



SECONDARY SCHOOL GUIDELINES
Design Criteria and Fitments

December 2010

Prepared for the Design Department
by *FGL ✨ Consultants*

UPDATING:

As program requirements changed, the original 2003 Guideline has been updated numerous times to reflect these changes.

This December 2010 version of the Guideline is the latest of the series indicating the most current Ministerial benchmarks and addressing new or improved pedagogical philosophy, design refinements, and construction methodologies.

This document has been vetted by the Superintendent of Planning and Operations, Planning, Information Technology, Program (Special Education), Health and Safety, Construction, Plant, Operations, and Maintenance Departments. FGL ☆ Consultants appreciate input by all participants.

NOTE:

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SECONDARY SCHOOLS

1. PREAMBLE

The vocation of every Catholic educator includes the work of ongoing social development to form men and women who will be ready to take their place in society... to work for the improvement of social structures, making these structures more conformed to the principles of the Gospel. But lay educators must bring the experience of their own lives to this social development and social awareness...¹

The facility outlined in this Guideline should “enhance the program to provide students with opportunities to expand their knowledge and understanding of the self as a practicing Catholic and develop an appreciation of their individual potential to contribute to society; to develop an understanding of effective relationships; to develop the knowledge, skills, and attitudes needed to make appropriate decisions regarding post-secondary choices and to cope with the transition from secondary studies and the world of work; and to explore potential careers and educational alternatives in relation to themselves.”²

1. A paper on the Attainment and Maintenance of the Catholic Dimensions of Our Schools, April 1985.
2. Ontario Schools, Intermediate and Senior Divisions, Aims of the Guidance Program

2. BOARD’S PURCHASING PROCEDURES

The Dufferin-Peel Catholic District School Board supports the concept of “centralized purchasing” and “Supply Chain Management Procedures” as a means of obtaining maximum value for each dollar expended, consistent with the educational goals of the Board, and fair business principles.

Refer to the “Mission Statement of the Purchasing Department” on the Board web site www.dpccdsb.org/purchasing for further information and details.

3. PURPOSE OF THE GUIDELINE

The purpose is to provide a Guideline for the Consultants and the ultimate clients – staff and students of a school - organizing the facilities into groupings and identifying for all stakeholders, the current standards, and expectations of the Board.

This Guideline is not to be considered as a prefabricated, single standard that enshrines a model, and thus precludes flexibility. Rather, it is offered as the basis for negotiated balance between the best value of design and construction, and the program needs as identified in each unique situation.

It must be noted, however, that the Guideline references all design disciplines – including pertinent mechanical and electrical components. The Guideline should be

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studied by the Architect's consultants, to make certain that there is compliance with the mechanical and electrical design requirements.

Further, the intent of this Guideline is not to be retroactively applied to school projects already built, but referenced only in the areas of current physical renovations, additions and new schools.

Wherever possible, renovations or additions supervised by departments other than the Design Department should follow the *Design Criteria and Fitments* as outlined in this Secondary School Guideline.

This Guideline should be followed by all Consultants with respect to sizes of areas, design criteria and fitments. Nevertheless, instances may arise during the design process in which new program initiatives, design concepts, or budget constraints may need to be introduced that do not correspond to the Guideline exactly. Also, because of a specific design, the interrelationship of spaces or locations of academic and staff areas may need to vary slightly from the Guideline.

The Design Department reserves the right to make modifications to the Guideline as necessary or as required in order to provide the best possible design for the Dufferin-Peel Catholic District School Board's students and staff. Any deviation from the Guideline will be initiated only by the Design Department and thoroughly evaluated in design meetings.

4. DESIGN CRITERIA

A Secondary School for the Dufferin-Peel Catholic District School Board is a building housing pupils from grades 9 to grades 12.

An individual Building Program will be developed for each new facility, outlining the number of teaching spaces and teaching disciplines. It is expected, however, that the sizes of individual rooms as identified here will not change – only the number required.

With the advent of smaller school sites, and for the sake of economy, it is necessary to construct schools vertically rather than horizontally. Ideally, larger schools of approximately 1500 students may need to be designed as a three-storey element, stacked as much as possible, to minimize the footprint.

Barrier free access, safety, and well being of all school occupants are paramount. To this end, every design consideration must take into account this prerequisite.

In designing each facility for the Board, the Consultants should bear in mind, not only good architectural practices, but they also are to adhere to all the requirements of the Authorities Having Jurisdiction and their individual codes.

It is preferred that the building be designed so as to be easily divided for different activities. Where possible, the Gymnasia Area should be separated from the rest of the school for nighttime and weekend events. The student “Matrix” with its associated Cafeteria and Resource Centre should also be separated from the classroom wings of the school.

Finishes are to be durable and easily maintainable. Preference will be given to finishes that are maintenance free rather than opulent looking. The Design Department has design standards that should to be followed closely. Similarly, all mechanical and electrical standards of the Board are to be followed. These will be given to the Architect and Consultants as working drawings progress.

All demising walls must be constructed to the underside of structure above.

5. AIR CONDITIONING

All teaching and staff spaces in new secondary schools for the Dufferin-Peel Catholic District School Board are to be air-conditioned. Air conditioning for the Cafetorium is to be designed to accommodate lunch time seating capacity.

Air conditioning of the Gymnasia is to be designed to accommodate the maximum number of sport spectators seated on bleachers.

The Broad Base Technology areas that have operable exterior garage doors are to be provided with air conditioning concentrated in the internal classroom space.

Refer to this Guideline for air conditioning requirements for such areas as the Server Room and Surveillance Camera Monitoring Room.

Despite air conditioning, operable windows in all teaching areas are essential. Ventilation rates are to be maintained as per current codes. The Board ascribes to an individually controlled cooling/heating ventilating and, if possible, “free cooling” mechanical systems.

6. GREEN STRATEGY

Traditionally, school buildings communicate the School District’s identity of the building inhabitants to the neighbourhood and place the buildings in context with their neighboring surroundings. This important function of buildings has lead to building examples which, at times, overlook their climatic boundary conditions for the sake of a desired visual impression.

Green school buildings reflect society’s interest in a healthier and less resource intensive life style. On the other hand, this interest is fueled by growing scientific evidence that green building practices - particularly in new institutional buildings – can be achieved at little or no extra capital costs, while leading to reduced operational costs and increased durability. To realize the ambitious goals of

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constructing a green building under economic conditions, the design process requires a more thorough plan compared to a conventional school building.

The Board, supports - within budgetary limitations - the use of alternative and innovative methods of design and building procedures including the use of materials and systems which fall under the heading "Green Buildings".

To this end, the Design Department suggests that the Architects designing new Secondary Schools prepare a "Check List" of sustainable building issues which could be reviewed, costed, and considered at the early stages of the Design Development.

7. IMPERIAL EQUIVALENTS

For ease of reference, most dimensions and areas in this document are expressed in metric with Imperial equivalents in brackets. The Consultants are to take into consideration, however, that appliances purchased by the Board for installation are usually imperial in dimensions. As a result, metric equivalents must allow sufficient space for installation of such equipment.

Additionally, metric equivalents are not expressed as a hard conversion. The Architects should use metric dimensions which most suit the conditions and construction materials.

For example, 8'-0" is expressed in the Guideline as 2,450 mm whereas hard conversion would be 2,438 mm. In order to maximize on metric size components, however, metric dimension of 2,400 may be more appropriate.

8. ACCESSIBILITY AND BARRIER FREE DESIGN

The Accessibility for Ontarians with Disabilities Act, 2005 (AODA) received Royal Assent on June 13, 2005. Like the Ontarians with Disabilities Act 2001 (ODA), the AODA applies to the full range of disabilities, both visible and invisible and is intended to eliminate barriers for people with disabilities by creating an accessible, inclusive society where every Ontarian has the opportunity to work, play, learn, and otherwise participate to their potential. The ODA was enacted to ensure improved opportunities for people with disabilities and to provide for their involvement in the identification, removal, and prevention of barriers to their full participation in the life of the Province.

8.1 THE BOARD'S ACCESSIBILITY PLANNING MISSION STATEMENT

The Board reconfirmed its commitment to accessibility planning in 2004 by adopting the following Commitment to Accessibility Planning Mission Statement:

The Dufferin-Peel Catholic District School Board is committed to:

- 8.1.1 The continual improvement of access to school premises, facilities and services for students, employees and members of the community with disabilities
- 8.1.2 The participation of people with disabilities in the development and review of its annual access plans
- 8.1.3 The provision of quality services to all students, parents and member of the community to meet the needs of a wide range of people, including people with disabilities

8.2 DESIGN PARAMETERS

The Board prescribes to the philosophy that all orthopedically challenged and visually impaired staff and students must have the opportunity to move about independently in the school building and that all parents, and other individuals who have orthopedic challenges are able to access a new secondary school facility for activities such as parent interviews, theatre art performances, voting, teaching assignments, etc.

It is difficult to plan a facility for all eventualities with respect to the orthopedically challenged persons due to their various capabilities and no plan will ever address all needs. Provisions for the orthopedically challenged, however, have been made throughout this document for horizontal and vertical movement, and for such items as barrier free washroom access, locker design; door widths, barrier free hardware, and Braille signage.

In every instance, the Consultants are encouraged to keep barrier free access in mind when designing the Board's facilities, so, as an example, wheelchair power door operators for door openings are not located in corners or wall junctions that are not easily accessible for larger wheelchairs.

Throughout the various sections of this document, specific mention has been made of barrier free design or design for the orthopedically and visually challenged. The list below, while not comprehensive, focuses the Consultants attention on requirements for the physically challenged.

- Special bus drop-off and handicapped parking locations,
- Exterior ramps & curb cuts,
- Corridor accessibility and door width requirements
- Lockers and general hardware,
- Barrier free washrooms,
- Showers and washroom facilities in selected change rooms,
- Braille Signage
- Stage lift and/or elevator,
- Barrier free student built in work stations,
- Special requirements for the PIP Room

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8.3 DESIGN FOR OTHER DISABILITIES

The new school design, must also take into consideration that students and staff may have other disabilities that do not necessarily require wheelchair access. This Guideline addresses the needs of those with hearing and vision impairments by standardizing Braille signage; sound signal designating floor stops in elevators; highly visible strips on the edge of stairs; fire alarms with strobes, automatic door operators, etc. but other design refinements may be necessary to address the AODA. (Refer to Illustrative Sketches and Technical Guideline on the Design Department web site for Braille signage etc.)

8.4 ANNUAL ACCESSIBILITY PLAN

The Dufferin-Peel Catholic District School Board is responsible for educating and accommodating thousands of students with disabilities on a daily basis. Individualized programs and services are provided throughout the Board's jurisdiction by professionally trained teachers, special services staff and other support staff.

Professional development opportunities for those who work with students with disabilities are also regularly provided. With such activities forming an integral and regular part of the Board's day-to-day operations, the Board has made a commitment to accessibility planning to identify, remove and prevent barriers to people with disabilities.

The Dufferin-Peel Catholic District School Board's Accessibility Plan is posted on the Board's web site, www.dpcdsb.org under the Access Dufferin Peel Link. Hard copies of the plan are also available upon request by contacting the Board's Planning Department.

The Province of Ontario has introduced design standards for government buildings, and the Municipalities within the Region of Peel have prepared their own design guidelines. (Refer to "Links" on the Design Department's web site.

9. AREA SIZES

This Guideline is based on an assumed population size of 1,500 to 1,600 pupil places with the Gross Floor Area not exceeding the maximum Ministerial Formula.

A Secondary School of smaller pupil places must take into consideration the maximum Ministerial Formula. Thus, the building area requires to be reduced while maintaining the program requirements.

As a result, the "Matrix" may need to be eliminated, and the administrative, guidance and ancillary spaces adjusted to correspond to the school capacity.

The size of the Cafeteria is to correspond to the size of the school population based on two or three lunch periods – to be determined. The number of Gymnasias will be determined by the size of the school's pupil places.

The sizes of curriculum based rooms and width of corridors, however, should be maintained as identified in this Guideline.

Area sizes identified in this Guideline should not be exceeded by more than 1%.

10. ADMINISTRATION

The Ministerial criterion for Administration Area is 2.3 sq. ft. per pupil which includes the Health Area (Identified separately in this Guideline.) The number of Vice Principals' offices and the size of the waiting, circulation and secretarial area is to be reviewed with Design Department during the design stage.

The school's Administration Area consists of a Principal's Office @ 19 m² (200 sq. ft.) + a number of Vice Principals' offices @ 14 m² (150 sq. ft.) each; + a General Office for a predetermined number of secretaries [including circulation space, waiting area for visitors and students, coat closet space, pantry counter for office staff] + an office workroom/storage @ 14 m² (150 sq. ft.) + an attendance area @ 14 m² (150 sq. ft.) - [size to depend on layout] + a Surveillance Camera Monitoring Room @ 4.5 m² (50 sq. ft.) + a staff mail room @ 14 m² (150 sq. ft.) + a secure area @ 4.5 m² (50 sq. ft.).

10.1 GENERAL

- 10.1.1 It is preferred to have the Administration Area located close to the main school entrance with the visitors' door clearly visible from the main entry.
- 10.1.2 Ideally, the Administration Area will also open onto the main student "Matrix".
- 10.1.3 Double door access to the Administration area is not required, although glazed screens between the corridor and the General Office space is desirable. Provide rough-in for card access and electric strike.
- 10.1.4 A Seminar Room is to be easily reachable by Administration staff. Since it is to serve both students and school administration, it is preferable that this Seminar Room is accessible from the school corridor, as well as the Administration Area.
- 10.1.5 If it is not possible to directly access the Seminar Room from the Administration Area, then it is to be located within a close proximity to the office complex.

Secondary School Guidelines

Design Criteria and Fitments

- 10.1.6 Since the secretarial staff directly supervises and assists ill students, the Health Area should be visible from at least one secretarial station.
- 10.1.7 The Guidance Centre is to be in close proximity to the Administration Area and may be accessible from it.
- 10.1.8 It is preferable to have two separate waiting areas with the General Office – one for students, the other for visitors. Both are to be accessible from the school corridor.
- 10.1.9 Provide in the administration corridor that connects the Vice Principals' offices to the General Office, an alcove for the PA/Telephone Rack. Provide adequate space in front of the rack enabling two or three students to make general announcements.
- 10.1.10 Drywall partitions in the Administration, Guidance, and Health are unacceptable.
- 10.1.11 Consultants are to design an independent air conditioning system to service the Administration/Health areas. Fenestration for all offices and the General Office is preferred.

10.2 PRINCIPAL'S OFFICE

- 10.2.1 The Principal's Office shall be accessible from the General Office but should not be in close proximity to either of the waiting areas, nor to the General Office entry points.
- 10.2.2 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.
- 10.2.3 Provide one (1) additional back box for the Integrated PA/Telephone System at the computer location. Provide a duplex receptacle centered on three walls of the office.
- 10.2.4 This office shall have a solid door with a glazed screen next to it. No special treatment of this room is necessary, and the door is to be H.M. in composition.

10.3 VICE PRINCIPALS' OFFICES

- 10.3.1 The Vice-Principals' offices should be accessible from the General Office and, be in close proximity to the student waiting area.
- 10.3.2 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.

- 10.3.3 Provide one (1) additional back box for the Integrated PA/Telephone System at the computer location. Provide a duplex receptacle centered on three walls of the office.
- 10.3.4 These offices shall have a solid door with a glazed screen next to it. No special treatment of these rooms is necessary, and the doors are to be H.M. in composition.

10.4 GENERAL OFFICE

- 10.4.1 The General Office includes an area for up to three (3) secretarial work stations two separate waiting areas, a coat closet and a pantry alcove preferably not visible from any of the waiting areas or Principal's Office.
- 10.4.2 The potential changing layouts of secretarial desks require that floor finishes of the waiting areas and the General Office are identical.
- 10.4.3 Systems furniture shall form the necessary counters and desks in the General Office. This furniture is NIC, to be purchased by the school from its furniture and equipment budgets. The Consultant may wish to assist the interior systems furniture designer with the layouts of the area.
- 10.4.4 Locate the Master Clock System in an area visible to the General Office Staff but outside of the main traffic patterns.
- 10.4.5 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.
- 10.4.6 Provide one (1) additional back box for the Integrated PA/Telephone System at each of the computer locations.
- 10.4.7 As part of the General Office area, provide a coat closet for visitors and staff. Door to the coat closet should be solid slab H. M. door with lock.
- 10.4.8 Provide a small pantry located in an alcove not visible from the General Office. Provide maximum 1800 mm (6 ft.) counter with a stainless steel sink, a row of cutlery drawers, one adjustable shelf and lockable doors below. Provide adjustable shelf with lockable doors above the counter.
- 10.4.9 Make space and provisions for an under-counter refrigerator. Provide adequate power for kettle and a microwave and one @ 20 amp receptacle..

Secondary School Guidelines

Design Criteria and Fitments

10.5 VISITORS' WAITING AREA

- 10.5.1 The visitors' waiting area is to be located closest to the main office entrance, and space for maximum four (4) chairs is to be provided.
- 10.5.2 The visitors' waiting must be located outside the traffic pattern and should not be visible from the students' waiting area.
- 10.5.3 This space should be designed to be comfortable and hospitable and should have adequate duplex receptacles for table lamps.
- 10.5.4 A clear access to the Principal's and Vice-Principals' offices should be established when systems furniture layouts are developed. Access directly past secretarial desks is not acceptable.

10.6 STUDENT WAITING AREA

- 10.6.1 The student waiting area may be accessible through a separate entry point, preferably away from the visitors' entrance.
- 10.6.2 The student waiting area shall be in close proximity to the Vice-Principals' offices, and shall be large enough for seating of up to six (6) students.
- 10.6.3 Allow for a space to isolate students for visual supervision by the Vice-Principals. Depending on the school's preference, this area may be equipped with carrels or chairs. Some of the Vice-Principals' doors should open onto this space.
- 10.6.4 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.

10.7 ATTENDANCE AREA

- 10.7.1 The attendance area is to be separated from the General Office corridor by means of a glass screen and a door.
- 10.7.2 Provide two doors accessible from the main corridor, establishing an "in-out" pattern for students.
- 10.7.3 The area should have a maximum exposure to the main corridor or the "gathering" place by means of glazed screens. Systems furniture will be used to assist students in obtaining late slips, etc.
- 10.7.4 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.

10.8 SURVEILLANCE CAMERA MONITORING ROOM

- 10.8.1 This room is to contain “head end” equipment for exterior and interior security cameras. This room should not have windows.
- 10.8.2 Due to the heat created by the equipment, this room is to be continuously air conditioned by a dedicated heat pump or, preferably, by a “ductless split system” fan coil unit c/w line set control. (If in close proximity, this room may be environmentally coupled with the Server Room.)
 - 10.8.2.1 If fan coil unit is designed, make provisions for a drain condensate line.
- 10.8.3 Provide at desk height, a cantilevered counter along the longer wall of the room.
- 10.8.4 Above counter, provide two fixed shelves, 500 mm apart. Leave space at back of shelves to connect wiring.
- 10.8.5 Provide a raceway above counter with a minimum of 3 @ 40 mm (1½”) conduits, terminating at the cable tray in the main corridor ceiling space, for security camera wiring (NIC). The raceway should also contain six (6) duplex receptacles.

10.9 WORKROOM/STORAGE

- 10.9.1 Access to the workroom/storage is to be only from the General Office.
- 10.9.2 Along one wall of the workroom, provide a counter with lockable doors and adjustable shelving below. No upper shelving is required.
- 10.9.3 Provide one drawer under counter for small items.
- 10.9.4 Provide space and electrical power supply (20 amp) for a photocopying machine. Next to the power supply, provide a back box with conduit terminating above ceiling space for future data cabling. (Refer to Illustrative Sketches.)
- 10.9.5 Provide two duplex receptacles above the counter. Provide power for PA/Telephone rack in one corner of room.
- 10.9.6 Provide a ceiling mounted back box for a paging speaker.

Secondary School Guidelines

Design Criteria and Fitments

10.10 STAFF MAIL ROOM

- 10.10.1 The staff mailroom should be accessible directly from the corridor and from the General Office where feasible.
- 10.10.2 The mailroom is to be equipped with a millwork unit, containing mail slots for staff (teaching, administrative, and custodial staff + 20%). The mail slots should not exceed 1,800 mm (6 ft.) in height and be no lower than 760 mm (30") above finished floor, and must be able to accept 300 mm (12") x 400 mm (16") envelopes.
- 10.10.3 Mail slots should include a name tag holder on the horizontal edge of the slot.
- 10.10.4 Lower section should be 760 mm (30") deep to provide a counter surface. Below the mail slots, provide one adjustable shelf.
- 10.10.5 Provide a 1,200 mm (4 ft.) x 1,200 mm (4 ft.) tackboard for staff announcements.

10.11 SECURE AREA

- 10.11.1 Preferably accessed from the office workroom, it is to be constructed of 150 mm (6") solid block masonry.
- 10.11.2 The door to the area shall be a fire rated door with a combination lock. Egress from inside must be unrestricted.
- 10.11.3 Shelving inside the secure area is NIC.

10.12 SEMINAR ROOM

- 10.12.1 This seminar room must not exceed 37 m² (400 sq. ft.) and is included in the program requirements for seminar rooms, as established by the Board.
- 10.12.2 Ideally, this seminar room is to be accessible from the main corridor as well as the Administration Area. If not accessible from the Administration Area, it is to be in close proximity to it.
- 10.12.3 For this seminar room only, provide a 900 mm (3 ft.) coat shelf for visitors' coats.
- 10.12.4 Keep teaching wall clear for the possible installation of a "smart board." Provide a 2,400 mm (8 ft.) long whiteboard on one wall and a 1,200 mm (4 ft.) x 1,200 mm (4 ft.) tackboard on opposite wall.

- 10.12.5 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.
- 10.12.6 Provide a classroom standard control panel.

11. HEALTH AREA

The Health Area is to be included in the area calculation of the Administration Area @ 2.3 sq. ft. per pupil. The Health Area consists of a Treatment/Sick bay + Health Room Washroom. Both spaces must be of a size to accommodate the fitments as described below, but the Treatment Sick/Bay should not exceed 14 m² (150 sq. ft.).

11.1 TREATMENT/SICK BAY

- 11.1.1 Since the secretarial staff supervises the sick bay, this area is to be in close proximity to the General Office, and in view of at least one secretarial position.
- 11.1.2 Along one wall, provide a maximum of 1,800 mm (6 ft.) long counter with a stainless steel sink, hot and cold water. Below the counter, provide one horizontal row of lockable drawers, one adjustable shelf and lockable doors.
- 11.1.3 Provide an eye wash. Refer to *Eye Wash Stations*, this Guideline.
- 11.1.4 Above the counter, provide lockable cabinets with adjustable shelving. All doors are to be keyed alike.
- 11.1.5 Provide above counter, electrical power for sterilization of equipment.
- 11.1.6 Next to the counter, allow space, and make provisions for a refrigerator with an icemaker.
- 11.1.7 Opposite the counter, provide an area for one sick bay cot that can be separated by curtain from the rest of the Treatment Room. The track is in the Contract. The curtain is NIC.
- 11.1.8 Provide a ceiling mounted back box for a paging speaker.

11.2 HEALTH ROOM WASHROOM

- 11.2.1 If there is no PIP program, equip this washroom identically to the PIP orthopedic washroom. If PIP program is included in the program requirements, follow the Guidelines as listed below:

Secondary School Guidelines

Design Criteria and Fitments

- 11.2.2 The washroom is to be accessible only from the Treatment Room.
- 11.2.3 The washroom door should swing out.
- 11.2.4 Along one wall, install a handicapped sink, hot and cold water, c/w lever and soap bracket, and physically challenged toilet.
- 11.2.5 Both these fixtures to have the necessary grab bars, and must be wheelchair accessible.
- 11.2.6 Make provision a wall mounted telephone and a ceiling mounted back box for a paging speaker.
- 11.2.7 Review with the Design Department whether all, or some, or any washroom accessories are included in the Contract. Refer to *Washroom Accessories* section of this Guideline.

12. GUIDANCE AREA

The Ministerial criterion for Guidance is 1.3 sq. ft. per pupil. The number of Guidance offices and the size of the waiting, circulation, and secretarial area is to be reviewed with the Design Department during the design stage.

The Guidance Area consists of a number of counseling offices @ 7.5 to 9.5 m² (80 to 100 sq. ft.) each; + a head counseling office @ 12 m² (125 sq. ft.); + a career counseling room @ 18.5 m² (200 sq. ft.); + an OSR storage room @ 11 m² (120 sq. ft.) + a separate storage/copying room @ 7.5 m² (80 sq. ft.). The remainder of the space includes waiting, circulation, and secretarial area.

If identified by the Program Requirements, a Co-op Career Area may be directly attached to the Guidance Area. (Refer to Co-op Career Area)

12.1 GENERAL

- 12.1.1 The Guidance Area is to be in close proximity to the main office, or could be connected to it, but, must also be readily accessible by students from the “gathering” place.
- 12.1.2 Consultants are to design an independent air conditioning system to service the Guidance Areas. Fenestration for all guidance offices and the Guidance Information Centre is preferred.
- 12.1.3 Double door access to the Guidance area is not required. Provide rough-in for card access and electric strike.

12.2 GUIDANCE WAITING/SECRETARIAL

- 12.2.1 The Guidance Centre entrance should have a maximum exposure to the student “Matrix”. Minimally, it shall open to the main corridor system, by means of glazed screens.
- 12.2.2 As many counseling offices as possible should open directly into the Waiting Area.
- 12.2.3 Depending on the size of the Guidance Area, provide a space for one or two, “system furniture” secretarial stations.
- 12.2.4 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.
- 12.2.5 Provide one (1) additional back box for the Integrated PA/Telephone System at each of the computer locations.
- 12.2.6 Preferably, but depending on the configuration, the secretarial stations should be serviced (power, PA/Telephone, data) by means of wall outlets.
- 12.2.7 While the “systems furniture” is NIC, the Architect may wish to co-ordinate furniture layouts with the “system furniture” interior designer. The “system furniture” should include matching shelving units for career books and periodicals.
- 12.2.8 An optional coat closet may be incorporated into the Guidance Area.

12.3 CAREER COUNSELING ROOM

- 12.3.1 This room should be accessible and highly visible from the Guidance Information Centre.
- 12.3.2 Centered on the end wall, install a 1,800 mm (6 ft.) whiteboard.
- 12.3.3 If space permits, provide raceways on two walls. For data requirements, refer to *Computer Systems - Computer Locations in this Guideline*.

12.4 COUNSELING OFFICES AND HEAD COUNSELING OFFICE

- 12.4.1 Each office is to be equipped identically to the Vice-Principals’ offices, except that security camera feed provision is not required.
- 12.4.2 Each office access must have full height glazed screen next to a solid door.

Secondary School Guidelines

Design Criteria and Fitments

12.5 ONTARIO STUDENT RECORDS (OSR) STORAGE

- 12.5.1 Ideally, this area is to be easily accessible from the Guidance Centre. Location outside of the Guidance Centre is discouraged.
- 12.5.2 The walls should be constructed with 150 mm (6") solid block masonry, including fire rated door and hardware.
- 12.5.3 If possible, the door is to open out, and be centered onto the space so that both walls can be utilized for storage.

12.6 STORAGE/COPYING ROOM

- 12.6.1 The storage/copying room shall be easily accessible from the secretarial stations. Shelving and fitments are NIC.
- 12.6.2 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.
- 12.6.3 Provide 20 amp receptacle for a copying machine. Next to the power supply, provide a back box with conduit terminating above ceiling space for future data cabling. (Refer to Illustrative Sketches.)
- 12.6.4 Provide adequate ventilation and exhaust from this area.

13. CO-OP CAREER AREA

The co-op area consists of a co-op classroom (same size as determined for general classrooms) and a co-op workroom @ 14 m² (150 sq. ft.). The Co-op classroom is included as a standard classroom in the program summary.

13.1 CO-OP CLASSROOM

- 13.1.1 The co-op classroom should be directly attached to the Guidance Area by means of a glazed screen and door.
- 13.1.2 Direct access to the corridor is required. Except for the addition of a raceway along one wall, the co-op classroom is to be equipped identically to a standard classroom. For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.

13.2 CO-OP WORKROOM

- 13.2.1 The co-op workroom should have a door from the main corridor and if possible, to the co-op classroom. At a minimum, it should have a glazed screen overlooking the co-op classroom.
- 13.2.2 The workroom is to be equipped with typical Staff Workstations. (Refer to *Architectural Cabinetry*, this Guideline). For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.
- 13.2.3 Provide one (1) additional back box for the Integrated PA/Telephone System above the counter of one of the work stations.

14. ALTERNATIVE EDUCATION AREA

If identified in the program, this area consists of one classroom (same size as determined for general classrooms) + two “Break Out” Rooms [one @ 14 m² (150 sq. ft.) & one @ 9.5 m² (100 sq. ft)]. + two offices @ 7.5 to 9.5 m² (80 to 100 sq. ft.) each;+ one barrier free, unisex washroom + kitchenette @ 4.5 m² (50 sq. ft.) + commons area, circulation space and vestibule.

This classroom is not included in the general classroom Program Summary.

14.1 GENERAL

- 14.1.1 The corridor of the Guidance is to connect to this area, but separated by a door and screen.
- 14.1.2 Locate an exterior access with vestibule, away from the main school entrance. One of the offices is to overlook the vestibule.
- 14.1.3 All spaces are to be accessible to the commons area.
 - 14.1.3.1 The area contains a kitchenette with a typical 2450 mm (8 ft.) kitchen counter with sink, a row of horizontal drawers, doors with one adjustable shelf below, and upper cupboards with doors and two (2) adjustable shelves. All drawers and cupboards are to be lockable. Next to the counter, provide space for a refrigerator.

14.2 ALTERNATIVE EDUCATION CLASSROOM

- 14.2.1 Divided by a sound rated folding partition, each half of the classroom is to be accessible to the commons area. One half is also to be accessible to the main school corridor.

Secondary School Guidelines

Design Criteria and Fitments

14.2.2 In each half of the classroom, provide, at either side of the folding partition, one Millwork Storage Unit "A".

14.2.3 Provide 3650 mm (12 ft.) long white board, 2450 mm (8 ft.) long tackboard and standard classroom computer provisions in each half of the classroom.

14.3 BREAK OUR ROOMS

14.3.1 These rooms are equipped identically to unassigned Seminar Rooms.

14.4 ALTERNATIVE EDUCATION OFFICES

14.4.1 These rooms are equipped identically to Guidance offices.

15. STAFF AREAS

Staff areas consist of general Staff Workrooms of various sizes, workrooms/offices within specific disciplines and Staff Lounge of a size to be determined by program requirements. The combined staff areas should not exceed 3.5 sq. ft. per pupil.

Note that the work stations are to be supplied and installed in the Contract but back charged to the school's Furniture and Equipment budget.

15.1 GENERAL STAFF WORKROOMS

15.1.1 Provide adequate number of general staff workrooms of varying sizes, to accommodate all of the academic disciplines in the school, to be confirmed at the program development stage.

15.1.2 Locate general staff workrooms in close proximity to major classroom areas. Staff workrooms are to be accessible only from the main corridors and not from any classrooms.

15.1.3 In each general staff workroom, provide adequate lighting and ventilation.

15.1.4 Exterior fenestration or "borrowed light" is preferred for all General Staff Workrooms.

15.1.5 General staff workrooms are to be equipped with typical staff work stations as described in the *Millwork* section of this Guideline and referenced in the Illustrative Sketches.

- 15.1.6 If space permits, detail, at one end of the staff work stations a counter for common use. Above this location, install a tackboard. Continue the raceway above this counter.
- 15.1.7 At one corner of the workroom, provide a pre-manufactured coat rod with upper shelf to accommodate coats equal to the number of workstations.
- 15.1.8 Every General Staff Workroom shall be equipped with a standard classroom control panel.

15.2 WORKROOMS/OFFICES WITHIN SPECIFIC DISCIPLINES

- 15.2.1 Workrooms for specialized disciplines such as Science, Music, Theatre Arts, Physical Education, Technological Education, Planning for Independence, Remedial Resource, Communications, Graphics, and Guidance are located within their respective areas and incorporate the following fitments:
 - 15.2.1.1 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.
 - 15.2.1.2 Generally, these offices shall have a solid door with a glazed screen next to it. No special treatment of these rooms is necessary, and the doors are to be H.M. in composition.

15.3 STAFF LOUNGE

- 15.3.1 The size of the staff lounge is to be determined by the number of teachers times .45 m² (5 sq. ft.). Maximum size is to be 70 m² (750 sq. ft.) exclusive of the kitchen alcove.
- 15.3.2 Preferably overlooking the parking lot, the staff lounge should have exterior fenestration or, at minimum, “borrowed light”.
- 15.3.3 The staff lounge should be in close proximity to the General Office and to the entrance from the parking lot, but a second storey location is acceptable.
- 15.3.4 Provide rough-in for card access and electric strike to the staff lounge from the Main Corridor.
- 15.3.5 The lounge shall have an alcove housing a kitchen. This alcove shall be separated from the kitchen by an island counter, accessible from both sides.

Secondary School Guidelines

Design Criteria and Fitments

- 15.3.5.1 The island counter shall have adjustable shelving with lockable doors both sides and two duplex receptacles on the staff room side.
- 15.3.5.2 The kitchen counter shall have a double stainless steel sink. Below the counter provide a horizontal row of drawers, with one adjustable shelf and doors.
- 15.3.5.3 Make provision for a dishwasher and a built-in oven (both NIC, but installed in Contract.) Refer to Illustrative Sketch STD A-19.2.
- 15.3.5.4 Above the counter, provide a cupboard with adjustable shelf and doors.
- 15.3.5.5 Provide power for one microwave oven. Microwave is to be located on the counter. In addition, provide one split feed duplex receptacle.
- 15.3.5.6 Detail space (1570 mm) for a reach-in type, floor mounted, commercial-type refrigerator/freezer unit.
- 15.3.6 Screen the corridor entrance to the lounge.
- 15.3.7 Provide a pre-manufactured coat shelf for a maximum of 20 coats.
- 15.3.8 In one corner of the lounge, provide one telephone cubicle, including a counter, provision for a telephone, and a glazing panel in the door.
- 15.3.9 Along one wall, provide a raceway. For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.
- 15.3.10 No special lighting or wall treatment is required for the lounge, but provide adequate receptacles for table lamps around the perimeter.
- 15.3.11 Provide a standard classroom control panel.

15.4 STAFF COPYING ROOMS

Staff Copying Rooms are included in the School Storage Areas.

- 15.4.1 The staff copying rooms are on each floor are to be centrally located to the teaching areas. If design and budget permits, one photocopying room is to be located in each classroom zone of the school.
- 15.4.2 If possible, the Staff Copying Rooms should be accessed only from the corridor – not directly from any of the staff Workrooms.
- 15.4.3 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline. The electrical power requirement for these areas is a 20 amp circuit.

15.4.4 Adequate ventilation and exhaust is to be provided in each of these areas.

16. CHAPEL AREA

The Chapel Area consists of a Chapel @ 110 to 130 m² (1,200 to 1,400 sq. ft.) + a Chaplain's office @ 14 m² (150 sq. ft.) + a Vestry @ 9 m² (100 sq. ft.).

16.1 GENERAL

- 16.1.1 It is mandatory that the Chapel be located on the ground floor.
- 16.1.2 The Chapel Area must have prominence in the school plan. It must make a Catholic statement to the school and to the community.
- 16.1.3 The Chapel must be readily accessible by students from the "Matrix", but isolated from the heavy traffic area.
- 16.1.4 The Chapel must have interior finishes and quality to reflect its use. Lighting needs to be muted and capable of being dimmed.

16.2 CHAPEL

- 16.2.1 The Chapel must be designed to accommodate moveable seating for approximately 60 people.
- 16.2.2 Expansion of the Chapel into the "Matrix" by means of a folding wall is discouraged.
- 16.2.3 The front of the Chapel should have one or two steps up to a dais with space for an altar, celebrant's chair, and lectern.
- 16.2.4 Provide a special area for an altar of repose.
- 16.2.5 Make provision for the plug-in of microphones at the tabernacle table, chair, and lectern on the dais and make provision for an appropriate number of speakers. The sound system shall be tendered separately and paid from the school's furniture and equipment budget.
- 16.2.6 It is preferable that the Chapel is either clerestory or has a skylight, or windows, and/or glazed screens between the Chapel and the corridor.
- 16.2.7 Consideration should be given for the design to incorporate a font for holy water.

Secondary School Guidelines

Design Criteria and Fitments

- 16.2.8 Wall area of the Chapel should be developed so as to display the Stations of the Cross. Stations of the Cross are NIC.
- 16.2.9 The double doors into the chapel area may be of a different material than the HM material of all other doors in the school.
- 16.2.10 Depending on the configuration of the Chapel and academic requirements a connecting door to the Chapel may be from either the Vestry or the Chaplain's office.

16.3 CHAPLAIN'S OFFICE

- 16.3.1 The Chaplain's office is to have a door from the main corridor and a door to the Vestry.
- 16.3.2 The door from the main corridor must have a sidelight.
- 16.3.3 Except for the provisions for security camera feed, the Chaplain's office is to be equipped identically to the Vice Principal's offices.

16.4 VESTRY

- 16.4.1 Access to the Chaplain's area from the Chapel may be from either the vestry or directly from the Chaplain's office.
- 16.4.2 Provide privacy locks on Vestry door(s).
- 16.4.3 Provide one Millwork Storage Unit "A", along one wall of the Vestry, (Refer to Millwork section this Guideline) and one full height storage unit with a coat rod and shelf above for vestments.
- 16.4.4 In appropriate location, provide a 1,800 mm (6 ft.) long counter with stainless steel sink with no water supply. The drain should not be connected to the Municipal drains.
- 16.4.5 Below counter, provide a row of drawers and one adjustable shelf with lockable doors.
- 16.4.6 Provide a cupboard above counter with one adjustable shelf and lockable doors.

17. CLASSROOMS

General classrooms are associated with English, Mathematics, Health, Moderns, Social, and Religious Studies. The area for each classroom is 67 to 70 m² (725 to 750 sq. ft.). The area of classrooms is to be determined at the design stage.

- 17.1.1 All classrooms are identically equipped.
- 17.1.2 English and Social Studies classrooms are to be close to the Resource Centre; Mathematics and Moderns close to the major Computer Classrooms; Religious Studies close to the Chapel.
- 17.1.3 Supervision of the classroom should be possible from the corridor door.
- 17.1.4 Preferable shape of the classroom is to be slightly rectangular with the shorter side against the corridor. Ideally, every classroom will have windows to the exterior, only one of which is to be operable.
- 17.1.5 In each classroom, provide one (1) Millwork Storage Unit “A”. (Refer to Millwork section this Guideline)
- 17.1.6 On the teaching wall of each classroom, provide 3 sections of 2,450 mm (8 ft.) whiteboards. The middle whiteboard section is to be installed without a marker trough. A 6’8’/6’/ combination is also acceptable.
 - 17.1.6.1 Unless otherwise identified in this Guideline, do not include a map rail above the whiteboards in any locations.
- 17.1.7 On opposite, or appropriate wall, provide 1,820 mm (6 ft.) tackboard.
- 17.1.8 Each classroom is to have a visible control panel. (Refer to section on “Control Panels” this Guideline).
- 17.1.9 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.
- 17.1.10 Excluding the computer provisions, each classroom shall have there (3) additional duplex receptacles – appropriately spaced around the perimeter of the room.

18. UNASSIGNED SEMINAR ROOMS

Seminar Rooms are to be sized between 23 and 32 m² (250 and 350 sq. ft.). The number of unassigned Seminar Rooms will be determined by the Board’s program requirements.

- 18.1.1 Seminar Rooms will be dispersed throughout the building as appropriate, in close proximity to major classroom areas.

Secondary School Guidelines

Design Criteria and Fitments

- 18.1.2 Each unassigned Seminar Room is to be accessible from the main corridor.
- 18.1.3 Provide a 2,450 mm (8 ft.) long whiteboard on one wall and a 1,200 mm (4 ft.) long tackboard on opposite wall.
- 18.1.4 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.
- 18.1.5 Provide a standard classroom control panel and adequate receptacles along perimeter walls.

19. STUDENT COUNCIL ROOM

The Student Council Room should not exceed 14 m² (150 sq. ft.).

- 19.1.1 This room is to be located close to the Cafetorium, preferably overlooking the Student “Gathering” Place.
- 19.1.2 Except for the deletion of the whiteboard and number of data outlets, the Student Council Room is to be equipped identically to the Unassigned Seminar Rooms
- 19.1.3 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.

20. COMPUTER LABS

Computer Laboratories should be 93 m² (1,000 sq. ft.) but no greater than 97.5 m² (1,050 sq. ft.) The number of Computer Laboratories will be determined by the Board’s program requirements.

- 20.1.1 The Computer Labs will be dispersed (cross curricular) throughout the building as appropriate, in close proximity to major classroom areas and as identified below.
- 20.1.2 If at all possible, the majority of the Computer Labs should be located within a cable path of no more than 75 m (250 ft.) from the Server Room.
- 20.1.3 Every Computer Lab shall be equipped with raceways on all three sides.
 - 20.1.3.1 To minimize directional changes to raceways, walls of labs are to be without protrusions.
 - 20.1.3.2 Every Computer Lab shall be equipped with a HUB. (Refer to *Illustrative Sketches* and *Computer Server Room and HUB Locations*, this Guideline for details.)

- 20.1.4 One Computer Lab must be connected to the Communication Technology Laboratory. Another may be situated near the Special Education Area.
- 20.1.5 Computer labs should be rectangular with the shorter wall [minimum 9,150 mm (30 ft.)] along the corridor.
- 20.1.6 If space permits, along the teaching wall, detail three (3) sections of whiteboards in a 1,220/2,450/1,220 mm (4 ft./8.ft/4 ft) configuration. The centre 2,450 mm (8 ft.) whiteboard is to be installed without a marker trough.
- 20.1.7 Millwork storage units and tackboards in Computer rooms are not necessary.
- 20.1.8 Provide a control panel in each computer room.
- 20.1.9 Provide an electrical sub-panel at corridor wall, next to control panel.
- 20.1.10 Do not provide floor-mounted receptacles.
- 20.1.11 Install standard fluorescent lighting. Grounded, static free floor in the labs is not necessary.

20.2 COMPUTER LAB FURNITURE

- 20.2.1 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.
- 20.2.2 It is critical that the connections in the raceway be properly coordinated with the layout of the computer furnishings. The Consultants are requested to provide 1:50 drawings of each of the Computer Laboratories. Each Laboratory is to be indicated on a separate sheet.
- 20.2.3 It is expected that only 1,830 mm (72”) wide x 760 mm (30”) deep computer desks will be ordered from the Board’s furniture and equipment budget for use in Computer Labs. Desks that are 900 mm (36”) wide by 760 (30”) deep will be used only where necessary to complete a row containing an uneven number of workstations.

21. LIBRARY RESOURCES CENTRE

The Ministerial criterion for a Library Resources Centre is 4 sq. ft. per pupil with a minimum size of 260 m² (2,800 sq. ft.). The number of Guidance offices and the size of the waiting, circulation and secretarial area is to be reviewed with the Design Department during the design stage.

Secondary School Guidelines

Design Criteria and Fitments

The Library Resources Centre includes a librarians' office @ 9 m² (100 sq. ft.) + a library workroom @ 14 m² (150 sq. ft.) + one or two seminar rooms @ 14 m² (150 sq. ft.) each, + an AV Storage Room @ 7 m² (75 sq. ft.) + Network/Media Specialist's workroom @ 14 m² (150 sq. ft.), The area of the Library portion of the Resources Centre, portion of which is to be given to accommodate approximately 30 computers, will be based on the Ministerial criterion.

21.1 LIBRARY

- 21.1.1 To avoid supervision issues, the library shall be designed on one level. Mezzanines are not acceptable. Review with the Design Department any options.
- 21.1.2 The Library is to be accessible during all periods of the day, and, therefore, is to be centrally located, preferably accessible from the student "gathering" place.
- 21.1.3 The Library shall have only one main access into the space with enough glazed screening to provide interest. All other required doors for emergency exiting shall be alarmed when opened.
- 21.1.4 The preferred location of the Library is on the Main floor.
- 21.1.5 Fenestration to exterior is preferable but not essential. If fenestration is provided, it should be non-operable type.
- 21.1.6 The Library shall be divided into two areas. Approximately 80 percent of the Library shall be used for book stacks and computer stations. The remainder of the Library shall be a reading area.
- 21.1.7 Provide, at the main entrance a dedicated, floor mounted electrical connection for a security system.
- 21.1.8 The Library Detection System is in Contract, but back charged to the School's Furniture and Equipment Budget. It is to be accurately located on the plan and be barrier free.
 - 21.1.8.1 The Library Detection System should be on a separate circuit.
 - 21.1.8.2 It is suggested by the manufacturer that "for optimum performance, library computer terminals should be placed at least 2,140 mm (7 ft.) from the closest detection panel."
- 21.1.9 Access into the main library shall be past the circulation desk, which shall be located in close proximity to the librarians' office.
- 21.1.10 The built-in circulation desk should have 4 circuits for power and provision for three computers. Electrical/data provisions shall be from floor, so that the location of the desk can be accurately plotted on the plan.

- 21.1.11 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.
- 21.1.12 Provide one (1) additional rough-in point for the Integrated PA/Telephone System at each of the computer locations.
- 21.1.13 In close proximity of the circulation desk, provide a “book drop” slot from the corridor into a closet space that is separated from the Library. Design a moveable cart for the book drop-off (In Contract) which shall fit into the closet.
- 21.1.14 Special lighting is not required in the Library, but special attention must be paid to the orientation of light fixtures in illuminating the stack areas.
- 21.1.15 In an appropriate location of the Library, make provision for approximately 20 computers. Traditionally, the computers are located in rows on both sides of a knee wall.
 - 21.1.15.1 For data requirements for this location, refer to *Computer Systems – Computer Locations* in this Guideline.
- 21.1.16 The computer stations are to be visible from both the librarians’ office and library workroom.
- 21.1.17 Provide a 220 volt circuit for coin/card operated photocopier but located a minimum of 6,100 mm (20 ft.) from computer terminals and security system. Location of the photocopying machine is to be visible from both staff areas.
- 21.1.18 Provide ceiling mounted back boxes for paging speakers.

21.2 LIBRARY WORKROOM

- 21.2.1 Library workroom is to have an easy access to the circulation desk and to the librarians’ office.
- 21.2.2 Sufficient glazing to have supervision of the Library, library reading room, study carrels, computer stations, and the copier is required. Make certain that the space below the glazed screen is high enough to accommodate a 900 mm (3 ft.) high bookshelf.
- 21.2.3 Along one wall, provide a counter with stainless steel sink and shelving above. Both the cabinet and upper shelving cupboard shall have adjustable shelf with lockable doors
- 21.2.4 Since library materials and books are heavy, ensure that adequate supports for upper shelving units are provided and properly anchored.

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Design Criteria and Fitments

- 21.2.5 Above counter, provide two duplex receptacles. Provide a ceiling mounted back box for a paging speaker.
- 21.2.6 If space permits, provide a 1,200 mm (4 ft.) long tackboard.
- 21.2.7 Provide a space for a printer. For data requirements refer to *Computer Systems – Computer Locations* in this Guideline. The power requirement in this area is to be a 20 amp circuit.

21.3 LIBRARIAN'S OFFICE

- 21.3.1 The Librarian's office should be located to allow views of the circulation desk, the workroom, and through the workroom, into the library area.
- 21.3.2 The glazed screen facing the circulation desk is to be of an appropriate height to allow view of the circulation desk from a seated position. The door connecting the library should be in close proximity to the circulation desk.
- 21.3.3 The Librarian's Office will be equipped similarly to other small workrooms included within teaching spaces.

21.4 SEMINAR ROOM(S)

- 21.4.1 The Library Seminar Room(s) is not to be included in the count for the "Unassigned Seminar Rooms" identified by the program requirements.
- 21.4.2 The Library Seminar Room(s) is to open only into the Library and be within the library security system.
- 21.4.3 It is preferable to locate the access to the seminar rooms as close to the main Library door rather than through the stack area.
- 21.4.4 The Library Seminar Room(s) is equipped identically to the Unassigned Seminar Rooms identified elsewhere in this document.
- 21.4.5 Exterior fenestration is not required, but glazed screens to library are essential.

21.5 NETWORK/MEDIA SPECIALIST'S WORKROOM

- 21.5.1 The workroom (Network/media Specialist) is to be accessible from the corridor.

- 21.5.2 Along one wall, provide a counter with cupboard above. Upper cupboard and counter shall have one adjustable shelf and lockable doors.
- 21.5.3 Provide a knee space under the center section of the counter. The remainder of the counter is to have one open shelf.
- 21.5.4 Install a 1,200 mm (4 ft.) long tackboard along one wall.
- 21.5.5 Above counter, provide a raceway similar to the staff work stations. For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.
- 21.5.6 Provide a standard control panel.

21.6 AUDIO-VISUAL (AV) STORAGE

- 21.6.1 The AV Storage Room is to be accessible from the Library.

22. PHYSICAL EDUCATION AREA

The Physical Education Area shall consist of two or three gymnasias. Area of each gym is to be between 362 and 367m² (3,900 and 3950 sq. ft.) + two team dressing rooms @ 76 m² (820 sq. ft.) each; + two or four change rooms @ 58 m² (625 sq. ft.) each; + one sports storage room for each gym @ 16 m² (175 sq. ft.) each; + one exterior sports storage room @ 16 m² (175 sq. ft.) + one uniform storage room @ 14 m² (150 sq. ft.) + an Exercise Room of 130 m² (1,400 sq. ft.) + a Dance Studio (if identified in the program) @ 102 m² (1,100 sq. ft.) + an Instructor's Area of 46 m² (500 sq. ft.).*

Note 1: Instructors' Area includes shower; locker/changing and toilet facility for both male and female staff.

Note 2: In the event that only a double gymnasium is programmed, the fitments and sports line layout of the "main gym" shall apply.

22.1 GENERAL

- 22.1.1 The gymnasias shall have a maple hardwood, gym sprung floor.
- 22.1.2 The entrance to the Physical Education Area is to be easily accessible from the parking lot by outside groups and be in close proximity to both team dressing rooms. If feasible, separate this area from the remainder of the school for night time and weekend activities.

Secondary School Guidelines

Design Criteria and Fitments

- 22.1.3 If a triple gym complex is designed, then the three gymnasias are to be equipped identically except that two of the three gym areas shall form a “main gym”. The “competition” basketball and volleyball courts shall be located in the main gym, as will the bleachers. The primary student entrance will be centered onto this main gym. Each of the gymnasias, however, must have corridor access.
- 22.1.3.1 The supply and installation of bleachers and basketball backstops is in contract, but back-charged to the school’s furniture and equipment budget.
- 22.1.4 Gymnasias are to have multi-level fluorescent lighting. (Refer to *Lighting Fixtures* in the Technical Guidelines.)
- 22.1.5 In the Physical Education Area corridor, provide a drinking fountain unit. Refer to *Drinking Fountains*, this Guideline.
- 22.1.6 In the Physical Education Area corridor, provide a Display Case for sports trophies. Refer to *Display Cases*, this Guideline.

22.2 CHANGE ROOMS

- 22.2.1 Design two change rooms per single gym with direct through access from the corridor.
- 22.2.2 Change rooms located across corridors are acceptable, but not desired.
- 22.2.3 The team dressing rooms and the change rooms are to be equipped so that they can be used by either sex.
- 22.2.4 In the team dressing rooms and change rooms, provide three (3) individual shower stalls one of which is to be barrier free, complete with a seat. All three shower stalls are to be equipped with a shower rod and curtain.
- 22.2.4.1 Partitions in shower stalls shall be of solid phenolic material.
- 22.2.4.2 Provide two floor drains for the three shower stalls or a drain trough at the rear wall with one floor drain.
- 22.2.5 In all change rooms, directly outside the shower area, provide two, (2) electric, hair dryers with fixed nozzles - one at barrier free height. Provide one (1) hand dryer with fixed nozzle at wash fountain.
- 22.2.6 All change rooms shall have one vandal proof, barrier free terrazzo (or equivalent material) wash fountain.
- 22.2.7 Provide two, tempered glass mirrors, one on each side of the wash fountains. One of the mirrors is to be at a barrier free height.

- 22.2.8 The team dressing rooms are to be equipped with 1 barrier free WC, in a separate 150 mm (6") concrete block wall cubicle with metal door and frame. Door is to be sized to standard toilet cubicle heights. A similarly designed WC that is barrier free is to be included in the change rooms only if required by the Municipality.
- 22.2.9 All change rooms shall be equipped with cantilevered benches, with welded coat hooks and wood shelf above.
 - 22.2.9.1 Floor material in the change rooms is to be discussed with the Design Department.
- 22.2.10 All change rooms shall have ceilings as high as possible, of "impact resistant" gypsum board, painted. Ceiling tiles in these areas are unacceptable.
- 22.2.11 All fixtures shall have wire cages and tube protection. All Change Rooms are to have fixtures controlled by ceiling mounted Ultrasonic/Passive Infrared devices.
- 22.2.12 Light fixtures are not to be located above change room benches.
- 22.2.13 All exit signs and emergency lights and other devices, shall be wall or ceiling mounted, flush, with appropriate cages. Wall mounted batteries for emergency lighting are not to be installed in these areas.

22.3 INSTRUCTORS' AREA

- 22.3.1 The Instructors' area is to have direct access from the corridor system and direct access into the "main gym". Preference is to provide a glazed screen overlooking at least two of the three gymnasias.
- 22.3.2 The instructors' area is to be equipped with typical staff workstations located along all appropriate walls.
 - 22.3.2.1 For typical work stations, refer to Millwork section, this Guideline and Illustrative Sketches
 - 22.3.2.2 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.
- 22.3.3 Provide adequate section of coat rod and over-shelf at entrance to this area.
- 22.3.4 Provide a 1,830 mm (6 ft.) counter with sink, and upper cupboards. Below the counter, provide a row of drawers, adjustable shelving below and lockable doors. The upper cupboards shall have adjustable shelf and lockable doors. Provide a duplex receptacle.

Secondary School Guidelines

Design Criteria and Fitments

- 22.3.5 Make space and provisions for a refrigerator with ice maker.
- 22.3.6 Provide a standard classroom control panel at the door connecting to the corridor.
- 22.3.7 Shower controls (zoned to control each of the change rooms separately), and switches for the lighting and fans are to be located in this area.

22.4 INSTRUCTORS' LOCKER ROOMS

- 22.4.1 Accessible from the Instructors' area, design a separate male and female locker room.
- 22.4.2 Provide a maximum of 10 half lockers and a fixed bench in each locker area.
- 22.4.3 Included in each of the locker rooms provide a shower, toilet and lavatory.
- 22.4.4 Above the lavatory, install an over-shelf, mirror and a duplex receptacle.
- 22.4.5 These facilities need not be barrier free.
- 22.4.6 Provide ceiling mounted back boxes for paging speakers in each area.

22.5 GYM STORAGE ROOMS

- 22.5.1 Each gymnasium must have a direct access to a storage room.
- 22.5.2 A single gym storage room and outside gym storage room may be combined and, be accessible from the gym and the exterior.
- 22.5.3 One of the gym storage rooms (to the main gym) is to have double doors with a removal mullion. All other gym storage room doors are to be oversized, single doors.
- 22.5.4 Ceilings are not required in any of the gym storage rooms, but ideally, a 3,650 mm (12 ft.) height should be maintained.
- 22.5.5 In each of the interior storage rooms provide one wall of 450 mm (18") deep, heavy duty, adjustable shelving. Gym storage room shelving is to be installed above the height of ball carts. Confirm height of ball carts with the Design Department.
- 22.5.6 Provide vertical storage for maximum of eight (8) volleyball posts and six (6) badminton poles in one of the three storage rooms. Provide vertical

storage for a maximum of six (6) badminton poles in each of the two remaining storage rooms. (Refer to Illustrative Sketches for details.)

- 22.5.7 Lighting fixtures in the gym storage rooms should have wire guards. In each storage room, provide one service duplex receptacle.

22.6 UNIFORM STORAGE ROOM

- 22.6.1 Preferably accessed from the corridor, and depending on the layout, the Uniform Storage Room may be accessed from the Gymnasia or from one of the Storage Rooms.
- 22.6.2 Provide along the longest wall, two @ 450 mm (18") deep shelves with coat rod below.
- 22.6.2.1 Mount shelves on steel brackets @ 900 mm (3 ft.) and at 1,800 mm (6 ft.) above finished floor.
- 22.6.3 Provide ALL services required for a stackable washer/dryer combination in one corner of this room.

22.7 EXTERIOR SPORTS STORAGE ROOM

- 22.7.1 The Exterior Sports Storage Room must have a direct access to the exterior, preferably by means of an oversized door or double doors with removable mullion.
- 22.7.2 Interior access to this storage room may be from one of the Sport Storage Rooms.
- 22.7.2.1 Separate this room from the Sports Storage Room by means of wire fencing and a gate.
- 22.7.3 This room is to have no shelving. Concrete floor and exposed ceiling is acceptable.

23. GYMNASIA

23.1 DRAW CURTAINS

- 23.1.1 Each gymnasium will be separated by a manually operated draw curtain, bottom third to be solid vinyl, upper two thirds to be vinyl mesh. Preferably, the draw curtains are to be stored in wall pockets on the opposite side of the bleachers.

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Design Criteria and Fitments

- 23.1.2 The storage pockets should be equipped with a set of standard, lockable metal doors (without a header) to protect the curtains. Avoid locating the pocket curtains proud of exterior walls to facilitate possible future additions.

23.2 COURT LINES

- 23.2.1 The Practise basketball court lines and Badminton court lines shall be painted in all three gymnasiums, in order of precedence as follows:

Practise Basketball Court	50 mm (2") RED lines
Practise Volleyball Court	50 mm (2") LIGHT GREEN lines
Three Badminton Courts	37.5 mm (1½") WHITE lines

- 23.2.2 None of the three practise basketball courts require jump circles.
- 23.2.3 Regardless of the gymnasium center, all practise basketball court (RED) lines shall be located 1,000 mm from either side walls or face of closed bleachers and a minimum of 800 mm from side walls.
- 23.2.4 Position the three Badminton Courts in each gym INSIDE the Basketball Court.
- 23.2.5 With the exception of the center line (RED) of the Practise Basketball/Volleyball court, none of the lines should overlap.
- 23.2.6 The LIGHT GREEN and RED lines shall take precedence over the WHITE lines except when the white line crosses the Practise Basketball keys.
- 23.2.7 Refer to Illustrative Sketches for recommended layouts.
- 23.2.8 In addition to the above mentioned courts, the "main" gym shall have the following court lines painted in order of precedence.

Competition Basketball Court:

150 to 260 mm (6" to 10")* perimeter, and 50 mm internal BLACK lines

* Perimeter line width is to school's phys ed. staff preference.)

Competition Volleyball Court

50 mm (2") DARK GREEN lines

NOTES:

The BLACK lines shall take precedence over all main gym lines except where the BLUE line crosses the Competition Basketball keys.

The keys of the Competition Basketball Court are to be stained a darker colour to the wood floor.

- 23.2.9 The Center Competition Basketball circle is to be devoid of lines for installation of a logo.
- 23.2.10 Center line of Competition Basketball/Volleyball court is to be BLACK. (Essentially the same line)
- 23.2.11 Competition Tennis Court (50 mm lines) is to be installed only if dictated by the program requirements.
- 23.2.12 Any requested change in the thickness and colour of any of the courts must be approved by the Design Department.
- 23.2.13 The design and installation of the school logo in the middle jump circle of the Competition Basketball Court shall be included in the Signage Cash Allowance.

23.3 FLOOR SOCKETS

- 23.3.1 Flush mounted floor sockets for game posts shall be provided. Flush mounted floor sockets for game posts shall be provided in the Contract.
- 23.3.2 Floor sockets for Badminton courts are to be 1 $\frac{7}{8}$ " diameter - no metric equivalent. Floor sockets for Volleyball courts are to be 3" in diameter - no metric equivalent. Preference is for the installation of the large floor sockets with sleeves to accommodate the badminton posts.
- 23.3.3 Floor sockets for apparatus such as box horse and balance beam are not required.

23.4 BASKETBALL BACKSTOPS

- 23.4.1 The supply and installation of all basketball backstops are to be back-charged to the school's Furniture and Equipment budget.
- 23.4.2 The Competition Basketball Court and all Practise Basketball Courts are to be equipped with rectangular tempered glass backboards, with spring type hoops.
 - 23.4.2.1 The rectangular tempered glass backstops are to be complete with padding kit for rectangular backboards, "Power-flex type" goal/net, and "Saf-Strap type" safety belt mechanism.
- 23.4.3 In addition to the rectangular tempered glass backstops each gym will be equipped with up to two practise basketball backstops. These practise backstops are to be located around the perimeter in appropriate locations.

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Design Criteria and Fitments

(Avoid installation over door openings and close to full court play basketball backstops.

- 23.4.3.1 Practise basketball backstops are to be metal, fan shaped.
- 23.4.4 All full play court basketball backstops shall be operated by an electric winch mechanism. Individual control of power backstops shall be by a lockable, flush mounted, electric switches located in a wall of each of the gym areas. Make certain that switches are not located directly below the backstops.
- 23.4.5 Preference is to mount all full court play basketball backstops from the roof structure. Design structure to support weight of the rectangular tempered glass backstops, regardless of location.
- 23.4.6 For wall mounted basketball backstops, special care must be made to “thru bolt” them and spread the load evenly on the outside of the wall.

23.5 GYM BLEACHERS

- 23.5.1 Telescoping **motorized** bleachers shall be provided in the Contract, FOR THE MAIN DOUBLE GYM, but back charged to the school’s Furniture and Equipment Budget.
 - 23.5.1.1 Design bleachers in the main double gym to accommodate approximately 150 to 175 spectators for each half of the double (main) gym.
- 23.5.2 Locate bleachers in such a way that spectators do not walk across the playing surface to get to their seats.

23.6 GYM DEVICES

- 23.6.1 Preference is to locate all wall mounted gym devices on the opposite side to the bleachers. Regardless of the location such devices must be protected by wire cages. Exit lights, pull stations etc. shall be flush mounted.
- 23.6.2 If wall mounted devices are located above the bleachers, clocks, fire alarm horns; speaker horn and other such devices must be high enough to be unreachable by spectators when gymnasium bleachers are extended.
- 23.6.3 Each gym shall have a 1,200 mm (4 ft.) x 1,200 mm (4 ft.) flush mounted whiteboard, with a marker ledge recessed into the wall.
- 23.6.4 In one corner of the double (main) gym, and as high as possible, located diagonally opposite the bleachers provide an electric scoreboard. (Supply

and installation of the scoreboard is to be back-charged to the school's Furniture and Equipment budget.) Controls for scoreboard are to be by means of jacks in a wall opposite the bleachers, centered on the double gym.

- 23.6.5 Rough in for a future, second, electronic scoreboard in one corner of the third gym.
- 23.6.6 Provide a rough-in for a separate, P. A. system with emergency override, to use with music for exercise programs.
- 23.6.7 Provide adequate number of duplex receptacles along perimeter walls. Do not locate receptacles in crash pad locations. (Below basketball backstops)
- 23.6.8 Exposed mechanical ductwork shall be round to prevent sports equipment being caught on top of vents. Diffusers shall be equipped with safety chains.
- 23.6.9 Provide properly protected (wire cages) downdraft ceiling fans operated by switches located just inside the Instructors' Room and controlled by the BMS system.
- 23.6.10 Provide acoustic sound block above dado height. Acoustic block is to be flat slotted type. Consider "Tectum type" acoustic panels from bottom of joists to roof deck. If budget permits, provide acoustic deck.
- 23.6.11 No fenestration in the gymnasium is necessary or required. All three gymnasium will be air-conditioned for maximum combined capacity of teams and spectators.
- 23.6.12 In each gymnasium, provide a self regulating, clock of a size to be visible and sufficient speakers for all call and change of period tones.

24. EXERCISE/WEIGHT TRAINING ROOM

- 24.1.1 The Exercise/Weight Training Room is to be located within the Physical Education complex, preferably attached to one set of dressing rooms.
- 24.1.2 Preferably square in shape, the Room should have a clear 3.650 mm (12 ft.) ceiling height to accommodate high universal equipment.
- 24.1.3 Along two walls, provide 1,830 mm (6 ft.) high mirrors. Mirrors are to be "Safety Type". Dance rails are not required.
- 24.1.4 Main access to the Exercise Room is to be by an oversized door. No sidelights or vision panels into the corridor are required.

Secondary School Guidelines

Design Criteria and Fitments

- 24.1.5 If feasible, provide fenestration to the exterior. The area is to be well ventilated.
- 24.1.6 The Exercise/Weight Training Room shall have “synthetic sheet flooring” of a thickness suitable for weight training activity. Review material selection and details with Design Department prior to tender. Additional mats in the free weight area shall be NIC, supplied by the school.
- 24.1.7 Along one wall provide one 2,450 mm (8 ft.) long whiteboard and one 1,200 (4 ft.) long tackboard.
- 24.1.8 Provide several electrical outlets along walls where mirrors do not occur. Provide a standard classroom control panel at the main access door.
 - 24.1.8.1 In addition, provide ceiling mounted back boxes for a paging speaker.

25. DANCE STUDIO

- 25.1.1 If included in the program requirements, the Dance Studio may be located within the Physical Education complex, preferably attached to, or in close proximity to, one set of dressing rooms.
- 25.1.2 Preferably square in shape, the Dance Studio should have two walls of 1,830 (6 ft.) high mirrors complete with ballet Barres.
- 25.1.3 Mirrors (Safety Type) are to be installed at 100 mm (4”) from finished floor to door height.
- 25.1.4 No sidelights or vision panels into the corridor are required.
- 25.1.5 The room should be well ventilated. Exterior fenestration is not necessary.
- 25.1.6 Entire room shall have a hard wood “sprung floor”.
- 25.1.7 Along one wall provide one 2,450 (8 ft.) long whiteboard and one 1,200 mm (4 ft.) long tackboard.
- 25.1.8 Provide several electrical outlets along walls where mirrors do not occur.
 - 25.1.8.1 Provide a standard classroom control panel at the main access door. In addition, provide ceiling mounted back boxes for paging speakers

26. CAFETORIUM

The Ministerial criterion for a Cafetorium is 5 sq. ft. per pupil (OME). Ideally, the Cafetorium will provide seating for 500 students per lunch period. The net floor area of the Cafetorium is to be reviewed with the Design Department during the design stage. The area calculations of the Cafetorium include the double stairs and forestage in front of the proscenium arch + a custodial closet @ 2.2 m² (25 sq. ft.). Refer to the Technical Guideline – Secondary School Performing Arts and/or Illustrative Sketches on the web site for description and details of the performance fixtures, rigging etc. in this Guideline section.

26.1 GENERAL

- 26.1.1 The Cafetorium should be rectangular in shape, and should be oriented to the “Matrix”.
- 26.1.2 The exit from the kitchen servery should lead directly into the Cafetorium.
- 26.1.3 The main entrance doors shall be opposite to the Stage.
- 26.1.4 A single level floor for the Cafetorium is preferable.
- 26.1.5 There should be several glazed screens along at least one wall to view the activities in the Cafetorium from the student “Gathering” place or surrounding corridors. Avoid designs with high level screens and the use of power shading devices.
- 26.1.6 Exterior fenestration is not required. If exterior fenestration is contemplated by the Architect, it should be designed with power operated blackout shades. Board’s Design Department must approve this concept.
- 26.1.7 The interior of the Cafetorium should create an appropriate acoustical environment for communication through speech, music and amplified sound.
- 26.1.8 Acoustic treatment is to take into consideration performances by orchestra or electronically enhanced band playing.
- 26.1.9 Provide receptacles, microphone jacks, and back boxes for data along the leading edge of the stage apron every 1,520 mm (5 ft.) on center. Provide adequate duplex receptacles on perimeter walls.
- 26.1.10 One fixed side lighting Torm is required on each side of the Cafetorium.
- 26.1.11 Provide an alcove in the cafeteria for a minimum of four vending machines. Provide switches on stage to turn off vending machines during performances. (Other vending machines will be dispersed throughout the

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school – see section on Corridors. On ground floor, provide vending machine alcoves for each zoned area of the school.)

- 26.1.12 Provide chair storage below stage. Chair storage dollies are in Contract.

26.2 CAFETORIUM CUSTODIAN'S ROOM

- 26.2.1 Preferably, this custodian's room will service the Cafetorium and Served, but be located off the Kitchen area.
- 26.2.2 The room is to have a mop sink and be equipped identically to the other custodial rooms identified elsewhere in this document.

26.3 CONTROL BOOTH

The area of the Control Booth is to be included in the area of the Stage.

- 26.3.1 The Control Booth may be directly accessible from the second floor corridor or directly from the Cafeteria.
- 26.3.2 Provide viewing ports to the Cafetorium from the Control Booth, designed so that the view of the stage as well as the area in front of the stage is possible.
- 26.3.2.1 The viewing ports shall be full height screens with tempered glass inserts.
- 26.3.3 Directly below the viewing ports provide a high level counter. On top of the counter, provide a power raceway its full length with a minimum of four (4) receptacles.
- 26.3.4 The center viewing port is to be made operable (hinged inward) for verbal communication between Stage and Control Booth.
- 26.3.5 Preference is for the traveling spot light is to be open, and located next to, but outside of the enclosed Control Booth. The height of the travelling spot light masonry enclosure is to comply with OBC code plus an additional rail, matching the lower horizontal mullion of the Control Booth screen.
- 26.3.6 The lighting of the Control Booth, as well as the open travelling spot light area should be ceiling mounted fluorescent fixtures and a separate, ceiling mounted incandescent spot lights on a dimmer switch.
- 26.3.7 The Dimmer Rack/Packs (ballasts) are to be located in an Electrical Room or Storage Room closest to the Stage or, preferably, attached to the Control Booth.

- 26.3.8 Provide adequate power requirements for the theatrical equipment and for the traveling spot light.
- 26.3.9 Make provisions to control the dimmer board, sound volume, and stage & house lights from this area.
 - 26.3.9.1 Provide a back box for PA/Telephone.
- 26.3.10 Provide ceiling mounted back box for paging speaker.

27. STAGE

The maximum area of the stage is to be 140 m² (1,500 sq. ft.) EXCLUSIVE of the double stairs & forestage in front of the proscenium arch (apron), but includes the rear access stairs to the Instrumental Music Room, the barrier free lift/ramp [whichever is provided], the stage wing spaces, any storage area beyond either ends of the stage wings, the “upstage crossover”, and the Control Booth.

it is mandatory for the Consultants to refer to the Technical Guidelines - Secondary School Performing Arts for description and details of this Guideline section.

27.1 GENERAL

- 27.1.1 The Architect should employ a Theatrical Consultant to assist in the design and installation of theatrical lights and rigging as required, and the type of dimmer system to be specified.
 - 27.1.1.1 The building design must accommodate the requirements provided in the *Technical Text – Secondary School Performing Arts* to ensure proper execution.
- 27.1.2 Preference is for the Instrumental Music Room or Band Room to be directly accessible from the rear/side of the stage. A second door leading directly into a main corridor is to be designed.
- 27.1.3 Secondary School Stages do not require folding partition doors.
- 27.1.4 The stage should be located on the short side of the Cafetorium.
- 27.1.5 Within the one of the stage wings, create a wire cage enclosure with a wide gate, to store the moveable dimmer board and stage props.
- 27.1.6 Directly behind the plaster line, make electrical provisions for an electrically operated, *rear projection* screen controlled from Stage and from Control Booth. (Cost of supply and installation to be back charged to F & E budget)
- 27.1.7 Provide a ramp or a passenger lift for barrier free access to stage.

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- 27.1.7.1 If ramp is provided, it must be wide enough to accommodate the movement of large musical instruments.
- 27.1.8 All doors to stage are to be oversized to accommodate large scenery props and musical instruments.
- 27.1.9 Access to stage from both side wings during a performance is necessary. (Locate crossover line on drawings.)
- 27.1.10 Provide a standard control panel and back boxes for paging speakers.
- 27.1.11 Independent communications for stage direction between Stage, Cafetorium, and Control Booth should be wireless technology, supplied from the School's Furniture and Equipment budget.

27.2 STAGE LAYOUT

For Stage Layout, proscenium opening, stage height, and stage design details, it is mandatory for the Consultants to refer to the Technical Guidelines - Secondary School Performing Arts.

The clear height between the finished stage floor and the underside of the roof structure should be no less than 6,000 mm (19'-6").

- 27.2.1 Depending on the layout of the Cafetorium and the Stage, the proscenium arch opening should measure between 8,540 mm (28 ft.) and 10,980 mm (36 ft.) wide and between 4,300 mm (14 ft.) and a maximum height of 4,575 mm (15 ft.).
- 27.2.2 The stage floor height shall be determined by a ratio formula not to exceed 1,075 mm (42") in height.
 - 27.2.2.1 Height of stage, however, will be dictated by under-stage storage requirements.

STAGE FLOORING:

- 27.2.3 The entire stage floor shall be a resilient wood floor assembly installed on a structural slab.

FORESTAGE:

- 27.2.4 Design a 1,500 mm (5 ft.) deep forestage with stairs at both ends. Floor shall be hardwood, varnished. The stairs are to be located beyond the proscenium opening.
- 27.2.5 The forestage should be straight (not curved).
- 27.2.6 At the front of the forestage apron, centered on the stage opening, provide one (1) speaker connection for the sound system and one (1) data

connection. For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.

27.2.7 At each side of the proscenium arch, provide a rough-in for a sound system.

STAGE OBSTRUCTIONS:

27.2.8 No building components such as work lights, sprinkler lines, electrical conduits etc., are to be attached to the underside of the rigging elements.

27.2.9 If regulations require installation of building components below the structural elements, such building components are to be oriented parallel to the plaster line.

STAGE COLOUR:

27.2.10 The entire stage space is to be painted a dark shade of grey or black. The floor is to be stained to match walls.

28. ART AREA

A typical art area comprises of two art rooms @ 93 m² (1000 sq. ft.) each, + an art storage/work room @ 19 m² (200 sq. ft.) + a kiln room @ 9.5m² (100 sq. ft.) for a total of 214.5 m² (2,300 sq. ft.)

28.1 GENERAL

28.1.1 The two Art Rooms are to be equipped identically.

28.1.2 If program requirements identify one additional Art Room, it shall be 93 m² (1,000 sq. ft.), in size, be equipped identically, but shall not have an attached art storage/work room.

28.1.3 The Art Area may be located on the ground floor, and have adequate fenestration with preference for northern light. Consideration may be given to locate the Art Area in close proximity to Communications Technology.

28.1.4 In addition to standard classroom lighting, provide one row of track lighting. (Maximum of three [3] fixtures)

28.1.5 While a high ceiling is not required, any ceiling height increase from the standard classroom height would be beneficial.

28.1.6 Locate, and have installed a fire extinguisher and a fire blanket in each Art Room.

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28.2 ART ROOM

- 28.2.1 Along the rear wall of the Art Room, provide a counter with a maximum of four lockable drawers in a row. Provide lockable doors and adjustable shelving below. (Refer to Illustrative Sketches)
- 28.2.2 In the counter, provide two, 300 mm (12") deep sinks with hot and cold water. Sinks are to be spaced evenly. One of the counter sinks is to be barrier free.
- 28.2.3 Above splash-back, install upper cupboards with adjustable shelf and lockable doors.
- 28.2.4 Provide duplex receptacles & 1,200 mm (4 ft.) o. c. above this counter.
- 28.2.5 At each end of the rear counter, provide one horizontal paper storage unit and two vertical paper storage units.
- 28.2.5.1 The horizontal storage unit is to have lockable doors and is to accommodate 900 mm (36") x 1,200 mm (48") paper. Shelving is to be pull-out and is to have a continuous "C channel" on front of each shelf for support.
- 28.2.5.2 The vertical paper storage unit is to have 13 mm plywood dividers at approximately 90 mm (3½") on centre.
- 28.2.6 Above counters, provide upper units with adjustable shelving and lockable doors.
- 28.2.7 In addition, provide two, (2) Storage Units "A". (Refer to Millwork section this Guideline)
- 28.2.8 In an appropriate location, provide a deep, porcelain "slop sink". Connect this sink to a clay interceptor.
- 28.2.9 If space permits, along the teaching wall, detail three (3) sections of whiteboards in a 1,800/2,450/1,800 mm (6 ft./8.ft/6 ft) configuration. The centre 2,450 mm (8ft.) whiteboard is to be installed without a marker trough.
- 28.2.10 Provide full height tackboards (400 mm from floor to top of door frame) wherever possible.
- 28.2.11 In both Art Rooms, provide an eye wash. Refer to Eye Wash Stations, this Guideline.
- 28.2.12 Provide adequate duplex receptacles around the perimeter, a standard classroom computer connection, and a standard classroom control panel.

- 28.2.13 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.

28.3 ART STORAGE/WORK ROOM

- 28.3.1 The Storage/Work Room is to be accessible from each of the two main art rooms. Preference is for exterior fenestration.
- 28.3.2 Along one wall provide a counter with sink and adjustable shelving below, 50% open, 50% closed. In addition, provide two (2) Millwork Storage Units “A”.
- 28.3.3 Above the counter, provide 300 mm (12”) deep, adjustable shelving. Doors are not required.
- 28.3.4 Provide, in Contract, a manufactured, steel, fireproof cabinet atmospherically vented to code requirements. (The supply and installation of this cabinet shall be back-charged to the school’s furniture and equipment budget.)
- 28.3.5 Provide adequate duplex receptacles above counter and around the perimeter of room.
- 28.3.6 In an appropriate location, two staff work stations. For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.
- 28.3.7 Provide ceiling mounted back box for paging-speaker.

28.4 KILN ROOM

- 28.4.1 Local ventilation and exhaust for the Kiln Room is necessary.
- 28.4.2 Kiln room is to be accessible only from the one main art room. Access to the kiln room should be as close as possible to the corridor door of the art room.
- 28.4.3 Provide a glazed screen between the kiln room and the art room for supervision.
- 28.4.4 In one corner of the kiln room, provide space and make electrical provisions for one kiln (NIC).
- 28.4.5 Separate the kiln area by a 150 mm (6”) concrete block, nib wall and provide a separate ceiling exhaust over this area.

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- 28.4.6 Provide electrical switching for the kiln outside of the alcove created by the 150 mm (6") nib wall. Tie switch to a ceiling mounted, corridor indicator light.
- 28.4.7 Provide, in contract, a manufactured, steel, fireproof cabinet atmospherically vented to code requirements. (The supply and installation of this cabinet shall be back-charged to the school's furniture and equipment budget.)

29. MUSIC AREA

The Music Area consists of an Instrumental Music Room @ 112 m² (1,200 sq. ft.) + one music practice room of 9.5 m² (100 sq. ft.) + two smaller practice rooms of 4.5 m² (50 sq. ft.) each + workroom/storage @ 7.5 m² (80 sq. ft.) + a possible Vocal Music Room @ 84 m² (900 sq. ft.)

If identified in the program, a Band Room maybe included as an addition to the Music Area, or as a replacement for the Instrumental Music Room and the Vocal Music Room.

The Band Room is a space @ 140 m² (1,500 sq. ft.) + one music practice room of 9.5 m² (100 sq. ft.) + two smaller practice rooms of 4.5 m² (50 sq. ft.) each + workroom/storage @ 7.5 m² (80 sq. ft.) for a total of 165 m² (1,780 sq. ft.).

29.1 GENERAL

- 29.1.1 The Architects are encouraged to employ a sound consultant to provide a design appropriate to the Instrumental Music or Band Room.
- 29.1.2 Ideally, both Instrumental and Vocal Music Rooms should be next to each other, with the office/storage room accessible from both.
- 29.1.3 The Instrumental Music or Band Room should have a direct access to the stage.
- 29.1.4 At least one corridor door and the access door to the stage is to be oversized to accommodate large instruments. Only the Band Room may require two doors to the corridor
- 29.1.5 Preferably, the music area should be located close to exterior entrance of the school for easy loading and unloading of instruments.
- 29.1.6 Soundproofing between rooms and the surrounding areas including the soundproofing of doors is required. Mechanical design is to minimize transference of sound of adjoining spaces.

29.2 INSTRUMENTAL MUSIC ROOM

- 29.2.1 Preference is for floor of the Instrumental Music Room to be flat. However, the school administration may prefer to have the Music Room floor tiered.
- 29.2.1.1 If the Music Room floor is to be flat, provide two to four, retractable electrical receptacles in a carpeted floor. Discuss with the Design Department style and exact location of each receptacle.
- 29.2.2 If the Music Room is to be tiered, the top tier must be wide enough to accommodate a percussion instrument set. The Music Room tiers must be curved to face the conductor position.
- 29.2.2.1 The riser of each tier must have electrical receptacles at 2,400 mm (8 ft.) on centre and one (1) sound input jack for electric instruments.
- 29.2.3 Rough-in for a sound system with a patch panel for future hookup in the Workroom/Storage. Make rough-in provisions for future speakers located close to the ceiling, at two corners of the Music Room.
- 29.2.4 Along at least one side of the room, provide storage for music instruments consisting of various widths and variable number of adjustable shelves to accommodate percussion instruments from piccolos to tubas.
- 29.2.5 In an appropriate location, provide a counter with deep service sink and drain board to accommodate the washing of large instruments. Above counter provide a shelf.
- 29.2.6 Next to the service sink, provide two (2) Millwork Sheet Music Storage cabinets. The cabinets are to be similar to Unit "A", (Refer to Millwork section in this Guideline.) but divided horizontally into three sections. The middle section is to also be divided into three sections with 5 mm ($\frac{1}{4}$ ") removable, masonite shelves every 50 mm (2") to accommodate 8½" x 11" sheet music.
- 29.2.7 At the primary corridor entrance, provide a standard control panel. Include 3-way switches at both entrance/exit doors.
- 29.2.8 On the teaching wall of each classroom, provide 3 sections of 2,450 mm (8 ft.) whiteboards. The middle whiteboard section is to be installed without a marker trough. Depending on the length of the teaching wall, a 6'8'/6' combination is also acceptable.
- 29.2.8.1 At least one of the side whiteboards is to be marked with staff lines. Review with school's music staff and/or Design

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Department which side whiteboard is preferred or if more than one whiteboard is to have staff lines.

29.2.9 Because of the high ceilings in both the Instrumental Music Room the computer requirements at the front teaching wall differ from the classroom RCP's and are to be as follows:

29.2.9.1 One (1) quad receptacle, and one (1) back box with conduits (1 @ $\frac{3}{4}$ " diameter) terminated in the corridor ceiling space and,

29.2.9.2 One (1) duplex receptacle 600 mm above the top of the center whiteboard, centered.

29.3 BAND ROOM

29.3.1 The Band Room is to have a flat floor.

29.3.2 At the primary corridor entrance, provide a standard control panel. Include 3-way switches at all entrance/exit doors.

29.3.3 On the teaching wall of each classroom, provide 3 sections of 2,450 mm (8 ft.) whiteboards. The middle whiteboard section is to be installed without a marker trough. Depending on the length of the teaching wall, a 6'8'/6' combination is also acceptable.

29.3.3.1 At least one of the side whiteboards is to be marked with staff lines. Review with school's music staff and/or Design Department which side whiteboard is preferred or if more than one whiteboard is to have staff lines.

29.3.4 Because of the high ceilings in both the Band Room the computer requirements at the front teaching wall differ from the classroom RCP's and are to be as follows:

29.3.4.1 One (1) quad receptacle, and one (1) back box with conduits (1 @ $\frac{3}{4}$ " diameter) terminated in the corridor ceiling space and,

29.3.4.2 One (1) duplex receptacle 600 mm above the top of the center whiteboard, centered.

29.3.5 Along two sides and as appropriate for the shape and the size of the room, provide music instrument storage consisting of various widths and variable number of adjustable shelves for percussion instruments from piccolos to tubas.

29.3.6 In an appropriate location, provide a counter with deep service sink and drain board to accommodate the washing of large instruments. Above counter provide a shelf.

- 29.3.7 Next to the service sink, provide two (2) Millwork Sheet Music Storage cabinets. The cabinets are to be similar to Unit “A”, (Refer to Millwork section in this Guideline.) but divided horizontally into three sections. The middle section is to also be divided into three sections with 5 mm ($\frac{1}{4}$ ”) removable, masonite shelves every 50 mm (2”) to accommodate 8½” x 11” sheet music.
- 29.3.8 Provide adequate electrical receptacles for electric instruments around the perimeter of the room.
 - 29.3.8.1 Consider locating duplex receptacles are to be located in toe spaces of the shelving units at approximately 1,500 mm (5 ft.) on center.
- 29.3.9 Provide two to four, retractable electrical receptacles in the “synthetic sheet flooring”. Discuss with the Design Department the exact location of each receptacle.
- 29.3.10 In an appropriate location, provide tackboards.

29.4 PRACTISE ROOMS

- 29.4.1 The Music Practise Rooms are accessible only from the Instrumental Music/Band Room and are to be equipped identically.
- 29.4.2 Provide a sound-rated, glazed window in the wall not attached to the door frame of each Practise Room.
- 29.4.3 Interior walls of the Practise Rooms are to be sound-rated.
- 29.4.4 Provide one 900 mm (3 ft.) x 1,800 mm (6 ft.) high tempered glass mirror in each room and one electrical receptacle per room.
- 29.4.5 Make certain that the architectural, as well as mechanical design, provide for soundproofing of adjoining areas and these rooms.
- 29.4.6 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.

29.5 WORKROOM/STORAGE

- 29.5.1 Provide a glazed screen between this room and the Instrumental Music/Band Room, for supervision.
- 29.5.2 The Teacher’s Workroom will be equipped similarly to other small workrooms included within teaching spaces.

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- 29.5.3 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.

29.6 VOCAL MUSIC ROOM

- 29.6.1 With the exception of an additional raceway along one wall, the Vocal Music Room is equipped identically to a standard classroom.
- 29.6.1.1 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.
- 29.6.2 Provide acoustic treatment on upper parts of walls to minimize sound bounce and for noise absorption.
- 29.6.3 Make certain that the architectural, as well as mechanical design provides for soundproofing of surrounding areas and rooms.
- 29.6.4 Millwork storage units may need to be added along the rear wall of the classroom if the Vocal Music Room is designated as an electronic keyboard or guitar facility.

30. THEATRICAL AREA

The Theatrical Area consists of a Drama Room @ 88 m² (950 sq. ft.) + two Makeup Rooms between 9 and 12 m² (100 and 125 sq. ft.) each + a Storage Room @ 4.5 m² (50 sq. ft.) + Workroom @ 7.5 m² (80 sq. ft.) + Lecture Room @ 140 m² (1,500 ft²).

30.1 GENERAL

- 30.1.1 The Architect should employ a Theatrical Design Consultant to assist in the design and installation of theatrical lights and rigging as required, and the type of dimmer system to be specified.
- 30.1.1.1 The building design must accommodate the requirements provided in the *Technical Text – Secondary School Performing Arts* to ensure proper execution.
- 30.1.2 Ideally, the Theatrical Area will be easily accessible from the “Matrix”.
- 30.1.3 Neither the Drama Room nor the Lecture Room require fenestration.

30.2 DRAMA ROOM

It is mandatory for the Consultants to refer to the Technical Guidelines - Secondary School Performing Arts and/or Illustrative Sketches on the web site for description and details of this Guideline section.

- 30.2.1 Ideally, the Drama Room should be square in shape and may be up to 1½ stories in height. The clear height between the finished Drama Room floor and the underside of the roof structure should be no less than 5,685 mm (18'-8").
- 30.2.2 The walls above dado height should be covered a dark grey acoustic (Tectum type) material.
- 30.2.3 The height of the proscenium opening is to be between 3,960 mm (13 ft.) and 4,270 mm (14 ft.).
- 30.2.4 The stage wings should extend between 1,200 mm (4 ft.) and 1,830 mm (6 ft.) beyond either side of the proscenium opening.
 - 30.2.4.1 At one of the wings, provide a passage door between the Drama Room and the Lecture Room.
- 30.2.5 There is to be a sound rated folding wall (manually operated) between the Drama Room and the Lecture Room.
- 30.2.6 Provide a standard control panel. Material of the control panel should be dark matte in appearance.
- 30.2.7 Provide a rough-in for Projection Screen at the front of the Drama Room. Exact location is to be determined during construction.
 - 30.2.7.1 The supply and installation of the screen is included in the School's Furniture and Equipment Budget.
- 30.2.8 Rough-in for a sound system with a patch panel for future hookup in the Workroom/Storage. Make rough-in provisions for future speakers located close to the ceiling, at two corners of the Drama Room.
- 30.2.9 On the teaching wall of each classroom, provide 3 sections of 6'8"/6' whiteboards. The middle whiteboard section is to be installed without a marker trough. A 4'8"/4' combination is also acceptable.
- 30.2.10 Because of the high ceilings in both the Drama Room the computer requirements at the front teaching wall differ from the classroom RCP's and are to be as follows:
 - 30.2.10.1 One (1) quad receptacle, and one (1) back box with conduits (1 @ ¾" diameter) terminated in the corridor ceiling space and,

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- 30.2.10.2 One (1) duplex receptacle 600 mm above the top of the center whiteboard, centered.
- 30.2.11 Along opposite wall, provide four (4) Millwork Storage Units “A”.
 - 30.2.11.1 In all 4 Millwork Storage Units “A” add a removable coat rod.
- 30.2.12 In one corner of room, provide a service sink.
- 30.2.13 Provide adequate duplex receptacles around the remainder of the room perimeter. For other data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.
- 30.2.14 Paint the ceiling and all walls below and above the sound material dark gray or black, and provide corresponding colour of VCT floor tile.
 - 30.2.14.1 Extend the floor tile beyond the proscenium arch approximately 1,525 mm (5 ft.)
- 30.2.15 Install a 1,220 mm (4 ft.) x 1,220 mm (4 ft.) pipe grid. For the quantity and type of light fixtures, refer to *Standard Text Guidelines – Secondary Schools Performing Arts*.

30.3 MAKEUP ROOMS

- 30.3.1 The fitments in each of the Makeup Rooms are identical.
- 30.3.2 In each room, along one wall, provide a desk height counter with a sink at one end. Make provision for four (4) makeup stations. (No drawers below the counter are required.)
- 30.3.3 Above counter, install mirrors surrounded by incandescent lights. In addition, provide ceiling fluorescent work lights on a separate switch.
- 30.3.4 Between counter and mirrors, install a duplex receptacle for each station.
- 30.3.5 Along opposite wall, provide a metal pre-manufactured coat shelf and coat rod. Protect exposed ends of coat shelf.

30.4 WORKROOM/STORAGE

- 30.4.1 Provide a glazed screen between this room and the Drama Room, for supervision.
- 30.4.2 Rough-in for a patch panel for future hookup to speakers in the Drama Room/Lecture Room.

30.4.3 The Teacher's Workroom will be equipped similarly to other small workrooms included within teaching spaces.

30.4.4 Provide ceiling mounted back box for paging speaker.

30.5 LECTURE ROOM

Refer to the *Technical Guideline – Secondary School Performing Arts and/or Illustrative Sketches* on the web site for description and details of this Guideline section.

30.5.1 The Lecture Room should be rectangular in shape with the shorter end abutting the proscenium arch of the Drama Room. The space should be the same height as the Drama Room.

30.5.2 The Lecture Room is a multi-functional space. It is to be equipped with electrically operated, telescopic seating with seats to accommodate approximately an audience of 80 to 120 maximum.

30.5.2.1 Number of seats is to be determined at Design Stage.

30.5.3 The telescoping seating is to be included in the Contract, the cost of supply and installation is to be paid from the school's furniture and equipment budget.

30.5.3.1 Minimally, each seat shall be equipped with a fold-down writing arm, wood or plastic back and upholstered seat.

30.5.3.2 The style and material of each seat will be discussed with the Design Department.

30.5.4 At the rear of the Lecture Room, detail a fixed platform under which the telescoping seating will be stored. A telescoping platform may be considered but is not favoured.

30.5.5 Provide a 1,830 mm (6 ft.) long, 600 mm (2 ft.) wide desk height counter on the bleacher platform.

30.5.5.1 Detail a raceway at the back edge of this counter

30.5.5.2 Make wiring provisions to connect the portable dimmer console and the sound console at this raceway.

30.5.5.3 Provide only minimal lighting above the platform. Lighting at desk shall be by desk lamp.

30.5.6 The front wall of the Lecture Room is to have a sound-rated folding partition to separate this area from the Drama Room. The folding partition will have a minimum of four sections of whiteboard.

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- 30.5.7 Rough-in for microphone connections, back box for computer wiring and duplex receptacle, either at each side of the folding partition.
- 30.5.8 Make rough-in provisions for future speakers located close to the ceiling, at the two rear corners of the Lecture Room.
- 30.5.9 Provide several duplex receptacles around the perimeter suited for the room.
- 30.5.10 Provide power and rough-in data for a “proxima” located in this high volume space. Refer to *Peripheral Computer Provisions Included in the Contract – Power Provisions*.
 - 30.5.10.1 For additional data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.
- 30.5.11 Consideration should be given to visually baffle the ceiling mounted front of house lights.
- 30.5.12 At main corridor door, provide a standard classroom control panel.
- 30.5.13 Sound system is to be supplied and installed separately, and is NIC. (Refer to Standard Text Guidelines – *Secondary Schools Performing Arts*.)

31. SCIENCE AREA

Depending on the program requirements, the Science Area may consist anywhere from five to nine science rooms @ 102 m² (1,100 sq. ft.) each. For each science room, a minimum of 9.5 m² (100 sq. ft.) is to be allocated to the science preparation room. Included in the science preparation room area, is a chemical storage/mixing room of approximately 14 m² (150 sq. ft.).

The lab allotment for number of science labs is to be as follows:

5 labs:	2 Biology, 1 Chemistry, 1 Physics, 1 General Lab
6 labs	2 Biology, 1 Chemistry, 1 Physics, 2 General Labs
7 labs:	2 Biology, 2 Chemistry, 1 Physics, 2 General Labs
8 labs:	2 Biology, 2 Chemistry, 2 Physics, 2 General Labs
9 labs:	2 Biology, 2 Chemistry, 2 Physics, 3 General Labs

If identified in the program requirements a Science Complex, may include a Greenhouse Technology Classroom and an attached Greenhouse @ 55 m² (600 sq. ft.)

31.1 GENERAL

- 31.1.1 All Science Laboratories are identical in layout. Each laboratory is to be equipped with one barrier free station.
- 31.1.2 Only the Chemistry laboratories shall be equipped with a double sided fume hood, operable from either the science preparation room, and/or from the chemical storage/mixing room.
- 31.1.3 Each science laboratory, will be equipped with an eye wash (Refer to Eye Wash Station, this Guideline), a fire blanket and an ABC fire extinguisher located in a recessed cabinet.
- 31.1.4 All Science Laboratories must have two means of egress - one to the main corridor, the other into the staff preparation room.
- 31.1.5 Locate control panels in all of the science rooms to facilitate the answering of the P/A telephone at the door with the least impediment to the Science Instructor's desk, preferably at the door to the staff preparation room.
- 31.1.6 In addition to the standard control panel described in this Guideline, include, within the panel, the following:
 - 31.1.6.1 A combination emergency electrical/gas shutoff button for all electrical receptacles and all gas cocks.
- 31.1.7 If the Science Laboratories are interior spaces, install ceiling mounted emergency lighting. If emergency lighting is wall mounted, install fixtures at the rear of the Science Room.
- 31.1.8 Lighting fixtures in all interior Science Laboratories are to be on two circuits, with one row of fixtures at the rear of the Science Laboratory on one circuit, At no time should the Science Laboratories be in complete darkness while occupied.
 - 31.1.8.1 Install three-way switches at the control panel and at the corridor door.
- 31.1.9 Drains from students' sinks and Instructors' sinks are to be glass.
- 31.1.10 All gas cocks in Science Laboratories should be equipped with tamper-proof caps.
 - 31.1.10.1 Specified gas cocks are to be located @ 90° facing front.
- 31.1.11 Provide corrosive proof vents for all chemical and fireproof metal cabinets. (The supply and installation of these cabinets are in contract, but back charged to the school's furniture and equipment budget.)

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31.1.12 The Guideline differentiates between acid/flame *proof* and acid/flame *resistant* counter tops in the Science Area. The definition and location for each is as follows:

ACID/FLAME PROOF COUNTER TOPS:

31.1.13 Solid, black epoxy material, specifically manufactured for this purpose, located as follows:

Science Instructors' desks
Student counters in all Science Laboratories
Chemical Mixing/Storage Room

ACID/FLAME RESISTANT COUNTER TOPS

31.1.14 Black (only colour), plastic laminate, specifically manufactured for this purpose, located as follows:

Counter tops in the Science Staff Preparation Area
(Note that the counters tops for the science staff workstations are to match other staff work stations.)

31.2 LABORATORIES

31.2.1 Behind the Instructor's desk, detail three (3) sections of whiteboards in a 1,800/2,450/1,800 mm (6 ft./6.ft/8 ft) configuration.

31.2.1.1 The 2,450 mm (8 ft.) whiteboard is to be installed without a marker trough. The 2,450 mm white board is to be located on the wall at the eye wash end of the counter.

31.2.2 All laboratories are to have a minimum of 8 workstations, accommodating four students each. The workstations will be U shaped, perpendicular to the perimeter walls.

31.2.3 Each workstation shall have a stainless steel, acid resistant rim sink with cold water only; a single electrical receptacle on a separate circuit and a double gas cock. See Illustrative Sketches for locations of sinks and gas cocks in the Science Laboratories.

31.2.4 Each perpendicular workstation shall be open below the counter for knee space, with a gable end. (No drawers required below the work surface.)

31.2.5 Provide between each perpendicular workstation, a counter with adjustable shelf below, and lockable doors, keyed alike.

31.2.6 Above the perimeter counters wherever practical, provide upper cabinets with an adjustable shelf and lockable doors. Two sections per elevation of

the upper cabinets shall have clear tempered glass, in framed lockable doors for display.

31.3 INSTRUCTOR'S DESK

- 31.3.1 All Science Laboratories shall have a Science Instructor's desk. A platform is not required.
- 31.3.2 The length of the Instructor's desk is to be 3,000 mm (10 ft.) long, 750 mm (30") of which will be desk height, the remainder at 900 mm (3 ft.) high.
- 31.3.2.1 At the end gable located at the opposite end to the eye wash station, between the desk height counter top and the high counter top, detail one (1) quad power receptacle, and one (1) back box with conduit for data cabling.
- 31.3.2.2 Next to the data back box, also cut 80 mm hole and removable blank plate cover. The hole will be used to feed VGA cabling. (Provide pull strings.)
- 31.3.2.3 Power for the duplex receptacle and data conduit is to be up from the floor. Data conduit is to terminate in the data tray of the corridor ceiling.
- 31.3.2.4 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline and Illustrative Sketches.
- 31.3.2.5 VGA cabling shall run down through the desk, through a 80 mm floor sleeve; then along the ceiling space below; then to a 80 mm conduit back up through the science room floor, terminating in the bottom of the control panel.
- 31.3.2.6 At the control panel, below the telephone installation, provide a 150 x 150 access panel to mount the VGA control box. Affix a Lamicoid label (VGA Control)
- 31.3.2.7 The VGA cabling shall run up from the control panel to the science room ceiling space and thence to the centre line of the smart board location.
- 31.3.3 The high section of the Instructor's Desk shall be equipped with a stainless steel rim sink and hot & cold water, a separate, desk mounted, fume exhaust, one (1) duplex receptacle @ 15 amp service each; one (1) single gas cock; and one (1) removable retort stand.
- 31.3.4 The duplex receptacle and the single gas cock will be located just below the counter top - instructor's side. The top shall have a hole for the gas cock. The gas cock orifice shall be flush with the top of the counter top. The counter top shall have sufficient overhang equal to the protrusion of the gas cock shut off valve.

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- 31.3.5 Water shutoff for student work stations shall be controlled underneath the sink of the Instructor's Desk. Day to day power and gas control for the teacher is to be by KEY switch located below the counter top of the Instructor's desk.
- 31.3.6 Control of desk exhaust is to be by ON/OFF key switch located below the counter of the Instructor's desk.
 - 31.3.6.1 The Instructor's Desk shall be exhausted by a local exhaust directly to the exterior.
- 31.3.7 In addition, detail a 15 minute timer switch to exhaust room. Clearly identify in Lamicaid label that this is a 15 minute timed switch.
- 31.3.8 Provide, at the end of the Instructor's Desk - opposite the low desk counter an eye wash. (Refer to Eye Wash Stations, this Guideline)

31.4 GREENHOUSE TECHNOLOGY CLASSROOM

- 31.4.1 The front of the classroom, in terms of whiteboards and computer provisions will be equipped identically to general classrooms.
- 31.4.2 In an appropriate side location, provide a 2,400 (8 ft.) long counter with stainless steel sink and upper lockable cupboards,
- 31.4.3 Next to the counter leave space and provide power for a double, floor mounted, cut flower refrigerator.
- 31.4.4 Along an appropriate wall, provide a raceway to accommodate 8 to 10 computer stations.

31.5 GREENHOUSE

- 31.5.1 If identified in the program, the Greenhouse will be located within the Science complex and should be accessible from the Science Preparation Room and the Greenhouse Technology Classroom.
- 31.5.2 If a Greenhouse Technology Classroom is not identified in the program, then the Greenhouse should be accessible from the Science Preparation Room and one of the Science Laboratories.
- 31.5.3 The Greenhouse is not to be directly accessible from the corridor.
- 31.5.4 The Greenhouse is to have as much light as possible. It does not need to be air-conditioned. Provide heating with ceiling mounted force flow(s) – similar to industrial shop areas.

- 31.5.5 Provide power operated motorized roof or side glazing for heat relief. A small separate humidification system may also need to be considered. (Review the humidification with the Design Department.)
- 31.5.6 Provide one or two “Casablanca” fans in this area.
- 31.5.7 General lighting will be by standard, fluorescent fixtures, ceiling mounted.
- 31.5.8 Make power provisions for grow lights above potting benches. (Potting benches complete with integral grow lights above, are NIC.)
- 31.5.9 Provide a non-skid sheet goods floor similar to the kitchen. Slope the floor to a drain.
- 31.5.10 Provide only switches, back box for paging speaker in masonry walls and adequate duplex receptacles around the perimeter of the room.
- 31.5.11 Provide a 400 mm (16”) deep stainless steel potting sink and drain board with hot and cold water and soil trap. Locate sink so that a potting table can be placed next to it.

31.6 SCIENCE STAFF PREPARATION/WORK AREA

- 31.6.1 The science staff preparation/work area must be accessible from each of the Science Laboratories and have two exits into the corridor. It should be divided into two distinct areas - staff work area and preparation area.
- 31.6.2 Depending on the configuration of the space, provide one or two standard classroom control panels.

SCIENCE STAFF WORK AREA:

- 31.6.3 The staff work area is to be equipped with typical workstations similar to the work stations in general staff workrooms. Work stations are to be located along appropriate walls.
- 31.6.4 Provide a suggested layout of work stations to a maximum of 1.5 staff workstations for each Science Room and Greenhouse Technology Classroom. (Excluding greenhouse)

SCIENCE STAFF PREPARATION AREA:

- 31.6.5 The science staff preparation area shall have a maximum of two, @ 6,100 mm (20 ft.) long counters with uppers. (Refer to General Science section.) Centered on each of the counters will be a stainless steel, rim type sink.
- 31.6.6 The counters will be designed to include an adjustable shelf and lockable doors below. Every third counter section will have a horizontal drawer with

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an adjustable shelf and lockable doors below. The upper cupboards will be equipped with two adjustable shelves and lockable doors.

- 31.6.6.1 Next to one of the sinks, make provisions for a dishwasher.
- 31.6.7 As space permits, provide one Millwork Storage Unit "A". (Refer to Millwork section in this Guideline). Provide one additional unit similar to Unit "B" except with one full width drawer for storage of glass tubes.
- 31.6.8 Design the space to accommodate up to 2 @ 600 mm (2 ft.) x 900 mm (3 ft.) carts per each Science Room.
- 31.6.9 Provide an eye wash. (Refer to Eye Wash Stations, this Guideline.)
- 31.6.10 Above the counters, provide adequate duplex receptacles. Provide space and electrical provisions for a refrigerator.
- 31.6.11 Provide ceiling mounted back boxes for a paging speaker,

31.7 CHEMICAL STORAGE/MIXING ROOM

- 31.7.1 The chemical storage/mixing room **must** have two exits – one of these exits must be into the Science Preparation Room, the other into the main corridor.
- 31.7.2 Provide general exhaust at ceiling controlled from this room.
- 31.7.3 Provide a counter with a double, acid resistant, stainless steel sink with drain board, hot and cold water.
- 31.7.4 Provide adequate electrical receptacles above the counter. If a double fume hood is incorporated into the design, gas cocks are not required on the counter.
- 31.7.5 Provide a horizontal row of drawers and one adjustable shelf with doors below.
- 31.7.6 Locate and install a fire extinguisher and a fire blanket and a "barrier free safety station". Provide a floor drain close to the barrier free safety station. (refer to Eye Wash Stations, this Guideline,)
- 31.7.7 Provide ceiling mounted back box for a paging speaker.
- 31.7.8 The chemical storage/mixing room shall contain ONE OR TWO acid storage cabinets; one flammable storage cabinet, ONE OR TWO FUME HOODS, (depends on the number of Chemistry Laboratories).

ACID STORAGE CABINETS:

- 31.7.9 Two acid storage cabinets are required if more than four Science Laboratories are required in the program.
- 31.7.10 Supply and installation of acid and flammable cabinets will be in Contract, but back charged to the school's Furniture and Equipment budget.
- 31.7.11 The chemical storage cabinet(s) shall be on separate mechanical ventilation, directly to the exterior. The flammable storage cabinet is to be vented to fire and electrical codes as applicable.

FUME HOODS:

- 31.7.12 The fume hood(s) shall be on separate mechanical ventilation, directly to the exterior and are to be installed complete with an integral low flow alarm.
 - 31.7.12.1 Closed storage below the fume hood is to be for beakers etc. and is not to be vented. Storage of chemicals and flammable materials is to be in the acid/flammable metal, vented, storage cabinets.
- 31.7.13 Layout of the science area should be such that a double sided fume hood can be installed between each of the Chemistry Laboratories and the Chemical Storage/Mixing Room.
 - 31.7.13.1 If layout is such that double sided fume hood is not feasible, provide an additional small fume hood in the Chemical Mixing Room.

32. TUCK SHOP

The Tuck Shop Area consists of a Tuck shop @ 12 m² (125 sq. ft.) + storage room @ 4.5 m² (50 sq. ft.) + display window @ 4.5 m² (50 sq. ft)

32.1 TUCK SHOP

- 32.1.1 Accessed from the Matrix, the Tuck Shop should be visible from the space by means of a full height glazed screen.
 - 32.1.1.1 The Tuck Shop should have "in and out" traffic pattern with two doors.
- 32.1.2 Between the "front of shop" area and the remainder of the Tuck Shop, specify a full length display counter.
 - 32.1.2.1 The display counter is to have a glass front, one glass shelf, sliding wooden doors at rear, and lockable drawers below.

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- 32.1.2.2 At one end of the display counter top, detail a solid area for a future cash register. The remainder of the display counter top is to be glass.
- 32.1.3 Along the rear wall of the Tuck shop, provide a 400 mm (16") deep counter with adjustable shelving and doors with locks, keyed alike.
- 32.1.4 Above counter, provide a tackboard with pilaster strips set into the tackboard at 900 mm (3 ft.) o. c. In front of tackboard, provide two, open adjustable shelves on wall brackets.
- 32.1.5 Provide a receptacle at front counter for an electric cash register. Make provision for a telephone.
- 32.1.6 Provide a track with a maximum of three (3) fixtures for illuminating the rear display wall.
- 32.1.7 Provide a back box in the ceiling for a paging speaker.

32.2 DISPLAY WINDOW

- 32.2.1 The Display Window is to be accessible only from the Tuck Shop. Ceiling is to be of a height to display full size mannequins. Floor is to be carpet.
- 32.2.2 The Display Window is to have a raised platform approximately 600 mm (2 ft.) from finished floor and have fixed, full height glazed screen for view from the "Matrix" side.
- 32.2.3 Door(s) to the display window are to appear seamless on the display side, matching the surrounding wall material.
- 32.2.4 Permanent stairs to display window are not necessary.
- 32.2.5 Ceiling is to have a 600 mm (2 ft.) square grid for hanging displays. Above the grid, provide a translucent lighting grid. Standard fluorescent fixtures are to be switched from the Tuck shop, controlled by the BMS system.
 - 32.2.5.1 Provide a track with a maximum of two (2) fixtures for illuminating the displays.
- 32.2.6 Rear wall of display window is to have store display type pegboard or tackboard material with flush pilaster strips, and two adjustable glass shelves of varying lengths.
- 32.2.7 Provide two flush, floor mounted, duplex receptacles at appropriate locations, preferably located at the front display window.

32.3 STORAGE ROOM

- 32.3.1 The Storage Room is to be accessible only from the Tuck Shop.
- 32.3.2 Shelving units are to be purchased by the school from its Furniture and equipment budget.

33. SPECIAL EDUCATION AREA

Depending on the program requirements, the Special Education area may consist of one or more Special Education Classrooms. Each Special Education Classroom is identical in size and fitments to the general classrooms.

Attached to one of the Special Education Classrooms is Special Education Resource Room of up to 14 m² (150 ft²).

Depending on the program requirements, a number of Special Education Seminar Rooms may also be included.

Included in the Special Education Area is a staff workroom with four to six staff workstations and a Special Education Head Office @ 12 m² (125 sq. ft.). The Special Education staff workroom is to be included in the general workroom calculations.

33.1 GENERAL

- 33.1.1 It is mandatory that the Special Education Area is located on the ground floor, preferably in close proximity to the elevator.
- 33.1.2 Separate exterior access to the Special Education Room is not required.
- 33.1.3 If the Special Education Rooms are in multiples of two, the attached Resource Room will be located between and be accessible from each of the Special Education Rooms.
- 33.1.4 If only one Special Education Rooms is identified in the program, locate it in such a way as to be directly accessible to the PIP Room either directly, or through the Special Education Resource Room.

33.1 SENSORY ROOM – OPTIONAL

- 33.1.1 The sensory room must be accessed from the corridor and from one other special education space – either the PIP Room or the Special Education Classroom – depending on the program requirements.

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- 33.1.2 The room should be rectangular with no interior protrusions.
- 33.1.3 One half of the floor space is to be depressed by approximately 100 to 150 mm (4" to 6") in order to accommodate large foam slabs. (Top of foam blocks is to be flush with the tiled concrete floor.)
- 33.1.4 The ceiling design is to accommodate a rail system located in the centre of the room from the tiled concrete floor to the depressed floor.
 - 33.1.4.1 The rail system is to be in contract to a later detail.
 - 33.1.4.2 Light fixtures are to be ceiling mounted, incandescent and dimmable. Provide 3 way switching if practical.
- 33.1.5 Above the depressed area, just below the ceiling, detail a raceway with duplex receptacles every 300 mm (12") on centre.
 - 33.1.5.1 Each receptacle is to be wired to an individual switch located in a closed electrical type box next to one of the access doors.
 - 33.1.5.2 Install "synthetic sheet flooring" similar to the PIP Room on the floor and sides of the depressed area. Corners and seams are to be fused to prevent build up of bacteria.
- 33.1.6 Control panel is not required. Provide only a flush mounted box for a telephone and ceiling mounted speaker for emergency calls.

33.2 SPECIAL EDUCATION CLASSROOM

- 33.2.1 Each Special Education Room will be equipped identically to a general classroom, except that it will have access to an attached Resource Room.

33.3 SPECIAL EDUCATION RESOURCE ROOM

Depending on the program requirements, this room may be accessed from both the Special Education classrooms or from one of the Special Education classrooms and the PIP Room.

- 33.3.1 Provide a full height, glazed side panel next to the access of the Resource Room and the Special Education Classroom(s) or PIP Room.
- 33.3.2 Provide 1,200 mm (4 ft.) long whiteboard on front wall, and a maximum of 1,200 mm (4 ft.) long tackboard on rear wall. The room shall have a control panel.
- 33.3.3 Along one wall, provide a maximum of a 2,450 mm (8 ft.) long, 900 mm (3 ft.) high, and 300 mm (12") deep open shelving unit, with adjustable shelves.

- 33.3.4 For data requirements, refer to *Computer System – Computer Locations* in this Guideline.

33.4 SPECIAL EDUCATION SEMINAR ROOMS

The program may require one or more of these rooms. If identified in the program the location of these rooms can be anywhere in the building, but preferably, in close proximity to the Special Education or the PIP areas. The area of each room must not exceed 37 m² (400 sq. ft.)

- 33.4.1 The fitments of the Special Education Withdrawal Room are identical to the fitments of Seminar Rooms identified elsewhere in this Guideline.

33.5 SPECIAL EDUCATION STAFF WORKROOM

- 33.5.1 The Special Education workroom is to be accessible from the corridor and, if possible, from the Resource Room.
- 33.5.2 If access is only from corridor, the Special Education staff workroom is to be in close proximity to the Special Education Area.

33.6 SPECIAL EDUCATION HEAD OFFICE

- 33.6.1 This office is to be accessible only from the corridor and be located in close proximity to the Special Education Area.
- 33.6.2 The office is to have a full height glazed screen next to the corridor access door.
- 33.6.3 Fitments and size are identical to the Guidance Head Office.

34. PLANNING FOR INDEPENDENCE

The Planning for Independence area is to be a maximum of 140 m² (1,500 sq. ft.). This area includes a vestibule to the exterior + a barrier free kitchen + Barrier Free Washroom with Shower + a Quiet Room @ 4.5 m² (50 sq. ft.) + an Observation/Resources Room @ 7.5 m² (80 sq. ft.) + and a Storage Room @ 4.5 m² (50 sq. ft.). The remainder of the area is the PIP Room.

The Program Requirements may indicate a “Sensory Room”. The area of this optional Sensory Room is to be 14 m² (150 sq. ft.) and is in addition to the maximum area of the PIP Room.

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34.1 GENERAL

- 34.1.1 The Planning for Independence (PIP) area is to be located on the ground floor, in close proximity to the special bus parking location and, if possible, close to the elevator.
- 34.1.2 It is preferred that access from the special bus parking location to the PIP Room is to be via an exterior door and vestibule.
- 34.1.2.1 Exterior door, the vestibule door, and the door to the corridor are to be equipped with power door operators.
- 34.1.3 Provide a standard classroom control panel in PIP Room but add an emergency electrical power shutoff button to control all receptacles except in the teacher's work room.
- 34.1.4 The PIP Room including the Kitchen should have "synthetic sheet flooring" (Refer to Room Finish Schedule). Review material selection with the Design Department.
- 34.1.5 The PIP Office, the Observation/Resources Room, the Quiet Room, the Barrier Free Washroom with Shower, and the storage room should be accessible only from the PIP Room.
- 34.1.5.1 For ease of supervision, the PIP kitchen should be open to the PIP Room
- 34.1.6 Barrier free type lockers for the PIP Area are to be installed in the corridor and should be in close proximity to the PIP Room corridor entrance. Number of lockers – both standard and barrier free - for the PIP area is to be determined at design stage. (For description of barrier free locker, refer to this Guideline.)
- 34.1.7 Barrier free sinks located in counters are to be shallow. Drains to sinks are to be connected at rear wall, or inside neighbouring cabinets never from floor. Consultants to specify shallow, 90° tail pieces for all barrier free sinks.
- 34.1.8 Drawers and doors below counters are to have locks. Only two sections of upper cupboards per elevation are to have locks – to be confirmed at the working drawing phase.

34.2 PIP ROOM

- 34.2.1 Provide whiteboard @ 2,450 mm (8 ft.) long with two (2) @ 1200 (4 ft.) long tackboards in appropriate locations

- 34.2.2 Next to the whiteboard, provide a TCP. For data requirements, refer to *Computer System – Computer Locations* in this Guideline.
- 34.2.3 Provide two (2) Millwork Storage Units A". (Refer to Millwork section, this Guideline.)
- 34.2.4 Design a counter, 2,450 mm to 3,050 mm (8 ft. to 10 ft.) long, 865 mm (34") high with a sink and upper cupboards with adjustable shelf. (Refer to Illustrative Sketches.)
 - 34.2.4.1 Half of the counter is to be detailed with a section of drawers and adjustable shelving with doors.
 - 34.2.4.2 The other half of this counter is to have a sink and be free of any shelving to provide a clear space for wheelchairs. Locate the faucet on the side of the sink. Faucet is to be sensor activated with a local tempering valve.
 - 34.2.4.3 Provide two (2) GFI duplex receptacles above counter.

34.3 KITCHEN

- 34.3.1 The kitchen is to be clearly visible from any part of the PIP Room.
- 34.3.2 Along one wall of the kitchen, provide a counter at standard kitchen height with upper cupboards. Provide drawers and shelving as per Illustrative Sketches. Avoid corner counter/shelving conditions.
- 34.3.3 Centered on the kitchen counter, provide a double stainless steel sink – standard kitchen depth.
 - 34.3.3.1 The faucet will be plumbed with locally tempered hot and cold water, non-sensor type, but is to have barrier free paddle handles.
 - 34.3.3.2 Next to the double sink, specify electrical & plumbing provisions for a residential type dishwasher (NIC) but installed by the General Contractor.
- 34.3.4 Provide space and specify electrical provisions for a residential type stove (NIC). Above the stove, detail a residential type exhaust hood, vented to the outside. Hood and ducting is to be in Contract. (Refer to Illustrative Sketches.)
 - 34.3.4.1 Above the stove specify a manual, wall mounted breaker to shut off the power to the stove when not in use.
- 34.3.5 Provide electrical connections for two microwaves. Microwaves are NIC and are to be located on the counter, not on upper millwork. Provide two (2) additional GFI duplex receptacles above counter.

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- 34.3.6 Provide space for a standard size refrigerator and an upright freezer. (Refer to Illustrative Sketches for space requirements.)
- 34.3.7 Upper cupboards are to have adjustable shelves and two sections of lockable doors. Do not detail upper cupboards above refrigerator and freezer.
- 34.3.8 In addition to the kitchen millwork, provide one Millwork Storage Unit "A." (Refer to Millwork section, this Guideline.)
- 34.3.9 Provide one additional full height Millwork Storage Unit, approximately 1,200 mm (4 ft.) wide divided $\frac{1}{3}$ section for a vacuum cleaner, brooms, and mops etc., $\frac{1}{3}$ section with coat rod for hanging of smocks, and $\frac{1}{3}$ section with adjustable shelving. This Millwork Storage unit is to have two, lockable doors similar to Millwork Storage Unit "A".
- 34.3.10 Separate the kitchen from the PIP Room by an island counter. The island counter is to be as long as practical, 900 mm (36") wide and 865 mm (34") high. (Refer to Illustrative Sketches.)
 - 34.3.10.1 Half of this island counter is to have a clear space for wheelchairs on both sides. The end of the counter is to be curved.
 - 34.3.10.2 Detail, a shallow, barrier free type sink with side mounted faucet. Drain and trap is to be plumbed into the side of the center cabinet to ensure access for all types of wheelchairs. The goose neck faucet is to be sensor activated with locally tempered water.
 - 34.3.10.3 Below the sink, detail an access panel for plumbing and the stub-ups for electrical/data services.
 - 34.3.10.4 On the kitchen side, provide one center drawer and shelf below. Next to the drawer detail a panel with one duplex receptacle.
 - 34.3.10.5 All drawers and doors on the island unit are to be lockable.
- 34.3.11 Provide ceiling mounted back box for paging speaker.
- 34.3.12 Provide a fire blanket and fire extinguisher.

34.4 VESTIBULE

- 34.4.1 Provide a vestibule with direct entry to the exterior. Entry is to be barrier free, complete with exterior ramping.
 - 34.4.1.1 The exterior and interior vestibule doors are to be equipped with power operators and be oversized (1,000 mm) doors.

- 34.4.2 Provide a canopy over the exterior entrance for protection against inclement weather.
- 34.4.3 Allow for vestibule visibility by providing glass panels top and bottom of each door, with glass screens next to door.
- 34.4.4 Vestibule should have a ceiling mounted force flow unit.
- 34.4.5 The interior door of the vestibule is to be equipped with a door switch and a buzzer to indicate unauthorized door opening during teaching sessions. In addition to the emergency electrical power shutoff button to control receptacles (Refer to item in “General” above.) the buzzer is to be located on, and be controlled by, an on/off switch at the control panel.
- 34.4.6 Inside the vestibule, or just outside the vestibule, and if space permits, install 8 to 12 hooks, with bench below. (Refer to Illustrative Sketches for detail of student change room bench and hooks.)

34.5 BARRIER FREE WASHROOM WITH SHOWER

- 34.5.1 This washroom is to have ceramic tile on the floor. Walls are to be finished with epoxy paint.
- 34.5.2 This washroom is to be accessible directly from the PIP Room. It is to contain a barrier free WC, a lavatory and a shower.
- 34.5.3 Washroom must be large enough to accommodate a “Whispa/Hoyer” Lift. (NIC) Provide power on independent circuit.
- 34.5.4 The washroom door should be 1,000 mm wide and should open out for maximum use of space.
- 34.5.5 The wheelchair accessible shower is to be large enough to be capable of staff assistance.
 - 34.5.5.1 The walls of the shower enclosure are to be ceramic tile up to 1500 mm from finished floor, remainder and ceiling is to have epoxy paint.
 - 34.5.5.2 The shower shall have a fold up seat and hand held shower nozzle. (Refer to Illustrative Sketches.)
 - 34.5.5.3 Provide track for barrier free shower. Shower curtain is NIC, to be supplied by the school from its Furniture and Equipment Budget.
 - 34.5.5.4 The shower lip must be designed to be barrier free.

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- 34.5.5.5 Shower faucet is to have local tempering valves. Handle for shower is to be barrier free type.
- 34.5.6 In addition to the shower drain, provide a second floor drain in the washroom.
- 34.5.7 The Lavatory should be wall mounted.
 - 34.5.7.1 Lavatory faucet is to have a local tempering valve and is to be equipped with a sensor.
- 34.5.8 The WC (toilet) is to be tank type – not “flushometer”.
 - 34.5.8.1 Above the toilet, approximately (300 mm above the grab bar) detail a two shelf cabinet, 200 mm deep. (Refer to Illustrative Sketches)
- 34.5.9 In close proximity to the above fixtures, provide a rough-in for an intercom system tied into the P.A. phone system. In addition, provide a 4” x 4” back box and conduit for a paging speaker.
- 34.5.10 Along one clear wall, provide, at 600 mm (2 ft.) above finished floor, power for an adjustable change table (NIC).
- 34.5.11 Provide a minimum of 1830 mm (6 ft.) clear space for change table that is 1580 mm (62”) long, and 710 mm (28”) wide and for a moveable “Whispa/Hoyer” lift.
- 34.5.12 Provide two shelving units, 200 mm deep, for storage of diapers and other accessories. One shelving unit is to be above the toilet at an appropriate height, the other shelving unit is to be mounted approximately 1,300 mm from finished floor, in close proximity to the lift, but not directly above it. (Refer to Illustrative Sketches.)
- 34.5.13 Review with the Design Department whether all, or some, or any washroom accessories are included in the Contract. Refer to *Washroom Accessories* section of this Guideline.

34.6 QUIET ROOM

- 34.6.1 If design permits, one-way glazed screen between the Quiet Room and the Observation Room may be installed.
- 34.6.2 Half screen next to the door from PIP Room to Quiet Room is acceptable. Regardless of inclusion of screen, the door will have glass panels top and bottom (Door Style C – Refer to Illustrative Sketches).
 - 34.6.2.1 The door from the Quiet Room to the PIP Room MUST open out. (I. e. into the PIP Room)

- 34.6.3 There are to be no receptacles or a light switch in this room. The lights are to be controlled by a switch located outside the Quiet Room.
- 34.6.4 Provide a ceiling mounted back box for paging speaker.

34.7 OBSERVATION/RESOURCES ROOM

- 34.7.1 Accessible only from the PIP area, the Observation/Resources Room is to be equipped as other workrooms accessible only from academic spaces. (I, e. no staff workstations)

34.8 WORKROOM

- 34.8.1 The PIP workroom is to have glazed screens should be upper only and should be installed for supervision of the PIP Room, and, if possibly, the Quiet Room and Kitchen.
- 34.8.2 The Teacher's Workroom will be equipped similarly to other small workrooms included within teaching spaces.
- 34.8.3 Exterior fenestration in this room is preferable, but not essential.
- 34.8.4 Specify a "Teacher's Computer provision" and a telephone hookup.

34.9 STORAGE ROOM

- 34.9.1 This storage room is to be accessible from the PIP Room and will be used to store Special Education equipment such as wheelchairs and walkers.
- 34.9.2 Specify provisions for a stackable washer and a dryer in this room.
 - 34.9.2.1 If room in the storage room is unavailable, then provide a closet with a door (bottom ventilation grille) for a stackable washer and dryer. Specify mechanical and electrical rough-in for these units.

35. BROAD BASE TECHNOLOGY

Not all of the Broad Base Technology Labs will be included in every Secondary School. Depending on the program requirements this area may consist of the following:

*Construction Technology Laboratory @ 204 m² (2,200 sq. ft.)
Transportation Technology Laboratory @ 278 m² (3,000 sq. ft.)*

Secondary School Guidelines

Design Criteria and Fitments

Communication Area @ 140 m² (1,400 sq. ft.)
Design Technology Laboratory @ 111 m² (1,200 sq. ft.)
Robotics Laboratory @ 140 m² (1,350 sq. ft.)
Manufacturing Technology Lab @ 185 m² (2,000sq. ft.)
Health Care Sciences Laboratory @ 93 m² (1,000 sq. ft.)
Health and Personal Services Area (Cosmetology)
Hospitality and Tourism Area (Teaching Kitchen + Tourism classroom)

If both Construction Technology and Transportation Technology are identified in the program, provide a Technology Student Workroom to accommodate twelve (12) computer stations. (The size of this room will depend on the layout.)

If two or more Technology Areas are included in the program, provide a separate Technology Staff Workroom from 9 m² to 14 m² (100 to 150 sq. ft.) for the entire Technology Area. This staff workroom is to be included in the general workroom calculations.

35.1 TECHNOLOGY AREA - STAFF WORKROOM

- 35.1.1 Access to the Technology Workroom should be only from the corridor. Provide a glazed screen to each teaching area, (if located between the Technology Laboratories) but offset so that view through the workroom is restricted.
- 35.1.2 In an appropriate location, provide a 1,200 mm (4 ft.) x 1,200 mm (4 ft.) tackboard.
- 35.1.3 Provide a standard classroom control panel.
- 35.1.4 The staff workroom is to be equipped with workstations located along one appropriate wall. (Refer to Illustrative Sketches).

35.2 TECHNOLOGY AREA - STUDENT WORKROOM

- 35.2.1 This room should not exceed standard classroom ceiling height.
- 35.2.2 Access to the Workroom should be from both of the two largest of the Technology Laboratories. Provide glazed screening connecting both labs, but offset so that view through the design room is restricted.
- 35.2.3 At the front of the room, provide a whiteboard @ 2,450 mm (8 ft.) long.
- 35.2.4 Along both walls of the Technology Computer Room, make provision for data raceways. For data requirements, refer to *Computer Systems* in this Guideline.

35.2.5 Provide a standard classroom control panel.

35.3 BROAD BASE TECHNOLOGY - GENERAL

The Construction and Transportation Laboratories have similar design criteria. These are as follows:

- 35.3.1 To power air tools in both Laboratories, provide an enclosed, separate room for air compressor(s). Due to the heat created by the compressor(s) provide ventilation/exhaust when in operation.
- 35.3.2 Technology Laboratories with exterior garage doors are to be provided with air conditioning concentrated in the internal classroom space only. (Laboratories in the Technology Area without operable exterior garage doors are to be air conditioned.)
- 35.3.3 Depending on the design, the work area of the Construction and Transportation Technology Laboratories should be high enough for the intended user requirements. If budget permits, consider additional acoustic treatment (acoustic deck) in this location.
 - 35.3.3.1 The ceiling of the teaching area in each of the Technology Laboratories (shops) is to be standard T-bar and classroom height.
 - 35.3.3.2 Unless otherwise directed by the Design Department, ceilings of all other Technology Laboratories are to be at classroom height.
- 35.3.4 Some doors from the laboratories to the corridor are to be oversized – rather than double doors. (Refer to door schedule.)
- 35.3.5 All overhead doors are to be power operated.
- 35.3.6 For ease of revisions, all services in the Construction, Transportation, and Manufacturing Tech. Laboratories such as conduits, piping and ductwork shall run exposed on walls and ceilings.
- 35.3.7 All mechanical ductwork shall be round. Install ceiling mounted, adequately protected, “Casablanca” style fans in all high labs on localized switching.
- 35.3.8 In addition to the specialized receptacles required for various machinery in the labs, (overhead feed) provide adequate duplex receptacles around the perimeter, and at main corridor door, install a standard classroom control panel.

Secondary School Guidelines

Design Criteria and Fitments

- 35.3.9 Emergency shut off switches must cut power to all machinery as well as all electrical receptacles in the entire laboratory. The only exception is the electrical power in the staff and student workrooms.
- 35.3.10 At the corridor entrance of each lab, provide a power panel for equipment, including emergency shut off switches at exit doors and at intermediate locations as appropriate.
- 35.3.11 Provide at each student bench, an overhead/retractable type power drop.
- 35.3.12 Construction, Transportation and Manufacturing Laboratories will have a tool crib storage, approximately 9.5 m² (100 sq. ft.) formed by 1,830 mm (6 ft.) high chain link fence and lockable gate.
- 35.3.13 At each lab main entrance, provide a wash fountain, mirror, paper towel dispenser, fire blanket, fire extinguisher, and a heavy duty, stainless steel slop sink with splash-back.
- 35.3.14 Refer to locations of Eye Wash Stations for Broad Base Technology areas in this Guideline.
- 35.3.15 In each lab, at appropriate location, provide (a maximum of 6) Millwork Storage Units "B".
- 35.3.16 At the front of the teaching area, (traditionally the corridor wall) provide two, 2,450 mm (8 ft.) long, sliding whiteboards with 300 mm (12") deep adjustable shelving behind, and 400 mm (16") deep adjustable shelving below.
- 35.3.17 In the Technology Area corridor, provide a display case. Refer to *Display Cases*, this Guideline.
- 35.3.18 In the Technology Area corridor, provide a drinking fountain unit. Refer to *Drinking Fountains*, this Guideline.
- 35.3.19 At the exterior of each side of the overhead door, provide bollards or steel angles at masonry corners.
- 35.3.20 In addition to the overhead door, each Lab shall have one pedestrian door to the exterior. Glass transoms over pedestrian doors are not required.

36. CONSTRUCTION TECH. LAB

The Construction Technology Lab is divided into ¼ teaching area and ¾ work area. The teaching area is located at the corridor side of the room.

36.1 TEACHING AREA

- 36.1.1 At the front of the teaching area, (traditionally the corridor wall) provide two, 2,450 mm (8 ft.) long, sliding whiteboards with 300 mm (12") deep adjustable shelving behind, and 400 mm (16") deep adjustable shelving below.
- 36.1.2 Locate a minimum of four, standard size and type student benches. Benches are NIC, provided through the Furniture and Equipment budget.
- 36.1.3 Provide at each student bench an overhead/retractable type power drop.
- 36.1.4 Provide a standard classroom control panel within the teaching area and adequate speakers for paging.
- 36.1.5 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.

36.2 WORK AREA

- 36.2.1 The door to the corridor from the Construction Technology Lab is to be oversized to accommodate movement of stage scenery from this area to the Stage.
- 36.2.2 Provide a lumber storage rack and sheet goods storage, enclosed by a 1,830 mm (6 ft.) chain link fence and gate.
- 36.2.3 Provide a 3,000 mm (10 ft.) wide x 3,000 mm (10 ft.) overhead, sectional door, and one-man door to the exterior.
 - 36.2.3.1 The overhead door is to be power operated. The supply and installation of the overhead power operator is to be back charged to the school's Furniture and Equipment budget.
- 36.2.4 Provide in the Contract, a complete sawdust collector system, of a size to exhaust, at a minimum, a scroll saw, two (2) lathes, spindle sander, shaper (spindle type) jointer, planer, band saw, belt and disc sander, table saw, two (2) radial arm saws and a down draft sanding table.
- 36.2.5 With the exception of the table saw connection, and planer the sawdust system ductwork and connections shall be all above the floor slab, with blast gates at 1,520 mm (5 ft.) high with flexible connections to machinery. The connection for the table saw is to be via trench (covered with removable steel plates) from the perimeter wall to the table saw location. Depending upon other locations of other equipment, Consultants could consider connections to this trenched exhaust.

Secondary School Guidelines

Design Criteria and Fitments

- 36.2.6 The Consultants shall arrange the machinery on the plans to their best ability and knowledge. Power and sawdust connections to these locations shall be included in the Contract. Adjustment to machinery locations shall be made during the construction phase of the Contract.
- 36.2.7 The sawdust collector, including the shaker element shall be located on the exterior with masonry wall nibs the full height of the wall, a chain link gate for truck access at the face and metal panels above. The sawdust collector shall be enclosed at the roof line and shall be accessible only from the outside.
- 36.2.8 Provide all explosion proof devices, spark arrestors, and dry sprinkler system to sawdust collector, as required by codes.
- 36.2.9 Provide an eye wash to be located just outside of the entrance to this Preparation Room. Refer to Eye Wash Stations, this Guideline.

36.3 PREPARATION ROOM

- 36.3.1 In one corner of the Work Area, provide a 14 m² (150 sq. ft.) a Preparation Room. This room shall have glazing for supervision.
- 36.3.2 Inside this room, there shall be a separately, and mechanically exhausted paint spray hood and a vented paint storage unit. (Cost of supply and installation of the vented paint storage unit is to be back charged to the school's Furniture and Equipment Budget.) Design for make-up air when paint spray exhaust hood is in operation.
- 36.3.2.1 Do not provide connections to the air compressor.
- 36.3.3 Provide a stainless steel service sink with backsplash for paint cleanup.
- 36.3.4 Include a fire extinguisher and a fire blanket.
- 36.3.5 The room shall have a separate locally switched exhaust and explosion proof lights.

37. TRANSPORTATION TECH. LAB

The transportation laboratory is to be divided into ¼ teaching area ¼ small engines work area and ½ car repair area.

37.1 GENERAL

- 37.1.1 Note that the classification of the Transportation Lab within the Region of Peel is designated as a Class 1, Zone 2, hazardous space, in accordance

with the Ontario Safety Code item 200-10. The floor level of the Transportation Lab, under this item, therefore, must be vertically separated from all adjacent spaces by a 50 mm high curb or similar measure.

- 37.1.1.1 Consequently the Transportation Lab floor slab must be depressed by 50 mm, creating a distinct visually highlighted ramp, to all interior access points into the Laboratory.
- 37.1.1.2 The ramp should be made “non-slip”. Edge(s) of slope must be protected by means to be discussed at design stage.
- 37.1.2 Provide two 3,000 mm (10 ft.) wide x 2,450 mm to 3,000 mm (8 ft. to 10 ft.) high overhead doors with one 3,000 mm (10 ft.) wide x 3,000 mm to 3,650 mm (10 ft. to 12 ft.) high, overhead door in the center.
 - 37.1.2.1 All overhead doors are to be power operated. The supply and installation of the overhead power operators is to be back charged to the school’s Furniture and Equipment budget.
- 37.1.3 Provide masonry piers, minimum of 900 mm (3 ft.) in width between the overhead doors to allow working space between hoists (NIC).
 - 37.1.3.1 Between one set of overhead doors, provide a slop sink with hot and cold water. Between the other set of overhead doors, provide a 208 V receptacle for a steam jenny.
 - 37.1.3.2 In the centre of the bays, parallel with the exterior wall, provide a 12,190 mm (40 ft.) long trench drain. Provide oil interceptors as required. Top of trench drain is to have drain holes rather than grilles.
- 37.1.4 Provide an area for three (3) hoists. Review with the Design Department the possible location of a fourth hoist
 - 37.1.4.1 Supply and installation of above-ground hoists are NIC, supplied through the school’s Furniture and Equipment-

37.2 TEACHING AREA

- 37.2.1 At the front of the teaching area, (traditionally the corridor wall) provide two, 2,450 mm (8 ft.) long, sliding whiteboards with 300 mm (12”) deep adjustable shelving behind, and 400 mm (16”) deep adjustable shelving below.
- 37.2.2 Locate a minimum of four, standard size and type student benches. Benches are NIC, provided through the Furniture and Equipment budget.
- 37.2.3 Provide at each student bench, an overhead/retractable type power drop.

Secondary School Guidelines

Design Criteria and Fitments

- 37.2.4 Provide a standard classroom control panel within the teaching area and adequate back boxes for paging speakers.

37.3 SMALL ENGINE AREA

- 37.3.1 In the small engine area provide three, Storage Units "B". Refer to Millwork section in this Guideline.
- 37.3.2 Provide a minimum of 6,100 mm (20 ft.) work bench - for small engine work - with wall hung tool cupboards above. Work bench is to have a metal top.
- 37.3.3 Provide low/high exhaust over one section [900 mm (3 ft.)] of the workbench. (For low/high exhaust hood configuration, refer to Illustrative Sketches.)
- 37.3.3.1 Provide two (2) air connections above work bench.
- 37.3.4 Next to the work bench provide, in Contract two welding booths. (Refer to Illustrative sketches)
- 37.3.5 Provide bollards for safety between the car repair area and the teaching area.

37.4 HOIST AREA

- 37.4.1 If a fourth hoist location is approved, it should be designed to accommodate storage of two cars in tandem.
- 37.4.2 At all hoist locations provide a system to mechanically vent car exhaust. If possible, the exhaust attachments should be paired up. The exhaust system must be overhead to prevent tripping hazards.
- 37.4.3 For each of the above ground hoists, detail structural, mechanical, (air drops) and overhead electrical provisions.
- 37.4.3.1 In the possible hoist bays, detail a 150 mm (6") thick floor slab.
- 37.4.4 At each bay location, provide a reel drop light and a separate data outlet.
- 37.4.5 Provide two (2) air drops, complete with regulator and "quick-connect" terminations for each bay.
- 37.4.6 The Consultants shall arrange all machinery on the plans to their best ability and knowledge. Power connections overhead car exhaust system shall be included in the Contract. Adjustment to machinery locations shall be made during the construction phase of the Contract.

37.5 EXTERIOR

- 37.5.1 If a Transportation Lab is identified in the Board's program requirements, a fenced outside compound for cars and outside storage may need to be constructed. The necessity of constructing a compound and the size of it shall be determined at design stage.
- 37.5.1.1 If a compound is to be constructed, it shall have a 1,830 mm (6 ft.) high, black vinyl fence, top and bottom rail, double gate for car access, a single man gate, and heavy duty asphalt paving.
 - 37.5.1.2 Provide bollards at the double gate hinge points.
 - 37.5.1.3 The compound should be located so as to be hidden from view of the street or main entrances.
- 37.5.2 Provide an *exterior, above ground*, waste oil storage tank. Preference is given to have the waste oil storage tank located in a masonry alcove, accessible by a lockable, chain link gate. If not located in an alcove, protect the storage tank from vandalism by surrounding it with chain link enclosure. Add protective bollards as appropriate.
- 37.5.2.1 The above ground exterior waste oil storage tank must be installed on a concrete *curbed* slab. Provide bollards as required.

38. COMMUNICATIONS AREA

The Communication Area consists of a teaching space @ 55 m² (600 sq. ft.) + Television Studio Area @ 28 m² (300 sq. ft.) + two editing suites @ 7 m² (75 sq. ft.) + one Control Room @ 19 m² (200 sq. ft.) + one workroom @ 7.5 m² (80 sq. ft.) + Storage Room @ 6.5 m² (70 sq. ft.) for a total of 130 m² (1,400 sq. ft)

Refer to the Technical Guideline – Secondary School Performing Arts and/or Illustrative Sketches on the web site for description and details of the Television Studio performance fixtures, rigging etc. in this Guideline section.

One of the Computer Rooms MUST be attached to the Communication Lab. Glazing screens are to be detailed between both rooms. The workroom should overlook both the Communication lab as well as the Computer Room.

38.1 GENERAL

- 38.1.1 The preferred location is in close proximity to the Stage Control Booth.
- 38.1.1.1 Refer to *Television Systems* for television rough-ins.

Secondary School Guidelines

Design Criteria and Fitments

- 38.1.2 Special general lighting is not required in this area.
- 38.1.3 The Teaching space is to have a standard tile ceiling with walls painted non- reflective colour. The VCT is to be non-reflective colour such as light grey.
 - 38.1.3.1 The floor of the TV Studio is to be concrete, painted with digital paint system to match the surrounding cyclorama.
- 38.1.4 There are no special finishes for the Edit Rooms or the Control Room. Refer to TV Studio for special finishes.
- 38.1.5 Provide ceiling mounted back box for paging speaker.

38.2 TEACHING SPACE

- 38.2.1 The Editing Suites, Control Room, and Workroom should be directly accessible from the teaching space.
 - 38.2.1.1 Access door between the Computer Lab and the Communication teaching space is required. Provide a continuous glazed screen (1,000 mm from finished floor) next to the door.
 - 38.2.1.2 Below the glazed screen, provide a raceway.
- 38.2.2 Provide, in the teaching space, at an appropriate location 3 sections of 1200/2,450/1200 mm (4/8/4ft.) whiteboards. The middle 2450 mm whiteboard section is to be installed without a marker trough.
- 38.2.3 If space permits, provide a total of 1,200 mm (4 ft.) of tackboard.
- 38.2.4 At corridor entrance, provide a standard control panel. At the entrance door to the Computer Room, provide three-way switching.
- 38.2.5 For data requirements, refer to *Computer System – Computer Locations* in this Guideline.
- 38.2.6 All remaining furnishings required for this area will be provided through the School's Furniture and Equipment budget.
- 38.2.7 Provide ceiling mounted back box for paging speaker.

38.3 TELEVISION STUDIO

Refer to the *Technical Guideline – Secondary School Performing Arts* and/or *Illustrative Sketches* on the web site for description and details of this Guideline section.

- 38.3.1 The Studio area is to be fully open to the teaching space.
 - 38.3.1.1 The space should be devoid of millwork or other impediments to provide adequate distance of cameras from “talent.”
- 38.3.2 The floor in the Studio area should have a level and smooth concrete floor to prevent bounce of moveable TV cameras. The concrete floor is to be painted to match the digital compositing paint system of the cyclorama.
 - 38.3.2.1 The remainder of the Communication teaching space floor is to be a non reflective VCT such as light grey in colour.
 - 38.3.2.2 Other than the cyclorama, all other surfaces in the Lab are to be painted light, non reflective grey colour. The ceiling above the TV grid is to be exposed, painted dark grey.
- 38.3.3 In one corner of the studio, provide, in both directions a curved cyclorama, a minimum of 4,570 mm (15 ft.) from corner. The cyclorama is to be designed with a gentle curve at the vertical corner and along the base.
- 38.3.4 Do not penetrate cyclorama wall with receptacles. Cyclorama is to be blue or green in colour.
- 38.3.5 The film/television studio backdrop (cyclorama) is to have a digital compositing paint system, whereby the backdrop paint (blue or green) is dissimilar to the colours of people, their clothes and other objects so that images filmed can be extracted from the background and composited to another background whether computer generated or real.
 - 38.3.5.1 The paint finish of the Cyclorama and the base below is to be similar to “Digi/Comp” line complete with matching tape and fabric as required.
- 38.3.6 Provide a separate, locally controlled, exhaust from the area at the ceiling. Exhaust is to be designed to be as silent as possible.
- 38.3.7 For data requirements, refer to *Computer System – Computer Locations* in this Guideline.
- 38.3.8 All remaining furnishings required for this area will be provided through the School’s Furniture and Equipment budget.

PIPE GRID

- 38.3.9 The Pipe Grid is to be constructed with over/under joints, must not be higher than 4,570 mm (15 ft.) from finished floor and is to be made rigid. (Refer to Illustrative Sketches.)
- 38.3.10 The Pipe Grid is to be attached to the ceiling structure as per Structural Consultant’s load design for its size and weight.

Secondary School Guidelines

Design Criteria and Fitments

- 38.3.10.1 There must be a minimum of 810 mm (32") CLEAR space between the grid and the ceiling structure. Locating conduits, pipes and ducts within this clear space is unacceptable.

38.4 EDIT SUITES

- 38.4.1 Accessible from the Communication Room, both edit suites are equipped identically.
- 38.4.2 Along the rear wall, provide a, 740 mm (29") high cantilevered counter, (desk height) 600 mm (24") deep. Above the counter, provide ONE 355 mm (14") deep OPEN shelf for monitors. Space the shelf 50 mm (2") from wall to accommodate wiring between communication devices.
- 38.4.3 Above each of the counters, provide a raceway.
- 38.4.4 Provide a glazed screen next to the entrance doors for supervision.

38.5 CONTROL ROOM

- 38.5.1 Since the TV monitor equipment in the Control Room provides video and sound feeds from the television studio cameras, the control room does not necessarily need to overlook the TV studio. It should, however have a glazed screen and door between it and the teaching area for supervision purposes.
- 38.5.2 Along a front wall, provide a 740 mm (29") high counter (desk height), 600 mm (24") deep. Above the counter, provide one 355 mm (14") deep OPEN shelf for monitors. Space the shelf 50 mm (2") from wall to accommodate wiring between communication devices. Provide an electrical raceway along the back edge of the counter
- 38.5.3 Perpendicular to the side wall, provide a 740 mm (29") high counter (desk height), 600 mm (24") deep AND a 940 mm (37") high counter (stool height) 600 mm (24") deep. Similarly, provide an electrical raceway along the back edge of both counters. (Refer to Illustrative Sketches.)
- 38.5.4 Adequate space should be provided (1,200 ± mm) between the front counter, the middle counter and the far counter for seating.
- 38.5.4.1 Below each of the counters design an under- counter trough for wiring and cabling.
- 38.5.4.2 The middle and rear counters is to have a 50 mm (2") high backstop the height of the electrical raceway.

- 38.5.4.3 Make provisions for power at every work station. Provide 300 mm x 50 mm slots in top of counters for cable penetration.
- 38.5.4.4 Along the side wall and all counters, provide J hooks for wiring harnesses. – See Illustrative Sketches.
- 38.5.5 Provide 80 mm (3”) conduit from one corner of the Control Room terminating at one edge of the cyclorama, 600 mm from finished floor.

38.6 WORKROOM

- 38.6.1 The workroom should be located to provide supervision of all teaching spaces within this area by introduction of glazed screens as necessary.
- 38.6.2 This workroom will be furnished from the school’s Furniture and Equipment budget. Built-in millwork creating workstations is unnecessary.
- 38.6.3 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.
 - 38.6.3.1 Provide one (1) additional back box for the Integrated PA/Telephone System at the computer location.

38.7 STORAGE

- 38.7.1 Provide a storage room to accommodate the dimmer ballasts for a 12 circuit dimming system and for storage of expensive TV equipment..
- 38.7.2 The dimmer ballast rack is to be located at the far wall of this storage room.

38.8 DARKROOM

A Darkroom will be incorporated into the school building only if identified in the Building program and/or by the direction of the Family Superintendent. The Darkroom shall be located either as part of the Communication Technology Area, or placed in between two Art Rooms.

If the darkroom is attached to the Art Area, the Kiln Room may be deleted. Review concept at the design stage.

Size of the darkroom will be determined by the location and by the equipment to be accommodated, but should not exceed 55 m² (600 sq. ft.) exclusive of vestibule.

If a Darkroom is to be incorporated into the plan, regardless of its location, the design requirements are to be as follows:

Secondary School Guidelines

Design Criteria and Fitments

- 38.8.1 The Darkroom is to be accessible by means of a Vestibule.
- 38.8.1.1 It is preferred that the Darkroom Vestibule is able to be accessed directly from the corridor as well as the Communication Technology Area; OR the corridor and one of the Art Rooms. Size of the vestibule shall be determined by the design.
- 38.8.1.2 Rotating access door to Darkroom is not acceptable.
- 38.8.2 A “Darkroom In Use” illuminated, wall mounted light indicator connected to the Darkroom “safelights” should be installed above the darkroom door.
- 38.8.3 The door to the Darkroom shall have light seals all around.
- 38.8.4 In addition to regular fluorescent fixtures, install “safelights” for film processing. Provide separate light switches for regular lighting and “safelights.”
- 38.8.5 The room is to be designed to be wide enough to accommodate an island, double sided, photography sink (back to back) centered onto the room.
- 38.8.6 In addition to the separate exhaust above the sink, the Darkroom should have 10 air changes per hour.
- 38.8.7 Above the photography sink, on a separate switch, provide a low level exhaust and a high level exhaust. See Illustrative Sketches for suggested hood configuration.
- 38.8.7.1 The double sided photography sink shall be trough-design type, (manufactured item) centered in the room, approximately 150 mm (6”) deep, 810 mm (32”) wide and 1,830 mm (6 ft.) long with 300 mm (12”) high splash back complete with all the necessary drain interceptors, tempered water faucets, gauges and fitments.
- 38.8.7.2 Provide threaded faucets for hose connection(s). Drain pipes to be acid and corrosion resistant.
- 38.8.7.3 Provide a 300 mm (12”) shelf, running the length of the center section of the sink.
- 38.8.8 Provide an eye wash. Refer to Eye Wash Stations, this Guideline.
- 38.8.9 Along one wall, provide a counter with partial gables at 1,200 mm (4 ft.) on center for a maximum of 12 enlarger stations. Below the counter, provide drawers – one drawer per section - with adjustable shelving and lockable doors below drawers. One section of counter is to be lowered by 150 mm (6”) for enlarger and to allow for barrier free use.
- 38.8.10 Cabinetwork is to have matte finish to prevent reflection.

- 38.8.11 Provide one duplex receptacle mounted above counter at each enlarger station.
- 38.8.12 Plastic laminate countertops, edges and back splashes to be of BLACK, acid-resistant material. Floor surface is to be non-slip, stain resistant material, black in colour.
- 38.8.13 Walls to be painted dark, satin, or matte finish.
- 38.8.14 At end wall, provide a space for storage unit for photography equipment. Storage unit is NIC, to be purchased by the School from its F& E Budget.
- 38.8.15 Provide adequate humidification for Darkroom application.
- 38.8.16 Provide ceiling mounted back box for paging speaker.

39. DESIGN TECHNOLOGY LAB

The Design Technology Laboratory, if identified in the program, consists of 112 m² (1,200 sq. ft.) in area. While the Design Technology Laboratory may be located anywhere in the building, preferred location is close to the Communications Technology Laboratory.

39.1 GENERAL

- 39.1.1 The Design Technology Lab is divided into approximately 50% teaching area and 50% computer area. The teaching area should be located at the corridor side of the room.
- 39.1.2 The requirements listed below are general in nature. Depending on the school program, fitments may change.

39.2 COMPUTER AREA

- 39.2.1 To minimize directional changes to raceway, the interior walls of the computer area should not have any protrusions such as piers.
- 39.2.2 The Computer area is to accommodate 25 computer work stations + one teacher's desk + associated electronic/electrical equipment such as a light table.
- 39.2.3 To accommodate the 25 computer stations and associated equipment, detail a knee (900 mm high) "T" wall, perpendicular to the rear wall of the room.

Secondary School Guidelines

Design Criteria and Fitments

- 39.2.3.1 The knee "T" wall is to be constructed with metal studs and a non-mold-retaining face material, as determined by the Consultants. Provide a stained wood, or wood with plastic laminate cap on the "T" wall.
 - 39.2.3.2 A continuous raceway shall be installed on both walls, as well as both sides of the dwarf wall with a "standard classroom computer provision" at the face of the "T" for teacher's desk. (Teacher's desk is usually located at the end of the "T" wall. Provide a TCP^H at this location.)
 - 39.2.3.3 Since the knee wall is a "T", there will be a finite dimension from the wall to the "T", based on the current size of the tables identified in the Guidelines + a small tolerance.
 - 39.2.3.4 The distance between the tables is also an important consideration.
- 39.2.4 Prior to construction of the "T" wall, the Consultant must confirm with the Board's Construction Department the size of the currently purchased or existing computer tables.
- 39.2.5 It is expected that only 1,830 mm (72") wide x 760 mm (30") deep computer desks will be ordered from the Board's furniture and equipment budget for use in the Computer Lab. Desks that are 900 mm (36") wide by 760 (30") deep will be used only where necessary to complete a row containing an uneven number of workstations.
- 39.2.5.1 It is important, that the raceways be installed below the desktop 500 mm (19¾") from finished floor to TOP of raceways.
- 39.2.6 Install standard fluorescent lighting. Grounded, static free floor tiles in the Computer area are not necessary.

39.3 TEACHING AREA

- 39.3.1 At the front wall of the teaching area, detail three (3) sections of whiteboards in a 1,800/2,450/1,800 mm (6 ft./8.ft/6 ft) configuration. The centre 2,450 mm (8ft.) whiteboard is to be installed without a marker trough.
- 39.3.2 In an appropriate location(s) detail a 2,450 mm (8 ft.) tackboard.
- 39.3.3 In an appropriate location, provide three (3) Millwork Storage Units "B". Refer to Millwork section in this Guideline.
- 39.3.4 Provide a control panel. Next to the control panel locate a stainless steel service sink.

- 39.3.5 Next to the sink, provide an eye wash. Refer to Eye Wash Stations, this Guideline.

40. ROBOTICS TECHNOLOGY LAB

The Robotics Technology Laboratory, if identified in the program, consists of 112 m² (1,200 sq. ft.) room + 14 m² (150 sq. ft.) preparation room. While the Robotics Technology Laboratory may be located anywhere in the building, preferred location is close to the Communications Technology Laboratory.

40.1 GENERAL

- 40.1.1 The Robotics Technology Lab is divided into $\frac{2}{3}$ teaching area and $\frac{1}{3}$ work area. The teaching area may be located at the corridor side of the room.
- 40.1.2 The requirements listed below are general in nature. Depending on the school program, the fitments, ventilation and sink requirements may change.

40.2 WORK AREA

- 40.2.1 Provide, along one wall of the work area a 2.450 mm (8 ft) long counter. Detail a 900 mm (3 ft.) long exhaust hood to accommodate minor circuit board soldering. (For low/high exhaust hood configuration, refer to Illustrative Sketches.)
- 40.2.1.1 Between the bottom of the exhaust hood and the counter top, provide a raceway the full length of the counter.
 - 40.2.1.2 The counter top is to be metal.
 - 40.2.1.3 Below the counter, detail a horizontal row of lockable drawers and one adjustable shelf with lockable doors below.
- 40.2.2 Next to the counter provide a stainless steel service sink.
- 40.2.3 Next to the sink, provide an eye wash. Refer to Eye Wash Stations, this Guideline.
- 40.2.4 In an appropriate work area location, provide three or four (3-4) Millwork Storage Units "B". Refer to Millwork section in this Guideline.

40.3 TEACHING AREA

- 40.3.1 At corridor entrance, include a standard control panel.

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- 40.3.2 At the front wall of the teaching area, detail three (3) sections of whiteboards in a 1,800/2,450/1,800 mm (6 ft./8.ft/6 ft) configuration. The centre 2,450 mm (8ft.) whiteboard is to be installed without a marker trough.
- 40.3.3 For data requirements, refer to Computer System - Computer Locations in this Guideline.

40.4 PREPARATION ROOM

- 40.4.1 Accessible only from the Robotics Laboratory, provide a full height glazed screen next to the door into the room.
- 40.4.2 Along the short wall of the preparation room, provide open, adjustable shelving, door height.
- 40.4.3 Depending on the program requirements, the ventilation and power characteristics may change. Review details with the Design Department at design stage.

41. MANUFACTURING TECH. LAB

If identified in the program, the Manufacturing Technology Lab is to be divided into $\frac{1}{3}$ teaching area and $\frac{2}{3}$ work area. The teaching area is to be located at the corridor side of the room.

41.1 TEACHING AREA

- 41.1.1 At the front of the teaching area, (traditionally the corridor wall) provide two, 2,450 mm (8 ft.) long, sliding whiteboards with 300 mm (12") deep adjustable shelving behind, and 400 mm (16") deep adjustable shelving below.
- 41.1.2 Locate a minimum of four, standard size and type student benches. Benches are NIC, provided through the Furniture and Equipment budget.
- 41.1.3 Provide at each student bench an overhead/retractable type power drop.
- 41.1.4 Provide a standard classroom control panel within the teaching area and adequate speakers for all call and change of period tones in the work area.
- 41.1.5 For data requirements, refer to *Computer Systems – Computer Locations* in this Guideline.

41.2 WORK AREA

- 41.2.1 Review with Design Department at the design phase whether acid neutralization system is required and if it can be tied in with the science area.
- 41.2.2 Provide one @ 3,000 mm (10 ft.) wide x 2,450 mm to 3,000 mm (8 ft. to 10 ft.) high, overhead door and one, man door from the exterior.
 - 41.2.2.1 Overhead door is to be power operated. The supply and installation of the overhead power operators is to be back charged to the school's Furniture and Equipment budget.
- 41.2.3 Provide, in contract, one welding booth with local exhaust over. Review its location with the Design Department at the design phase and ascertain if additional exhausting is required.
- 41.2.4 Provide hot and cold water faucet at the inside of one of the overhead doors.
- 41.2.5 Make provisions for a steam jenny and for compressed air lines. Review with the Design Department at the design phase the location and quantity of compressed air connections.
- 41.2.6 Review with the Design Department whether a tool crib or other storage and power requirements may be required

42. HEALTH CARE SCIENCES LABORATORY

If identified in the program, the Health Care Sciences Laboratory consists of 93 m² (1,000 sq. ft.) in area. This room may be located anywhere in the building.

- 42.1.1 At the entrance provide a standard control panel. Provide, along the rear wall, a 2,450 mm (8 ft.) counter with a double sink, a row of lockable drawers and one adjustable shelf with lockable doors below. Above the counter, provide cupboards with two adjustable shelves and lockable doors.
- 42.1.2 Provide two (2) Millwork Storage Units "A". Refer to Millwork section in this Guideline.
- 42.1.3 Along appropriate wall, detail three (3) sections of whiteboards in a 1,800/2,450/1,800 mm (6 ft./8.ft/6 ft) configuration. The centre 2,450 mm (8ft.) whiteboard is to be installed without a marker trough.
- 42.1.4 Provide 2,450 mm (8 ft.) tackboard.

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- 42.1.5 Provide adequate duplex receptacles around the remainder of the room perimeter.
- 42.1.6 For data requirements, refer to *Computer System – Computer Locations* in this Guideline.
- 42.1.7 The classroom may be equipped with up to three (3) hospital type beds (NIC). At each hospital bed location, provide a duplex receptacle.
- 42.1.8 At an appropriate location, for training purposes, detail the installation of one non functional tub, one non functioning toilet and one non functional, wall mounted barrier free lavatory.
 - 42.1.8.1 The tub should be enclosed by masonry nib walls on both ends.
 - 42.1.8.2 The non functioning fixtures are to be installed without plumbing but properly anchored. Provide wall mounted grab bars as per code requirements.

43. HOSPITALITY AND TOURISM AREA

*If a Hospitality and Tourism Area is identified in the Board's program requirements, it will include a "teaching kitchen" a servery, a "Lunch Presentation Meeting Room" and one associated Hospitality/Tourism classroom.**

** Both the "Teaching Kitchen" and the Hospitality/Tourism Classroom is "pupil loaded". The size of the Hospitality/Tourism Classroom is as per general classrooms.*

If the Board's program does not identify a Hospitality and Tourism Area, the "Teaching Kitchen" will be designed to be operated by outside catering firm, without the separate teaching and student facilities. The "Lunch Presentation Meeting Room" will be deleted.

This Guideline is based on the inclusion of a "Teaching Kitchen".

43.1 GENERAL

- 43.1.1 The Architects are to obtain the services of a specialized kitchen consultant to provide layouts and lists of equipment.
- 43.1.2 The Architects are to determine from the Design Department what type of student food service is to be provided – disposable or china or a combination.

- 43.1.3 If china service is identified in the program requirements, provide a commercial dishwasher in a separate dishwashing space. Dirty dish carts shall be included in the kitchen equipment. Pass through window to dishwashing area is not required.
- 43.1.4 Provide direct access to kitchen from the exterior if at all possible. Easy, level access from loading area to kitchen is required. If direct access is not possible, the kitchen area must be located close to the delivery entrance so that corridor delivery of food products is minimized.
- 43.1.5 In a “teaching kitchen” it is preferable to separate the access to the kitchen for the caterer’s staff and caterer’s deliveries from that of the student’s entrance.
- 43.1.6 Access for students will be both from the corridor and from the attached standard classroom, preferably leading directly into the students’ wash up/dressing area and thence into the kitchen.

43.2 KITCHEN

Refer to the Technical Guideline – Kitchen and Servery Equipment and/or Illustrative Sketches on the web site for description and details.

GENERAL

- 43.2.1 All appliances should be gas if at all possible.
- 43.2.2 Provide an eye wash. Refer to Eye Wash Stations, this Guideline.
- 43.2.3 Main areas in the kitchen include general preparation; vegetable preparation; bake area; sandwich preparation, cooking battery and pot dishwashing area.
- 43.2.4 Provide an exhaust hood(s) over the cooking battery with appropriate fire suppression system with washable filters.
- 43.2.5 Provide a walk-in freezer and refrigerator.
 - 43.2.5.1 Preference is for freezer/refrigerator compressors to be located on the roof.
 - 43.2.5.2 Preference is for individual access to either unit, rather than access to freezer section through the refrigerator section.
- 43.2.6 In the dishwashing area include industrial type dishwasher, similar to “AM Select” dishwasher by *Hobart*.
- 43.2.7 Provide, in appropriate locations hub drains with flashing collars for drainage of servery overflows, condensing units, etc.

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ITEMS NOT IN CONTRACT

- 43.2.8 Items such as pots, pans, flatware and all loose *plug-in* items such as toasters, soup tureens, hot dog roller servers, juicers, slicers, coffee makers, microwave ovens, hot and cold beverage dispensers etc.) are NOT in Contract and are to be supplied either by the caterer or by the school from its Furniture and Equipment budget.

NUTRITIONAL STANDARDS

- 43.2.9 Review the suggested and typical kitchen equipment that is to be supplied in Contract. (Refer to *Kitchen and Servery Equipment – Secondary Schools* in the Technical Guidelines on the web site.)
- 43.2.10 Refer to Ontario Government Policy Program Memorandum No. 150 which establishes nutritional Standards in that they “embody the principles of healthy eating outlined in Canada’s Food Guide, and are intended to ensure that the food and beverages sold in schools contribute to students’ healthy growth and development.”
- 43.2.10.1 Products that generally contain few or no essential nutrients and/or contain high amounts of fat, sugar, and/or sodium (e.g. deep fried and other fried foods, confectionery) may not be sold in schools.
- 43.2.11 To this end, this Guideline establishes the requirements of the cooking battery on the Caterer’s as well as the Students’ side. Deviation from this list of equipment must be discussed with the Design Department at design stage.

COOKING BATTERY – CATERER’S SIDE

- 43.2.12 The cooking battery facing the servery (solely for caterer’s use) should generally contain, a Combi-oven steamer ^{°/w} equipment stand; one @ 6 burner range/24” griddle with dual oven below; one @ 24” char broil cabinet.

COOKING BATTERY – STUDENT’S SIDE

- 43.2.13 The kitchen side (mostly for students’ use) of the cooking battery should generally contain, a Combi-oven steamer ^{°/w} equipment stand; one @ 6 burner range with dual oven below; one @ 4 burner range*; one @ 12 gal. tilting kettle ^{°/w} equipment stand & drawer; one @ 25 gal. stationary kettle ^{°/w} equipment stand and drawer.
- 43.2.13.1 * Note that one of the 4 burner range is to have storage below the gas top – not an oven.

COOKING BATTERY – SHARED EQUIPMENT

- 43.2.14 One @ two deck pizza oven

43.3 CATERER'S STAFF FACILITIES

- 43.3.1 If space permits, provide a separate caterer's office @ 6 m² otherwise, provide a storage room/caterer's office as described below.
- 43.3.2 Accessible from the kitchen, provide a 19 m² (200 sq. ft.) storage room/caterer's office. Provide a back box and conduit for direct outside phone line. Connect one conduit to cashier's location inside the servery.
- 43.3.3 For data requirements, refer to *Computer System – Computer Locations* in this Guideline.
- 43.3.4 Include, full height stainless steel wire shelving around at least two of the long storage room walls for dry goods.
- 43.3.5 Indicate a space for a caterer's desk (NIC). Provide for a telephone and power at desk.
- 43.3.6 Install a separate washroom for the exclusive use by kitchen staff. Separate kitchen from washroom by a dressing area.
- 43.3.7 Provide six to eight full height lockers and a bench in the dressing area.
- 43.3.8 Provide a separate, custodial closet with mop sink and storage of kitchen cleaning equipment. Refer to the Cafetorium Section for cross reference.
- 43.3.9 Provide hand-washing sink(s) as required.
- 43.3.10 Provide ceiling mounted back boxes for paging speakers.

43.4 ADDITIONAL REQUIREMENTS FOR A "TEACHING" KITCHEN

- 43.4.1 If the kitchen is to be a "teaching kitchen" provide, in addition to the caterer's office, or caterer's office/storage room, and standard kitchen equipment to operate a secondary school cafeteria, the following:

TEACHER'S WORKROOM - FOOD SERVICES

- 43.4.2 The teacher's office is to be 7.5m² (80 sq. ft.) maximum.
- 43.4.3 The Teacher's Office is to have adequate glazed screens for supervision of the kitchen, the preparation area, and dishwashing area and, if at all possible, into the students' wash up/dressing area. Glazed screen must be low enough for supervision from a sitting position.
- 43.4.4 The Teacher's Workroom will be equipped similarly to other small workrooms included within teaching spaces.

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STORAGE ROOM

- 43.4.5 If space permits, in addition to the Caterer's Storage room/office, provide, for the exclusive use by students, a lockable, 9.5 m² (100 sq. ft.) storage room for kitchen dry goods storage. This storage room is to be accessible from the kitchen, within visual control of the Teacher's Office.
- 43.4.6 If space does not permit, provide three (3) Millwork Storage Units "A". Refer to Millwork section in this Guideline.

STUDENT WASH UP/DRESSING

- 43.4.7 At the students' entrance to the kitchen, provide a wash up/dressing area housing a wash fountain, mirror, and paper towel dispenser for student wash-up, and wall mounted, manufactured item coat hooks with a shelf above for student backpacks.
- 43.4.8 Included in this wash up/dressing area will be a provision for a washer and a dryer for washing of linens and kitchen smocks. (Both units are NIC, supplied under the Furniture and Equipment Budget.)

TEACHING KITCHEN EQUIPMENT

- 43.4.9 Provide one (1) Teacher's Demonstration table – complete with sink, utensil drawer and refrigerated base. Above the demonstration table, install a demonstration mirror, preferably acrylic type.
- 43.4.9.1 The ceiling mounted, overhead demonstration mirror above the teaching kitchen counter is to be supplied and installed in the Contract, but back charged to the school's Furniture and Equipment Budget.
- 43.4.10 Six to eight students' work tables
- 43.4.10.1 The number of work tables will depend on the kitchen layout. Ideally the work tables should be "back to back" perpendicular to the Teacher's Demo table with an over-shelf accessible from both sides. Each work station is to be ^c/_w a sink and a utensil drawer.
- 43.4.10.2 If layout permits, the student work tables may be configured in threes. If three work tables are designed, then only two sinks are required.
- 43.4.11 One barrier free students' work table
- 43.4.11.1 This work table is identical to the other students' work tables with sink except that it is of a barrier free height and wheel chair accessible.

43.4.12 Reach-in refrigerator and reach-in freezer

- 43.4.12.1 Both units are for student use and are to be supplied and installed in the Contract, but back charged to the school's Furniture and Equipment Budget.

ENHANCED BAKING PROGRAM

- 43.4.13 If the Building Requirements identify an “enhanced baking program”, note that three (3) of the eight (8) student work tables will have marble tops for baking but no sinks. (Refer to “Kitchen and Served Equipment – Secondary Schools in the *Technical Guideline* for other equipment details.)

43.5 SERVERY

Regardless whether or not the Board's requirements include a Hospitality and Tourism Area, the Servery is similar in both instances.

- 43.5.1 It is preferable that the Servery be entered from, (away from the main Cafeteria doors) and exit directly back into the Cafeteria.
- 43.5.2 Exit and egress doors are to be well separated and are to be equipped with electromagnetic hold-open devices. The entrance door to the servery should be a single door. The exiting from the servery to the Cafeteria should be accomplished by double doors, separated by a 900 mm (3 ft.) masonry wall. (The masonry wall between the exit doors will provide a backdrop for the cashier stand.)
- 43.5.3 Limit access from servery to kitchen. Also make provisions for two Servery Lines.
- 43.5.4 Located between the two exit doors, the cashier stand must have a clear view of the entire servery. (Cash register is NIC). Two cashier locations in the servery is encouraged.
- 43.5.5 In front of the cashier stand, provide a reach-in freezer for ice cream products. Extend the tray rails at cashier stand to both sides of the reach-in freezer.
- 43.5.6 Power for the cash register and a reach-in ice cream freezer is to be stubbed up from the floor.
- 43.5.7 Close to the servery exit, but outside of the traffic flow, install a shelf and provide power to accommodate two, self-serve, microwave ovens (NIC). This shelf is a millwork item.

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- 43.5.8 Provide space for trays at each servery line. Tray levelers are not required.
- 43.5.9 Make provisions in appropriate locations for hub drains for overflows, condensing units etc.
- 43.5.10 Leave wall space in the servery for a menu board (NIC).
- 43.5.11 If servery layout permits, provide space at the end of the main servery line for self serve condiment packages. If space does not permit consider providing a *moveable* (on lockable casters) condiment stand for self serve, condiment packaging, with adjustable shelving and lockable doors below.
 - 43.5.11.1 Condiment stand will be rolled into the servery at the end of lunch periods.

MAIN SERVERY LINE

- 43.5.12 The hot food line shall have a maximum of 5 hot food wells, over-shelf and sneeze guard. Provide tray rail.
 - 43.5.12.1 Tray inserts for hot food wells are by the caterer.
- 43.5.13 There is to be adequate counter space, and power provisions for two soup tureens, coffee thermos unit, or a “Bunn-o-matic”, a juicer, and a hot chocolate maker – all NIC.
 - 43.5.13.1 If space permits, at the cashier’s counter, provide cutouts for plastic cutlery inserts and an area to house individual condiments or pump action type condiment bottles.
- 43.5.14 The cold food line should consist one sliding glass door cooler – (rear pass thru) and a dry snack storage rack, all designed for “self service”.
- 43.5.15 Consideration may be made to provide a salad making station. The salad making station will not be self-serve. (Depending on the servery layout, salads will be pre-packaged and/or dispensed from a cold case, or prepared/served at the station by kitchen staff.)

SELF SERVE SERVERY LINE

- 43.5.16 Opposite the main servery line, provide a self serve counter with tray rail, including a heated display unit cold storage unit, dry snacks storage rack and power provisions for equipment similar to the main servery line.
 - 43.5.16.1 If space permits, at the cashier’s counter, provide cutouts for plastic cutlery inserts and an area to house individual condiments or pump action type condiment bottles.
- 43.5.17 At the beginning of the self serve servery line, provide a sliding glass door cooler.

43.6 LUNCH/PRESENTATION/MEETING ROOM

- 43.6.1 The maximum size of the Lunch Presentation Meeting Room shall be 28 m² (300 sq. ft.) It must be accessible from the corridor.
- 43.6.2 In addition to the door from the corridor, the Lunch/Presentation/ Meeting Room will be designed with a double swinging door, with a vision panel, leading directly into the kitchen area.
- 43.6.3 Fenestration is preferred but is not essential. Adequate exhausting and ventilation is required.
- 43.6.4 The room will be equipped with a “wait person station” consisting of a bar sink with a glass-filling faucet. The station is to be a millwork item.
- 43.6.5 The station counter shall be designed to accommodate a pan for ice and a cutlery tray, coffee/tea makers, a place for sodas, bottled water, cups, saucers, and a tray for pastry. Above the counter, provide one, split feed receptacle. Below the counter, provide one, adjustable shelf with doors for storage of napkins etc
- 43.6.6 No special wall treatment is required.
- 43.6.7 Provide standard lighting fixtures but add “dimnable” fixtures for presentation purposes.
- 43.6.8 Provide a 1,830 mm (6 ft.) long white board on one wall. Next to the whiteboard provide TCPR.
- 43.6.9 Provide a standard classroom control panel and a duplex receptacle centered on two of the long walls.
 - 43.6.9.1 For data requirements, refer to *Computer System – Computer Locations* in this Guideline.

43.7 HOSPITALITY AND TOURISM CLASSROOM

This classroom is to be multi functional room with a corridor access. It is included in the “standard classroom” program complement.

- 43.7.1 The preferred location of this classroom is attached to the kitchen with direct access from it to the student wash up/dressing area, but location across a corridor from the main kitchen access is acceptable.
- 43.7.2 This classroom is equipped identically to the other standard classrooms identified elsewhere in this Document with the following additions:

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- 43.7.3 In one corner of the room, provide a 2,450 mm (8 ft.) long counter with sink at one end. Counter to have a horizontal row of lockable drawers with one adjustable shelf and lockable doors below drawers. Upper cupboards are not required.
- 43.7.4 For data requirements, refer to *Computer System – Computer Locations* in this Guideline.

44. HEALTH AND PERSONAL SERVICES AREA

If included in the Board's program requirements, the Health and Personal Services consist of a Hairstyling and Aesthetics (Cosmetology) Laboratory @ 120 m² (1,300 sq. ft.) + Hairstyling and Aesthetics Workroom @ 7.5 m² (80 sq. ft.) for a total of 128 m² (1,380 sq. ft.)

44.1 GENERAL

- 44.1.1 The Hairstyling and Aesthetics Laboratory should be located on the ground floor with easily visible and identifiable access, preferably from the Matrix and close to the visitor's parking lot if possible.

44.2 HAIR DRESSING STATIONS

- 44.2.1 Provide six to eight hair dressing stations, complete with mirrors, sinks, power for hand blow dryers, and storage drawers/shelves for hair dressing materials. Height of hairdressing counters with sinks is to be 825 mm (32½"), from finished floor to counter height.
- 44.2.2 Provide a minimum of additional six hair dressing stations, complete with mirrors, power for hand blow dryers, and storage drawers/shelves for hair dressing materials. No sinks are required for these stations.
- 44.2.3 Each work station shall have a dedicated (split feed) circuit.
- 44.2.4 Counter tops in this laboratory are not to be "post-formed."
- 44.2.4.1 The hair dressing station counter tops (without sinks) are to have an 80 mm (3") overhang to accommodate clamped-on mannequin heads.
- 44.2.4.2 Each hair dressing station counter top (wet and dry) is to be equipped with stainless steel sleeves – one for hand blow dryer and one for hair curler.
- 44.2.5 On the wall, between the mirrors of every second work station, provide a 150 mm (6") adjustable shelving unit.

44.3 MANICURE STATIONS

- 44.3.1 Manicure stations are a purchased item, NIC. Locate three (3) manicure stations on the floor plan and provide power at those locations.

44.4 TEACHING SPACE

- 44.4.1 In close proximity to the exterior entrance, provide coat space for customers' coats.
- 44.4.2 At the entrance, detail an appointment desk. Across from the appointment desk, provide a seating area.
- 44.4.2.1 This area should be large enough to accommodate a maximum of three seats and one end table for a lamp and magazines. Seats, end table, and lamp are to be purchased from the school's F & E budget.
- 44.4.3 Provide a corner closet with a door (bottom ventilation grille) for a stackable washer and dryer. Specify mechanical and electrical connections for these units.
- 44.4.4 On the teaching wall provide a 6'/8'/6' combination of whiteboards. The middle whiteboard section is to be installed without a marker trough.
- 44.4.5 Provide two (2) Millwork storage units "A" for storage of mannequin heads.
- 44.4.6 Other than lighting over mirrors, (at hair dressing stations and at practise stations) no special lighting is required.
- 44.4.7 Provide a standard control panel in the classroom space.
- 44.4.8 For data requirements, refer to *Computer System – Computer Locations* in this Guideline.
- 44.4.9 Provide an eye wash. Refer to Eye Wash Stations, this Guideline.

44.5 WORKROOM

- 44.5.1 Provide glazing for supervision of the exterior door and the main hairstyling and aesthetics laboratory.
- 44.5.2 Glazed screen should be low enough to provide a view of each of the areas from a sitting position.

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44.5.3 The Teacher's Workroom will be equipped similarly to other small workrooms included within teaching spaces, etc.

45. THE STUDENT MATRIX

45.1.1 This area is to be located in the centre of the school, easily accessible from the main student parking lot. It should be the "main street" from which all corridors emanate and should be designed so that students traverse it a number of times during the day.

45.1.2 Ideally, second and third floor corridors should overlook the area to afford cursory staff supervision.

45.1.3 The major school components such as the Chapel, Resources Centre, Cafeteria, Tuck Shop, Guidance Centre, and the Administrative Area should be accessible from the student Matrix.

45.1.4 As the core of the school, the space needs to be inviting and representative of the Catholic spirit. Consequently, the volume of the space should allow for natural lighting.

45.1.4.1 Preferably, for cleaning purposes, any glazing in this area should be accessible from interior as well as exterior.

45.1.5 It should be a place where students wish to congregate in their spare time, rather than leaving the school.

45.1.6 Introduction of stairs leading to this area is discouraged and open type stairwells are not acceptable.

45.1.7 Acoustic design should be considered in this larger space to minimize noise impact to academic areas.

45.1.8 Illumination of this space should be by wall mounted, possibly indirect, lighting, at no higher than 3.9 m (13 ft.) height for ease of maintenance.

45.1.9 In addition, it is preferred to introduce a number of light standards with duplex receptacle and a data rough-in at each base to provide not only additional illumination, but also to provide power for special events such as career days and science fairs.

45.1.10 If round columns are introduced in the matrix their bases must be square or rectangular. Duplex receptacles and data back boxes are to be located in each of these bases.

45.1.11 If light standards are not considered, provide adequate receptacles and two (2) data ports around the perimeter for special events, small band concerts and for maintenance purposes.

- 45.1.12 Rough-in cable and electrical power provisions for television monitors and electronic signage in appropriate locations. Review with the Design Department potential locations.

46. CUSTODIAL AREA

The Custodial Services Area consists of a Head Custodian Office @ 7.5 m² (80 sq. ft.) + Lunch Room @ 13 m² (140 sq. ft.) + two change rooms with showers + one Unisex washroom + main custodial services storage @ 19 m² (200 sq. ft.) + receiving area @ 19 m² (200 sq. ft.) + recycling/trash area @ 19 m² (200 sq. ft.).

A Plant Operator's Office @ 7.5 m² (80 sq. ft.) is included in the Custodial area but located in the main mechanical room.

Custodial storage and service rooms located throughout the school are identified under "Storage and Service Areas".

46.1 HEAD CUSTODIAN'S OFFICE

- 46.1.1 The Head Custodian's Office should have a glazed screen overlooking the loading dock and storage/receiving area.
- 46.1.2 This office will be equipped similarly to other small workrooms included within teaching spaces.
- 46.1.3 The card access panel and security panel may be located in this office. In appropriate location, provide rough-ins as required.

46.2 PLANT OPERATOR'S OFFICE

- 46.2.1 Within the Main Mechanical Room or Main Fan Room – provide an office for the school's Plant Operator.
- 46.2.1.1 This office is to be acoustically separated from the mechanical room.
- 46.2.2 Energy Management System head end is to be located in this room.
- 46.2.3 This office will be equipped similarly to other small workrooms included within teaching spaces.

46.3 LUNCH ROOM

- 46.3.1 It is preferred that the Lunch Room has exterior fenestration.

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- 46.3.2 Along one wall, provide a maximum of 2,450 mm (8 ft.) counter with double stainless steel sink.
- 46.3.3 Below counter, provide a vertical row of drawers; the remaining space below the counter is to have one adjustable shelf and doors. Provide upper cupboards with two adjustable shelves and doors. Provide locks on one upper cupboard section and one drawer.
 - 46.3.3.1 Provide space for a refrigerator.
- 46.3.4 Along one wall, close to the door, provide a 1,200 mm (4 ft.) long tackboard and 1,200 mm (4 ft.) long whiteboard.
- 46.3.5 Provide a standard classroom control panel and one (split feed) receptacle above counter.

46.4 CHANGE ROOMS

- 46.4.1 Both male and female change rooms are to be accessible from the main custodial storage room. Provide a properly screened dressing area with a maximum of six lockers and bench in each.
 - 46.4.1.1 The bench is to be cantilevered from the wall, with lockers installed on it. It must be wide enough to accommodate the lockers and provide a seat in front of the lockers.
- 46.4.2 Accessible from the dressing area, provide a shower, towel bar and one (1) hair dryer.
 - 46.4.2.1 Shower to have ceramic floor tile and base but only epoxy paint on walls.
- 46.4.3 Provide full height mirror on back of doors.

46.5 WASHROOM

- 46.5.1 Accessible from the main custodial storage room, provide a unisex washroom, containing a lavatory, and a toilet.
- 46.5.2 Provide an over-shelf and mirror above sink. Include a receptacle at mirror.
- 46.5.3 Review with the Design Department whether all, or some, or any washroom accessories are included in the Contract. Refer to *Washroom Accessories* section of this Guideline.

46.6 MAIN RECEIVING/STORAGE AREA

- 46.6.1 This area is to have an exposed ceiling.
- 46.6.2 The exterior overhead receiving door is to be power operated.
- 46.6.3 Preference is for a double door (with removable mullion) from the Receiving /Storage area to the corridor. The double door is to have one leaf @ 1,100 mm; the other leaf of a standard classroom door width.
 - 46.6.3.1 Provide an eye wash. Refer to Eye Wash Stations, this Guideline.
- 46.6.4 If space permits, provide a lockable, chain link enclosure within the receiving/storage area, approximately 9 m² in size. The enclosure should be separated from the Receiving Area by a 1,800 mm (6 ft) chain link fence and gate.
- 46.6.5 Any shelving associated in these areas is NIC, supplied and installed through the school's F & E budget.
- 46.6.6 Provide gas fired, overhead, surface mounted force flow heater of an appropriate size.
- 46.6.7 Provide back boxes for paging speakers.

46.7 RECYCLING/TRASH AREA

- 46.7.1 The recycling/trash room must be enclosed from the rest of the custodial area. Door between this room and the Custodial Service Area is to be oversized.
- 46.7.2 Provide a room to accommodate two (2) 6 cu. yd. bins.
 - 46.7.2.1 The overall dimension of each bin is approximately 2,150 mm x 1,930 mm deep (7 ft. x 6 ft.). Confirm sizes of bins with the Design/Plant Departments.
- 46.7.3 Provide an exterior overhead door for each bin.
 - 46.7.3.1 Doors are to be of a size to accommodate the forks of a garbage truck. (Garbage truck to reach-in, pick up bin, back up to the exterior, dump waste overhead, and return bin inside.)
 - 46.7.3.2 The CLEAR width of the overhead doors for the trash area must be a minimum of 3,050 mm (10 ft.) The masonry opening should be no less than 3,350 mm.

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- 46.7.4 Only the overhead doors to the recycling/trash area are to be power operated.
- 46.7.5 Install a concrete pad in front of both doors of sufficient area to support in trash pickup operations.
- 46.7.6 To assist personnel, detail a raised platform (maximum height 560 mm (22") in the trash room. Provide ramp from the custodial services area to access platform.
- 46.7.7 Provide a floor drain, a freeze proof hose bib, and a separate, low volume exhaust from the room.

47. CUSTODIAL SERVICE ROOMS

Provide two (2) custodial service rooms on each floor @ 4.5 to 9 m² (50 to 100 sq. ft.) each, + an Exterior Service Room @ 14 m² (150 sq. ft.).

- 47.1.1 Strategically locate Custodial Service Rooms on each floor for ease of service. Access to custodial service rooms is to be from the corridor.
- 47.1.2 Provide eye wash in every room. Refer to Eye Wash Stations, this Guideline.
- 47.1.3 One of the custodial service rooms on each floor is to be large enough to accommodate riding type cleaner and associated cleaning equipment such as scrub brushes etc.
- 47.1.4 Provide a 1,100 mm wide door to accommodate the cleaner.
- 47.1.5 The larger custodial rooms are to be equipped with one mop sink, hot and cold water, and a floor drain.
 - 47.1.5.1 Faucets are to have cold and hot water, complete with back flow preventer, 600 mm (2 ft.) hose, and a hook for a bucket. Support faucet from wall.
 - 47.1.5.2 Slope a portion of the floor to a large area floor drain to accommodate the evacuation of water from the riding type cleaner.
 - 47.1.5.3 Provide power (120 V 15 amp. – dedicated circuit - for charging of cleaning equipment in the larger Custodial Service Room on each floor. Power characteristics and connections will be confirmed by the Design Department at the time of Contract Document development.
- 47.1.6 The smaller custodial rooms are to be equipped with one mop sink, (as opposed to slop sink) at the corner closest to the door.

- 47.1.6.1 Faucets are to have cold and hot water, complete with back flow preventer, 600 mm (2 ft.) hose, and a hook for a bucket. Support faucet from wall.
- 47.1.7 Provide a wall mounted, 900 mm (3 ft.) long, open unit with 2 adjustable shelves.
- 47.1.8 Provide a 900 mm (3 ft.) long, steel plate with welded hooks to store brooms etc. (Miscellaneous Specialties Item)

47.2 EXTERIOR CUSTODIAL SERVICE ROOM

- 47.2.1 The Exterior Custodial Service Room must have a double door (no mullion). An optional, manually operated overhead door may be considered.
- 47.2.2 Incorporate a ramp to the entrance of the Exterior Service Room for access of riding lawn mowers, snow blowers etc. Since gas and oil may be stored in this room, review OBC requirements for electrical and mechanical services.
- 47.2.3 Provide a floor drain with an oil interceptor.
- 47.2.4 Provide heat by means of a ceiling mounted, exposed, force flow heater.
- 47.2.5 Provide ceiling mounted back box for a paging speaker.

48. ACADEMIC STORAGE ROOMS

The academic storage areas in the school shall consist of one (or a combination of) academic storage rooms totaling 14 m² (150 sq. ft.) on each floor

The storage rooms identified here are in addition to any of the storage rooms associated with specific disciplines or custodial areas mentioned elsewhere in this Guideline.

- 48.1.1 Shelving in academic storage areas is to be purchased through the school's Furniture and Equipment Budget.

49. SERVICE UTILITY AREAS

The size of the Sprinkler Room, Electrical Room, and other similar service utility rooms will be dictated by the Authorities Having Jurisdiction.

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49.1 SPRINKLER ROOM

- 49.1.1 The sprinkler room (if required by Authorities Having Jurisdiction) should be accessible from the exterior.
- 49.1.2 Provide ceiling mounted box for a paging speaker.

49.2 ELECTRICAL ROOM

- 49.2.1 The electrical room may be accessible from the custodial area.
- 49.2.2 In some jurisdictions, the electrical room must have a door to the exterior. Consultant is to review with Authorities Having Jurisdiction.
- 49.2.3 Review with the Design Department whether plywood backboard in this room is required for street connections and for telephone lines and computer lines.
 - 49.2.3.1 The preference is for telephone and computer lines (fiberglass cables) to be terminated in the Server Room.
- 49.2.4 Care must be taken in locating electrical rooms in the building. Electrical room locations next to teaching and/or staff occupied spaces are to be avoided.
- 49.2.5 Discuss shielding of area with Design Department if electrical room is located below, or next to academic spaces.

50. WASHROOMS

Depending on the layout and size of facility, there may need to be up to three sets of student washrooms on the ground floor and two sets on the upper floors. (Since the third floor is traditionally smaller in area, one set of student washrooms may suffice.)

50.1 GENERAL

- 50.1.1 Locate washrooms for easy access to students on each floor. One set of student washrooms on the ground floor is to be located in the Gymnasia portion to be accessed if the Gymnasia area is closed-off for nighttime and weekend activities.
- 50.1.2 Another set of student washrooms on the ground floor should be close to the entrance primarily used by students in future portables. The washroom count in this set of washrooms should accommodate possible 12 portables.

- 50.1.3 The third set of student washrooms needs to be centrally located so that it can serve the needs of the public attending school performances as well as servicing the student population.
- 50.1.4 The upper sets of washrooms should be strategically located, but preferably, above the ground floor washroom(s).
- 50.1.5 Specify water based, 2 part epoxy paints on block walls in all washrooms.

50.2 STUDENT WASHROOMS

- 50.2.1 Student washrooms are to have 150 mm (6") block, full height, sight screens, rather than closed vestibules. Floors are to be ceramic tile with ceramic bases.
- 50.2.2 The ceilings are to be as high as possible, of vandal resistant Gypsum Board. T-bar ceilings are unacceptable.
 - 50.2.2.1 Avoid installation of valves or other mechanical equipment requiring accessibility above washroom ceilings.
 - 50.2.2.2 Provide adequately sized access panels if valves or other equipment is to be located above drywall ceilings.
- 50.2.3 Avoid installing light fixtures over toilet stalls or over washfountains.
- 50.2.4 Provide back boxes in ceiling space for flush mounted, paging speakers. All electrical devices such as emergency lights are to be flush mounted, behind wire cages.
- 50.2.5 Specify "Water Matrix" system for student washroom urinals. Electric power is required for the electronic unit of the "water matrix" system. Access for shut-off valves etc. is to be located in the ceiling of washroom vestibules, in view of the corridor.
- 50.2.6 All urinals are to be wall mounted. Screens or dividers between urinals in student or staff washrooms are not to be specified or installed.
- 50.2.7 Toilets are to be floor mounted, with vandal proof flush-meters and equipped with open front, black seats.
- 50.2.8 In each washroom, provide a terrazzo or approved phenolic "Tri-fount" or "Quadra-fount" manually (push button) operated washfountain as required. Specify washfountains WITHOUT internal soap dispensers and with fixed spray nozzles.
- 50.2.9 Provide a 150 mm (6") concrete block wall between urinals and toilet stalls. Tie wall to roof structure.

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- 50.2.10 Provide two (2), hand dryers with fixed nozzles, and two (2), 400 mm (16") x 600 mm (24") mirrors, (one lower, one higher), in vandal proof frames
- 50.2.11 Provide toilet partitions with plastic laminate surface and solid phenolic core, floor mounted with vandal proof bracing.
- 50.2.11.1 Alternate partition could be plywood, plastic laminate face, with either stainless steel edging, or phenolic edging. Discuss with Design Department before specifying alternate toilet partitions.
- 50.2.12 *Toilet partitions must be installed without a coat hook.* The consultant shall specify toilet partition hardware that incorporates the rubber bumper into the slider/locking device.
- 50.2.13 As per the Ontario Coroner's recommendations, it is mandatory that all student washroom corridor doors (new schools and additions and renovations) be equipped with electromagnetic "hold open" devices. Door is to open to a solid block wall in order to properly mount electromagnetic device.
- 50.2.14 Provide exhaust in all washrooms, controlled through the BM System.
- 50.2.15 Specify the installation of two (2) tempered glass mirrors in each of the student washrooms.
- 50.2.16 Review with the Design Department whether all, or some, or any washroom accessories are included in the Contract. Refer to *Washroom Accessories* section of this Guideline.

50.3 STAFF WASHROOMS

- 50.3.1 Provide two male and two female staff washrooms on each floor, strategically located.
- 50.3.2 Proper screening is preferable to vestibules.
- 50.3.3 All staff washrooms should be accessible only from the corridor - not from staff room or administration area.
- 50.3.4 The washrooms are to have T-bar ceilings and tiled floors. Unless mandated by the Authorities Having Jurisdiction, floor drains are not necessary.
- 50.3.5 Each female staff washroom is to have two (2) toilets and one (1) vanity with sink.
- 50.3.6 Provide mirror above vanity and shelf for purse or personal items. Close to the shelf, provide a GFI duplex receptacle.

- 50.3.7 Provide toilets with tanks that have low volume operation.
- 50.3.8 Staff washroom stalls are to be metal. Provide s. s. panel next to the urinal.
- 50.3.9 Each male washroom is to have one (1) toilet, one (1) wall mounted urinal and one (1) vanity with sink.
- 50.3.10 Provide a mirror above vanity and a GFI duplex receptacle in close proximity.
- 50.3.11 Toilets and stalls are to be similar to the female washrooms - as are the finishes.
- 50.3.12 Electric hand dryers are not required.
- 50.3.13 Review with the Design Department whether all, or some, or any washroom accessories are included in the Contract. Refer to *Washroom Accessories* section of this Guideline.

50.4 PHYSICALLY CHALLENGED UNISEX WASHROOMS

- 50.4.1 Rather than equipping every student and staff washroom for physically challenged, design unisex, physically challenged washrooms, accessible from the corridor, centrally located, close to the elevator location.
 - 50.4.1.1 Depending on the length of corridors, more than one physically challenged, unisex washroom may be required. The Consultants are to review with Authorities Having Jurisdiction at sketch plan stage.
- 50.4.2 Access to any physically challenged washroom shall be from the main corridors.
- 50.4.3 Each washroom shall be equipped identically and shall be unisex, serving staff, students, and visitors.
- 50.4.4 The ground floor physically challenged washroom should be located to easily serve school visitors (i.e. audiences attending performances in Cafeteria.)
- 50.4.5 Locally tempered water is required for the lavatory.
- 50.4.6 Electric hand dryer is not required.
- 50.4.7 Provide a hinged mirror above lavatory, a shelf for purses and personal items, and, in close proximity to the mirror, a GFI duplex receptacle.

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- 50.4.8 Review with the Design Department whether all, or some, or any washroom accessories are included in the Contract. Refer to *Washroom Accessories* section of this Guideline.
- 50.4.9 Provide a ceiling back box for paging speaker.

51. STAIRWELLS AND CORRIDORS

Stairways should be designed of a width to avoid center railings. The minimum clear walking distance in corridors is expressed below as 7 feet or 2,150 mm. In order to maximize on metric size components, however, metric dimension of 2,100 mm or 2,200 mm may be more appropriate.

51.1 STAIRWELLS

- 51.1.1 All stairwells must exit directly to the exterior.
- 51.1.2 Railings to have vinyl covered handrails with a higher balustrade. Detail railings as per Illustrative Sketches. Other picket designs are unacceptable.
- 51.1.3 Design stairs with adequate overhead space so that it cannot be vandalized.
- 51.1.4 Windows in stairwells are to be non-operable. Locate windows no higher than 900 mm (3 ft) above the floor of the mid landing.
- 51.1.5 Refer to Room Finish & Material Selection - Stairwell Flooring Materials for details relating to stairwell finishes.
- 51.1.6 Do not locate fixtures over stairs. Detail *wall mounted* light fixtures a minimum of 2,150 mm (7 ft.) above mid-landings.
- 51.1.7 Space below stairs on ground floor, is to be furred out and the force flow unit flush mounted in this area.
- 51.1.8 Consideration may be given to introducing small storage rooms on the top floor landings.

51.2 CORRIDORS

- 51.2.1 If demising doors are considered to section off portions of the school, these doors must enable access for riding type cleaning equipment. For specific door widths, refer to *Doors*, this Guideline.

- 51.2.2 All doors opening into the corridor shall open 180°.
- 51.2.3 Maintain a minimum of clear 2,150 mm (7 ft.) walking clearance in corridors. Walking clearance means the dimension between edge of perpendicularly opened locker door and wall or between perpendicularly opened locker doors on either side of the corridor.
 - 51.2.3.1 Note that corridors with lockers directly opposite each other are discouraged.
 - 51.2.3.2 Due to high traffic conditions at stairs, installation of lockers in the immediate area should be avoided.
 - 51.2.3.3 Locker bays are unacceptable.
- 51.2.4 Other than at areas requiring crush space such as entry to the Chapel, Gymnasia, and main foyer, wider corridors are discouraged.
- 51.2.5 Corridor flow pattern should be such so as to provide maximum supervision with minimum staff. Clerestory spaces in corridors or at minor entrances are discouraged.
- 51.2.6 There are to be no mat sinkages in the vestibules or stairwell entrances.
- 51.2.7 Ceilings shall be T-bar with 600 mm x 1,200 mm (2 ft. x 4 ft.) tiles throughout. Use of other size of tiles or different ceiling finishes at intersecting corridors must be reviewed with the Design Department at design stage.
- 51.2.8 Ceilings are to be as high as possible with flush mounted fixtures.
 - 51.2.8.1 Cove lighting, or special pot fixtures in corridors and entrances is discouraged.
- 51.2.9 Make provisions in ceiling paging speakers.
- 51.2.10 Provide cable trays above ceiling in all corridors. Terminate cable trays to locations of possible future additions.
 - 51.2.10.1 Ensure that cable trays extend to the last sleeve location.
- 51.2.11 Provisions for clocks in corridors are unnecessary.
- 51.2.12 Wherever possible, detail *wall mounted* exit signs. If perpendicular- to-wall exit signs are necessary, stiffen exit sign by connecting conduit at far top edge of the sign.
- 51.2.13 Exit signs attached to corridor ceiling tiles are definitely discouraged.
- 51.2.14 Make provision for one (1) public telephone – at barrier free height in an appropriate, easily supervised location of the front vestibule.

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- 51.2.15 Review with Board staff if a provision for a niche or a shelf for religious statuary prominently featured in the main lobby, is required. If niche is designed, include one (1) overhead accent light and one (1) standard receptacle at the rear of the niche.
- 51.2.16 In addition to the standard receptacles required by code, provide a minimum of one 20 amp receptacle in each corridor. Allow a maximum of approximately 15,240 mm (50 ft.) between receptacles.

51.3 DISPLAY CASES

- 51.3.1 Three Display Cases are suggested. One is to be located at, or near the front foyer or the Matrix, one in the Technology Wing, and one in the Gymnasia Wing.
- 51.3.1.1 In each Display Case, provide a duplex receptacle, a light fixture connected to the corridor light fixture circuit, two adjustable glass shelves and appropriate material for the back of the case.
- 51.3.1.2 Display Cases are to be accessed from the corridor side by means of sliding, tempered glass, lockable doors.
- 51.3.2 The Display Case in the Technology Wing is to be 600 mm (24") deep. The other display cases are to be 300 mm (12") deep. All Display Cases are to be 2,450 mm (8 ft.) long.
- 51.3.3 In addition, refer to the *Marketing/Merchandizing Area* for details of the Display Window related to the Tuck Shop.

51.4 VENDING MACHINE LOCATIONS

- 51.4.1 On the ground floor, create an alcove in the Cafeteria to accommodate up to 6 vending machines. Power to vending machines in the Cafeteria must be able to be switched off from the stage and/or control room during darkened performances.
- 51.4.2 In the gym corridor, provide a vending machine alcove to accommodate two [2] vending machines.
- 51.4.3 Provide in each alcove a dedicated duplex receptacle for each vending machine. Hub drains and water supply for vending machines are not required.
- 51.4.4 Each vending machine is approximately 1,100 mm (3'-6") x 1,100 mm (3'-6") square, 1,500 mm (5 ft.) high. Exact dimensions will need to be verified by Consultants.

- 51.4.5 Adequate space on top of the vending machines is to be provided for air circulation.
- 51.4.6 For additions to existing schools, review with Design staff whether vending machine alcoves are required.

51.5 DRINKING FOUNTAINS

- 51.5.1 Each drinking fountain location consists of one (1), non-refrigerated, stainless steel, drinking fountain, @ barrier free height and design.
- 51.5.2 On the ground floor, provide up to three drinking fountain locations:
 - 51.5.2.1 In the “Gymnasium Wing” corridor close to the Exercise Room/Dance Studio
 - 51.5.2.2 In the “Technology Wing” corridor close to the Technology Laboratories
 - 51.5.2.3 In an appropriate location to balance the distribution of the drinking fountains
- 51.5.3 On the second and third floors, provide two drinking fountain locations per floor:

51.6 LOCKERS

- 51.6.1 The number of lockers to be provided shall equal the pupil loading indicated on the Building Program brief plus 2%.
- 51.6.2 Lockers to have flush mounted doors and are to be 300 mm (12”) wide, 380 mm (15” deep) and 1,830 mm (6 ft.) high with sloping tops; two upper shelves 355 mm (14”) apart and one rear mounted, double coat hook.
- 51.6.3 Lockers are to be set on a concrete or masonry base with ceramic base finish.
- 51.6.4 Provide 150 mm (6”) concrete block wall nib at every end of locker run. Face of doors is to be proud of wall nibs so that locker doors cannot be racked on the face of wall nib.
- 51.6.5 Provide four (4) barrier free lockers on each floor, closest to the elevator. Barrier free lockers will be located at the ends of locker runs and be clearly marked with the barrier free logo.
 - 51.6.5.1 Provide a number of barrier free lockers in the corridor outside of the PIP Room. Number of barrier free lockers is to be determined at the design stage.

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- 51.6.6 Barrier free lockers are to be the same size as standard lockers except that the two shelves are located 350 mm (14") and 600 mm (24") from bottom of locker and the rear mounted hook lowered to prescribed barrier free height.

52. EYE WASH STATIONS

Differing application require different types of eye wash stations. (Refer to Illustrative Sketches.)

NOTE that eye wash stations as identified below, are to be plumbed with cold water. The Board currently prescribes to the installation of the following eye stations:

BOWL TYPE

- 52.1.1 This eye wash station is to be *Dual Stream*, with a "stay open valve". Height of rim from finished floor to the top of the outlet heads of the Bowl Type eye wash station must be no greater than 900 mm (36").

- 52.1.1.1 Preference is for either side or rear mounting of the bowl type eye wash stations. In special circumstances, (such as science rooms) counter mounted bowl type, dual stream eye wash station is acceptable providing that the mounting height as described can be achieved.

Bowl Type eye wash stations shall be installed in the following areas:

*Treatment/Sick Bay Room
Art Rooms,
All Science Classrooms – at Instructors' Desks,
Science Staff Preparation Area,
Photography Dark Room - if in program
Greenhouse – if in program
Manufacturing, Construction, and Transportation Technology Labs,
Design Technology Lab
Robotics Lab
Hospitality and Tourism – Kitchen
Hairstyling and Aesthetics Lab*

SPOT DRENCH TYPE

- 52.1.2 This eye wash station is to be *Dual Stream*, with a "stay open valve" hose spray type. Generally, these eye wash stations will be wall mounted. (Refer to Illustrative Sketches)

Spot Drench Type eye wash stations shall be installed in the following areas:

All Custodial Service Rooms with mop sinks (Both sizes)
Custodial Receiving Area &
Mechanical Room with Chemical Feed Station (if designed)

BARRIER FREE SAFETY STATION

52.1.3 The Barrier Free Safety Station is to be a combination barrier free shower and dual stream bowl type eye wash station. (Refer to Illustrative Sketches)

Barrier Free Safety Station shall be installed in the following area:

Chemical Storage/Mixing Room

53. MECHANICAL SERVICES

Refer to Mechanical Guidelines for details of HVAC and Controls System. Prepare Mechanical/Electrical Design Brief and submit to the Design Department prior to start of Contract Documents. (Refer to Information Manual for Architects.)

53.1 GENERAL

53.1.1 Preference is for tank-less water heaters.

53.1.2 Roof top screening is to be designed only as required by the Authorities Having Jurisdiction.

53.2 WATER TEMPERING SYSTEM

53.2.1 Refer to specific locations of water tempering system in the *Planning for Independence* section, this Guideline.

53.3 SPRINKLER SYSTEM

53.3.1 A Sprinkler system shall be installed in all new schools and in additions where practical.

53.3.2 Generally, all teaching and staff spaces, including offices, seminar rooms, and high ceiling public spaces shall have chrome, fully exposed or semi recessed sprinkler heads.

53.3.2.1 Semi-recessed sprinkler heads with escutcheons shall be used only with prior approval of Design Department

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- 53.3.3 Exposed sprinkler heads areas such as gymnasias, storage rooms, mechanical rooms where they may be subject to damage shall be installed with wire guards.
- 53.3.4 In unsupervised areas such as corridors, washrooms and change rooms, provide fully concealed sprinkler heads with white covers.
- 53.3.5 Sprinklers located in areas with high ambient temperature must have high temperature heads.
- 53.3.6 Install a pressurized pump (“jockey pump”) for the sprinkler system. This pump is to be manually operated.

53.4 MECHANICAL ROOM - BOILER ROOM

- 53.4.1 Unless dictated otherwise by the Authorities Having Jurisdiction, preference is for the Mechanical Room and Boiler Room not be physically separated.
- 53.4.2 Provide effective waterproofing to contain water leaks. Waterproofing should extend 150 mm (6”) up all surrounding walls.
- 53.4.3 Paint all duct insulation, paint all piping as per Board’s standard colours, and flow markings. (Walls, ceilings and floor may remain unpainted.)
- 53.4.4 Rough-in for a wall mounted telephone in Main Mechanical Room. Provide back boxes for paging speakers.

53.5 HEAT PUMP CLOSETS

More than four Heat Pumps may be located in a larger space. Review this option with the Design Department. If Heat Pump Closets are incorporated into the Mechanical Design, the criteria should be as follows:

- 53.5.1 Generally, access is to be from the corridor and doors are to be of a standard width and height.
- 53.5.2 Provide a fluorescent fixture located above the door frame and a floor drain & a service receptacle.
- 53.5.3 Walls may be left unpainted, and finished ceiling is not required.
- 53.5.4 Heat Pump Rooms and closets may require a floor drain.

54. DOORS

With the exception of the doors that are identified as “oversized”, every doorway that is located in a barrier-free path of travel must have a minimum clear width as identified in the latest edition of the Building Code. Protrusions such as door closers and exit devices (panic bars) must be taken into consideration when calculating clear path of travel for door widths.

54.1 GENERAL

- 54.1.1 With the possible exception of the double doors to the Chapel, all other doors (exterior and interior) throughout the school are to be Hollow Metal with HM frames.
 - 54.1.1.1 Hollow Metal removable mullions may be used, providing that these are supplied by the *door frame* manufacturer.
 - 54.1.1.2 If removable mullions are supplied by the *hardware house*, these mullions may be aluminum, providing that mullion stabilizers are specified at all pairs of exterior doors.
 - 54.1.1.3 Panic bar locations must be specified with “mullion stabilizer sets”.
 - 54.1.1.4 Generally, all exterior doors and frames, all corridor doors and frames (such as vestibules and stairwell doors & screens) shall be 16 gauge.
 - 54.1.1.5 All interior doors shall be 18 gauge.
- 54.1.2 Installation of a mail slot at the front door screen is not required.
- 54.1.3 With the exception of the front door and screen, all other exterior doors and stairwell interior doors and screens are to be GW plate glass.
- 54.1.4 Exterior doors accessed through a vestibule need not be insulated.
- 54.1.5 Generally, doors that open into the corridor are to swing 180°.
- 54.1.6 Door closers shall be located on the inside wherever possible, with arms parallel to door when installed in the corridor.
- 54.1.7 All corridor doors and high traffic area doors such as washrooms shall have parallel arm door closers.
- 54.1.8 All exterior door frames/doors shall be roughed in for door contactors.

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54.2 CARD ACCESS

- 54.2.1 Designated exterior doors that are to be roughed-in for card access are as follows:
- Front entrance door
 - Door closest to possible portable location
 - Door to the general custodial area
- 54.2.2 Designated interior doors that are to be roughed-in for card access are as follows:
- Staff door from corridor to main Administration office
 - Door from corridor to staff lounge
- 54.2.3 Wiring and devices for card access system is supplied and installed outside of the General Contract.
- 54.2.4 Rough-in for doors other than those identified above is to be paid for by the school from its F & E budget.

54.3 ELECTROMAGNETIC HOLD-OPENS

- 54.3.1 Electromagnetic hold-opens are to be installed on the following interior doors:
- All corridor access doors to student washrooms
 - Two (2) sets of double doors from the Matrix to the Cafeteria
 - Both sets of doors (in/out) from Cafeteria or corridor to Servery
 - Any corridor demising doors that are within fire separations
- 54.3.2 Review with the Design Department at design stage whether any other access doors require electromagnetic hold-opens.

54.4 POWER OPERATORS

- 54.4.1 Power door operators are to be installed on the following doors:
- Front entrance doors
 - Main student entrance doors
 - Additional student entrance doors only as mandated by code
 - Exterior access to the PIP Room(s),
 - Interior doors of the PIP Room vestibule
 - Door from corridor to PIP Room(s)
- 54.4.2 The head of the door frame at entrances that are to receive electromagnetic hold open devices must be of sufficient height to receive same.

54.5 CONTINUOUS HINGES

- 54.5.1 The following doors are considered to be of high traffic usage and are to be equipped with continuous hinges:
- All exterior doors to pedestrian corridors or stairwells
 - All interior corridor vestibule doors
 - All interior stairwell doors

54.6 OVERSIZED DOORS

- 54.6.1 If included in the design, demising corridor doors that isolate the athletic zone from the rest of the school are to be approximately 1,200 mm (48") wide.
- 54.6.2 Certain doors are to be approximately 1,000mm (39½") wide. Consultants must review door widths with the Design Department during the preparation of Contract Documents. The identified list of areas to have oversized doors is as follows, but not necessarily limited to the following:

- All exterior and interior doors equipped with panic hardware
- All exterior and interior doors used by PIP Students
- All doors from corridors to unisex barrier free washrooms
- From the corridor to the main Administration Area
- From Administration to Treatment/Sick Bay
- From Treatment/Sick bay to Health Room Washroom
- From corridor to the Main Guidance Area
- From corridor to the Library Resources Centre
- From corridor to stage lift (as applicable)
- From corridor to Ground Floor BBT Laboratories
- Selected Gymnasium Storage Rooms
- From the corridor to Exercise Room
- From the corridor to Drama Room
- From corridor to Instrumental Music/Band Room (Corridor and Stage access)
- From the corridor to large Custodial Service Rooms
- One leaf of a pair of doors from the custodial receiving/storage room to the corridor

Note: If double doors to one space are indicated, only one door needs to be oversized.

54.7 MULLIONS

- 54.7.1 Certain double doors throughout the school are to be installed without mullions. Consultants must review possible locations with the Design

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Department during the preparation of Contract Documents. The identified list of areas to have double doors without mullions is as follows, but not necessarily limited to the following.

Custodial Service Room to exterior (Overhead door optional)
Sports Storage Room to exterior

54.7.2 Certain double doors throughout the school are to be installed with removable mullions. Consultants must review possible locations with the Design Department during the preparation of Contract Documents.

54.7.3 The identified list of areas to have double doors with removable mullions is as follows, but not necessarily limited to the following:

One pair of doors to Gymnasia (both exterior and interior)
One pair of doors to Cafeteria
One pair of doors to major Mechanical Room
One pair of doors to the Sports Storage in the main Gymnasium
One pair of doors from the corridor to the Custodial receiving/storage

54.8 INSULATION AND SOUND SEALS

54.8.1 Install at head of door frame, weather and sound seals before installing closers or power operators.

54.8.2 The following doors require insulation and sound seals:

Corridor doors to Instrumental and Vocal Music or Band Room
Practise Room doors – Instrumental Music or Band Room or Vocal Music
Doors between Stage and Instrumental Music or Band Room

54.9 OVERHEAD DOORS

54.9.1 Depending on conditions, overhead doors may be sectional or solid in style. Review with the Design Department.

54.9.2 All overhead doors are to be electrically powered.

54.9.3 Review with the Design Department the varying heights and CLEAR opening widths required in specific areas.

55. DOOR AND SCREEN STYLES

The following is a general list and does not necessarily describe all doors herein identified. Review the door schedule and door styles with the Design Department prior to the start of Contract Documents.

55.1 GENERAL

55.1.1 With the possible exception of the Main School Entrance Doors and entrance doors to the Chapel, all doors should be of four door styles:

- Style A Solid (slab) doors.
- Style B Narrow side lights (top and bottom)
- Style C Full light (top and bottom)
- Style C¹ Full light with maximum visual panel at the bottom.

55.1.2 Refer to Illustrative Sketches for Door Styles.

55.1.3 Exterior screens and or transoms are acceptable *only* for the main building entrance. Exterior side lights may be considered for the PIP exterior entrance.

55.1.4 Interior side lights to the Gymnasias, Exercise Room, and Dance Studio are unacceptable.

55.1.5 Generally, side lights to office doors contained within the Administration and Guidance Areas, Alternative Education Area, staff workrooms not accessed from corridors; Chaplain's Office and Head Office for special Education (both accessed from corridor) are to be full height with one or two horizontal mullions. Width of unit is not to exceed 400 mm (16"). Doors next to these screen types are to be Style A.

55.1.6 Screens from corridors to Administration, Attendance, Guidance, Library, Cafeteria, and Tuck Shop are to be full height. Main access doors within these screens are to be Style C.

55.1.7 Doors within half screens are to be either Style B or Style C. Review with Design Department specific locations.

55.1.8 Typically, it is preferred that three (3) doors from the corridors to stairwells be designed – a pair of doors should be separated from a single door with a masonry wall. Doors are to be Style C¹.

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55.2 INTERIOR DOOR STYLES

- STYLE A** All service, utility and storage rooms, Mechanical and Heat Pump doors, washroom, make up and change room doors, office doors next to full height side lights, PIP Observation Room door, Staff Room door, Staff Workroom doors and Presentation Meeting Room.
- STYLE B** All doors from corridors to teaching areas, Student Council Room, Seminar Rooms, Withdrawal Rooms, Servery doors and doors to Gymnasia.
- STYLE C** Interior vestibule screen doors, demising doors (if designed), primary entrance door to Library; doors between Special Education Classrooms and Withdrawal Rooms; Time Out Room door, Tuck Shop door, Gym access door from Instructors' area, Library Workroom and Library Seminar Room doors, Main General Office & Guidance door, Attendance area door(s) and Cafeteria entrances from corridor(s).
- STYLE C¹** Doors from corridors to interior of stairwells

55.3 EXTERIOR DOOR STYLES

Main School and Chapel Entrance doors:
Style to Architect's choice, but approved by the Design Department.

- STYLE A** All service entrance doors, and exterior doors from Gymnasia and Technology Laboratories, exterior doors from Chapel.
- STYLE B** Stairwell or corridor entrance doors and Alternative Education entrance
- STYLE C** Main building entrance and primary or special facility entrance doors (PIP & Hairstyling and Aesthetics Lab entrances).

56. WINDOWS

- 56.1.1 Preferably, sizes of glass panes are not to exceed 900 mm x 1,500 mm (3 ft. x 5 ft.) The Design Department must approve exception to these maximum sizes.
- 56.1.2 The sill height of exterior windows should be between 760 mm (30") and 1000 mm (39") above finished floor.
- 56.1.2.1 Only if budget permits, detail Ceramic Tile on the interior window sills. Review with the Design Department this detail at working drawing stage.

- 56.1.3 Windows are to be designed so that glass replacement can be accomplished from the interior.
- 56.1.4 Where horizontal mullion is incorporated into windows, the mullion should not be located between 1,040 mm (3'-5") and 1,220 mm (4 ft.) from finished floor.
- 56.1.5 Windows are to have one operable section per teaching space, opening out, with stops to brick face on ground floor. Avoid locating operable section at high level. A fly screen is to be provided on the inside of the window.
- 56.1.6 Preference for operable windows is for a removable "crank type" unit.
- 56.1.7 Clear anodized window frames, thermally broken are to be specified on new projects.
 - 56.1.7.1 In cases of additions, baked enamel finishes on window frames may be considered to match existing.

56.2 GLAZING

- 56.2.1 Preferably, glazing shall low E, sealed units with outside tempered glass/inside float glass on ground floor, and float/float glass on upper floors.
- 56.2.2 Bronze or grey (only) tinting and/or the installation of reflective film is acceptable, providing that the Consultants can justify additional glazing costs in smaller mechanical HVAC loads and energy consumption life cycle costing.

57. ELEVATOR

- 57.1.1 Provide an elevator between floors for physically challenged occupants. This is a standard hydraulic elevator of 1,000 kg capacity with automatic doors.
- 57.1.2 If possible, the elevator should be in a location so as to integrate a mid-stop at the stage level and be in close proximity to the Matrix.
- 57.1.3 The Elevator should include Braille signage handicapped height controls, visual and audio storey designations, and emergency "programmable" phone and all other devices required for Elevator/Lift licensing.
 - 57.1.3.1 Corridor controls for the elevator are to be key operated.
- 57.1.4 If Stage Lift is required, it is to include emergency phone.

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- 57.1.5 Only those Lift manufacturers that have NON-PROPRIETARY software programs/control access codes to meet future maintenance tender requirements of the Board are acceptable.
- 57.1.6 Servicing and required TSAA maintenance procedures of the Elevator/Lift as mandated by the codes must be included in the General Contract requirements for a period of one (1) year after Substantial Completion or from a date of acceptance by the Authorities Having Jurisdiction – whichever is the latter.
- 57.1.6.1 Included in the servicing procedures is to be a complete and comprehensive maintenance package effective concurrently with the one year warranty and must include, but not be limited to, a minimum of two month systematic inspection, cleaning, adjusting and lubricating of the lift.
- 57.1.7 Review with the Authorities Having Jurisdiction of the minimum size of the lift(s).

58. COMPUTER REQUIREMENTS

The following is a general list and does not necessarily describe all computer locations identified herein. Review the locations with the Design Department prior to the start of Contract Documents.

Note that power provisions identified in this section deal with power for computers and other electronic equipment. General power requirements in individual areas are identified elsewhere.

58.1 ITEMS NOT IN CONTRACT

COMPUTER WIRING AND DEVICES

- 58.1.1 The computer cabling and the supply and installation of computer devices are to be identified as a Cash Allowance in the Contract Documents, and are to be tendered post General Tender. Refer to *Computer Cabling System* in the “Technical Guideline” of the Design Department’s web site.

SMART BOARDS AND PROXIMAS

- 58.1.2 The supply and installation of smart boards and proximas; the electrical wiring and connections from the power connection above the ceiling space to the units; the supply and installation of VGA and data wiring to same.

NETWORK AUB - CABINETS (HUBS)

- 58.1.3 The HUBS are NIC. Refer to rough-in and power requirements at HUB Locations in this Guideline.

58.2 ITEMS INCLUDED IN CONTRACT

CABLE TRAYS

- 58.2.1 Provide cable trays above corridor ceilings on all floors for data, television, and security cabling. Cable trays are to extend to the end of corridors and beyond the last wall sleeve. Connect cable trays between floors for all required cables – Phone/PA, video, etc.
- 58.2.2 To prevent cable cuts from sharp edges, all cable trays are to be connected by pre-manufactured 90° and 45° elbows as required

WALL SLEEVES

- 58.2.3 Between each adjacent classroom or teaching/staff space and between each classroom and the corridor, provide a 40 mm (1½”) sleeve for computer cabling.
- 58.2.4 To prevent cable cuts from sharp edges, all through wall sleeves are to have a conduit connector at each terminating wall sleeve end.

POWER PROVISIONS FOR TEACHING AND OTHER ACADEMIC SPACES

- 58.2.5 In standard height teaching and other academic spaces, provide - in the location of the front teaching wall, above the ceiling space - 15 amp circuit terminated in an electrical box for a future “Proxima” or “Smart Board” connection.

POWER PROVISIONS FOR HIGH VOLUME TEACHING SPACES

- 58.2.6 Provide a duplex receptacle centred 600± mm above the front teaching wall whiteboard combination for a future “Proxima” or “Smart Board” connection.

VERTICAL DOUBLE RACEWAY AT FRONT TEACHING WALL LOCATIONS

- 58.2.7 Double raceways are in contract for all regular height teaching spaces as indicated. Included in the double raceway are two duplex receptacles (one above the other). Data and VGA connections, wiring and devices are by others.

59. COMPUTER PROVISION TERMINOLOGY

59.1 STUDENT COMPUTER PROVISIONS – SCP^L AND SCP^H

- 59.1.1 The **SCP^L** provision consists of one (1) quad receptacle on a 15 amp circuit and one (1) data back box with 20 mm (¾”) empty conduit with pull string, terminating above classroom ceiling space.

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- 59.1.1.1 The quad receptacle and the data back box are to be **BELOW THE DESK HEIGHT**, centered @ 450 ± mm (bottom of third block) from finished floor.
- 59.1.2 The **SCP^H** provision consists of one (1) quad receptacle on a 15 amp circuit and one (1) data back box with 20 mm (¾") empty conduit with pull string, terminating above classroom ceiling space.
 - 59.1.2.1 The quad receptacle and the data back box are to be **ABOVE THE DESK HEIGHT**, centered @ 840 ± mm (bottom of fifth block) from finished floor.

59.2 TEACHER RACEWAY COMPUTER PROVISION – TCPR

(FOR STANDARD HEIGHT TEACHING SPACES)

- 59.2.1 The TCPR provision consists of a vertical double cell raceway with two duplex receptacles, surface mounted next to the edge of the front teaching wall whiteboard combination.
 - 59.2.1.1 The vertical raceway is to be installed 150 mm AFF and terminated 400 mm above the ceiling.
- 59.2.2 The electrical power side of the raceway should always be closest to the edge of the whiteboard. The raceway should be installed away from the entrance to the teaching space.
- 59.2.3 Note that different Data and VGA connections are required for science rooms. Refer to the Science Room section of this Guideline.

59.3 TEACHER PROVISIONS – TCP^L AND TCP^H

(FOR SPECIAL APPLICATIONS (ADMINISTRATION AREAS, LIBRARY DESK ETC,) AND FOR HIGH TEACHING SPACES.)

- 59.3.1 The **TCP^L** provision consists of one (1) quad receptacle on a 15 amp circuit and one (1) back box for data with 20 mm (¾") empty conduit and pull string, terminating above the ceiling space.
 - 59.3.1.1 The quad receptacle and the two data back boxes are to be **BELOW THE DESK HEIGHT** centered @ 450 ± mm (bottom of third block) from finished floor.
- 59.3.2 The **TCP^H** provision consists of one (1) quad receptacle on a 15 amp circuit and one (1) back box for data with 20 mm (¾") empty conduits and pull string, terminating above ceiling space.

- 59.3.2.1 The quad receptacle and the two data back boxes are to be ABOVE THE DESK HEIGHT centered @ 840 ± mm (bottom of fifth block) from finished floor.
- 59.3.3 In high ceiling spaces such as Technology Laboratories, Instrumental Music Room, Band Room and Drama Room, add a duplex receptacle above the front teaching whiteboard combination. (Refer to items in Contract.)

59.4 HORIZONTAL RACEWAYS— RCP^L AND RCP^H

- 59.4.1 Both the **RCP^L** and **RCP^H** provisions consist of a dual cell, CSA approved, surface mounted raceways of lengths as required by room conditions.
 - 59.4.1.1 The TOP of the **RCP^L** provision is to be 500± mm from finished floor.
 - 59.4.1.2 The BOTTOM of the **RCP^H** provision is to be at 800 ± mm from finished floor.
- 59.4.2 In areas where raceways are required along the entire wall elevation, (Computer Rooms) raceways are to terminate short of the corners of walls by 200 mm (12") with end caps.
 - 59.4.2.1 Desk layouts will determine the actual spacing from end of raceways.
- 59.4.3 Electrical wiring is to occupy lower channel of the surface raceway. Pull strings are to be provided in data conduits located behind the raceways for later installation of data cables. (Refer to Illustrative Sketches.)
- 59.4.4 For each multiple of four (4) workstations, provide one (1) 20 mm (¾") empty conduit with pull string, terminating above ceiling space.
 - 59.4.4.1 Each data outlet is to be labeled as to the corresponding circuit on top of raceway.
 - 59.4.4.2 Locate electrical conduits approximately 1,000 mm from each end of raceway.
- 59.4.5 Provide, for each computer station serviced by a raceway the following:
 - 59.4.5.1 A duplex receptacle complete with "hanging back box" and cover plate at 915 mm (36") on center
 - 59.4.5.2 A "device mounting bracket" at 915 mm (36") on center to accommodate a future data device (by others)
- 59.4.6 Catalogue numbers for the raceway, end caps, wired duplex receptacles and device mounting brackets are to a later detail, supplied by the Board's Information Technology Department.

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60. TYPICAL COMPUTER LOCATIONS

- 60.1.1 Administration/Guidance/Attendance:
- 60.1.1.1 Provide one TCP^L for each secretarial station.
 - 60.1.1.2 For Administration & Guidance secretarial areas also provide, in an appropriate location, one TCP^H for printer
 - 60.1.1.3 Provide two TCP^H above the counter in the Administration Workroom.
 - 60.1.1.4 In the Administration CCTV Room provide, a RCP^H above the full length of the counter.
 - 60.1.1.5 In the Attendance area, provide, in addition to one TCP^L for each secretarial station, one TCP^H centered onto the rear wall.
 - 60.1.1.6 In the Guidance Area – Career Counseling Room, provide RCP^L on at least one wall.
- 60.1.2 Principal's office, Vice Principals' offices and Guidance offices:
- 60.1.2.1 Provide two TCP^L one in each of the opposite corners of the office spaces in all of the above locations.
- 60.1.3 Librarian's Office, Chaplain's Office, Custodian & Plant Operator Offices, Caterer's office and other single person (no workstations) staff offices associated with academic spaces:
- 60.1.3.1 Provide one TCP^L in an appropriate corner of the office spaces in all of the above locations.
- 60.1.4 Instrumental/Band & Vocal Music Practise Rooms, Alternative Education Break-out Rooms, Student Waiting Area, Staff Copying Rooms, Student Council Room:
- 60.1.4.1 Provide one SCP^L in all of the above locations.
- 60.1.5 All Seminar Rooms, Special Education Withdrawal & Resource Rooms, and other rooms containing at least one whiteboard:
- 60.1.5.1 Provide one (1) TCPR and one (1) SCP^L on opposite wall.
 - 60.1.5.2 In designated Special Education Seminar Room(s) provide RCP^L along one wall. Discuss with the Design Department.
- 60.1.6 In the Staff Lounge, depending on the configuration provide two (2) SCP^L.
- 60.1.7 General Staff Workrooms, including Science and Gym Instructors' Area:
- 60.1.7.1 Workrooms with two or more staff members and the Network/Media Specialist work room, that are equipped with

typical work stations, provide an RCP^H. (Refer to *Millwork* section, this Guideline and Illustrative Sketches.)

- 60.1.8 Classrooms:
 - 60.1.8.1 At the rear wall of the classroom, 3,000± mm from window wall, provide one SCP^L.
 - 60.1.8.2 At front of room, provide one (1) TCPR.
 - 60.1.8.3 In Instrumental Music/Band and Drama Rooms provide, at appropriate location, only one TCP^L.
 - 60.1.8.4 Each half of the Alternative Education classroom is to be equipped with one (1) TCPR only.
 - 60.1.8.5 Otherwise noted in this summary, specialty classrooms are to be equipped the same as regular classrooms.

- 60.1.9 Vocal Music, Co-Op, Hospitality & Tourism Classroom, and Green Technology Laboratory:
 - 60.1.9.1 At front of room, provide one (1) TCPR.
 - 60.1.9.2 In addition, along one wall, provide, along one wall an RCP^L.

- 60.1.10 Planning for Independence:
 - 60.1.10.1 In an appropriate location, provide 2,450 mm (8ft.) long RCP^L.
 - 60.1.10.2 Next to the whiteboard location, provide one TCPR.

- 60.1.11 Computer Rooms:
 - 60.1.11.1 Along all three walls provide one RCP^L as per Illustrative Sketches.
 - 60.1.11.2 At appropriate location on the teaching wall, provide one TCPR.

- 60.1.12 Science Rooms:
 - 60.1.12.1 For computer connections in Science Laboratories refer to section on Science Room, this Guideline.

- 60.1.13 Library Resource Centre:
 - 60.1.13.1 Resource Centre Computer area provide RCP^L similar to Computer Rooms. Raceways are to be installed on knee walls.
 - 60.1.13.2 Provide one TCP^H for each secretarial station at the Library Charging Desk.
 - 60.1.13.3 Provide one TCP^H above counter in the Library Workroom.
 - 60.1.13.4 Provide SCP^L at copier location.

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- 60.1.14 Network Media Workroom:
- 60.1.14.1 Provide RCP^H above the full length of the counter.
- 60.1.15 Construction and Transportation Laboratories:
- 60.1.15.1 At appropriate location in the teaching area, provide one TCP^L.
 - 60.1.15.2 In the Technical Student Workroom, provide one TCP^L at the teaching wall and RCP^L on two walls.
- 60.1.16 Design Tech, Robotics, Communications, and Manufacturing Laboratories:
- 60.1.16.1 At the teaching wall provide one TCP^R.
 - 60.1.16.2 In appropriate locations, provide RCP^L in the teaching area. Confirm locations with the Design Department.
 - 60.1.16.3 Provide RCP^H above the full length of the counters in Control Room and Edit Rooms.
- 60.1.17 Student Matrix:
- 60.1.17.1 Provide, in appropriate locations two to four SCP^L. Review details with the Design Department.
- 60.1.18 Lecture Room:
- 60.1.18.1 At appropriate location, provide one TCP^L.
 - 60.1.18.2 At the rear of the Lecture Room, provide RCP^H the full length of the control counter.
- 60.1.19 Stage:
- 60.1.19.1 On the interior side wall of the stage, provide two SCP^L – one at each wing.
 - 60.1.19.2 Centered in the forestage apron provide a SCP^H.
- 60.1.20 Control Booth:
- 60.1.20.1 Provide RCP^H the full length of the control booth counter.
- 60.1.21 Chapel:
- 60.1.21.1 Provide three SCP^L – one each on opposite walls of the Chapel and one centered in the rise of the platform.

61. SERVER ROOM & HUB LOCATIONS

The size of the Computer Server Room is a maximum of 9.5 m² (100 sq. ft.). Size may vary, consult the Design Department.

61.1 SERVER ROOM

- 61.1.1 Do not locate Server Room below washrooms or below areas that may be prone to water leakage.
- 61.1.2 Preferably accessible only from the corridor, the room is to be centrally located on the main floor, so that the cable path to the furthest classroom/teaching HUB location is no greater than 90 m (300 ft.).
- 61.1.3 In a large secondary school facility, a sub-server room (LAN) on the second floor may be necessary to accommodate the cable paths.
- 61.1.4 Avoid ceiling in Server Room if possible.
- 61.1.5 The shortest unobstructed wall is to be 3,000 mm (10 ft.) to allow work space around the Network Equipment Cabinet. (NIC)
 - 61.1.5.1 For information, note that the Network Equipment Cabinet is to be centered on a rear wall, and be accessible from three sides and must have a minimum of 900 mm (3 ft.) clearance all around. (Cabinet is floor mounted, approximately 760 mm (30") square, 1,830 mm (6 ft. high.)
- 61.1.6 Provide one (1), @ 50 mm (2") sleeve between the Server Room and the first floor corridor cable tray.
- 61.1.7 Commencing at 1,000 mm from finished floor, install two quad (4 duplex on two 15 amp circuits) receptacles one above the other, 600 mm apart.
- 61.1.8 Add one (1) @ 50 mm riser between floors to service the upper floor HUB and or LAN locations.
 - 61.1.8.1 Preference is for the Telephone/Data cabling and fire alarm cabling to terminate in this room.
- 61.1.9 Make provision for a wall mounted telephone handset.
- 61.1.10 Provide ceiling mounted back box for paging speaker.

61.2 SERVER ROOM ENVIRONMENTAL REQUIREMENTS

- 61.2.1 Due to the heat created by the equipment, this room is to be air conditioned by means of a "ductless split system" fan coil unit c/w line set, controls OR by a small, designated heat pump, able to operate continuously regardless of the school plant system operation. (If in close proximity, this room may be environmentally coupled with the Surveillance Camera Monitoring Room.)

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- 61.2.1.1 If fan coil unit is designed, make provisions for a drain condensate line.

61.3 NETWORK SUB-CABINETS (HUBS)

- 61.3.1 Possible location of Computer Network Cabinet(s) (NIC) will be identified on the electrical drawings by Consultants. Review of locations will be conducted and finalized by the Board's Information Technology Department prior to tender. (Refer to Illustrative Sketches for size, locations, and typical installation method.)
 - 61.3.1.1 Locate a HUB in every Computer Room, Library, in the Technology Student Workroom and in academic areas with raceways on at least two walls. The HUBS for all other teaching spaces can be located in Academic Storage Rooms, Staff Copying Rooms, or in other service rooms generally inaccessible to students and academic staff.
 - 61.3.1.2 Do not locate HUBS in staff workrooms.
- 61.3.2 Provide one (1) 50 mm 2" sleeve between the corridor cable tray and the HUBS.
 - 61.3.2.1 Refer to power requirements for HUBS below.

61.4 POWER REQUIREMENTS FOR COMPUTER NETWORK CABINETS (HUBS)

- 61.4.1 Specify that Computer Network Cabinets shall be installed $50 \pm$ mm to the finished ceiling. All data cabling will be connected through the ceiling and through the top knockouts of each cabinet.
- 61.4.2 Above the ceiling, in close proximity to the probable location of the Computer Network Cabinet, detail, as part of the General Contract, a junction box.
- 61.4.3 Once the Computer Network Cabinet is in place, from the junction box above the ceiling, a 15 amp power connection with QUAD receptacle terminating in a back box shall be installed inside the Computer Network Cabinet by the DATA SUB-CONTRACTOR.

62. SYSTEMS

Note that the Fire Alarm System, the Clock System and the Emergency Lighting System are in Contract.

The Integrated Public Address/Telephone/Assistive Listening Systems and the Intrusion Alarm & Card Access are to be identified as a Cash Allowance, but some rough-ins as described herein are in the Contract.

The Audio/Visual System and Surveillance Camera System is supplied and installed by the school from its Furniture and Equipment budget, but some rough-ins as described herein are in the Contract.

62.1 FIRE ALARM

- 62.1.1 Provide, a fire alarm sounding device where required and locate it in a control panel if available.
- 62.1.2 Include, in contract, at all main corridor and stairwell exit pull stations, a tamper proof, clear "Lexan type" polycarbonate shield and frame, complete with battery powered alarm when lifted to activate pull station.
- 62.1.3 Locate fire horns/strobes on corridor walls that can be readily seen – not above sloped locker tops in corridors.
- 62.1.4 At the main vestibule, or in an area designated by the Fire Department, provide a "passive" graphic.
- 62.1.5 Refer to *Future Portable Locations* for fire alarm connections.

62.2 CLOCKS

This system is in Contract. Wireless clock system is not to be considered.

- 62.2.1 The system is to be synchronized to a master clock and be of digital technology. (Period changes are integrated into the PA/telephone system.)
- 62.2.2 Each teaching and staff area is to have a clock mounted on the wall or control panel.
- 62.2.3 Clocks in corridors are not required.
- 62.2.4 Digital clocks sizes and requirements are to be discussed with the Design Department.

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62.2.5 Provide protective plastic, or wire cage over clocks in Gymnasias.

62.2.6 For additions, and renovations match the existing clock system.

62.3 EMERGENCY LIGHTING

62.3.1 Generally, emergency lighting will be by means of battery packs. Preference is for Multi-head emergency fixtures, with batteries located in service areas.

62.3.2 In corridors, preference is for emergency fixtures to be incorporated into the ceiling grid rather than wall packs.

62.4 INTEGRATED PUBLIC ADDRESS/TELEPHONE

62.4.1 The integrated public address/telephone system is to be identified as a Cash Allowance in the Contract Documents - to be tendered after the General Contract Tender has been awarded. Wiring and devices are by Board selected separate contractor.

62.4.1.1 Period changes are signaled through this system – not through the clock system.

62.4.2 Apart from the Cash Allowance, the Contract must, however, include for all back boxes and conduits for the entire PA/Telephone-system.

62.4.2.1 The integrated system utilizes “plenum wire” so that conduits are to be installed only as necessary and as required.

62.4.3 The PA/telephone rack is to be located in an alcove space within the Administrative area.

62.4.4 In Contract, provide back boxes for exterior horns/speakers for paging and period tones at exterior locations. Traditionally, the location of the back boxes is to the side and back of the building overlooking the sports areas.

62.4.5 In Contract, provide back boxes for paging speakers are located in corridors, washrooms, change rooms, and mechanical spaces and as outlined in the individual areas.

62.4.6 In Contract, provide back boxes for paging speakers in all control panels as detailed in the Illustrative Sketches. (Telephone handsets are located in all classrooms, seminar rooms, offices, and various academic rooms throughout the school as identified in this Guideline.)

62.4.7 Refer to *Future Portable Locations* for PA/Telephone connections.

62.5 CAFETORIUM ASSISTIVE LISTENING

- 62.5.1 The Cafetorium Assistive Listening System is to be included in the Contract, as part of the PA/Telephone Cash Allowance – to be tendered after the General Contract tender has been awarded but back charged to the school's Furniture and Equipment Budget.
- 62.5.1.1 For information purposes, this wireless system generally includes personal receivers, complete with rechargeable batteries and headsets.

62.6 INTRUSION ALARM SYSTEM

- 62.6.1 Included in the Cash Allowance, this system is to be supplied and installed by a separate Sub-Contractor during the construction phase. The system will be tendered by the Consultants from a list of acceptable Sub-Contractors supplied by the Construction Department.
- 62.6.2 The General Contract is to include the following rough-ins:
- 62.6.2.1 Conduit in frames and masonry for all exterior door contactors
- 62.6.2.2 Rough-in for a key pad at the main/primary entrance vestibule and at the Custodian Receiving Area. Conduit is to terminate above the ceiling at a cable tray location.
- 62.6.2.3 Empty conduit with pull string between the Fire Alarm control panel, main security control panel and/or the telephone room back board
- 62.6.2.4 The Consultants are to review with Board's Construction and Security personnel the location of the rough-ins to be included in the Contract.
- 62.6.3 Unless otherwise noted, the system does not require additional rough-ins. The description below is for information purposes only, and is not to be assumed as a complete list:
- 62.6.3.1 All exterior doors are to have door contactors.
- 62.6.3.2 Ground and second floor corridors are to have sirens.
- 62.6.4 Motion/infrared detectors are to be located in the following areas:
- 62.6.4.1 Ground floor areas, accessible by windows/glass
- 62.6.4.2 Second floor areas that have windows accessible from the low roofs/canopies
- 62.6.4.3 Second floor corridors; ground floor corridors, and stairwells

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62.6.5 The Intrusion Alarm system is to control the following light fixture sequence:

Intrusion Alarm ACTIVE	All fixtures except vestibules <i>OFF</i>
Intrusion Alarm BREACHED	Corridor & stairwell fixtures <i>ON</i> & Sirens sound
Intrusion Alarm System OFF	The BMS controls corridor and stairwell fixtures

Vestibule fixtures are continuously ON.

62.7 CARD ACCESS SYSTEM

Also included in the Cash Allowance for the Intrusion Alarm System, this system is to be supplied and installed by a separate Sub-Contractor during the construction phase. The Sub-Contractor's name will be supplied by the Plant Department from a list of acceptable Sub-Contractors.

62.7.1 At two exterior locations - one at the main/primary entrance and the other at the exterior door closest to the staff parking lot provide a card reader. Card readers are to be affixed to the interior side of the exterior door.

62.7.1.1 Provide a flex conduit ^{c/w} pull string - in the centre mullion, or latch side of frame, 900 mm from finished floor, terminating at the closest point above the ceiling at the following locations:

62.7.2 The three interior locations to be equipped with card access are as follows:

Staff door to the Administration area
Main door to Guidance area
Staff Lounge Door

62.7.3 The installation of card access for the above identified interior and exterior doors is to be included in the Contract but back charged directly to the school's F & Equipment Budget.

62.7.4 Additional interior or exterior card access locations requested by the school shall be back charged directly to the school's Furniture and Equipment budget.

62.8 AUDIO-VISUAL/TELEVISION

62.8.1 Following completion of the building, the school's audio-visual/television system may be installed by the school, and charged to the school's Furniture and Equipment budget.

62.8.1.1 If wiring for the audio-visual television system is to be installed throughout the school, it should be by means of a plenum

(smoke and fire retardant) wire distributed via the corridor cable tray system.

- 62.8.2 As part of the Contract, provide an underground service from the street to a main distribution panel/point, preferably in the electrical room.
- 62.8.3 As part of the Contract, rough-in conduit to the closest cable tray to accommodate television monitors in the following areas:

Student Matrix
Library Resource Centre
Lecture Room
Cafetorium and Stage

62.9 SURVEILLANCE CAMERAS

This system is to be supplied and installed by a separate Sub-Contractor during the construction phase and paid directly by the school from its Furniture and Equipment budget.

- 62.9.1 The Sub-Contractor's name will be supplied by the Plant Department from a list of acceptable Sub-Contractors.
- 62.9.2 Other than the installation of a raceway and the rough-ins provided from the corridor to the Surveillance Camera Monitoring Room, no other rough-ins are required for this system.
 - 62.9.2.1 Where surveillance camera wiring runs exposed, the separate Sub-Contractor must provide as part of his/her work, conduits or raceways.

63. INTERIOR LIGHTING

The Consultants must review with the Design Department the design of 2 tube fixtures vs. 3 tube fixtures and the design of fixtures with or without reflectors for specialized or non standard areas not mentioned below.

63.1 GENERAL

- 63.1.1 All fluorescent tubes are to be 1,200 mm long without exception. Different lengths of tubes or different shapes of fluorescent tubes are NOT to be specified.
- 63.1.2 Generally, all tubes are to be T8. In high ceiling areas consideration may be given to installing T5 tubes. Review with the Design Department.

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- 63.1.3 With the exception of task lighting at the staff work stations, all exposed tubes shall have wire guards.
- 63.1.3.1 Any fixture with exposed tubes (with or without wire guard) shall be installed with safety sleeves.
- 63.1.4 Lenses are to be in a hinged frame on 600 mm x 1,200 mm (2 ft. x 4 ft.) and 300 mm x 1,200 mm (1 ft. x 4 ft.) for flush mounted fixtures.
- 63.1.4.1 Surface and ceiling mounted fixtures are to have wrap-around lenses.
- 63.1.5 Stairwell landings are to have wall mounted fixtures only.
- 63.1.6 Where three tube fixtures are specified – due to high ceilings - preference is for single ballast fixtures.

63.2 FIXTURES AND LENSES

For the types of lighting fixtures to be incorporated into new secondary schools, refer to the Design Department web site, *Technical Guidelines - Lighting Fixtures*.

- 63.2.1 Not every lighting situation is documented on the web site. Special or unique lighting circumstances must be identified by the Consultants at the working drawing stage, and reviewed with the Design Department.
- 63.2.2 In Secondary School additions, review fixture types with the Design Department at working drawing stage.

63.3 CIRCUITRY AND SWITCHING

- 63.3.1 Lighting should be 347 volt with 347 volt switches and dimmer controls. Switch plates are to be metal with 347 Volt stamping.
- 63.3.2 All classrooms, the majority of specialized teaching spaces, seminar rooms, and multi discipline staff workrooms will be on one circuit, controlled by a motion sensor.
- 63.3.2.1 Separate circuits to divide rows of light fixtures in areas are not required, EXCEPT, where science/classroom/staff areas are windowless. In windowless teaching spaces/staff areas provide one row of lights on one switch, the remaining rows on another switch.
- 63.3.3 Each gymnasium will be designed with multi-level lighting. Preference is for separate switching rather than dimming.

- 63.3.3.1 For each single gym, detail multi-level lighting to provide 30/60/90 foot candles. (Refer to *Lighting Fixtures and Circuitry & Switching – Secondary School* in the *Technical Guideline* on the web site.)
- 63.3.4 Specialized theatrical lighting for the Stage, Drama Room and TV Studio is, described in the *Performing Arts Guideline* on the Design Department web site.
- 63.3.5 In secondary school corridors, the lighting circuitry is to be as follows:
 - 63.3.5.1 A separate circuit(s) for ONE ceiling mounted fixture in each of the main ground vestibules. Fixtures to be continuously ON at night. Other separate corridor night lights are unnecessary.
 - 63.3.5.2 Separate circuit(s) for the remaining corridor fixtures, are to be controlled by the BM System, connected to the Intrusion Alarm System.
 - 63.3.5.3 For interconnection between the Intrusion Alarm System and the BM System, refer to *Intrusion Alarm System*, this Guideline.
- 63.3.6 Remote occupancy sensors are to be capable of being tied to, and controlled by, the Building Management System.
- 63.3.7 All classrooms, seminar rooms, and other teaching/staff areas that are normally controlled by manual switches, are to have fixtures on a remote occupancy sensor with a switch at control panel.
 - 63.3.7.1 Switch enables occupancy sensor and allows fixtures to come on only if room is occupied, or if occupancy sensor is not functioning. Fixtures are turned off by lack of motion or switch.
 - 63.3.7.2 Low voltage switches are unacceptable.
- 63.3.8 If budget permits, for teaching spaces only, consider providing two circuits per teaching space – one circuit to control, by means of a light sensor, a row of fixtures closest to windows, - the other circuit to control the remainder of the fixtures. (Review with Design Department before proposing this method of energy savings.)
- 63.3.9 Staff and Student Washrooms, Change Rooms and unisex barrier free washrooms:
 - 63.3.9.1 Fixtures are to be controlled by an Ultrasonic/Passive Infrared System tied to the corridor fixtures circuit. Key switches are unacceptable.
- 63.3.10 Academic & Custodian Storage rooms, Server Room, Mechanical and Service rooms & Closets:

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- 63.3.10.1 Occupancy sensors activate lighting when area is occupied – no switches.
- 63.3.11 Gymnasium:
 - 63.3.11.1 Fixtures and fans are controlled by an occupancy sensor in each Gym. Fixtures are controlled by switches in the Instructor's Room and controlled by the BM system.
- 63.3.12 Cafeteria:
 - 63.3.12.1 House fixtures are controlled by an occupancy sensor, overridden by switches at the stage and through the dimmer rack. Dimmable fixtures are controlled only through the dimmer rack. Fans are controlled by an occupancy sensor.
- 63.3.13 Control Booth
 - 63.3.13.1 House fixtures are controlled by a switch in the Control Booth. In addition, provide a number of dimmable pot lights controlled by a dimmer switch in the Control Booth and, if possible, by the dimmer board.
- 63.3.14 Lecture Room:
 - 63.3.14.1 House fixtures are controlled by an occupancy sensor, overridden by switches at the Drama Room and through the dimmer rack. Dimmable fixtures are controlled only through the dimmer rack.
- 63.3.15 Provide minimal dimmable pot lights at the control platform. Utility lighting shall be provided by a desk lamp.
- 63.3.16 Chapel:
 - 63.3.16.1 Dimmable fixtures are controlled by dimmer switches in the Chapel and controlled by the BM system. Fluorescent fixtures are switched.

64. MISCELLANEOUS

The interior & exterior signage, the exterior illuminated sign and the corner stone and plaque deal with new school projects. Review with the Design Department the specific details for additions.

64.1 INTERIOR VISUALLY IMPAIRED SIGNAGE

- 64.1.1 Only Braille *corridor* signage shall be by Cash Allowance in the Contract. Internal teaching areas' and administration signage – Braille or otherwise -

is to be supplied and installed from the school's Furniture and Equipment budget.

- 64.1.1.1 Signs for additions and renovations may match existing and may be included in the Contract.
- 64.1.2 Corridor Signage is to "visually impaired type" and is to include Braille. (Refer to the web site – *Technical Guidelines – Interior Corridor Signage* and Illustrative Sketches for details.)
- 64.1.3 Typically, each classroom shall have a classroom designation number (Classroom XXX) - 100 series on the ground floor and 200 series on the second floor.
- 64.1.4 All other signage such as "Mechanical Room" & "Storage Room" etc. shall be coordinated with the Construction Department at the appropriate time.
- 64.1.5 Student washroom signs shall have a universal male or female logo and the words MEN or WOMEN.
- 64.1.6 Staff washroom signs shall have universal male or female logo and the word STAFF.
- 64.1.7 Separate, unisex, barrier free washrooms are to have male & female universal logo with universal barrier free logo.

64.2 EXTERIOR SIGNAGE

- 64.2.1 The cross and all exterior signage (school and street number identification) and fire route, one way, no parking do not enter, stop etc., shall be in the Contract.
- 64.2.2 The Architect will obtain all the necessary approvals for the exterior school signage and the fire route signage from the appropriate Authorities Having Jurisdiction. All traffic signs shall be to Municipal or MOT standards.
- 64.2.3 Sign posts that may interfere with designated portable access route are required to be sleeved for easy removal and replacement.
- 64.2.4 Exterior signage, consisting of individual letters and numbers, shall include a "school sign" indicating the name of school, and the school's street number.
- 64.2.5 The school name will be of appropriate size and shall be of contrasting colour to its background in order to be clearly visible from the street.
 - 64.2.5.1 The school sign shall be on the front façade, close to the front entrance, a minimum of 2,450 mm (8 ft.) from grade.

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- 64.2.5.2 Preference is for lettering flush to the building face to prevent bird nests..
- 64.2.5.3 As a minimum, the name of the school shall be 300 mm (12") to 4,800 mm (16") in height, and the school's street number shall be 200 mm (8") to 300 mm (12") in height, (depending on elevation and distance from street). All letters are to be upper case, preferably "Helvetica."
- 64.2.6 The cross is to be located on the front façade of the building and be of appropriate size and contrasting colour to be clearly visible from the street and to identify the building as a Catholic School.
 - 64.2.6.1 The cross may be incorporated into building design, but it should be of a dissimilar material to the exterior wall face. No illumination is required.
 - 64.2.6.2 Detail horizontal cross sections with anti-bird perching.
- 64.2.7 Size and location of the cross is to be discussed with the Design Department at the design stage. Generally the ratio of the cross vertical is to be $\frac{1}{3}$ above the horizontal and $\frac{2}{3}$ below it.
- 64.2.8 Shop drawings for exterior signage and cross (indicating size, colour and style of lettering, and colour of background) are to be forwarded to the Construction Department for review and approval.

64.3 ILLUMINATED FREE STANDING EXTERIOR SIGN

- 64.3.1 Two (2) conduits are required from the Electrical Room or main Server Room to an appropriate location at the prominent side or front of the building. Review location with the Design Department.
 - 64.3.1.1 Illuminated sign is to be installed under a separate contract and is NIC, supplied and installed from the school's Furniture and Equipment budget.

64.4 CORNER STONE AND PLAQUE

- 64.4.1 As part of the Contract, a corner stone shall be incorporated in new schools. The corner stone shall be of size and location to the Architect's choice. The date shall be of the anticipated year of occupancy.
- 64.4.2 School plaque is supplied and installed by the Board.
- 64.4.3 On new school projects, consideration should be given to providing a time capsule, generally located in the masonry wall below the main display cabinet.

64.5 WASHROOM AND SINK ACCESSORIES

The Board has specific types of washroom accessories that are to be supplied and installed on all new projects and additions. Prior to establishing a budget for the project, review with the Design Department whether the washroom accessories are to be included in the Contract; or as a cash allowance: or not included in the Contract – supplied and installed by the Board. (Refer to the web site - Technical Guidelines - Washroom and Classroom Sink Accessories for details, makes and models.)

64.6 HARDWARE

64.6.1 Finish Hardware is to be tendered POST GENERAL TENDER. For details on the preparation and execution of Hardware Bids, refer to *Technical Guidelines – Finish Hardware*.

64.6.1.1 The final hardware specification review and approval of acceptable bidders and suppliers is the responsibility of the CONSTRUCTION DEPARTMENT.

64.6.2 For new schools, the Consultant is to include in the Contract Documents an appropriate Cash Allowance for Finish Hardware. Nevertheless, the Consultant should include a hardware specification “For Information Only” in the Contract Documents.

64.6.2.1 For additions and Renovations, Finish Hardware should be specified and included in the Contract Documents.

64.7 KEYING

64.7.1 All hardware requiring keying shall be installed with construction cores.

64.7.1.1 The cost of any lockset that is installed without a construction core or installed with a plastic construction core shall be deducted from the tendered cost.

64.7.2 On all new projects, door locksets must be compatible with the 7 pin “small format keyway” keying system. See Finish Hardware Guideline.

64.7.3 The supply and installation of construction cores, as well as permanent cores for all locksets is to be included in the Cash Allowance for Finish Hardware. The construction cores must not be plastic.

64.7.3.1 Locksets on corridor doors shall have a feature similar to "Vandalguard" style hardware.

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64.8 TYPICAL LOCKING SCHEDULE

- 64.8.1 Generally, the locking schedule for the production of cores is identified below. Depending on the program requirements this schedule may change.
- 64.8.2 Note that some exterior cores may be designated as N/A (not applicable). In these locations a dummy core is to be provided, assuming that a locking mechanism prepared to accept a core, has been or will be provided.
- 64.8.3 Exterior entrance points with a security keypad and card swipe will require a locking mechanism.

All General Classrooms	Physical Education Department
General Seminar Rooms	Resources Centre
Administration Area	Cafeteria
Principal/VP Offices	Kitchen, Servery/Hospitality
Guidance Area	Health and Personal Care Laboratory
Guidance Offices	Design Technology Laboratory
Co-op Area	Communication Technology
Alternative Education Areas	Health Care Laboratory
Alt. Ed. Offices	Construction Technology Laboratory
Staff Workrooms/Offices	Transportation Technology Laboratory
Chaplaincy Area	Robotics Laboratory
Student Council Room	Marketing Area and Tuck Shop
Special Education Department	Custodian Areas
Drama/Art Department	Mechanical Rooms
Science Department	Exterior Doors
All Computer Rooms	Rolling Padlocks
Server/LAN Rooms	

64.9 ROOF ACCESS

- 64.9.1 Preferably, roof access shall be by man door(s) from mechanical/custodial spaces directly onto the roof, and thence by external ladders to other roof elevations of no greater distance than ½ storey.
- 64.9.2 If direct roof access by man door(s) is not possible, then high roof access is to be achieved by a roof hatch.
- 64.9.2.1 If space permits, detail a metal access stair to roof with “normal stair access to elongated roof hatch”.
- 64.9.2.2 If space does not permit, detail a roof access which includes a ship's ladder, a mid-level platform, and a ladder to a roof hatch. (See illustrative Sketch for details.)

- 64.9.3 If no mechanical equipment is present on low roof, access shall be by manual ladder from ground.

64.10 WRITING AND DISPLAY SURFACES

- 64.10.1 Only whiteboards are to be detailed as writing surfaces in secondary schools.
- 64.10.1.1 Note that in order to accommodate the possible future installation of “smart boards” there is a requirement for a specific configuration of whiteboards at most “front of room” elevations with the center section of the whiteboard to be without a marker trough. (Refer to *Illustrative Sketches* for details and *Computer Requirements*, this Guideline.)
- 64.10.1.2 Tackboard strip at the top of the whiteboard is not to be installed.
- 64.10.1.3 Other than at shop locations sliding boards are not to be installed.
- 64.10.2 Heights of whiteboards/tackboards throughout new school projects will be mounted at 950 mm (37”) from finished floor.
- 64.10.2.1 Heights of whiteboards/tackboards in additions/ renovations shall match the heights of existing.

65. MILLWORK - ARCHITECTURAL CABINETS

Refer to the Technical Guideline – Architectural Cabinetry and/or Illustrative Sketches on the web site for description and details of this Guideline section.

65.1 GENERAL

- 65.1.1 Architectural Cabinetry (Millwork) is to be Melamine faced Particle Board, to AWMAC Standards, Custom Grade.
- 65.1.2 Generally, upper cupboards are to be detailed with two (2) adjustable shelves and lower cabinets with one (1) adjustable shelf.
- 65.1.2.1 Maximum shelf width is to be 900 mm (35 ½”)
- 65.1.2.2 Unless otherwise noted, thickness of shelves is to be 25 mm (1”) throughout.
- 65.1.3 With the exception of the hairdressing stations in the Hairstyling and Aesthetics Laboratory, most countertops shall be post formed.

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- 65.1.4 Refer to the Science area in this Guideline for information relating to counter tops

65.2 CONTROL PANELS

- 65.2.1 Refer to Illustrative Sketches for typical control panel details. Panels are included in Architectural Cabinetry. Pre-manufactured control panels are unacceptable.
- 65.2.2 Generally, control panels are located in all supervised teaching spaces, seminar rooms, staff workrooms and other areas as outlined in this Guideline.
- 65.2.3 The control panel is to be 500 mm (20") wide; 150 mm (6") from finished floor, tight to the finished ceiling.
- 65.2.3.1 It shall contain, from top to bottom, a fire alarm device; a surface or flush mounted digital synchronized clock; a 300 mm (12") square back box for a P.A. Speaker; a thermostat; space for a telephone/PA handset & light switch(es).
 - 65.2.3.2 The minimum inside depth of the control panel must be 125 mm (3") to accommodate the P.A. speaker back box.
 - 65.2.3.3 Refer to Science Area for inclusion of "smart board" or "Proxima" panel in the Control Panel.

65.3 TYPICAL MILLWORK STORAGE UNITS

Throughout the Guideline, millwork units such as upper and lower cabinets, counters of varying heights and other specialized millwork units are described and/or supplemented with Illustrative Sketches.

There are, however, two millwork storage units that are typical to a large number of teaching spaces are described below. Staff workstations noted below are applicable to locations with three or more staff members.

MILLWORK STORAGE UNIT A:

Installed in most classrooms, and other teaching/staff spaces as identified in the Guideline.

One (1) storage Unit A is to be installed in general classrooms. In other teaching area, more than one storage Unit A may be required, but no more than three (3) in total. (Review with the Design Department the number and type of storage units required for each teaching/staff space.)

- 65.3.1 The height of the unit is to equate to the top of the door frame, 900 mm (35½") wide, 600 mm (37½") deep with four (4) adjustable shelves on pilaster strips.
- 65.3.2 The unit is to have one or two doors – depending on the Architects' details.
- 65.3.2.1 If two doors then the doors shall be 25 mm (1") thick with four (4) hinges per door. The inactive leaf is to have top and bottom slide bolt. The active leaf is to be equipped with continuously locked (preferred) lever handled lockset with thumb turn on the inside. The lockset shall be keyed to the corridor door.
- 65.3.2.2 If one door, then the door shall be hollow wood door with melamine finish, with two hinges and a continuously locked (preferred) lever handled lockset with thumb turn on the inside. The lockset shall be keyed to the corridor door.
- 65.3.3 Pilaster strips, pilaster brackets slide bolts and hinges and associated hardware are to be supplied and installed as part of the millwork.

MILLWORK STORAGE UNIT B:

Installed in most Technology Laboratories (Shops) and used for storing of projects by students. Note that this unit may need to be customized to accommodate specific storage – i.e. Music Storage Units to accommodate sheet music.

- 65.3.4 The height of the unit is to equate to the top of the door frame, 900 mm (35½") wide, 600 mm (37½") deep with four (4) adjustable shelves on pilaster strips.
- 65.3.5 The unit is to be framed into four equal sections with four equal sized doors. Each pair of doors is to be 20 mm (¾") thick with two hinges. Both pairs of doors are to be equipped with a millwork locks.
- 65.3.6 Pilaster strips, pilaster brackets slide bolts, hinges, millwork locks and associated hardware are to be supplied and installed as part of the millwork.

65.4 STAFF WORKSTATIONS

Staff workstations are included in Contract but back charged to the School's F & E Budget. Architects are to establish a "Separate Price – to be added to the Contract – per workstation unit in case school wants to add additional work station units.

- 65.4.1 The workstations consist of a continuous counter, desk height @ 750 mm (2'-6") in height with solid sloped gables every 900 mm (35½") properly

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anchored to floor. The counter top is to be without a splashback to accommodate a raceway.

- 65.4.2 Above the counter, provide two fixed shelves with gable locations corresponding to the gables below the counter. Gables are to extend 300 mm (12") above the top shelf.
- 65.4.3 Provide a valence to accommodate task lighting. Fixtures are to be standard 48" long only, centered along the counter.

66. ROOM FINISHES & MATERIAL SELECTIONS

Room finishes and material selections are outlined as a starting point for discussion purposes with the Design Department. Depending on the budget, room finishes may need to be changed.

66.1 GENERAL

- 66.1.1 Reducing strips between dissimilar flooring materials are unacceptable. All flooring surfaces must be flush.
- 66.1.2 The only acceptable size of ceiling tiles throughout the school is 600 mm x 1,200 mm (2 ft. x 4 ft.). Generally, ceiling tile shall be of one pattern.

66.2 RESILIENT TILE AND BASE

- 66.2.1 Specify a maximum of four (4) VCT colours for the entire project. Solid colours are unacceptable.
- 66.2.2 Specify only cove rubber/vinyl bases of light or medium colour.
 - 66.2.2.1 Maximum of two (2) colours per project is to be specified.
- 66.2.3 Floors of Drama Room and the Communication Technology Lab are to be dark grey VCT. Floor at TV Studio is to be concrete, painted the colour of the cyclorama wall.
 - 66.2.3.1 (For details, refer to the TV Studio in the *Communications Area*, this Guideline.)
- 66.2.4 Tiles shall be 300 mm x 300 mm (12" x 12") VCT, spaced from both center axis so that borders are of uniform width with joints parallel to the long walls of rooms.
- 66.2.5 The tile "grain" shall run in long direction of room. Staggered joints are preferred.

- 66.2.6 Flooring shall be laid in full depth of all closets, toe spaces, etc. and shall fit tightly against fixtures, door jambs, built-in millwork and other vertical surfaces. Tile must be carried under the rubber cove base.

66.3 CERAMIC & MOSAIC TILES AND BASES

- 66.3.1 Specify ceramic tile to be smooth and “multi-coloured”. Solid colours are unacceptable. Review final selections with the Design Department.
- 66.3.1.1 Maximum of three (3) colours per project is to be specified.
 - 66.3.1.2 Specify only one (1) mosaic tile for floors and bases in shower locations.
- 66.3.2 Preference is for [300 mm x 300 mm (12” x 12”)] tile to be specified for corridors, vestibules, and washrooms throughout. Consideration of a larger tile (Matrix only) is to be reviewed with the Design Department prior to the preparation of Contract Documents.
- 66.3.3 To assist visually impaired, if possible and practical, distinct colour of floor materials should be designed at perimeter of corridors to reinforce the location of key elements within the corridor.
- 66.3.3.1 Design floor to include random patterns to avoid long joint lines.
 - 66.3.3.2 Specify ceramic tile at the base of all lockers.

66.4 STAIRWELL FLOORING MATERIALS

- 66.4.1 Specify only one (1) colour selection of rubber material in a "marbleized" or a “speckled” pattern for landing and stairs.
- 66.4.1.1 The material thickness of both is to be a minimum of 5.0 mm.
 - 66.4.1.2 Treads are to include a yellow, visually impaired strip.
- 66.4.2 The tread that defines the edge of both upper & mid landings is to be identical to the other stair treads.
- 66.4.3 The rubber tread/riser with "rondels" and contrasting, visually impaired strip at the edge is to be specified for each tread.
- 66.4.3.1 The combination tread/riser must be one piece.
 - 66.4.3.2 The material of the tread/riser must be the full width of the stair. Caulk joints at stringers.
- 66.4.4 Specify for upper & mid landing “hammered finish” rubber tiles (approximately 600 x 600).

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- 66.4.5 Ground floor is to be ceramic tile and base.
- 66.4.6 Vinyl handrail colour is to be selected from standard colour palettes. Hollow metal painted, stainless steel or wood handrails are unacceptable.
 - 66.4.6.1 Stairwell pickets are to be of the same colour tone as the H. M. doors/frames.

66.5 SYNTHETIC AND RUBBER FLOORING

- 66.5.1 Specify only one (1) multi-coloured or speckled pattern selection of synthetic flooring for the PIP Area.
- 66.5.2 Specify only one (1) multi-coloured or speckled pattern selection of rubber (sports) impact flooring for the Exercise Room.
 - 66.5.2.1 Depending on the manufacturer/supplier, the thickness of material should be a minimum of 10.0 mm designed for weight equipment. Interlocking tiles are unacceptable.
- 66.5.3 Specify only one (1) multi-colour or speckled pattern selection of synthetic safety flooring for the School Kitchen, Chemical Mixing/Storage Room and Greenhouse.
 - 66.5.3.1 Depending on the manufacturer/supplier, the thickness of material should be between 2.2 mm to 2.5 mm.
 - 66.5.3.2 The cove base is to be integral with the flooring material.

66.6 WOOD FLOORING

- 66.6.1 Wood floor of stage is to be *stained* black or dark grey. Corresponding walls and ceiling are to be painted black or dark grey.
- 66.6.2 Wood floors of the Cafeteria forestage and stairs, Chapel Altar, Gymnasia, and the Dance Studio are to be natural stain and varnish.
 - 66.6.2.1 Court games lines are to be painted. Main basketball keys will have a darker stain. (For standard colour of game lines refer to *Gymnasia*, this Guideline.)
 - 66.6.2.2 School logo is to be painted in the center circle of the Main Basketball Court. Cost of logo is from Cash Allowance for Signage.

66.7 CARPET

- 66.7.1 All carpet is to be “direct glue down” without under-pad. Carpet tiles are unacceptable.
- 66.7.2 Carpet is to be installed prior to any base material. Install only cove base. Do not specify carpet base. Solid colours of carpets are unacceptable.

66.8 MILLWORK AND PLASTIC LAMINATES

- 66.8.1 With the exception of the Science Preparation Room, solid colour plastic laminates are not to be specified. Plastic laminate on the counters of the Science preparation room is to be black, acid/flame resistant material.
 - 66.8.1.1 Maximum of four (4) colours of plastic laminates per project will be allowed.
- 66.8.2 Melamine finish for millwork shall ONLY be “Hard Rock Maple” – both sides.
- 66.8.3 For sake of continuity, control panel fronts should be the same plastic laminate colour throughout the project, regardless of the colour of the counter tops.

66.9 ACID/FLAME PROOF COUNTER TOPS

- 66.9.1 Solid, black epoxy material specifically manufactured for science room counters. For locations, refer to Science room Area, this Guideline.

66.10 WASHROOM AND TOILET PARTITIONS

- 66.10.1 For student toilet partitions, specify only floor mounted, phenolic core with plastic laminate both sides, $\frac{c}{w}$ vandal resistant edging.
 - 66.10.1.1 Specify a textured/stippled plastic laminate finish that is tactile unfriendly for the washroom partitions. *For preparation of Contract Documents, confirm the standard colour selection with Design Department.*
- 66.10.2 For student showers specify only floor mounted solid phenolic partitions without plastic laminate finish.
 - 66.10.2.1 For group showers, masonry shower partitions are unacceptable.

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- 66.10.3 For staff washrooms floor mounted metal toilet partitions are acceptable.
 - 66.10.3.1 Provide a stainless steel panel on metal toilet partitions if next to urinals.

66.11 PAINT

- 66.11.1 Paint colours are limited to a maximum fifteen (15) colours.
- 66.11.2 A maximum of two (2) wall colours may be considered per teaching area.
 - 66.11.2.1 Field wall colour is to be of a light tone.
 - 66.11.2.2 Wall banding (graphics) in corridors and teaching spaces is unacceptable.
 - 66.11.2.3 Any floor and wall graphics are to be supplied and installed under the school's Furniture and Equipment budget. Such graphics must be approved the Design Department.
- 66.11.3 For sake of continuity, interior doors are to be of the same colour throughout. Select colour of a medium range.
 - 66.11.3.1 If considered, door frame and screen colour should be two tones darker than the doors.
- 66.11.4 Exterior door colour may match interior door colour, or compliment the exterior masonry.
- 66.11.5 Specify that unsupervised areas including Gymnasia (dado height) and corridors, stairwells, washrooms, change rooms are to be painted with 2 part water based semi-gloss or high-gloss epoxy paint.
 - 66.11.5.1 Specify two [2] coats over a primer & block filler.
- 66.11.6 Painting of mechanical piping should be included in the painting section of the specifications.
 - 66.11.6.1 Directional flow arrows and banding are to be by Mechanical division.
- 66.11.7 If walls are indicated as "unpainted" in the *Room Finish Schedule* below, specify an application of block filler.

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Design Criteria and Fitments

66.12 ROOM FINISH SCHEDULE AND LEGEND

AREA	FLOOR	BASE	CEILING	WALL	FIN	REMARKS
ADMINISTRATION						
Principal's Office	VCT	R	LAT	BL	P	
V-Principals' Offices	VCT	R	LAT	BL	P	
General Office	VCT	R	LAT	BL	P	
Visitors' Waiting	VCT	R	LAT	BL	P	
Students' Waiting	VCT	R	LAT	BL	P	
Attendance Area	VCT	R	LAT	BL	P	
Surveillance Rm.	VCT	R	LAT	BL	P	
Workroom/Storage	VCT	R	LAT	BL	P	
Staff Mail Room	VCT	R	LAT	BL	P	
Secure Area	VCT	R	LAT	BL	P	
Seminar Room	VCT	R	LAT	BL	P	
HEALTH AREA						
Treatment/Sick Bays	VCT	R	LAT	BL	P	
Health Rm./washrm.	CT	CT	LAT	BL	SP	
GUIDANCE AREA						
Guidance Info. Centre	VCT	R	LAT	BL	P	
Career Counseling	VCT	R	LAT	BL	P	
Counseling Offices	VCT	R	LAT	BL	P	
OSR Storage	VCT	R	LAT	BL	P	
Storage/Copying Rm.	VCT	R	LAT	BL	P	
CO-OP CAREERS						
Co-Op Classroom	VCT	R	LAT	BL	P	
Co-Op Office	VCT	R	LAT	BL	P	
ALTERNATE ED.						
Vestibule	CT	CT	GB	BL	P	
Commons/Corridor	VCT	R	LAT	BL	P	
Alt. Ed. Classroom	VCT	R	LAT	BL	P	
Break-out Rooms	VCT	R	LAT	BL	P	
Alt. Ed. Offices	VCT	R	LAT	BL	P	
Washroom	CT	CT	LAT	BL	SP	
STAFF AREAS						
Staff Workrooms	VCT	R	LAT	BL	P	
Staff Lounge	VCT	R	LAT	BL	P	
Staff Copying Rms.	VCT	R	LAT	BL	P	

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Design Criteria and Fitments

AREA	FLOOR	BASE	CEILING	WALL	FIN	REMARKS
CHAPEL AREA						
Chapel	CAR/W	W	ST	ST	ST	
Chaplain's Office	VCT	R	LAT	BL	P	
Vestry	VCT	R	LAT	BL	P	
CLASSROOMS						
Seminar Rooms	VCT	R	LAT	BL	P	
Resource Rooms.	VCT	R	LAT	BL	P	
COMPUTER LABS						
LIBRARY RES.						
Library	VCT	R	LAT	BL	P	
Library Workroom	VCT	R	LAT	BL	P	
Librarians' Office	VCT	R	LAT	BL	P	
Seminar Rooms	VCT	R	LAT	BL	P	
Media Specialist	VCT	R	LAT	BL	P	
AV Storage	VCT	R	LAT	BL	P	
PHYSICAL ED.						
Gymnasia	WSF	W or A	ESP**	BL*	SP(d) P	BL* Sound Block ** Accoustic Deck
Exercise Room	SIF	R	LAT*	BL	P	* Option is ESP
Dance Studio	WSF	W or A	LAT	BL	P/M	
Change Rooms	VCT/CT	R/CT	GB	BL	SP	VCT -TBD
Student Showers	MT	MT	GB	BL	SP	
Ext. Gym Strg. Rm.	C/S	R	ESP*	BL	P	* Option is LAT
Int. Gym Strg. Rms.	VCT	R	GB	BL	P	
Uniform Storage	VCT	R	LAT	BL	P	
Instructors' Area	VCT	R	LAT	BL	P	
Instructor's Change	VCT	R	LAT	BL	P	
Instructor's Shower	MT	MT	GB	BL	SP	
CAFETORIUM						
Cafetorium (Floor TBD)	CT	CT	LAT**	BL*	SP(d) & P	*Sound attenuation ** Partial exposed
Stage	WD	WD	ESP	BL	P	
Control Room	VCT	R	LAT	BL	P	
Custodian Rm.	C/S	R	LAT	BL	SP	

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AREA	FLOOR	BASE	CEILING	WALL	FIN	REMARKS
ART AREA						
Art Room	VCT	R	LAT	BL	P	
Art Storage Rm.	VCT	R	LAT	BL	P	
Kiln Room	VCT	R	GB	BL	P	
Dark Room	NSF	R	LAT	BL	P	Program Approval
MUSIC AREA						
Instrumental Music	VCT/ CAR	R	GB/ LAT	BL*	P	* Sound Attenuation
Music Practise Rms.	CAR	R	GB	BL*	P	* Sound Attenuation
Music Office/Storage	VCT	R	LAT	BL	P	
Vocal Music Room	VCT	R	LAT	BL*	P	* Sound Attenuation
Band Room (floor TBD)	SSF	R	GB/ LAT	BL*	P	* Sound Attenuation
Band Practise Rooms	SSF	R	GB	BL*	P	* Sound Attenuation
Band Storage Room	VCT	R	LAT	BL	P	
THEATRICAL AREA						
Drama Room	VCT	R	ESP	BL	P	Floor dark grey
Dressing Rooms	VCT	R	LAT	BL	P	
Drama Workroom	VCT	R	LAT	BL	P	
Lecture Room	VCT	R	LAT**	BL*	P	** Partially exposed
SCIENCE AREA						
Science Labs	VCT	R	LAT	BL	P	
Greenhouse	NSF	NSF	ES	BL	P	
Science Prep. Rm.	VCT	R	LAT	BL	P	
Chemical Prep. Rm.	NSF	NSF	LAT	BL	SP	
MARKETING						
Marketing/Merchandizing	VCT	R	LAT	BL	P	
Storage Room	VCT	R	LAT	BL	P	
Display Area (Floor TBD)	WD/CAR	WD	ES*	SWF		* Special ceiling grid
Tuck shop	VCT	R	LAT	BL	P	
SPECIAL ED. AREA						
Withdrawal Room.	VCT	R	LAT	BL	P	
Office	VCT	R	LAT	BL	P	
PIP AREA						
PIP Room	SSF	R	LAT	BL	P	
Kitchen	SSF	R	LAT	BL	P	
PIP Washroom	CT	CT	GB	BL	P	
PIP Shower	MT	MT	GB	BL*	SP	* Option wall tile

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AREA	FLOOR	BASE	CEILING	WALL	FIN	REMARKS
Time Out Room	SSF	R	LAT	BL	P	
Observe/Resources	VCT	R	LAT	BL	P	
Storage Room	VCT	R	LAT	BL	P	
PIP Office	VCT	R	LAT	BL	P	
Sensory Room (½ floor depressed)	SSF	R	LAT/ESP ESP @ rail	BL	P	SSF on floor & sides of depression
COMMUNICATIONS						
Comm. Tech. Lab	VCT	R	LAT	BL	P	
Edit Suites	VCT	R	LAT	BL	P	
TV Studio	CP(to match*)	R	ESP	BL/GB*	P	*Cyclorama
Workroom	VCT	R	LAT	BL	P	
TECHNOLOGY						
Tech. Student Workrm.	VCT	R	LAT	BL	P	
Tech. Staff Workroom	VCT	R	LAT	BL	PCT(d)	
Manufacturing Lab	C/S	R	LAT/ESP	BL	P	Acoustic
Transportation Lab	C/S	R	LAT/ESP	BL	P	Acoustic Deck
Design Tech. Lab	VCT	R	LAT	BL	P	
Special Care Lab	VCT	R	LAT	BL	P	
HOSPITALITY/TOURISM						
Kitchen	NSF	NSF	SLAT	BL/SS	SP	SS Wall treatment
Servery	CT	CT	SLAT	BL	P	
Kitchen Offices	VCT	R	LAT	BL	P	
Kitchen Storage	VCT	R	LAT	BL	P	
Lunch/Presentation	VCT	R	LAT	BL	P	
HEALTH/PERSONAL						
Hairstyling/Aesthetics	VCT	R	LAT	BL	P	
Office	VCT	R	LAT	BL	P	
Health Classroom	VCT	R	LAT	BL	P	
CUSTODIAL						
Lunch Room	VCT	R	LAT	BL	P	
Change Rooms	VCT	R	LAT	BL	P	
Showers	MT	MT	GB	BL	SP	
Head Custodian	VCT	R	LAT	BL	P	
Plant Operator's Office	VCT	R	LAT	BL	P	
Main Storage	C/S	R	ES	BL	P	
Receiving Area	C/S	R	ES	BL	P	
Recycling/Trash	C/S	-	ES	BL	-	
STORAGE ROOMS						
Academic	VCT	R	LAT	BL	P	

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AREA	FLOOR	BASE	CEILING	WALL	FIN	REMARKS
Custodial	VCT	R	LAT	BL	P	
SERVICE AREAS						
Custodial Service	C/S	R	GB	BL	SP	
Server Room	VCT	R	ES	BL	P	
Exterior Service	C/S	-	ES	BL	-	
Sprinkler Room	C/S	-	ES	BL	-	
Electrical Rooms	C/S	-	ES	BL	-	
WASHROOMS						
Student	CT	CT	GB	BL	SP	
Staff	VCT	R	LAT	BL	SP	
Phys. Challenged	CT	CT	GB	BL	SP	
MECHANICAL						
Mech./Boiler Rms.	C/S*	-	ES	BL	P	* Waterproofing
Mechanical Service	C/S	-	ES	BL	-	
Heat Pump Closets	C/S	-	ES	BL	-	
CIRCULATION						
Matrix (Floor TBD)	CT	CT	ESP/ GB	BL/ST	SP(d)	
1 ST Floor corridor	CT	CT	LAT	BL	SP	
2 nd Floor Corridor	CT	CT	LAT	BL	SP	(Floor TBD)
3 rd Floor Corridor	CT	CT	LAT	BL	SP	(Floor TBD)
Stairwells	CT/RB	CT/R	GB	BL	SP	

LEGEND

LAT	Lay-in acoustic tile	P	Paint
SLAT	Special lay-in acoustic tile	SP	Special epoxy paint
CT	Ceramic tile	SP (d)	Epoxy paint to dado height
MT	Mosaic tile	ESP	Exposed structure, painted
BL	Concrete block	ES	Exposed structure
CAR	Carpet	VCT	Vinyl composite tile
W	Wood Floor & Wood Base	SF	Sports flooring
A	Aluminum	SWF	Special wall finish
WSF	Wood Sprung Floor	SIF	"Sports impact floor
R	Cove Base	NSF	Non skid sheet floor
RB	Rubber	C/S	Concrete sealed
ST	Special treatment	SS	Stainless steel
GB	Gypsum Board	CP	Concrete painted
SSF	Synthetic Sheet Flooring		

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67. EXTERIOR SERVICES

Refer to the Technical Guideline – Field Irrigation System and Top Soil, Fine Grading & Sodding on the web site and/or Illustrative Sketches for description and details of this Guideline section.

67.1 GENERAL

- 67.1.1 Provide one private hydrant for future portables and within the appropriate distance to the Siamese connection as dictated by the Authorities Having Jurisdiction.
 - 67.1.1.1 Location of fire hydrant and water lines must be designed so as not to interfere with a possible permanent addition.
- 67.1.2 Supply and install a steel wire cage enclosure around gas meter. (Refer to Illustrative Sketch for details.)
 - 67.1.2.1 Do not locate gas meters along single storey walls.
 - 67.1.2.2 Avoid gas lines running on the exterior walls of buildings.

67.2 FIBRE OPTICS

- 67.2.1 In addition to the normal services such as gas, water, and hydro, install 100 mm (4") diameter high density polyethylene conduit] with pull rope in place and terminate in hand-well at property line.
 - 67.2.1.1 Install the hand-well flush with grade, 900 mm x 600 mm x 600 mm (3 ft. x 2 ft. wide x 2 ft.) deep with lockable poly-concrete lid.
 - 67.2.1.2 The installation of the fibre optics wiring is part of the computer networking system – NIC
- 67.2.2 Terminate conduit in the electrical room to the plywood backboard.
 - 67.2.2.1 Allow 600 mm x 1,200 mm (2 ft. x 4 ft.) available space for equipment.

67.3 LANDSCAPING

- 67.3.1 Provide landscaping to minimum standards of the Municipality in which the school is located.
 - 67.3.1.1 Prior to initial site plan submission, landscape design must be vetted by the Design Department.

- 67.3.2 Ascertain whether the boulevards along the school property lines are completed by the Developer.
 - 67.3.2.1 If these areas are developed during or prior to construction specify that such works must be protected and maintained.
 - 67.3.2.2 If these areas are not sodded by the developer, then specify the sodding and landscaping from the property line to the road curb in Contract.
- 67.3.3 If the school population is relocated for the duration of the project, specify that all sodded areas, including those at the boulevard are to be maintained in the Contract.
- 67.3.4 Avoid unnecessary relocation of existing utilities whenever possible.
 - 67.3.4.1 If necessary, however, make certain that any relocation of trees, light standards, mail boxes etc. on the median strip are included in the Contract.
- 67.3.5 Only sodding is acceptable.
- 67.3.6 Planting beds are to be kept to an absolute minimum since they are prone to vandalism and are difficult to maintain.
- 67.3.7 If planting beds must be designed as mandated by the Municipality, and if located within a hard surface area, provide a curb enclosure. Avoid the use of grates and provide weepers to roots of trees.
 - 67.3.7.1 Detail curbs enclosures to prevent skateboarding.
 - 67.3.7.2 Rolled curbs are acceptable for planter bed enclosures.
- 67.3.8 Raised islands for planting beds (with skateboarding protection) in excess of 400 mm (16”) in height for trees and shrubs are unacceptable.
- 67.3.9 Avoid designing small sodded areas.
- 67.3.10 As a safety concern, do not place berms, bushes, or vegetation at vehicular driveways of a type that could interfere with sight lines.

67.4 FIELD IRRIGATION, GRADING AND DRAINAGE

- 67.4.1 Provide, in Contract, a Field Irrigation System for the area within the track.
 - 67.4.1.1 Field Irrigation for landscaping other than as identified in the *Technical Guidelines* will be installed only at the school's cost.
 - 67.4.1.2 Secondary or practise sports fields are not to be field irrigated.

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- 67.4.2 Along the front of the school, and for landscaped zones along the sides provide appropriate hose bibbs, installed in flush, lockable brass boxes.
- 67.4.3 Regardless of the current water pressure at the site, the design must include the supply and installation of a booster pump.
- 67.4.4 Irrigation controls are to be located in the closest exterior service room.
- 67.4.5 Any change of grade that is steeper than the maximum allowed for grass cutting is UNACCEPTABLE.
- 67.4.6 Whenever possible, grade changes are to occur along the site perimeter, not within the site.
- 67.4.7 All site drainage is to be self contained. Ensure positive drainage.
 - 67.4.7.1 Provide weeping tiles along center lines of bottom of swales as required.
 - 67.4.7.2 Whenever possible, install CB/manholes rather than individual units. Do not install CB's in close proximity to sports fields.

67.5 OLS VERIFICATION PRIOR TO SODDING

- 67.5.1 Consultant shall specify that prior to sodding the General Contractor must employ an OLS to verify that design grades have been met.
 - 67.5.1.1 Refer also to *Top Soil, Fine Grading & Sodding* in the Technical Guidelines.

67.6 FENCING

- 67.6.1 Unless directed otherwise by the Authorities Having Jurisdiction, and unless installed by the Developer, provide, in the Contract, 1,830 mm (6 ft.) high, galvanized, chain link fencing along residential properties.
 - 67.6.1.1 Location of additional fencing is to be reviewed with the Design Department.
- 67.6.2 Perimeter chain link fence must be black vinyl, 50mm x 50 mm (2" x 2") mesh size with 6 gauge material and top and bottom rail. All rails and fence posts must be polyester powder coated to match
- 67.6.3 Fence posts that may interfere with designated portable access route are required to be sleeved for easy removal and replacement.
- 67.6.4 Other than perimeter fence, keep safety fencing a minimum of 2,000 from parking lot curbs.

67.6.5 Designate and identify snow storage areas for parking lots.

67.7 BICYCLE RACKS

67.7.1 Provide a paved area for bicycle racks. Cost of bicycle racks are to be identified and back charged to the school's Furniture and Equipment budget.

67.7.2 Confirm final location of bicycle rack area with the Construction Department and Principal designate.

67.7.3 Bicycle racks are to be "wave type" (Rolling Rack) to accommodate a maximum of 50 bicycles.

67.7.3.1 Wave type bicycle rack end legs must be specified with a flange bolted to concrete caissons. The concrete caissons are to be of appropriate depth to prevent frost heaving. (Refer to Illustrative Sketches)

67.8 BOLLARDS

67.8.1 Provide bollards as required by the Authorities Having Jurisdiction.

67.8.2 As a minimum, locate bollards to protect the gas meter, exterior corners of all overhead doors and waste oil storage tank.

67.8.3 Refer to Transportation Technology Lab for location of interior bollards.

67.8.4 Bollards are to be concrete filled.

67.9 FLAGPOLE

67.9.1 Provide ONE (1) free standing, hinged, flagpole with internal halyard.

67.9.2 Preference is for the flagpole pivot point to be approximately 900 mm (3 ft.) above grade.

67.10 SANITATION STORAGE AND COLLECTION

67.10.1 Trash and recycling bins will be stored inside the building. Refer to *Custodial Service Areas* in this Guideline for details of the interior garbage room.

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- 67.10.2 Access and egress for the front end loading sanitation truck must be clearly defined on the drawings. Make certain that OH doors are wide and high enough to enable the truck passage thru the door to pick up and replace the empty bin.

67.11 EXTERIOR LIGHTING

- 67.11.1 It is preferred to have fewer light standards with multiple heads.
- 67.11.2 Exterior lighting fixtures should be metal halide, or compact fluorescent.
- 67.11.3 Design adequate security lighting around the perimeter of the building, located on the walls as high as possible.
- 67.11.4 Use of short light poles, lights that illuminate the school sign only, or lights installed at grade level to illuminate the building, are not acceptable.
- 67.11.5 Each light standard, regardless of location, must be mounted on a minimum of 760 mm (30") concrete base. The Design Department must approve any exceptions to this requirement.
- 67.11.6 Light standards must be a minimum of 6,100 mm (20 ft.) but not exceed 9,100 mm (30 ft.) in height and illumination must not interfere with neighbouring properties.
- 67.11.7 If required, locate light standards 600 mm (2 ft.) from edge of parking.
- 67.11.8 Light standards and heads are to be anodized aluminum with connection access at the base.
- 67.11.8.1 Do not specify "decorative" heads or globes.

67.12 WALKWAYS AND PAVING

- 67.12.1 Along driveways and parking lots, provide walkways and separate these from vehicular traffic. Generally, walkways are to be a minimum of 2,400 mm (8 ft.) wide.
- 67.12.1.1 Walkways that are installed next to parking lot curbs should be designed to accommodate car overhangs.
- 67.12.1.2 It is preferred to have a walkway installed around the parking lots from the sidewalk to the main entrances rather than crossing driveways.
- 67.12.2 Walkways should never be at right angles; rather, design for logical, pedestrian traffic pattern and splay at each intersection.

- 67.12.3 Design new walkways to link with neighbourhood walkways.
- 67.12.4 Design poured-in-place concrete walkways only as per requirements to the Authorities Having Jurisdiction. Continuation of walkways and other pathways shall be in MEDIUM DUTY asphalt as a minimum.
- 67.12.5 Lockstone pavers or other similar materials for walkways or other hard surfaces anywhere on the site are unacceptable.
 - 67.12.5.1 The use of these materials across driveways or parking lots is unacceptable. Pathways across driveways should be designated by painted cross-hatching only.
- 67.12.6 Concrete sidewalks and curbs are to be to a "Board standard" monolithic design detail. (Refer to Illustrative Sketches)
- 67.12.7 With the exception of some service room doors ensure that all exterior doors have ramps for physically challenged access.
- 67.12.8 Detail curb cuts at all walkways crossing internal driveways for physically challenged use.
- 67.12.9 Provide walkways from the exterior Gymnasium door and exterior sports storage room to the track and field.
- 67.12.10 Paved surfaces are required for vehicular access to the Exterior Service Room, and all overhead doors.
 - 67.12.10.1 Detail a concrete pad in front of the overhead doors to the Garbage/Recycling Room.
- 67.12.11 Paved areas shall be heavy duty for fire routes, parking lots, driveways, and bus loading zones, light duty for walkways, and other areas. (Refer to *Technical Guideline* for base and asphalt thicknesses.)
- 67.12.12 Transition between edge of asphalt surfaces and sodded areas is to be designed to prevent erosion. (Refer to Illustrative Sketches.)
- 67.12.13 All catch basins shall be flush with paved surfaces.

67.13 VEHICULAR AND PARKING DESIGN

- 67.13.1 Design a minimum of two paved entrances/exits. As a requirement of the Municipality, entrances/exits may have to be located opposite perpendicular streets if at all possible.

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- 67.13.2 Provide a bus-loading zone for a minimum of five buses and three physically challenged buses. Additional bus loading zones may be determined at design stage.
 - 67.13.2.1 The physically challenged loading zone should be separate from the main bus loading zone and in close proximity to the exterior entrance to the PIP.
 - 67.13.2.2 The bus-loading zone should be designed in such a way that passengers' crossing any vehicular line of traffic is minimized.
 - 67.13.2.3 In addition to the bus-loading zone, provide, a visitors' parking area in close proximity to the main entrance.

67.14 PARKING

- 67.14.1 The Consultants should note that each of the Municipalities within the Dufferin-Peel District have varying regulations and by-laws with respect to parking requirements. These mandated regulations are to be followed and identified precisely on the plans submitted for Site Plan Approval.
 - 67.14.1.1 Discuss with Authorities Having Jurisdiction options for reducing minimum zoning parking ratio.
- 67.14.2 *Do not locate handicapped spaces at ends of parking rows.*
- 67.14.3 Identify fire routes within the parking lot and perimeter driveways rather than designing separate fire routes.
- 67.14.4 Include in Contract asphalt calming strips (speed bumps) in appropriate driveway locations. Make certain the speed bumps do not interfere with drainage.
- 67.14.5 Locate parking lots to minimize the impact on the building. Separate the parking lots into two distinct zones – one for staff, one for students.
 - 67.14.5.1 Locate the student parking to allow supervision by staff from the building.
 - 67.14.5.2 Passage of students through the staff parking lot must be avoided.
- 67.14.6 If parking lots are in close proximity to residential properties, consideration should be given to the installation of a gate to restrict access during off hours. (See Illustrative Sketches for *Swing Steel Gate* detail)
- 67.14.7 Unless the Authorities Having Jurisdiction mandate otherwise, preference is for painted hatched designation of parking lot islands. Review with Design Department.

- 67.14.7.1 If raised, curbed islands are mandated, the Board's preference is for hard surface rather than landscaping.

67.15 PAVEMENT MARKINGS

- 67.15.1 Provide, in contract, the painting of all parking lot stalls, islands, "no parking" zones, directional arrows, bus loading zones, lane markings, traffic stops, handicapped logos, and pedestrian lanes. Refer to Illustrative Sketches.
- 67.15.2 Paint applied to asphalt surface is to be MOT standard quality. Product Identifier is CONING YELLOW or CONING WHITE traffic paint.
 - 67.15.2.1 Specify that the paint is to be pressure type mobile application for asphalt surfaces.

68. FUTURE PORTABLE LOCATIONS

- 68.1.1 Plan for a maximum of twelve portables or as directed by the Design Department.
- 68.1.2 In order to meet all fire code and accessibility requirements, identify on the site plan, an area for portable location.
- 68.1.3 Avoid locating the field irrigation and crossing connecting lines in the possible portable area.
- 68.1.4 Design the capacity of the fire alarm and P.A./Telephone to include for the maximum number of portables. Portables are to be on separate zones.
- 68.1.5 Provide underground connection, terminated in a flush box for hookup of PA/Telephone, fire alarm, computer wiring etc. For typical *Grade Level Box for Portable Conduit Connection*, refer to Illustrative Sketches.
- 68.1.6 Underground connection should have a minimum of 3 @ 75 mm (3") diameter conduits. Encase in concrete where conduits run under fire truck route.
- 68.1.7 Underground conduits should not interfere with a possible permanent addition.

68.2 ACCESS FOR PORTABLES

- 68.2.1 Care must be taken to designate an unencumbered access for portables from the street to the designated portable location. All pole mounted

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signage that is located in the designated portable traffic route is to be sleeved.

- 68.2.1.1 Avoid designing raised concrete islands that may impede the portable truck turning radii.
- 68.2.1.2 Do not locate light standards in the traffic route or in the portable vehicle turning radii.
- 68.2.1.3 Make certain that any gate posts are removable. (Refer to illustrative Sketches.)
- 68.2.1.4 Paved access to future portable area must be a minimum of "medium duty asphalt".

69. EXTERIOR SPORTS FACILITIES

Refer to Field Irrigation, Grading, and Drainage in this Guideline and Technical Guideline Field Irrigation for details.

69.1 TRACK & FOOTBALL FIELD

- 69.1.1 The 400 metre, eight (8) lane running track shall be compacted of RED, "Vitrystone" type granular athletic surface with concrete curbs, rounded at both edges for both sides of track.
- 69.1.2 The football field within the running track is to be 100 metres long, plus end zones, complete with goal posts (in contract). Field is to be crowned lengthwise @ 2% slope with weeping tile for drainage below.
- 69.1.3 Make certain that locations of catch basins do not interfere with safety of any sports play activities.

69.2 BLEACHERS

- 69.2.1 If the grade permits, design a natural spectator area overlooking the track/football field.
- 69.2.2 If the grade does not lend itself to a natural spectator area, bleachers for approximately 500 spectators could be installed at a later date under a separate contract through the school's Furniture and Equipment budget.
 - 69.2.2.1 Provide a flat, asphalted area for the installation of bleachers.

69.3 DESIGNATED AREA FOR JUMPING PIT

- 69.3.1 In all new secondary school projects, the Consultants should allow an area to accommodate a future, single run jumping pit and runway of an official size.
 - 69.3.1.1 The jumping pit area must be accessible by trucks, not only for installation, but also for repairs and periodic replacement of materials.
- 69.3.2 The jumping pit and associated asphalt runway will be installed by the Board's Maintenance Staff post school occupancy, paid for by the school from its Furniture and Equipment budget.

70. FUTURE ADDITION

- 70.1.1 The design of new secondary school should take into consideration potential future additions. To this end, provide at least one logical connecting point for that purpose.
- 70.1.2 It is mandatory that a future addition does not result in major demolition of spaces such as mechanical rooms, stairwells, nor interference with windows to teaching areas etc.
- 70.1.3 Provide accessible sanitary and storm connections with appropriate invert depths for potential addition connections. Avoid the unnecessary demolition of existing corridors by capping connections on the outside face of foundation walls.
- 70.1.4 Mechanical and electrical provisions or the capacity of mechanical/electrical equipment for future additions is to be reviewed with the Design Department.

71. CPTED

The Consultants are to be aware that CPTED impacts the design process. One of the requirements of Site Plan Approval is for the site plan to be reviewed and approved by CPTED.

- 71.1.1 The design criteria should include but not be necessarily limited to the following:
 - 71.1.1.1 Student entrances are visible either by neighbours and/or a cruising police patrol car.
 - 71.1.1.2 Sufficient parking lot illumination is provided.

Secondary School Guidelines

Design Criteria and Fitments

- 71.1.1.3 Landscaping does not create hidden or “un-supervisable” areas.
- 71.1.1.4 The office staff can supervise main entrance of the school.
- 71.1.1.5 Sufficient windows are located at all elevations of the building for ease of staff supervision.
- 71.1.1.6 Possible pathways between future portables and school entrances are clearly visible and safe.

72. DESIGN DEPARTMENT WEB SITE

- 72.1.1 This “*Secondary School Guidelines – Design Criteria and Fitments*” document is part of the Design Department’s web site, <http://www.dpcdsb.org/DESIGN>
- 72.1.2 The web site is periodically updated and additional documentation may be forwarded to the Consultants as it is developed.

72.2 INFORMATION MANUAL FOR ARCHITECTS

- 72.2.1 ***The Architects are encouraged to read carefully this document and associated information documents on the web site prior to commencing any design.***

72.3 TECHNICAL GUIDELINES

- 72.3.1 Throughout this document references are made to the “*Technical Guidelines.*” These are also found on the Design Department web site. These detailed documents should be read in conjunction with the *Design Criteria and Fitments.*

72.4 ILLUSTRATIVE SKETCHES

- 72.4.1 The *Illustrative Sketches – Secondary Schools*, also found on the web site are to be viewed in conjunction with this document but are for illustrative purposes only. **They are not to be scaled or directly reproduced.** Each is to be adapted to accommodate actual design conditions.

73. CASH ALLOWANCES

- 73.1.1 Items identified throughout this Guideline as being paid from a Cash Allowance are to be carried in the Contract Documents. Refer to *List of CONTRACT DOCUMENTS – General Instructions* for details.
- 73.1.1.1 Note that certain Cash Allowances included in the Contract will be tendered separately during the construction phase under the jurisdiction of the Construction Department.
- 73.1.1.2 Rough-ins are required for some Systems in the Contract, however, the actual system components are to be charged against the Cash Allowances under the jurisdiction of the Construction Department.

74. FURNITURE AND EQUIPMENT INDEX

This index below is summarized to give the Consultants a better understanding of the components that influence the preparation of the Contract Documents.

- 74.1.1 **COLUMN NO. 1** Loose items identified as not in Contract (NIC) to be purchased and installed directly by the school from the school's Furniture and Equipment budget.
- 74.1.2 **COLUMN NO. 2** Items possibly affecting the design development, purchased from the school's Furniture and Equipment budget.
- 74.1.2.1 Some of this purchased equipment will require rough-ins and/or installation by the General Contractor.
- 74.1.3 **COLUMN NO. 3** Items that are included in the Contract (supply and install) but back charged to the school's Furniture and Equipment budget.

- END -

LATEST REVISION IN GREEN FONT

Secondary School Guidelines

Design Criteria and Fitments

<p style="text-align: center;">1</p> <p style="text-align: center;">LOOSE NIC ITEMS PURCHASED DIRECTLY FROM SCHOOL'S F & E BUDGET</p>	<ul style="list-style-type: none"> ○ All office furniture, filing cabinets ○ All other academic furniture and equipment ○ All Chapel furnishings, altar lectern etc. ○ Computers, computer tables & carrels ○ Window and interior screen coverings ○ Phys Ed. wall mats, posts & equipment ○ Additional mats in weight training room ○ Metal shelving for all storage rooms ○ Musical instruments & amplifiers ○ Cots and change tables in PIP and Health Room ○ Curtains for Stage, Drama & TV Studio ○ Library fitments, shelving & photo copier ○ Kitchen small wares & plug-in kitchen equipment ○ Cash register and menu board (caterer) ○ Recycle bins and garbage containers ○ Planting benches, soil bins and plant carts ○ Photocopiers and audio equipment ○ Television cameras, and traveling spotlight ○ Theatre fixtures beyond Guideline requirements ○ Internal teaching spaces' & administration signage ○ Exterior signage for "reserved parking" and "overnight parking" ○ Custodial supplies and equipment ○ Vending machines, flags, banners ○ Exterior bleachers
<p style="text-align: center;">2</p> <p style="text-align: center;">LOOSE NIC ITEMS PURCHASED DIRECTLY FROM SCHOOL'S F & E BUDGET REQUIRING ROUGH-INS</p>	<ul style="list-style-type: none"> ○ Shop equipment ○ All appliances, built in or hooked up ○ Kiln in the Art Area ○ Speaker Systems for specialty rooms ○ Security cameras and associated systems ○ The design and installation of a Peace Garden. ○ Extension of Field Irrigation System beyond requirements. ○ Illuminated exterior sign ○ Above ground exterior bleachers ○ TV monitors, mounting brackets/"Proximas" & Smart Boards
<p style="text-align: center;">3</p> <p style="text-align: center;">ITEMS INCLUDED IN CONTRACT BACK CHARGED TO THE SCHOOL'S F & E BUDGET</p>	<ul style="list-style-type: none"> ○ Bicycle racks ○ Bleachers in the Gym ○ Card access locations identified in Guideline ○ Seating in the Lecture Room ○ Electrical projection screens ○ Library Security Gate ○ Basketball backstops and scoreboard(s) in Gymnasias ○ Vented cabinets in specialized teaching areas ○ Theatrical light fixtures identified in Guideline ○ Washroom fixtures & grab bars in Health Care Lab ○ Work Stations in Staff Work Rooms. ○ Reach-in fridge & freezer, overhead demo. mirror in the teaching kitchen

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