Mission Public Schools

# LONG RANGE FACILITIES PLAN


PREPARED BY

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## Executive Summary

The Ministry of Education requires School Districts to develop and maintain a comprehensive Long Range Facilities Plan (LRFP) that forms the basis for the school districts' capital investment decisions and aligns with best practices in asset management.

Using an enrolment projection for the next 10 years and clearly identifying the current capacity in the district's schools, the LRFP provides a framework for both the School District and the Ministry in facilities decisions over the long term to ensure cost-effective operations of existing facilities and capital investments for new schools, additions, renovations/upgrades and/or replacement schools.

Mission Public Schools has undergone several changes in the past decade, from closing several schools, adjusting catchment boundaries, establishing schools of choice, supporting French immersion at all grades, to major adjustments required by the Restorative Planning process.

In the next decade, Mission Public Schools will face new challenges.

Enrolment within the school district has recently been increasing and is forecasted to continue as a result of the general growth within Metro Vancouver and the resultant push by families into the Fraser Valley.

The school district is currently approaching utilization rates at almost 100% for secondary and elementary students. Additional capacity will be required before 2026 arrives. The two middle schools, although approaching operational capacity, still have sufficient capacity until 2026.

The LRFP provides options to address the pending capacity shortfall at both secondary and elementary.

At secondary, the solution rests with Mission Secondary – whether to construct an addition or to completely replace the old school.

For elementary, there are several options. However, the only single option sufficient to accommodate all the forecasted increase in enrolment is a new school in Cedar Valley. For the other options, it would take a combination of them to sufficiently provide the additional capacity forecasted.

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## Schedules

# 1. INTRODUCTION

## 1.1 MINISTRY REQUIREMENTS

The Ministry of Education in the 2016/17 Capital Plan Instructions required School Districts to develop and maintain a comprehensive Long Range Facilities Plan (LRFP) or be in the planning, development or finalized phase of a LRFP that:

- forms the basis for school districts' capital investment decisions and aligns with best practices in asset management as a key component for district-wide capital planning, and a framework for other local programming and operational decisions;
- uses a ten-year planning horizon with consideration for the longer term;
- may vary in scope and emphasis depending on the specific circumstances and priorities of each school district; and
- has the concurrence of the appropriate Ministry Planning Officer (MPO) prior to being approved by the Board.

The LRFP takes into consideration education program requirements and trends, capacity utilization, seismic vulnerability and risk factor of school buildings and current condition of existing facilities, in addition to current land use and anticipated changes, future housing developments, student yield rates therefrom, community demographics, local community and economic development strategies, and other long-term planning considerations.

The LRFP is the basis for the Five-Year Capital Plan submitted to the Ministry by providing a comprehensive rationale for specific capital projects that are proposed. In addition, the LRFP provides a district-wide framework for other key local decisions such as analysis of capacity utilization of surrounding schools, location of district programs and maintenance priorities.

The LRFP is to outline concrete plans for a ten-year planning horizon with more general consideration for the longer term. The ten-year planning horizon for this LRFP is 2017/2018 to 2026/2027.

## 1.2 SCHOOL DISTRICT'S OBJECTIVES

The objectives the School District wishes to achieve through an LRFP, include the following:

- To fulfill the requirements of the Ministry of Education for each school district to develop a Long Range Facilities Plan to demonstrate the School District's strategies to meet the prescribed guidelines for capacity utilization and eligibility for capital funding.
- To guide the School District and the Ministry in facilities decisions over the long term to ensure cost-effective operations of existing facilities and capital investments for new schools, additions, renovations/upgrades and/or replacement schools.

- To provide a projected enrolment for each school over a 10-year time horizon.
- To develop options to meet the anticipated increase in enrolment for the district.
- To develop a strategy to accelerate the timeline for the delivery of new capital projects.

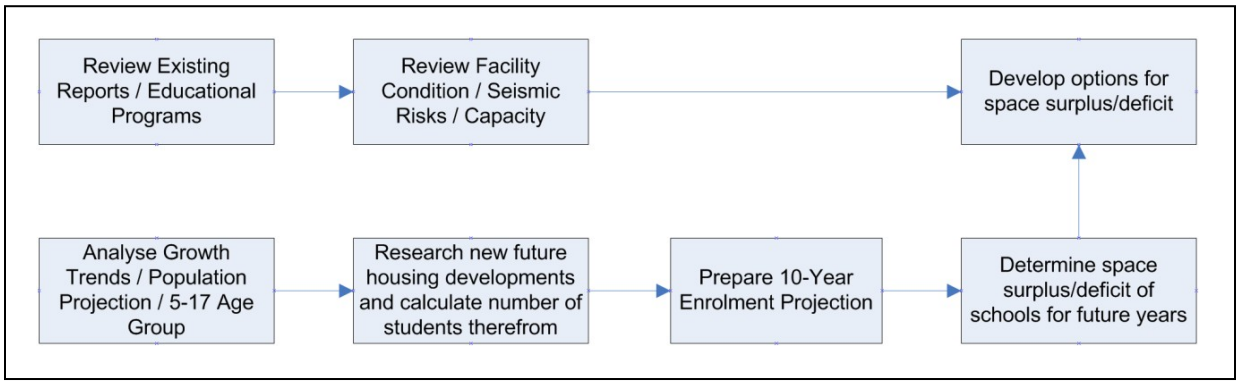
## 1.3 PROCESS

The LRFP fundamentally requires the examination of five areas:

- Identify the current condition with respect to educational programs, enrolment, capacity and facility condition i.e. the "base case",
- Review community demographics, to assess the potential for student growth over the next decade, both for total numbers as well as their location in the community,
- Prepare an enrolment forecast that looks at the impacts of that growth (or possible decline) on the various schools,
- Review current educational programs as well as possible future requirements or changes envisioned by the school district or the Ministry of Education, and
- An assessment of the school facilities and future requirements to properly accommodate the forecasted student enrolment.

Cascade Facilities Management Consultants Ltd (Cascade) was engaged in January 2017) to develop a Long Range Facilities Plan (LRFP) in accordance with the requirements set forth by the Ministry of Education.

The process for undertaking this LRFP involved:



# 2. ABOUT MISSION PUBLIC SCHOOLS

## 2.1 OVERVIEW

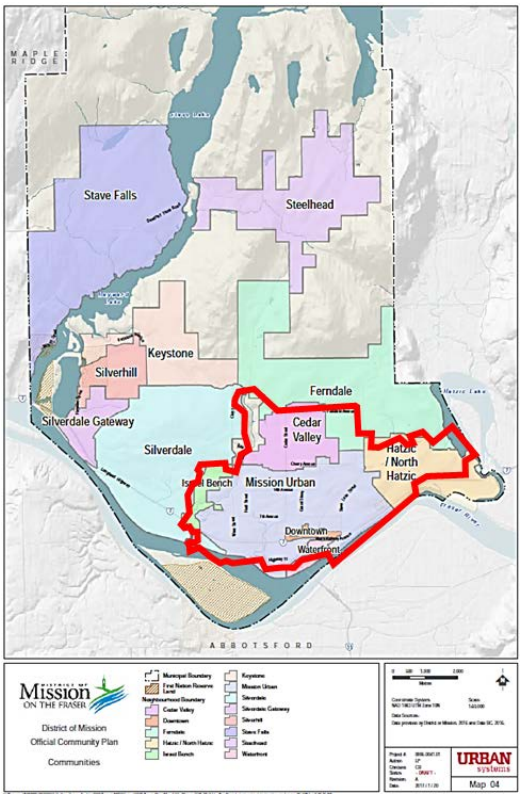
Mission Public Schools provides complete public education for almost 6,000 students within School District No. 75 (Mission).

The school district occupies a large geographical area as shown shaded in **GREEN** on the map at right.

The area outlined in **RED** identifies the municipal boundaries of the District of Mission, the only incorporated area within the school district.

To avoid confusion between the two "districts", in the LRFP, the municipal District of Mission will be referred to as the "City".

The City has a 2016 population of almost 40,000. At the very south end of the City boundary along the Fraser River, there is a substantial urbanized area.




Outlined in RED on the map at left shows the Mission Population Area (the denser urbanized area of the City used in the Census). This area has the bulk of the City population with approximately 33,000 people.

The remaining areas of both the City and the school district are very rural, both in use and population. This includes the areas extending west to SD#42 (Maple Ridge & Pitt Meadows), north of the Mission Population Area and east to the boundary with SD#78 (Fraser-Cascade).

This combination of both urban and rural areas creates unique challenges in establishing realistic school catchment areas as well as providing economical and efficient transportation for students.

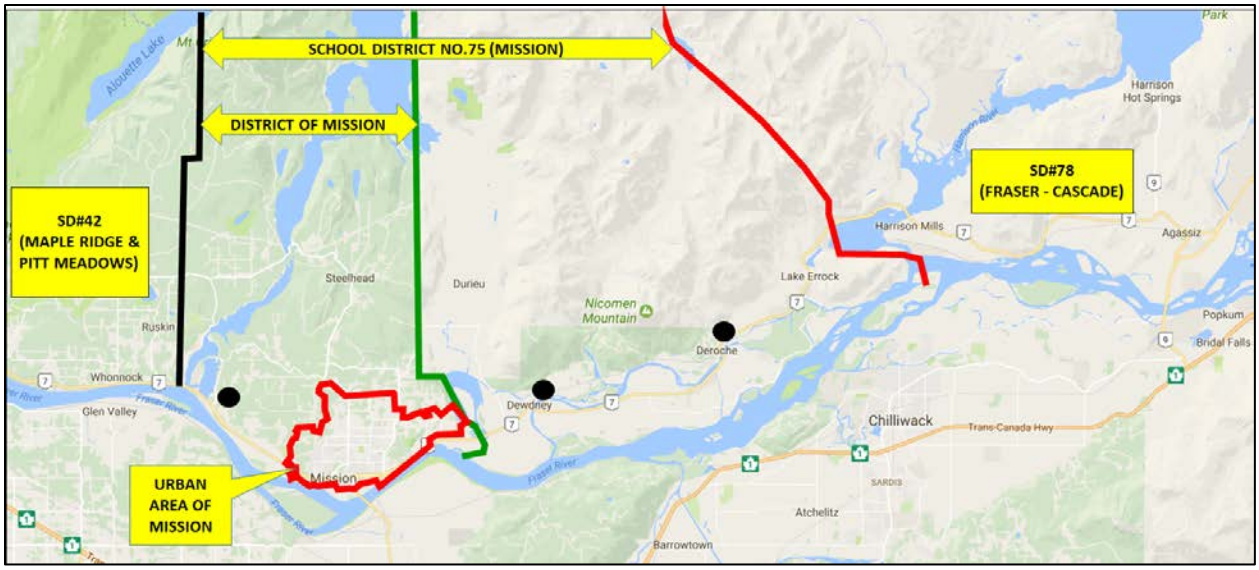
## 2.2 SCHOOLS

To provide public education to almost 6,000 students, Mission Public Schools operates:

- 12 elementary schools serving kindergarten to grade 6
- 2 middle schools serving grades 7 to 9
- 1 secondary school serving grades 10 to 12
- 1 alternative school facility, including distance education
- 1 school for trades training and adult education

Details of the schools are contained in Schedule B and the catchment areas for each school are shown in Schedule C.

The overall scope of the school district and the relative location of the schools is shown schematically on the map below.

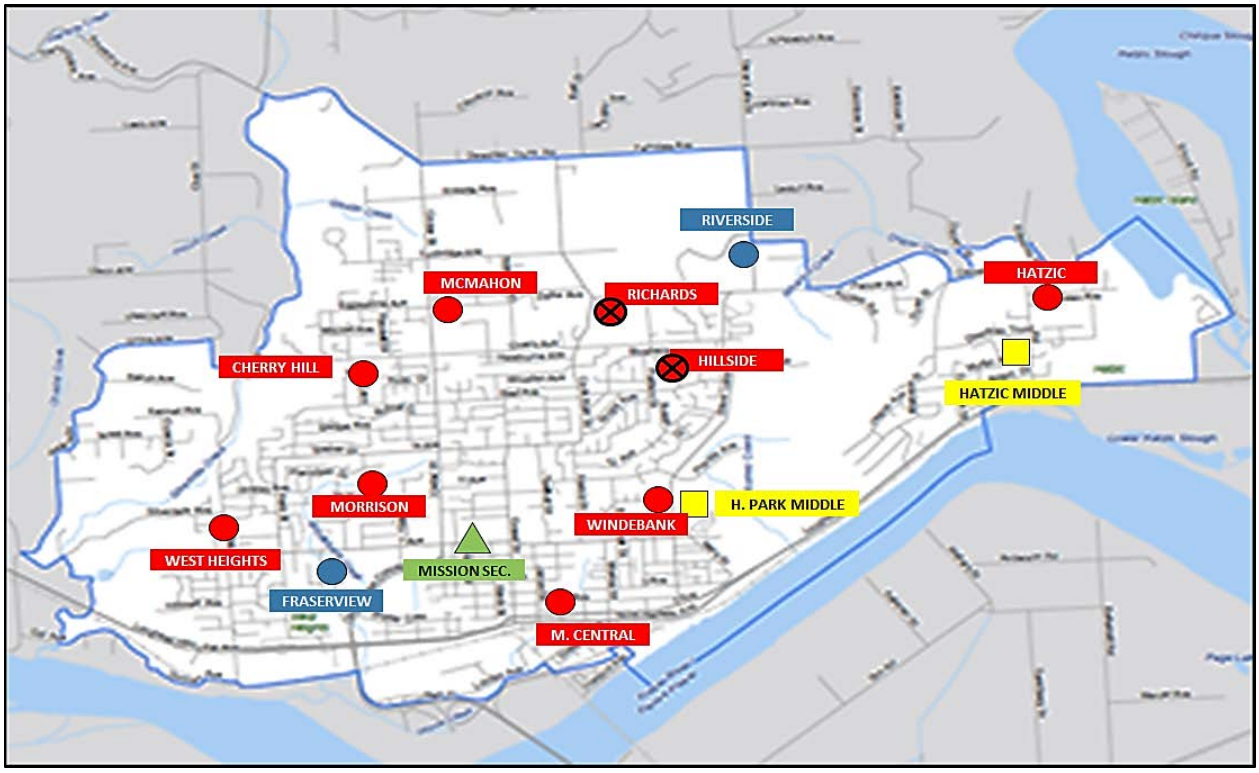



The school district spans from the **BLACK** line on the west to the **RED** line on the east, all on the north side of the Fraser River. The areas on both sides of SD#75 - SD#42 (Maple Ridge & Pitt Meadows) in the west and SD#78 (Fraser-Cascade) in the east – are large lot rural properties.

The City of Mission extends from the **BLACK** boundary on the west side to the **GREEN** line in the east. The **RED** area shows the urban area of the City, the only urban area within or adjacent to the school district.

The 3 **BLACK** dots represent the 3 elementary schools that service the rural areas – Silverdale Elementary in the west and Dewdney Elementary and Deroche Elementary in the east.

The other remaining schools - 9 elementary, 2 middle and 1 secondary - all reside within the Mission urban area as shown on the map below. Since Riverside College and Fraserview Learning Centre are used for education, their locations are shown as well.




As part of the 9 urban elementary schools, a traditional program is offered at Hillside Traditional Academy and an arts based program at Edwin S. Richards Elementary.

Both École Christine Morrison Elementary and École Mission Central Elementary are dual track schools providing both Regular English and French Immersion education.

Heritage Park Middle School is a dual track school providing Regular and English and French Immersion education. A portion of Heritage Park Middle is owned by the University of the Fraser Valley. Heritage Park Middle also has a complex of 5 modular classrooms on-site but with the change in configuration to middle schools in 2015, this area is not used for education and is now leased to private operators. As a result of the restorative planning process, three tenants have been forced to vacate to make room for other school priorities.

Mission Secondary is a dual track school providing Regular English and French Immersion education. Mission Secondary has 5 portable/modular classrooms on-site for 2016/17.

At Riverside College, the district provides trades training, careers and apprenticeship programs.

Summit Learning Centre at Fraserview Learning Centre operates across the province providing Home Education and Virtual Education to students in all grades including individual secondary school courses.

The District has other properties it uses as part of its operation.

- Board offices and administrative building
- Facilities and maintenance buildings, including Grounds

- Bus operating and service centre

Mission Public Schools has four closed schools:

- Cade Barr
- Durieu Elementary
- Nicomen Island
- Stave Falls Elementary

The Board of Education has supported disposal of Cade Barr and Nicomen Island. Options for alternate use or disposal of Durieu Elementary and Stave Falls Elementary are currently under review.

In addition to the above, there are several properties owned by the school district. Some are currently used in conjunction with existing school sites:

- A playfield adjacent to École Des Deux Rives/Heritage Park Middle. While technically a separate parcel from the schools, this playfield is actively used by both schools.

- A 2.08 hectare parcel at 9136 Cedar Street, Mission, BC. This was originally purchased as a future school site.

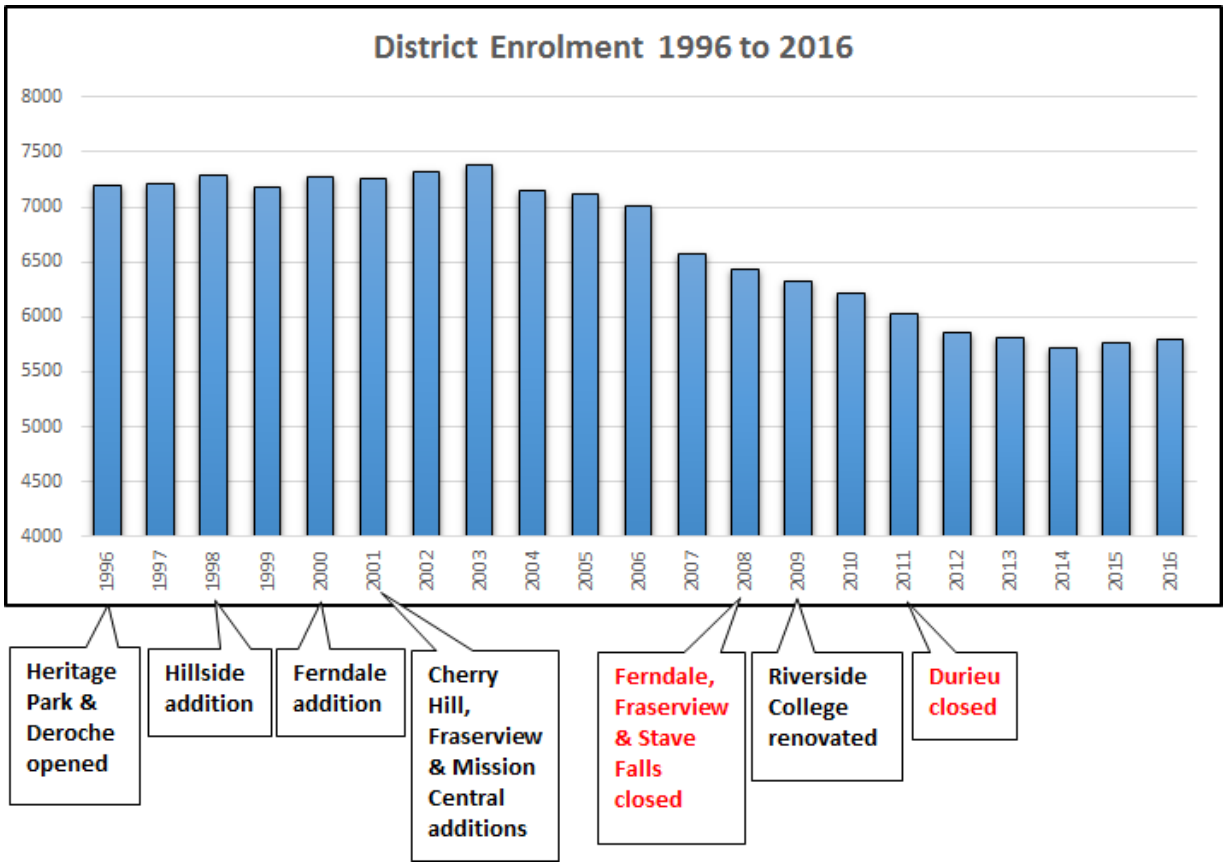
- A lot between Prentis Ave and Stave Lake Road (co-owned with the Province of BC). Originally purchased to accommodate the new the Heritage Park Secondary School/University of the Fraser valley/City of Mission co=development, the site currently houses the Heritage Park Childcare Centre.

- A sliver of Dewdney Trunk Road at Hatzic Middle. This is an unusable small parcel adjacent to Dewdney Trunk Road.

More information on these properties is included in Schedule D.

## 2.3 SCHOOL CAPACITY

The graph below shows the historic district enrolment as well as school additions and closures over the past 20 years. All of the schools currently in operation today were also in operation in 1996.




When the new schools and additions were opened in the late 1990's, there was every expectation that district enrolment would continue to increase. It takes several years from the time a capital project for a new school or addition is approved by the Ministry before the new school or addition is opened. For example, the additions to Cherry Hill Elementary, Fraserview Elementary and Mission Central Elementary in 2001 were likely approved for construction by the Ministry toward the end of the 1990's when the forecast for enrolment was continuing to increase.

The significant decline in enrolment after 2003 resulted in four (4) school closures as well as multiple adjustments to school catchment areas.

While the current forecast is for a moderate increase in enrolment over the next decade, the history shows that such forecasting always has some margin of risk.

The table below summarizes the 2016/17 operational capacity for all core schools. This does NOT include those registered at Riverside College, programs at Fraserview Learning Centre or international students. Note that class size used to determine operational capacity is K = 19, G 1-6 = 23, G 7-9 = 25 and G 10-12 = 25 as per the *Area Standards*.

| | | | NOMINAL CAPACITY | | | OPERATIONAL CAPACITY | | | |
|---|---|---|---|---|---|---|---|---|---|
| Facility Name | Facility Open Date | Grade Config. | K Cap | E Cap | Strong Start Centre | Kindergarten = 19 per classroom | Elementary = G 1-6 = 23 G 7-9 = 25 | Total Elementary School Operational Capacity | Secondary Capacity |
| **ELEMENTARY SCHOOLS** | | | | | | | | | |
| ALBERT MCMAHON | Sep-89 | GC:K-6 | 40 | 350 | | 38 | 322 | 360 | |
| CHERRY HILL | Sep-78 | GC:K-6 | 40 | 375 | 25 | 38 | 322 | 360 | |
| CHRISTINE MORRISON | Sep-92 | GC:K-6 | 40 | 350 | | 38 | 322 | 360 | |
| DEROCHE | Jan-96 | GC:K-6 | 20 | 150 | 25 | 19 | 115 | 134 | |
| DEWDNEY | Sep-24 | GC:K-6 | 20 | 175 | | 19 | 161 | 180 | |
| EDWIN S RICHARDS | Sep-51 | GC:K-6 | 40 | 325 | | 38 | 299 | 337 | |
| HATZIC ELEM | Sep-11 | GC:K-6 | 20 | 250 | | 19 | 230 | 249 | |
| HILLSIDE TRADITIONAL ACADEMY | Sep-82 | GC:K-6 | 20 | 300 | | 19 | 276 | 295 | |
| MISSION CENTRAL | Sep-90 | GC:K-6 | 40 | 400 | 25 | 38 | 345 | 383 | |
| SILVERDALE | Sep-59 | GC:K-6 | 20 | 200 | 25 | 19 | 161 | 180 | |
| WEST HEIGHTS | Sep-58 | GC:K-6 | 40 | 300 | 25 | 38 | 253 | 291 | |
| WINDEBANK | Sep-94 | GC:K-6 | 40 | 400 | 25 | 38 | 345 | 383 | |
| | | | 380 | 3575 | 150 | 361 | 3151 | **3512** | |
| **MIDDLE SCHOOLS** | | | | | | | | | |
| HATZIC MIDDLE | Sep-72 | GC:7-9 | | 350 | | | 350 | | 650 |
| HERITAGE PARK MIDDLE | Sep-96 | GC:7-9 | | 250 | | | 250 | | 550 |
| | | | | | | | **600** | | **1200** |
| **SECONDARY SCHOOL** | | | | | | | | | |
| MISSION SECONDARY | Sep-50 | GC:10-12 | | | | | | | 1250 |
| | | | | | | | | | **1250** |

The operational capacity for all elementary schools and Mission Secondary was confirmed with the Ministry in 2015. As noted, the Ministry does allow the operational capacity to be reduced where there is a Strong Start Centre occupying a teaching space. Changes to Strong Start Centres at Christine Morrison, Silverdale and Windebank since 2015 are reflected in the above table.

Capacity calculations for both Hatzic and Heritage Park Middle Schools were not completed as part of the re-configuration in 2015. The priority at that time was for Mission Secondary, since both middle schools had more than sufficient capacity to accommodate all the grade 7, 8 and 9's.

Design Aid Sheets to support the above capacity for Hatzic Middle and Heritage Park Middle were sent to the Ministry on 12 June 2017 for concurrence and are included as Schedules F and G.

## 2.4 SCHOOL CONDITION

In looking at a school facility, there are several criteria used to determine whether the facility is suitable for educational purposes. The usual criteria are:

- Availability of classrooms, gymnasium and support space for educational purposes
- Building condition
- Seismic risk classification
- Building envelope
- Location

### 2.4.1 SUITABILITY FOR EDUCATIONAL PURPOSES

The most obvious criteria, is whether the facilities were originally constructed as schools. Many school districts use leased space for some educational programs. That is not the case for Mission Public Schools, since all of the facilities used for education were purpose built as schools.

Although building age is not necessarily a negative factor, newer schools are almost always designed and constructed to optimize the most important criteria for learning environments – school climate control, natural light and audio quality/noise abatement. Older schools, including those with multiple additions, may not be able to achieve such a high standard for these factors as new schools.

### 2.4.2 BUILDING CONDITION

The BC Ministry of Education has established a Capital Asset Management System (CAMS) for all schools in the province and has contracted with VFA Inc. to conduct facility condition audits.

The purpose of the facility condition audit is to determine the equivalent age and condition of each school building(s). The condition includes structural, architectural, mechanical, electrical, plumbing, fire protection, equipment and furnishings and life safety. An audit of site conditions is also included.

The audit determines what resources will be required over the coming years to maintain or replace aging facilities. Each school is given a rating called the Facility Condition Index (FCI).

The Facility Condition Index (FCI) is expressed as:

$$FCI = \frac{\text{Cost to remedy building deficiencies}}{\text{Replacement value of facility}}$$

The annual and total costs to renew each and all the facilities can be derived from the data obtained from the facility condition assessment. It is intended that when a project is submitted for renovation or building systems upgrade in the Capital Plan, the Facility Condition Assessment report is reviewed by the Ministry.

The FCI is a comparative index allowing the Ministry to rank each school against all others in the province and is expressed as a decimal percentage of the cost to remediate maintenance deficiencies divided by the current replacement value i.e. 0.26.

As new components of the facility are replaced or upgraded i.e. new boilers, the facility condition index improves slightly.

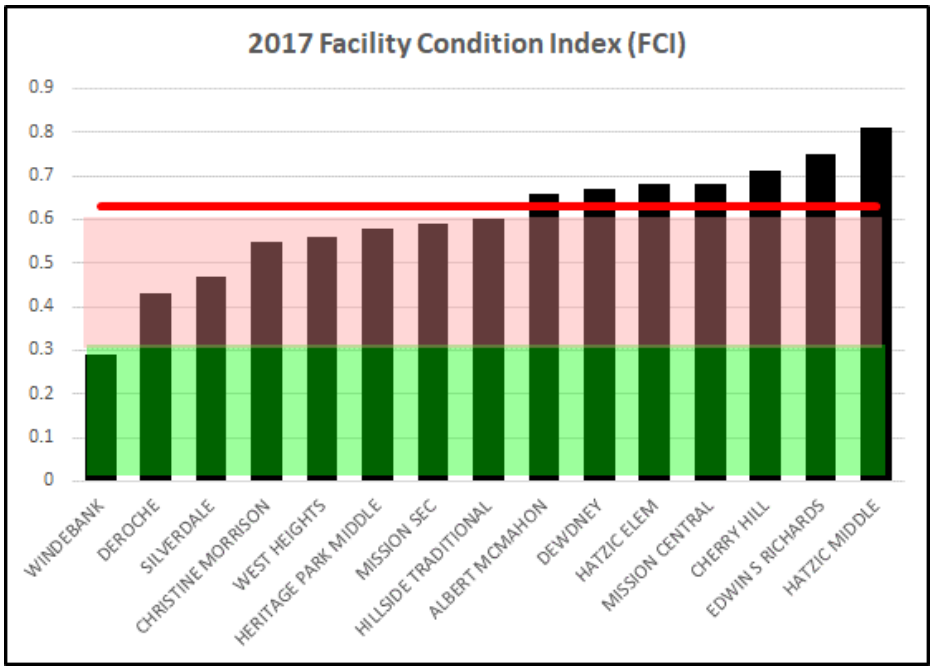
For practical purposes, the ratings have the following meaning:

| FCI Rating | Category | General Assessment |
|---|---|---|
| | | |
| 0.00 to 0.05 | Excellent | Near new condition. Meets present and foreseeable future requirements |
| 0.05 to 0.15 | Good | Good condition. Meets all present requirements. |
| 0.15 to 0.30 | Average | Has significant deficiencies, but meets minimum requirements. Some significant building system components nearing the end of their normal life cycle. |
| 0.30 to 0.60 | Poor | Does not meet requirements. Immediate attention required to some significant building systems. Some significant building systems at the end of their life cycle. Parts may no longer be in stock or very difficult to obtain. High risk of failure of some systems. |
| 0.60 and above | Very Poor | Does not meet requirements. Immediate attention required to most of the significant building systems. Most building systems at the end of their life cycle. Parts may no longer be in stock or very difficult to obtain. High risk of failure of some systems. |
| | | |

VFA Inc. conducts the provincial assessments on a rotating cycle. The last audit completed for Mission Public Schools was in 2011. The next audit is currently scheduled for 2018.

The graph shows the 2017 FCI's updated from the 2011 assessments.

The FCI is one of the significant factors the Ministry of Education uses to determine funding priorities for rejuvenation or replacement capital projects.



Historically, a school has not been considered for replacement unless the FCI is 0.63 or higher as shown by the **RED** line on the graph.

These FCI's indicate that only Windebank Elem does not have a "Poor" or "Very Poor" condition rating.

Seven, or half of the remaining schools are rated as "Poor", meaning that in some form, the school does not meet current requirements and that significant investment is due.

The remaining seven are rated "Very Poor" meaning that consideration should be given to replacement before major investment is made in the school. All seven schools exceed the Ministry's general guideline for consideration of replacement.

The next FCI survey is scheduled for 2018, with results available in 2019. Once the updated information is available, this report should be reviewed.

### 2.4.3 SEISMIC RISK CLASSIFICATION

In 2004, the Ministry of Education launched the *School Seismic Mitigation Program* in an effort to identify schools that may have structural risks associated with a seismic event.

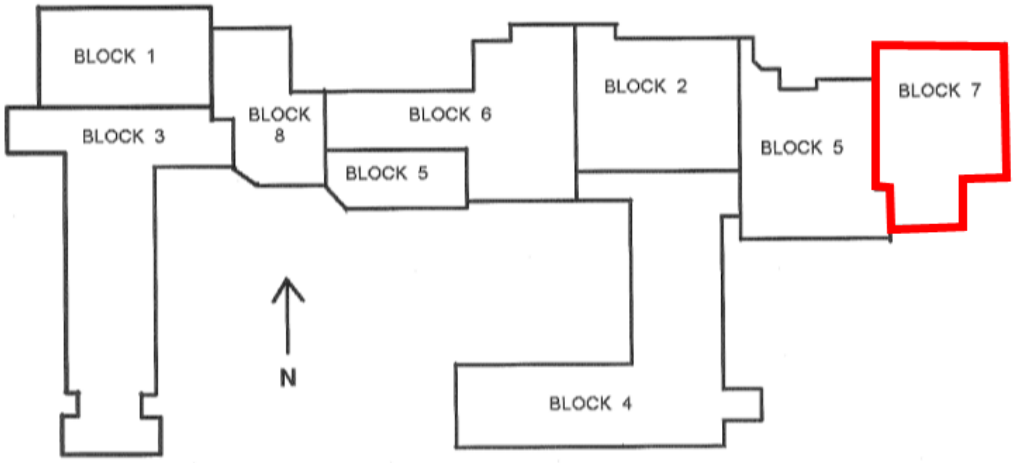
In 2004, in partnership with the Association of Professional Engineers and Geoscientists of BC, the Province developed new guidelines and assessment tools to provide a more accurate picture of seismic safety risks in B.C. schools.

As a result, risk categories were established.

| Rating | Definition |
|---|---|
| High 1 (H1) | Most vulnerable structure, at highest risk of widespread damage or structural failure, not repairable after a large seismic event. Structural and non-structural seismic upgrades required. |
| High 2 (H2) | Vulnerable structure, at high risk of widespread damage or structural failure, likely not repairable after a large seismic event. Structural and non-structural seismic upgrades required. |
| High 3 (H3) | Isolated failure of building elements such as walls are expected, building not likely repairable after a large seismic event. Structural and non-structural seismic upgrades required. |
| Medium (M) | Isolated damage to building elements is expected, non-structural elements (such as bookshelves, lighting) are at risk of failure. Non-structural upgrades required.<br>Building to be upgraded or replaced within the Capital Plan when it has reached the end of its useful life. |
| Low (L) | Least vulnerable structure. Would experience isolated damage and would probably be repairable after a seismic event. Non-structural upgrades may be required. |

Schools constructed since 1992 will have been constructed to modern structural building codes and should not require structural seismic upgrading. All schools in BC have now been assessed to determine the structural seismic risk. The provincial priority for structural seismic mitigation is from the top down.

The only high risk block in all of Mission's schools is the shop wing (Block7) at Mission Secondary as shown on the block plan below.




Although this block has a seismic risk rating of High 3, this is well down on the provincial priority list behind all of the other school blocks rated High 1 and High 2.

Schools or blocks having a seismic risk rating of Medium or Low does not mean there may not be damage to the building in the event of a major earthquake, as noted in the risk categories above. However, under the current seismic mitigation program, no structural seismic upgrading is required.

### 2.4.4 BUILDING ENVELOPE

In the early 1980, the provincial Building Code underwent a significant change. The revised Building Code made many changes to the way the exterior of buildings were to be constructed to better accommodate weather effects and to promote sustainable and energy efficient construction principles.

Some of the buildings constructed under this revised code had problems with deteriorating conditions within the exterior walls, windows and other penetrations through what is called the “building envelope”.

In an effort to mitigate long term deterioration and damage to the buildings, the province created a public sector program to repair identified problems in the building envelope. This Building Envelope Program (BEP) is administered by the Risk Management Branch of the BC Ministry of Finance.

Only schools constructed after 1984 qualify for this program. There are no schools within Mission Public Schools currently on the BEP list.

However, many of the older schools (or even new schools) may develop building envelope concerns just due to age, damage or as part of a newer addition or other work in the school. These defects are often identified through school district maintenance and routine inspection programs.

The School Enhancement Program currently funds these projects as well as most other facility upgrades as part of the new Capital Planning process. The Facilities Department keep a list of these issues as part

of all identified capital works projects.

### 2.4.5 LOCATION

The final consideration for facilities concerns the actual location of schools throughout the district.

As a result of changes over the years past, with new schools added as student enrolment increased and some schools closed during enrolment decline, the schools that remain are not always in the optimum location to serve today's students or those in the future.

Where schools of choice are established, the location chosen for those schools are critical to optimizing the remaining space for general enrolment.

## 2.5 ENROLMENT

The current 2016/17 enrolment in Mission Public Schools is as shown below for a total school district enrolment of 5,863 students. This total does NOT include the 145 international students.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 460 | 2716 | 1284 | 1187 | 116 | 100 | 145 |
| **2016** | K | G 1-6 | G 7-9 | G 10-12 | Riverside College | Alternate Education | Int'l Students |
| | 5863 | | | | | | |

The 5,863 enrolment does NOT include:

- 145 international students
- less than school age
- greater than school age
- those home schooled
- distance learners, or
- those in continuing education

For 2016 the number of international students in the various grades are shown below.

| | | | | | | |
|---|---|---|---|---|---|---|
| | 1 | 16 | 19 | 109 | 0 | 0 |
| **2016** | K | G 1-6 | G 7-9 | G 10-12 | Riverside College | Alternate Education |
| | 145 | | | | | |

While the school district must provide space for international students, at the present time, the Ministry of Education does not include international students as part of the calculations for enrolment, capacity or utilization of schools.

**ENROLMENT VS. CURRENT CAPACITY**

The table below shows the current operational capacity and enrolment of 5,647 students in 2016/17 for all core schools. This does NOT include those registered at Riverside College, alternate programs at Fraserview Learning Centre or international students.

The class size used for operational capacity is K = 19, G 1-6 = 23 and G 7-12 = 25 as provided in the *Area Standards*. This should not be confused with the maximum class size established by the Ministry or the class size for class composition purposes.

| Facility Name | Grade Config. | Total Op Cap | K Enrol 2016/17 | G 1-6 Enrol 2016/17 | G 7-9 Enrol 2016/17 | G 10-12 Enrol 2016/17 | Utilization 2016/17 |
|---|---|---|---|---|---|---|---|
| **ELEMENTARY SCHOOLS** | | | | | | | |
| ALBERT MCMAHON ELEMENTARY | GC:K-6 | 360 | 54 | 335 | | | 108.1% |
| CHERRY HILL ELEMENTARY | GC:K-6 | 360 | 36 | 207 | | | 67.5% |
| CHRISTINE MORRISON ELEMENTARY | GC:K-6 | 360 | 35 | 402 | | | 121.4% |
| DEROCHE ELEMENTARY | GC:K-6 | 134 | 11 | 66 | | | 57.5% |
| DEWDNEY ELEMENTARY | GC:K-6 | 180 | 33 | 98 | | | 72.8% |
| EDWIN S RICHARDS ELEMENTARY | GC:K-6 | 337 | 44 | 337 | | | 113.1% |
| HATZIC ELEMENTARY | GC:K-6 | 249 | 37 | 254 | | | 116.9% |
| HILLSIDE TRADITIONAL ACADEMY | GC:K-6 | 295 | 65 | 291 | | | 120.7% |
| MISSION CENTRAL ELEMENTARY | GC:K-6 | 383 | 45 | 182 | | | 59.3% |
| SILVERDALE ELEMENTARY | GC:K-6 | 180 | 16 | 91 | | | 59.4% |
| WEST HEIGHTS ELEMENTARY | GC:K-6 | 291 | 45 | 179 | | | 77.0% |
| WINDEBANK ELEMENTARY SCHOOL | GC:K-6 | 383 | 38 | 274 | | | 81.5% |
| | | **3512** | **459** | **2716** | | | **90.4%** |
| **MIDDLE SCHOOLS** | | | | | | | |
| HATZIC MIDDLE | GC:7-9 | 1000 | | | 642 | | 64.2% |
| HERITAGE PARK MIDDLE | GC:7-9 | 800 | | | 641 | | 80.1% |
| | | **1800** | | | **1283** | | **71.3%** |
| **SECONDARY SCHOOL** | | | | | | | |
| MISSION SECONDARY | GC:10-12 | **1250** | | | | **1184** | **94.7%** |

The key observations are:

- There is surplus capacity in elementary, middle and secondary schools for the 2016/17 school year.
- There is a vast difference in the utilization rates within the various elementary schools.

## 2.6 EDUCATIONAL PROGRAMS

No assessment of future facilities would be complete without a review of the educational programs offered by the school district.

In addition to 12 elementary schools, 2 middle schools, and 1 secondary school, the District provides Alternate Educational opportunities and a Distributed Learning Program at the Fraserview Learning Centre, as well as a range of trades training, career programs and continuing education at Riverside College.

These educational programs are many and diverse. In addition to the normal curriculum adjustments as times evolve, the educational requirements as managed by the Ministry of Education are also changing.

As part of these new requirements, the Ministry has recently provided $50 million for school districts to begin hiring teachers and specialized staff. Mission Public Schools had already received a share of these funds. More changes are expected to follow from the Ministry. All school districts are trying to determine the most effective use of these additional funds as well as to attempt to assess the impacts of future changes.

While these changes create uncertainty for the future, there are some significant educational programs that will likely continue:

FRENCH IMMERSION

École Christine Morrison Elementary School and École Mission Central Elementary School offer Elementary French Immersion programs as a program of choice. Both schools are dual track schools offering early French Immersion and regular English programs to students in Kindergarten to Grade 6.

Christine Morrison was opened in 1982, it has had no additions and currently has an operational capacity of 370 students. The 2016/17 enrolment is 437 students providing a school utilization of 121.4%.

Mission Central was opened in 1982, it has undergone a two additions and currently has an operational capacity of 383 students. The 2016/17 enrolment is 227 students providing a school utilization of only 59.3%.

As dual track Early French Immersion schools, utilization in these schools is imbalanced.

École Heritage Park Middle offers the middle French Immersion program and École Mission Secondary offers the secondary French Immersion program.

HILLSIDE TRADITIONAL ACADEMY

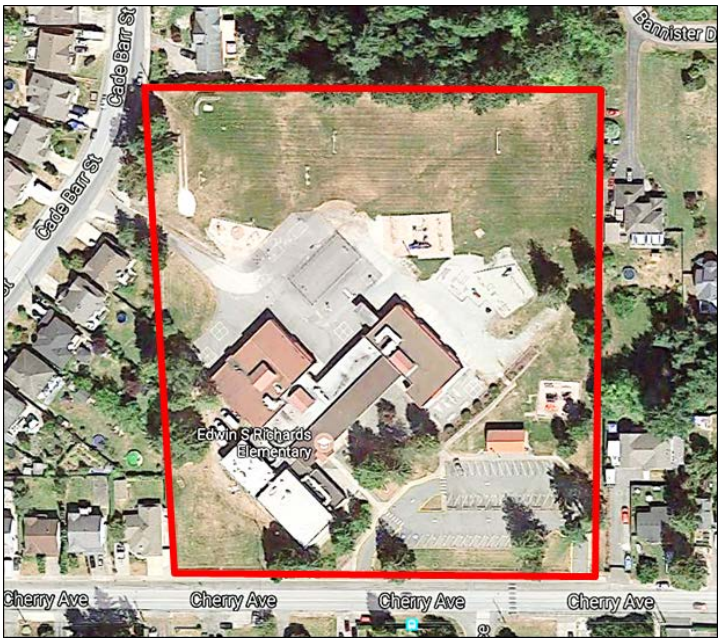
Hillside Traditional Academy is a school of choice**,** unique and particular to its community, defined by a greater emphasis on traditional values, educational structure and parent involvement.


Opened in 1982, it has undergone a two large additions and currently has an operational capacity of 297 students in grades Kindergarten to Grade 6. The 2016/17 enrolment is 356 students demonstrating the desirability of this traditional academy.

The location of the school on the site makes it challenging for an addition without affecting the playfield. However, there is adequate space on-site for the addition of modular classrooms.

EDWIN S. RICHARDS ELEMENTARY

Edwin S. Richards Elementary School was designated a school of choice for Specialized Arts based learning in September 2013. Its vision is to move its students to a place where creativity, collaboration, leadership, and thinking skills go hand in hand to provide active, positive, and effective learning experiences.



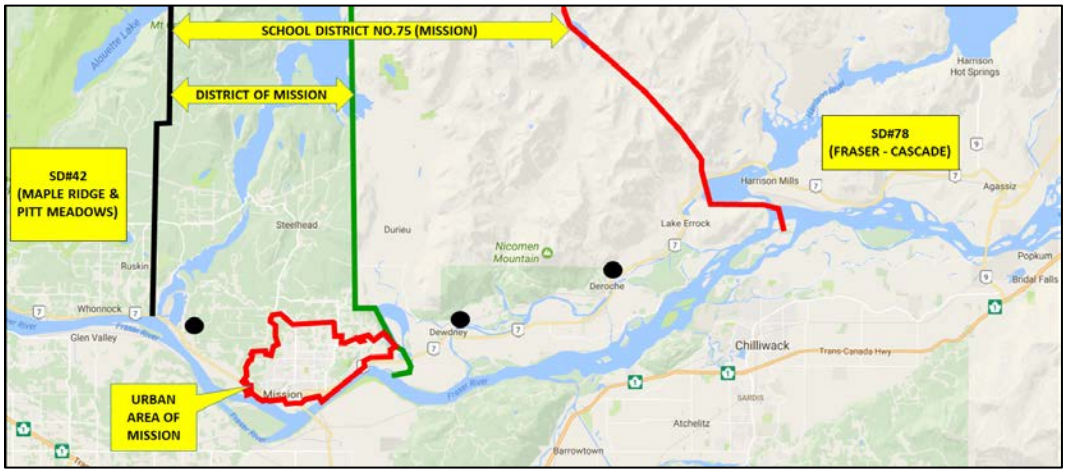

Opened in 1951, it has undergone a series of 6 additions and currently has an operational capacity of 337 students in Kindergarten to Grade 6. The 2016/17 enrolment is 381 students demonstrating the desirability of this arts based school.

This is a large site so could accommodate an addition or modular classrooms on-site.

## 2.7 TRANSPORTATION

As identified in Section 2.2, the area served by the school district is very large with a substantial rural component. There are 3 elementary schools located in the rural area but the remaining 9 elementary schools, 2 middle schools and the secondary school are all located within the urban area of the City of Mission.

As a result, Mission Public Schools operates a fleet of 20 busses on 15 routes transporting over 1,300 students to and from school every day.



## 2.8 SUMMARY

The Long Range Facility Plan looks at demographics, enrolment and educational programs to try and determine what facilities are required to serve and support the student population.

At this time, it is observed that Mission Public Schools is generally well served with the existing schools and support facilities. While enrolment is forecasted to slightly increase over the next decade, it is not expected to be sufficient to require wholesale changes in the district's schools or other facilities.

Notwithstanding the above comments, there are opportunities for changes both within and between the existing schools to optimize the learning experience for the future.

# 3. LOOKING TO THE FUTURE

## 3.1 DEMOGRAPHIC ANALYSIS

As can be seen form the historical enrolment forecasts (Section 2.5), there is always a significant element of risk in predicting the future.

However, in doing so, we must use the best information available. There are several sources for this information:

- Ministry of Education Enrolment Projections
- BC Stats Population Forecasts
- Historical trends and analysis
- Enrolment forecasts from Baragar Systems, a BC company that specializes in providing school district enrolment projections based on available data and trends.
- Future development forecasts from the City of Mission and the Fraser Valley Regional District

The task for Cascade is to analyze all the available data from these sources and present a reasonable expectation of enrolment growth for Mission Public Schools.

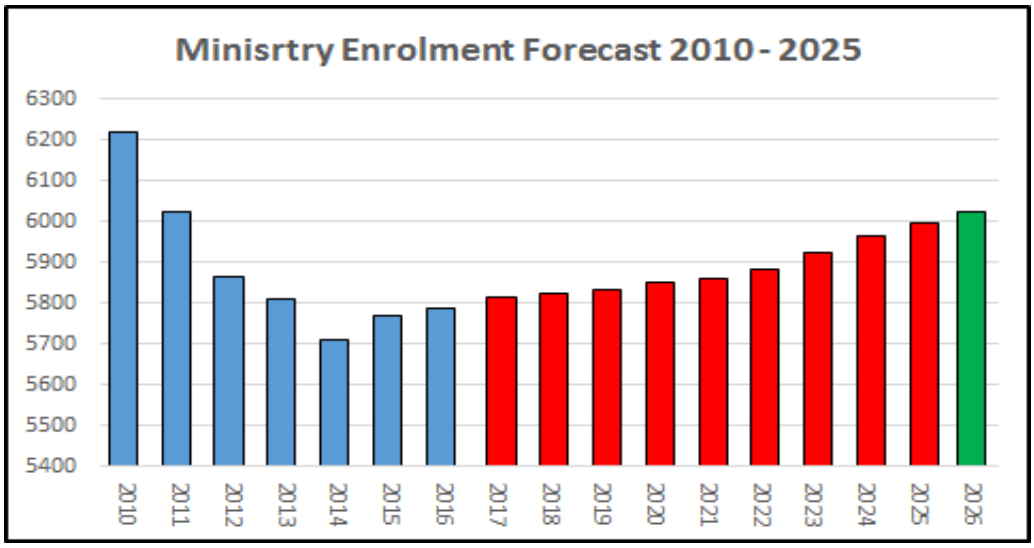
As part of that task, a complete demographic review was conducted. Details are included in Schedule D. It is labelled as 3 since the information learned from this analysis supports this section (3) of the LRFP.

All of these forecasting methods are examined in detail below.

### 3.1.1 MINISTRY PROJECTION

The Ministry of Education does its own enrolment projections for school districts. The latest projection only goes to 2025.

The current Ministry enrolment projection for SD#75 (Mission) is shown in the graphs below:




The graphs show the historical enrolment from 2010 to 2016 in **BLUE**, the Ministry's forecast enrolment from 2017 to 2025 in **RED** and a trend projection for 2026 in **GREEN**.

Collectively, the Ministry projection indicates a total enrolment growth of 236 students from 2016 to 2026.

This is the projection the Ministry will utilize unless the school district develops its own projection based on local knowledge of future development, enrolment trends, future housing and student yield rates.

Whether SD#75 (Mission) should accept the Ministry enrolment forecast or not is the rationale for the review of the demographics and potential student yield for the school district.

### 3.1.2 POPULATION PROJECTIONS BY BC STATS

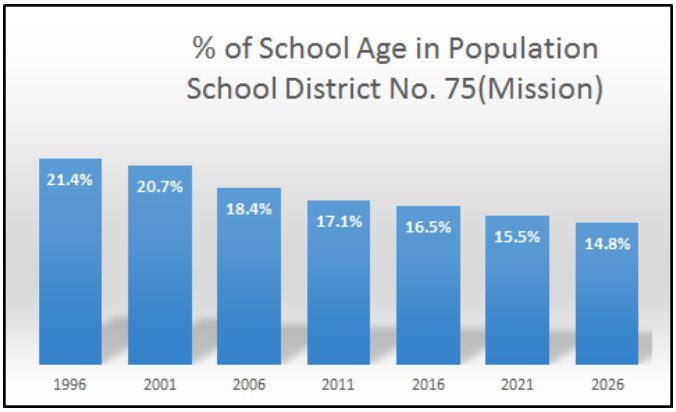
BC Stats provides a population projection specifically for school districts.

In addition, the latest Census was in 2016 so much of that information is current, even though not all of the components of the 2016 Census have yet been released.

The population numbers shown below are based on the latest available information. They include all people living within the school district boundary. The populations for 2006, 2011 and 2016 are actuals; 2021 and 2026 are future population projections by BC Stats:

| | | | |
|---|---|---|---|
| a. | In 2006 | 40,671 | |
| b. | In 2011 | 41,459 | an increase of 778 students |
| c. | For 2016 | 44,053 | an increase of 2,594 from 2011 |
| | | | an increase of 3,382 over the past decade (8.3%) |
| d. | In 2021 | 46,092 | an increase of 2,039 from 2016 |
| e. | In 2026 | 48,643 | an increase of 2,551 from 2021 |
| | | | an increase of 4,590 from 2016 (10.4%) |

In 2016, the percent of school age (5 to 17) in the overall SD population was 16.5%. There has been a constant decrease in the percent of school age since 1996 as shown on the right.




BC Stats predicts the percent of school age students in the population will continue to decrease slightly to 2026, but at a slower rate of decline.

For 2016, Mission Public Schools provides public education for 83% of all the school age students within the school district.

BC Stats is expecting the percentage of students attending Mission Public Schools to slowly increase as the population increases.

How this information generates new student enrolment projections for SD#75 is shown in the table below:

| Year | SD population | Increase over 5 year period | Increase over decade | % school age in population | No. of school age in population | % school age enrol in SD | No. of school age | Increase in school age |
|---|---|---|---|---|---|---|---|---|
| 2006 | 40671 | | | | | | | |
| 2011 | 41459 | 788 | 3382 | | | | | |
| 2016 | 44053 | 2594 | | 16.5% | | 83.2% | | |
| 2021 | 46092 | 2039 | 4590 | 15.5% | 316 | 84.8% | 268 | |
| **2026** | 48643 | 2551 | | 14.8% | 378 | 86.4% | 326 | **594** |

This data shows that the school district increased in overall population by 3,382 in the past decade and is expected to increase by 4,590 over the next decade. This reflects a higher rate of growth than over the past decade.

Averaging the rate of growth of 4,590 over the next decade provides for 460 people per year, a significant increase from the past decade of 340 people per year.

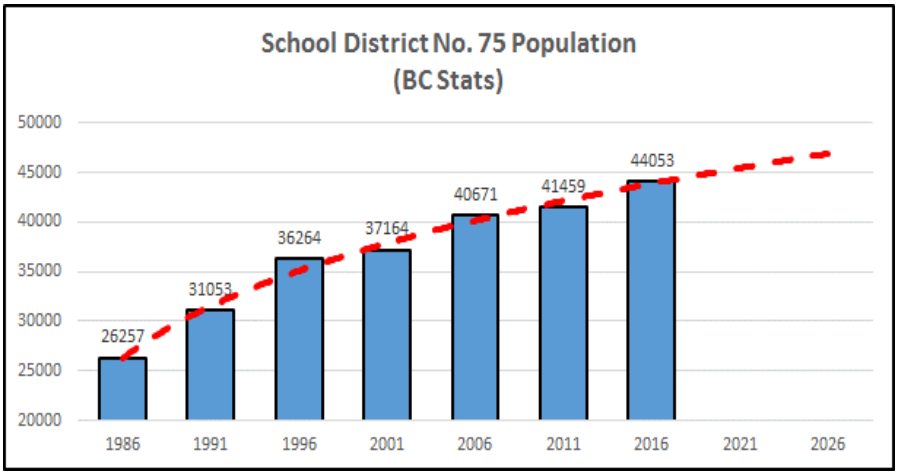
An increased rate of growth for the school district area is not considered unreasonable given the pressure in Metro Vancouver for affordable housing and employment opportunities. It has been generally recognized, that without significant market adjustments or new provincial affordable housing initiatives, there will continue to be a migration of people eastward from Metro Vancouver into the Fraser Valley.

Based on the latest information from BC Stats, anticipated growth within the school district area would yield 594 additional students for Mission Public Schools by 2026.

### 3.1.3 TREND ANALYSIS

The first step in the trend process is to look at the historical growth patterns and determine what might be reasonably predicted from them.

The historical population growth for the school district is shown at right. The trend indicates the population is expected to continue to increase.



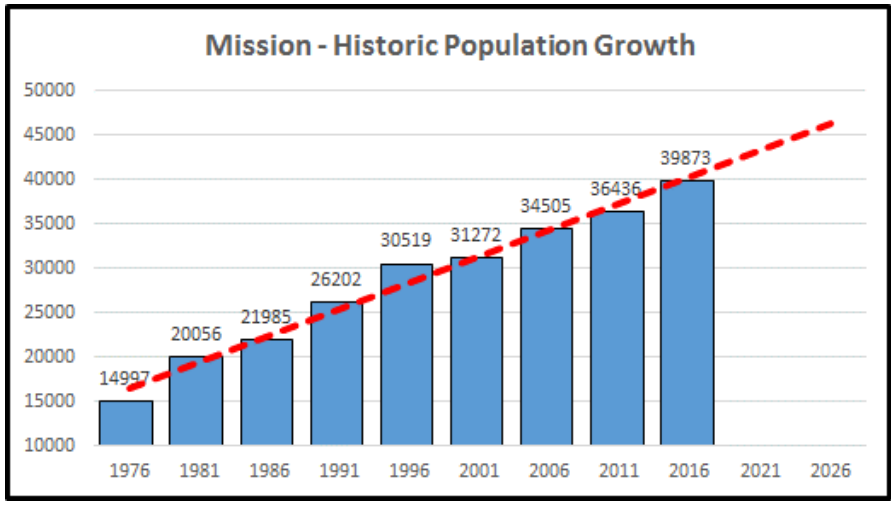

The growth of population within in the school district has also been relatively consistent over the past decade by 3,382 people or approximately 340 people per year.

The graph above for SD#75 shows a simple projection of the trend would see in excess of 47,000 people residing in the school district by 2026, an increase of almost 3,000 people from 2016, or approximately 300 additional persons per year.

The chart at right shows the historic population growth for the City of Mission. Note these are in 5 year increments in the years of the census.

Clearly, the trend in the City is also for the population to continue to increase.

The growth in the City has also been relatively consistent over the past decade.




Projecting this trend to 2026, the city population is anticipated to be approximately 46,000.

Looking back to 1976, here have been eight new census periods. In that time, the City has grown by 24,875 people. This averages 3,110 people in each 5 year interval and confirms the 46,000 as reasonable. This means there would be an average increase of 622 persons added to the City of Mission every year.

In 1986, the City contained 83.7% of the population in the school district. By 2016, the City population has grown to contain 90.5% of the population within the school district.

It is not surprising that the City is growing faster (622 persons per year) than the overall school district (at 340 persons per year), since the overall trend in the lower mainland as well as in BC generally, is a move away from the rural areas toward the urban environment.

Using this information to determine the potential growth trend results in the following table:

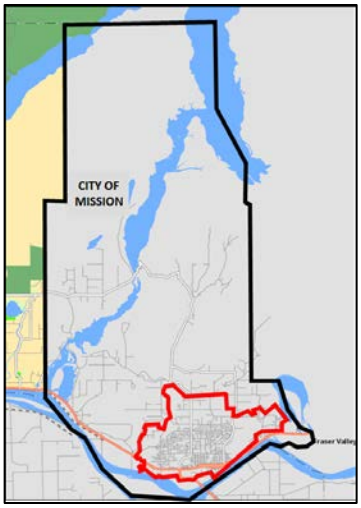
| Area | Year | Population | Trend projection population increase (Note 1) | | % of SD population (Note 2) | New population | New school age students (Note 3) | Student uptake (Note 4) |
|---|---|---|---|---|---|---|---|---|
| | | | 2016 to 2021 | 2016 to 2026 | | | | |
| SD area outside the City | 2016 | 44053 | | | | | | |
| | 2021 | | 1500 | | 9.5% | 143 | 22 | 19 |
| | 2026 | | | 1500 | 9.5% | 143 | 21 | 18 |
| City of Mission | 2016 | 39873 | | | | | | |
| | 2021 | | 3110 | | 90.5% | 2815 | 436 | 370 |
| | 2026 | | | 3110 | 90.5% | 2815 | 417 | 360 |
| | | | | | | | Total potential new students 2016 to 2026 | **767** |

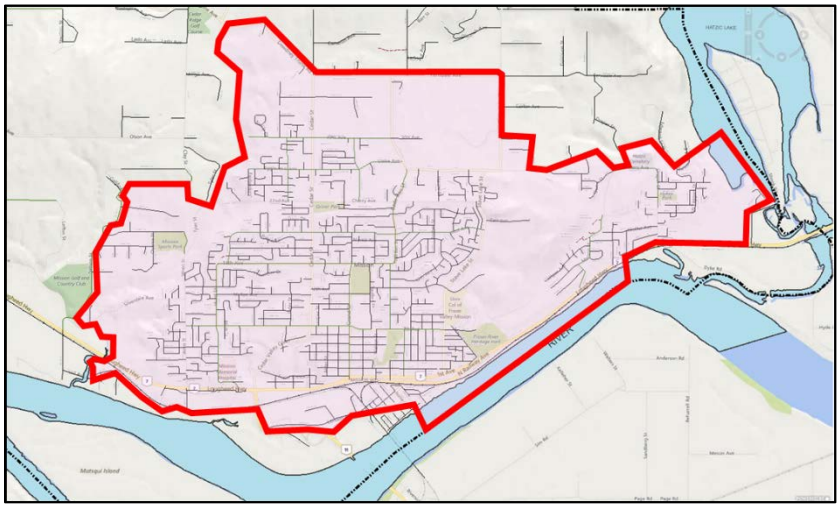
**NOTES:**

1. Projected increase in population spread evenly over each 5 year period
2. Split between City and area outside the City remains consistent at 90.5% and 9.5%
3. % of school age in population 15.5% for 2016 to 2021, 14.8% for 2021 to 2026
4. District uptake at 84.8% for 2016 to 2021, 86.4% for 2021 to 2026

The trend projection shows that, by 2026, there is a potential for 767 new students to enroll in SD#75 schools.

In Digging deeper, the urban area of the City, called the Mission Population Area in the Census, is shown on the maps below, where this area is located within the City of Mission is on the left and a detail outline of the area is on the right.



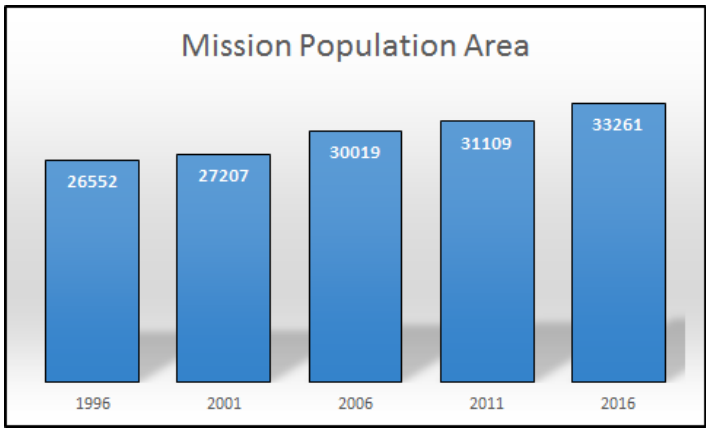



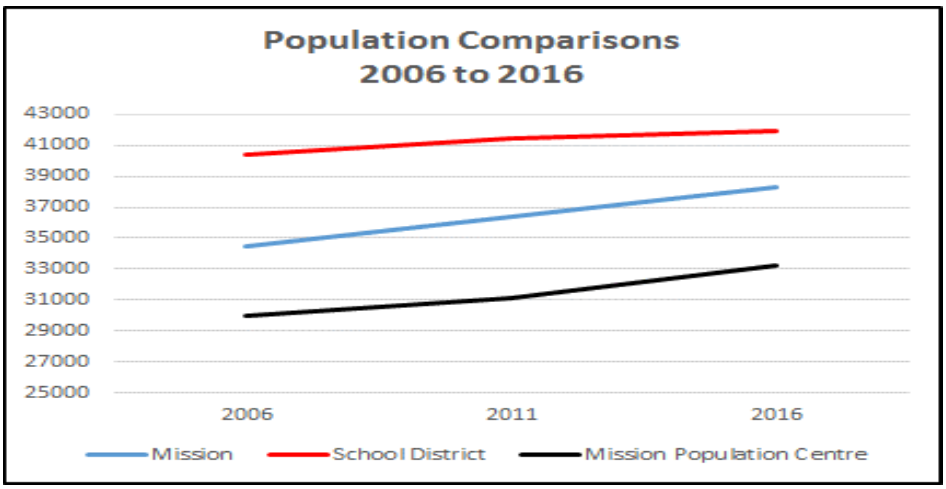
The growth in the Mission Population Area has also been relatively consistent over the past decade.

In the ten year period from 2006 to 2016, there was an increase of 3,242 people, or approximately 325 people per year.

Therefore, of the population growth in the City of Mission, approximately 52% of the growth has occurred within the urban area.

When the historical population growth for the City of Mission, the Mission Population Area and the school district are compared over the past decade, the result is as shown below.



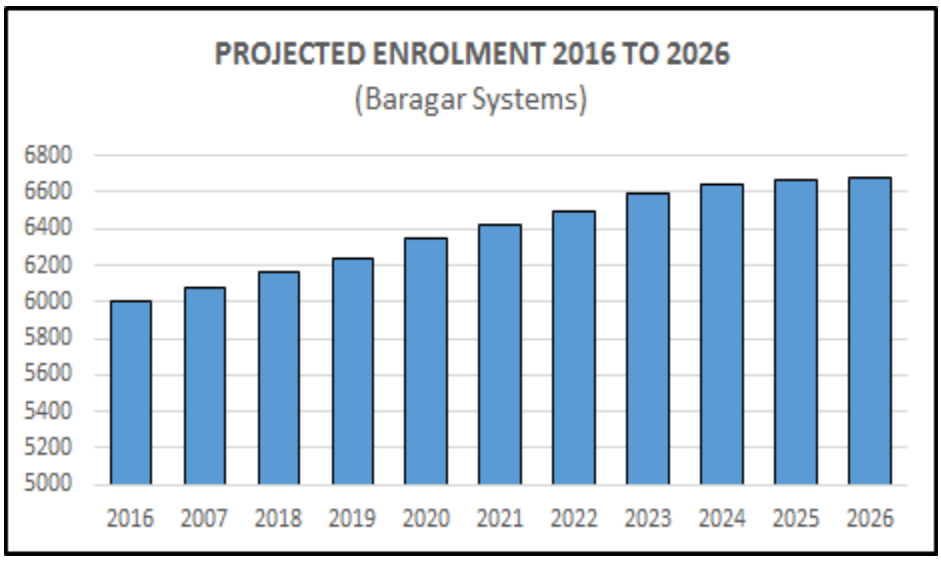

It can be seen from the graph that the historical growth patterns follow a similar parallel course.

Therefore, using the available data to forecast population growth in any one of these area will likely be reasonably accurate for them all.

### 3.1.4 BARAGAR SYSTEMS ENROLMENT FORECAST

Baragar Systems is a BC software company providing predictive enrolment information to school districts, including Mission Public Schools. This is an excellent planning tool and their current information provides for an enrolment forecast to 2026.

The preliminary forecast by Baragar Systems from 2016 to 2026 (10 years) shows the following enrolment:



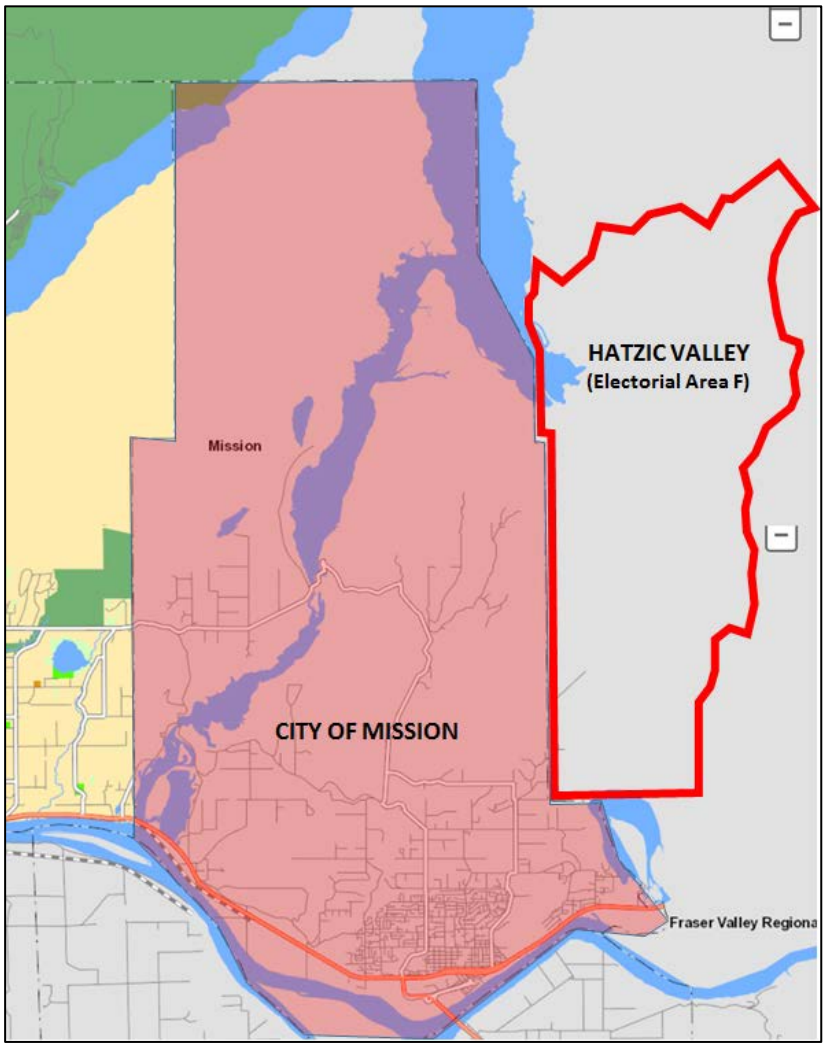

In comparison with the Ministry forecast of an additional 236 students for 2026, Baragar Systems forecasts an additional 639 students by 2026. This forecast does NOT include international students.

Similar to the BC Stats and trend projections, this forecast is higher than the Ministry enrolment forecast. An additional 639 students represents an overall enrolment increase of 10.9% over the next 10 years.

### 3.1.5 FUTURE LAND DEVELOPMENT FORECAST

This demographic analysis is largely carried out in conjunction with the City of Mission and to a lesser extent with the Fraser Valley Regional District. These local governments manage current development through land use zoning and potential future development through designations in their Official Community Plans.

Within the Fraser Valley Regional District (FVRD), the only area within the boundaries of the school district where development might have some impact over the next decade is in the Hatzic Valley.




This is located immediately adjacent to the east boundary of the City of Mission as shown on the map, but is entirely within the school district boundary.

The FVRD advises that the Hatzic Valley Land Use Plan allows for subdivision from 1.0 hectare to 0.5 hectare parcels where water service is available or 2 hectare minimum otherwise. There is sloping terrain in this area providing serious constraints to development and most of the valley is in the Agricultural Land Reserve (ALR).

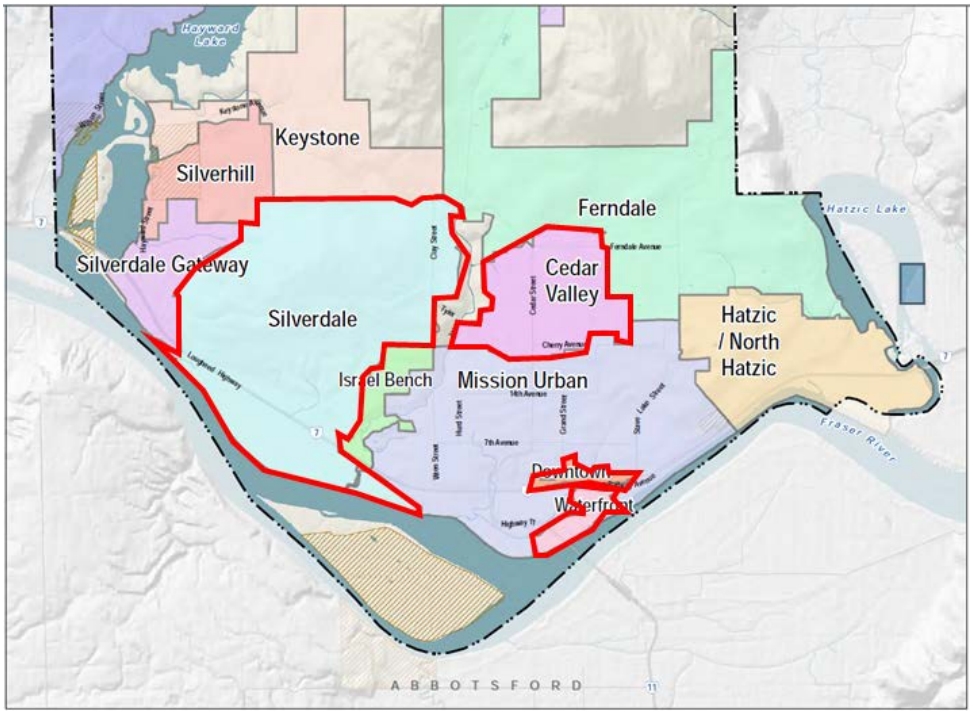
As a result, the FVRD expects here to be minimal growth. The current development is in the order of 12 building permits per year, not all of these have been for dwelling units.

The City of Mission has been the largest growth area in the school district, with over 50% of that growth in the urban area.

The City of Mission is currently reviewing their Official Community Plan (OCP) and reassessing their development cost Charge Bylaw. In addition, the City currently has four local area plans under public consultation and review, shown on the map below.

- Downtown Mission
- Cedar Valley
- Silverdale
- Waterfront

The OCP review, including these area plans, is underway but has not yet been adopted by City Council. Therefore the projected developments and their impact on student yield will need to be confirmed once the OCP review is complete.




In the interim, the City has provided the following anticipated growth information:

| AREA | POPULATION | UNITS | PEOPLE PER HOUSEHOLD | BUILD OUT | BY 2026 | AT 14.8% SCHOOL AGE | At 86% UPTAKE |
|---|---|---|---|---|---|---|---|
| Cedar Valley | 3000 | 1200 | 2.5 | 70% by 2026 | 2100 | 311 | 267 |
| Silverdale | 1950 | 720 | 2.7 | 50% by 2026 | 975 | 144 | 124 |
| Waterfront Area | 2500 | 1150 | 2.2 | 50% by 2026 | 1250 | 185 | 159 |
| Mission Downtown | 660 | 300 | 2.2 | 30 units/year | 660 | 98 | 84 |
| Hatzic | 625 | 625 | 2.5 | | 625 | 93 | 80 |
| Infill | 880 | 400 | 2.2 | 40 units /year | 880 | 130 | 112 |
| **Total** | **9615** | **4395** | | **Total Population** | 6490 | | |
| | | | | **New students at 14.8% school age in population** | | **961** | |
| | | | | **New students at 86% uptake for the school district** | | | **826** |

The growth rate for the City from 2006 to 2016 was 11.4%. To achieve the growth as outlined in the table above requires a City growth rate of 24.1% over the next decade. The question that remains is whether the City's growth prediction is achievable?

## 3.2 ENROLMENT FORECAST

### 3.2.1 THE FORECASTING CHALLENGE

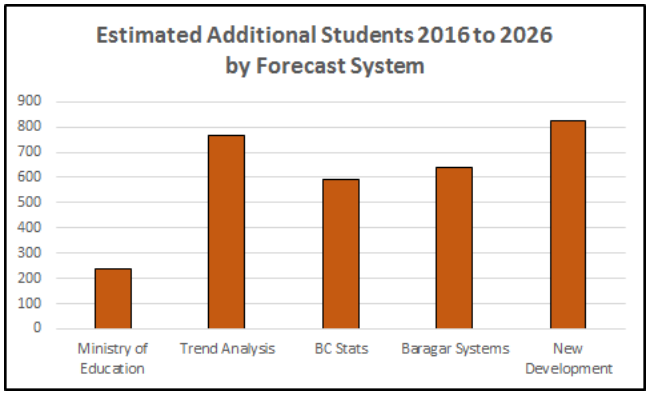
The challenge facing Cascade is to interpolate the results from the various enrolment forecasts and to consider these in light of the demographic information available. This will result in an enrolment forecast that is more realistic than following any one of the individual predictions.

Once the overall enrolment forecast is determined, this can then be applied to individual schools. With this information, the school district can make decisions about various options in order to accommodate these future students.

### 3.2.2 FORECASTING FUTURE ENROLMENT

In summary, the various systems that forecast enrolment yield the following data:

| SYSTEM USED FOR FORECASTING | ADDITIONAL STUDENTS BY 2026 |
|---|---|
| Ministry of Education | 236 |
| Trend Analysis | 767 |
| BC Stats | 594 |
| Baragar Systems | 639 |
| New Development | 826 |




The simple average of these enrolment forecasts is 612 new students.

Cascade believes the overall forecast for additional students will be between 600 and 650 by 2026. The forecast by the Ministry seems low considering the development analysis as provided by the City. On the other hand, Cascade believes the City's prediction of 24.1% growth over the next decade is extremely optimistic.

However, one thing is already clear; that the prime area serviced by Mission Public Schools is increasing in population that will result in an increase in enrolment.

For planning purposes, Cascade suggests 600 additional students as a realistic enrolment forecast through to 2026.

As a final observation, the forecast is still a forecast, and like all prediction tools, is subject to diminishing accuracy as the timeline is extended into the future. The next step in the LRFP is to determine where these students will likely reside and the impact of these additional students on the district's schools.

## 3.3 EDUCATIONAL CONSIDERATIONS

Looking ahead into the next decade, it can reasonably be expected that some of the educational programs will remain yet some changes to the educational system will continue to evolve.

FRENCH IMMERSION

There is a trend toward decline in French immersion going into the middle and secondary grades. In addition, the interest in this program at elementary has levelled off over the past several years.

The school district does not feel French Immersion will continue to grow at a rate similar to overall enrolment, as generally incoming residents to Mission are less likely to be French Immersion parents compared to neighbouring school districts.

However, French Immersion is expected to continue as a major district program at the current level of enrolment.

SCHOOL OF CHOICE

The school district has two specific elementary schools of choice, Hillside Traditional Academy and the Arts School at Edwin S. Richards Elementary.

The Board of Education is not supportive of expanding these programs, but will continue with these two programs. Both schools are in excess of 100% utilization for 2016/17.

An additional modular classroom will be placed at Hillside Traditional Academy and enrolment will be capped at both schools for the 2017/18 school year.

OTHER EDUCATIONAL ISSUES

The Supreme Court of Canada has directed re-negotiations between the Ministry and Teachers. This process is currently under way with uncertainty in what a final outcome will look like or how it might ultimately affect schools.

The school district has already received some funding and is evaluating how that may be used and what other classroom needs may result.

The school district is expecting an increase in the number of teachers. One area already identified is music teachers and therefore corresponding music rooms.

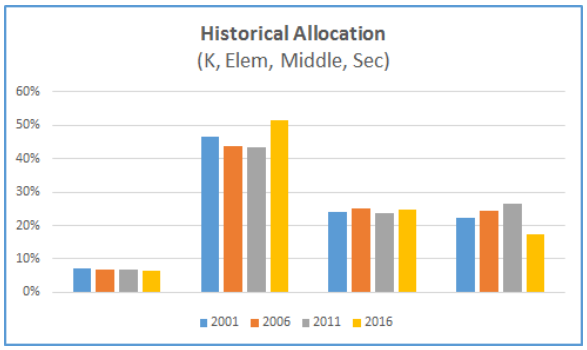
The district believes they have sufficient counsellors, mostly at the secondary level.

## 3.4 IMPACTS ON SCHOOL CAPACITY

Although the results of the Ministry/Teacher negotiations are not complete, the direct impacts of an increase of 600 students on the schools can be estimated.

Historically, the grade split for students within the district has been relatively consistent over the years.

| GRADES | 2001 | 2006 | 2011 | 2016 | AVERAGE |
|---|---|---|---|---|---|
| K | 7% | 7% | 7% | 6% | 7% |
| G 1-6 | 47% | 44% | 43% | 52% | 46% |
| G 7-9 | 24% | 25% | 24% | 25% | 24% |
| G 10-12 | 22% | 24% | 26% | 17% | 23% |

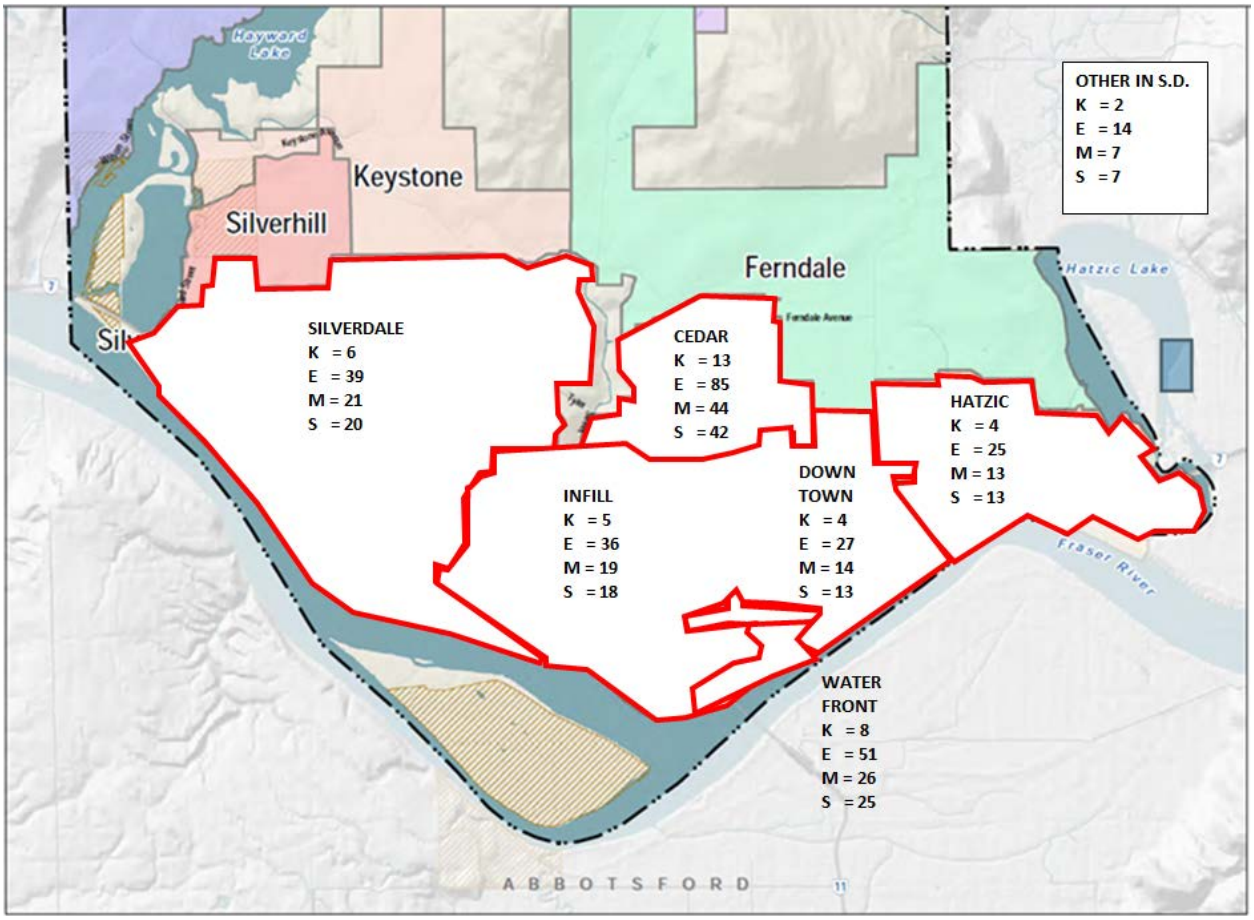



This allows the new students in the forecasted developments to be assessed against the applicable school grade.

| AREA | NEW STUDENTS AT 95% OF SCHOOL DISTRICT | K at 7% | G 1-6 at 46% | G 7-9 at 24% | G 10-12 at 23% |
|---|---|---|---|---|---|
| Cedar Valley | 184 | 13 | 85 | 44 | 42 |
| Silverdale | 86 | 6 | 39 | 21 | 20 |
| Waterfront Area | 110 | 8 | 51 | 26 | 25 |
| Mission Downtown | 58 | 4 | 27 | 14 | 13 |
| Hatzic | 55 | 4 | 25 | 13 | 13 |
| Infill | 77 | 5 | 36 | 19 | 18 |
| New Students | **570** | **40** | **262** | **137** | **131** |
| Outside the City | **30** | **2** | **14** | **7** | **7** |

Since the City is 95% of the population in the district, 570 of the new students will occur here. The remaining 30 students will reside outside the City elsewhere in the school district.

From the development analysis in Section 3.1, the new students will likely reside in the geographical areas as shown below:




ELEMENTARY SCHOOLS

For Silverdale Elementary, the 2016/17 enrolment is 117. The majority of students attending Silverdale already live within the current Silverdale catchment area and this is expected to continue. With a school capacity of 180, the school should be able to absorb 6 kindergarten and 39 G 1-6 elementary students.

In terms of the 2 kindergarten and 14 G 1-6 students that are forecasted for outside the City, some of these are likely to be attending Dewdney Elementary or Deroche Elementary. Both these elementary schools have more than adequate capacity to absorb the increase.

At Hatzic Elementary, the school has a 2016/17 utilization of 116.9%. There is no capacity to absorb the additional 29 elementary students anticipated by 2026. It may be necessary to include Hatzic Elementary within the urban area schools.

It is more difficult to estimate the direct impacts on a specific elementary school in the urban area. As is common in most school districts, there is a significant proportion of students that cross catchment areas. In addition, all of the elementary schools of choice are located within the urban area of the City.

The largest proportion of the forecasted growth in the City is in the Cedar Valley area. There is no elementary school in this area at present so all of these 98 new elementary students will be migrating into the urban area to attend school.

In addition to the forecasted increase in the downtown (31), waterfront (58), Hatzic (29) and the urban infill (41), this will increase the urban area enrolment total by 257 elementary students by 2026.

The table below shows the expected demand in the elementary schools by 2026.

| Facility Name | Total Op Cap | 2026 Elementary Forecast | Utilization 2026 |
|---|---|---|---|
| **ELEMENTARY - REGULAR ENGLISH** | | | |
| ALBERT MCMAHON ELEMENTARY | 360 | Existing 2,860 elem. Students less 981 (Chouce + EFI below) plus 257 new students | |
| CHERRY HILL ELEMENTARY | 360 | | |
| CHRISTINE MORRISON ELEMENTARY | 184 | | Less EFI cohort |
| HATZIC ELEMENTARY | 249 | | |
| MISSION CENTRAL ELEMENTARY | 209 | | Less EFI cohort |
| WEST HEIGHTS ELEMENTARY | 291 | | |
| WINDEBANK ELEMENTARY SCHOOL | 383 | | |
| | **2036** | **2136** | **104.9%** |
| **ELEMENTARY - SCHOOLS OF CHOICE** | | | |
| EDWIN S RICHARDS ELEMENTARY | 337 | 337+ | Increased enrolment is expected and will be accommodated to retain students in the public school system |
| HILLSIDE TRADITIONAL ACADEMY | 295 | 295+ | |
| | **632** | **632+** | |
| **ELEMENTARY - FRENCH IMMERSION** | | | |
| CHRISTINE MORRISON ELEMENTARY | 175 | 175 | EFI cohort is not expected to decrease |
| MISSION CENTRAL ELEMENTARY | 174 | 174 | |
| | **349** | **349** | **100.0%** |

In summary, by 2026, the elementary school regular enrolment is expected to exceed capacity. The utilization will then be 104.9%.

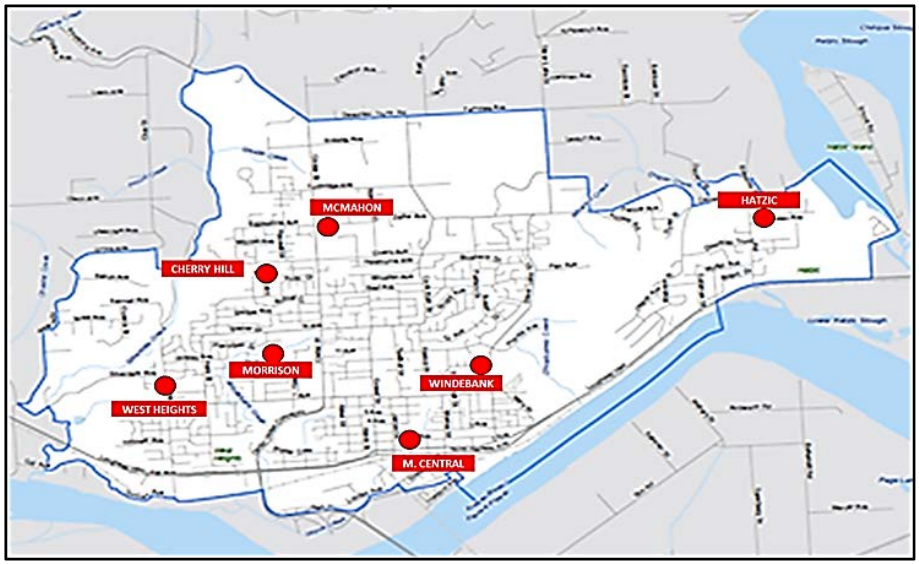
Edwin S. Richards and Hillside Traditional Academy will continue as schools of choice. The above table shows them at 100% capacity, however as a result of Restorative Planning and growth for 2017-18, additional portables are being added to accommodate an increase in enrolment – one portable at Edwin S. Richards and two portables at Hillside Traditional Academy.

There is a strong demand for schools of choice. The school district will attempt to accommodate those students at these schools to reduce the enrolment pressure at the other schools and to retain these students in the public school system.

The Early French Immersion cohort at both Christine Morrison Elementary and Mission Central Elementary is also shown at capacity. Enrolment in Early French Immersion has been steady and is not expected to decrease over the term of this Long Range Facility Plan.

Increased enrolment in schools of choice is expected. The district will attempt to accommodate these students at Edwin S. Richards and Hillside Academy as much as possible.

If EFI enrolment expands, then the other regular English schools will face additional enrolment pressure as the English capacity at these two schools is reduced.




The urban schools are shown on the map.

It is anticipated these elementary schools will exceed 100% utilization before 2026 with a capacity shortfall of 99 students by 2026.

At 95% utilization in the urban area, the capacity shortfall would be 250 elementary students by 2026.

MIDDLE SCHOOLS

The total forecasted increase at middle schools is 144 students. There is adequate capacity in the middle schools to accommodate this increase.

SECONDARY

The most significant impact will be at secondary. The current capacity of Mission Secondary is 1,250 Grade 10-12 students. In addition to the 1,187 students current enrolled, there are 109 international students at Mission Secondary for a school enrolment of 1,296. For the 2016/17 school year, these additional students were accommodated through the use of modular classrooms.

Adjustments for Restorative Planning have required the addition of 5 portable classrooms for 2017-18.

The 2026 enrolment forecast is for an additional 138 secondary students. This will push the regular student numbers to 1,325. This represents a utilization of 106%.

This utilization of 106% is without allocating space for international students. The forecast for 2026 is outlined below. With international students included, the utilization becomes 115%.

## 3.5 IMPACTS ON TRANSPORTATION

This change in growth is not expected to have a significant impact on transportation of students. However, bus routes are adjusted annually as development occurs and changes are required.

## 3.6 SUMMARY

Enrolment is forecasted to increase by at least 600 students over the next decade.

To accommodate this increase, additions to existing schools or even replacement schools may be required. Until these are approved, the District will have to continue using the existing schools in their current locations.

In addition, the Restorative Planning impacts on the district have been significant.

For Sept 2017, 30 additional classrooms have had to be located. Existing classrooms in use for other school programs, service providers or tenant services had to be reclaimed. Often, this required the complete relocation of tenants to some other facility.

Eight new portable classrooms were added – one to Edwin S. Richards Elementary, two to Hillside Traditional Academy and 5 to Mission Secondary.

# 4. OPTIONS

## 4.1 OVERVIEW

All options to accommodate the needs of students over the next decade have been considered. In that review, the following were observed:

- Schools of Choice will remain for the foreseeable future.
  The capacity at both Edwin S. Richards and Hillside Traditional Academy were expanded through portable classrooms as enrolment pressure and the site constraints permitted. This will reduce pressure on the other schools and help to retain students in the public school system.

- 8 modular classrooms were added for Sept 2017.
  One at Edwin S. Richards
  Two at Hillside Traditional Academy, and
  Five at Mission Secondary

- Early French Immersion enrolment is expected to remain consistent or may slightly increase.
  It is not expected to decrease over the foreseeable future.

- International students were not counted in the district enrolment projection

- Portable classrooms were not included in capacity calculations
  There are no modular classrooms in the district (Provided for full day kindergarten)

- The modular complex at Heritage Park Middle was NOT included in the middle school capacity.
  The school district is terminating some of the current licenses of existing tenants to take over the space for other school support users displaced by Restorative Planning.

- K – G 6 enrolment for 2016/17 was 3,175.
  257 additional elementary students are expected by 2026. This would total 3,432 students.
  The elementary school capacity shortfall by 2026 will be:
  - 99 spaces at 100% utilization
  - 250 spaces at 95% utilization

- G 7, 8 & 9 enrolment for 2016/17 was 1,283
  144 additional middle school students are expected by 2026. This would total 1,427 students.
  The middle school increase by 2026 is forecasted to be 144 students.
  There is currently sufficient capacity to accommodate those students

- G 10 – 12 enrolment for 2016/17 was 1,184.
  138 additional secondary students are expected by 2026. This would total 1,322 students.
  The secondary school capacity shortfall by 2026 will be:
  - 72 students at 100% utilization
  - 177 students if 105 international students are counted

## 4.2 OPTIONS TO ADDRESS THE FORECASTED SHORTFALL AT SECONDARY

### 4.2.1 RETURN TO 3 SECONDARY SCHOOLS

The re-configuration decision to create 1 secondary school for grades 10 – 12 occurred effective Sept 2015. That decision also created 2 middle schools – Hatzic and Heritage Park Middle schools.

The prime rationale for this re-configuration was to improve the overall educational opportunities for grades 10 – 12. With one secondary school the District is able to provide more course variety to meet student educational goals.

Returning to 3 secondary schools is a less satisfactory educational situation for grade 10 – 12, as the District would not be able to offer the full array of courses at all three schools. It would require a considerable consultation process to implement, and may also require upgrades to the shop facilities in the two middle schools.

This option is **NOT RECOMMENDED** for consideration.

### 4.2.2 EXPAND MISSION SECONDARY

For 2016/17, Mission Secondary has a 2016 enrolment of 1,184 regular plus 109 international students. There are 10 portable classrooms on-site – 5 were added for the 2017/2018 year due to class size and composition requirements.

The 2026 forecast is for an additional 138 regular students with the international students remaining relatively consistent at 105 students.

Technically, with a total regular enrolment of 1,322 students, the school will exceed capacity by 72 students. These could be accommodated in 3 portable classrooms or by adjusting class sizes. However, the Restorative Planning impacts have reduced class size significantly, requiring 5 more portables for 2017/2018.

Even with the addition of 105 international students, the overall capacity shortfall at 100% utilization is 177 spaces, prior to considering composition requirements.

Although renovations for the re-configuration in 2015 were made to improve the functionality of the school, it is an old facility, which may benefit from interior renovations to improve the space utilization. Due to the layout of the site, adding more portables will eventually compromise the site. An addition may provide a better use of space to allow the school to grow.

This option is **RECOMMENDED** for consideration.

### 4.2.3 REPLACE MISSION SECONDARY WITH A LARGER SCHOOL

The current enrolment of Mission Secondary exceeds the capacity of 1,250 students (1,184 regular and 138 international). The projected forecast has the school over capacity by 2026.

This option is **RECOMMENDED** for consideration.

### 4.2.4 ADD GRADE 10 TO THE MIDDLE SCHOOLS

The combined capacity of Hatzic Middle (350E + 650S) and Heritage Park Middle (325E + 600S) would be 675 Elementary + 1250 Secondary. This is a total capacity of 1,925 students.

The G7, 8 & 9 enrolment is 1,283 for 2016/17 plus an additional 144 students = 1,427 by 2026. Theoretically, there would be a surplus capacity of 1,925 – 1,427 = 498.

The 2016/17 Grade 10 enrolment is 421 students. The forecasted enrolment increase to 2026 is an additional 68 students for a total of 489 students in 2026.

Theoretically, the two middle schools could accommodate all G7, 8, 9 & 10 for 2016/17 and through to 2026.

Adding grade 10 to the middle schools alters the educational structure from a middle school to a middle/junior school structure.

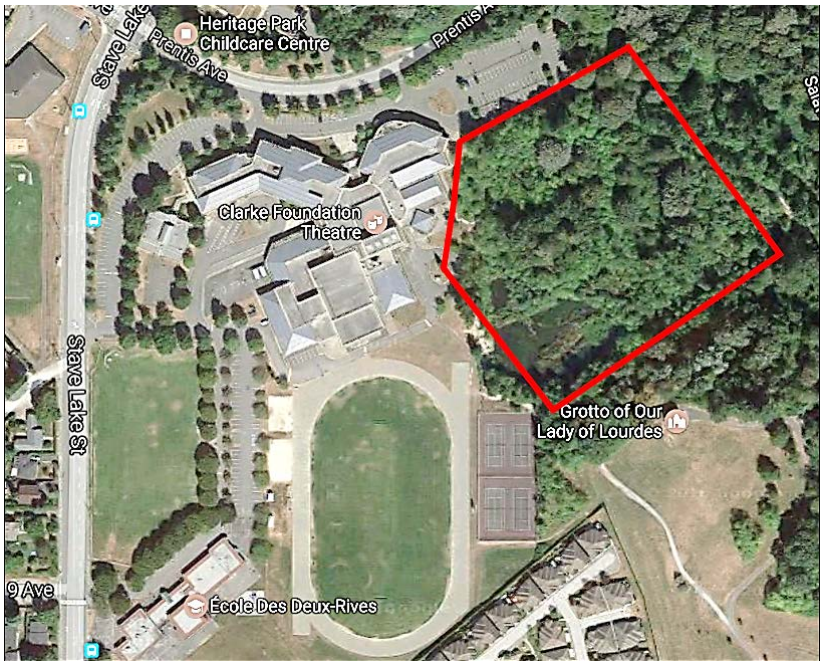
This option is **NOT RECOMMENDED** for consideration at this time.

### 4.2.5 CHANGE SECONDARY TO HERITAGE PARK

The secondary capacity excluding the space occupied by University of the Fraser Valley (UFV) and the 5 modular classrooms complex is 800.

Heritage Park was constructed as a secondary school so facilities are appropriate for G 10-12.

If the UFV and the modular complex were included, the capacity as a secondary school would be 1,125.




Heritage Park would still have a slight capacity shortfall (59 spaces immediately in 2017 and 302 in 2026) and may require the addition of modular classrooms in the interim.

However, Heritage Park does offer the possibility of adding an addition to the school on the north east corner, as outlined on the aerial.

To further discuss this option as a possibility would require relocating the middle school grades 7, 8 and

9 to Mission Secondary. The total forecasted enrolment in 2026 for grades 7-9 is 1,283 in 2016 plus 144 additional for a total of 1,427 students.

If the two middle schools remain similar in enrolment, then 715 students would have to attend Mission Secondary. The existing Mission Sec could then be reduced with better overall utilization of the site.

This option is complicated by the fact that the UFV portion of the facility is owned by UFV. Heritage Park is a community school, with the UFV located in a portion of the building, and the second gym constructed and scheduled by the City. As such, the community has extensive use of this facility after school. If Heritage Park is the only high school facility with significant extracurricular after school activities, we would anticipate conflicts with the community.

This option could only be considered if UFV desired to vacate the space, and the School District could secure the use of the UFV space.

Reconfiguring Heritage Park to be the only secondary school would require an addition even if the UFV space could be utilized.

This option is **NOT RECOMMENDED** for consideration.

## 4.3 OPTIONS TO ADDRESS THE FORECASTED SHORTFALL AT ELEMENTARY

### 4.3.1 ADD GRADE 6 TO THE MIDDLE SCHOOLS

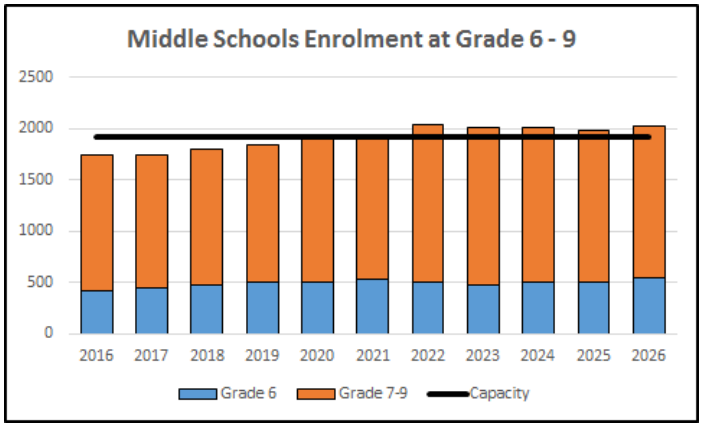
The 2 middle schools currently have excess capacity. Collectively, even with forecasted middle school enrolment growth, there is estimated to be some surplus spaces by 2026.

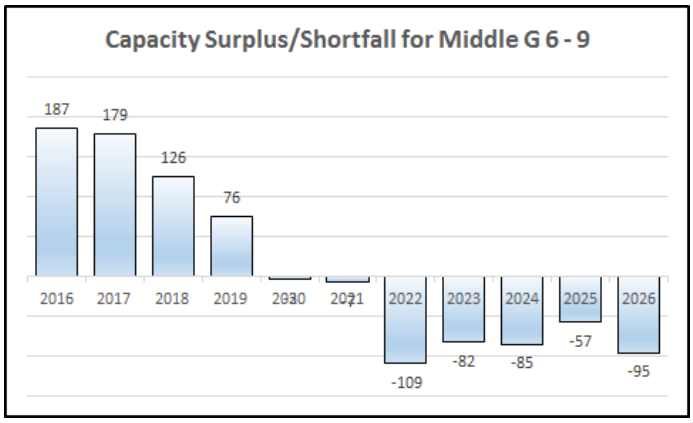
Adding grade 6 students to current middle schools of grades 7, 8 and 9 would be unusual but not necessarily undesirable.

The graphs at right show the projected enrolment with grade 6 added. The graphs shows that the capacity of the middle schools would not exceed 100% utilization until approximately 2022.

At that time, the additional capacity of the modular complex could be added to relieve enrolment pressure.

As an alternative, Grade 6 could possibly remain in the rural elementary schools (Dewdney, Deroche and Silverdale) as well as schools of choice (Arts, Traditional and



EFI) at existing elementary schools. This would eliminate the capacity shortfall at the two middle schools.

This option is **NOT RECOMMENDED** for further consideration at this time.

The impact of Restorative Planning has not been included in this assessment since this option is not recommended. For Sept 2017 there has been significant adjustment to the school in terms of the number of available classrooms to implement this option.

### 4.3.2 RE-OPEN FRASERVIEW LEARNING CENTRE

The forecasted shortfall in capacity for K – 6 by 2026 is 250 spaces at 95% utilization.
Fraserview has a Nominal Capacity of 20K + 325 and a resulting Operational Capacity of 318 for K – 6.

Re-opening Fraserview would satisfy the requirement for future capacity through to 2026 and beyond.

Although Fraserview Elementary was closed in 2008, the building has not been vacated. As a result, should the school be re-opened, there may be no significant building code issues to resolve. There may be a need to provide some minor renovations and some aesthetic improvements.

The Fraserview Learning Centre is currently used 50% for District programs, and 50% by tenants. The District programs include the distant learning education program (5 classrooms), and the alternate education program (4 classrooms). The tenants occupy 9 classrooms – Lifetime Learners/Seniors programing (2 classrooms), and YES an international education program (7 classrooms).

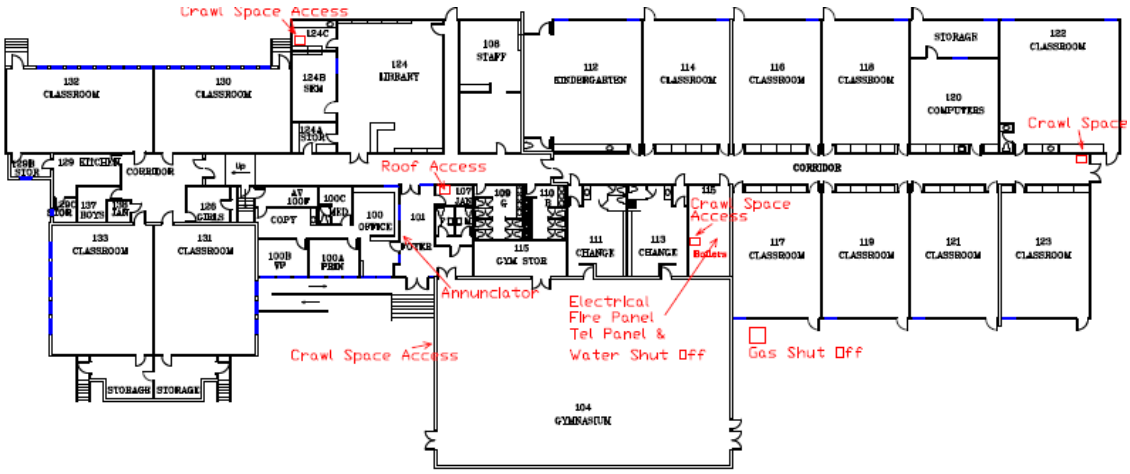
An alternate location for the District's programs is not readily available, and would need to be researched.

This option is **RECOMMENDED** for further consideration.

### 4.3.3 REPLACE HATZIC ELEM WITH A LARGER ELEMENTARY SCHOOL

For 2016/17, Hatzic Elementary has an enrolment of 291 students with an operational capacity of 249. This is a utilization of 117%.

The school does not have a multipurpose room. In order to accommodate the growth pressures adjusting the catchment boundaries may relieve some of the enrolment pressure on this school.

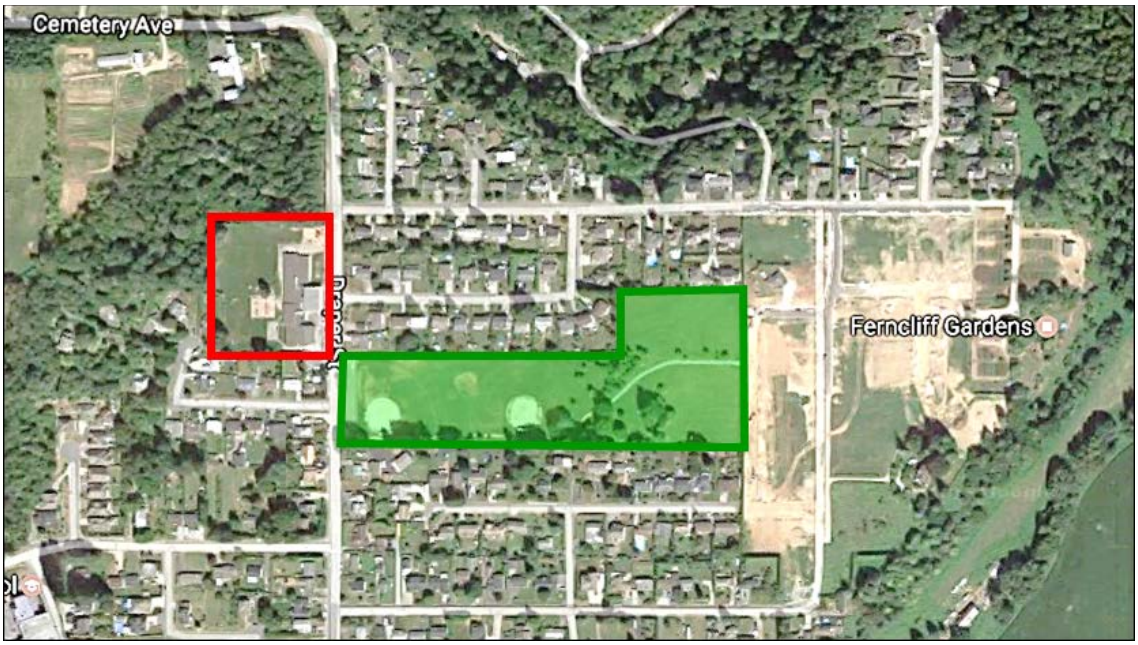



However, the current site area is 1.4 ha. For this size of site, the *Area Standards* allow a nominal capacity of 200. This would be an operational capacity of 203 when the kindergarten classroom is included. Based on site size, at an enrolment of 291 students, the school exceeds its capacity by 88 students.

The current school site is a difficult site since the land at the northwest corner rises sharply. That is shown in the photo below. This already provides a substandard playfield and makes expansion of the site impractical.

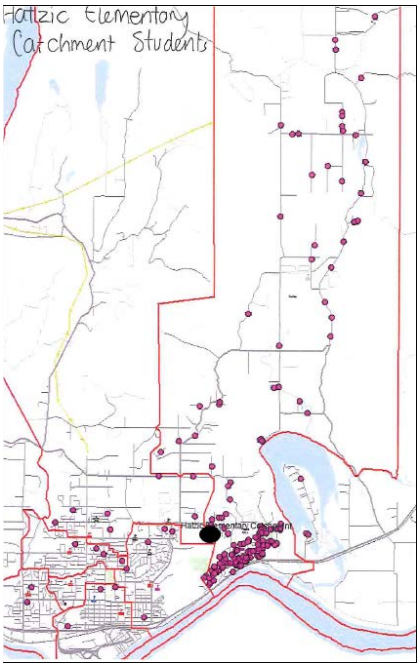
Initially, there was discussion with the City about a land exchange with Hatzic Park and constructing a new school on the park site.

The current school site is shown below outlined in **RED** with Hatzic Park outlined in **GREEN**. The land to the east of the park (shown in light brown) is currently underway with development.




Although the park site is about 2.1 ha there is a significant rise in the land at the dogleg that makes visibility from the east side impossible from the west, and vice versa. This makes the site undesirable for elementary aged students since the playfield cannot be supervised from the school.

There is significant development occurring in the Hatzic Valley area. This is a family oriented area that will produce new students for Hatzic Elementary.




As enrolment pressure rises in this area, there really are two options:

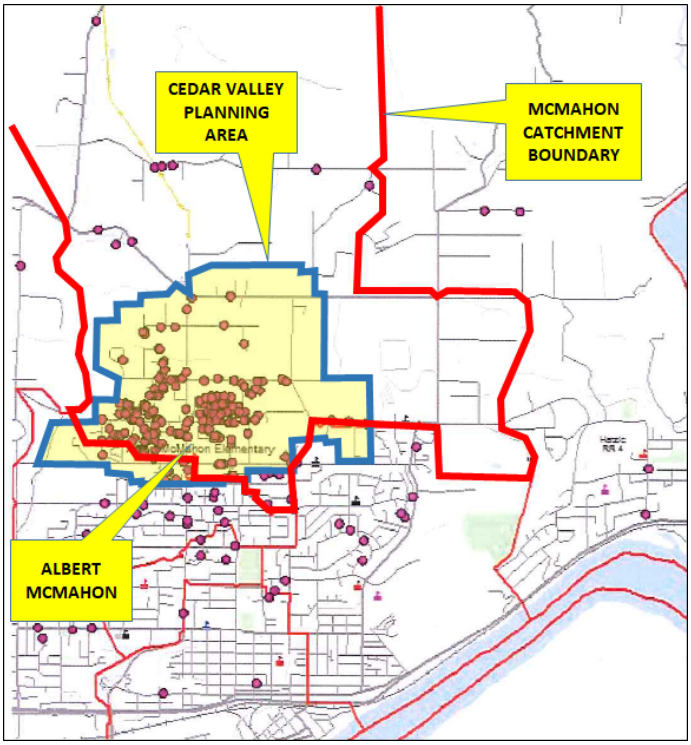
1. Strictly enforce the catchment boundary. There are some students who attend from outside the catchment area. This will allow those within catchment better access to their school but will create additional pressures at the other urban schools.

2. Search for a new school site. This option requires considerable review. The potential disposal value of the existing school site should be ascertained.

Due to the age of this building and enrolment pressure, this option is **RECOMMENDED** for consideration, research and action.

### 4.3.4 ADDITION TO ALBERT MCMAHON ELEMENTARY

The prime growth area within the City of Mission is the Cedar Valley area. The cedar Valley Planning Area is shown on the map at right as well as the location of Albert McMahon and its catchment area.




The only elementary school in the Cedar Valley area is Albert McMahon.

Albert McMahon currently has an operational capacity of 360 and a 2016/17 enrolment of 389, for a utilization of 108.1%.

Albert McMahon is a large school site of 3.9 hectares and is capable of accommodating an addition.

If all the K – 6 forecasted growth in Cedar Valley was accommodated at Albert McMahon, it would require an addition of 5 classrooms.

This option is **RECOMMENDED** for further consideration.

### 4.3.5 OPEN A NEW SCHOOL AT 9136 CEDAR STREET

This site is located in the Cedar Valley area north of Albert McMahon Elementary. The site area = 2.08 ha. The *Area Standards* allow a nominal capacity of 350 + K.


At present, there is very little information about the geotechnical considerations for the site. In addition, the site should be researched for the availability of water, sanitary sewer and storm drainage.

This option is **RECOMMENDED** for further consideration and research.

### 4.3.6 RE-OPEN FERNDALE AS AN ELEMENTARY SCHOOL

Ferndale was closed in 2008 and is currently used for the Facilities Dept. Phase 3 of the proposed 5 phases have been completed. Phase 4 is currently ready for tendering.

The remaining Facility Divisions remain at Riverside College until the renovations at Ferndale are completed.

Ferndale has a Nominal Capacity of 20K + 150 and a resulting Operational Capacity of 157 student for K – 6.

This capacity would be sufficient for the 99 additional students in 2026 at 100% utilization, but not the 250 students expected by 2026 at a utilization of 95%. Ferndale is also remote relative to most of the new development expected for Mission.

The site is not suitable for a substantial addition to the school.

Re-opening Ferndale also requires the re-location of the Facilities Department again. Returning to Riverside College is not an acceptable option, so alternate facilities would need to be located and renovated. In addition, returning the building to be used as a school is a change in use, and would most likely be impacted by recent changes to the building code.

The option is **NOT RECOMMENDED** for consideration.

### 4.3.7 RE-OPEN STAVE FALLS ELEMENTARY

Stave Falls Elementary has been closed since 2008. In 2018 the board of Education voted to re-open this school.

The majority of the student enrolment growth is expected to occur in the urban core. This school is significantly beyond the urban core.

The school is being re-opened for September 2019, however it is not believed that it will significantly reduce pressures in other areas due to its remote location. This area is also vulnerable to population decline because of the current limit on housing in the area. Future development in the area is possible.

This option is **BEING UNDERTAKEN**.

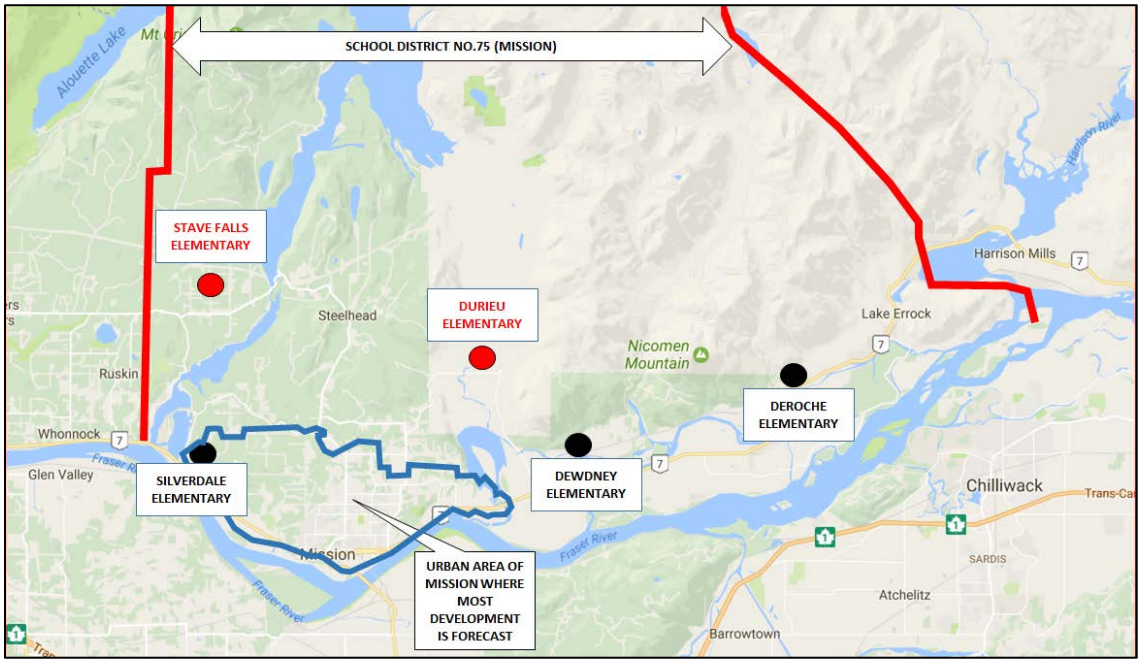
### 4.3.8 RE-OPEN DURIEU ELEMENTARY

Durieu Elementary has been closed since 2011. To re-open the school may require significant building code upgrades and maintenance activities.

Given this school location and the future development forecast, there is limited justification to re-open

the school between 2016 and 2026.

This option is **NOT RECOMMENDED** for consideration at this time.




### 4.3.5 CATCHMENT BOUNDARIES

As with many school districts, each elementary school has a significant number of students that attend from outside the school catchment boundary.

For special programs of choice, this is expected. However, for capacity efficiency, the school catchments can be aggressively enforced or changed to suit the optimum student locations.

The District initiated this process in 2016/2017 and is closely monitoring cross boundary students.

Changing the boundaries does not add capacity to the district and is not a long term solution to accommodate the expected enrolment growth.

# 5 CONCLUSIONS

As a result of the above, several conclusions can be observed:

5.1 Mission Public Schools is a growing school district.

5.2 Restorative planning has had a significant impact on the school district. The largest impact has been the need to open 30 additional classrooms in the district.

5.3 Mission Secondary has already exceeded capacity with the implementation of Restorative Planning, requiring the addition of 5 more portable classrooms for Sept 2017. Even using the Ministry's Area Standards, Mission Secondary will exceed its operational capacity well before 2026. An addition will be required.

5.4 An addition to Mission Secondary (or a complete school replacement) is the only reasonable option to accommodate future grade 10 – 12 students.

5.5 There is sufficient capacity at middle schools to accommodate the projected enrolment until 2026

5.6 There are four (4) options that may provide the additional capacity required for the growth in enrolment in the elementary grades k – 6:

- Replace Hatzic Elementary with a new and larger school
- Re-open Fraserview Learning Centre for regular enrolment
- Provide an addition to Albert McMahon Elementary
- Construct a new school at 9136 Cedar Street (or an alternate site)

5.7 Without some action, the elementary and secondary enrolment will substantially exceed operational capacity by 2026.

# 6 REPORT SUMMARY

The Long Range Facility Plan looks at demographics, enrolment and educational programs to try and determine what facilities are required to serve and support the student population.

At this time, it is observed that Mission Public Schools is well served with the existing schools and support facilities. While enrolment is forecasted to increase over the next decade, it is not expected to be sufficient to require wholesale changes in the district's schools or other facilities. However, some additional operating capacity will be required.

Notwithstanding the above comments, there are opportunities for changes both within and between the existing schools to optimize the learning experience for the future.

# SCHEDULE A

## SCHOOL DISTRICT MAP

School District No. 75 is located in the lower mainland and occupies the area north of the Fraser River between SD#42 (Maple Ridge – Pitt Meadows on the west and SD#78 (Fraser – Cascade) on the east. The school district includes a substantial urbanized area of the District of Mission and large rural areas on the north, west and east sides of the school district.

# SCHEDULE B

## INVENTORY OF SCHOOL FACILITIES

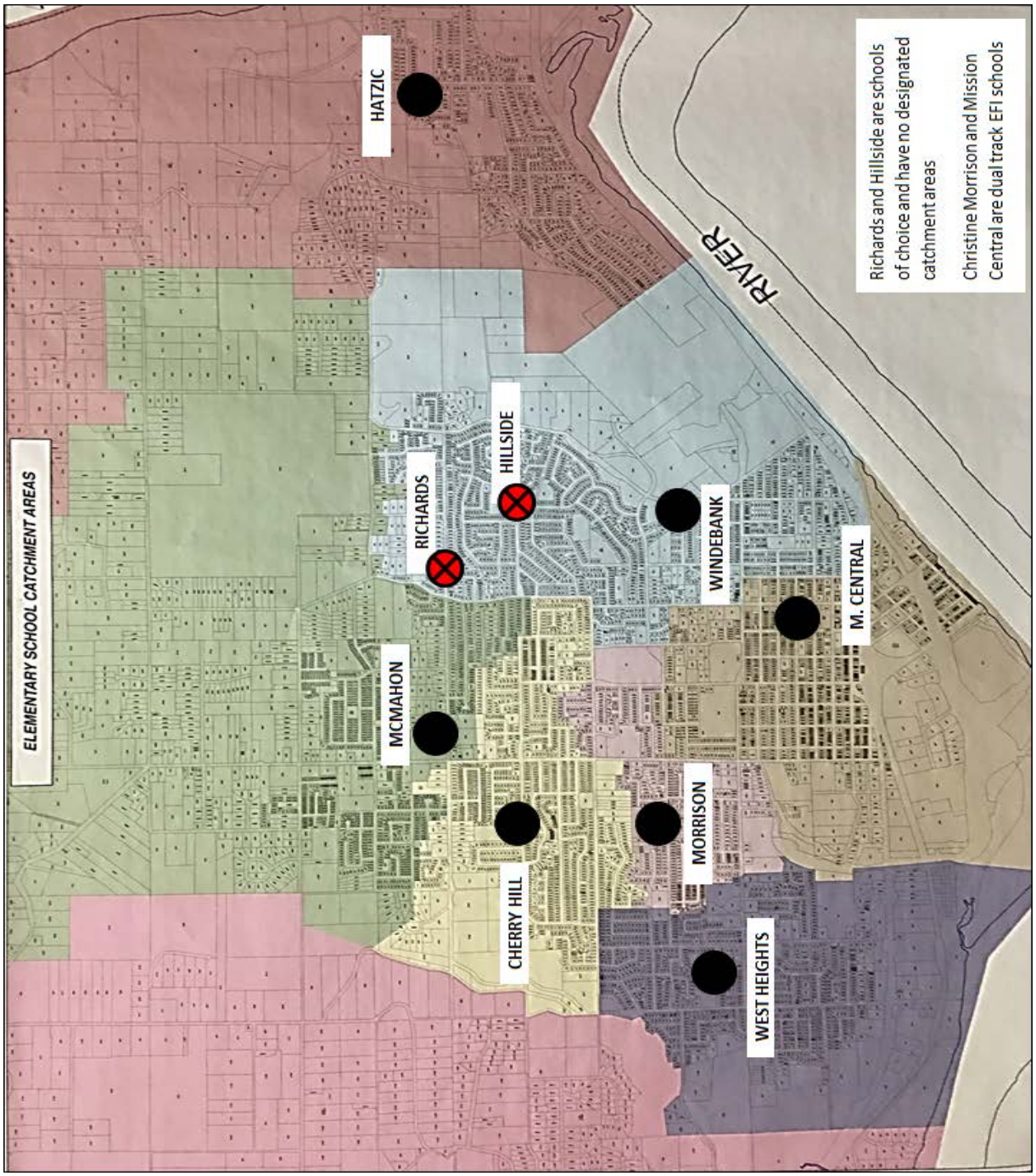
This schedule contains key information about all the active schools in SD#75.

| Facility Name | Facility Open Date | Grade Config. | NOMINAL CAPACITY | | | OPERATIONAL CAPACITY | | | | Total Middle |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | K Cap | E Cap | Strong Start Centre | Kindergarten = 19 per classroom | Elementary = G 1-6 = 23 G 7-9 = 25 | Total Elementary School Operational Capacity | Secondary Capacity | |
| **ELEMENTARY SCHOOLS** | | | | | | | | | | |
| ALBERT MCMAHON | Sep-89 | GC:K-6 | 40 | 350 | | 38 | 322 | 360 | | |
| CHERRY HILL | Sep-78 | GC:K-6 | 40 | 375 | 25 | 38 | 322 | 360 | | |
| CHRISTINE MORRISON | Sep-92 | GC:K-6 | 40 | 350 | | 38 | 322 | 360 | | |
| DEROCHE | Jan-96 | GC:K-6 | 20 | 150 | 25 | 19 | 115 | 134 | | |
| DEWDNEY | Sep-24 | GC:K-6 | 20 | 175 | | 19 | 161 | 180 | | |
| EDWIN S RICHARDS | Sep-51 | GC:K-6 | 40 | 325 | | 38 | 299 | 337 | | |
| HATZIC ELEM | Sep-11 | GC:K-6 | 20 | 250 | | 19 | 230 | 249 | | |
| HILLSIDE TRADITIONAL ACADEMY | Sep-82 | GC:K-6 | 20 | 300 | | 19 | 276 | 295 | | |
| MISSION CENTRAL | Sep-90 | GC:K-6 | 40 | 400 | 25 | 38 | 345 | 383 | | |
| SILVERDALE | Sep-59 | GC:K-6 | 20 | 200 | 25 | 19 | 161 | 180 | | |
| WEST HEIGHTS | Sep-58 | GC:K-6 | 40 | 300 | 25 | 38 | 253 | 291 | | |
| WINDEBANK | Sep-94 | GC:K-6 | 40 | 400 | 25 | 38 | 345 | 383 | | |
| | | | 380 | 3575 | 150 | 361 | 3151 | **3512** | | |
| **MIDDLE SCHOOLS** | | | | | | | | | | |
| HATZIC MIDDLE | Sep-72 | GC:7-9 | | 350 | | | 350 | | 650 | 1000 |
| HERITAGE PARK MIDDLE | Sep-96 | GC:7-9 | | 250 | | | 250 | | 550 | 800 |
| | | | | | | | **600** | | **1200** | **1800** |
| **SECONDARY SCHOOL** | | | | | | | | | | |
| MISSION SECONDARY | Sep-50 | GC:10-12 | | | | | | | 1250 | |
| | | | | | | | | | **1250** | |

# SCHEDULE C

## SCHOOL CATCHMENT AREAS

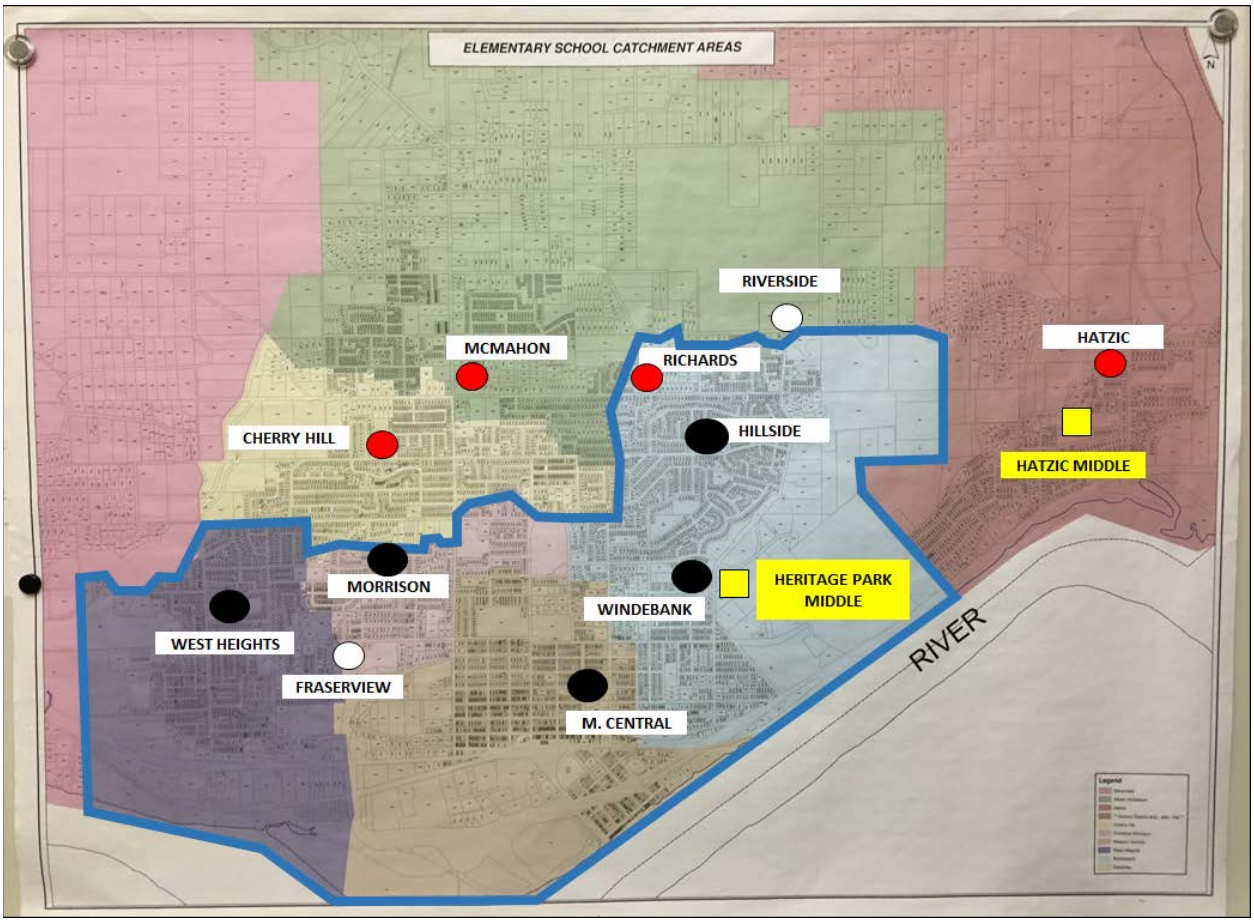
### ELEMENTARY SCHOOL CATCHMENT AREAS



## MIDDLE SCHOOL CATCHMENT AREAS

This map shows the catchment area for Heritage Park Middle, and it includes Hillside Traditional as a school of choice. Heritage Park Middle also accommodates the French Immersion students at grades 7 – 9.

The remaining elementary schools, including all 3 rural schools – Silverdale, Deroche and Dewdney - as well as Edwin S. Richards as a school of choice are within the Hatzic Middle catchment.




## SECONDARY SCHOOL CATCHMENT AREA

Mission Secondary is the only secondary school within SD#75.

# SCHEDULE D

## OTHER DISTRICT FACILITIES

The District has properties other than schools that it uses as part of its operation. Details on those sites are shown below.

### BOARD OFFICES AND ADMINISTRATIVE CENTRE

This is located on Fourth Avenue in Mission.


The facility is currently adequate for the district's administrative needs.

The east wing (shown below) requires substantial renovation to remove the hazardous materials.

**FRASERVIEW LEARNING CENTRE**

This elementary school was closed in 2008 due to enrolment decline. It currently houses:

- Summit Learning – provides Home Education and Virtual Education to students in all grades including individual secondary school courses.
- Alternate education
- Dogwood Program – to assist with acquiring a high school diploma

As well, there are two community leases within the school – 3 classrooms to Life Time learners and 7 classrooms to the Yes Program (Korean Language).

**RIVERSIDE COLLEGE**

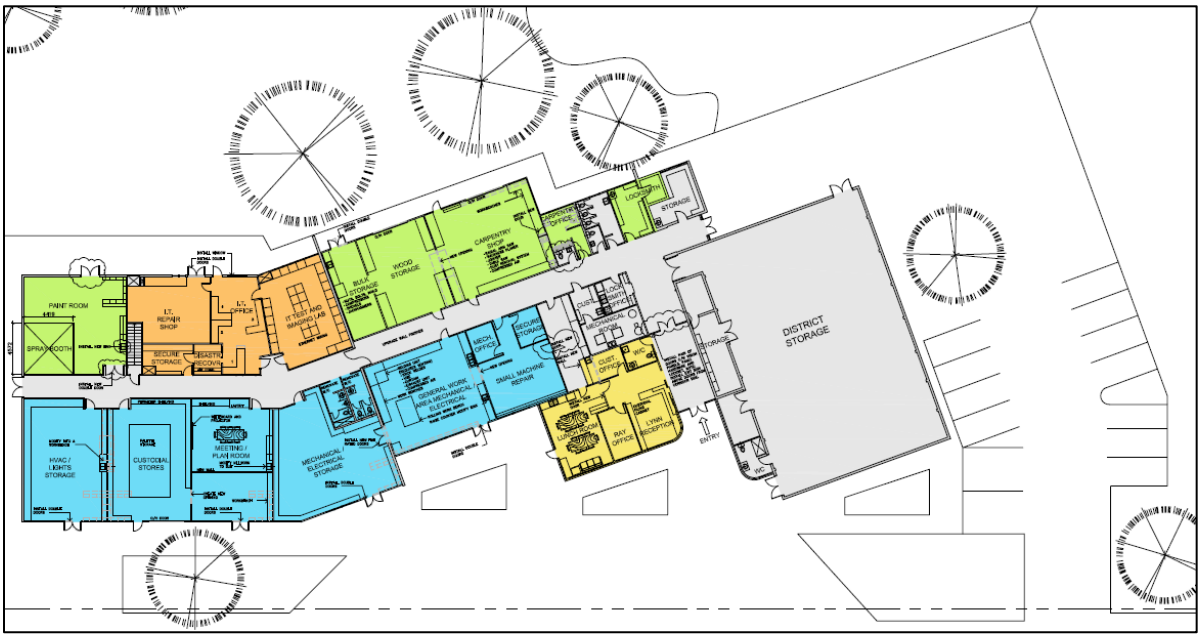
This was the previous site of the Facilities Department. The building was substantially renovated in 2009 and actively used for trades training, careers and apprenticeship programs.

**FACILITIES MAINTENANCE DEPARTMENT**

Facilities was previously located at Riverside College. When the College was renovated for educational and training purposes, the Facilities Department has started to relocate to a closed elementary school (Ferndale) on Dlugosh Avenue. Although somewhat remote, this relocation, once completed, will be suitable for the operation of Facilities.

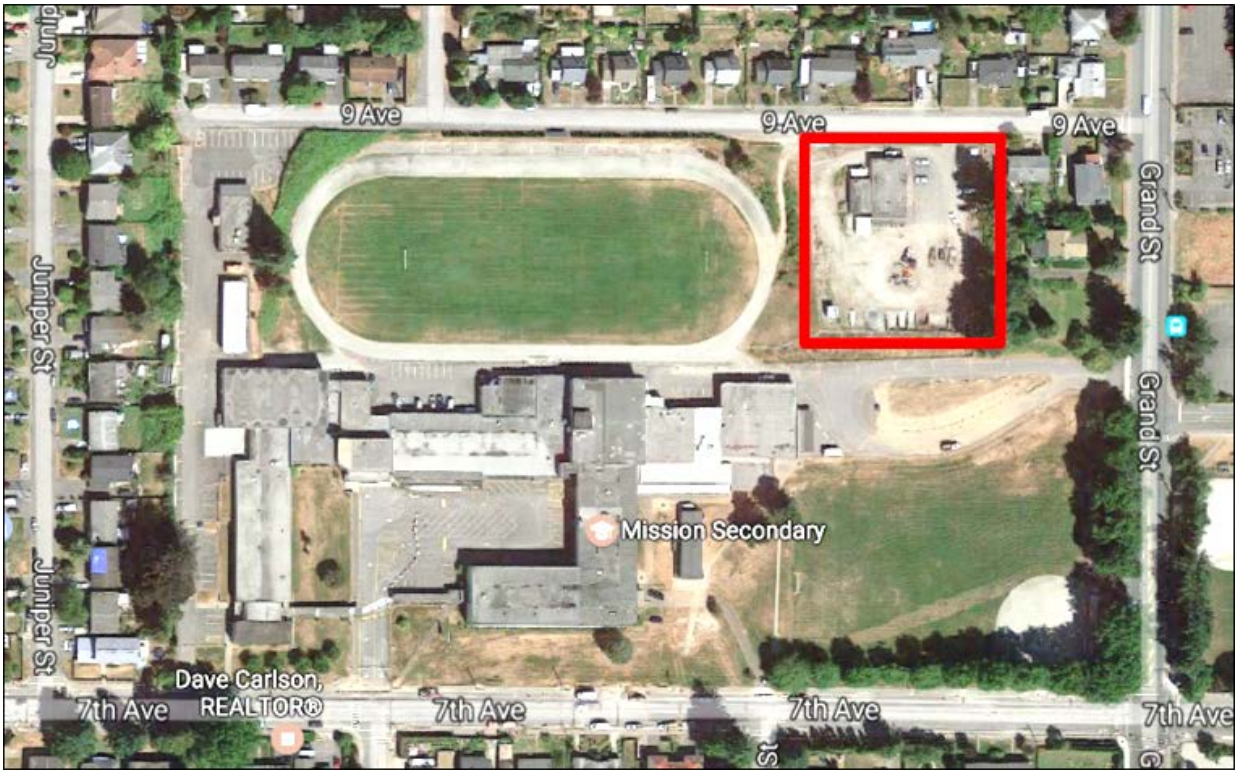
The sketch below shows the plans for the renovation of the elementary school. The sections in **YELLOW** (office) and **ORANGE** (IT Department) have been completed, including a road to the rear of the building (at the top) to provide delivery vehicle access.

The **BLUE** section for mechanical, electrical and storage has been designed but not constructed. The **GREEN** sections containing carpentry and paint will be the last phase.



**GROUNDS**

The Grounds section of the Facilities Department is located on 9th Avenue adjacent to Mission Secondary.




**BUS GARAGE AND MAINTENANCE CENTRE**

This is located on Dewdney Trunk Road on the same property as Riverside College, shown at the bottom of the photo.

The bus maintenance shop is co-located with the automotive program at Riverside College.

The aerial photo shows the overall property. The **GREEN** square shows the automotive addition that was added when Riverside College was renovated in 2009.


## CLOSED SCHOOLS

Mission Public Schools has four closed schools. These schools were closed due to enrolment decline over the years.

- **Cade Barr** – closed a long time ago and has been recently leased to a private child care provider.

  The Board of Education has supported disposal of Cade Barr.

- **Nicomen Island** – closed a long time ago and there are no current uses on-site. The land is in the Agricultural Land Reserve (ALR). The Board of Education has supported disposal of the Nicomen Island site.

- **Durieu Elementary** – closed in 2011 due to enrolment decline. It is located in a rural area and is too far away from the urban area for efficient travel for students. The disposition of this school is currently under review by the Board of Education.

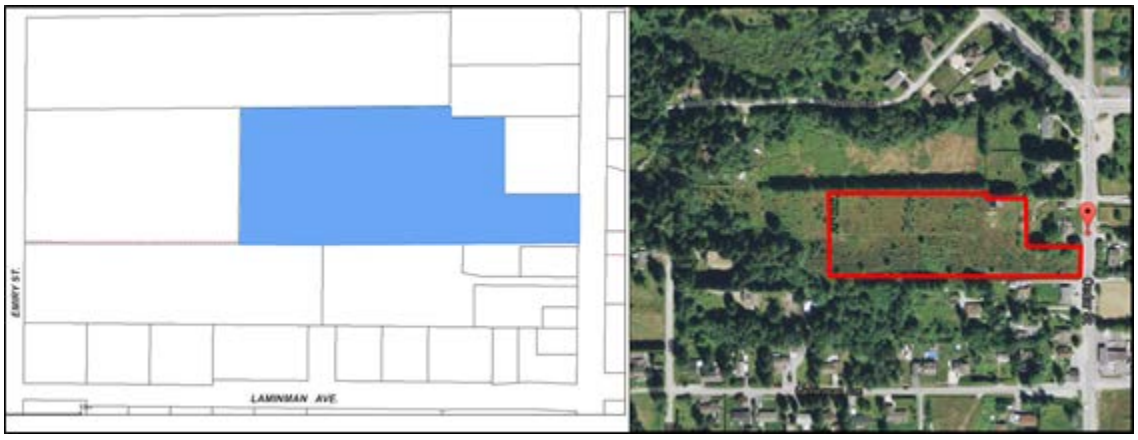
- **Stave Falls Elementary** – closed in 2008. This school is located in the very west portion of the district, in a rural area. It was originally constructed as part of a comprehensive development that never proceeded to construction. The school has a capacity of over 200, but the local area is unlikely to utilize that scale in the near future. In January 2018 the Board of Education decided to re-open this school. Renovations are ongoing with a plan to open in September of 2019. Enrolment is currently underway.

**OTHER PROPERTIES**

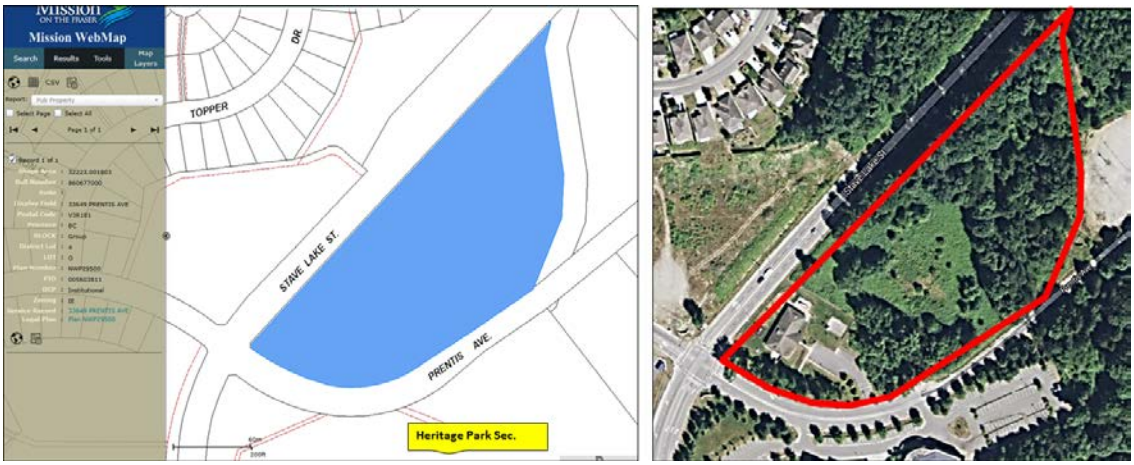
In addition to the above, there are several miscellaneous properties owned by the school district. Some are used in conjunction with existing school sites:

- Playfield adjacent to École Des Deux Rives (Conseil Scolaire Francophone) and Heritage Park Middle School.


- A 2.08 hectare parcel at 9136 Cedar Street, Mission, BC. Ultimately, a parcel of this area could accommodate an elementary school with a nominal capacity of 350.

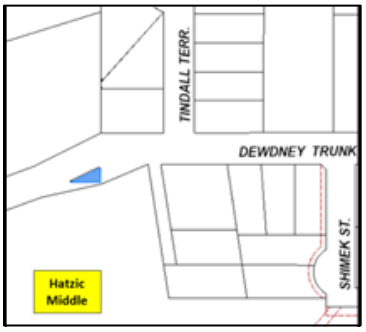


- Lot between Prentis Ave and Stave Lake Road (co-owned with the Province of BC).
  This property is currently leased to the Heritage Park Childcare Centre, located at the intersection of Prentis Ave and Stave Lake Road.




- A sliver of Dewdney Trunk Road at Hatzic Middle School

  This is an unusual parcel since it is located in the middle of a busy through road.



# SCHEDULE E

## DEMOGRAPHIC ANALYSIS

The detailed demographic analysis below was completed to support the conclusions in Section 3.2 - Enrolment Growth.

## 3. COMMUNITY DEMOGRAPHICS

### 3.1 INTRODUCTION

**3.1.1** The Mission School District No. 75 (the School District) is located in the western portion of the Fraser Valley Regional District (the Regional District) shown in Figure 3.1 A and north of the Fraser River except for a small pocket stretching south of the river. The District of Mission is the urbanised portion located in the southwest corner of the School District. The Regional District, the School District and Mission District municipality have significantly different administrative boundaries.

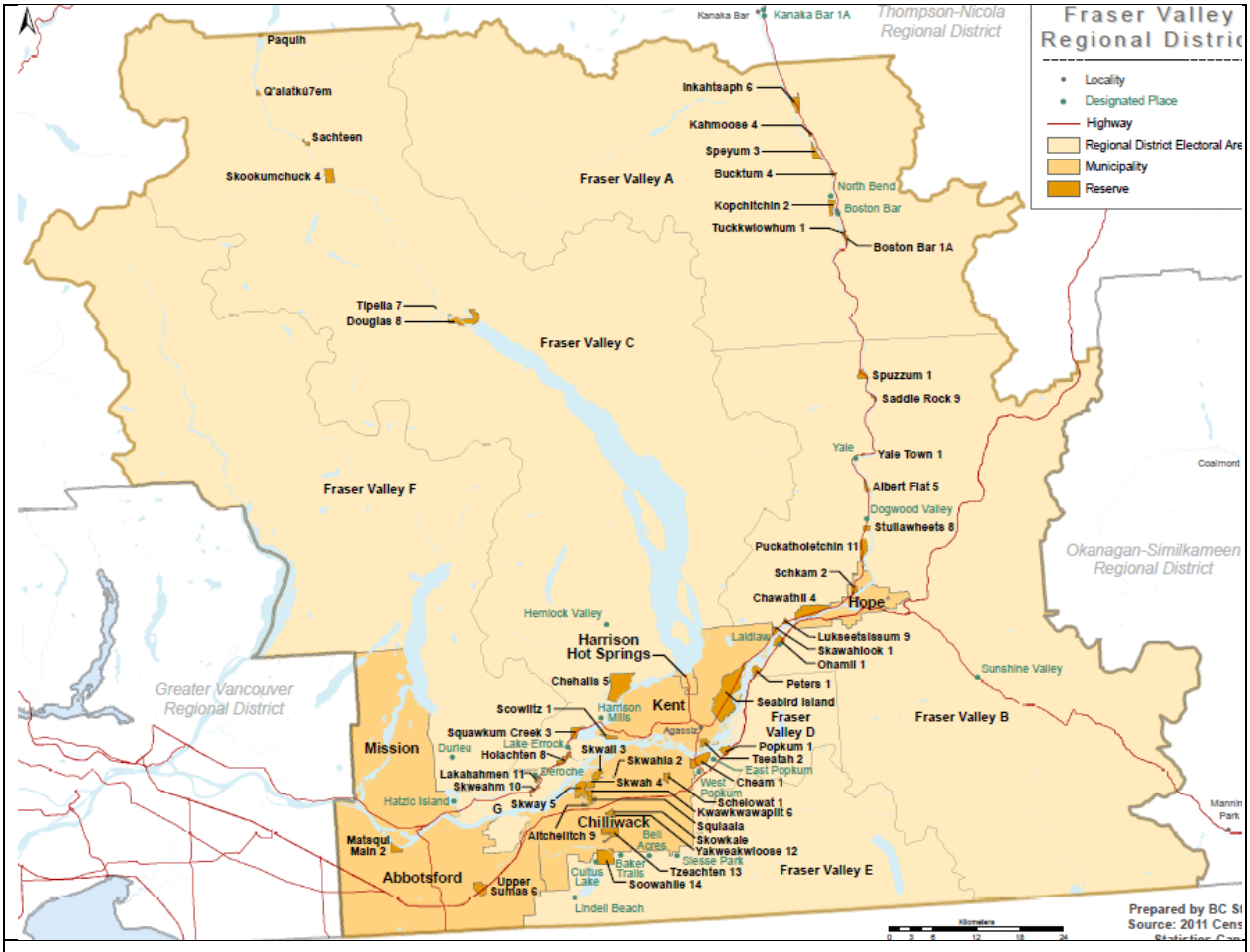



**Figure 3.1 A** Fraser Valley Regional District showing Municipalities, First Nation Reserves and Electoral Areas

**3.1.2** The School District (Figure 3.1 B left) shares the same boundary with the Mission Local Health Area as shown below. Therefore, data based using either area is comparable for the analysis and is used in this section.

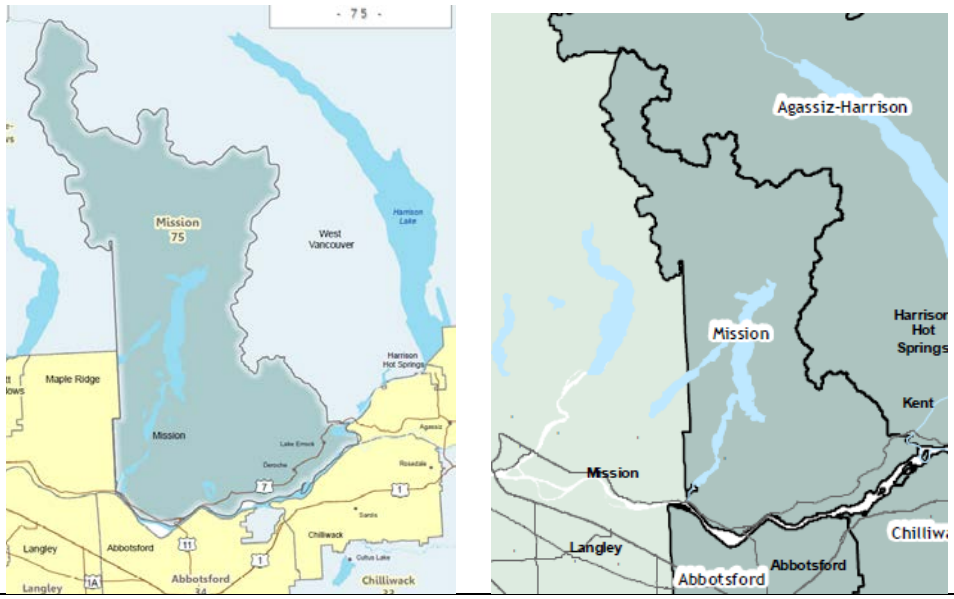



**Figure 3.1 B** Mission School District (left) and Mission Local Health Areas roughly share the same administrative boundary

**3.1.3** The statistics used in this section are obtained from two sources:

- Population and age group statistics produced by BC Stats, BC Ministry of Technology, Innovation and Citizens' Services, using a model known as the P.E.O.P.L.E. (Population Extrapolation for Organization Planning with Less Error) 2016 (Aug 2016) Model, which follow the School District's boundary; and
- Statistics Canada, from census surveys (or National Housing Survey (NHS) in 2011), which is undertaken every 5 years follows the Municipal boundary, but is not available for the School Board boundary. As shown on the conceptual map below, the School District [solid blue outline] will be approximated as follows:
    - For 1996, combining Fraser Valley E, Regional District Electoral Area (Census Subdivision) [light green and red areas] and Mission, District Municipality (Census Subdivision) [yellow area].

- For 2001, 2006 and 2011, combining Fraser Valley F, Regional District Electoral Area (Census Subdivision) [light green area], Fraser Valley G, Regional District Electoral Area C (Census Subdivision) [red area] and Mission, District Municipality (Census Subdivision) [yellow area].


**3.1.4** The BC Stats and Statistics Canada based data sources will not be directly comparable; however they will effective portray the demographics of the study area. The historical trend and the projections shown in this section provide a good basis from which to determine population growth, and more specifically, growth of the school age population to permit school facility needs to be determined.

**3.1.5** The areas being combined from BC Stat or Canada Census date to represent the School District will be an approximation because:

- Data for the area of Fraser Valley F Regional District Electoral Area (Census Subdivision) includes part of the Pitt Meadows - Maple Ridge, Fraser-Cascade and Abbotsford School Districts; and

- A small eastern portion in the vicinity of Lake Errock within the larger Fraser Valley A, Regional District Electoral Area (Census Subdivision), is not included. The majority of residents here are seasonal, thus it is assumed that there is no contribution to school enrollment.

**3.1.6** In February 2017, the first portion of the 2016 census results were released. Population and housing is the only data available and is used in some parts of this section. These figures may be adjusted in the future by Statistics Canada for undercounts. The remaining data will be released over a period of months. The age and gender data for Mission and the two Electoral Areas are scheduled to be available mid May 2017. Immigration will be available in late October and mobility and migration will be available in late November 2017. These statistics together with Vital Statistics influence the population projections used to establish student populations. Once the 2016 Census data for these are available and the BC Statistics School District level statistics are available, the numbers in this section will need to be adjusted and trends reanalysis for potential changes.

**3.1.7** In some instances, it may appear that there are minor inconsistencies between some of the numbers used in this section or numbers and percentages do not add up. The reasons for this include: random rounding and data suppression by Statistics Canada to preserve privacy, adjustments for census undercounts, and sample size.

## 3.2 HISTORICAL POPULATION GROWTH

### 3.2.1 Area Characteristics Influencing Analysis

The characteristics of the general area need to be considered before analysing the historical population changes.

The Fraser Valley Regional District is a large expanse, stretching from the Canada-US border north to nearly Whistler. The northern and eastern reaches are mountainous areas, with small First Nation and other settlements on the Highway No. 1 along the Fraser River Canyon.

On the north side of the Fraser River, urban development stretches along the Lougheed Highway, interrupted by rural and agricultural lands, with Mission being the last of the larger urban settlement on this corridor entering into the Regional District from the west. Further east are smaller more rural communities, with seasonal population tied in part to recreation.

On the south side of Fraser River, there are urban areas along Highway No. 1 stretching eastward from Metro Vancouver. These include Abbotsford and further east Chilliwack.

Although both the north and south sides have strong ties to Metro Vancouver, the dynamics and the size of the two areas are different. Using the 2016 Census figures, the majority of the Regional District population (82.3%) resides south for the Fraser River, with just less than half (49.1%) in Abbotsford alone. The Mission School District makes up 14.5% of the Regional District population. The School District contains 82.4% of the population located north of the Fraser River. Mission District municipality makes up 92.7% of the School District population.

Therefore, the analysis in this section of the Cascade Report will draw less on the on Regional District and more on the Local Health Area and Mission District municipality characteristic and data.

### 3.2.1 Historic Population

The historic growth rates and percentage increases for the years of 1996 to 2016 is shown in Figure 3.2A below.

Population figures from the 2016 Canada became available in February 2016. They are being used where possible in this and subsequent section. The numbers are preliminary and subject to being adjusted by Statistics Canada.

In 2016, the population of the Province was 4,648,055, the Regional District was 295,934 and Mission was 38,833. The School District population is not available at present; however it is estimated by Cascade as 41,902 by combining the 2016 Census figures for the 3 areas of Mission (38,833), Regional District Electoral Areas F (1,293) and Regional District Electoral Areas G (1,776).

The historic population growth comparing the Province, Regional District, School District and Mission District are shown in Figure 3.2 A below (please see note for the two 2016 population figures in the table):

Figure 3.2 A
**Historical Population Trends**
**Provincial, Regional District and School District**

| Year | Province | (% change) | Regional District | (% change) | School District | (% change) | Mission | (% change) |
|---|---|---|---|---|---|---|---|---|
| **1996** | 3,724,500 | | 222,397 | | 36,264 | | 30,519 | |
| **2001** | 3,907,738 | 4.9% | 237,550 | 6.8% | 37,164 | 2.4% | 31,272 | 2.5% |
| **2006** | 4,113,487 | 5.3% | 257,030 | 8.2% | 40,671 | 8.6% | 34,505 | 10.3% |
| **2011** | 4,400,057 | 7.0% | 277,595 | 8.0% | 41,459 | 1.9% | 36,426 | 5.6% |
| **2016** | | | | | 43,402 (1) | | | |
| | 4,648,055 | 5.6% | 295,934 | 6.6% | 41,902 | 1.1% | 38,833 | 6.6% |

**Source:**
Provincial Population – BC Stats, Ministry of Technology, Innovation and Citizens' Services;
**Notes** (1) This Figure reflects the BC Stats estimate of the School District population as 43,402 rather than the Cascade estimate of 41,902 as the revised projections for the Sub-provincial School Board boundaries is not scheduled to be done by BC Stats until 2018. The existing projections are being used for consistency and comparability.

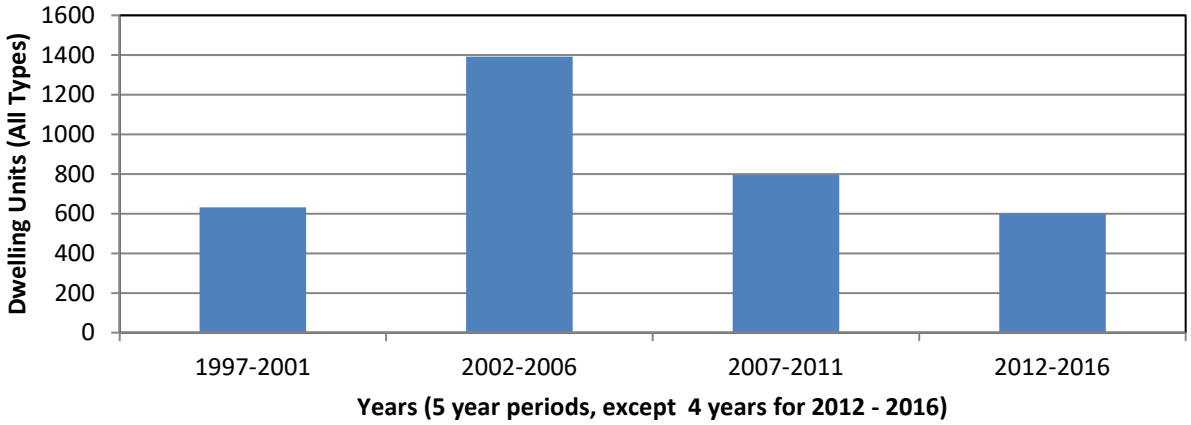
Some of the growth observations are as follows:

- Growth in the Regional District is continuously higher by about 1 to 3 percentage points than that of the Province between 1996 to 2001, 2001 to 2006, 2006 to 2011 and 2011 to 2016.
- The growth in Mission has been less than the growth in both the Province and in the Regional District between 1996 to 2001 and 2006 to 2011, greater than both in 2006 to 2011 and equal to the Regional District between 2011 and 2016.
- For the period of 2001 to 2006, Mission's growth was higher than both the Province and the Regional District.
- The historic housing start statistics for Mission reveal a building boom in this same historical high growth period as shown below:

Figure 3.2 B

**Historic Residential Housing Starts**

**1997 - 2016**

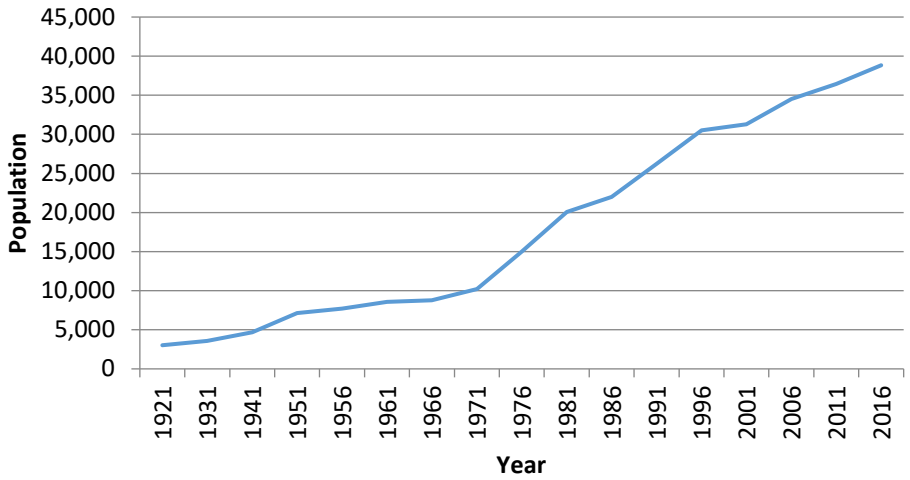



- The growth rate for the School District population mirrors the Mission District growth between the 2001 and 2006 census periods.

Longer term population data is available for historic settlements in BC. Mission, one of the historic settlements which became a municipality, is located in the Regional District. The graph in Figure 3.2 C below combines the populations of the former Town of Mission and the District of Mission for the period before the two amalgamated in 1969.

Figure 3.2 C

**Historic Population of Mission**

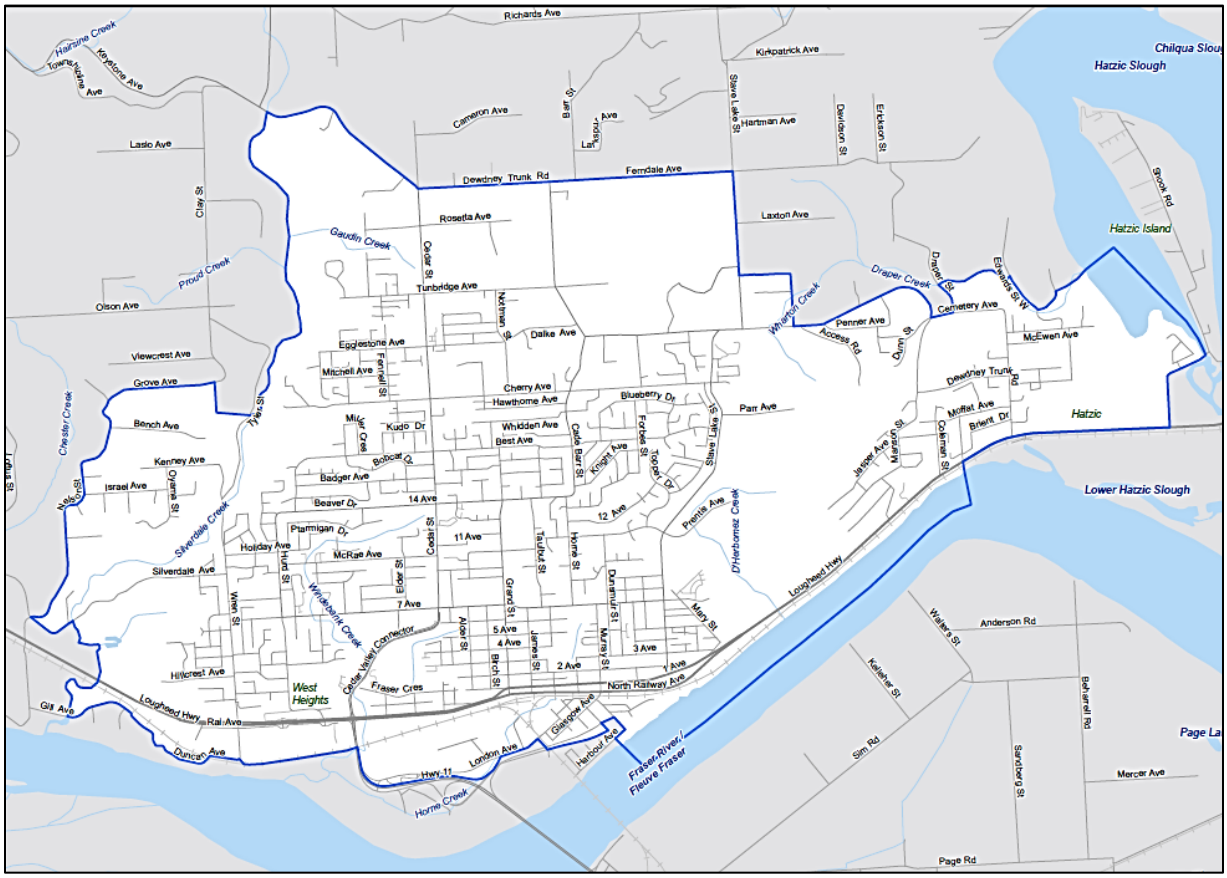


The population growth line in the historic growth graph shows two distinct periods of historical growth. From 1921 – 1971, Mission grew on average about 150 people per year. After 1971, the growth line becomes steeper and an average of about 600 people is added between 1971 and 2016.

This change may correspond to improvements to the transportation systems in the Fraser Valley, making Mission more accessible to Vancouver and to areas south of the Fraser River; therefore, a more desirable place to live. The improvements included: the construction of Highway 1 on the south side of the Fraser River in the 1960's, the opening of the Mission Bridge, replacing shared use bridge by automobiles on the CPR's Mission Railway Bridge in 1973 and West Coast Express commuter rail service in 1995.

Canada Census keeps statistics on historical urban settlement, which are typically the downtown areas of communities. In the case of Mission, the area roughly corresponding to the old Town of Mission is called the Mission Population Centre (or Urban Areas in the 2011 Census) as shown on the map below. This area is the denser urbanised portion of Mission. Its growth rate from 2011 to 2016 was 6.9 percent, changing from 31,109 to 33,261 people. This area has held a stable portion of Mission's overall population – 85.7% in 2006 and 85.5% in 2011.

# Figure 3.2.D
# Mission Population Centre



## 3.3 DEMOGRAPHIC ASSESSMENT

### 3.3.1 Age and Gender:

Figure 3.3 A and accompanying graph Figure 3.3 B below shows the historical trend in the population of the School District by age cohort between 1986 and 2011.

All of youth and young adults age categories have been growing through the 1980's and 1990's, followed by reduced growth, a leveling out or decline in some age categories in the period of 1996 to 2011. More specifically:

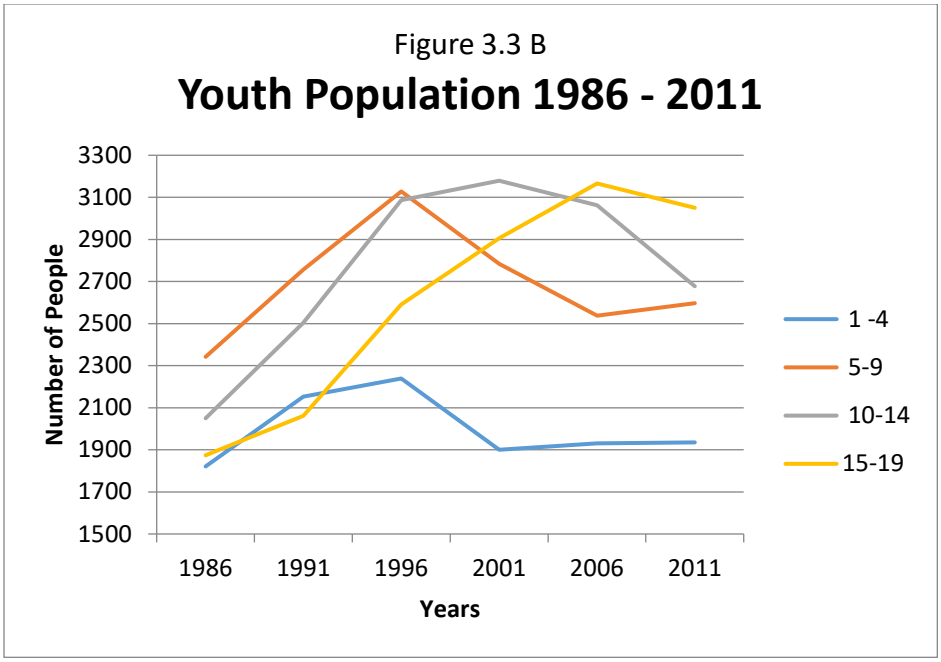
- The 1 to 4 age group rose and peaked in 1996, dropped in 2001 and remained stable since 2006.
- The 5 to 9 age group grew and peaked 1996, then dropped between 1996 and 2006 and appears to be growing slightly from 2006 to 2011.
- The 10 to 14 age group grew rapidly to 1996, slowed down and peaked in 2001, but had dropped from 2001 to 2006 and dropped even more rapidly from 2006 to 2011.
- The 15 to 19 age group is the only age group with a steady growth rate over most of the statistical period being considered. This group has grown at a steady rate from 1986 to 2006, but had declined for the first time between 2006 and 2011. This group remains the largest in overall numbers.

**Figure 3.3 A**
**School District Population Trends**

| Year | Age Cohort (in Years) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Under 1** | **1-4** | **5-9** | **10-14** | **15-19** | **20 - 44** | **45 - 64** | **65+** |
| **1986** | 451 | 1,821 | 2,342 | 2,050 | 1,874 | 10,400 | 4,486 | 2,833 |
| **1991** | 489 | 2,153 | 2,756 | 2,504 | 2,061 | 12,403 | 5,420 | 3,267 |
| **1996** | 538 | 2,239 | 3,128 | 3,087 | 2,591 | 14,129 | 6,939 | 3,613 |
| **2001** | 407 | 1,900 | 2,784 | 3,179 | 2,906 | 13,612 | 8,534 | 3,842 |
| **2006** | 422 | 1,931 | 2,538 | 3,063 | 3,166 | 14,559 | 10,611 | 4,381 |
| **2011** | 447 | 1,935 | 2,597 | 2,678 | 3,050 | 13,431 | 12,324 | 4,997 |

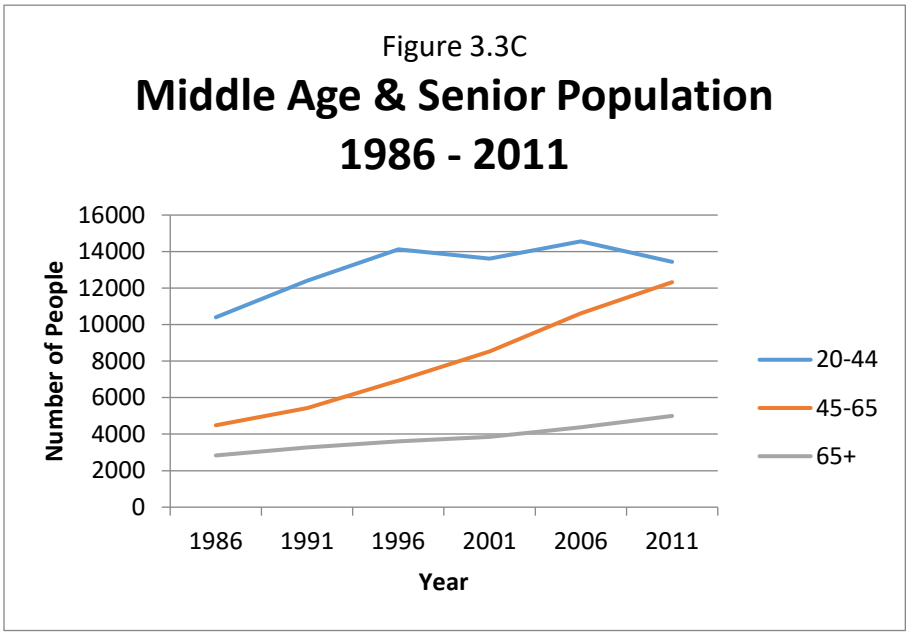
**Source:**
BC Stats, BC Ministry of Technology, Innovation and Citizens' Services;
Sub-provincial data for School Districts.

Figure 3.3 B




Middle age and senior age categories are all generally growing. The 20 to 44 age group appears to be levelling out and may be declining. The 45 to 65 and the 65+ age groups have both been increasing; the 45 to 64 growing at a faster rate than the 65+ group. Figure 3.3 C shows the growth for the middle age and senior categories below:

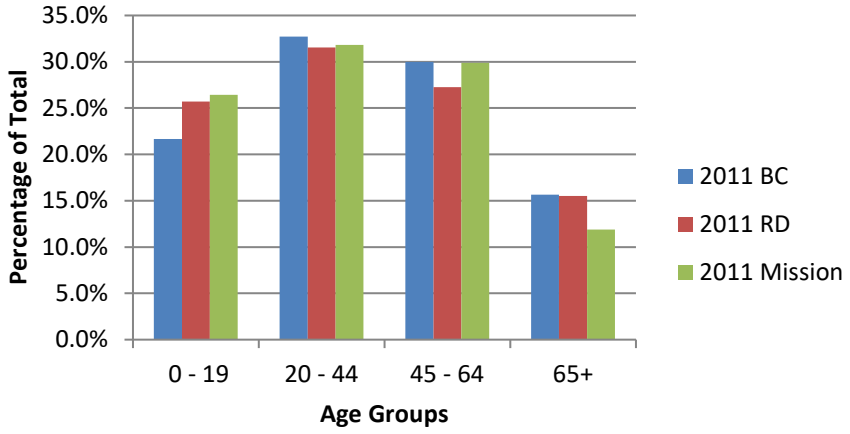
Figure 3.3C




2011 statistics were compared between the Province, the Regional District and Mission as shown in Figure 3.3 D below.

Figure 3.3 D

**Comparision of Provincial, Regional District and Mission District Age Profiles for 2011**




The following is observed:

- Mission has about 26.4% of its population in the age category of 0 to 19 years, which is proportionally more than either the Regional District (25.7%) or the Province (21.6%).
- The 20 to 44 years age group in Mission (31.8%) is slightly less than the proportion in the Province (32.7%), but essentially the same as the proportion in the rest of the Regional District (31.5%).
- For the, both the Province (30.0%) and Mission (29.9%), just under one-third of their population is in the 45 to 64 age group, and the Regional District has just over one-quarter (27.3%) of its population in this age category.
- The over 65 group is effectively the same in the Regional District (15.5%) and the Province (15.7%), but a lower percentage in Mission (11.9%).

Comparatively speaking, the Mission population composition is younger, has the same middle age characteristic and fewer seniors in its general population.

### 3.3.2 Median Age:

The median age is defined as the age at which half the population is older and half is younger. It is an indicator of the overall age profile of a population. As the median age increases, there is a decline in the proportion of the population composed of children, and a rise in the proportion of the population that is elderly. The median age of the Mission population has been studied to understand the trend that is likely affecting the School District population.

The median age of Canada, British Columbia and Mission have been increasing between 1996 and 2011 as shown in Figure 3.3E. The median age in Mission has been increasing from 33.9 years in 1996 to 39.3 years in 2011.

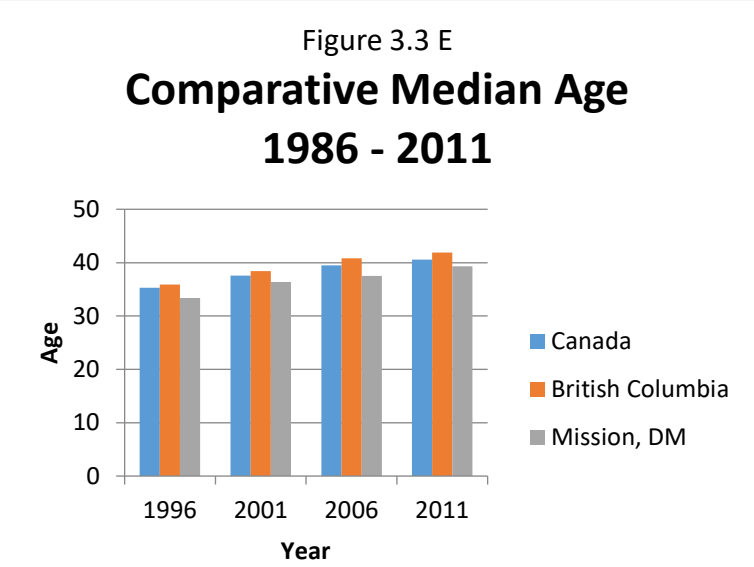
Figure 3.3 E
**Median Ages for Canada, BC and Mission DM**

| | 1996 | 2001 | 2006 | 2011 |
|---|---|---|---|---|
| **Canada** | 35.3 | 37.6 | 39.5 | 40.6 |
| **British Columbia** | 35.9 | 38.4 | 40.8 | 41.9 |
| **Mission, DM** | 33.4 | 36.4 | 37.5 | 39.3 |

**Source:**
Statistics Canada and BC Stats BC Ministry of Technology, Innovation and Citizens' Services.

Compared to the median age in British Columbia and Canada, the median age of Mission is a lower. This is consistent with the more youthful character concluded in the previous section. This is graphically compared in Figure 3.3 E.

Figure 3.3 E




### 3.3.4 First Nation Demographics

Only limited data is available to undertake an analysis of First Nation population and historic changes in age groups. The data used for the analysis of the First Nations population in this section is based on the Mission District (municipal) boundary, because it is not available for the School District boundary.

Figure 3.3 F compares Census data for 1996, 2001 and 2006 and the National Housing Survey data for 2011 available for Mission. The total population used for Mission in the table may be different than those used earlier in this section due to the way some of the data was collected in the Censes (e.g. acquired on a 20% sample basis) and rounding.

Figure 3.3 F
**First Nation and Non-First Nation Population of Mission**

| | 1996 | | 2001 | | 2006 | | 2011 | |
|---|---|---|---|---|---|---|---|---|
| **Total population** | 29,860 | | 30,590 | | 33,840 | | 35,460 | |
| **First Nation** | 1,310 | 4.4% | 1,490 | 4.9% | 1,995 | 5.9% | 2,265 | 6.4% |
| **Non-First Nation** | 28,550 | 95.6% | 29,100 | 95.1% | 31,845 | 94.1% | 33,195 | 93.6% |

**Source:**
Statistics Canada 1996, 2001 and 2006 Census; 2011 National Housing Survey (NHS).

The following is revealed by the data:

- The First Nation population has grown from between 1996 and 2011 from 1,310 to 1,265, an increase of 73%; and
- The First Nation population has become a larger portion of Mission's total population, increasing from 4.4% in 1996 to 6.4% in 2011.

Historic change by age group cannot be fully analysed. As shown in Figure 3.3 G, the age groupings in the 2001 data is different than used for the 2006 and 2011.

Figure 3.3 G
**First Nation Student Age Composition**

| Age | 2001 | | 2006 | | 2011 | |
|---|---|---|---|---|---|---|
| **0-4 Years** | 140 | 21.9% | 155 | 16.8% | 200 | 22.2% |
| **5-14 Years** | 360 | 56.3% | 495 | 53.5% | 440 | 48.9% |
| **5-9 Years** | | | 220 | 23.8% | 135 | 15.0% |
| **10-14 Years** | | | 275 | 29.7% | 305 | 33.9% |
| **15-19 Years** | 140 | 21.9% | 275 | 29.7% | 260 | 28.9% |

**Source:** Statistics Canada 2001 and 2006 Census; 2011 NHS.

The following is revealed by the data:

- The 0 to 4 age group has grown from 140 to 200 students, a 42.9% increase between 2001 and 2011. The overall student population in the 1 to 4 year age group as shown in Figure 3.3 A also grew in this period; however, it was significantly lower at 1.8%;

- The 5 to 15 age group increased from 2001 to 2006 and declined between 2006 and 2011. This age group slightly declined as a proportion of the First Nation student population, from 56.7% in 2001 to 48.9% in 2011; however, and further conclusions for the disaggregated age groups for 2006 and 2011 require data from the 2016 Census to assess the historic trend and make a comparison with the overall student population in these to age groups.

- Comparing the 15 to 19 age group, the First Nation mirrored the overall school population pattern of increased from 2001 to 2006 and declined between 2006 and 2011

Figure 3.3 H
**Comparison of Provincial, Regional District and Mission First Nation Median Ages**

| | **2001** | **2006** | **2011** |
|---|---|---|---|
| **Provincial** | 23.4 | 28.1 | 26.8 |
| **Regional District** | 23.5 | 24.9 | 25.0 |
| **Mission** | 25.0 | 21.8 | 24.9 |
| **Source:** 2001 & 2006 Census; 2011 NHS. | | | |

Figure 3.3 H show the median ages for First Nation population in British Columbia, the Regional District and Mission for 2001 to 2011. The Provincial and Regional District median ages are generally increasing, which is consistent with the overall gaining of the population. The 2001 and 2011 data for Mission suggest the median age is constant at about 25 years. However, the 2006 data shows an age drop of approximately 5 year. The reason for this is unknown and there is less confidence in the 2006 data than for 2001 and 2011. 2016 data is necessary to understand whether there is a trend towards a lower median age or a statistical anomaly of some sort.

In comparison with the overall Mission population, the First Nation has a lower median age. Considering the 2001 and 2011 data, the median First Nation age is 25 years versus 26.4 years, a difference of 11.4 years. In 2001, the difference increased to 14.4 years (39.3 years versus 24.9 years). The First Nation population is retaining its youthfulness while Mission in general is aging. Consequently, the growing median age gap suggests that the First Nation student population will naturally make up a larger portion of the overall student population.

The observation made about the implications of the low median age about the proportion of First Nation students is also borne out in Provincial student enrolment statistics. The following data and chart (Figure 3.3 I and J) are based on the study “Aboriginal Report 2011/12 - 2015/16 How Are We Doing? SD 075 Mission.”

This study includes historical statistics about First Nation student population for the Mission School District as well as for the Province as a whole. The data collected is categorises First Nation students based on those students that consider themselves as having First Nation identity. The weakness in these numbers is that in some years, a student will and other years will not self-identify as having First Nation identity; however, over time, the number of students who do not consistently self-identify has been decreasing according to the study.

The figures reveal that:

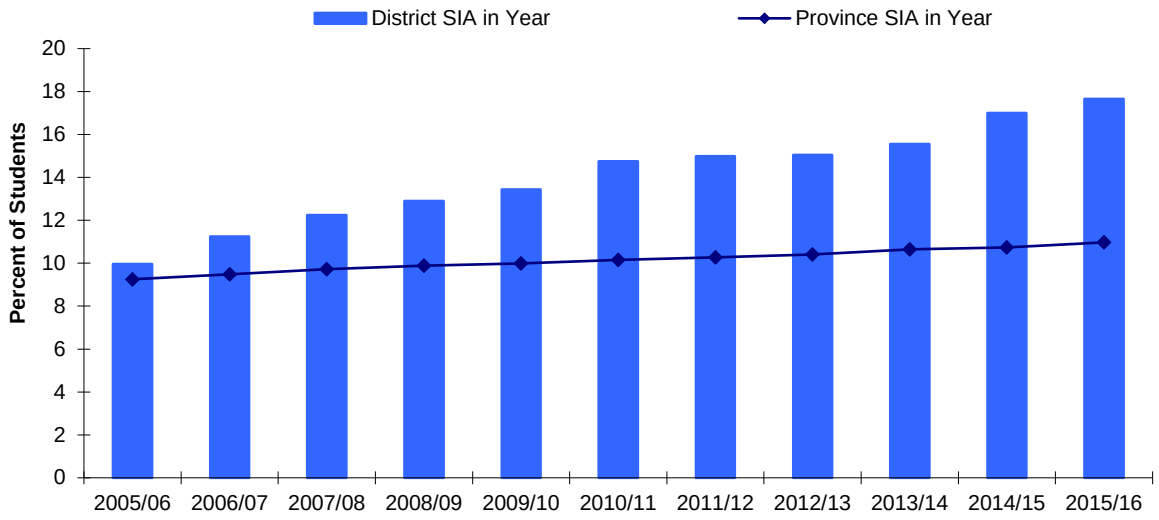
- The number of students considering themselves as having First Nations identity has increased from 730 students (10.0%) to 1,064 students (17.7%) of the entire student population of Mission School District.
- In comparison to the Province, the Mission School District has a growing percentage of students that consider themselves as having First Nation identity as a percentage of the overall school population. In 2005/06, the Mission was less than a percentage point greater than in the rest of the Province (10% versus 9.3%), growing to 6.7 percentage points in 2015/16 (17.7% versus 11.0%). This is represented graphically in Figure 3.3 J.
- These statistics need to be viewed with caution. They do represent increase in numbers; however, may also be an indication of a child's greater awareness of their First Nation heritage. In either case, the impact may be on programing and facilities that provide culturally-appropriate educational programs and services.

Figure 3.3 I
**Comparison of Provincial and Mission SD First Nation (SIA*) Enrolment**

| | Mission School District | | | Province |
|---|---|---|---|---|
| School Year | Total Enrolment | SIA Enrolment | SIA as percent of Total | SIA as percent of Total |
| 2005/06 | 7328 | 730 | 10.0 | 9.3 |
| 2006/07 | 7262 | 816 | 11.2 | 9.5 |
| 2007/08 | 6778 | 830 | 12.2 | 9.7 |
| 2008/09 | 6722 | 867 | 12.9 | 9.9 |
| 2009/10 | 6548 | 880 | 13.4 | 10.0 |
| 2010/11 | 6413 | 946 | 14.8 | 10.2 |
| 2011/12 | 6227 | 933 | 15.0 | 10.3 |
| 2012/13 | 6031 | 907 | 15.0 | 10.4 |
| 2013/14 | 5990 | 932 | 15.6 | 10.6 |
| 2014/15 | 5978 | 1016 | 17.0 | 10.7 |
| 2015/16 | 6027 | 1064 | 17.7 | 11.0 |

**Source:** Aboriginal Report 2011/12 - 2015/16 How Are We Doing? SD 075 Mission p. 3.
Notes: * SIA means the student self-identified as Aboriginal in this year

**Figure 3.3 J Percent of Self-Identified Aboriginal Students**



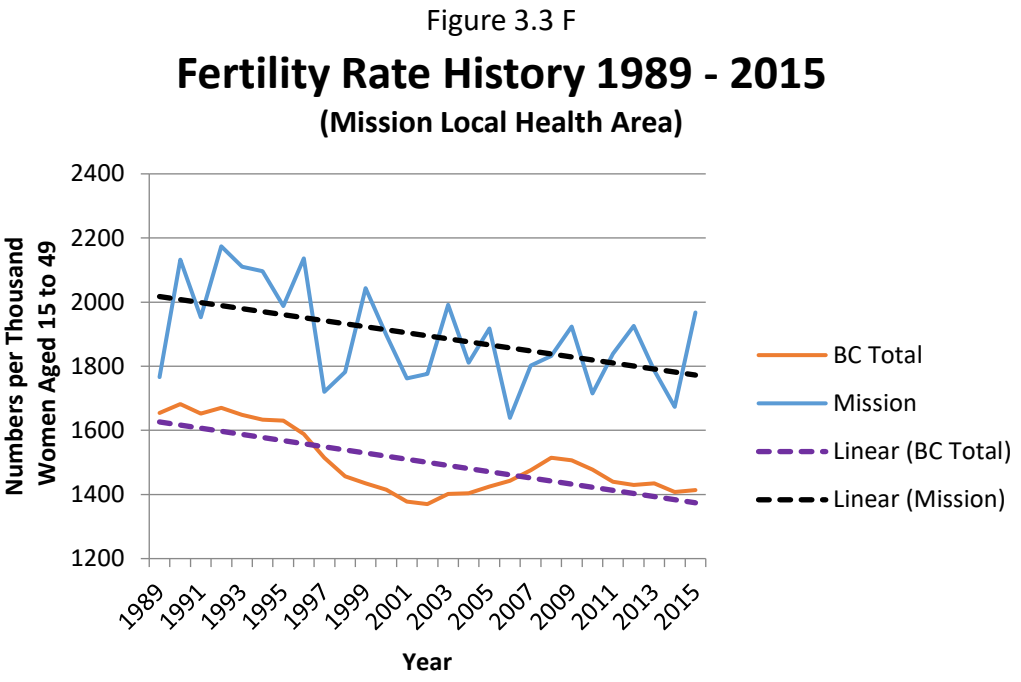

### 3.3.3 Vital Statistics:

This section reviews the following Vital Statistics: Fertility, Life Expectancy, Births and Deaths.

a. Fertility:

- The Total Fertility Rate is the average number of children that would be born to a woman over her lifetime if (1) she were to experience the exact current age-specific fertility rates (ASFRs) through her lifetime, and (2) she were to survive from birth through the end of her reproductive life.
- Fertility statistics are based on women in the age group of 15 to 49.
- Fertility rates, as shown in Figure 3.3 F, have experienced a downward trend for both the Province and the Mission Local Health Area (LHA). The trend lines show that the rate of decline parallels that of the Province; however, the fertility rate in the Mission LHA averages at about 27.5% higher than in the Province.
- In comparison with other Local Health units in the Lower Mainland, based on an average of fertility rates over the period of 2010 to 2015, the Mission LHA has the fourth highest fertility rate.
- The total number of live births was 467 in 2010.

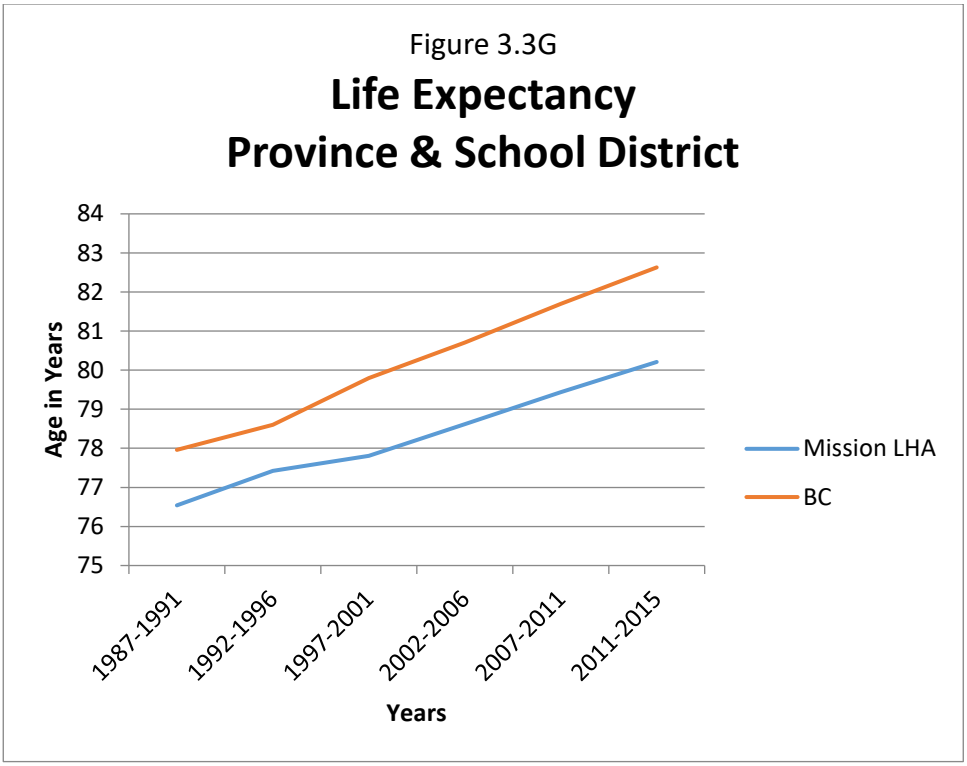
Figure 3.3 F




b. Life Expectancy:

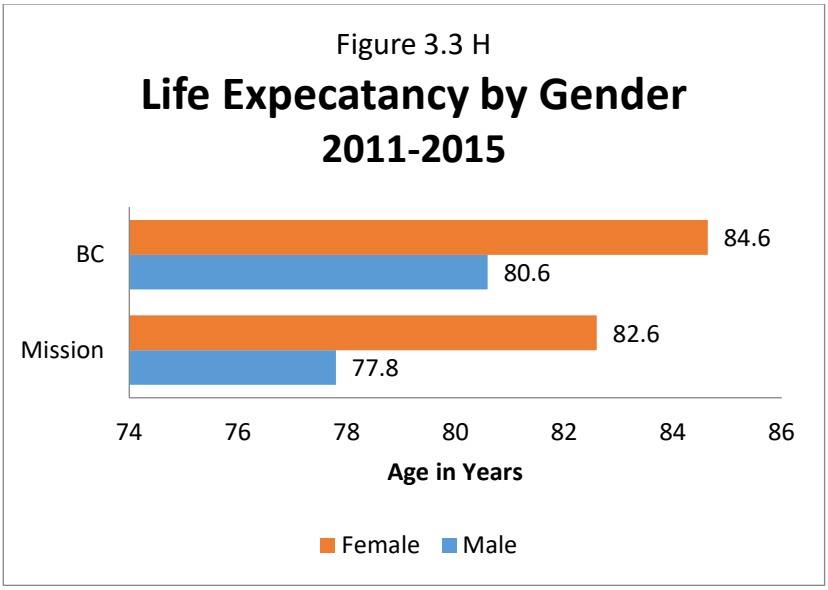
- Life expectancy is the average number of years that a baby can expect to live from birth.
- The life expectancy for people living in the School District is increasing. Figure 3.3 G shows the trend in Life Expectancy from between the periods of 1987 – 1991 and 2011 – 2015 for the Province and School District.

Figure 3.3G




- In comparison with BC as a whole, there is a lower life expectancy in the population living in the School District area than that of the Province. BC Life expectancy in the period of 2011 to 2015 is 82.6 years in comparison to 80.2 years for the School District.
- In the period of 1987 to 1991, Life Expectancy in the School District was 1.42 years less than in the Province. This difference has increased to 2.32 years less in the period of 2022 to 2015.
- Life Expectancy also varies by gender as shown in Figure 3.3 H. It appears that the Life Expectancy of females is greater than that of males by about 4.1 years in the Province and 4.8 years in the School District.

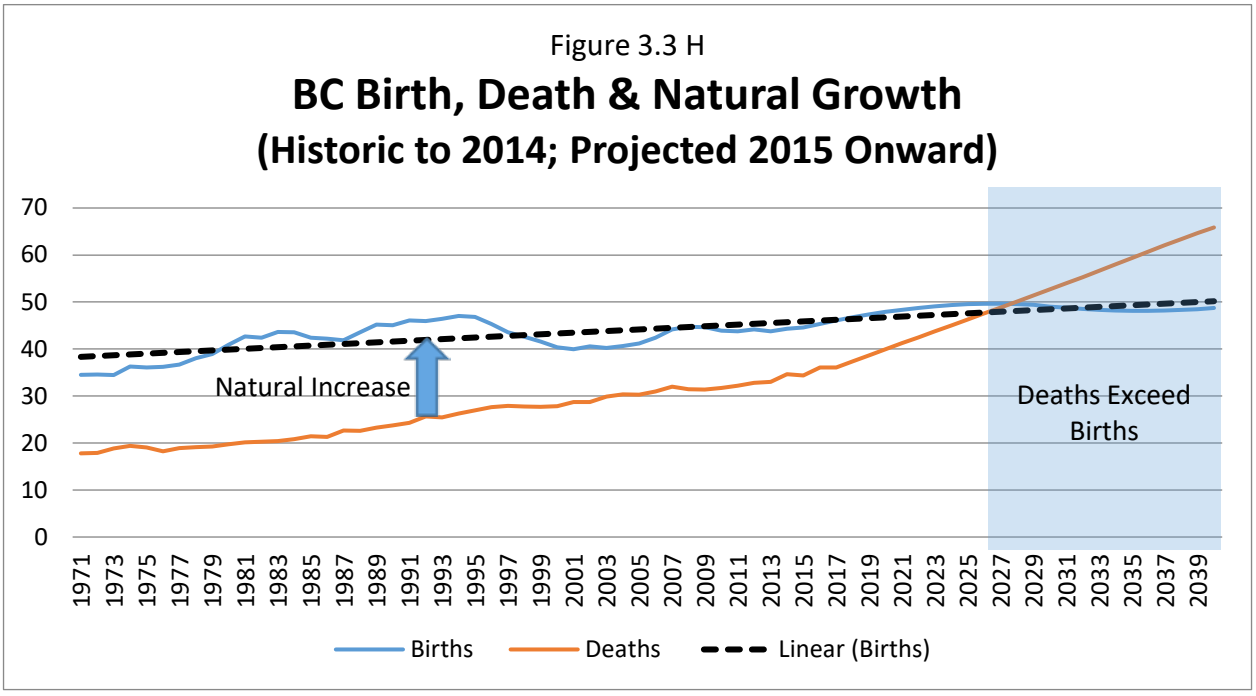
Figure 3.3 H




c. Births and Deaths:

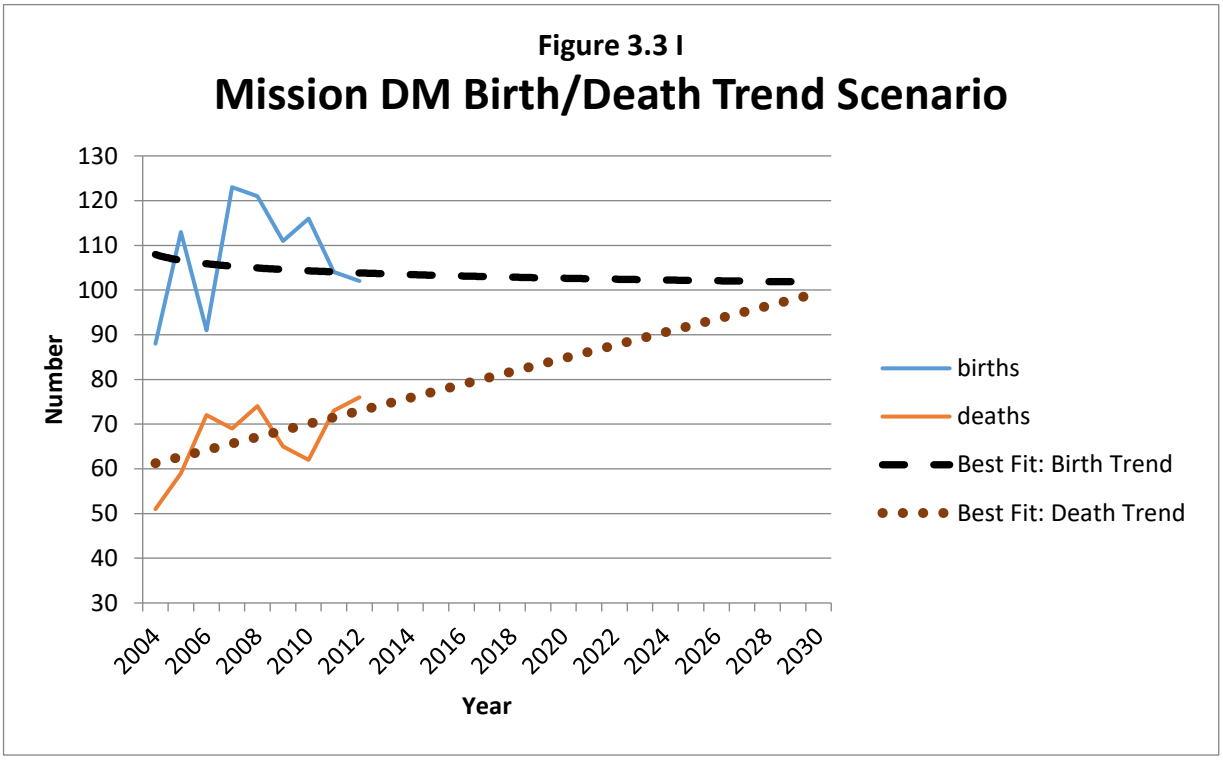
- Historic and projected birth and death statistics for BC from Vital Statistics are shown in Figure 3.3 H. The trend suggests that the death rate will overtake the birth rate. Up to the decade of 2020, births exceed deaths and there is natural growth. At some point in or just past the decade of 2020, the number of deaths will exceed the number of births and natural growth will end.

Figure 3.3 H



- Local area birth and death information is not available over a sufficient period of time to undertake a full and reliable trend analyse. The Vital Statistics Agency generates Quarterly Digests providing vital events data on line from 2004 to 2010. The data available for the Mission LHA (Source: 2012: Volume 22 - Number 2) was used to create Figure 3.3 I as a "Best fit" trend line and extended forward past 2010. Cascade tested different line types, and settled on an algorithmic projection for the birth and a linear projection for the death data sets. The assumption is a levelling of the birth rate and an increasing death rate. Using this scenario, a similar trend of deaths overtaking births is evident; however, this may not happen until the late 2020's or in the 2030's.

**Figure 3.3 I**




### 3.3.4 Immigrant Population:

Immigrant means people who are or have been landed immigrants. The Figure 3.3 J and graph (Figure 3.3 K) below reveal that the immigrant population of the total population of Mission DM is relatively stable, particularly in the last three census years at about 14.5%.

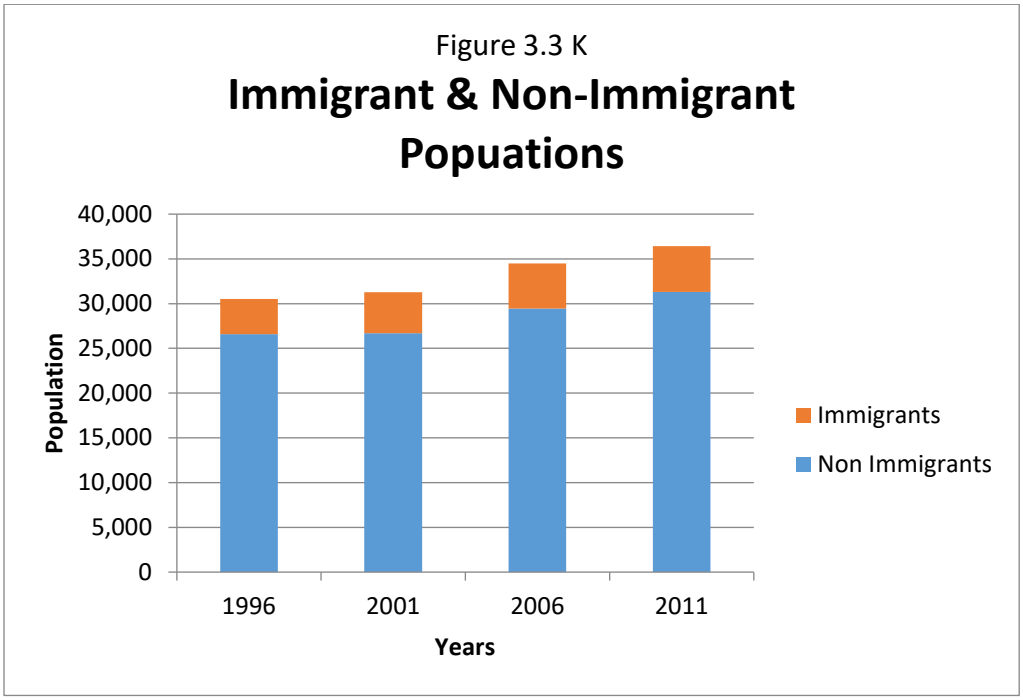
Maintaining the same proportion of the immigrant and non-immigrant populations suggests the immigrant population is growing at the same rate as the overall population. Immigration is a very steady source of growth.

Figure 3.3 J
**Immigrant and Non-Immigrant Population for Mission DM**

| Year | Mission DM Population | Immigrant Population | |
|---|---|---|---|
| | | Total (growth since last Census) | Percentage of Total Population |
| **1996** | 30,519 | 3,915 (600) | 12.8% |
| **2001** | 31,272 | 4,575 (510) | 14.6% |
| **2006** | 34,505 | 5,070 (665) | 14.7% |
| **2011** | 36,426 | 5,105 (505) | 14.4% |

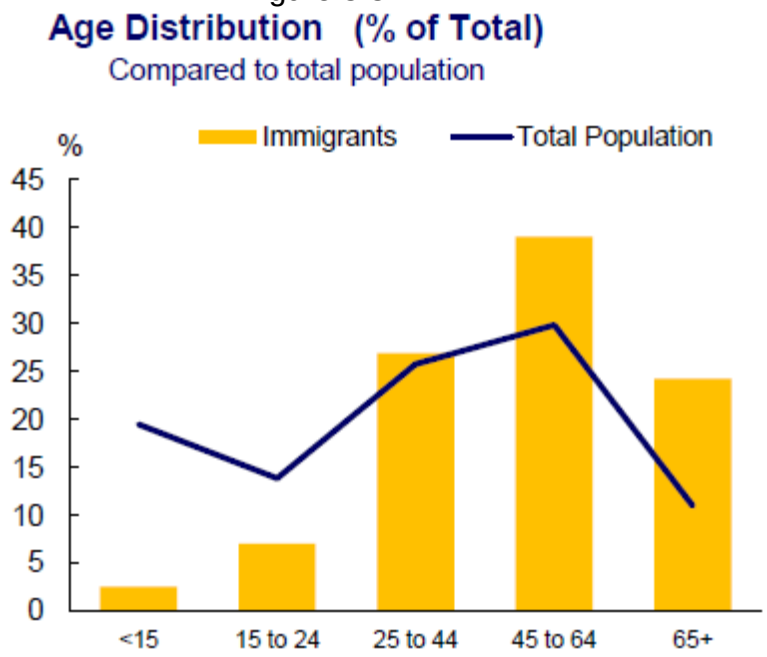
**Source:**
Statistics Canada 2006 Census;
Immigrant growth for 1996 is 1991-1995, for 2001 (1996-2000), 2006 (2001-2006), 2011 may overlap with 2006 (2006-2011)
Ministry of Jobs, Tourism and Skills training data sheet...

Figure 3.3 K



The age of immigrants compared to the total population of Mission DM is shown below in Figure 3.3 L. The age distribution among immigrants is less young and more aged. There are fewer people in the under 15 and 15 to 24 age category, about the same in the 25 to 44 category and more in the 65+ category that in the general population. Therefore, school age youth among immigrants would be less that in the general population.

Figure 3.3 L




### 3.3.5 in and Out Migration:

Migration in this section refers to the movement of people in and out of the Regional District to and from other parts of the Province, other Provinces and outside of Canada. The third category does not included landed immigrants, but rather those who hold student, work, or minister's permit, or who are refugee claimants. Figure 3.3 M indicates that there is a net in-migration into the Regional District area. Given the degree of growth being experienced, a similar in-migration tendency would apply to the School District.

In those five year instances of people moving out of the region, they left the Province. Between 2005 and 2010 as well as 2013 and 2014, the largest source of in-migration was from outside of Canada. For the other years and in the most recent two years, the in migration has been people moving into the Regional District from other places in the Province.

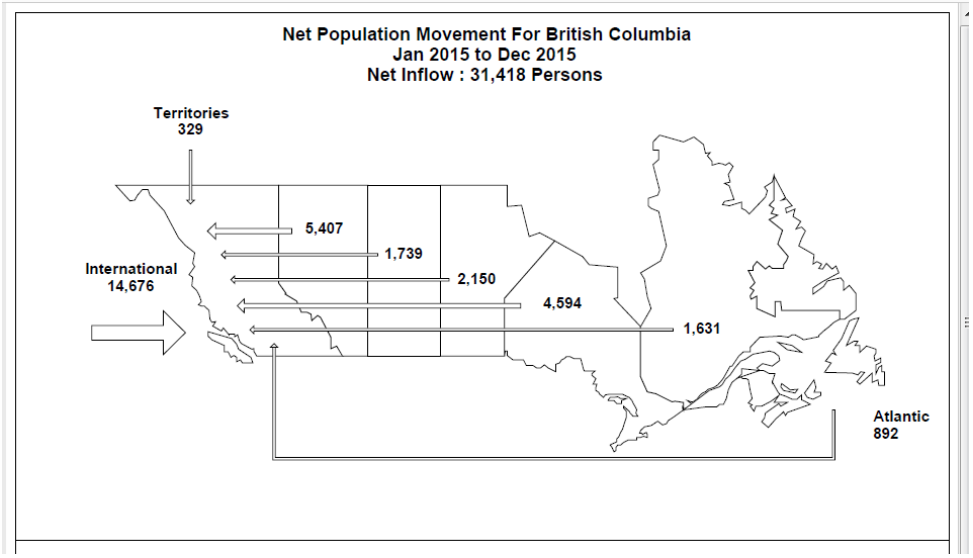
Figure 3.3 M
**Immigration Trend for the Regional District**

| Reporting Period | Net International | Net Interprovincial | Net Intraprovincial | Total Net Migration |
|---|---|---|---|---|
| 2001-2002 | 832 | -484 | 1,089 | 1,437 |
| 2002-2003 | 968 | -210 | 1,014 | 1,772 |
| 2003-2004 | 1,013 | 315 | 1,928 | 3,256 |
| 2004-2005 | 1,181 | 47 | 1,318 | 2,546 |
| 2005-2006 | 2,368 | 46 | 1,107 | 3,521 |
| 2006-2007 | 1,441 | 308 | 1,552 | 3,301 |
| 2007-2008 | 2,102 | 231 | 1,532 | 3,865 |
| 2008-2009 | 2,143 | 193 | 1,066 | 3,402 |
| 2009-2010 | 1,933 | 38 | 1,388 | 3,359 |
| 2010-2011 | 614 | -254 | 1,291 | 1,651 |
| 2011-2012 | 1,508 | -727 | 1,543 | 2,324 |
| 2012-2013 | 1,487 | -612 | 935 | 1,810 |
| 2013-2014 | 1,804 | 10 | 1,131 | 2,945 |
| 2014-2015 | 1,147 | 848 | 2,619 | 4,614 |
| 2015-2016 | 1,615 | 1,002 | 2,616 | 5,233 |

**Sources:**
Demographic Analysis, BC Stats, Ministry of Technology, Innovation and Citizens' Services. For source.

Migration at the Provincial level is graphically represented by the following Figure 3.3 N:

Figure 3.3 N



### 3.3.6 Labour Force and Occupations:

Half of the ten main occupations employing the Mission DM labour force are also the top occupations in the Province. These five occupations are highlighted in Figure 3.3 O.

Figure 3.3 O
**Labour Force by Occupation**
**Mission District Municipality and Percentage Comparison with Province**
**(% of total)***

| | Mission DM | | Province |
|---|---|---|---|
| Trades; transport and equipment operators and related occupations | 4705 | 24.6% | 14.3% |
| Sales and service occupations | 4195 | 21.9% | 23.5% |
| Business; finance and administration occupations | 2530 | 13.2% | 15.7% |
| Occupations in education; law and social; community and government services | 2125 | 11.1% | 11.3% |
| Management occupations | 1840 | 9.6% | 11.2% |
| Health occupations | 1055 | 5.5% | 6.3% |
| Occupations in manufacturing and utilities | 810 | 4.2% | 3.2% |
| Natural and applied sciences and related occupations | 655 | 3.4% | 6.5% |
| Natural resources; agriculture and related production occupations | 425 | 2.2% | 2.6% |
| Occupations in art; culture; recreation and sport | 415 | 2.2% | 3.3% |

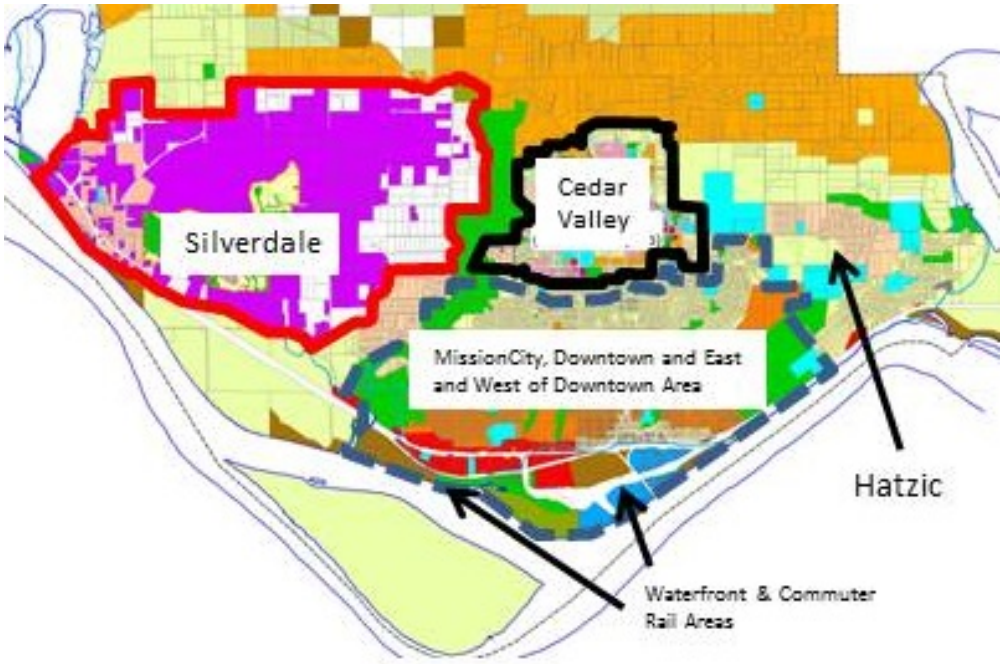
***Source:***
Statistics Canada; 2011 National Household Survey;
**Notes:**
* Due to rounding errors, the percentages do not exactly add up to 100

## 3.4 LAND USE ASSESSMENT

**3.4.1** The District of Mission and the Fraser Valley Regional District have jurisdiction for growth and land use planning on lands contained within the boundaries of the Mission School District. The main planning instruments are the following:

- Mission has an Official Community Plan (OCP) adopted in 2008. It is currently under review but neither the public consultation nor community survey portions have been referred to City Council. There is a general land use designation plan applying to the entire municipality, with three growth areas having more detailed. These areas are the following: Mission City, Downtown and East and West of Downtown Area, Cedar Valley and Silverdale. See Figure 3.4 A for the locations of these three areas in Mission. There are other pockets subject to the OCP Land Use Map including Hatzic /North Hatzic, Ferndale, Steelhead, Keystone and Stave Falls.

Figure 3.4 A **Mission DM Approximate Plan Areas**




- The lands immediately to the east of Mission are subject to a land use plan administered by the Fraser Valley Regional District (FVRD). The FVRD OCP for Hatzic Valley applies to a portion of FVRD Electoral Area F stretching roughly from Hatzic Lake to Stave Lake.

**3.4.2** Regional **District Context:** The Hatzic Plan (Figure 3.4 B) was adopted in 2011 to replace the earlier Dewdney-Allouette RD McConnell Creek-Hatzic Prairie OCP. The residential land use patterns encompassed in the plan include Suburban Residential areas in designated locations, and Infill Rural development. These are very low density – one hectare lots reduced to ½ hectare lots with community water for the Suburban lots and 2 hectares minimum for rural lots.

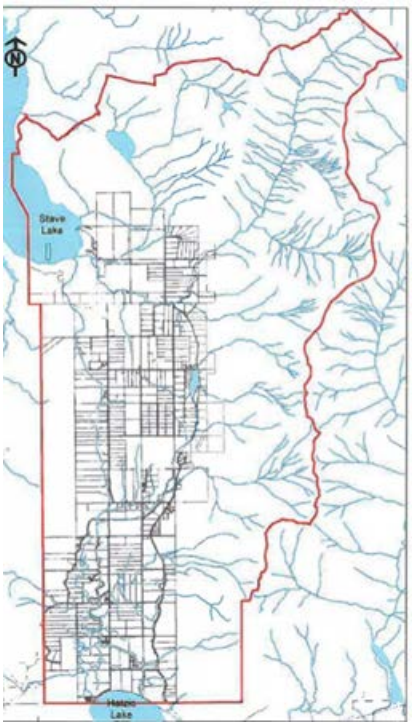


Figure 3.4 B
Boundary for Hatzic Valley

There are some other factors at play. There is sloping terrain mainly to the east and north, but also abutting Mission DM, rising from the Valley or Prairie between Hatzic and Slave lakes. Portions are environmentally sensitive due to steep slopes, streams with their ravine features and geologic hazards. The valley is also in the Agricultural Land Reserve (ALR) and much of the area north of Hatzic Lake is in the floodplain. These are serious constraints to development.

The OCP is based on statistic, including Census data, for the period of 2006 and before. The building permit statistic contained in the OCP suggests minimal growth has taken place, about 12 residential building permits a year.

A recent interview with FVRD staff confirmed growth in this area is minimal.

**3.4.3 Mission DM Context:** Cascade is aware that the Mission OCP is being reviewed and changes are being explored as part of their early 2017 public consultation process. The changes may be a significant departure affecting current assumption about growth. The challenges and implications to population and student enrollment is discussed in the following sections. The source material includes a review of Public Consultation information boards and the Council Report with the draft OCP avalbale from the District of Mission.

**3.4.5 Housing Challenge:** The first challenge being explored by Mission DM is determining how to accommodate the expected future growth. By 2041, Mission needs to accommodate nearly double the number of residential dwelling it currently has built and occupied. This means an increase from 13,343 dwellings in 2011 to 25,342 over 30 years to accommodate an estimated population of 61,970 an increase of 70% from 2011 to 2041.

To achieve this, more multiple residential housing and a shift away from the current dominant single family housing form will be necessary. Expansion of the urban boundary is not contemplated; therefore, this growth in housing construction and population growth can be achieved either through (1) infill (development of vacant sites), (2) redevelopment (removing and replacing existing housing stock) or (3) greenfield development (new neighbourhoods) within the exiting urban area.

The draft OCP recognises outside influences driving future growth. The rapid development of residential lands in points west of Mission in the Lower Mainland, Mission becomes a more attractive. As communities are being more built out and they experience higher land costs and house prices, the draft OCP concludes that this is expected to spur increased demand in Fraser Valley communities, including the District of Mission, as families push eastward in search of greater value, especially for lower density single detached and ground oriented housing.

Another conclusion in the draft OCP respects multiple residential housing demand. With housing affordability being an issue for many, particularly first time home buyers, there is a propensity for a larger proportion of buyers from Greater Vancouver communities to seek higher density, lower cost housing option. The draft OCP intends to accommodate this market potential by doing so in a sustainable manner though densification.

**3.4.6 Employment Challenge:** Another challenge being explored by Mission District though the consultation process is having more job opportunities in the community. Both employment areas and shopping areas are being explored to meet the demand for future growth. This will allow existing and new residents to live, work and shop in the same community.

According to Mission DM, the community is subject to some of the highest rates of retail, service and employment outflow of any municipality in British Columbia. Nearly one-fourth of the District's retail expenditure is spent in neighbouring areas (due to unmet local demand). The potential employment generating areas include areas along the Fraser River, north of Silverdale, Ferndale and the Municipal Forest areas. Each of these locations is identified in the Mission Land Use Map of the OCP. Some may involve removing land from potential residential development, thus adding to the challenge of accommodating the growth described in Section 3.4.5.

**3.4.7 Densification:** For the locations established in the Mission Land Use Map of the OCP, the following densification is proposed in the draft OCP:

- Within a 10-year time frame, the draft OCP proposes to accommodate about 9,000 new residents in about 3,600 residential units.
- For Cedar Valley, the projected population capacity is 3,000 and the projected residential unit supply is 1,200 based on a 70% build-out to date and initial projections in the Cedar Valley Plan and 2.5 people per household.
- For the Silverdale Neighbourhood One, the projected population capacity is 1,950 and the projected residential unit supply is 1,950 based on 50% build-out by 2026 based on projections in the Silverdale Neighbourhood One Plan and 2.7 people per household.
- For the Waterfront Area, the projected population capacity is 2,500 and the projected residential unit supply is 1,150 based on 50% build-out by 2026 based on projections in the Waterfront Redevelopment Planning Project and 2.2 people per household.
- For the MissionCity, Downtown and East and West of Downtown Area, the projected population capacity is 660 and the projected residential unit supply is

300 assuming one multi-unit midrise building per year at 30 units each and 2.2 people per household.

- For Hatzic Valley, the projected population capacity is 625 and the projected residential unit supply is 250 based on proposed development and 2.5 people per household.
- Infill is expected to result in a projected population capacity of 880 and a projected residential unit supply 400 assuming an average of 40 infill units per year and 2.2 people per household.
- These above figures are summarized and tabulated below for convenience:

| **Figure 3.4 C** | |
|---|---|
| **Locations** | **Projected Population Capacity** |
| Cedar Valley | 3,000 |
| Silverdale Neighbourhood One | 1,950 |
| Waterfront Area | 2,500 |
| MissionCity, Downtown and East and West of Downtown Area | 660 |
| Hatzic | 625 |
| Infill | 880 |
| **Total** | **9,615** |

A comment in the draft OCP is that the above quoted statistics are conservative and the actual number of units and resulting populations could be greater. The Cedar Valley Plan, if reviewed, may be capable of accommodating additional density. Additional density is possible if there is more mixed use development in the locations within the Mission City, Downtown and East and West of Downtown Area and Silverdale Gateway, which was not included in the points above in the draft OCP.

**3.4.8 Implications:** Based on the forgoing:

- The current estimates for future population available through BC Stats and the PEOPLE model needs to be adjusted for the proposed doubling in units and 70% increase in population. The model needs to provide:
    - For an additional population of 9,000 in the first 10 years of the projection; and
    - A further 52,970 in the remaining 20 to achieve the 30 year gains of 61,970 people envisioned by the draft Mission OCP.
- The in migration assumption may also need to be revised given the goal of the draft OCP to attract a larger portion of the outflow from other Lower Mainland communities. This may not be needed immediately as this may have been built in into the assumption resulting in the 9,000 population figure;
- The children that may be generated per new household may change depending on the degree of the shift from the current dominant single family to multiple residential housing. However, this may not be a major change if the current trend in society in dealing with the affordability crisis takes hold in the community with families being raised in ground oriented multiple residential housing.
- The capacity for the schools in the Cedar Valley, Silverdale and Mission City, Downtown and East and West of Downtown Area need to be carefully assessed for the proposed density increase.

**3.4.9 Cautionary Note:** As is common when change is proposed, there is both support and reluctance being expressed by the public. This input together with the more formal Public Hearing may result in changes to the density assumption in the OCP bylaw as it moved forward in the approval process. In March, Cascade understands that information on servicing of the proposed growth (the District's Development Cost Charge (DCC) Bylaw is being amended) and more detailed area population information will be before Mission Council. Once Mission Council adopts its new OCP and the DCC Bylaw, a review of this section respecting the final population projections is recommended.

## 3.5 POPULATION PROJECTIONS

### 3.5.1 Provincial Projections

The PEOPLE 2016 projection for future populations by age group for the School District area is used in this section. Figure 3.5 A on the next page are summarized, analysed and revised based on the land use assessment and implication described in 3.4.8.

Figure 3.5 A
**Population Projections by Age for School District Area, 2016 to 2026**
**Prior to 2016 Census Population Figures being Released**

| Year | Under 1 Year | 1-4 Years | 5-9 Years | 10-14 Years | 15-19 Years | 20-44 Years | 45-64 Years | 65 Years & over | All Ages |
|---|---|---|---|---|---|---|---|---|---|
| 2016 | 454 | 2,030 | 2,753 | 2,696 | 2,772 | 13,854 | 12,644 | 6,199 | 43,402 |
| 2021 | 474 | 1,970 | 2,704 | 2,870 | 2,649 | 14,728 | 12,865 | 7,832 | 46,092 |
| 2026 | 487 | 2,034 | 2,687 | 2,840 | 2,816 | 15,322 | 12,721 | 9,736 | 48,643 |

**Source:**
Sub-Provincial Population Projections - P.E.O.P.L.E. 2016 (Aug 2016), BC Stats, Ministry of Technology, Innovation and Citizens' Services.

These projections have been assessed and determined to require adjustment for the following reasons:

- As described earlier, the population for the School District area is generated out of 2016 Census by combining Mission DM and Electoral Areas F and G. The resulting estimate is 41,902. The projected value in the table is higher by 1,500 people. In other words, the 2016 census figure is 3.5% lower than the projected value in the above table. Therefore, the total is reduced by 3.5% and the difference distributed in proportion to the 2011 ratios by age groups.

- The above table does not reflect the increased density currently being contemplated in the Draft Mission OCP. Therefore, the projected value, once adjusted for the 2016 Census, is further adjusted to add 4,500 to each of the 2021 and 2026 projections, with the difference distributed as described in the first point.

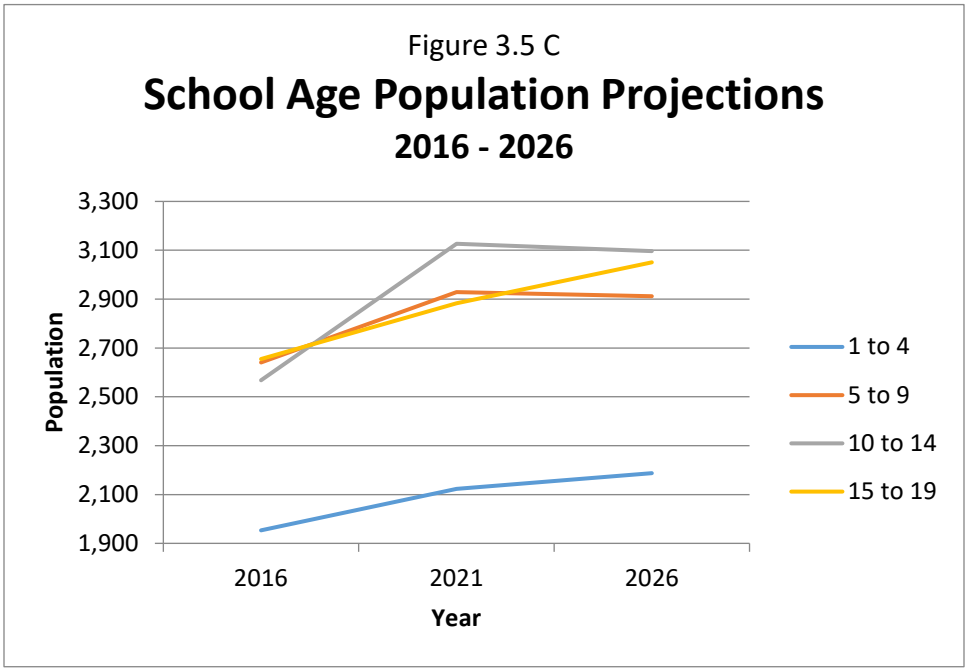
- The effect of the statistical changes due to densification and the projection corrections make it difficult to determine if further adjustments are necessary respecting the comments about fertility rates and immigration made earlier. However, if the anticipated growth does make Mission attractive to residents in the Lower Mainland, the intraprovincial migration statistics will undoubtedly increase. At this point, Cascade assumes the increased migration rate has already been captured by the draft Mission OCP in their projected increase in population of 9,000 in the first 10 years.

The revised population projections are shown in Figure 3.5 B. and school age projection are graphed in Figure 35 C.

Figure 3.5 B
**Cascade Population Projections by Age for School District Area, 2016 to 2026**

| Year | Under 1 Year | 1-4 Years | 5-9 Years | 10-14 Years | 15-19 Years | 20-44 Years | 45-64 Years | 65 Years & over | All Ages |
|---|---|---|---|---|---|---|---|---|---|
| 2016 | 438 | 1,953 | 2,641 | 2,568 | 2,655 | 13,305 | 12,300 | 6,044 | 41,902 |
| 2021 | 507 | 2,123 | 2,929 | 3,127 | 2,884 | 15,827 | 13,554 | 8,142 | 49,092 |
| 2026 | 520 | 2,187 | 2,912 | 3,097 | 3,051 | 16,421 | 13,410 | 10,046 | 51,643 |

Figure 3.5 C



## 3.6 DEMOGRAPHIC ANALYSIS CONCLUSIONS

**3.6.1** The Mission School District encompasses and area that includes the municipality of Mission and lands in the Electoral Areas of the Fraser Valley Regional District that abut the municipality to the east, north and the northwest. Electoral Areas F, G and a very small portion of Electoral area C are located within the School District boundary.

**3.6.2** The vast majority (92.7%) of the population and the students that attend Mission School District's school live in the Mission District Municipality. Therefore, Mission strongly influences many aspects of the School District – historical trends, the demographic character, development and growth impacts.

**3.6.3** A major objective of the current Official Community Plan (OCP) review (public consultation underway) is to provide for residential densification and establishing employment areas. Therefore, the draft OCP is proposes to encourage more growth in three main areas. These areas are (1) Mission City, Downtown and East and West of Downtown Area, Silverdale and Cedar Valley. See Figure 3.4 A.

**3.6.4** Mission experience a higher level of growth in the 2001 to 2006 period and may be entering a new period of higher growth. The reason is a review of the Mission OCP is being undertaken, involving changes in land use, density and growth policies.

**3.6.5** The draft OCP proposes that housing be roughly doubled from 13,343 to 25,242 by 2041. This represents a 70% increase in population from 26,426 in 2011 to 61,970 in 2041. The immediate impact would be approximately 9,000 more people living in Mission in the next ten years (2016 to 2026). The population projections produced by the Province using the PEOPLE model does not reflect this proposed increase in growth. Cascade has adjusted the most recent PEOPLE data to better reflect the proposed draft Mission OCP.

**3.6.6** Projections and trends in the demographics of the School District area suggest the following:

- The community is proportionally younger when compared to the Regional District or the Province. The population is younger than elsewhere in the Province based on comparing median age.
- The 1 to 4 age group appears to continue the patterns increase slightly starting in 2001, but will not reach its peak 1996 levels in the projection period. The 5 to 9 age group appears to continue the growth that began in 2006, but will level out midway through the projection period. Although

reversing the drop that started in 2001, the growth in the 10 to 14 age group will be sustained and will level out or start dropping again midway through the projection period. The only group with continued and steady growth during the projection period, continuing the same historic growth pattern, is the 15 to 19 age group.

- Deaths will eventfully exceed births even though fertility rates will remain higher than the Provincial average.
- The proposed emphasis on affordable and ground-oriented housing in the new OCP may increase in migration rates as a source of future growth. If in migration is higher, the two potential consequences are that (1) the additional population of 9,000 people will take place sooner; and (2) the total growth may be more than the 9,000 being projected by Mission.
- Immigration is historically tied to growth; therefore, immigrants as a source for growth may increase. The impact on schools will be minimal as historically immigrants are over 45 years of age.

**3.6.7 An** update to this demographic section may be needed once further 2016 Census information is released.

# SCHEDULE F

## DESIGN AID SHEET FOR HATZIC MIDDLE SCHOOL

Middle schools were created during the reconfiguration for Sept 2015. At that time, capacities were not confirmed since the schools had adequate capacity for all grade 7 – 9 students.

As part of this Long Range Facility Plan, the nominal capacity for Hatzic Middle was evaluated and found to be 350 elementary (Grade 7) and 650 secondary (G 8-9) for a total middle school capacity of 1,000.

The attached Design Aid Sheets and floor plans were sent to the Ministry for concurrence on 12 June 2017.

**DESIGN AID SHEET FOR MIDDLE SCHOOLS - SHEET #1** **DRAFT 2017 MAR**

School Name: Hatzic Middle School
Facility Code:
Nominal Capacity: 1000 (350E/650S)
Operating Capacity: 1000 (350E/650S)

District: SD 75 (MISSION)
Grades: 7-9
Date Prepared:
Total Elective Modules 12.8

| Agreed Nominal / Operating Capacity |
|---|
| MoE: |
| Date: |

**PART 1 - ACADEMIC/VOCATIONAL**

| Space | 1A - EXISTING | | | 1B - MODULES | | | 1C - NEW CORE | | | 1D - NEW ELECTIVE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Function | Description | Area | Mods | Core | Deficit | Surplus | Description | Area | Mods | Description | Area | Mods |
| Business | Computer 1 | 120.2 | 1.0 | 1.0 | | 3.0 | | | | | | |
| | Computer 2 | 120.7 | 1.0 | | | | | | | | | |
| | Computer 3 | 118.8 | 1.0 | | | | | | | | | |
| | Computer 4 | 118.5 | 1.0 | | | | | | | | | |
| | | | | | | | | | | | | |
| Fine Arts | Graphics | 154.4 | 1.3 | 1.0 | | 5.2 | | | | | | |
| | Art Room | 137.0 | 1.0 | | | | | | | | | |
| | Drama Studio | 146.0 | 1.0 | | | | | | | | | |
| | Choral Room | 195.8 | 2.0 | | | | | | | | | |
| | Band Room | 154.0 | 1.0 | | | | | | | | | |
| | | | | | | | | | | | | |
| Home Ec | Clothing 1 | 122.7 | 1.0 | 1.0 | | 3.3 | | | | | | |
| | Clothing 2 | 137.7 | 1.3 | | | | | | | | | |
| | Foods | 132.7 | 1.0 | | | | | | | | | |
| | Teaching Kicthen | 181.3 | 1.0 | | | | | | | | | |
| | | | | | | | | | | | | |
| Ind Ed | Technology | 117.6 | 1.0 | 1.0 | | 4.6 | | | | | | |
| | Woodwork | 269.7 | 1.7 | | | | | | | | | |
| | Metalwork | 207.2 | 1.3 | | | | | | | | | |
| | Automotive | 229.5 | 1.5 | | | | | | | | | |
| | | | | | | | | | | | | |
| Science | Science 1 | 138.7 | 1.4 | 3.0 | | 4.0 | | | | | | |
| | Science 2 | 139.2 | 1.4 | | | | | | | | | |
| | Science 3 | 138.4 | 1.4 | | | | | | | | | |
| | Science 4 | 138.1 | 1.4 | | | | | | | | | |
| | Science 5 | 142.0 | 1.4 | | | | | | | | | |
| | | | | | | | | | | | | |
| *Other | | | | | | | | | | | | |
| Gen Inst | CR (75-95 m2) | 1,136.2 | 14.2 | 22.0 | | -7.2 | | | | | | |
| | Other Rooms | 45.9 | 0.6 | | | | | | | | | |
| **Sub-Tot** | | 4,542.0 | 41.8 | 29.0 | | 12.8 | | | | | | |

**DESIGN AID SHEET FOR MIDDLE SCHOOLS - SHEET #2** **DRAFT 2017 MAR**

School Name: Hatzic Middle School

**PART 2 -SERVICE/ACTIVITY AREAS**

| Space Function | E - Existing | F - Allowable | G - Deficit | H - New |
|---|---|---|---|---|
| Administration / Health | 382.3 | 210 | -172.3 | |
| Counselling | 137.0 | 60 | -77.0 | |
| General Storage | 144.5 | 105 | -39.5 | |
| Gym Activity | 1,516.9 | 750 | -766.9 | |
| Gym Ancillary | 469.6 | 200 | -269.6 | |
| Media/Tech | 465.4 | 385 | -80.4 | |
| Multi-Purpose | 330.8 | 240 | -90.8 | |
| Special Education | 630.0 | 560 | -70.0 | |
| Mechanical | 417.0 | 250 | -167.0 | |
| Design Space | 2,438.4 | 1,815 | -623.4 | |
| *Other | | | | |
| Sub-Total: | 6,932.0 | 4,575.0 | -2,357.0 | |

**PART 3 -TOTAL AREAS**

| | E - Existing | H - New |
|---|---|---|
| Existing Academic/Vocational | 4,542.0 | |
| Core A/V Additions | | |
| Elective A/V Additions | | |
| Service/Activity | 6,932.0 | |
| Sub-total | 11,474.0 | |

**Total Gross Allowable Area** 11,474.0

***OTHER**

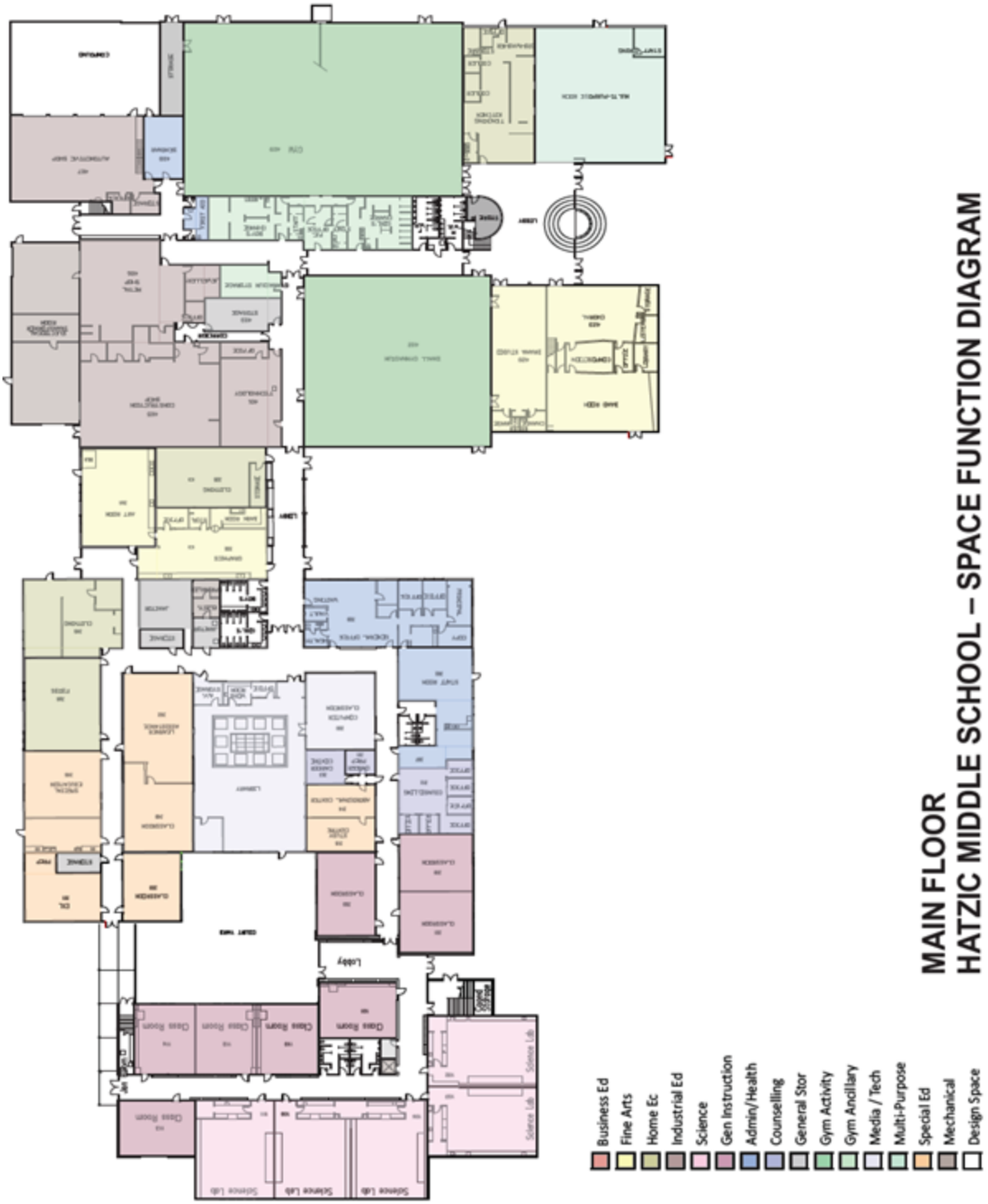
**COMMENTS**

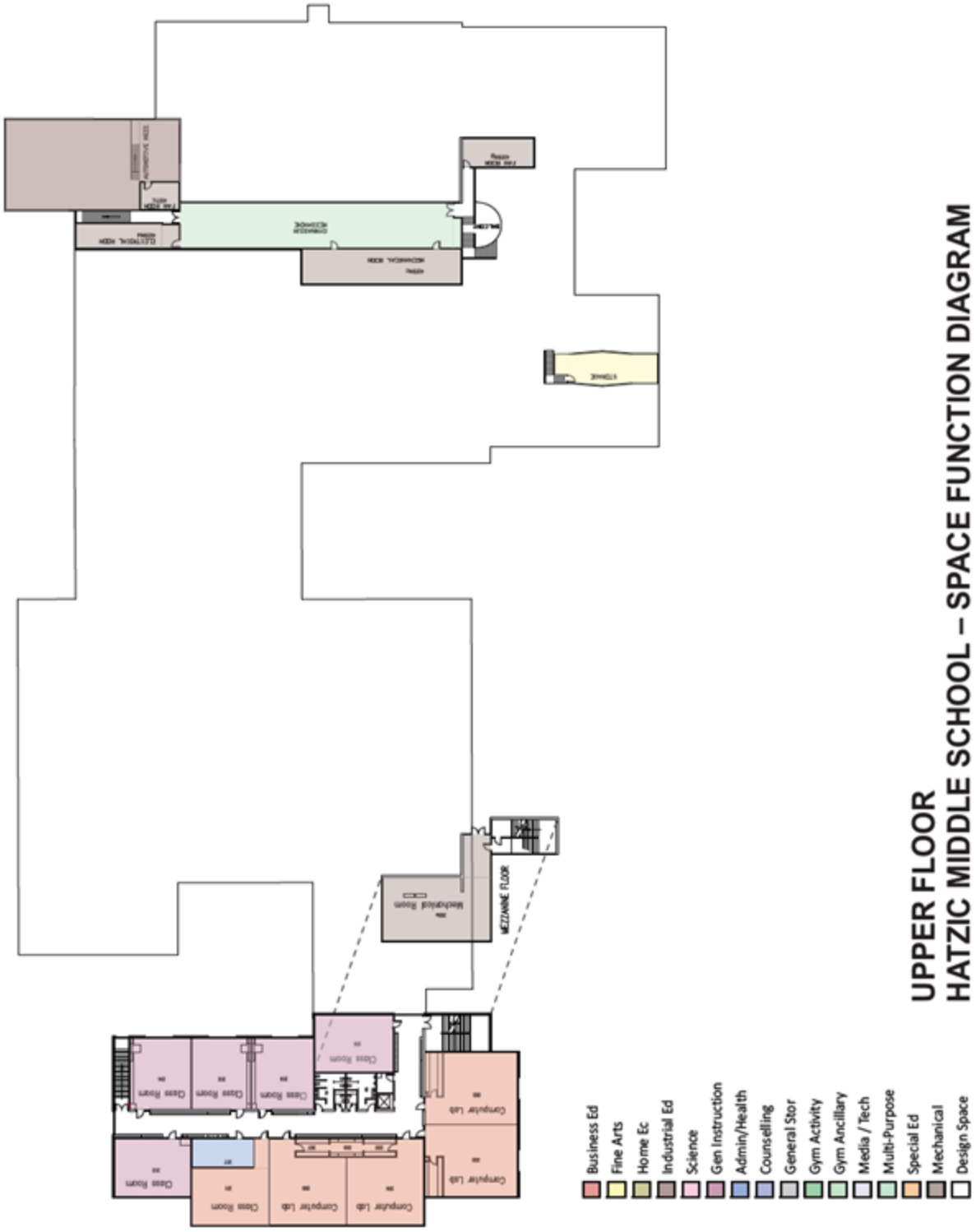
**ENROLMENT**

| Year | Grade 7: | Grade 8: | Grade 9: |
|---|---|---|---|
| 2016/17 | 226 | 219 | 197 |

**SITE AREA**

*DAS prepared by Cascade Facilities Management Consultants*


MAIN FLOOR
HATZIC MIDDLE SCHOOL – SPACE FUNCTION DIAGRAM
Business Ed
Fine Arts
Home Ec
Industrial Ed
Science
Gen Instruction
Admin/Health
Counselling
General Stor
Gym Activity
Gym Ancillary
Media / Tech
Multi-Purpose
Special Ed
Mechanical
Design Space


UPPER FLOOR
HATZIC MIDDLE SCHOOL – SPACE FUNCTION DIAGRAM
Business Ed
Fine Arts
Home Ec
Industrial Ed
Science
Gen Instruction
Admin/Health
Counselling
General Stor
Gym Activity
Gym Ancillary
Media / Tech
Multi-Purpose
Special Ed
Mechanical
Design Space
MEZZANINE FLOOR
Workshop Room
Class Room
Computer Lab

# SCHEDULE G

## DESIGN AID SHEET FOR HERITAGE PARK MIDDLE SCHOOL

Middle schools were created during the reconfiguration for Sept 2015. At that time, capacities were not confirmed since the schools had adequate capacity for all grade 7 – 9 students.

As part of this Long Range Facility Plan, the nominal capacity for Heritage Park Middle was evaluated and found to be 250 elementary (Grade 7) and 550 secondary (G 8-9) for a total middle school capacity of 800.

When Heritage Park was constructed in 1996, the University of the Fraser Valley (UFV) and the District of Mission (City) participated as partners. The UFV still occupy a portion of the building as part of their campus. This area is shown on the floor plans. The City still schedules the community gymnasium outside school hours and the theatre is used for the activities of all three partners.

The nominal capacity does NOT include the spaces in the modular complex located on-site.

In addition, the Air Cadets occupy Storage Room B146A in Heritage Park Middle. This does not affect the school capacity.

The attached Design Aid Sheets and floor plans were sent to the Ministry for concurrence on 12 June 2017.

**DESIGN AID SHEET FOR MIDDLE SCHOOLS - SHEET #1** **DRAFT MAR 2017**

School Name: Heritage Park Middle School
Facility Code:
Nominal Capacity: 800 (250E/550OS)
Operating Capacity: 800 (250E/550OS)

District: SD 75 (MISSION)
Grades: 7-9
Date Prepared:
Total Elective Modules 4.8

| Agreed Nominal / Operating Capacity |
|---|
| MoE: |
| Date: |

**PART 1 - ACADEMIC/VOCATIONAL**

| Space | 1A - EXISTING | | | 1B - MODULES | | | 1C - NEW CORE | | | 1D - NEW ELECTIVE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Function | Description | Area | Mods | Core | Deficit | Surplus | Description | Area | Mods | Description | Area | Mods |
| Business | Computer Lab 1 | 110.8 | 1.0 | 1.0 | | 2.0 | | | | | | |
| | Computer Lab 2 | 107.7 | 1.0 | | | | | | | | | |
| | Computer Lab 3 | 101.4 | 1.0 | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Fine Arts | 2-D Studio | 170.8 | 1.4 | 1.0 | | 4.9 | | | | | | |
| | 3-D Studio | 124.8 | 1.0 | | | | | | | | | |
| | Music | 228.6 | 1.4 | | | | | | | | | |
| | Drama | 143.3 | 1.0 | | | | | | | | | |
| | Theater | 1287.0 | 1.0 | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Home Ec | Combined Home Ec. | 158.3 | 1.0 | 1.0 | | 2.1 | | | | | | |
| | Home Ec. | 108.8 | 1.0 | | | | | | | | | |
| | Teaching Kitchen | 203.1 | 1.1 | | | | | | | | | |
| | | | | | | | | | | | | |
| Ind Ed | Drafting | 93.9 | 0.9 | 1.0 | | 4.4 | | | | | | |
| | Technology | 252.5 | 2.0 | | | | | | | | | |
| | Construction | 237.4 | 1.5 | | | | | | | | | |
| | Video | 262.4 | 1.0 | | | | | | | | | |
| | | | | | | | | | | | | |
| Science | Science 1 | 125.6 | 1.3 | 2.0 | | 5.0 | | | | | | |
| | Science 2 | 149.6 | 1.5 | | | | | | | | | |
| | Science 3 | 149.5 | 1.5 | | | | | | | | | |
| | Science 4 | 126.6 | 1.3 | | | | | | | | | |
| | Science 5 | 145.5 | 1.5 | | | | | | | | | |
| | | | | | | | | | | | | |
| *Other | | | | | | | | | | | | |
| Gen Inst | CR (75-95 m2) | 400.7 | 5.0 | 21.0 | | -13.6 | | | | | | |
| | Other Rooms | 191.7 | 2.4 | | | | | | | | | |
| **SubTot** | | 4,879.9 | 31.8 | 27.0 | | 4.8 | | | | | | |

**DESIGN AID SHEET FOR MIDDLE SCHOOLS - SHEET #2** **DRAFT MAR 2017**

School Name: Heritage Park Middle School

**PART 2 -SERVICE/ACTIVITY AREAS**

| Space Function | E - Existing | F - Allowable | G - Deficit | H - New |
|---|---|---|---|---|
| Administration / Health | 363.8 | 210 | -153.8 | |
| Counselling | 90.9 | 50 | -40.9 | |
| General Storage | 164.9 | 100 | -64.9 | |
| Gym Activity | 1,470.0 | 600 | -870.0 | |
| Gym Ancillary | 362.5 | 150 | -212.5 | |
| Media/Tech | 584.1 | 350 | -234.1 | |
| Multi-Purpose | 434.4 | 240 | -194.4 | |
| Special Education | 470.2 | 400 | -70.2 | |
| Mechanical | 570.9 | 200 | -370.9 | |
| Design Space | 2,834.4 | 1,690 | -1,144.4 | |
| *Other | | | | |
| Sub-Total: | 7,346.1 | 3,990.0 | -3,356.1 | |

**PART 3 -TOTAL AREAS**

| | E - Existing | H - New |
|---|---|---|
| Existing Academic/Vocational | 4,879.9 | |
| Core A/V Additions | | |
| Elective A/V Additions | | |
| Service/Activity | 7,346.1 | |
| **Sub-total** | 12,226.0 | |

**Total Gross Allowable Area** 12,226.0

***OTHER**

**COMMENTS**

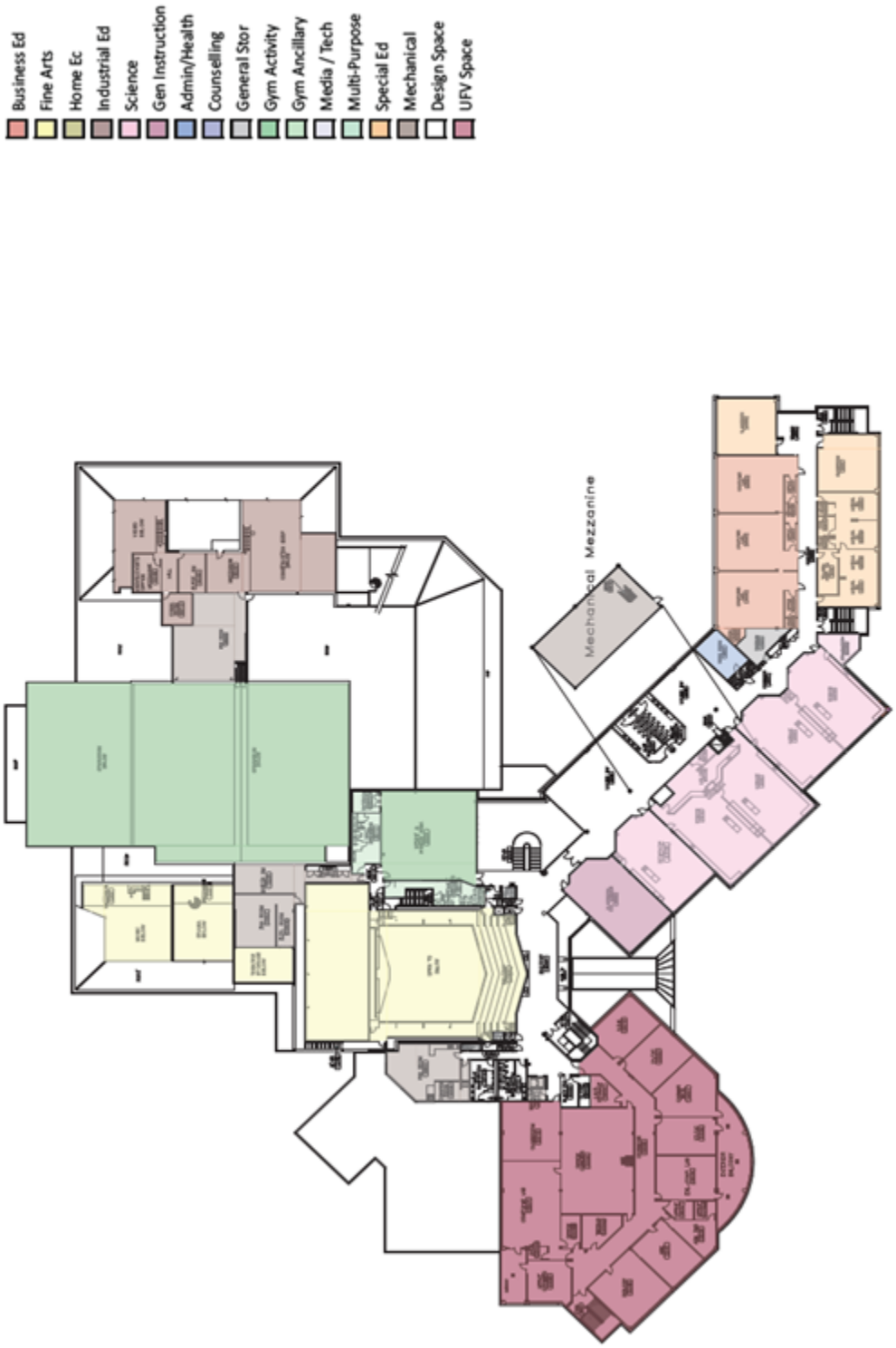
Theatre counted as 1 Module
Video counted as 1 Module
Modular Annex Building (approx 600 m2) leased and not included in capacity calculations
University of Fraser Valley occupies space in the building but is separate from the Middle School

**ENROLMENT**

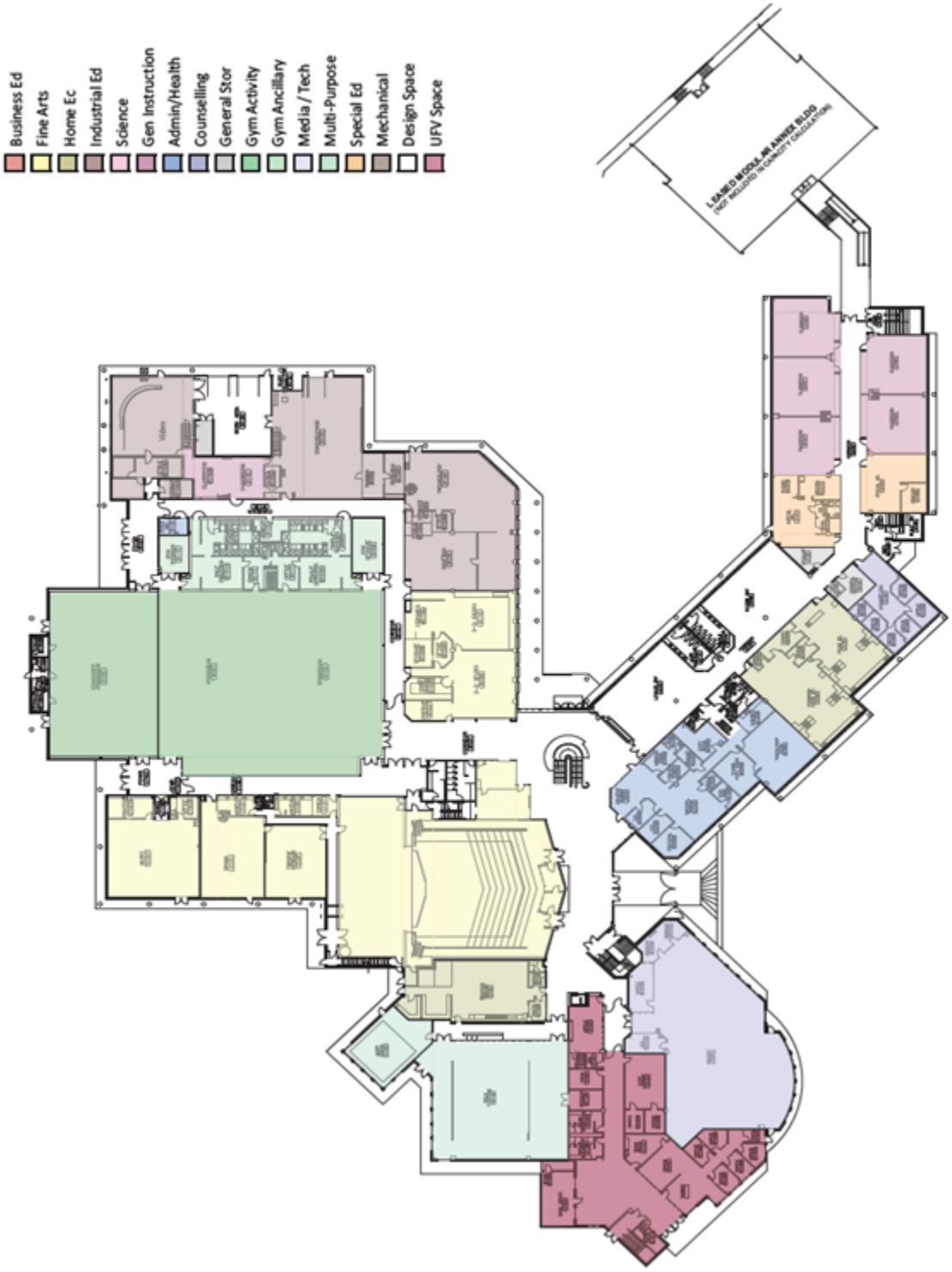
| Year | Grade 7: | Grade 8: | Grade 9: |
|---|---|---|---|
| 2016/17 | 208 | 206 | 228 |

**SITE AREA**

*DAS prepared by Cascade Facilities Management Consultants*




**UPPER FLOOR**
**HERITAGE PARK MIDDLE SCHOOL – SPACE FUNCTION DIAGRAM**




LOWER FLOOR
HERITAGE PARK MIDDLE SCHOOL – SPACE FUNCTION DIAGRAM