this project objective.

key TAKEAWAYS

The design team has distilled the comments from the session into the following key takeaways as it pertains to building and landscape design, their alignment with the project objectives and proposed next steps. Other commentary that relates to programming of spaces and more specific ornamentation will be tabled until the Design Development phase.





08

accessibility summary

Including every citizen in society isn’t a ‘nice to have’ — it’s the hallmark of a great society. Great societies become greater when everyone has equal access, is fully engaged, and can realize their potential. – Rick Hansen, Founder Rick Hansen Foundation

An accessible Multi-Use Facility and Library will mean that regardless of ability, people of all ages and abilities can engage in their community and the facility can properly serve the community’s needs. We all know someone that could benefit from greater accessibility: a parent pushing a stroller up a curb, a friend with vision loss navigating their surroundings or a grandparent with hearing loss trying to use a service at the library. There is more to accessibility than the addition of a few ramps and door openers—barriers come in all different forms. Barriers can be visible and physical, but they might also be less obvious. The design of the Airdrie Multi-Use Facility and Library seeks to create a physical environment that is simple and intuitive to use, requires low physical effort and is designed to accommodate a wide range of users. We all benefit when our communities enable everyone to play a part.

Notable highlights on some ways the Airdrie Multi-Use Facility and Library is building a more accessible built environment include:

- Fundamental Universal Design Principles – By incorporating a universal design approach at the front end of the project, integrity and marketability of the project will be maintained and future modifications will be kept to a minimum. Canadian Standards Association (CSA Group) B651 standards will be incorporated which considers the holistic user experience of people of all abilities, including those with mobility, vision and hearing disabilities as well as the Rick Hansen Foundation Accessibility Certification (RHFAC) standards.
- Parking/ Vehicular Access – Adequate parking and passenger zones have been considered in order to make the campus usable, safe and attractive for people of all abilities. Priority is given to designated spaces for people with disabilities. Pathways are designed with safety for all users, free of obstacles, well illuminated, easy to find, and well-integrated with stairs and ramps along the route. A curbside pickup area is provided for those individuals who are unable to leave their cars to enter the building. Pick up / drop off zones are located as close as possible to the nearest accessible entrance. Proximity of public transportation was also considered in the location of the site for those unable to drive and who rely on public transit.

- Entry / Reception/ Information Desks - Accessible service counters are provided at circulation, information or self-service checkout areas for both public and staff use.
- Navigation – The design of corridors, paths of travel, building entrances and connection with the site were all taken into consideration while developing the overall layout. Generous clear widths have been provided to ensure that people using wheeled mobility devices can easily pass through doorways and navigate along pathways comfortably. The design of overall paths of travel ensures that surfaces are stable, firm and have the appropriate type of surface material for designated use and location and won't disrupt mobility issues. Power door operators for doors into highly used functional spaces are provided for ease of entry. Textural and architectural treatments will be incorporated to provide wayfinding cues and guidance for all users.
- Lighting - Illumination is an important measure of accessibility for a range of interior and exterior facilities — from parking, exterior pathways and ramps, to site entrances, hallways, elevators and interior stairs. The use of natural light is considered and evenly distributed throughout rooms and circulation paths.

Special Facilities and Areas

- Theater - Accessible seating will be integrated and distributed throughout seating areas of assembly rooms to offer individuals with varying disabilities different vantage points and freedom of choice. Adaptable seating with armrests that flip up and down at the end of aisle seats will be provided to assist individuals transferring from mobility aids.
- Meeting Rooms – These spaces are intended to be flexible to accommodate a wide range of users and needs. Movable seating and tables for different types of meetings and multipurpose areas ensures maximum flexibility and accessible options available to all user types. Providing adequate space for the use of assistive devices or personal assistance will be looked into with further accessibility reviews in the design development stage.
- Maker space/ Studios –These spaces are designed with low physical effort in mind which can mean allowing users to maintain a neutral position while they work by incorporating different work environments. Appropriate size and space are provided for approach, reach, and manipulation regardless of user's body size, posture or mobility. Designated

areas/ workspaces with specialized equipment will be included for users with vision loss. Functional areas are also considered for those with development disabilities where noise and movement can be distracting based on levels of introverted and extroverted needs. An in-depth review of all work areas/ millwork will be assessed during the design development stage.

- Sanitary Facilities – Facilities are located on accessible routes and in close proximity to prominent areas. Universal washrooms allow the greatest flexibility, including larger floor space for people who require assistance and may be accompanied by a caregiver or companion, as well as to accommodate larger mobility aids such as power wheelchairs and scooters. The design ensures that we go well beyond ensuring barrier free features but also considers the protection of an individual's privacy, dignity, and security.
- Signage – Best practices will be taken into consideration to ensure the building is easily navigable by providing intuitive wayfinding and efficient signage design principles in addition to the layout being logical, clear and direct during design development.

GGA Architecture strives to support the City of Airdrie in their continued undertaking in providing equal experiences for all. An additional analysis will be completed at the design development stage to ensure that the City of Airdrie's accessibility strategies have been implemented.

Universal design will become more urgent with time. More than one in five Canadians identifies as having a disability. By encouraging the connectivity to people and programs that nurture mental well-being and build a healthy and vibrant community, the proposed design strives to support Airdrie Multi-Use Facility and Library in their continued undertaking in removing barriers and providing equal experiences for all members of the community.

09 consultant
LANDSCAPE SUMMARY

landscape schematic design

key design objectives

The landscape strategy for the Airdrie Multi-Use Facility and Library is to provide legible, structured, and safe access into the building from the street, adjacent parking, and the Nose Creek pathway while offering a range of flexible outdoor amenity spaces to complement activities within the building.

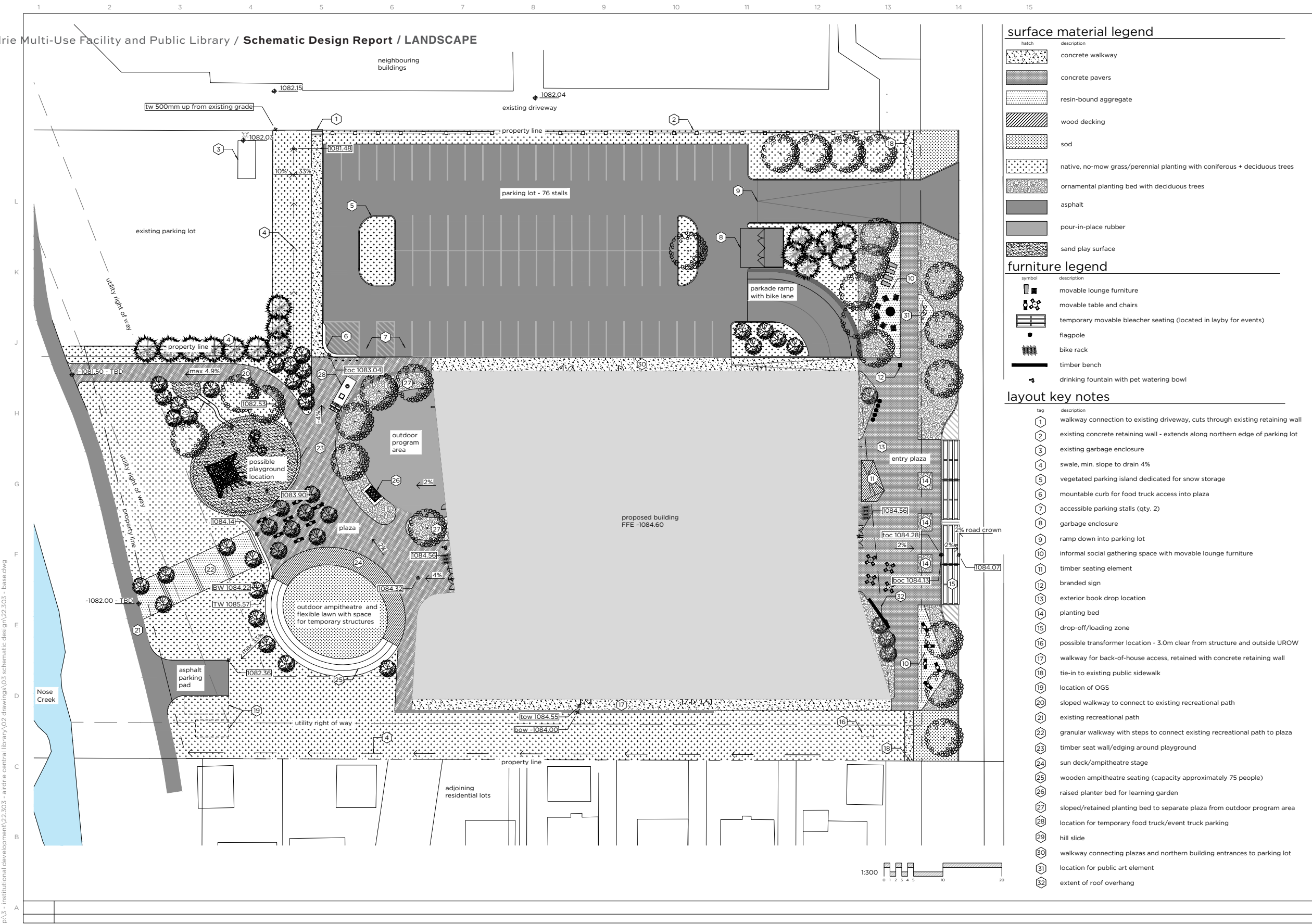
The landscape design acknowledges the importance of the adjacent Nose Creek ecology by incorporating native, site-appropriate plantings and design elements that celebrate local materials. Scenic views towards Nose Creek are protected, while unsightly areas are screened. The design create spaces that provide areas of refuge, rest, and social gathering all year long. Native trees provide shade from the most intense sun angles during summer months. Ample opportunities are provided for individual rest and recreation as well as larger social gatherings and events.

The landscape design aims to achieve the following objectives:

- inclusive, welcoming, and flexible outdoor spaces to accommodate multiple activities
- complementary landscape design to define architectural features
- amphitheatre for special events/rentals that can also accommodate temporary structures and indigenous cultural events
- flexible lawn area for large gatherings as well as more private seating spaces for reading/contemplation
- a placeholder playground with integrated hill slide
- a defined outdoor programming area with library learning planter box that can accommodate group programming
- outdoor cafe seating for spill-out activities from the interior cafe and seating for drop-off/pick-up area
- sympathetic interface to Nose Creek with an intentionally naturalized planting strategy
- flood resilient materials
- areas for public art and wayfinding signage
- accessible seating and circulation
- attractive lighting to enhance nighttime use and ensure user safety
- loading and back-of-house access

Through design development, our team will further refine the landscape design to respond to specific programming requirements, architectural developments, and engineering and budgetary constraints.





surface material legend

hatch	description
	concrete walkway
	concrete pavers
	resin-bound aggregate
	wood decking
	sod
	native, no-mow grass/perennial planting with coniferous + deciduous trees
	ornamental planting bed with deciduous trees
	asphalt
	pour-in-place rubber
	sand play surface

furniture legend

symbol	description
	movable lounge furniture
	movable table and chairs
	temporary movable bleacher seating (located in layby for events)
	flagpole
	bike rack
	timber bench
	drinking fountain with pet watering bowl

layout key notes

tag	description
1	walkway connection to existing driveway, cuts through existing retaining wall
2	existing concrete retaining wall - extends along northern edge of parking lot
3	existing garbage enclosure
4	swale, min. slope to drain 4%
5	vegetated parking island dedicated for snow storage
6	mountable curb for food truck access into plaza
7	accessible parking stalls (qty. 2)
8	garbage enclosure
9	ramp down into parking lot
10	informal social gathering space with movable lounge furniture
11	timber seating element
12	branded sign
13	exterior book drop location
14	planting bed
15	drop-off/loading zone
16	possible transformer location - 3.0m clear from structure and outside UROW
17	walkway for back-of-house access, retained with concrete retaining wall
18	tie-in to existing public sidewalk
19	location of OGS
20	sloped walkway to connect to existing recreational path
21	existing recreational path
22	granular walkway with steps to connect existing recreational path to plaza
23	timber seat wall/edging around playground
24	sun deck/amphitheatre stage
25	wooden amphitheatre seating (capacity approximately 75 people)
26	raised planter bed for learning garden
27	sloped/retained planting bed to separate plaza from outdoor program area
28	location for temporary food truck/event truck parking
29	hill slide
30	walkway connecting plazas and northern building entrances to parking lot
31	location for public art element
32	extent of roof overhang



issue	date	no.
SD Site Layout	23.02.23	01

revision	date	no.

project
AIRDIRE MULTI-USE FACILITY AND LIBRARY

drawn HH	checked JS	approved
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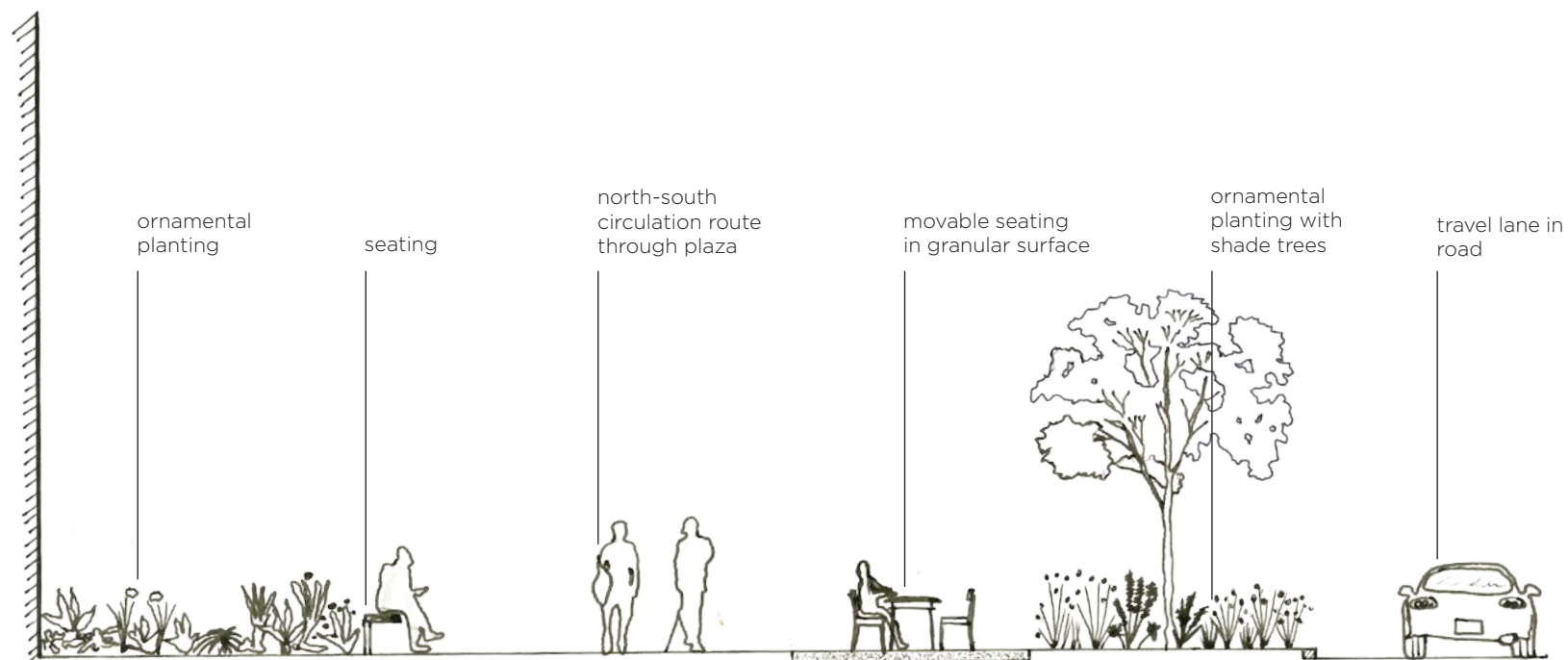
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drawing SITE LAYOUT

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forecourt plaza + amenity spaces

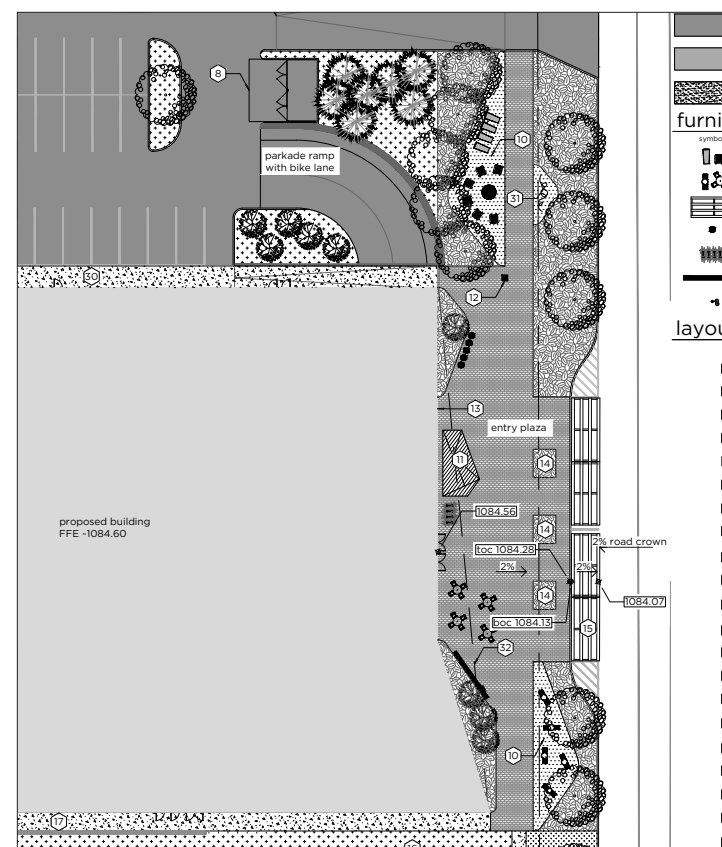
section through forecourt plaza



The forecourt plaza and outdoor amenity spaces feature curvilinear geometric forms that respond to the strong north-south circulation axis dictated by the existing roadway and sidewalk system. Several types of seating amenities are included to provide safe and comfortable waiting and socializing areas for individuals and groups. The planting palette features ornamental native perennials and grasses as well as street trees. The focal point of the design is the connection between the drop-off zone and the main entry into the building.

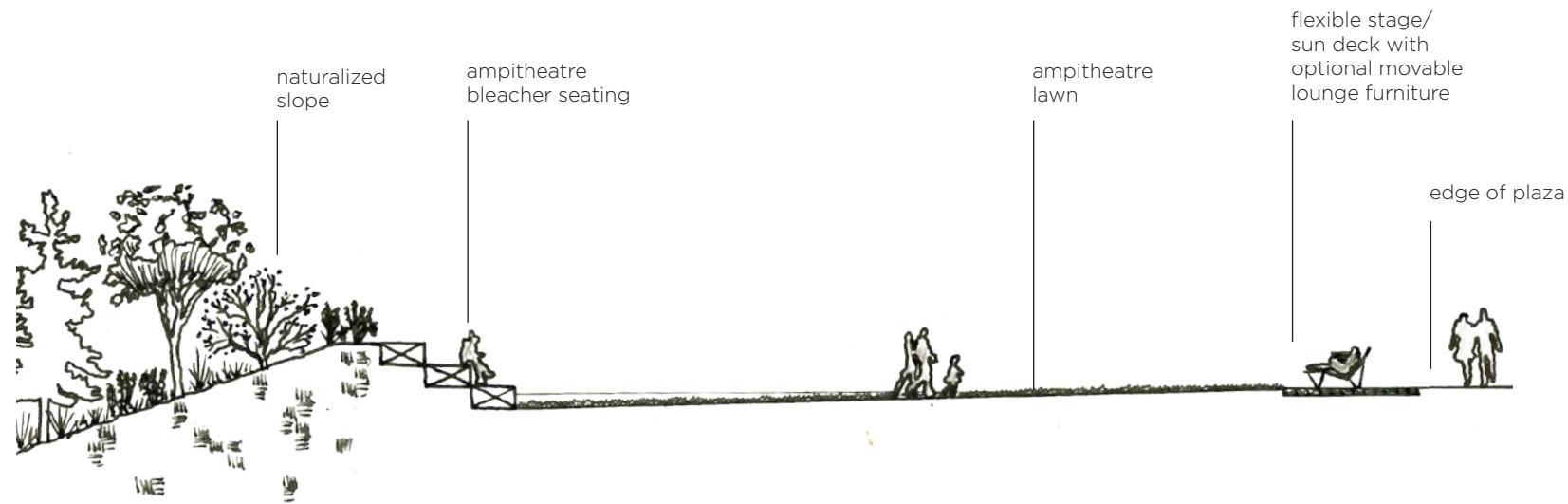
The primary amenity spaces include:

- different seating amenities with lounge, cafe style, sculptural timber play element/seating, and a fixed timber bench
- a dedicated space for a public art installation
- sheltered bicycle parking
- spill-over cafe seating and viewing space for public events on Main St S (temporary bleachers accommodated in layby)
- dedicated locations for branded wayfinding signage and flagpoles
- street trees and “bee boulevard” style planting
- strong connections to existing sidewalks north and south of the property



western amenity spaces

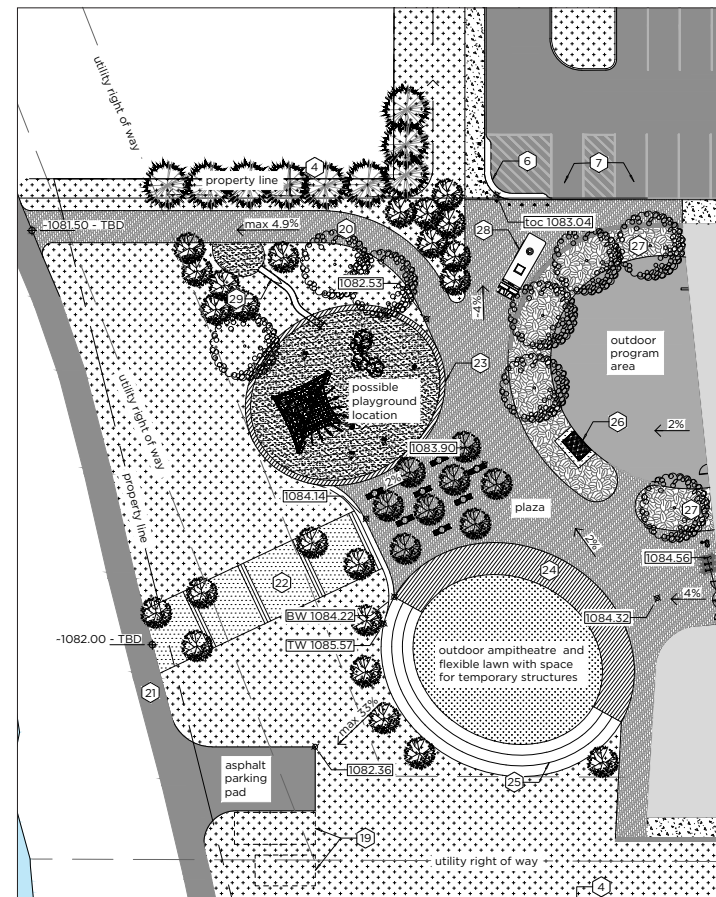
section through amphitheatre



The western outdoor amenity spaces feature rounded geometric forms and a naturalized planting palette to provide a sense of transition to the Nose Creek riparian ecology. Views to Nose Creek are maintained while still introducing shade trees to provide relief in summer months and enhance vertical scale and enclosure. The intent of each major zone is to ensure flexibility in use, including hosting different activities and user groups simultaneously.

The primary amenity spaces include:

- a placeholder playground space with wrap-around timber seating/edging and a hill slide
- an outdoor amphitheatre (seated capacity 75) to support spill-over activities from the interior theatre as well as events
- flexible lawn space as part of the amphitheatre to accommodate indigenous cultural events, City and Library events, group activities, and passive recreation
- a dedicated outdoor program area separated from general plaza space featuring a planter box for library learning activities
- cafe-style seating beneath shade trees
- stairs and an accessible sloped walkway connecting the Nose Creek pathway to the plaza
- bicycle parking and a drinking fountain with dog watering bowl
- a rolled curb and retractable bollards to accommodate food truck/event truck access from the parking lot



views, wayfinding + public art

The design prioritizes desirable views to Nose Creek and shields undesirable views to adjacent properties. Space is included along the eastern side of the property for branded signage and public art.



inclusive social gathering

Flexible social gathering spaces are provided throughout to ensure users' have ample opportunity to spend time in community with one another. Accessibility is a driving force behind the design of the circulation routes and amenity spaces.



ecological sensitivity + sustainability

The ecology of Nose Creek is respected and celebrated through the incorporation of naturalized planting to soften the nature-urban edge on the western side of the site. Sustainable materials (including native plants and local materials) are proposed.



response to context

The design aims to respect natural context - including planting for all seasons and winter activation of outdoor space - as well as neighbouring urban context. Functionality year-round is a key design goal.



planting strategy

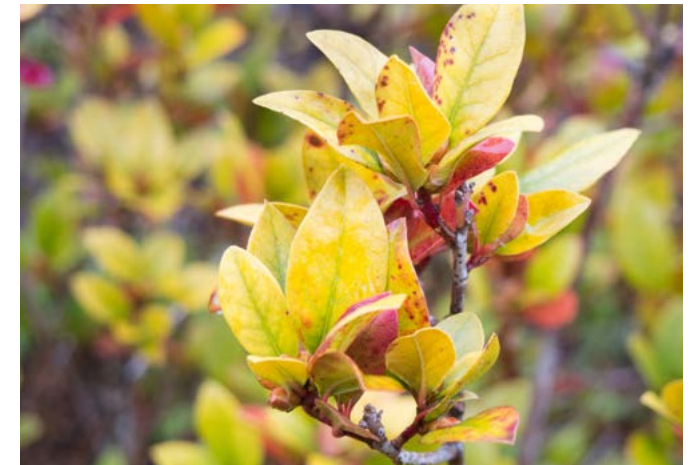
creating resilient plant communities

The planting strategy developed during schematic design focuses on introducing resilient plant communities comprised of native and naturalized plants. Given the extremes of Airdrie's seasonality, it is essential that any introduced plants be hardy and have low-water requirements. There are three distinct plant communities proposed on-site, including:

- native, no-mow seed mix to be established along the western and southern boundaries of the site (non-irrigated, low-maintenance)
- lawn to accommodate social gathering and events (irrigated, maintained)
- planting beds consisting primarily of native and naturalized perennials and grasses to provide visual interest, microclimatic relief, urban wildlife habitat, and serve as boundaries between different use areas (irrigated, maintained)

These three categories are intentionally arranged to create a transition between the riparian ecology of Nose Creek and the urban interface of Main Street. The native grass seed mix will establish along the western portion of the site in closest proximity to the existing vegetative community along the banks of the Creek. Users entering the site from the existing asphalt pathway will move through this proposed grass community before entering the plaza space. The western plaza introduces planting beds along the building face, which serves as a transition to the less naturalized, built environment of the facility and surrounding plaza. The eastern plaza and streetscape fronting Main Street is defined by more formal planting beds and street trees in a linear alignment. Planting beds provide the greatest diversity of plants on-site and are important sources of food and habitat for pollinators and small wildlife. They additionally serve as a prime opportunity for educational opportunities and incorporation of sensory experiential moments. Planting beds along Main St serve as an important safety buffer between vehicular and pedestrian traffic.

Trees are proposed throughout the site wherever appropriate to introduce a sense of enclosure and vertical scale within the exterior built environment in addition to providing shade. A mix of deciduous and coniferous trees will ensure harmony between summer shade and winter interest. Tree locations are also chosen strategically to screen undesirable views and enhance geometries within the ground plane.



by document page number, left-to-right in descending order

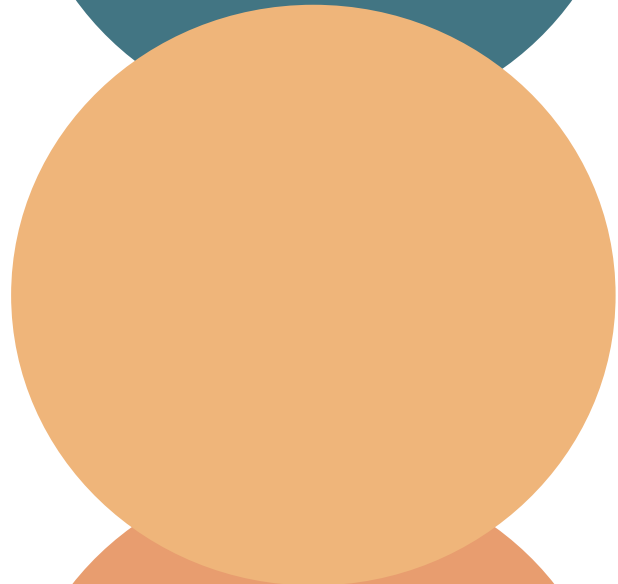
Page 63:
Thompson Family Park, ground cubed
Ralph Klein Park Natural Playground, ground cubed
flowers, public domain
trees in plaza, public domain
Thompson Family Park, Beltline Association
winter planting, public domain
teepee, public domain
plaza with lawn, public domain
Nose Creek, ground cubed
Thompson Family Park hardscape/softscape interface, ground cubed

Page 65:
timber seating structure, Adobe Stock
boulevard planting, Adobe Stock
seating in granular, ground cubed
BP Place Plaza, ground cubed

Page 66:
Thompson Family Park, ground cubed
Lois Szabo Commons, ground cubed
amptitheatre, Adobe Stock
Lois Szabo Commons, ground cubed

Page 67:
Public art, Adobe Stock Images
Nose Creek, ground cubed
Bryant Park, Adobe Stock
Riverfront Park, ground cubed

Page 68:
deciduous tree, ground cubed
prairie meadow, public domain
yellow flowers, public domain
coniferous branches with snow, public domain
shrub in autumn, public domain
lawn, public domain
purple coneflowers, public domain



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