EDUCATIONAL SPECIFICATIONS

New George Street Middle School (6-8)

March 2025

Anglophone West School District

Department of Education and Early Childhood Development

Educational Facilities and Pupil Transportation

Final Version March 19, 2025

Table of Contents

INTRODUCTION

01.1 PROJECT SPECIFIC DIRECTIVES

Anglophone West School District requested of the Minister of Education and Early Childhood Development in their 2024-25 Capital Budget submittal that a new 6-8 Middle School replace the existing George Street Middle School, located in Fredericton, New Brunswick. The land purchase was approved as part of Government's 2024-25 Capital Budget, with the designed proposed to commence in the 2025-26 budget year.

The completed school will provide the students with ideal learning environment, where the existing school is insufficiently sized, learning conditions are suboptimal and support spaces such as cafeterias, gymnasia and library are all undersized for the forecasted population.

The target date for completion for occupancy of the school is June 2028 with a preference of an earlier completion / occupancy date, being mindful that the school community commences in September. The target design enrolment is 810 grade 6-8 students with 32 groupings.

The new school will be designed based on these Educational Specifications authored by the New George Street Middle School Planning Committee and designed/constructed according to the Department of Transportation and Infrastructure (DTI) standard document "Design Guidelines for Educational Facilities" latest edition.

Vision

Where deemed appropriate by EECD, DTI and ASD-W, new school design concepts will be sought for spatial arrangements and finish materials. Unless otherwise advised during planning, EECD's and DTI's standard guidelines shall apply.

The new school shall be thoughtfully designed with architecture, that seamlessly guides the school community from space to space, creating a dynamic and interconnected environment. Each area is strategically laid out to encourage movement and interaction with wide open corridors that flow naturally from classrooms to communal/common areas. The architectural design features distinct, yet cohesive, spaces for learning ensuring smooth transitions between various environments with thoughtful design elements, such as visual cues to transition to different floor levels that helps students and staff navigate easily throughout the school, while fostering a sense of unity and continuity.

Conceptual solutions are expected to include flexible spaces that can easily adapt to evolving learning needs, ensuring students' success in a dynamic educational environment for individual studies, small group work areas, or large collaborative project areas, while bringing the vision in the Educational Specification to life.

Each section of the school will serve a specific purpose and not feel segregated or separate from the remainder of the building, where occupants should feel comfortable as they flow from one area of the school to the next.

The main entry of the building will be open, spacious, with carefully selected "earth products or materials" to bring some of natures elements in the design, which is inviting,

while leading into an open space such as the student library, commons, dining and assembly area, while maintaining compliance with the security guidelines in all aspects of the design.

Simple design choices such as colour selection, patterns, and corridor/ceiling configurations could be used to receive students from one area of the school into the next.

Dispersed technology will allow instructors and students to take advantage of learning opportunities throughout the school therefore infrastructure must be built to expect and embrace innovation. The design will focus on creating diverse and distinctive spaces within the school, while being efficient with patterns and repetition.

Exposed colourful aggregate polished concrete flooring will be considered as the standard flooring for the building. Moveable walls and sliding/folding whiteboards will optimise classrooms and other areas for connectivity and collaboration of common spaces through the school.

Design Notes:

- Natural (Earthy) materials and textures with increase student's sensory experiences; and reflects the natural environment and our Indigenous history with maximum natural lighting.
- Exposed colourful exposed aggregate polished concrete flooring throughout, consideration can be made for different aggregate colour, staining or aggregate size for those areas where visual contrast is required.
- Project work areas are to be dispersed along corridors to support larger groups of students learning activities and common areas.
- The use of moveable walls between some classrooms with whiteboard material as surface choice to combine 2 adjoining grade level classrooms into one larger teaching environments is inviting.
- Multi-Function Room located off the ground floor common area with movable partitions to provide the option of 2 separate rooms for various use.
- First Nations Learning Centre designed for smudging & drumming will need ventilation and acoustic treatment on the second-floor common area.
- Breakfast Club Room off the main cafeteria to secure food storage, walk-in fridge & freezer with a counter to prepare food with outlets above counter for microwaves and toasters. Pass through to serve students in the Dining Area.
- Gymnasiums to be adjacent to each other with a mechanical folding partition between to create one large open space if feasible.
- Stage area is combined with the Performing Arts adjacent to the cafeteria area and the large gymnasium with split folding partitions to create wing walls for stage productions, facing the gymnasium bleachers.
- Quiet Room & Calming space, Guidance, Support Offices, Resource Work Area are to be located on the second floor to support the students.

- One resource room shall be adjacent to the guidance office groupings to support the student discussions with access from the guidance area and the corridor.
- Library & Seminar Activity Room to be adjacent with each other with a (whiteboard & glazing) moveable partition between the spaces.
- Create 2 areas within the school, spaced accordingly within the multi-storey levels, as combined "Staff Lounge/Work Areas" with staff washrooms to support the teachers within the school.
- Recycling Room located adjacent to the dining area near an exterior door for bin access and an exterior water source for washing out bins.
- Washrooms on each floor to accommodate the students throughout the facility and in the cafeteria gymnasium area to support community use access.
- Break Out Rooms with accessed from the corridors with glazing to the adjoining classrooms and corridor for supervision.
- Two private accessible washrooms located adjacent to the common washroom areas through-out the floor levels to support the school community.
- Develop a secure supervised exterior area for student bicycle storage accommodations, with racks, possibly an alcove within the building's first floor level with a decorative fence and security gate for access.
- Building shall be designed with no punched in entry/exit points or concealed areas and should have a fluid elevation to "shelter proof" the school, due to the location.
- Third flagpole for the First Nations Community flags.

Vision Statements

- The new school is designed to infuse vigor and life into the learning environment, with an open welcoming entrance area.
- Carpet tile for the library is encourage by many and the introduction of vinyl plank flooring (old wood finish) is appealing for the Project Work Areas to delineate the work area from the corridor.
- The use of "earth" products in the main entrance/lobby, some common areas, library, and the First Nations Learning Centre is encouraged to connect these areas with natures elements and to reflect cultural and geographical contexts by incorporating natural building and locally designed elements.

01.2 INTENDED USE AND EXCEPTIONS

a) Educational Specifications: The *Planning Guidelines for Educational Facilities* is a valuable resource tool used to establish the Educational Specifications as described in Section 01.4. The document is a reference to be used by the Planning Committee, as defined in Section 02.2, for planning a new facility or a major capital improvement of an existing facility.

b) Schematic Design: The *Planning Guidelines for Educational Facilities* should be referenced by the architectural firm to aid in the schematic design phase of the project.

c) Types of Facilities: The types of facilities referred to in this document are limited to elementary, middle and high schools and combinations thereof.

d) Not for Detailed Design: The *Planning Guidelines for Educational Facilities* does not deal with the technical provisional needs for educational facilities. The document *Design Guidelines for Educational Facilities*, as outlined below in Section-01.4.b, governs more detailed and definitive requirements for performance, quality and function to aid the professional design consultants when developing detailed plans and specifications for construction tender documents that describe any given project. The two documents will work in conjunction with one another.

e) Exceptional Circumstances: To adapt to the distinctive needs of a particular school, it is recognized that these guidelines exist to create a thorough and fair standard across the province; however, sometimes differences necessitate deviations from the guidelines. The final decision will require approval by the EECD.

f) Exceptions for Existing Facilities: When renovating existing facilities, the guidelines will apply to the extent reasonably achievable for the allotted improvement. It is understood that in many cases when partial renovations are required, it will not be practical to amend the existing facility to comply with the current guidelines. The final decision will require approval by the EECD.

g) Community Partner Facilities: Although the government encourages appropriate community partnering, as per Policy 407, and this may involve integrating other community facilities within a design, this document does not outline any specific standards related to twinning with other facilities; however, it does outline expected relationships related to safety and security between the school and potential community facilities.

01.3 OTHER DOCUMENTS

a) Educational Specifications: This document is prepared by the EECD in consultation with the Planning Committee. It is unique to each school project and outlines the size and use of that particular facility. It is the Educational Program that is created in direct response to this Planning Guideline Document and in response to particular requirements of a school and its location. This document supersedes all other planning documents but does not supplant mandatory codes, bylaws or other regulations. *See Section 02.1. Step 5* for further details pertaining to the Educational Specifications.

b) ***Design Guidelines for Educational Facilities*:** This document is administered by the Department of Transportation and Infrastructure. Its purpose is to provide the consultants who are commissioned to design educational facilities with definitive, detailed requirements for building performance, quality and function. The Design Guidelines have been developed jointly by the EECD and the Department of Transportation and Infrastructure. The intent is to standardize system elements based on proven success, so that the final product is cost-effective, energy efficient, functional and maintainable. The Educational Specifications supersede the *Design Guidelines* document.

c) Project Brief: This document is prepared by the Department of Transportation and Infrastructure and identifies the project scope, construction budget, schedule, and fiscal year cash flows.

d) Schematic Designs: These drawings are produced by the architectural firm commissioned for the project and are in response to the Educational Specifications and site-related constraints. They are scaled drawings indicating all spaces, their area, shape and relationship to one another, circulation spaces, walls and doors. The schematic designs also include a site plan indicating the position of the building, roads, walkway, pedestrian and cyclist traffic, bus loading, parent drop-off zone, parking, service and fire routes, playground areas, playing fields and any other significant site influences. They are presented to the Planning Committee for review, revisions and final approval prior to the preparation of tender documents.

e) Tender Documents: Tender documents are plans, specifications and other written legal documents prepared by the architectural firm and other professional sub-consultants necessary for contracting and constructing the facility. The Department of Transportation and Infrastructure oversees the architectural firm and consulting professionals in producing these documents. They are also reviewed at periodic stages by the EECD. The *Design Guidelines for Educational Facilities*, as well as the approved schematic plans, form the basis for the development of tender documents.

f) Other Mandatory Regulations: These Guidelines do not supplant other mandatory codes or regulations.

01.4 DOCUMENT UPDATES

The *Educational Facilities Planning Guidelines* will be formally updated periodically, as required. The Educational Facilities and Pupil Transportation Branch of the EECD is responsible for preparing any required revisions in response to changes in the delivery of education, curriculum or technology for the Minister's approval.

PART A

GENERAL DIRECTIVES

New George Street Middle School (6-8)

Anglophone West School District

Department of Education and Early Childhood Development

Educational Facilities and Pupil Transportation

PLANNING PROCESS

02.1 SUMMARY

The planning process involves a close liaison between the school district and the Educational Facilities and Pupil Transportation Branch of the EECD. In general, the school district is responsible for understanding and communicating the specific needs of the proposed infrastructure, and the EECD uses its experience and expertise to orchestrate the planning process and administers established standards as described in this document. Together, both parties are responsible for helping to develop the schematic design with the architectural firm commissioned for the project.

The production of tender documents, which constitute the construction contract and deal with more technical aspects of the school's design, will be managed and administered by the Department of Transportation and Infrastructure Buildings Division in consultation with the EECD. The Department of Transportation and Infrastructure applies its construction experience and expertise and administers the established standards as outlined by the *Design Guidelines for Educational Facilities*.

02.2 STEPS AND RESPONSIBILITIES (*See Summary Table 2-1 on page 2-7*)

The roles and responsibilities of the school district and the EECD are best explained in the context of the overall process for project planning and execution. The following steps are in a recommended sequence. However, it is conceivable that the process could be altered for health or safety emergencies or any other reasons the Minister deems important.

STEP 1-A - The Capital Project Priority List:

As per the *New Brunswick Education Act*, and EECD Policy 409, it is District Education Councils who have the authority and responsibility of preparing a district multi-year school infrastructure proposal, for submission to the Minister. The proposal must be updated annually. The submission will identify priorities respecting capital construction projects within the school district, and the District Education Council through the Superintendent will evaluate the health, safety and general fitness of existing school facilities to deliver the provincial curriculum and to provide support services. As well, the Superintendent is responsible for determining the placement of students within the district's facilities. In order to compile this list, at times a complete space utilization study across the district may be necessary. The district is to keep the EECD informed of current priorities and proposed projects. The Educational Facilities and Pupil Transportation Branch will make itself available to assist and share knowledge and expertise if requested by the school district.

STEP 1-B - Establishing Community Partner Relationships:

The school district is responsible to stay abreast of any potential community partnering that might be capable of enhancing a capital school project, as referenced in Policy 407. This step is performed on an ongoing basis and in concert with Step 1-A. Partnership opportunities that create potential mutually beneficial liaisons should be actively sought. It is expected that when a capital project is announced much of the legwork is in place for partnerships to form. The collecting of knowledge and building of relationships through an ongoing process of consultations with the community at large, local municipal government, local service district, other government departments or appropriate non-profit organizations is also expected. Likely candidates may be libraries, daycares, recreation or theatrical facilities, municipal parks and playing fields, community policing offices, etc. All community partnering shall be in compliance with EECD's Policy 407. *See part 02.3 of this section*.

STEP 2 - Additions to Capital Construction Program:

Once each year at the request of the department, district educational councils (DEC) submit their prioritized major and capital improvement project lists to the Minister for consideration. All present and proposed capital projects are reviewed to determine which will be incorporated into the capital construction program for the EECD.

The methodology used to prioritize the major projects submitted is the quadruple bottom line multi-criteria analysis (QBL). QBL is a methodology for assessing the impact of a project against key objectives. The EECD provincial QBL includes the following four quadrants:

• Economic	• Social
• Environment	• Cultural

The selections are recommended to Cabinet Committee by the Minister of Education and Early Childhood Development, acting on the advice of senior staff. A project's acceptance, at any stage, is contingent on the urgency of need relative to the provincial context, and on short and medium-term projections of available capital funds. Results of the selection process are announced by the Minister of Education and Early Childhood Development in the Legislative Assembly, normally at the time of the speech on estimates.

STEP 3 - Formation of the Planning Committee:

The Superintendent is requested by the Educational Facilities and Pupil Transportation Branch to identify individuals to sit on a planning committee. It is suggested that the committee be a seven-member body composed of a representative of the District Education Council, the school district, the community, and the EECD and other stakeholders as necessary. The EECD is responsible for guiding and directing the planning process. The Planning Committee has the mandate to assist the Educational Facilities and Pupil Transportation Branch of the EECD in determining the educational specifications requirements. The Planning Committee also reviews the schematic design and must accept them before the project proceeds to design development.

STEP 4 - Development of the Educational Specifications:

The Planning Committee determines the scope of the project by performing a demographic analysis of the current and projected student population. The space requirements will be identified based on a 10-year future projection from the construction start. This projection will permit the district to deliver the prescribed educational curriculum and support services over time. The facility's floor areas will be determined by the standards defined within this document.

The educational specifications will include the following:

1. project identification
2. school enrolment history
3. demographic analysis of projected 10-year enrolment
4. an inventory of site specific requirements
5. list of all spaces and defined floor areas
6. a general description of building and site design considerations
7. list of desired spatial relationships
8. list of building design principles regarding the overall nature and quality of the desired learning environment

During the process, the EECD and school district will require meetings and consultations with the school administration and the facility users, personnel, community groups, and/or other related stakeholders.

These specifications will form the basic requirements on which the building design will be based. This phase involves ongoing consultation with the Educational Facilities and Pupil Transportation Branch and the school district. The Educational Facilities and Pupil Transportation Branch is responsible for coordinating the development of the educational specifications and producing the document in a form suitable for review by the school district.

It is important to note that ideally, if a community facility is to be planned for within the project, all legal agreements must be resolved and completed at this stage. ***See Sections 02.3 and 03.1 for further detail.***

STEP 5 - Approval of the Educational Specifications:

The educational specifications are presented to the District Education Council by the Superintendent or Superintendent designate. The District Education Council acknowledges to the Minister its support of the document developed by the Planning Committee. The Minister makes the final decision and informs the District Education Council.

STEP 6 - Site Selection and/or Acquisition:

The Department of Transportation and Infrastructure in cooperation with the EECD evaluates all potential sites available within the locality in which a new project is proposed. The findings are submitted to the Minister of Education and Early Childhood Development, accompanied by comments and recommendations.

Based on the recommendations, the Minister will select the most desirable site in accordance with considerations outlined in Sections 03 and 04 of this document. The Department of Transportation and Infrastructure will have appraisals, geotechnical investigations, surveys and other work completed prior to approval by the Minister.

The Department of Transportation and Infrastructure will negotiate the acquisition of the desired land once a selection has been made. All legal services for title searches, preparation of deeds, etc., will be obtained by that Department.

In instances where a school district is planning to modify existing facilities, the need for additional land is often present. The purchase of additional land adjacent to existing school properties must follow the same procedure as new sites for evaluation, approval, purchase and development.

STEP 7 - Preparation of the Schematic Design:

The architectural phase of the project is announced by the Minister. The Department of Transportation and Infrastructure appoints an architectural firm to the project. Under the instruction of the Educational Facilities and Pupil Transportation Branch, and in consultation with the Department of Transportation and Infrastructure, the architectural firm develops the schematic design and the general drawing arrangements of the facility based on the educational specifications. The schematic design and the general drawing arrangements are presented to the Planning Committee by the Educational Facilities and Pupil Transportation Branch.

Upon approval, the mandate of the Planning Committee is now complete.

STEP 8 - Design Development:

The architectural design is then developed by the architectural firm with the assistance of the sub-consulting engineers to produce a design development drawing set. This is under the supervision of the project manager at the Department of Transportation and Infrastructure, in consultation with the Educational Facilities and Pupil Transportation Branch. The school district is informed and consulted during the process.

STEP 9 - Preparation of Tender Documents:

The design is further developed by the assigned architectural firm and sub-consulting professionals under the supervision of the project manager at the Department of Transportation and Infrastructure to create tender plans and specifications which will later form the basis for the construction contract. The EECD's Educational Facilities and Pupil Transportation Branch reviews the development of the tender drawings at different steps of completion. The drawings are submitted to the school district at each stage of development. Ongoing consultation with the Educational Facilities and Pupil Transportation Branch is expected throughout this step.

STEP 10 - Construction Tender and Awarding of the Contract:

The Department of Transportation and Infrastructure is responsible for administering tenders and awarding the contract in accordance with the *Crown Construction Contracts Act*.

STEP 11 - Construction and Occupancy:

Inspection during construction is the responsibility of the Department of Transportation and Infrastructure, working in cooperation with architectural firms, engineering consultants, school district representatives and the EECD.

Once the new facility has been declared substantially completed by the architectural firm, the Department of Transportation and Infrastructure transfers the responsibility for the school to the school district.

STEP 12 - Post-Construction Review:

The Department of Transportation and Infrastructure and the EECD will review the successes and failures of the school's performance after two school years of operation following construction. A site visit will be performed which will gather feedback from seeing the school and consulting with the users and administrators in order to gain insight to assist in designing future projects. It will also be used as a research tool when updating the Guidelines. The EECD will be responsible for keeping records of the review.

02.3 COMMUNITY PARTNERING AND THE PLANNING PROCESS

The EECD supports the planning and design of joint school and community projects. When the community or another government body wishes to build a public facility and integrate it within or on the same property as a school facility, and when it is deemed appropriate and mutually beneficial to the school and the education of students by the Minister, the EECD's Policy 407 applies.

As mentioned in *Section 02.2 Step 1B*, it is suggested that the school district keep abreast of any potential capital community project planned that might be mutually beneficial.

In the planning and design process of a joint school-community project, it is recommended that a separate committee be formed consisting of members of the school district and the municipality or other community or government players involved. This joint planning committee reports to the District Education Council for approval of the project. The project is then subject to approval by the Minister of Education and Early Childhood Development.

Capital and operation cost agreements must be agreed upon prior to the undertaking of architectural plans. The development of the design will be supported by the EECD. The committee must clearly define the relationship between the educational facility and the community facility to ensure compatibility, particularly as they relate on the level of safety and security of the student.

Refer to the EECD's *Policy 407* attached in Appendix A which stipulates the responsibilities of different parties as well as the procedures to follow when planning for the community use of school facilities.

Table 2-1 - PLANNING STEPS AND RESPONSIBILITIES

STEPS	Deliverables	Involvement and Responsibilities
1a	Capital Project Priority List (ongoing)	School District (SD) produces and maintains list. Department of Education and Early Childhood Development (EECD) assists if requested.
1b	Community Partner Relationships (ongoing)	SD /Community School Liaison Officer to keep abreast of potential partnerships.
2	Addition to Capital Construction Program	Once a year District Education Council (DEC) presents priority list. Minister selects and recommends to Cabinet. Minister announces project in Legislature.
3	Formation of Planning Committee	Superintendent selects representatives from SD and DEC. EECD chairs committee.

STEPS	Deliverables	Involvement and Responsibilities
4	Educational Specifications	Planning Committee steers process and signs off on the Educational Specifications. EECD produces document.
5	Approval of Educational Specifications	DEC recognizes support of document. Minister's approval.
6	Site Selection	Selection and/or acquisition of land.
7	Schematic Design Drawings	Department of Transportation and Infrastructure (DTI) appoints architectural firm. Architectural firm produces schematic drawings in consultation with EECD and the planning committee.
8	Design Development Drawings	Architectural firm produces preliminary drawings under supervision of DTI and in consultation with EECD and SD.
9	Tender Drawings and Building Contract Documents	Architectural firm produces the tender package under supervision of DTI and in consultation with EECD and SD.
10	Tender and Awarding of Contract	DTI is responsible in accordance with the *Crown Construction Contracts Act*.
11	Building Construction	DTI assumes the owner's responsibilities in the construction process. The architectural firm and engineering consultant provide periodic reviews and administer contract.
12	Two Year – Post Construction Review Report	DTI and EECD will review the successes and failures of the school's performance after two school years.

SITE SELECTION

03.1 ANTICIPATING POPULATION CHANGE

Ideally, land should be acquired before the need becomes critical and when sufficient and reasonably priced acreage is still available. Site acquisition should anticipate rather than follow population increases. This can be achieved through long-range planning subsequent to the development of educational specifications for each project. Careful analysis of demographic data and the reference of reliable and expert resources on population projections should be fully utilized. (***See Section 02.2 Step 6 in regard to the process of site acquisition***).

03.2 SURROUNDING CONTEXT

The following is a list of considerations when selecting a site relative to its surrounding context:

a) Community Amenities:

When selecting a site, its context as it relates to the community should be considered. What mutually beneficial relationships might result from the location? It should be understood that existing or proposed public resources within the community may offer reciprocal shared uses with the school that can create richer community links for positive learning.

b) Community School Use:

Proposed or possible utilization of the school site or facility for community programs should be considered.

c) The Catchment Area:

It is desirable for a school to be located as close as possible to or preferably within the community in which the majority of the student population lives.

d) Accessibility of Site:

Any natural or man-made features that limit accessibility to a site or the expansion of a site are best avoided.

e) Planning Bylaws:

Local planning regulations should be reviewed and found compatible. Consultations with any relevant local planning authorities and/or other appropriate agencies are advised to develop a cooperative and compatible approach and to fully understand the site's limitations or assets.

f) Available Utilities:

A site should be selected with utilities that can be provided at a reasonable cost. Local government water and sewer extension policies and codes should be reviewed. Where municipal systems are not available, the installation of water supply and sewage disposal systems will require investigation. Utility companies should be consulted for assurance that the required services such as electricity, gas, oil, roads, telephone, etc., can be installed without excessive construction costs of mains and distribution lines. Lack of these facilities or excessive costs to obtain them may be a deciding factor in the selection of a site.

03.3 TRANSPORTATION

Accessibility to public transportation and ease and safety of pedestrian and vehicular travel is paramount when choosing a site. Safe bicycle routes are an asset.

Transportation strategies must be considered. In walking areas, schools should be located near the centre of population. Where students are transported, the site should be conveniently accessible and bus travel time must be carefully analyzed.

03.4 MITIGATING SAFETY RISKS

The following are some safety risks to be avoided when selecting a site:

a) Heavy Vehicular Traffic:

Arterial highways, heavily travelled streets, or congested intersections.

b) Undesirable Neighbors:

Airports, taverns, bulk storage plants for inflammable materials or property zoned as industrial.

c) Undesirable Environmental Conditions:

i. Potential soil-borne contaminants such as industrial wastes or previously imported fill. The history of the use of the site should be researched.
ii. Potential air-borne contaminants such as those generated from railroads, airports, and industrial developments.
iii. Potentially dangerous natural site conditions such as bodies of water, flood plains, cliffs or other dramatic natural changes in topography.
iv. Excessive noise or other disruptive effects should be avoided

03.5 NATURAL SITE CONDITIONS

a) Flat Site:

A school facility's footprint requires a fairly level topography in order to maintain a single main floor level with easily accessible entrances and service accesses. A relatively flat site is ideal.

b) Soil Conditions:

Before the site is purchased, a geotechnical engineer shall be engaged, and soil investigations should accurately determine soil condition.

Adverse conditions can usually be overcome by construction techniques, but they should be accepted only when the costs of such improvements are justifiable. The following factors should be considered in regards to drainage and soil conditions.

i. Manageable water table.
ii. Good soil drainage.
iii. Presence of unsatisfactory fill, or other undesirable sub-soil conditions requiring special footings or pilings to support the building should be avoided.
iv. The need for extensive hauling of earth should be avoided.
v. The presence of rock or other conditions will affect the cost of necessary excavations.
vi. The need for removal of large boulders, clay and the need for filling or capping old wells or pits will affect cost.

03.6 SITE SIZE

Based on the experience of the EECD in planning construction over recent years, as a rule of thumb where land is available and costs reasonable, school sites with the following usable acreages will be considered:

Elementary:	18 acres + 1 acre/100 students
Middle:	18 acres + 1 acre/100 students
High:	19 acres + 1 acre/100 students

These acreage requirements should be calculated based on future expanded enrolments. The site size is based on single story construction requirements. The site acreage may have to be increased if the following needs exist:

i. Sewerage treatment plants and retention ponds are required.
ii. If additional playing fields are required.
iii. Community partner facilities are planned.

In urban areas site size may be reduced when land availability is limited and/or existing community field or other facilities are used offsite.

SITE DEVELOPMENT

04.1 PURPOSE

This section addresses site development on a broad schematic level. When developing the site schematic, the designer shall also refer to *DTI Design Guidelines for Educational Facilities* for sustainable site principles.

04.2 SITE DESIGN

a) The Street and Site Services:

The building shall be located as close and as conveniently as possible to the street and service connections while balancing the location of site components and other concerns outlined.

b) Entrances:

The building's main entrance shall be readily visible, inviting and in a practical location relative to the street, bus drop-off, parking area and parental drop-off. The entrance should be in clear view of the main access drive when entering the school grounds.

c) Building Orientation:

If possible, the building's orientation should provide for classroom wings or clusters that allow windows in a north or south facing direction. See *DTI's Design Guidelines for Educational Facilities* for good quality daylight. If possible, the orientation should capitalize on views and natural assets of the surroundings.

d) Sloped Areas:

i. A maximum slope of 30% is allowed for grassed slopes.
ii. Hard surfaces are to be set back 3 m from the foot of a slope.
iii. The need for steps and ramps should be avoided if possible.

e) Existing Natural Conditions:

The design will work to optimize inherent natural site conditions.

i. Design should consider the best location that, where possible, preserves the natural features of the site. Site disturbances shall be kept to a minimum, preserving existing trees, ground covers, grades and landforms when possible. Any existing deciduous trees to the south of the structure should be carefully considered for preservation.

ii. Earthworks should optimize the balance between cut and fill.

iii. The main finished floor elevation level chosen for the building should allow for all entrances to be barrier-free, and ideally stairs and ramps will not be required.

iv. A minimum slope of 2% falling away from the perimeter of the building should be maintained for 3 m around the structure.

f) Future Building Additions:

The building should be located in such a way as to maximize space for planned future expansions. The schematic plans should accurately show the potential expansion by means of scale drawings indicating all spaces and how they are connected and integrated into the proposed school. Circulation and proper exiting should be demonstrated. The designer should allow for appropriate amenities within the expansion and meet all building code regulations to allow for a minimum of remedial work on the pre-existing building.

g) Safety and Security:

The designer should exercise due diligence in identifying and mitigating any potential safety and security risks relative to the site.

i. Playing fields located near traffic shall be fenced. See below.

ii. Children shall be protected from natural landscape hazards.

iii. Alcoves, cul-de-sacs, hidden areas and other places where supervision is not achievable must not be allowed or developed.

iv. Playground areas shall be located away from any vehicular traffic and protected from the public.

v. Entrances and other safety considerations are to be reviewed with local emergency responders.

04.3 RE-LOCATABLE CLASSROOM WINGS

In areas where population is deemed to be in decline, re-locatable classroom wings, complete with a re-locatable corridor, will be provided as new construction to the extent deemed appropriate based on an analysis of demographic expectations. These wings will be relocated in the future as required. The re-locatable classrooms will meet all standards required of permanent construction except that the break-out rooms may be provided in an arrangement that is not necessarily located between classrooms. The construction will be of a quality equal to permanent construction and fully integrated into the plan. Attempts should be made to fit in with the aesthetics of the permanent structure. The wing may want to be located to be less prominent from view. Refer to *DTI's Design Guidelines for Educational Facilities* for High Performance Building (HPB) rating requirements.

04.4 SITE COMPONENTS

a) Roadways:

Roadways should be efficiently laid out with special consideration given to both safety and snow removal. Drives should be a minimum of 6 metres wide for one-way traffic and a minimum of 9 metres wide for two-way traffic.

b) Bus Loading Zone:

A bus zone should be designed to accommodate the following:

i. Space for all anticipated buses at once. **This school will require space for 14 buses.**
ii. It will be separate and not in conflict with the parental drop-off zone.
iii. Visible from main entrance and administration area.
iv. It will allow for students to be dropped off on a sidewalk that connects to the main entrance with bus doors facing the sidewalk and school.
v. See DTI's *Design Guidelines for Educational Facilities* for dimensional standard.

c) Bus Storage and Charging Facility

A bus storage and e-bus charging facility would not be considered for this school.

d) Parental Drop-Off Zone:

A parental drop-off zone should be provided to accommodate the following:

i. Space for all anticipated vehicles at once. **The school will require the space or location for 15-20 cars to drop students off at one time.**
ii. It will be separate and not in conflict with the bus loading zone as described above.
iii. It will allow for students to be dropped off on a sidewalk that connects to the main entrance with the passenger door facing the sidewalk and school.
iv. See DTI's *Design Guidelines for Educational Facilities*.

e) Pedestrian and Cyclist Traffic:

A sidewalk and path system shall be designed to accommodate the following:

i. Separate from vehicular traffic and provides maximum safety.
ii. Direct, convenient walking routes that reflect natural expected patterns.
iii. Connects the building to the local pedestrian walkways and streets, as well as the bus loading zone, parental drop-off area, parking areas, and auxiliary school facilities.

iv. Main walkways shall be paved with concrete or asphalt.
v. They will be crowned or sloped for proper drainage.
vi. The approach to the main entrance will be paved with concrete. Bike racks will be accommodated conveniently in this paved area.
vii. See the Design Guidelines for widths of walkways.
viii. All walkways providing access to the public entrances of the building shall be barrier-free.
ix. All crosswalks shall be raised asphalt, painted with appropriate warning markings and be barrier-free.

f) Parking:

i. **Number:** Staff and visitor parking shall be provided at a rate of 2.5 stalls per teaching platform. This school requires **100** staff parking stalls and **20** visitors parking stalls for a total of **120 stalls + accessible parking stalls.** 1 in 25 of the stalls is barrier-free. Additional parking may be provided for students based on the school's needs and availability of land at the high school level.
ii. **Lighting:** Provide lighting as specified in DTI's *Design Guidelines*.

NOTE: See DTI's *Design Guidelines for Educational Facilities* for dimension standard.

g) Emergency Vehicular Routes:

i. Provision for firefighting and access route design shall conform to the currently adopted National Building Code.
ii. Two separate emergency access points onto the site shall be provided in case one becomes blocked.

h) Loading, Recycling and Waste Removal:

i. Access for deliveries and removal of recycling materials and other waste will be accommodated and planned for on a case-by-case basis.
ii. The design of the building should support and accommodate a recycling plan that is appropriate for the school and the community's infrastructure.
iii. Any necessary exterior garbage or recycling bins or dumpsters should be provided with hard surface paving of an appropriate area strategically located to be out of view but positioned to allow easy delivery of materials and safe vehicular pickup.
iv. Equipment such as power transformers, fuel tanks, etc., shall be located such that they do not interfere with the use and appearance of the site. Equipment shall not be located near the main driveway access or building entrance unless approved by the Province. Where equipment is visible from public areas, it shall be completely screened with fencing and/or landscaping.

v. The kitchen's receiving door shall be readily accessible for truck deliveries.

vi. Where vocational art facilities are provided, a paved single vehicular lane is required to gain access to the outdoor compound as per Section 20.

i) Bicycle Racks:

Bicycle racks are encouraged in schools that expect bicycle commuters. They shall be located near the front entrance at an approximate rate of 1 space per every 15 students and staff, depending on the area and expectations. The rack area should not infringe on pedestrians as they approach the entrance. Racks shall be located on a hard surface and shall be visible from the administration area. Racks shall not be located below canopies which are attached to the building due to conditions listed in the National Building Code of Canada. **Bike racks to accommodate 75 bicycles for students + visitors bike rack at the main entrance.**

i. The design of the bicycle rack area should be carefully planned with the school's adjacencies plan to ensure the development of a supervised exterior storage area with the possibilities of an alcove within the building's first floor level. This area will require controlled secure access and lighting.

j) Landscaping:

i. Existing site vegetation should be capitalized on and inherent assets recognized and retained where possible.

ii. All areas that have been cleared and are unoccupied by other vegetation, hard surfacing or paths are to be covered with topsoil whose composition and depth is suited to existing subsoil conditions and seeded with grass or indigenous planting that will withstand light foot traffic.

iii. See *DTI's Design Guidelines for Educational Facilities* for landscaping requirements in relation to High Performance Buildings. Also see outdoor classroom as listed below.

k) Outdoor Classroom:

i. Provide an innovative means to assemble a minimum of one classroom for fair weather open-air learning.

ii. Accessible from cafeteria to also provide an inviting outdoor area for lunches.

iii. Use excavated fill material if available to sculpt seating spaces.

iv. Capitalize on inherent natural aspects of the school's location.

l) School Playground Area:

In elementary schools, provide an approximate area of 7.5 m x 35 m (nominal 260 m^2) up to 300 students. For larger student populations an additional space of 40 m^2 per 50 students will be added to a maximum of 520 m^2 and will conform to the following: **This school should have an area of 520 m^2 of playground space.**

i. The area is visible from the kindergarten or appropriate classrooms.
ii. Its location mitigates exposure to any safety or security risk. Specifically, it shall be located away from any vehicular traffic.
iii. It is best shaded by deciduous trees.
iv. It is not located in an area with a harsh climatic exposure.
v. It will provide barrier-free access.
vi. Protective surface to be provided as per Policy 406.

Purchase and installation of equipment is coordinated by the school district and must comply with CAN/CSA – Z614-07and the EECD's Policy 406 (see Appendix A).

m) Storage Structure for Outdoor Maintenance Equipment:

An unheated 35 m^2 shed constructed of low maintenance, vandal-proof material such as concrete block shall be provided for the storage of outdoor maintenance equipment. Combustible products such as paint will also be stored here. It shall be equipped with a man door and an overhead door and located in a discreet but convenient location.

Electrical wiring shall be supplied to the shed. The school district will install receptacles and lighting as requirements will vary by school.

n) Playing Fields:

i. The availability of site area may limit playing fields. When limitations exist, use of other approximate community fields may be considered.
ii. **One multi-purpose playing field (60 m x 100 m field with 5 m wide clear sloped perimeter)** is provided for all school grounds unless prevented by unusual circumstances.
iii. The field's size will be based on the standards associated with the sports being played at the particular school and the typical size noted above may be altered to accommodate those standards. Also see DTI's *Design Guidelines* for typical dimensions and detailed standards.

o) Hard Surface Play Areas:

i. An all-weather surface area will be provided for all school facilities that are suitable for outdoor play activities requiring a smooth hard surface, such as basketball, volleyball, badminton, shuffleboard, etc.

ii. Provide barrier-free accessibility to all play areas.

iii. Allow for 0.5 m^2 per student with a minimum area of 250 m^2 and a maximum area of 500 m^2. **This school should have a hard surface play area of 405 m^2**

iv. Basketball court with 2 basketball hoops and game lines.

p) Community Gardens and Greenhouses

i. In accordance with EECD policies 711, 315 and 407, healthy eating habits and community partnerships are to be promoted and supported. As such, space for the inclusion of community gardens and/or green houses can be identified on school site plans.

ii. **Identify a space on site, possibly integrated with the outdoor class area, only if space permits.**

BUILDING DESIGN PRINCIPLES

05.1 PURPOSE

The following section outlines general design criteria for all school facilities regardless of their grade levels or size. It will apply to all educational facilities and is intended to guide the schematic design. More detailed information used to develop the plans and produce tender documents is found in DTI's *Design Guidelines for Educational Facilities*.

05.2 ENVIRONMENTAL SUSTAINABILITY

High Performance Buildings

All new educational facilities are to be designed, constructed and operated to be high performance buildings based on best practice design and construction principles. Building projects will comply with the Province of New Brunswick – green building policy for new construction & major renovation projects September 2015 revision 3. See *DTI's design guidelines for education facilities* for further technical information.

05.3 VISUAL CONTEXT AND THE COMMUNITY

a) Scale and Character:

All new educational facilities are to be designed to respect a scale and character that complements the neighborhood and the community at large, unless otherwise directed by the EECD.

b) Positive Influences:

Consider the use of existing materials, colours and massing forms that are positive community influences and materials that are compatible with and reflective of the positive character of the area.

c) Representative Images:

Consider imagery and/or forms that are representative of the area or historic references from the community or past schools.

d) Recycled Components:

When replacing an existing school that is to be demolished, consider the reuse of worthy materials or building elements or imagery.

05.4 EXTERIOR MASSING AND FORM

a) Reduce Massing:

The designer is to recognize the need to reduce the perception of the mass of the structure and relate to a human scale by articulating smaller volumes and using changes in texture, colour and materials to break down the scale.

b) Change in Volume-Clerestory Windows:

Articulate changes in volume and roof slopes for opportunities to create high level clerestory windows that introduce light where effective in deep spaces of the school. Snow accumulation and window cleaning must be considered when locating such windows.

05.5 MATERIALS

Low-maintenance, durable and vandal-proof materials are required for any exposed exterior or interior materials and finishes.

05.6 MAIN ENTRY

All new school facilities will have one distinguishable main student entrance. If more than one school is contained within one structure, each will have a separate main entrance. The main entry shall possess the following characteristics:

a) Exterior Canopy:

A covered canopy or cantilevered roof is required outside the main doors. This will protect the immediate area around the doors from the weather and serve as an opportunity to express a welcome or create a ceremonial quality to the school as a whole.

b) Welcoming:

The main entry is a very important design element. It should be inviting, friendly and not forbidding or institutional in appearance. It should also be readily identifiable upon approaching the school. The welcoming aspect must be balanced by the need to secure the entry. The main entry in an elementary school is to be smaller, homier, and more intimate in scale.

c) Signature:

The entry should create a notable presence in the landscape or cityscape or community. This signature element might symbolize how the school is unique and special.

d) Entrance Lobby:

The lobby should be the central organizing hub of the school. The administration area shall be located to command a full view of the lobby and visual supervision of the main doors and exterior canopy area. Visitors and students should be able to easily identify the administration's reception area.

Provide a creative format for student display in the lobby. The school may also consider locating community art pieces here. Ideally the student commons area (*see Section 22*) should be associated with or in proximity to the entrance lobby. The arrival lobby area should be clear and open and of an adequate size to allow for the flow of the whole student body. The area taken up by the lobby is allocated under the Services and Systems space category (*see Section 29*).

05.7 SAFETY AND SECURITY

Physical facility security features provide effective risk mitigation to students and staff when employed properly as a part of a more comprehensive district and school implementation of safe operational practices and communications protocols. Appropriate site conditions enable opportunities for a safer, more coordinated, and more effective response by staff, students, emergency responders, and parents/guardians in the event of a threat incident by providing: controlled school access, intrusion detection, and increase daily security for all school personnel. Effective physical and environmental design elements also increase the level of site security and facilitate emergency responses by police agencies, fire fighters, emergency medical personnel, etc.

School floor plans/blue prints must be kept current and accessible for use in effective planning and response.

a) Plan Reviews:

It is the responsibility of the architectural firm to meet and review schematic plans with fire authorities having jurisdiction in order to respond to any safety and security issues that they may recognize early in the design process.

b) Lock-down Procedures:

The designer will make him or herself familiar with the school district's lock-down procedures and will co-ordinate with the school district, the EECD and the policing authorities the planning that will respond to and be compatible with policies in place.

c) Vandalism and Illegal Entry:

Design of the school and selection of material must be resistant to misuse, vandalism, and secure against illegal entry. Consider ways to prevent undesirable access. To reduce the possibilities of access to the roof, avoid using metal siding in a horizontal pattern, climbable projections, low door and window canopies, low roof lines, and overhangs.

d) Concealed Spaces:

Hidden corners and alcoves inside and outside the facility shall be avoided.

e) Card Keying Lock System:

A card keying system will be supplied for all school main and staff access doors and any doors that access public/community-zoned areas of the school. The system will be operated and programmed from the school district and will allow cards to be programmed for specific hours of access. Compatibility with any current district equipment is to be considered. See *DTI's Design Guidelines*.

f) Entrance/Vestibule Doors:

The main entrance shall be designed so that visitors are able to enter a vestibule from the exterior, but not proceed into the building's lobby. Access through vestibule doors into the lobby will be electronically controlled via the Administration Area.

g) Alarm System:

See DTI's *Design Guidelines.*

h) School Security Features

Subject to a yearly review, the following are the security features that are to be included in all new constructions and major upgrades:

i. Surveillance Camera Systems/Closed Circuit Television (CCTV):

Signage to the effect that surveillance cameras are in use is now required at main entrance of all schools that employ these cameras. Video access is strictly controlled: restricted to designated district, school administration, and facilities staff.

1. CCTV Surveillance: Interior

- Number of installations based on video surveillance areas:
  - student common/large group areas: lounges, cafeterias/auditoriums.
  - interior of main entrance and service entrance angled to capture facial features; interior of exit doors off corridors.
  - main corridors.

2. CCTV Surveillance: Exterior
    - Exterior views of main entrance and service/delivery doors.
    - Student-Parent pick up and drop off.
    - Bus pick up and drop off.
    - Each designated student play area.

ii. CCTV Surveillance: IP/Web-based Access to Video Feed
- Live feed, surveillance video to be accessible off-site;
    - IP-based with secure protocols; working with EECD/DTI Security Officers.
    - Provide access to stored surveillance data.
    - Potential to be a safe method of assessing school status in event of an intruder alarm signal, fire, etc. Alternative to having school or district staff perform initial inspections in-person.

iii. Police Access to Live CCTV Surveillance Video Feed

According to *pending* Memorandum of Understanding (MOU) with NB RCMP, where available, the live video feed is to be accessible to the RCMP under *strictly* controlled conditions for emergency response and training.
- First responder access when activation of emergency measures occurs:
    - Emergency conditions require access to live feed to enable appropriately coordinated response.
    - 'First Responder' access to live and stored video for the expressed purpose of on-site training, in the absence of staff and students; MOU with provincial RCMP in development.

iv. Double Main Doors (Vestibule)
- All exterior door(s): locked at all times except appropriate doors at designated student arrival times; video surveillance at main entrance, doorbell/buzzer access protocol system for initial entrance into vestibule and screening before entry beyond into the school proper is granted
- Interior door of vestibule: locked until access granted remotely from reception area after individual is safely screened
- Exterior doors – clear and visible lettering of exterior doors; according to naming patterns used by First Responders. I.e., "A"dministration > "B" > "C", etc., moving from Administration to the right.
- Electronic card (swipe card) for appropriate access to doors by authorized staff.

v. Visitor Screening Procedure

Significant when there is only one set of access doors that must be kept locked at all times; the two sets of doors/vestibule system is preferred

- Controlling access to the school for the protection of students and staff.
- Use of doorbell as a signalling device to contact reception.
- Video surveillance and recording of those gaining access through main entrance.
- Inside vestibule door is locked to prohibit access until identity and purpose are established.

vi. Controlled Card Access System

- Authorized access via electronic, coded key cards through specified external doors and potentially “fire doors”; restricts access to parts of school to authorized personnel;
- In emergency events, a “key” is required to re-open doors and hallways for school search by first responders – “swipe” electronic card is being recommended for access through these doors.

vii. Force-resistant, “Hurricane” Glass – Reception area only

- Provides high visibility for reception/administration area of entrance vestibule/main door while providing an acceptable level of security.

viii. Public Address School Communication System (Integrated "PA/FM")

- The system shall provide a simple calendar-based scheduling system for bells. It shall provide the ability to have an unlimited number of bell schedules.
- The system shall provide 2-way handsfree communication in each classroom.
- System Classroom and Common Zone network interfaces shall be capable of utilizing standard Cat 6a infrastructure for installation from the Telecommunications Closets only to the classroom and/or zone. Distribution of all voice signaling shall utilize a shared or dedicated network. Systems that require homerun, dedicated, 18 gauge shielded wiring is not acceptable.
- The system shall be capable of being fully integrated with the school’s existing LDAP (Lightweight Directory Access Protocol) or Active Directory system. Systems that do not provide LDAP or Active Directory integration shall not be considered.
- The system shall have a Web based administration programming tool which allows the administrative personnel to easily manage Audio Sources, Class Change schedules, paging groups, time updates, holiday schedules and day/night mode operation from an internet browser. System shall support HTML5.

- The system shall automatically broadcast page emergency instructions throughout an entire school when an alarm (e.g. lockdown, lockout, security, fire) is tripped or manually activated. The emergency instructions shall be preprogrammed and require no user intervention. The system shall provide redundant alarm annunciation over intercom/paging speakers and is not meant to replace primary fire alarm or security systems.
- The system shall provide the ability to initiate school safety paging announcements, evacuation tones and take cover tones from any telephone within the facility or outside the facility to any other location within the facility or district.
- The system shall allow for integration into classroom audio system including teacher microphone as required by design. This includes integration to ensure that system notifications, pages and intercom calls take priority over classroom audio sources. Provide voice lift from teacher pendant.
- The teacher personal alert functionality shall be integrated into the classroom microphones and the teacher web screen.
- The system shall provide a trigger signal when the teacher presses and holds a button on the transmitter for more than two (2) seconds.
- The system shall be capable of providing a visual indication when the teacher initiates a trigger signal.
- The system shall also be capable of receiving a trigger acknowledgement signal back from an external source and altering the visual.
- Able to communicate with the entire school effectively from administration area with minimal complexity of operation.
- Able to communicate with louder-noise spaces (gyms, student commons, cafeterias, exterior play areas, technical shops, etc.), as well as classrooms.
- Installation of associated strobe lights for higher noise volume areas: white strobe = fire; blue strobe = Lockdown; in cafeterias, gymnasiums, trades-technology “shops”, and selectively placed externally so as to be visible to those returning to the school to indicate a threat within.

ix. Single-Handle Door Entry Mechanism

- Single-handle operating mechanisms for exterior and hallway door mechanisms (pull), right-hand side door only on all double doors to prevent the use of a shaft/bar, or a link of chain in barricading the door from one side.

x. "Panic Bar" Door Exit Mechanism

- Push bar exit mechanism on inside of exterior or hallway doors (push); avoids bar-type handles that could be chained or otherwise used to prevent door use.

xi. Clear View of Pickup/Drop-off Area
- Bus loop and student drop-off areas should be clearly seen from the administration areas. This includes receptionist/administration support area and principal/vice-principals' offices. This works in conjunction with administration areas located at main entrances.

xii. Lockdown Button (Switch)
- Switch/"panic button" initiates closure and locking of internal fire doors creating isolated and inaccessible zones. Individuals can exit these zones, but not enter without an access key. Blue "Lockdown" strobes are also initiated. Potential connection to external alarm monitoring agencies/police. Button is easily accessed from a location within reception/administration areas.

xiii. Lockdown School Zones – requires best practical use of the facility for the purpose
- School zones partitioned by fire doors; doors controlled in administration area.
- Corridors: clear lines of sight.
- Classroom numbers clearly visible from various points; recommended that signs are placed for high visibility in hallways along with, or instead of the traditional room number over a recessed door; style required is not defined.
- Classroom doors:
  - Are recessed to allow opening outwards without hindering student egress or corridor traffic; recessed doors also provide concealment opportunities
  - Possible blind for inside of door's window that can be closed in an emergency to block view of classroom
  - Possible secondary door locking mechanism (latch) for use in emergency situations
- Classroom floors: a differentiated tile/colour pattern to indicate a classroom's safer/hiding zone – an area beyond the doorway's sightlines.

xiv. Intrusion Security/Alarm System
- Motion alarms placed in internal spaces requiring this level of security.
- Doors and accessible windows outfitted to detect and signal intrusion.

xv. Security System Monitored Externally
- External monitoring agency maintains system and responds to communications from school alarm systems; automated contact to designated school officials as required. This is in addition to other controls for fire, water pressure, temperature, etc.

xvi. Exterior Building Security Lights
- Dusk-to-Dawn and/or motion sensor lights as required around the school where necessary.

xvii. Exterior Window Tint/Film
- Tinting is not permitted in current (DTI) guidelines for school buildings due to the levels of natural light required in classrooms.

xviii. Exterior Window Blinds
- Restrict viewing of interior spaces from outside; obviously a sun/shade control benefit and blinds may be required in some windows for this reason. Optimization of natural daylight in teaching spaces is a requirement.
- Exterior window blinds – the current standard allows 3% light openness depending on the building orientation and room function.

xix. Security Fencing Installed
- Lockable, gated compound(s) to secure mechanical equipment or restrict access to areas considered higher risk or problem zones for the protection of unauthorized individuals. This should not be interpreted as perimeter fencing.

xx. Restricted Public Access to instructional areas of school after the official school day
- Restrict after-school event and community access to designated activity areas: theatres, auditoriums, gymnasiums/change-locker rooms, community kitchens, cafeterias, student common areas, etc. and away from instructional areas. Use of lockable doors (e.g., fire doors) to restrict access as required.

xxi. Administration is located at/near the main entrance for proper monitoring of drop-off areas and main access entrance.

05.8 BARRIER-FREE DESIGN AND UNIVERSAL ACCESS

All facilities shall be designed to the latest adopted edition of the National Building Code and CAN/CSA B-651 “Accessible Design for the Built Environment.” The document that is most stringent shall apply in any given situation. The concept of universal access will be applied. Universal access means designing facilities so that they can be used by everyone. For more specifics see the *DTI’s Design Guidelines* and the following shall apply:

a) Simple Circulation:

Incorporate into the design a layout of circulation that facilitates simple, straightforward and easy way-finding.

b) Light, Bright and Clear:

Ensure circulation routes are light, bright and without projections or obstacles that would impede physical movement for persons with visual impairments.

c) Contrasting Colour:

Incorporate contrasting colours into the design, to assist people with visual impairments. As a minimum, ensure a contrasting colour scheme is provided in stairways. Use contrasting colours to define areas of distinction.

d) Good Signage:

Ensure accessible routes have adequate signage.

e) Easy Entry:

Entrances and lobbies shall be provided at grade without stairs. Ramps will be provided where required but should be avoided when possible.

f) Barrier-free Access:

Barrier-free access shall be provided throughout the building and the site.

05.9 INTERIOR AND EXTERIOR SIGHT LINES

a) Create Sight Lines:

The designer is to be aware of sight lines and is encouraged to create visible lines of sight that extend as far as possible for vistas within the interior of the school as well from the interior to the exterior that generates interest.

b) Showcase Learning:

Showcase, where possible, physical aspects of the school that celebrate learning.

c) Connections to the Outdoors:

An indoor-outdoor visual connection is encouraged wherever effective and practical.

d) Light and Colour:

When creating sight lines, consider highlights and variations, nodes and endings with use of light and colour.

05.10 NATURAL LIGHT AND AIR

Daylight and fresh air are considered critical in providing human comfort and a healthy learning environment.

a) Daylight:

All teaching spaces, project work areas, library, cafeteria, student commons and administration area are to be provided with good quality daylight in accordance with best practice principles for high performance buildings. See *DTI Design Guidelines for Education Facilities* for further technical information.

b) Operating Windows:

All classrooms shall be provided with operating windows that do not create a safety hazard nor limit the use of the room when in their open position. Operating windows shall be complete with insect screens.

c) Blinds:

For security, privacy and (3%) light control,blinds are to be provided on all exterior windows.

05.11 ARTIFICIAL LIGHTING

The design shall provide for a variety of direct, indirect and directional lighting. Consider paths of travel and the experience of the user as noted under sight lines in this section.

Minimum light levels for all spaces are outlined in *DTI's Design Guidelines*.

05.12 COLOUR

a) Colour:

Skilled use of colour is expected. Architectural firm is to consult with the school users to select colour. Colour/material boards are to be presented for the school district's approval. The architectural firm may wish to consult an interior designer or other colour expert.

b) Primary and Bright Colours:

Primary colours are encouraged in elementary schools but should be used strategically in small amounts. Bright colours may also be used, but in moderation, perhaps on special highlight walls, etc.

c) "Trendy" Colours:

Uses of current distinctive colours that are popular are discouraged for embedded permanent use but can be considered as a paint choice.

d) Define and Distinguish Areas or Zones:

Changes in colour schemes are encouraged to distinguish and define areas or zones.

e) Floor Patterns:

Ensure floor tile patterns support and identify circulation or special nodes or spaces that might be desirable to highlight. Entrance ways to all teaching spaces are to be identified with a unique floor colour to identify it as an entrance/exit area. "Sight-line free zones" in classrooms shall also be identified by unique floor colours or patterns. These zones are occupied by students and teachers during lock-downs or lock-down drills.

f) Visual Impairment:

Incorporate contrasting colours into the design to assist people with visual impairments as outlined in 05.8.

05.13 DISPLAY SPACE AND EXHIBITS

Student displays shall be provided for in creative ways throughout the school. Fire regulations must be respected when designing display and exhibit areas. The designer is to work directly with the school district to coordinate their needs and wishes. Special art pieces or other educational and community artifacts that are available may be and are encouraged to be incorporated.

The environmental green components of the building's design shall be interpreted in some visual way that is educational.

As mentioned above, the entry lobby is an ideal space for displays.

05.14 COMMUNITY USE

Schools are encouraged to be used after hours by the community. This is a secondary function of the building. The facility should be planned to accommodate the community without compromising its effectiveness to deliver education to the student. In some cases, the building will require access by the community during school hours but, most commonly, after-hours use will be required. Use will vary from project to project. Therefore, the planner must have a clear understanding of how this use needs to be organized in order for the building to function well and the students to be protected and secure.

The following areas will typically be considered for dual use by the community:

Gymnasiums	Music and Performing Arts Rooms
Cafeteria	Stage
Seminar/Conference room	Computer Laboratory (high school)
Washrooms	Vocational Technology Workshops
Student commons	Library/Learning Commons

i. There shall be access to space in the common entrance area for community use where visitors may have a reception table to host tournaments in the Gymnasium(s) and a location for shoes/boots to be set aside prior to entering the gymnasium.

05.16 OVERALL SPATIAL CONSIDERATIONS AND RELATIONSHIPS

a) Central Organization:

A sense of the schools organization should be readily understood as a visitor or student enters through the main entrance. The administration will be located nearby and visually welcoming. It will have visual control over both students and visitors and will be the circulation hub. Affiliated with and approximate to this hub will be the student commons space (in high schools), the cafeteria and the gymnasium. Guidance and its waiting space should also be central but less publicly displayed. The arrival space should be open enough to allow for a smooth flow of all the student body.

b) Flexibility:

i. **Range of Learning Spaces:**

Flexibility in space utilization is required to offer opportunities for a range of learning, for individual, small group or large group gatherings.

ii. **Multi-functional Space:**

Space should be designed as often as reasonably possible where the need exists to be multi-functional. When planning such a space, account for any conflicting needs that might result and ensure that such conflicts are surmountable.

iii. **Moveable Walls:**

When identified in the educational specifications, classrooms will be connected by moveable folding walls, keeping in mind some of the acoustical separation issues.

iv. **Break-out Rooms:**

When identified in the educational specifications, the break-out rooms provided off the classrooms may also be used for other meeting spaces.

v. **Project Work Areas:**

Within the project spaces, small seating alcoves might be provided for individuals studying or reading alone or in pairs.

c) Clustering of Classrooms:

Clustering of related age groupings when arranging classrooms is encouraged to help form small schools within a school to create more personal and less institutional environments. Clusters or wings of classrooms ideally should comprise six to eight classrooms per wing or cluster. Clustering is often a repeated geometrical form with a shared focus. The focus area may be the project area space.

d) Community Use Zoning:

Areas of the school supporting community and after-hours use should be zoned, contained and be separately lockable from the remainder of the school. For security reasons, it is essential that the facility provide for the ability to separate community accessible spaces from student learning spaces. After-hours spaces should be complete with the appropriate amenities such as washrooms. Separate access doors may be required, depending on the planning and the needs of the school. Exiting and code issues must be in compliance when access to the remainder of the school is not allowed. Light controls and the operation of required equipment must be considered. Areas such as gymnasiums, the cafeteria, stage, student commons, music rooms, library/learning commons, the performing arts room, and washrooms may require after-hours access and may be best grouped together and affiliated with the central core. Each school will be used differently, and the users may have different preferences; therefore, thorough consultation is expected.

e) Sound Control and Isolation:

i. **Classrooms:** Classrooms shall be separated from other spaces by walls and floor systems with a Sound Transmission Rating of no less than 50.

ii. **Spatial Isolation:** Rooms whose activities generate noise such as mechanical service spaces, music/performing arts rooms, skilled trade workshops, or gymnasiums will be spatially and/or acoustically isolated from other learning spaces.

iii. **Buffering Spaces:** Consider using utility spaces such as washrooms, storage rooms, and custodial rooms for sound and vibration buffers between sensitive areas.

iv. **Administration:** The administration areas shall be equipped with glass service windows and solid doors that can be closed to alleviate noise entering from the central lobby when there is heavy traffic.

v. **Multi-storey Schools:** When designing a multi-storey school sound transfer between levels will be carefully considered. Open atrium areas that connect two storeys must consider means to mitigate sound amplification and transfer.

vi. **Moveable Walls:** Moveable walls specified are to be of the highest quality affordable on the market in terms of sound transmission control (STC) ratings and a minimum of 50 STC. They will be supplied for team teaching and to allow the flexibility of creating larger or smaller teaching spaces.

vii. **Mechanical Space:** Mechanical/boiler rooms shall be acoustically isolated and located with care such that main air handling duct lines do not transfer noise to learning spaces. Ensure sufficient space is provided for properly sized duct, to minimize noise generated by air handling systems.

f) Washrooms:

Washrooms should be conveniently distributed throughout the school. Particular care will be taken in elementary schools to provide washrooms close to the classrooms that may be easily supervised by teachers and staff. One set of student washrooms should be provided in each cluster or wing, sized appropriately for number students in that cluster or wing. A staff washroom should also be located in every wing.

g) Staff/Personnel Areas:

Lounge and staff work areas will be located centrally such that the balance in travel distance is approximately equal for all staff. Ideally, the staff area should be located close to the administration area, so that the administration can share washrooms and amenities. In larger schools where travel distances are greater, the school may wish to divide the staff areas such that they are located closer to their relative teaching spaces.

h) Resource Rooms and Visiting Professional's Offices:

It is generally accepted that the resource rooms be located near the classrooms they serve. It may be such that a resource room is located in each wing or cluster, but stakeholders should ultimately direct the space location. As well, the meeting rooms for visiting professionals will be located according to the stakeholder directives. One resource room will be complete with a special care washroom. A special care washroom will be provided.

i) Custodial:

One custodial closet will be located in each wing or cluster within the school. The main custodial accommodation will be located conveniently for deliveries. A separate exterior door may be provided.

j) Recycling:

The design of the building should support and accommodate a recycling plan that is appropriate for the school and the community's infrastructure.

PART B

SCHOOL TYPES

AND

SPACE ALLOCATIONS

New George Street Middle School (6-8)

Anglophone West School District

Department of Education and Early Childhood Development

Educational Facilities and Pupil Transportation

MIDDLE SCHOOL

07.1 PURPOSE

The middle school accommodates grade levels 6 through 8. This section relates to middle schools of 300 students or larger. The middle school generally will not exceed 700 students.

Refer to Part A of this document for general directives regarding site design and building design. Part C of this document explains typical functions of the spaces allocated in Part B. Part B of this document lists all spaces required in a middle school, their area requirements, and the differences that apply to a middle school facility.

07.2 DESIGN APPROACH

The early adolescent student is moving from the confines of the intimate classroom to a larger community of peers. The design will place more focus on the community within the school. The scale of the school is larger as the student is starting to become more independent. The school building will provide structures that encourage flexible grouping of learners and a variety in learning experiences that will include classroom learning as well as many small group settings. Team teaching is frequently the norm in the middle school. Flexible areas will facilitate inter-disciplinary learning and teaching.

07.3 MIDDLE SCHOOL: 6 TO 8 - SPACE ALLOCATIONS

SEC. NO.	SPACE	AREA M^2	FORMULA/NOTES
TEACHING-RELATED SPACES			
	GENERAL CLASSROOM & WORK AREA		
12	**General Classroom**	**81**	Number of classrooms based on groupings. *28 students per class-grade 6. *29 students per class - grades 7 and 8. 75m^2 when Break-out Rooms are included.
12.4	**Common Storage Room**	**3.5 per class**	One shared storage room per classroom wing or cluster with a contributory area of 3.5 m^2 per general classroom.
12.5	**Break-out Room**	**-**	11m^2 shared per every 2 classrooms – ½ the area is accounted for in the general classroom total.
14	**Project Work Area**	**35**	One per every wing or cluster- unless stated otherwise. Open to corridor.
	SPECIALIZED INSTRUCTION		
15.3	**General Science Lab**	**130**	Number of rooms based on groupings.
15.5	**Science Prep Room**	**24/30**	Allowance for single and double Science Laboratory.
15.6	**Combined Science / Art Rm**	**130**	Combined class for various curriculum programs.
16	**Art Room**	**110**	90 m^2 classroom plus 20 m^2 storage room.
17.2	**Music Room**	**130**	110 m^2 classroom plus 20 m^2 storage room.
17.5	**Performing Arts Room**	**110**	Combined with the stage area.
18	**PHYSICAL EDUCATION AND RECREATION**		
18.3	**Double Gymnasium**	**821**	Based on groupings and curriculum. Represents two teaching stations.
18.3	**Single Gymnasium**	**591**	Based on groupings and curriculum. Represents one teaching station.
18.4	**Instructor's Office**	**10**	Per gymnasium. One to two instructors per office.
18.5	**Staff Shower/Change Area**	**8**	Shower and change area for staff with washroom.
18.6	**Gym Auxiliary Washroom**	**18**	2 @ 9 m^2 (one set per gym).
18.6	**Auxiliary Change Area**	**44**	2 @ 22 m^2 (one set per gym).
18.6	**Auxiliary Shower Area**	**32**	2 @ 18 m^2 (one set per gym).
18.7	**Gymnasium Storage**	**80**	Equipment storage shelving provided.
18.8	**Exterior Storage Room**	**20**	Storge for Bicycles and Play Equipment
18.9	**Community Storage**	**20**	For community use to access gymnasium equipment.

SEC. NO.	SPACE	AREA M^2	FORMULA/NOTES
20	**TECHNOLOGY EDUCATION**		
20.2	**Middle School Technology Education**	**250**	250 for a single MSTE, reduced to 200/per for 2 combined.
COMMON STUDENT AREAS			
23	**STUDENT SERVICES**		
23.2	**Resource Room**	**21**	2 (two) per floor in the classroom wings or clusters plus one additional resource room for literacy/numeracy may be provided if required based on particular needs.
23.3	**Resource Work Area**	**80**	Communal Office space and resource materials for 8-10 support staff.
23.4	**Support Offices**	**12**	Program specific
23.5	**Special Care Wash/Changing Room**	**12-17**	Associated with one resource room. Equip with barrier-free shower/tub and toilet, lift, therapy table, provisions for a washer and dryer.
23.6	**Guidance Offices**	**9**	One per full-time guidance officer. May be grouped with visiting professional's offices and waiting area shared. If guidance officer is part time may also be used as a visiting professional office.
23.7	**ISD**	**9**	Integrated Service Deliver office to support a team made up of psychology, social work, health care and education professionals, work together to provide children and youth struggling with addictions and mental health concerns support
23.8	**Visiting Professional's Office**	**9**	Time-shared offices for itinerate professionals, such as Social Worker, Speech Therapist, Hearing Specialist, Police, Psychologist, Occupational Therapist, Physiotherapist, Literacy Specialist, Math Lead, Behaviour Intervention Worker, Autism Support Worker, etc. Number of offices based on school's identified needs. Number of offices determined at the planning stage.
23.9	**Waiting Area**	**5-10**	Size depends on number of offices it serves and amount of display materials
23.10	**Quiet Room**	**10**	Quiet space for students, typically, room would be outfitted with calming equipment or other devices to assist with post de-escalation
23.11	**Calming Room**	**9**	Serves to support calming overstimulated students.
23.12	**Health Room**	**13**	Equipped with cot, sink and lockable medicine cabinet. Adjacent to washroom.
23.13	**Student Council and Student Club Room**		20 m^2 minimum plus 2 m^2 per every 100 students over an enrolment of 400.

SEC. NO.	SPACE	AREA M^2	FORMULA/NOTES
23.14	**Multi-Function Room**	**110-220**	110 m^2 – enrolment up to 350 students. 220 m^2 – two rooms of 110 m^2 for enrolment of 350 students and more.
23.15	**Breakfast Program / Club**	**15-25**	15 m^2- enrolment up to 550 students 25 m^2 – enrolment of 550 students and more.
23.16	**First Nations Education Centre**	**126**	2 areas for Language Culture and Instructional.
24	**LIBRARY / LEARNING COMMONS**		
24.1 TO 24.6	**Library/Learning Commons**	**0.40 m^2**	0.40 m^2 x enrolment with a minimum of 100 m^2. -75%.....Main library space. -10%.....Circulation, control and work desk. -8%.....Technical processing and equipment storage. -7%.....Computer terminals.
24.7	**Seminar/Activity Room**	**20** **40** **60**	Enrolment of 300 to 600. Enrolment of 601 to 900 - may be 2 rooms if desired. Enrolment of 901 and over - maybe 2 or 3 rooms if desired.
25	**CAFETERIA**		
25.3	**Dining Space**	**see note**	1.2 m^2 x ½ enrolment. Dining area is sized based on 2 lunch periods.
25.4	**Kitchen**	**36** **55** **85** **180**	Enrolment up to 200. Enrolment of 201 to 400. Enrolment of 401 to 800. Enrolment of 801+.
25.5	**Stage**	**72**	Stage may adjoin both the cafeteria and gymnasium and may be combined with the Performing Arts Program space..
STAFF AREAS			
26	**PERSONNEL CENTRE/STAFF ROOMS**		
26.1	**Staff Lounge and Lunch Room**		1.2 m^2 x number of teaching stations. Minimum 20 m^2
26.2	**Staff Work Room**		1.85 m^2 per teaching station with a minimum of 20 m^2.
26.3	**Staff Washrooms**	**8**	One barrier-free washroom per sex
27	**ADMINISTRATION**		
27.2	**Reception**	**10** **18** **26**	Enrolment up to 525. Enrolment of 526 to 750. Enrolment of 751+.
27.3	**General Office**	**20** **25** **30**	Enrolment up to 525. Enrolment of 526 to 750. Enrolment of 751+.

SEC. NO.	SPACE	AREA M^2	FORMULA/NOTES
27.4	**Principal's Office**	**14**	Provides area for meeting with students, staff or parents.
27.5	**Vice-principal's Office**	**11**	Provide as required, based on current collective agreement.
27.6	**Cumulative File / Storage Room**	**4** **11**	File Room Cumulative Storage Room
28	**CUSTODIAL**		
28.2 **28.3**	**Central Custodial Space** **Custodial Closet**		10 m^2 + 5 m^2 for every 100 students or part thereof. Area includes one 4 m^2 janitor closet per wing or cluster.
28.4	**Recycling Storage**	**15**	
SERVICES AND SYSTEMS			
29.1	**Overall System Area**	**Total 50%**	*NET AREA **–** Equals the total of all programmed spaces listed above.
29.1 **29.2** **29.3** **29.4** **29.5** **29.7**	**Circulation** **- Corridors** **- Stairwells** **- Lobbies/vestibules** **- Elevator** **- Bleachers**	**Approx 23-25% *Net** **-**	Includes corridors complete with lockers. Width of corridors shall be no less than 2.2 metres clear with locker doors open. Other areas included are staircases, entry lobbies, vestibules. Space allocated in services and systems.
29.6	**Student/Public/Staff Washrooms**	**4-5% *Net**	As a minimum, washrooms are to be provided as per the National Building Code. This figure does not include washroom areas that are listed elsewhere such as staff washrooms, gymnasium staff and locker room washrooms.
29.1	**Walls**	**14-15% *Net**	Approximate
29.8	**Mechanical and Electrical Room**	**5-6% *Net**	Approximate
29.9	**Communications Closets/Rooms**	**-**	Designed to maximize efficient data cabling distribution through out the entire school multiple levels, as required.

07.4 NUMBER OF TEACHING STATIONS

A teaching station is defined as an instructional space that is capable of accommodating one full class. A homeroom is defined as a teaching station that a student is required to report to every day. A homeroom can be a classroom or any other teaching station capable of accommodating a full class or group of students to deliver the regular morning messages. A grouping is defined as the number of groups of students per grade level. It is straightforward at the middle school level. At the high school level, it represents the groups of students assigned to a specific homeroom first thing in the morning. Every student must be assigned a homeroom. The enrolment per class listed in the 'Formula/Notes' column in the above table is the maximum class size as defined by the current collective agreement between Board of Management and the New Brunswick Teachers Federation as of the date of issue of this document. These numbers are subject to change based on changes in the collective agreement.

Spaces considered as teaching stations include:

- General instruction classrooms
- Music rooms
- Art rooms
- Performing arts
- Science laboratories
- MSTE (Middle School Technology Education)
- Gymnasia

PART C

SPACE DESCRIPTIONS

New George Street Middle School (6-8)

February 2025

Anglophone West School District

Department of Education and Early Childhood Development

Educational Facilities and Pupil Transportation

GENERAL CLASSROOM

12.1 INTRODUCTION

The general classroom will be designed to provide for the delivery of non-specialized academic education. It will accommodate lecture-style delivery as well as provide for project-based learning, individual learning, and team teaching when possible and desirable. The introduction of the break-out room off the general classroom allows for quiet one-on-one instruction as well as small group breakaways that may be supervised from the classroom. When desired by the school district, classrooms will be designed to be able to open to the adjacent classroom or other spaces to provide larger assembly areas or larger classrooms. Flexibility within the classroom is important.

The Department of Transportation and Infrastructure's *Design Guidelines for Educational Facilities* outline more detailed requirements for the General Classroom in Section A-1 and contain a sample plan as well as an outline of the general specifications of architectural, mechanical and electrical particulars. Other plans or variations of plans may be approved provided they meet all the functions and characteristics as outlined here and in the *Design Guidelines*. Standard millwork shall be provided as per the *Design Guidelines.*

In elementary schools, the classroom provides a full range of functions to deliver a wide range of curriculum. At the elementary level, the delivery of science takes place in the general classroom. Experiences are built around ease of accessibility to unsophisticated equipment. Quantitative measurement has begun. A component of storage space is consumed for metre sticks, spring scales, and thermometers. Also, in the elementary grades, art is an integral part of the class activities; therefore, the general classroom is most frequently the venue for art instruction. In these circumstances, a sink with hot and cold water, a storage cupboard, and one or two moveable tables should be available.

12.2 LOCATION

a) The classroom will be grouped with other classrooms of close grade levels in wings or clusters no greater than eight in number unless directed otherwise. These groupings or clusters are encouraged to interact like a small community in innovative ways.

b) Conveniently located relative to student washrooms, student project areas, resource rooms, general storage room, and janitor's closet.

c) Classrooms that abut student project areas will be provided with glazing strategically located in the wall that joins them for supervisory reasons.

d) Boot and coat racks at the elementary level and lockers serving the middle and high school levels will be located in the corridor immediately outside the classroom door.

e) The classroom will provide direct access and visual connection to a break-out room, where break-out rooms are included.

f) The exterior window wall will preferably be oriented north or south rather than east and west.

g) Provide visual connections to the outdoors and green vegetation. Consider views and lines of sight to the outdoors and indoors.

12.3 CHARACTERISTICS

a) All finishes for walls and floors within human reach will be durable and vandal-proof and allow for easy cleaning. The same will apply to millwork, windows, doors and equipment supplied within the contract. Carpet is not permitted.

b) Operable windows will not pose a safety hazard when the window is open or impose on the functioning or limit the use of the room. With a multi-storey school the operable windows above the ground level shall be at an accessible height for easier access to operate the windows.

c) Consider strategic use of colour.

d) The room should be acoustically isolated from any adjoining spaces by walls that provide a minimum of STC 50.

e) Allow for all items detailed in the *Design Guidelines for Educational Facilities*.

f) Movable walls are to be considered during the planning stage to combine some of the adjoining grade classrooms to provide one large teaching platform.

g) Lights zoned to darken projector locations and fully dimmable.

12.4 COMMON STORAGE ROOM

a) Purpose:

This storage room is a common space shared by all general classrooms within a wing or cluster. It is for storing textbooks and other classroom items on a short-term basis for use at another time in the school year. Space of 3.5 m^2 will be allotted per general classroom.

b) Location:

i. One room per classroom wing or cluster, per floor to provide support for the cluster of rooms, but to also provide a location to house a copier or printer for the teachers.
ii. Located centrally off the corridor of the classroom wing it serves.

c) Characteristics

i. Dimmable lights
ii. Provide floor-to-ceiling, heavy-duty adjustable shelving.
iii. Five stacked, adjustable 450-mm-deep shelves (totalling 15 lineal metres of shelf per class).
iv. Space and power for computer carts to charge in storage room.
v. Power and date to support a copier.

12.5 BREAK OUT ROOMS

a) PURPOSE

The break-out room is intended to be a flexible space whose main function is to allow a break-away area from the classroom that facilitates small group activities, private one-on-one mentoring and small meetings of up to seven individuals. It is visually connected to the classroom so as to allow the teacher to monitor activities. It is also visually open and connected by a door to the corridor with the intention that it be a shared amenity and available for other types of meetings or a quiet retreat space for students or teachers. One break-out room will be shared by two classrooms. It is not intended as an office for the teacher or any other staff.

The Department of Transportation and Infrastructure's *Design Guidelines for Educational Facilities* outline more detailed requirements for the break-out room in Section A-1 and contain a sample plan as well as an outline of the general specifications of architectural, mechanical and electrical particulars. Other plans or variations of plans may be approved provided they meet all the functions and characteristics as outlined here and in the *Design Guidelines*.

b) LOCATION

i. Adjoins two classrooms and the corridor.

ii. Consider locating the room directly across the corridor from another break-out room to create a focal point of interest, breaking the lineal pattern of the corridor and creating different view planes.

c) CHARACTERISTICS

i. One whiteboard wall space.

ii. Visually open with glazing to classrooms and corridor for direct and indirect supervision.

iii. One door from the corridor to access the breakout room.

iv. Allow for all items detailed in Section A-1 of the *Design Planning Guidelines*.

v. All finishes for walls and floors within human reach will be durable and vandal-proof and allow for easy cleaning. Carpet is not allowed.

PROJECT WORK AREA

14.1 PURPOSE

The project work area is intended for collaborative student learning initiatives, as well as offering space for social gatherings in a safe and healthy environment. This space should be used to break the monotony and institutional feeling of the lineal corridor and provide a focal point in every classroom wing or cluster. It is one vehicle that may facilitate a sense of community within a wing or cluster.

The Department of Transportation and Infrastructure' *Design Guidelines for Educational Facilities* outline more detailed and technical requirements for the project work area in Section A-1 and contain an outline of the general specifications for architectural, mechanical and electrical particulars.

14.2 LOCATION

a) One per every classroom wing or cluster of six or more classrooms.

b) Open to the corridor.

c) Located so that natural light is available.

d) Located so that the area does not impede exiting or the flow of circulation.

e) Located so that it does not create a concealed space and it is capable of supervision.

14.3 CHARACTERISTICS

a) Built-in seating or benches may be required, allowing for individual work, study or pairs of students working together or conversing. To be discussed during planning.

b) All finishes on walls and floors within human reach will be durable and vandal-proof and allow for easy cleaning. Natural/earthy aesthetics floor finish, to be determined, to delineate the workspace from the corridor space.

c) Consider strategic use of colour.

d) Natural light available through window wall or clerestory window.

e) Data and electrical (USB) to be provided at the planning stage to provide technology into these project work areas.

SCIENCE

15.1 INTRODUCTION

During the elementary years, the delivery of science takes place in the general classroom. Please *refer to Section 12* of this document for an outline relating to accommodating the delivery of science at that level.

Science for the middle school years, grades 6 to 8, is general in content encompassing the biological, physical, earth and space sciences. Laboratory work becomes more structured with activities and experiments. Equipment requirements increase from the elementary level. Precise measuring instruments and equipment for each student's use are required including volumetric cylinders, objects of known mass, compound microscopes and portable hot plates. No chemicals or propane as a heat source are required for middle school instruction.

At the high school level, science becomes more specialized with courses in chemistry, biology, physics, and environmental science. Earth science is also a component of the senior high school physical science course for general and occupational students and for some geography courses. Chemistry experiments may include chemicals and involve propane as a heat source. Laboratory work at the senior level involves more experiments and formally prescribed procedures. Some laboratory experimentation requires time that extends beyond the class period to complete, thus requiring space for intermediate storage for active experiments.

Please *refer to Part 1-B* for all area allocations.

The Department of Transportation and Infrastructure's *Design Guidelines for Educational Facilities* outline more detailed and technical requirements for the science facilities in Section A-1 and contain sample plans as well as an outline of the general specifications of architectural, mechanical and electrical particulars. Other plans or variations of plans may be approved provided they meet all the functions and characteristics as outlined here and in the *Design Guidelines*. Standard casework shall be provided as per the Design Guidelines.

15.2 SCIENCE ROOM ARRANGEMENTS

At both the middle and high school levels, alternatives are available at the planning stage for the type of laboratory stations. Three variations of science teaching rooms and a preparation room are offered for the purposes described in Sections 15.3 to 15.6.

The distribution of laboratory facilities for combined middle and high schools are determined by groupings, but many scenarios represent special cases for which particular solutions may be best suited. In any case, school planners are advised to consult with the EECD science consultants at an early stage in the planning process for suitable direction.

15.3 GENERAL SCIENCE LABORATORY

a) Purpose:

This room provides the greatest flexibility for teaching methods because it allows for seating arrangements with movable furniture in the centre of the room as well as laboratory stations around the perimeter. The general science laboratory is intended for the delivery of all middle school science curriculums. In high schools when one science teaching station is allotted, this room is chosen because of its multi-use capability. In high schools with multiple science teaching stations, it is intended for the delivery of physics, biology, and environmental science.

b) Location:

Located in the classroom wing or cluster with other science facilities, it is typically connected directly to the preparation room When possible, this laboratory should have southern exposure for growing plants. It will be located remotely from the food service areas and large assembly areas such as the gymnasium and library.

c) Characteristics:

i. **Teacher's Station:**

- 3-metre-long demonstration table with:
  - sink with hot and cold water
  - eye wash station
  - computer drop
  - lockable cabinets beneath
  - electrical supply for hot plate
- Provisions for auxiliary equipment (NIC)
  - first-aid box
  - fire extinguisher

ii. **Student Stations:**

- Eight 4-student stations along the room's perimeter.
- One small stainless steel sink per student station with hot and cold water.
- Electrical supply to support 1.5 kw hot plates.
- Heat-resistant countertops with casework underneath (see iii below). In high schools countertops shall be acid resistant.
- The extent of rough-in support for computer stations will be determined at the planning stage based on the school's needs.

iii. **Casework:**

- Along walls and below student workstation projections.
- Doors with adjustable shelving.
- High continuous cabinets along back wall over work stations.
- Allow knee space for 4 students per station.
- Two barrier-free station complete with barrier-free sink.

iv. **Lights:**

i. Lights zoned to darken projector locations and fully dimmable.

See the Department of Transportation and Infrastructure's *Design Guidelines for Educational Facilities* for more details and technical requirements for this facility in Section A-1. A-sample plan is provided there.

15.5 SCIENCE PREPARATION ROOM

a) Purpose:

The preparation room is a safe area for preparation of materials for experimentation as well as for the storage of scientific equipment, supplies and chemicals (chemicals are stored only in high schools).

b) Location:

Located off the science laboratory.

i. Where two labs exist, the prep room will be a shared space connecting the two labs.
ii. Located remotely from any food service areas and large assembly areas such as gymnasium and library.

c) Characteristics:

i. Preparation table or countertop space for preparations.
ii. Perimeter counters with lower casework and upper cabinets.
iii. Acid-resistant double sink (for large prep room). Single sink for smaller prep room).
iv. Ventilated glazed fume hood as described above under the pure science (chemistry) lab.
v. Fire and chemically rated vented storage unit.
vi. Rough-in electrical and space for refrigerator when biology curriculum is taught.

Sample plans are provided in the Department of Transportation and Infrastructure's *Design Guidelines* Document.

15.6 COMBINDED SCIENCE / ART ROOM

a) Purpose:

This room provides the greatest flexibility for teaching methods because it allows for seating arrangements with movable furniture in the centre of the room as well as counter stations around the perimeter. This room supports general science laboratory and art curriculum may be used as a typical classroom with the loose furniture.

b) Location:

Located in the classroom wing or cluster between the science and art programs to support both with access to facilities, it is typically connected directly to a sharded preparation room, with southern exposure for growing plants and enhanced lighting for artwork. It will be located remotely from the food service areas and large assembly areas such as the gymnasium and library.

c) Characteristics:

i. **Perimeter of the classroom to accommodate:**

- 1.2m-1.5m teachers desk (NIC) or built-in work station (included)
  - computer drops (Data, Power with USB & conduit to ceiling)
- Provisions for auxiliary equipment (NIC)
  - first-aid box
  - fire extinguisher.
  - Wash centre to support washing of glassware, with sediment interceptor: Stainless steel sink counter, upper cabinets including drip tracks in counter, soap & paper towel dispenser.
  - Maximized whiteboards on exterior perimeter for students to work collabratively 300mm off finish floor 2400mm high if ceiling height allows.
  - Teaching wall to include whiteboard with projector.

ii. **Student Stations:**

- Designed accommodate ½ the students on the outer perimeter work stations and the other ½ standing on the inner perimeter of the islands.
- End of one of the interior perimeter counters to support teacher's demonstration counter
- 3 long, 800mm (h) counter, counter top to support curriculum delivery.

- Accessible station at the end of the student stations with an accessible sink.
- 160mm apron panel to house electrical outlets around perimeter of island millwork shared to support each student station.
- One small stainless steel sink at each end of the millwork islands.
- Integrated knee space on the exterior perimeter of the islands for stool seating
- Cabinet doors and storage accessed from the interior position of the classroom/loose furniture location.
- Electrical supply to support 1.5 kw hot plates.
- Heat-resistant countertops with casework underneath
- The extent of rough-in support for computer stations will be determined at the planning stage based on the school's needs.

iii. **Casework:**

- Below student workstation islands.
- Adjustable shelving.
- Some designated drawers for storage.
- High storage cabinets on one wall on perimeter of classroom
- Allow knee space for students on the outer perimeter.
- One barrier-free station complete with shallow BF sink located closest to the classroom entrance.
- Under the teaching white board with adjustable shelves ½ with doors.
- All cabinets lockable.

iv. **Student Sinks:**

- Stainless steel under counter mounted with drip edge.
- Fixed faucets, laboratory grade, single lever
- Tempered water

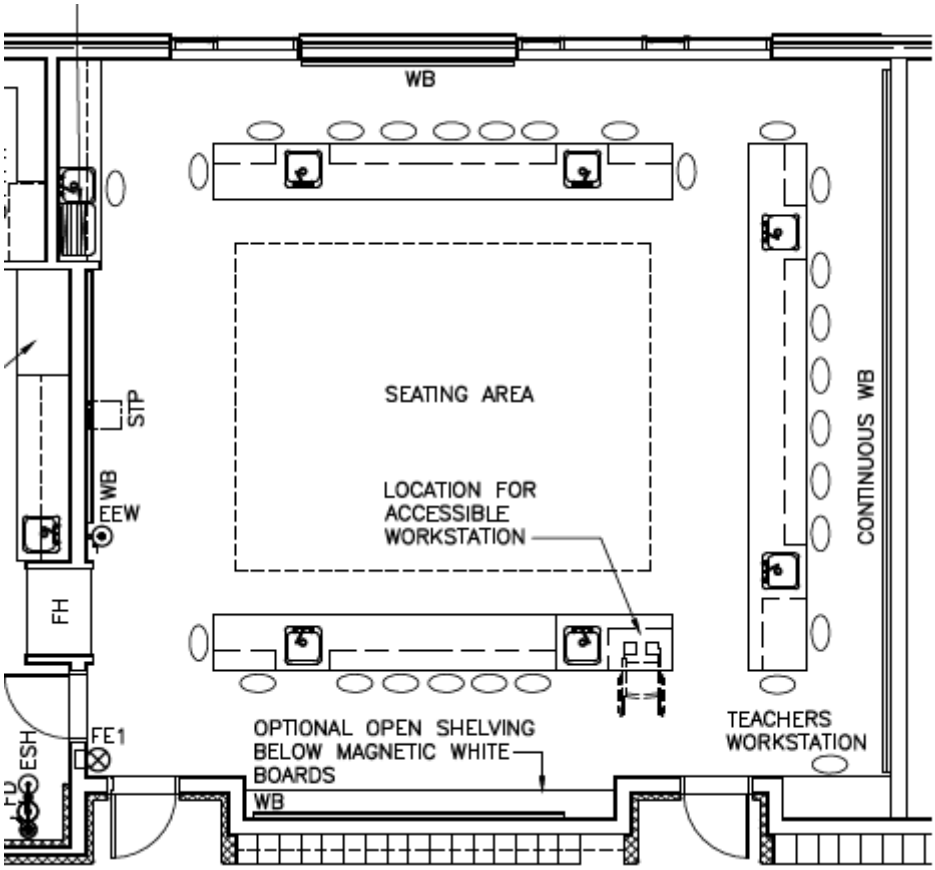
v. **Teacher presentation location (end of island):**

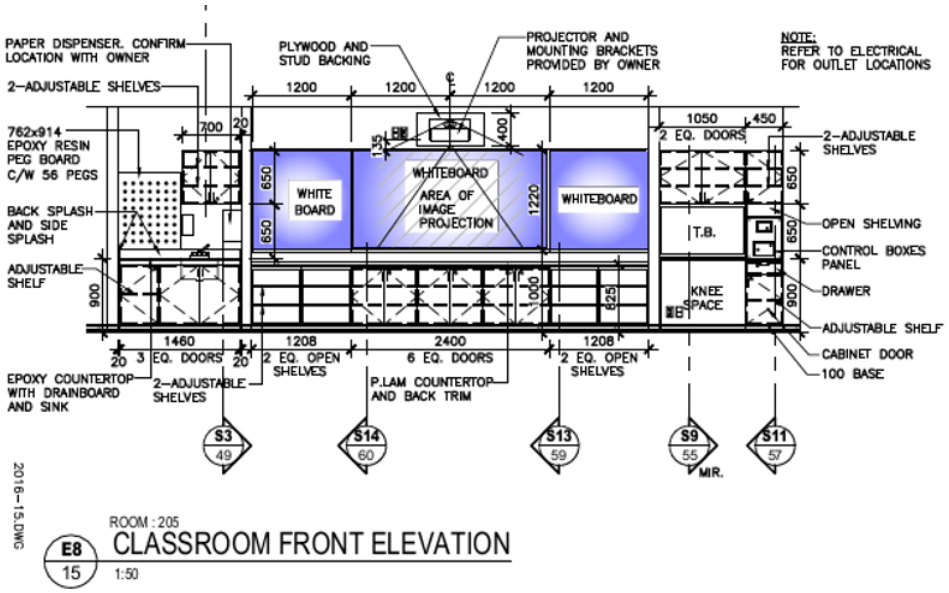
- Stainless steel under counter mounted with drip edge.
- Fixed faucets, laboratory grade, Double lever
- Hot and Cold water
- Under cabinet location for students sink shut-off.
- Cabinets all lockable.

vi. **Lights:**

- Lights zoned to darken projector locations and fully dimmable.

d) Conceptual Layout:





ART ROOM

16.1 PURPOSE

The Visual Arts Program extends from kindergarten through to high school. It is a program that provides knowledge and encourages the exploration of visual arts through a variety of media and materials. Art criticism and art history are also components of the curriculum.

In the elementary grades, art is an integral part of regular class activities; therefore, the general classroom is the venue for art instruction and is accordingly provided with a sink and additional storage. At the middle school, a separate art room is provided. In the high school, with the increased emphasis on specialization, art teachers and separate art rooms are required to allow for a broader range of art experience and more advanced levels of activity. The art class provides base courses in painting, drawing, printmaking and three-dimensional work and in addition may offer courses in photography, pottery, video, graphic arts and design, computer art, set design, etc.

The Department of Transportation and Infrastructure's *Design Guidelines for Educational Facilities* outline more detailed requirements for the art room in Section A-1 and contain a sample plan as well as the general specifications of architectural, mechanical and electrical particulars. Other plans or variations of plans may be approved provided they meet all the functions and characteristics as outlined here and in the *Design Guidelines*. Standard casework shall be provided as per the *Design Guidelines*.

16.2 LOCATION

a) A northern exposure with ample natural indirect light should be provided.

b) Conveniently located to receive bulky supplies.

c) Close proximity to an exit enabling classes to move outdoors.

d) Dedicated storage room is adjacent.

16.3 CHARACTERISTICS

a) Two deep stainless-steel sinks with interceptor integral with the plastic laminate countertop. (The plastic utility tub style sink is not acceptable.)

b) Approximately 9 metres of classroom casework including the two sinks along interior wall as per the *Design Guidelines*. Lower casework to be vented under sinks.

c) A large-scale drawing plotter may be utilized by the school when graphic arts are part of the art program. Location shall be decided during planning stage. Designate an area for a plotter and 2 computer workstations.

d) Room is frequently equipped with single or 4- to 5-student art tables, arranged for viewing teacher's demonstration area.

e) An open area is allotted for in the art room where any number of movable work surfaces such as art tables, easels and stools, woodworking bench, ceramic bench, potter's wheel, model stands, etc., may be located depending on the curriculum delivered at the school.

f) Accommodations for number and type of computers allotted at planning stage.

g) All finishes for walls and floors within human reach will be durable and vandal-proof and allow for easy cleaning. The same will apply to millwork, window, doors and equipment supplied within the contract. Carpet is not acceptable.

h) Operable windows will not pose a hazard to safety when the window is open nor impose on the functioning or limit the use of the room. Allow for all items detailed in Section A-1 of the *Design Guidelines*.

16.4 STORAGE ROOM

a) Purpose:

To store more bulky art items. Additional to casework storage in classroom.

b) Location:

Next to art room and accessible only from art room.

c) Characteristics:

i. Lockable door from the art room to the storage room.
ii. Supply a minimum of 4 lineal metres of floor to ceiling (4 m x 5 shelves) adjustable storage shelving.

MUSIC AND PERFORMING ARTS

17.1 INTRODUCTION

In the elementary grades, music is an integral part of the curriculum that forms the overall learning process. It may be in part experienced with the class teacher in the general classroom; however, the requirement for integrating movement with listening and the frequent formation of groups and rehearsals larger than normal class size necessitate access to a music room with adequate space and storage facilities. It should be noted that a room constructed specially for music can usually be used either as a general purpose room or for teaching other subjects, but a regular classroom is not able to perform adequately as a music room. Middle and high schools offer music curriculum. All types of facilities are provided with a music room.

In most schools of a critical size, the cafeteria with a stage associated with the dining area provides a facility for lectures and dramatic and musical performances. Each school will include a raised stage, washrooms and sound system suitable for the performance of concerts, plays and other school activities. Further details are discussed in *Section 25.*

To accommodate cultural activities, group sessions, practices and presentations in all K-8 schools, a performing arts room will be provided.

To accommodate the theater arts curriculum in high schools, in addition to the cafeteria where large assemblies can be accommodated with a stage, a performing arts room will be provided which may double as a second music room if so desired. The performing arts room serves as a teaching venue and for practice performances. The room may accommodate assemblies of multiple classes and larger lectures with its tiered retractable seating for an audience of up to eighty individuals.

The Department of Transportation and Infrastructure' *Design Guidelines for Educational Facilities* outline more detailed and technical requirements for the music room and performing arts room in *Section A-1* and contain sample plans as well as an outline of the general specifications of architectural, mechanical and electrical particulars. Other plans or variations of plans may be approved provided they meet all the functions and characteristics as outlined here and in the Transportation and Infrastructure' *Design Guidelines*. The standard casework shall be provided as per the *Design Guidelines*. The EECD will decide on any variation.

17.2 MUSIC ROOM

a) Purpose:

A room specifically designed for music instruction is essential to allow for a broader range of music experience and more advanced levels of activity. These activities may include:

i. Instrumental: concert band, orchestra, string ensemble, theory exercises, music and movement.
ii. Vocal: choirs, massed chorus, show chorus and soloist.
iii. Small Groups: instrumental ensemble, vocal ensemble, solo.
iv. Classroom: lecture format for music listening, music history, music theory, creative pursuits, class singing, rhythm bands, Orff groups (combined movement with music), computers, MIDI composition, electronic keyboards, etc.

b) Location:

i. Locate close to or adjacent to the stage. If adjacent to the stage, the room will be at the same floor level and allow barrier-free access.
ii. Room shall be located away from or isolated acoustically from other learning spaces due to noise inherent in its function.
iii. Avoid sharing a common wall with learning spaces other than music/performing arts rooms.
iv. No other learning spaces shall be located above or below the music room.
v. Avoid accommodating main branches of mechanical duct and air handling equipment close to the room.
vi. Music room should be located adjacent to the performing arts room and perhaps connected through the storage space.

c) Characteristics:

i. Room to be a minimum of 4 metres clear in height.
ii. Provide acoustical door seals on all doors from music room and practice rooms.
iii. Design to minimize sound transfer to and from adjacent space. See above.
iv. May consider non-parallel walls and provide other sound diffusing elements on side walls.
v. Provide a minimum of 50 STC rating for walls from music room to corridor walls.
vi. When it is not possible to locate room away from other learning spaces a minimum sound transmission class (STC) rating of 60 is required between the music room and adjacent learning spaces.

vii. Acoustic wall treatment should provide a minimum NRC 0.80.

viii. Fabric-covered acoustic wall panels to be applied to a minimum of 30% of all wall surfaces.

ix. Reverberation Time (RT) required to be between RT 0.70 - 0.80 seconds averaged over the frequency range of 500 Hz - 2,000 Hz.

x. Design ventilation system to minimize sound transfer to and from other areas. No main duct work shall travel over room.

xi. Consider making portions of the ceiling reflective to promote sound diffusion and ensemble between musicians.

xii. Provide approximately 7 metres of lockable casework in elementary and 9 metres in middle and high schools as per *DTI's Design Guidelines*.

xiii. A deep stainless steel sink with a gooseneck faucet will be provided.

xiv. All finishes for walls and floors within human reach be durable and vandal-proof and allow for easy cleaning. The same applies to millwork, windows, doors and equipment supplied within the contract. Carpet is not acceptable.

xv. Operable windows shall not pose a hazard to safety when the window is open or impose on the functioning or limit the use of the room.

17.3 MUSIC/INSTRUMENT STORAGE ROOM

a) Purpose:

To store more bulky musical instruments. Additional to classroom casework storage.

b) Location:

Next to music room and accessible only from music room.

c) Characteristics:

i. 900 mm lockable door to music room.

ii. Supply a minimum of (5) 450 mm deep x 9 lineal metres of floor to ceiling adjustable storage shelving.

17.4 MUSIC PRACTICE ROOM

a) Purpose:

To provide acoustical separation for instrumental practice.

b) Location:

Next to music room and accessible only from music.

c) Characteristics:

i. Acoustic wall treatment should have a minimum NRC 0.80.
ii. Fabric-covered acoustic wall panels to be applied to a minimum of 30% of all wall surfaces.
iii. Door complete with acoustical seals.
iv. STC rating – 60.
v. Ventilated.

17.5 PERFORMING ARTS ROOM

a) Purpose:

Provide space for cultural activities, group sessions, practices, and presentations for all K-8 schools. Performing arts shall be combined with the stage to create a black box theatre learning environment.

b) Preferred Location:

i. The performing arts room shall be incorporated with the stage area to enhance the theatrical program at this school.
ii. The program with the stage shall be located to provide convenient community access.
iii. Be able to be separated from the rest of the school.
iv. The program with the stage shall be should ideally be away and isolated from other learning spaces due to the noise generation inherent in its function.
v. When it is not possible to locate room away from other learning spaces a minimum sound transmission class (STC) rating of 60 is required between the music room and adjacent learning spaces.
vi. No other learning spaces shall be located above or below
vii. Avoid area of the school where main branches of mechanical duct work travel or avoid locating air handling rooms nearby.
viii. Performing Arts should be at the same floor level as the stage including barrier-free access.

c) Characteristics:

i. Room to be a minimum of 4 metres clear in height.

ii. Two exit doors complete with acoustical seals shall be provided.

iii. Provide acoustical door seals on doors. Provide insulated metal or solid core doors.

iv. Room to be provided with motorized telescopic roll away bleacher. Bench style or seat style to be determined during planning. (See Plan in *DTI's Design Guidelines*).

v. Design to minimize sound transfer to and from adjacent space. See above.

vi. Provide a minimum of 50 STC rating for walls from performing arts room to corridor walls.

vii. When it is not possible to locate the room away from other learning spaces a minimum sound transmission class (STC) rating of 60 is required between the music room and adjacent learning spaces.

viii. Acoustic wall treatment should have a minimum NRC 0.80. Fabric-covered acoustic wall panels to be applied to a minimum of 30% of all wall surfaces.

ix. Design ventilation system to minimize sound transfer to and from other areas. No main duct work shall travel over room.

x. Consider making portions of the ceiling reflective to promote sound diffusion and ensemble between musicians.

xi. All finishes for walls and floors within human reach will be durable and vandal-proof and allow for easy cleaning. The same will apply to millwork, window, doors and equipment supplied within the contract. Carpet is not acceptable.

xii. Operable windows will not pose a hazard to safety when open and will not impose on the functioning or limit the use of the room.

xiii. Any windows will be provided with black-out blinds.

xiv. Refer to Stage section 25.5.

PHYSICAL EDUCATION AND RECREATION

18.1 INTRODUCTION

The Provincial Educational Curriculum promotes quality physical education as a planned program of instruction providing activities for all students throughout their schooling, teaches physical skills and encourages attitudes that endorse a healthy active lifestyle. It is designed to meet the physical growth and developmental needs of all children and youth. The physical education program includes a variety of activities engaging pupils in large and small groups, including educational gymnastics, rhythmic movements, creative movement, aquatics, basic fitness and conditioning activities, sporting games, track and field, motor skill practice and team play; including basketball, soccer, volleyball, handball, badminton and other games of low organization.

Team sport play is a part of the curriculum; however, a new emphasis on physical education is intended to make fitness fun and leaves no one on the bench. This means adding a greater variety of activities (handball, dance etc.), especially smaller group activities, so that all students may enjoy physical education. Extra-curricular physical activities are also supported by the school facilities through intra-mural, extra-mural and various varsity sports at the high school and middle school levels.

Outdoor recreational pursuits are also incorporated into the school curriculum. These are often nature related and delivered off the school grounds, but the storage for outdoor recreational equipment must be considered in the facility plan.

When a school is planned as an integral part of the community for which it will serve, care must be taken in planning the physical education and recreation facilities to ensure suitability for both school and community purposes. Most often, minor modifications to the design are all that are required. Additional community-funded facilities may be provided in accordance with an agreement concluded between the community and the responsible academic officials.

SUMMARY TABLE

Grade Level	Single Gym (m^2)	Double Gym (m^2)	Multi-purpose Room (m^2)	Fitness Studio (m^2)
Middle (6 to 8)	591	821	280	

Note: 1) The size of multi-purpose or a third teaching station, if required, is always 280 m^2.
2) A fitness studio is only provided for schools with high school students and is **not counted** as a teaching station. Fitness studios are not provided in small schools.

Often, gymnasiums and multi-purpose physical education spaces are, in addition to delivering the above-mentioned curriculum, required for activities such as large assemblies, school dances, dance classes, dramatics, public meetings and other group activities.

The gymnasium, with related staff offices, storage and changing facilities and the outdoor playing field are required for delivery of the current physical education program. For playing fields *see Section 04.4 (n)* under Site Development, page 4-6.

Physical education instruction comprises 80% active physical learning and 20% classroom learning. The size of the gymnasium is based on groupings that are governed by class size and time period scheduling to ensure that an adequate amount of facility space is made available.

18.2 SPATIAL RELATIONSHIPS - PHYSICAL EDUCATION FACILITIES

a) Centrally Located:

The gymnasium will be next to the cafeteria and student commons. Ideally it is accessible from the main entry lobby when the lobby can be locked away from the rest of the school.

b) Stage:

It is usually desirable to share the stage with the cafeteria and the large gymnasium in a back-to-back relationship such that the stage may be used for smaller productions off the cafeteria or full productions off the large gymnasium, facing the bleachers if feasible.

c) Public Access:

The gymnasium should be accessible by the public for after-hours use and self-contained for such use. It can be locked off from other non-public areas of the school.

d) Public Washrooms:

Provide access to washrooms for assembly use. Should an after-hours occupancy exceed the designated washroom capacity, other washrooms should be accessible to meet that occupancy without infringing on the security of the school.

e) Bleachers:

A circulation pattern will be created such that spectators will not need to cross the gymnasium floor to access the bleachers. Gymnasiums shall be designed with the mindset that bleachers may be installed in the future and wall space should be available to support future installations.

f) Gym Game Lines / Floor Sockets

Games lines and court floor sockets should be carefully planned to incorporate with the future seating or bleachers with the layouts and colours.

g) Changing Rooms/Showers:

Locate off access corridor leading to the gym, accessible to the public and the rest of the school.

h) Instructor's Office:

Locate next to the gymnasium(s) with windows allowing direct supervision of the gym(s). Locate door to office off access corridor to the gym. Provide a visual connection to the corridor for supervision by means of a window in the door or wall.

i) Gym Storage:

Directly off the gym. An exterior door to playing fields will be provided from the storage area.

j) Community Storage

Directly off the large double gymnasium to provide access to the school's equipment for use by community use.

k) Exterior Storage:

Direct exterior access to a storage room to accommodate the school's exterior playground equipment and bicycles.

l) Playing Fields:

Direct exterior access to the gym surface should be avoided to prevent dirt tracking.

18.3 GYMNASIUM

Gymnasiums shall meet the following criteria:

a) Purpose:

The gymnasium is a large space planned for a multitude of uses as outlined in the introduction of this section (18.1).

i. A gymnasium of 591 m^2 is allocated for a single teaching station and a gymnasium of 821 m^2 is allocated for a full regulation size basketball court and is provided for a double teaching station.

b) Location:

Please *refer to the above section (18.2)* regarding Spatial Relationships. Both gymnasiums shall be located adjacent to each other with the ability to combine both gymnasiums into one space with a motorized partition and doors at both sides of the partition for student access between the 2 spaces.

c) Characteristics:

i. **Minimum** clear ceiling heights:
   - 591 m^2 = 7.2 metres
   - 821 m^2 = 7.5 metres

ii. Smooth wall surfaces free from protrusion and wall-mounted accessories to a height of 4 metres shall be provided.

iii. Acoustical treatment for walls above 4 metres to reduce reverberation shall be provided. Acoustical wall and acoustic deck are required.

iv. Resilient wood flooring or synthetic flooring designed for gymnasium use is recommended. The selection is determined by the user at the planning stage. When synthetic flooring is specified with bleachers, reinforcement is to be provided in flooring to prevent damage.

v. Consider strategic use of colour.

vi. Incorporate natural light as much as is practical, being careful to avoid direct sunlight that can interfere with activities and spectators' vision.

vii. Glare off gymnasium floors is often a problem. Consider design of sufficient indirect lighting and diffused natural light to avoid glare.

viii. Retractable basketball backstops will be motorized upswing for main court. Crosscourt backstops are motorized upswing only where bleachers are provided,

ix. Crosscourt backstops, other than described in the last sentence, are to be manual side swing.

x. Basketball backstops will be height adjustable at the elementary and middle school levels.

xi. All electrical controls shall be accessible for after-hours use.

xii. A motorized roll-up curtain shall be provided to divide the 591 m^2 and the 821 m^2 gyms into two stations, where two teaching stations are required. Arrangement of curtain shall allow for a passage between stations with plastic windows positioned to allow visibility for safety when passing between the two.

xiii. If feasible, a motorized dividing partition to be provided between the two gymnasiums including a person access door within the partition in close proximity to the storage rooms.

xiv. The gymnasiums shall have power and infrastructure to support electronic score boards

Note: The area occupied by recessed bleachers when retracted is not allocated to the gym area but under Services and Systems allocation (bleachers are not provided at the elementary level).

For dimensions, game lines, and additional details see DTI's *Design Guidelines for Educational Facilities*.

18.4 INSTRUCTOR'S OFFICE

a) Purpose:

An office area for the gym instructors in close proximity to the staff shower and changeroom, shall have supervision of both gymnasiums with windows into each space. This school has allocation of 2 gymnasium offices at 10 m^2 each and shall be combined into one larger office at 20 m^2 to provide space that is suitable for 4 teachers stations.

b) Location:

Next to the gymnasiums with interior safety glass windows allowing for good supervision of activity within the two (2) gymnasiums. Locate door in office off access corridor to the gym.

c) Characteristics:

i. Allow for office desk work area and file cabinet, (NIC).

ii. Dimmable Lights

iii. Provide white board, telephone, and data jack.

iv. Provide a window to the gymnasiums as noted above.

v. Power and date within the room to support 4 teachers stations/desks.

vi. Provide a visual connection to corridor for supervision by means of a window in the door or wall.

18.5 STAFF SHOWER WASHROOM AND CHANGEROOM

a) Purpose:

To provide staff with a shower change area with a washroom for hygiene and changing.

b) Location:

Off the main corridor adjacent or in close proximity to the gymnasium offices..

c) Characteristics:

i. Single use change area with a small bench and shower stall for washing with a toilet, sink, mirror, paper towel dispenser and towel hooks. Shower area to include small shelf.

18.6 GYM AUXILIARY WASHROOM AND CHANGING ROOM MODULE

a) Purpose:

To accommodate gym changing and hygiene – barrier-free design change room module as all inclusive / all gender change room to be provided for every gymnasium.

b) Location:

Next to the gymnasium off corridor leading to the gym.

c) Characteristics:

i. Provide 32 (305 x 305 mm) open mesh lockers.
ii. Provide 16 changing stalls from floor to ceiling with a bench within the stalls with one stall barrier free changing area in close proximity to the washroom area.
iii. Includes two toilet stalls, full height (One standard toilet stall & one barrier-free) with sink area in the common supervised area.
iv. Include one (1) single and accessible change stall with shower area for private changing and showering.
v. Include two (2) Standard change stalls with private shower areas for private changing and showering in each change room.

See DTI's *Design Guidelines for Educational Facilities* for sample plan.

18.7 GYMNASIUM STORAGE

a) Purpose:

To store both indoor and outdoor gym equipment.

b) Location:

Direct access from the gym. Exterior door to playing fields will be provided from the storage area.

c) Characteristics:

i. Provide storage shelving to suit school's needs.
ii. Design ventilation on the assumption that wet/dirty equipment is being stored.
iii. Double exterior door best positioned relative to playing fields.
iv. Provide proper storage space that is conveniently located if rollout protective floor covering is to be a part of the school's inventory.
v. Provisions for storing equipment poles for games.

18.8 EXTERIOR STORAGE ROOM

d) Purpose:

To store bicycles and playground equipment.

e) Location:

Direct access from the exterior only.

f) Characteristics:

i. Provide a storage shelve on one wall to accommodate helmets and balls.
ii. Design ventilation on the assumption that wet/dirty equipment is being stored.
iii. Double exterior door best positioned relative the playground.
iv. Door access with card / proximity reader for door release.
v. Door on security alarm, no glazing.

18.9 GYMNASIUM COMMUNITY ACCESS STORAGE

An allocation for additional storage of 15 m^2 at the elementary and middle school levels and 20 m^2 at high school level will be provided separately from school storage for community use of the gymnasium space to access poles, nets, balls, benches, etc. Provide adjustable shelving and ventilation for both spaces.

a) Location:

Direct access off the largest gymnasium to support common equipment in close proximity to the access door in the wall or motorized dividing partition.

18.10 PLAYING FIELDS

See Site Development Section 04.4 (n) Page 4-6

18.11 BLEACHERS

Bleachers shall be provided for the 821 sm. Gymnasium(s) and shall be motorized, retractable, and recessed so as not to create a playing hazard. When synthetic flooring is specified with bleachers, reinforcement is to be provided in flooring to prevent damage.

Provide a circulation pattern such that spectators will not be required to cross the gymnasium floor to access the bleachers.

Although located in the gymnasium, the space that bleachers occupy in their closed position is considered area allocated under Services and Systems and not a part of the gymnasium's area allocation in the educational specifications.

Bleachers are not provided at the elementary school level.

If feasibility allows, it would be preferred to have the stage in line with the bleachers to allow the bleachers use for performing arts productions or presentations within the gymnasium.

TECHNOLOGY EDUCATION

20.1 PURPOSE

The Technology Education curriculum is intended to foster the development of all learners as technologically literate and capable citizens who can develop, implement and communicate practical, innovative and responsible technological solutions to problems. It engages students in both intellectual and physical activities finding a pathway to technological solutions. This will involve the direct development of physical skills by constructing solutions applied to real-world problems and relating them to workplace technologies or everyday life. The curriculum may also focus on the operation and management of technological systems.

The use of information technology is quickly becoming a basic skill introduced in the lower grades by teachers in all subject areas. Applied hands-on programs commence at the middle school level with a very broad curriculum offering an overview of many technological fields to enable students to explore and find where their passions and talents might lie. At the high school level the curriculum becomes more specific but is still designed to offer students the flavour of potential career paths as well as practical life skills to those with such an interest. Two types of facilities are provided: a broad-based laboratory and hands-on vocational technology workshops as described in the following sections.

Depending on the school, the courses may offer an exposure to the commercial food industry, hospitality and tourism, the homecare industry, communication technologies, computer design technology, electronics, agriculture, machinery, welding, manufacturing, fabrication or construction. The specifics of the curriculum will vary depending on the school district and influences from local industry.

Local industries may become involved with the development and support of the technological facilities and form mutually beneficial community partnerships. Such relationships and their effect on the facility will be dealt with at the planning stage. Also, these facilities may be designated for after-hours adult educational use.

The Department of Transportation and Infrastructure' *Design Guidelines for Educational Facilities* outline more detailed information and contain an outline of the general specifications of architectural, mechanical and electrical particulars.

20.2 MIDDLE SCHOOL TECHNOLOGY EDUCATION (MSTE) (GRADES 6-8)

a) Purpose:

This laboratory activity space is provided for grades 6 to 8 students. The curriculum typically offers exposure to information-based technological skills, industrial arts, media communications and home economics. The course may introduce Graphic Communications, Power and Energy, and Materials and Manufacturing. The work space will be designed to introduce manual and cognitive skills that implement authentic, experiential learning activities using tools that are common to skilled trades. Use of basic hand tools such as hammers, saws, screwdrivers, wrenches, etc., is expected so that skills, dexterity, and confidence can be developed. Small power tools may also be used. The program is designed to offer a survey-type experience to students in a variety of areas and to assist students in developing an appreciation of industry and the world of work.

The planning process will elaborate on the school's particular requirements within this space. Existing equipment owned by the school may require particular infrastructure accommodations. Planning for changes and flexibility within practical and cost limitations must be considered when planning the Technology Education facility.

b) Location:

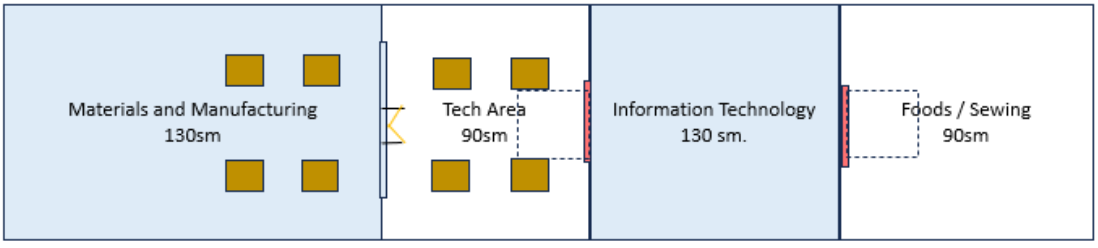
i. This room should be located on the main level.
ii. Due to the potential noise generated from this space it should be isolated from other learning spaces and quiet areas.
iii. If it is located near the gymnasium, care must be taken to ensure they are acoustically isolated from one another.
iv. MSTE (Material and Manufacturing) to have exterior access for materials.

c) Characteristics:

i. Ceiling Clearance: 2.7 metres clear in height.
ii. Egress Doors: 2-door egress – one single door and one double door. Exterior access door is desired for material delivery for the program.
iii. Visibility: Safety and the instructor's visibility are key design criteria that govern the layout.

iv. Layout:

- Foods/Sewing Area: 2-3 kitchenettes complete with stove, microwave, sink. Location for 2 refrigerators, and dishwasher. Include 3 mobile preparation tables for the program. Power to accommodate 10 sewing stations. – 90 m2. Storage cabinets 3000mm (l) x 600mm (d) x 2100mm (h) with adjustable shelves for material storage, lockable doors. Foods/Sewing to be adjacent to the IT area with large garage door (glazed section) for expansion.
- Information Technology is a flexible area for printers, plotters, computers and charging stations. – 130 m^2 with 4 pull down power reels. IT to be adjacent to the Tech Area with large garage door (glazed section) for expansion.
- Technology Area: Typically four (4) 1,500 x 1,500 mm work tables complete with electrical recoiling extension cords with four-plex receptacle overhead above each table. Solid hardwood worktop that is open underneath. A location for 3D printer and laser cutting with POU exhaust with timer. Includes a location for the storage of small tools. 90 m^2. Tech Area to be adjacent to the Materials and Manufacturing area with glazing for supervision and double door access (acoustically and weatherproof sealed).
- Materials and Manufacturing Area: Typically four (4) 1,500 x 1,500 mm work tables complete with electrical recoiling extension cords with four-plex receptacle overhead above each table. Solid hardwood worktop that is open underneath. Woodworking with hand tools, portable saw-dust collectors. Tools may include a drill press, band saw, and panel saw or cut-off saw (NIC). The room will be designed around the type and number of tools it is to be equipped with. Emergency power cut-off shall be provided in the teaching area. 130m^2. Storage cabinets 3000mm (l) x 600mm (d) x 2100mm (h) with adjustable shelves for material storage and rack space for 4x8 material storage and program material storage.



MSTE (440)

For room layouts see sample plans in Transportation and Infrastructure *Design Guidelines*.

STUDENT SERVICES

23.1 INTRODUCTION

The section defines and describes all the spaces required to serve the students that are auxiliary to the classroom and traditional instructional spaces.

Space allocations identified under student services are:

- **a)** Resource Room
- **b)** Resource Work Area
- **c)** Support Resource Offices
- **d)** Special Care Washroom/Changing room
- **e)** Guidance Office
- **f)** Integrated Service Delivery (ISD)
- **g)** Visiting Professionals' Office
- **h)** Waiting Area
- **i)** Quiet Room
- **j)** Calming Room
- **k)** Health Room
- **l)** Student Government Room
- **m)** Multi-Function Room
- **n)** Breakfast Program / Club
- **o)** First Nations Education Centre

The need for the above-listed spaces varies greatly from school to school; therefore, the number of such spaces as well as the desired location will be identified by the district through consultation during planning stages.

The Department of Transportation and Infrastructure's *Design Guidelines for Educational Facilities* outline more detailed information in Section A-1 and contain a sample plan for the resource room and for the special care washroom as well as an outline of the general specifications of architectural, mechanical and electrical particulars. Other plans or variations of plans may be approved provided they meet all the functions and characteristics as outlined here and in the Transportation and Infrastructure's *Design Guidelines*. Standard casework shall be provided as per the *Design Guidelines*.

23.2 RESOURCE ROOM

a) Purpose:

The resource room is essentially a small classroom designed to recognize the diverse learning needs of students. It provides additional support space complementary to the general classroom. One resource room will be equipped with any special equipment and devices required to meet the need of particular students attending the school. On a part-time basis, these rooms may accommodate smaller groups of learners, exceptional students with learning disabilities, gifted students, or students with medical challenges. For the most part, such students are served in the classroom with the assistance of support personnel such as a resource teacher. Exceptional students benefit from instruction and interaction with their peers in integrated classes, but some students may require individualized, specialized, and direct instruction within their school day. The break-out room is available for individual instruction, but at times more specialized and private support is required. The resource room is intended to respond to this need. It provides space for the resource teacher to serve students and teachers in a variety of ways, including direct instruction for individual students (e.g. remedial assistance, enrichment), assessment, consultation, in-service meetings and meetings with support personnel. Small groups of professionals and students may gather in this space, which provides more privacy than the student project area.

b) Location:

It is generally thought that this area should not be segregated but rather be a complementary component to the regular education space. With that in mind and for reasons of convenience, the resource room will normally be located in the wing or cluster close to the general classrooms it serves. Exceptions will be made during the planning process depending on the school's philosophy and organization.

c) Characteristics:

i. A 35 m^2 space outfitted with a one-metre-long computer station and a 1.8 metres long countertop with cabinets top and bottom.

ii. Provide for specialized equipment and for special needs of the students, other accommodations may be provided at the planning phase.

iii. Smaller resource rooms with no counter or cabinets, proposed to accommodate one on one support or small groups. The room shall be supported with a singe access door with glazing within the door for supervision and dimmable lights with 2 rooms allocated per floor for a total of 6 rooms.

iv. The room shall accommodate all the characteristics as outlined under the General Classroom in Section 12. A sample plan is provided in DTI's *Design Guidelines for Educational Facilities*.

v. Lights zoned if applicable depending on the size of the room & fully dimmable.

23.3 RESOURCE WORK AREA

a) Purpose:

Communal office area for all the resource teachers and their resource materials to support the students.

b) Location:

i. Adjacent to the Support Offices on the second floor centrally.

c) Characteristics:

i. Sound separation of STC 50.
ii. Allow for power and data drops in the room for 8-10 desks along the perimeter of the room with infrastructure for a printer access and leave space in the center for a large table.
iii. Allow for storage and filing cabinets.

23.4 SUPPORT RESOURCE OFFICES

a) Purpose:

Small office space for EAL program and Behavior Mentorship.

b) Location:

i. Adjacent to the Resource Work Area and the classroom areas.

c) Characteristics:

i. Sound separation of STC 44.
ii. Dimmable lights
iii. Allow layout for desk and work space with guest chairs.
iv. Allow for storage and filing cabinets.

23.5 SPECIAL CARE WASHROOM/CHANGING ROOM

a) Purpose:

The special care washroom is provided for students that require medical or exceptional hygiene attention.

b) Location:

This barrier-free washroom and changing room shall be accessible by a door to a designated resource room. One room is to be provided on the ground floor and a second support space to be allocated on the third floor for this school, centrally located in close proximity to the elevator, to be used by all the school's students who require special care. It may be preferred for it to be located adjacent to the visiting professionals' offices but should be evaluated on a case-by-case basis.

c) Characteristics:

Located within the room are the following barrier-free accommodations:

i. Sink with vanity.
ii. Laundry tub.
iii. Linen closet (Anglophone layout).
iv. Linen shelf (Francophone layout).
v. Toilet complete with grab bars, adjustable therapy table, provisions for a washer and dryer.
vi. Bathtub (in Francophone layout), shower complete with folding seat (Anglophone layout), and a surface-mounted medical lift track.
vii. No windows to the exterior from the changing room
viii. Access into the change room should be a galley approach with all the amenities on each side with lift access, review sample plans.

Sample plans are provided in the *Design Guidelines*. Suggested plans differ from Francophone to Anglophone schools.

23.6 GUIDANCE OFFICES

a) Purpose:

Work and counselling office space for guidance officer (Anglophone sector for middle and high schools. Francophone sector at high school only). The designer should be mindful that the counselling will be of a confidential nature. In small schools where the guidance officer is part time, the office may also be used by visiting professionals.

b) Location:

Central but discreet location that allows for confidential discussions with students. Located away from administration area. Waiting area adjacent to office.

c) Characteristics:

i. Sound separation of STC 44.
ii. Dimmable lights
iii. Allow layout for desk and work space with guest chairs.
iv. Allow for file storage.

23.7 INTEGRATED SERVICE DELIVERY (ISD)

a) Purpose:

Work and counselling office space for Integrated Service Delivery. The designer should be mindful that the counselling will be of a confidential nature.

b) Location:

Central but discreet location that allows for confidential discussions with students. Located away from administration area. Waiting area adjacent to office.

c) Characteristics:

i. Sound separation of STC 44.
ii. Allow layout for desk and work space with guest chairs.
iii. Allow for file storage.

23.8 VISITING PROFESSIONALS' OFFICE

a) Purpose:

Work, counselling, and administration space for visiting professionals that at times will require meetings of a confidential nature.

Professionals may include the following: Guidance Officer, Social Worker, Speech Therapist, Hearing Specialist, Police, Psychologist, Occupational Therapist, Physiotherapist, Literacy Specialist, Community Officer, Math Lead, Behaviour Intervention Worker, Autism Support Worker, etc.

For less confidential meetings the visiting professionals can use the break-out room located off the classroom corridors. This should be considered when determining the number of offices required.

b) Location:

i. Central but discreet location that allows for confidential discussions with students.
ii. Waiting area adjacent to offices.

c) Characteristics:

i. Sound separation of STC 44.
ii. Allow layout for desk and work space with 3 guest chairs.
iii. Dimmable lights

23.9 WAITING AREA

a) Purpose:

Seating area for those waiting to see a guidance officer or other consultation professional. Area to display reference materials.

b) Location:

Central but discreet location. Waiting area adjacent to guidance and visting professionals' Offices.

c) Characteristics:

Allow space for two seats per office located in office cluster. Allow shelving for display of information and reference material.

23.10 QUIET ROOM

a) Purpose:

May serve as a quiet space for students, typically, room would be outfitted with calming equipment or other devices to assist.

b) Location:

Central location in proximity of Special Care Resource Rooms.

i. Second floor in the general administration cluster.
ii. Act as quiet space or sensor room.

c) Characteristics:

i. Dimmable lights with switch outside of the room.
ii. Use of calming, trauma informed colours.
iii. Sound separation of STC 60.
iv. Small panel of glazing in the door for adult supervision.
v. Carpet tile installed in room
vi. No exterior window.
vii. No electrical outlets within the room.
viii. Not located too close to an exit door or stairwell.

23.11 CALMING ROOM

a) Purpose:

May serve as a quiet calming personal space for students.

b) Location:

i. Adjacent and accessible off the resource work area room.

c) Characteristics:

i. Use of calming, trauma informed colours.
ii. Window for supervision.
iii. Material used require easy/frequent sanitization.
iv. Magnetic hold door hardware with emergency assist call string.
v. Fire rated in accordance to contained use.
vi. Sound separation of STC 60.
vii. Not located too close to an exit door and should

23.12 HEALTH ROOM

a) Purpose:

To administer health care to students and staff, either proactive care or for sick individuals.

b) Location:

This room should be located in within the suite of the administration area. It may be located off the waiting room if convenient in the plan and should be in a central location to be used by students throughout the school. The accessible washroom should be adjacent within the main office area to also support the general office staff.

c) Characteristics:

Located within the room are the following:

i. A bed.
ii. A minimum of two metres of counter tops complete with lockable storage cupboards.
iii. An accessible washroom.
iv. This space is to include an eyewash station.

23.13 STUDENT COUNCIL AND STUDENT CLUB ROOM

a) Purpose:

Meeting space for student council and other club/student related meetings or activities.

b) Location:

Centrally located. Accessible from the corridor or cafeteria.

c) Characteristics:

i. Room layout shall accommodate student council meetings.
ii. Number of seats in a conference style layout: one per homeroom.
iii. Provide floor to ceiling lockable cabinets for club use to a volume deemed necessary.
iv. Provide one whiteboard and tack board.
v. Provide 3 m of countertop with lockable cabinets above and below

23.14 MULTI-FUNCTION ROOM

a) Purpose:

Multi-function space that will add flexibility to the operation of the school. The intent is a stand-alone space not to be added to any other area. For elementary and middle schools only. When requested by the community, this space is to be used as a daycare space. It should be located on the first floor near an entrance to avoid traffic through the school. When there is more than one multi-function room allocated to a school, they should be adjacent to one another.

b) Location:

See above and with the double room located on the ground floor, in close proximity to the main office area, and a single room located on the second floor, in close proximity to the guidance area.

c) Characteristics:

i. One 150 m^2 (Double Room) with 1 folding partitions to separate the room into 2 equal rooms and one 70 m^2 (Single Room). Doors should be provided into these spaces from the main circulation area in the event that all the partitions are closed of for individual use.

ii. The room closest to the main office should have provisions for a fridge, sink, base and upper cabinets. The other room should be fit-up as typical classroom areas.

iii. Lights zoned to darken projector locations and fully dimmable.

23.15 BREAKFAST PROGRAM / CLUB

a) Purpose:

The breakfast program supports the school community, providing nutritious breakfast meal to the students to commence their learning day.

The breakfast program is based on parents volunteer to provide hot & cold meals, refreshments, snacks, etc..

b) Location:

i. Located of the dining space in a position that allows ease for deliveries of food.

ii. Possibilities of a pass-through to the dining area to allow students to receive meals,

c) Characteristics and Design Considerations:

Typical Breakfast Program / Club size:

Size will be selected based on future school enrolment or if the space can be shared with the Food Laboratory Space, expectations as per the following:

25 m^2

- **Functions:**

  Breakfast Program / Club will accommodate the following components:

  - Receiving
  - Food storage
  - Non-food storage
  - Food preparation
  - Serving
  - Dishwashing
  - Cooking – Residential Range
  - Reheating

  For detailed equipment schedule, requirements and sample plans to aid in the kitchen's design refer to DTI's *Design Guidelines for Educational Facilities*.

- Ventilation:

  The breakfast program will require the use of a residential range with exhaust range hood.

- Power & Equipment:

  Power shall be provided to support a Microwave and 2 toasters on the counter space and an undercounter dishwasher. The program will require a space to accommodate a chest freezer and large refrigerator (48" wide). Include space to accommodate an additional 36" wide refrigerator.

- Cabinetry:

  Countertop and food preparation area, with lower cabinets and upper cabinets with a section of open shelving (three shelving units) for food storage.

- Plumbing

  Double sink with undercounter dishwasher and small handwashing sink.

d) Procurement and installation of kitchen equipment:

As a rule-of-thumb, any equipment supplied and installed as part of the building contract will include any fixed equipment and other equipment or appliance requiring 240 volts or higher, such as coolers and freezers. The coolers and freezers are served from the kitchen equipment for power and cooling. Any electrical equipment or appliance requiring 110 volts will not be supplied by the building contract. Electrical receptacles shall be supplied and coordinated as required.

23.16 FIRST NATIONS EDUCATION CENTRE

a) Purpose:

This space is dedicated for First Nation Education to promote the academic success. Personal well-being, citizenship, and career preparedness of First Nation students in New Brunswick provincial schools, and to educate the public at large about First Nation cultures, histories and current realities.

b) Location:

Located off the second-floor common area to support access from all grade levels, and community use, with minimal travel distance from the main office lobby area. One large learning centre with a language and culture room within. Accessible washrooms and elevator access should be in close proximity to each other.

c) Characteristics:

i. The main learning centre shall include:
- Sink and cabinets with some counter space and cabinets for storage.
- Glazing to the common area.
- Area in the common area for boots and coat racks
- The room should be acoustically isolated form any adjoining spaces by walls that provide a minimum STC 50
- Provide acoustical door seals on all the doors.
- Provide 2 (two) 4x8 white board and 2 - 4x4 tackboards on the walls.
- Power and data to support future projector over the white board.
- Power and data for 2 small work spaces.
- Lights zoned to darken projector locations and fully dimmable.

ii. One room designed for Language Culture to support activities such as Smudging and Drumming with the following:
- Ventilation with point of use and timer.
- Fire rated in accordance to contained use.
- Sound separation of STC 60 between common walls and within the learning centre.
- Provide acoustical door seals on all the doors.
- Acoustic wall treatment should have a minimum NRC 0.80.
- Lights fully dimmable.

LIBRARY/LEARNING COMMONS

24.1 INTRODUCTION

The complexion of the library is changing as current reference information is more accessible through digital sources than books and periodicals. Regardless of the evolution in technological format from books to computers to non-print communication, the library must still acquire, store and disseminate information and provide the patron with a welcoming and rewarding experience. Its traditional purpose remains, which is to encourage and provide opportunities for students to conduct research, use various sources of information, gain knowledge or simply read for enjoyment. In middle schools and high schools, lounge-style furniture is desirable. In elementary school an open reading area for classroom gatherings must be accommodated. Natural indirect light is important. Because of the rate of changing technology and the diversity of materials from school to school, particular accommodations may need to be considered during the planning stages.

Community partnering lends itself to the library. The planning for such a fit requires consideration from the outset of a school design. If the library is attached to the school, the safety and security of the student must be addressed. A means for community access to the library must be provided that does not allow entry to the rest of the school.

The main library space should be divided approximately as follows:

- 75% - Main open space- reading, research, individual study and shelving
- 10% - Circulation area
- 8% - Technical processing and equipment storage
- 7% - Computer terminals (minimum of six terminals)

One or more seminar rooms for group activities and meetings will be provided to accompany the library. This area allocation is over and above the space allocations formula for the library as outlined in Part B.

The Department of Transportation and Infrastructure's *Design Guidelines for Educational Facilities* outline more detailed and technical requirements for the Resource Centre in Part 2-Section A-1 and contains an outline of the general specifications of architectural, mechanical and electrical particulars.

24.2 LIBRARY/LEARNING COMMONS LOCATION

The space will be located as follows:

a) Centrally located.
b) A separate area that is acoustically isolated.
c) Should be visually open to and inviting from the corridor.
d) If community access is required, an exterior door may be necessary.
e) Should be located to provide one or two exterior walls.

The space components of the library are described as follows:

24.3 MAIN OPEN SPACE

(approximately 75% of floor area allocation formula)

a) Purpose:

Area to accommodate shelving for books and other reference material and to provide comfortable, inviting accommodation for reading and research.

b) Location:

i. Visually supervised from circulation desk.

ii. Allows for an abundance of natural light.

c) Characteristics:

i. **Reading Area:** To provide for reading, individual study, and viewing of and listening to information services. This area will be able to accommodate the following:

- Tables and chairs to accommodate small groups of students.
- Lounge-style furniture in middle schools and high schools only.
- Open space seating for classroom readings in elementary schools.

ii. **Shelving:** The school district will confirm an estimate of the number and type of printed material to be accommodated. Consider the following when estimating shelving area:

- Grouped rows of free-standing sections of shelving in blocks to allow for spacious uninterrupted reading area.
- Estimate needed space for bookshelves in terms of the book volume required for maximum enrolment. One metre (lineal) of shelf space will house about 30 volumes for a high school library and 35-45 volumes for an elementary school library. Picture book shelves (requiring dividers between uprights) can accommodate about 50-60 books per metre. Encyclopedias and many other reference works require one metre for 24-30 volumes.
- From 90 to 95 percent of the shelving should be 225 mm deep, about 10 percent 250 to 300 mm deep. Special cases for atlases may be desirable. Folios can be placed upright on their side with their title facing out in a counter-height double-faced section, using both sides as a double shelf.
- Standard book shelving comes in 1-metre units. Not more than two sections of double-faced shelving should be included in one free-standing counter unit. Double-faced, free-standing shelving should be included in one free-standing counter unit. Double-faced, free-standing units 1,830 mm or 2,130 mm high should be not more than five sections long. Leave 1,500 mm between the face of the bookstand and the edge of the adjacent tables.

24.4 CIRCULATION AREA / ADMINISTRATION

(Approximately 10% of floor area allocation formula)

a) Purpose:

To accommodate the control and circulation of books, reference materials, and other equipment stored for loan, as well as provide for work activities of the librarian and library assistant.

b) Location:

i. Strategically located to control access.
ii. Located close to entrance.
iii. Positioned not to create congestion when numbers as large as a class size may wish to sign out materials.
iv. Position to view all of main library space.
v. Controls access to technical processing room.

c) Characteristics:

i. Efficiently designed desk to perform multiple tasks.
ii. Outfitted for staff computer terminal, fax machine, phone and scanner.
iii. Library shall be able to be controlled by one staff member.
iv. Working countertop for library staff.
v. Countertop to serve standing individuals.
vi. Service countertop heights shall be designed not to impede supervision by library staff.
vii. Allow for barrier-free service component.
viii. Shelving space for reserved books.
ix. File storage and desk drawers.
x. Book drop.
xi. Task lighting over desk.
xii. Define area distinctively with a lower ceiling, highlight colour or in other creative ways.
xiii. Circulation space.

24.5 COMPUTER TERMINALS

(approximately 7% of floor area allocation formula)

a) Purpose:

Accommodate a minimum of six computer terminals for library reference and Internet use.

b) Location:

Close to circulation desk for ease of assistance.

c) Characteristics:

i. Free from glare.
ii. Suitable electrical and data jacks.

24.6 AUDIO VISUAL AND EQUIPMENT ROOM

(Approximately 8% of floor area allocation formula)

a) Purpose:

Work and storage room for library staff and school electronics.

b) Space Location:

Accessible from and controlled by the circulation desk. May be two rooms.

c) Space Characteristics:

i. May store audio visual equipment and supplies May require work counter with sink, some open knee space underneath, some lockable cupboard underneath, some drawer storage.
ii. Requires open space work table.
iii. Shelving for periodicals.
iv. Shelving for reserve books not housed in circulation desk.
v. Configuration of this space to be determined at the planning stage.

24.7 SEMINAR / ACTIVITY ROOM

(Over and above library space allocation formula)

a) Purpose:

Activity or seminar rooms, multi-purpose computer lab.

b) Location:

Accessible from library and corridor.

c) Characteristics:

Shape will accommodate boardroom-style table. Include glazing between this room and the library to allow visual connection and supervision.

i. Power and data around the perimeter of the room to allow the space to be flexibly used as a computer lab work area including a pull down reel in an optimal location, not to pose as an obstruction within the room.

ii. The ability to open up the seminar room as part of the library with movable glazed partition or vertical glazed partition so the seminar activity room's activities could be expanded on occasions into the library space.

CAFETERIA

25.1 INTRODUCTION

The cafeteria is an active, vital and important part of the school. The prime purpose of the cafeteria space is to provide a pleasant space for the noon hour meal, but the capacity for this substantial space to provide multiple uses throughout the school day and after-hours is expected. It will provide an assembly space for lectures, audio-visual presentations and dramatic/musical performances. It should also serve as one of the main social venues in the school with the potential to function as smaller space components both for social convening and smaller learning spaces. The cafeteria should be a bright, welcoming place where one wants to spend time.

A kitchen and a stage are normally provided with the cafeteria. Their area allocations are over and above the formula for dining space.

It is the responsibility of the school district, in consultation with the departments of Health and Education and Early Childhood Development, to determine the nature of the food service program for each school. Standard kitchen arrangements have been developed and the plans may be referenced in the *DTI Design Guidelines*. Modifications to these plans will be considered based on an analysis of the menu plan in consultation with a commercial kitchen planner and the above-noted departments.

In smaller elementary schools, the cafeteria and physical fitness facility are combined when physical education grouping demands can be met after excluding the half an hour before and after the scheduled lunch period. A kitchen as well as a stage will adjoin this multi-purpose space to accommodate noon hour meals and assemblies and performances. The outfitting of chairs and tables shall accommodate their efficient removal and return.

The cafeteria space provided will accommodate one half of the student body at one time. This fact must be considered in the school's class scheduling structure.

25.2 SPATIAL RELATIONSHIPS

a) Centrally Located:

The cafeteria should be located in proximity to the gymnasium and student commons. Ideally it is accessible from the main entry lobby.

b) Stage:

It is usually desirable to share the stage with the gym in a back-to-back relationship with the cafeteria such that the stage may be used in both rooms. If it is deemed desirable to locate the stage on an end wall of the gymnasium, cautionary measures should be taken to ensure that, when the stage is not in

use, a solid flush secure smooth wall will result and its presence will not pose a hazard when in use for physical fitness. The stage should also be in proximity to the music/performing arts room.

c) Public Access:

The cafeteria should be accessible by the public for after-hours use and self-contained in combination with the gym for such use. It will be able to be locked off from other non-public areas of the school.

d) Public Washrooms:

Provide access to washrooms for assembly uses shared by the gymnasium. Should an after-hours occupancy exceed the designated washroom capacity other student washrooms should be located that are accessible to meet that occupancy without infringing on the security of the school.

e) Outdoor Connection:

The design will create a strong connection and direct access to the outdoors. The outdoor classroom will be nearby and offer opportunity for outdoor lunch seating.

25.3 DINING SPACE

Careful design consideration to ensure a successful pairing and combining multi-uses requires skilled attention in the design process. Some of the concerns to be met are:

a) Dining area will equal 1.2 m^2 x ½ the enrolment (a 2-period lunch schedule).

b) It must be possible for the space to screen any natural light provided and be darkened when required for presentations.

c) Student circulation paths through the space should not limit the uses for assemblies such that class changes interfere with a presentation.

d) Viewing angles to the stage area must be considered.

e) Acoustical treatment is to be provided for both dining and assembly space.

f) The design requires attention to enable quick and easy removal, storage and repositioning of tables and chairs. Tables that fold and retract into the walls are often practical. The design will account for the convenient location of all tables and chairs when not in use and in a stored location. Space under the stage will be used for storage of chairs. A rolling storage unit (NIC) shall be provided under the stage to allow for convenient storing. During design, the school district shall provide specifications for the rolling storage unit they will be purchasing.

25.4 KITCHEN

a) Purpose:

All new schools will be supplied with a kitchen capable of serving the student body hot and cold lunches. The architectural firm must hire a commercial kitchen consultant to ensure that the kitchen supplied is capable of producing the desired menu for the number of meals required to be served within the desired time frame and the work must be coordinated through the EECD. Meals will be served to the whole student body during two separate periods.

The kitchen and auxiliary space should be planned and built for the maximum meal load anticipated in future years. Some equipment may be omitted until needed, but provisions for the equipment should be in place.

b) Location:

i. Located such that exterior access is provided via a service drive for deliveries and garbage removal. Access drive should avoid conflict with any pedestrian traffic and be away from any play areas.

ii. Located off dining space in a position that allows for sufficient space for the queuing required during peak service hours.

iii. Kitchen work noise shall not interfere with presentations in the cafeteria.

c) Characteristics and Design Considerations:

i. See typical layouts in DTI Design Guidelines.

ii. **Typical kitchen sizes:**

Size will be selected based on future school enrolment expectations as per the following:

- 180 m^2 – enrolment 801 and over: See plan in DTI *Design Guidelines*.

iii. **Functions:**

Kitchen facilities will accommodate the following components:

- Receiving
- Food storage
- Non-food storage
- Food preparation
- Serving
- Dishwashing
- Office and planning
- Employees' lockers
- Janitor's sink and storage
- Employee's washroom

For detailed equipment schedule, requirements and sample plans to aid in the kitchen's design refer to DTI's *Design Guidelines for Educational Facilities*.

iv. **Procurement and installation of kitchen equipment:**

As a rule-of-thumb, any equipment supplied and installed as part of the building contract will include any fixed equipment and other commercial equipment or appliance requiring 240 volts or higher, such as coolers and freezers. Any electrical equipment or appliance requiring 110 volts will not be supplied by the building contract. Electrical receptacles shall be supplied and coordinated as required.

25.5 STAGE

A stage will be combined with the performing arts program and be located adjacent to the dining area to facilitate lectures and dramatic or musical performances for all schools. In all schools, auditorium-type functions are expected to take place in the cafeteria. If possible, the stage should be located near the music rooms. A desired scenario is the back-to-back arrangement where the stage connects the gymnasium and the cafeteria, thus allowing both spaces use of the stage.

Cautionary measures should be taken to ensure that, when the stage is not in use, a solid flush secure smooth wall will result, and its location will not pose a hazard when the gym is in use for physical fitness.

Each school will have a raised stage and sound system suitable for the performance of concerts, plays and school activities. It is important that acoustical properties be given careful consideration. Permanent stages are usually provided. Convenient classrooms may serve for dressing and make-up rooms.

Space under the stage will be used for storage of chairs. Rolling storage units designed to hold chairs shall be provided under the stage to allow for convenient storing. Chairs to be provided by the District (NIC).

The stage must be provided with a ramp for barrier-free access and movable partitions that a portion on each side of the stage can remain as wings for side lines on the stage, for performances.

Stage to include a service closet to accommodate the sound system for the stage. The movable partitions to seclude the stage shall be designed as such as split openings to create the illusion of wing walls for theatrical productions from either side (gymnasium or cafeteria).

PERSONNEL CENTRE/STAFF ROOMS

26.1 STAFF LOUNGE AND WORK AREAS

a) Purpose:

Comfortable space for lounging area or eating for teachers and support staff with a combined work area.

b) Location:

i. 2 locations to provide support across the floor levels with equal distance on average across the floor levels (Ground & Third Floor).
ii. Staff washrooms adjacent.
iii. May be desirable to be close to the common area for convenient use of the staff washrooms.

c) Characteristics:

i. Provide small kitchenette area complete with provisions for a refrigerator, dishwasher, microwave shelves and a single stainless steel sink. Appliances are not supplied in building contract.
ii. Natural light and opening windows.
iii. In larger schools, the allocated area may be divided and personnel centres may be in more than one convenient location. Determined at planning stage.
iv. Provision for photocopier and work tables.
v. Mailboxes may be alternately located in the staff area as opposed to the administration area if desired. See mailboxes under Section 27-2(c-iv).

26.2 STAFF WASHROOMS

Two all inclusive washrooms for staff with one of the washrooms barrier-free washroom(s) associated with the staff lounge / work area. If classroom wings are remote from staff area, provide additional staff washroom in wings and floors to provide adequate access to washrooms for all staff members within a reasonable travel distance.

i. Door ANSI function: F82 (Privacy lock with key function for emergency access with occupancy indicator)

ADMINISTRATION

27.1 INTRODUCTION

The administration area is the hub of the school, serving as a control centre both physically and electronically. It receives students and the public and provides office space for the clerical and reception staff as well as the principal and vice-principal. It houses communication and technology networks and its design should facilitate the control of the public as they enter the school. It plays a major role in welcoming visitors and students alike, and serves to protect and secure the school. The connection from the administration centre to the main arrival lobby and circulation hub of the school should be clear and direct and will command an unobstructed view of the main entry doors.

27.2 RECEPTION

a) Purpose:

This public space is designed to receive visitors and students waiting for appointments and meetings with the principal, vice-principal or other staff. A service counter shall be provided to serve the public and the student body. The counter will separate the reception from the general office area. In addition, there will be mailboxes for staff distributions in the reception area unless an alternate location is chosen in the planning stages such as in the staff lounge or staff work area.

b) Location:

The reception space is accessed from the main lobby and allows entry to the central office area. The receptionist will be able to supervise this area as well as have a view to the main lobby and entrance doors from his or her work station.

c) Characteristics:

i. **Seating:** A defined seating space or alcove will be provided for those waiting and will allow for comfortable but space-efficient seating.

ii. **Circulation:** Will allow for circulation through to the general office without conflicting with seating area.

iii. **Reception counter:** A service reception counter will separate the public waiting area from general office with gates or openings for effective circulation and accessibility. The counter will contain drawers and adjustable shelving on the office side, and toe space on both sides. Height should be 915 mm to 1,060 mm for adult or high school use. In elementary schools and combined schools, a section of the counter should be 800 mm high for elementary students.

iv. **Mailboxes:** Provide built-in mailbox cubicles approximately 225 mm wide, 100 mm high and 300 mm deep for at least every staff member as well as one larger cubicle for packages, about 4 compartments high (400 mm) by 3 compartments wide (625 mm) by 300 deep. Location of boxes will consider traffic patterns and accessibility and will not conflict with functioning in the reception area or the general office. Alternatively, the mailboxes may be located in the staff lounge or workroom. The mailboxes may be pass-thru style if desired.

v. **Signage:** Provide signage to identify the administration and reception.

27.3 GENERAL OFFICE

a) Purpose:

The general office provides space for the receptionist and clerical staff. It serves as a privacy buffer for the principal and vice-principal who often conduct confidential business in their offices.

b) Location:

Located to allow clear and unobstructed views of the arrival lobby and front doors. The principal and vice-principal's offices feed from the general office space.

c) Characteristics:

i. **Acoustical separation:** Separate the administration from the busy lobby space acoustically in such a way that the separation does not infringe on the visual connection. This may be done by means of sliding glass doors or sliding glass windows across the service counter. During less hectic hours the area should be able to remain open to the school.

ii. **Coat Closet:** Provide a coat closet for those working in the administration area.

iii. **Open Space:** Allow open space for general office work that will include office furniture, filing cabinets (NIC), and a work counter for processing documents.

iv. Provisions for office equipment. This space is to serve administrative staff only. Teaching staff will use the teachers' workroom as described in Section 26.

v. Allow for enclosed space for photocopy machine.

vi. Allow space to house communication equipment, public address system.

27.4 PRINCIPAL'S OFFICE

a) Purpose:

Work space and private meeting space for the principal.

b) Location:

Direct access from the general office.

c) Characteristics:

i. Allow exterior view of approach to main entrance.
ii. Ample natural light.
iii. Provide interior window to general office space.
iv. Plan for the following furnishings (NIC): desk, chair, filing cabinets, conference chairs, bookcases, telephone, and microphone connection to public address system.
v. Sound separation of STC 44.
vi. Lights fully dimmable.

27.5 VICE-PRINCIPAL'S OFFICE

a) Purpose:

Work space and private meeting space for vice-principal.

b) Location:

The vice principal's offices shall be located with and additional access to the common student area to be more accessible, while also maintaining access from the general office.

c) Characteristics:

i. Located between the general office cluster and the common student commons or corridor area.
ii. Ample natural light.
iii. Provide interior window to general office space.
iv. Plan for the following furnishings (NIC): desk, chair, filing cabinets, conference chairs, bookcases, telephone, and microphone connection to public address system.
v. No glazing in the door off the student commons corridor access.
vi. Glazing in the door off the general office area for supervision.
vii. Sound separation of STC 44
viii. Lights fully dimmable.

27.6 CUMULATIVE FILING/STORAGE ROOM

a) Purpose:

Storage of historical student records and office supplies.

b) Location:

Convenient location within general office area.

c) Characteristics:

Adjustable shelving to store office supplies.

i. Adjustable shelving to store filing boxes and office supplies.
ii. Space for filing cabinets.
iii. Secured storage area.

27.7 VESTIBULE MEETING ROOM WITH WASHROOM

a) Purpose:

Intended as a meeting space and washroom facility outside the secured area of the school for visitors.

b) Location:

Main entrance vestibule adjacent to the General Office.

c) Characteristics:

i. Suitable for small meeting table for up to 6 occupants
ii. Both meeting room and washroom accessed off the vestibule.
iii. Meeting room sound separation of STC 44..

CUSTODIAL

28.1 PURPOSE

The section defines and describes all the spaces that are necessary to accommodate responsibilities of the custodial staff. These may be affected by the local organization of the custodial program, but responsibilities usually include the following functions:

a) Housekeeping and sanitization.

b) The storage of all school sanitary and cleaning supplies.

c) The receiving, inventorying, storing, and shifting of all unattached equipment.

d) Taking care of loose hardware and making minor mechanical repairs.

e) Maintenance of the mechanical and electrical systems.

f) The care and maintenance of grounds and athletic fields. An outdoor storage enclosure is provided for grounds maintenance as outlined in *Section 04.5.m*.

28.2 CENTRAL CUSTODIAL SPACE

a) Purpose:

Facility for general building maintenance, cleaning equipment, receiving and shipping. One allowed per school. In smaller schools some of the provisions listed below may need modification due to space limitations and lesser needs.

b) Location:

The main custodial facility will be centrally located adjacent to the maintenance and systems areas. Allow for a direct exterior access door or readily accessible exterior door off corridor.

c) Characteristics:

The space will provide the following:

i. Fire rated to meet National Building Code.
ii. Workbench for small repairs – (2 to 3 metres long).
iii. Adjustable storage shelving for short-term storage of cleaning and sanitary products (not intended to store annual supplies).
iv. Space for cleaning equipment storage.
v. Exterior receiving door (if possible).
vi. Receiving area in school larger than a 500 enrolment.
vii. Slop receptor as described below under 28.3.
viii. Custodian's locker – one per custodian.

ix. Custodian's office - 10 m^2 for an enrolment of 750 or larger.
x. Outfitting for a washer/dryer.
xi. Provide data drop for 1 computer/printer.

28.3 CUSTODIAL CLOSET

a) Purpose:

Custodial cleaning station.

b) Location:

i. One per wing or cluster.
ii. In proximity to student washrooms.
iii. Door accessible from corridor (not washroom).
iv. If the central custodial facility is remote from gymnasium provide custodial closet for gym.

c) Characteristics:

The space will provide the following:

i. 4 m^2 minimum. Configuration of space must accommodate typ. custodial supply cart, 600mm x 1200mm.
ii. Adjustable storage shelving for cleaning and sanitary products.
iii. Slop sink.
iv. Wall-mounted storage for brooms, mops and step ladders.
v. Storage of mop pails, cleaning wagon, and floor polisher.
vi. Mechanically ventilated.
vii. Eye wash station.

28.4 RECYCLING STORAGE ROOM

a) Purpose:

Recyclable material storage area.

b) Location:

Located in close proximity to cafeteria and exterior service entrance.

c) Characteristics:

The space will provide the following:

i. Space shall have double deep stainless sink.
ii. Space shall have a floor drain.

SERVICES AND SYSTEMS

29.1 INTRODUCTION

The area allocated under Services and Systems comprises the portion of the school whose quantity can only be determined by a factor of the required programmed spaces for which it serves. The total area programmed for specific uses as outlined in all the preceding sections in Part C is referred to as the net space. This net space plus the area encompassed by services and systems equals the total gross area of the school.

The following area components form the services and systems space allocation:

Wall space, circulation space; including but not limited to corridors, stairs and elevators, lockers, lobbies or vestibules, student/public washrooms (all washrooms required for student use that have not been listed previously), gymnasium bleachers (the space they occupy when retracted), mechanical and electrical services including any duct or service area that occupy floor plate space.

29.2 CORRIDORS

a) Minimum widths:

All corridors serving elementary and middle school classrooms shall not be less than 2.2 metres clear in width between any obstructions, including that of the path of a swinging locker door (middle school).

All corridors serving high school classrooms shall not be less than 2.4 metres clear in width between any obstructions, including that of the path of a swinging locker door.

Circulation areas must be able to handle student traffic without congestion during peak times between periods as well as before and after school hours. Areas that converge will be subject to high traffic levels such as the intersection of corridors and the main entrance to the school and must therefore be enlarged appropriately.

Careful attention must be paid to ensure that all aspects of the corridor design are in conformity with the National Building Code and meet all of the Provincial Fire Marshal's safety concerns.

b) Length:

The length and number of corridors is a product of the arrangement of component programmed spaces. These layouts and relationships should be planned in such a manner as to keep the total area of corridors to a minimum.

c) Nodes, focal points, variation and interest:

The corridor should be thought of as a part of the learning environment. An effort will be made to create a less institutional corridor with places and happenings within the circulation path. Consider a "main-street" circulation system, which creates a dynamic flow of movement through the facility.

The project work areas, which are open to the corridor, should be thought of as a focal point or nodes of space that will be used as a means to reduce the monotony of the corridor. Seating alcoves are encouraged. Any such space shall not impede and infringe on circulation. The glazed break-out rooms might also be used as a vehicle to provide interest along the corridor. If they are paired across the corridor they will create more of a break visually in the linear pattern of the corridor. Areas or intersections could be highlighted with changes in lighting or colour. Views to areas of interest or the outdoors may be framed. Student display walls or spaces should embrace the school's character and create interest, keeping fire regulations and budgets in mind.

d) Natural light:

Some natural light should be introduced into every classroom wing corridor. This may be achieved by means of the windows in the student project work area, end windows, high level clear-story windows, or courtyards.

e) Use of colour:

Thoughtful and tasteful use of colour is encouraged. Define spaces and nodes with changes in colour.

f) Water fountains:

Provide barrier-free, refrigerated bottle filling water fountains to a minimum of one in every classroom wing located close to washrooms; a minimum of one outside of the gym changing rooms in the access corridors to the gym; and a minimum of one for the industrial technology area.

g) Surveillance:

Corridors should not allow any blind corners or out-of-the-way areas that cannot be visually monitored. The corridor will be equipped with electronic video surveillance equipment strategically located to view all corridor spaces.

h) Lockers:

Middle schools and high schools will be equipped with prefabricated recessed metal lockers located in the corridors close to homeroom classrooms at a rate of one per student, based on maximum enrolment. Lockers to be 1830mm (h) x 305mm (w) x 460mm (d).

29.3 STAIRWELLS

a) Minimum widths:

Main staircases shall not have a tread width of less than 2 metres.

b) Accessible design:

Stairwells will conform to current version of CSA Document B651.

c) Natural light:

Natural light is desirable in the stairwell.

d) Use of colour:

Thoughtful and tasteful use of colour is encouraged. Stairwells may be highlighted by a change in colour.

e) Surveillance:

The stairwell should not allow any corners or out-of-the-way areas that cannot be visually monitored.

29.4 LOBBIES AND VESTIBULES

a) Entrance Lobby:

The lobby should be the central organizing hub of the school. The administration area shall be located to command a full view of the lobby and allow visual supervision of the main doors and exterior canopy area. The arrival lobby area should be clear and open and of an adequate size to allow for the flow of the whole student body.

The lobby should be welcoming. It should make a statement about the school. Within the lobby provide some creative format for student display. As well, the school may consider locating community art pieces here. Ideally the student commons area should be associated with or in proximity to the entrance lobby.

i. The use of “earth” products in the main entrance/lobby, some common areas, library and the First Nations Learning Centre is encouraged to connect these areas with natures elements and to reflect cultural and geographical contexts by incorporating natural traditiional building materials and locally designed elements.

b) Vestibules:

Provide a vestibule at all main exterior entrances and exits. All vestibules are to be fully glazed for security reasons. Provide recessed floor mats in vestibules.

29.5 ELEVATOR

a) A passenger elevator will be incorporated into every new multi-storey facility.

b) The elevator (2,200 lbs minimum) will be designed to allow for the movement of such items as furniture and cleaning equipment typically required in the facility. In new buildings, a handicap lift is not acceptable.

c) The elevator will be in a central location and close to the main entrance.

d) The elevator is required to be barrier-free conforming to latest edition of of CAN/CSA-B44, “Safety Code for Elevators.”

29.6 STUDENT/PUBLIC WASHROOMS

a) All other washrooms outlined elsewhere in this document are not considered part of the area allocated within services and systems and are, therefore, not described in this section, whereas washrooms provided for the students and the public are.

b) As a minimum, all-inclusive washrooms shall be sized in each wing or cluster in accordance with the maximum capacity use for the wing according to the tables supplied in the currently adopted National Building Code and designed as all gender/inclusive with one barrier-free toilet stalls as per the NBC. These washrooms shall be in close proximity to the classroom groupings and provide support to the students without the requirement of travelling beyond 45m to access these spaces.

c) Two (2) private (accessible) washrooms shall be located in close proximity of the all-inclusive group of washrooms and are included as part of the washroom count requirements for the school community.

d) Washrooms for public use are to be provided in, or adjacent to areas of the building that are designed to accommodate public use, such as auditorium facilities, gymnasiums with spectator accommodation, and public-use libraries. These washrooms will also be for student use in these areas of the building. These public/student washrooms will be located such that they may be isolated from the rest of the school during after-hours use.

e) Access to washroom area shall have no doors with 2 access locations to promote student flow through the area with visibility of the common sink area for supervision. Toilet stall areas to be full height, floor to ceiling with no gaps or opening within the toilet stall area. Sink, mirrors, and hand dryer areas are in lines of sight for supervision of this common area.

f) Lighting shall be interconnected with the corridor lighting.

g) Two automatic sensor electric hand dryers will be supplied per washroom at the middle school and high school levels.

h) Each washroom toilet stall area (Middle & High Schools) shall be roughed in for a Halo Smart Sensor with plywood backing

i) A janitor's closet will be located nearby off the corridor.

See A-5 of the DTI *Design Guidelines for Educational Facilities* for more details.

29.7 BLEACHERS

a) Bleachers will be the motorized roll-away type and will be recessed into the wall of the gymnasium when required at the middle school or high school level. Bleachers will not be supplied at the elementary school level.

b) The area bleachers occupy when retracted and not in use will be accounted for under services and systems.

c) When in their open position, bleachers will interfere with some game lines in the cross court direction. Their use is intended for the main full court spectator events such as basketball, volleyball or handball.

d) Spectators will access the bleachers without crossing the gymnasium floor. Seating accommodations will be on only one side of the gymnasium.

29.8 MECHANICAL AND ELECTRICAL ROOM

a) Attention must be paid to locate service rooms in an efficient and effective location while keeping in mind that systems must be designed to minimize mechanical noise and the main air handling duct work shall be acoustically isolated from learning spaces. The layout of equipment should be economical to minimize the required floor area.

b) Music/Performing Arts rooms and the gymnasium are sensitive to acoustical interference from mechanical air handling duct work. Appropriate attenuation measures will be carefully considered. The music room shall be remote from the mechanical room and main air handling duct work.

c) Appropriate ceiling space should be allowed to ensure that a prudent duct sizing can be accomplished to minimize noise transfer issues.

29.9 COMMUNICATIONS CLOSETS/ROOMS

Data closets to be determined during design and optimized.

APPENDIX A

New George Street Middle School (6-8)

Anglophone West School District

Department of Education and Early Childhood Development

Educational Facilities and Pupil Transportation

EDUCATIONAL FACILITIES POLICIES

EECD POLICY 406 - OUTDOOR SCHOOL PLAY AREAS

http://www2.gnb.ca/content/dam/gnb/Departments/ed/pdf/K12/policies-politiques/e/406A.pdf

EECD POLICY 407 - COMMUNITY USE OF SCHOOLS

http://www2.gnb.ca/content/dam/gnb/Departments/ed/pdf/K12/policies-politiques/e/407A.pdf

EECD POLICY 409 - MULTI-YR SCHOOL INFRASTRUCTURE PLANNING

http://www2.gnb.ca/content/dam/gnb/Departments/ed/pdf/K12/policies-politiques/e/409A.pdf

DESIGN ENROLMENT & MAXIMUM CAPACITY

Design Capacity			Maximum Capacity
Totals	Classrooms	Grades	Total
-	-	M/K	
-	-	01	
-	-	02	
-	-	03	
-	-	04	
-	-	05	
270	11	06	308
270	10	07	290
270	10	08	290
-	-	09	
-	-	10	
-	-	11	
-	-	12	
		Enregistrement	
		Enrol. (K - 5)	
810		Enrol. (6 - 8)	
		Enrol. (9 - 12)	
810		Total Enrol.	888

ENROLMENT PROJECTIONS

Projections		Baragar forcasting								
	2024	2025	2026	2027	2028	2029	2030	2031	AVG	MAX
Total Enrolment	741	793	784	779	771	760	745	721	762	793
K	0	0	0	0	0	0	0	0		
1	0	0	0	0	0	0	0	0		
2	0	0	0	0	0	0	0	0		
3	0	0	0	0	0	0	0	0		
4	0	0	0	0	0	0	0	0		
5	0	0	0	0	0	0	0	0	AVG	MAX
6	248	269	241	245	260	232	230	235	245	269
7	256	254	274	246	250	263	237	235	252	274
8	237	270	269	288	261	265	278	251	265	288
9	0	0	0	0	0	0	0	0		
10	0	0	0	0	0	0	0	0		
11	0	0	0	0	0	0	0	0		
12	0	0	0	0	0	0	0	0		

GEORGE STREET MIDDLE SCHOOL CATCHMENT AREA

FUNCTIONAL PROGRAM

George Street Middle School 6-8 (ASD-W)

Target Enrolment: 810 Students / 32 Groups

Space	Quantity	Area	Total Area M^2
General			
General Instruction Classroom Gr 6-8	20	81.0	1620.0
Gr 6-8 Classrooms with Breakout Rooms	12	76.0	912.0
Break Out Rooms	6	11.0	66.0
General Storage Rooms			112.0
Project Work Areas			175.0
Specialized Instruction			
Music Room Middle/High	2	130.0	260.0
Art Classes	2	110.0	220.0
Combined General Science / Art	1	130.0	130.0
General Science Lab	2	130.0	260.0
Science Preparation Room	2	24.0	48.0
Performing Arts Room (Combined with Stage)	0	110.0	0.0
MSTE (middle school technology education)	2	220.0	440.0
Physical Education			
Gymnasium (2.6GT)	1	821.0	821.0
	1	591.0	591.0
Gym Auxiliary Change Area Spaces	2	78.0	156.0
Toilets 2@18=36m2			
Changerooms 2@44=88m2			
Shower Area 2@16=32m2			
Instructors Office (Combined)	1	20.0	20.0
Staff Shower and Washroom	1	8.0	8.0
Gymnasium Storage	2	80.0	160.0
Storage Exterior Access	1	20.0	20.0
Community (Common) Storage	2	20.0	40.0

Student Services			
Resource Room	6	21.0	126.0
Resource Room Adjacent to Guidance	1	35.0	35.0
Support Offices	2	12.0	24.0
Resource Work Area	1	80.0	80.0
Special Care Resource Room	2	35.0	70.0
Wash/Change Room	2	17.0	34.0
Quiet Room	1	10.0	10.0
Calming Room	1	9.0	9.0
Guidance Office	3	9.0	27.0
ISD Office	2	12.0	24.0
Visiting Professionals Office	9	9.0	81.0
Waiting Area	1	10.0	10.0
Health Room (Administration Area)	1	13.0	13.0
Accessible (Additional) Private Washrooms	6	8.0	48.0
Multi-Function Rooms			
Ground Floor Adjacent to Administration	1	150.0	150.0
Second Floor Adjacent to Guidance Area	1	70.0	70.0
First Nation Learning Centre			
Language Culture Room	1	45.0	45.0
Instructional Space & Community	1	81.0	81.0
Breakfast Program	1	25.0	25.0
Student Council	1	28.2	28.2
Library /Media Centre			
Library	1	324.0	324.0
Seminar / Activity Room	1	40.0	40.0
Cafeteria			
Dining and assembly	1	486.0	486.0
Kitchen	1	180.0	180.0
Stage (Black Box Theatre with Performing Arts)	1	72+110	182.0

Personnel Centre/Staff Room			
Staff Lounge and Work Areas	2	65.6	131.2
Staff Washrooms	4	8.0	32.0
Administration			
Reception	1	26.0	26.0
General Office	1	30.0	30.0
Principal's Office	1	14.0	14.0
Vice Principal's Office	3	11.0	33.0
Cumulative Filing & Storage Room	1	15.0	15.0
Vestibule Meeting Room and WR	1	14.0	14.0
Custodial			
Main Custodial Space and Closets	1	55.0	55.0
Recycling Room	1	15.0	15.0
Sub Total			**8,630.4**
Systems and Services			
Overall Systems and Services (50%)			**4,315.2**

Circulation Areas (corridors, stairwells, lobby, vestibules, elevator)	+/- 24%
Student/Public Washrooms	5%
Walls	15%
M, E, Data, Computer Cart Areas	6%

Grand Total Square Meters **12,945.6**

PLANNING COMMITTEE MEMBERS

New George Street Middle School (6-8) Planning Committee

Name	Titles
David McTimoney	Superintendent, ASD-W
Darla Day	Director of Schools, ASD-W
Sarah Francis	Director of First Nations, ASD-W
Shawn Tracey	Director of Finance and Administration, ASD-W
Jin Hee Jeong	Facilities Manager, ASD-W
Ken Forrest	Director of Planning, City of Fredericton
Ruth Eden	District Education Council
Michelle Ashfield	Principal of George St Middle School, ASD-W
Pamela Kitchen	PSSC Chair of George St Middle School, ASD-W
Chief Gabriel Atwin	Chief of Kingsclear First Nation
Tracey O'Reilly	Education Director of Kingsclear First Nation
Daniel Fournier	Committee Chair - Senior Project Manager, EECD

Design Committee	Date
Meeting #1 – Introductions, Project Overview, 21st Century Learning	October 30, 2024
Meeting #2 –Projections, Target Enrolment, Functional Program	December 6, 2024
Meeting #3 – Review Guidelines, Adjacencies and Space Allocation	January 9, 2025
Meeting #4 – Review of the Draft Education Specifications	February 25, 2025
Educational specifications Design Committee Consensus to DEC	March 19th, 2025.