

Image courtesy of City of Surrey

The City of Surrey's \$68 million Organic biofuel facility located near Port Kells Transfer Station is a federal Public-Private Partnership with Orgaworld Canada.

BRITISH COLUMBIA MAJOR PROJECTS INVENTORY

THIRD QUARTER 2017



Ministry of Advanced Education, Skills and Training

ABOUT THIS REPORT

British Columbia Major Projects Inventory Third Quarter 2017

Major Projects Inventory as of September 30, 2017

Publisher: Labour Market and Information Division, Ministry of Advanced Education, Skills and Training

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Report prepared by Labour Market and Information Division staff

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About this Report

The objectives of this report are to analyze the updates to the MPI and to provide additional context on changes to economic conditions and construction activities. These snapshots of current economic activities are provided to help readers to form expectations of the construction activities into the next quarter. Note that the economic indicators are based on the most recent data available during the preparation of this report, not based on what would have been available in September 2017.

The detailed project listings are no longer included in this report since they are available in the searchable Excel database which is published on the MPI website (<u>www.majorprojectsinventory.com</u>) together with this report.

Feedback on the report redesign should be addressed to Grace Lee (<u>Grace.Lee@gov.bc.ca</u>), Labour Market Information Office (LMIO).

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The B.C. Major Projects Inventory (MPI), published quarterly, provides summary information on major projects in the Province of British Columbia. The MPI includes a listing of private and public sector construction projects in B.C. with an estimated capital cost of \$15 million (Cdn.) or greater (\$20 million or greater within the Lower Mainland–Vancouver area).

Approximately two-thirds of existing projects receive an update each quarter. New projects are added to the list every quarter. Projects on hold for longer than two years are removed from the publication. Completed projects are removed from the list in the following quarter.

Project identification	Project name, description, specific and regional location, geographic coordinates, developer, contact information, project type, and project category
Project status	 Proposed, under construction, completed, or on hold Proposed stages Start and completion dates (if available) Update activity on project status Environmental assessment stage
Project size	Estimated capital cost (if available)
Other project characteristics	Construction type, construction subtype, public sector projects, clean energy projects and/or green (i.e. LEED) building projects, First Nations' agreements, the number of construction jobs and operating jobs.

Information collected in the MPI includes:

While every effort is made to maintain a comprehensive project list that includes the most current publicly available information, it is important to note that projects are constantly added and re-evaluated by industry. Not all major projects are included in the MPI. Projects must be known to be included, and some project information is not published due to confidentiality requirements.

Sources of MPI Information

Information sources include print and electronic media, developers, architects, general contractors, and government agencies (provincial, regional, municipal) as well as occasional site visits. Projects that are under consideration or proposed to be funded by the provincial government may be listed where there is public information about such projects. The description may indicate the status of provincial funding applications if such information is publicly available.

Project Location

Projects are listed within the eight economic development regions: Vancouver Island/Coast, Mainland/Southwest (Vancouver area), Thompson-Okanagan, Kootenay, Cariboo, North Coast, Nechako, and Northeast. A map showing the location of the regions and main population centres is included in the regional sections of the MPI. Projects are also listed according to the nearest population centre, which could be an unincorporated centre or a local government (e.g., a municipality).

Estimated Cost

Cost estimates are general estimates from the information sources used and are not necessarily produced in a consistent manner. The estimated costs are revised when new information is available. All estimates are recorded in millions of dollars. All capital costs in this report are estimates and therefore subject to change. This is particularly applicable in the early stages of a project proposal. Some capital costs are not included because they were not available at press time or the developer or owner requested that no capital cost be shown.

Start and Finish Dates

Start and finish dates for proposed projects are based on estimates from the sources used, or in some cases, reasonable assumptions. These dates are revised as new information becomes available.

Project Status

Projects are listed by status: proposed, under construction, completed, or on hold. Projects that are on hold for longer than two years are normally removed from the publication (although retained in our database). Cancelled projects are noted in the project description as "cancelled" and noted in a new field - Update Activity is identified as "cancelled-removing next issue". Cancelled projects and completed projects in this quarter will be removed from the next issue of the MPI. Changes to project status are based on public information releases and/or information supplied by project proponents. Cancelled projects are not included in reported totals in this report.





Technically, projects can have their status moved to "cancelled" at any stage except for construction completed.

Proposed

Any major projects in the public realm with an intention to proceed on the part of a credible proponent are added to the database. Often major projects with an official news release or funding confirmed are added to the inventory. Projects released on the official websites may be included but are subject to approval for inclusion by the proponent. A review process for public projects is obtained by the project manager where the respective ministry can decide to include or remove the proposed projects based on feasibility or funding available for the project.

Proposed projects usually go through the four stages prior to the construction.

At the **Preliminary/Feasibility** stage, the feasibility of the project has been reviewed and the project's design and planning are in process.

Consultation/Approvals stage includes approvals for the zoning, environmental assessment, First Nation and other public open house processes.

A proposed project will enter **Permitting** stage after obtaining the required approvals (i.e. environmental assessment certificate if indicated). This stage includes development and building permits, mines, water licenses and other additional information required before moving into pre-construction stage.

Tender/Pre-construction stage includes construction tenders and building site preparation such as preloading, demolition, and excavation. The pre-construction work such as excavation or site work may begin in preparation for the construction permit.

Sustainable Building Design

Information on sustainable building design is identified as well as construction projects that are registered and certified under a recognized green building rating system (e.g., Leadership in Energy and Environmental Design (LEED®), Green Globes). LEED buildings provide an environmentally responsible standard for energy efficiency in the home and workplace. This designation has been added to the project description to promote awareness of the benefits of green buildings.

First Nations Affiliation

Information related to First Nations' involvement in projects is based on news releases and published project information that is publicly available. The information is consistent with the information maintained in the First Nations Economic Development Database (FNEDD; <u>www.fnedd.ca</u>).

Project Category

Projects Category listed the seven industrial categories:

- a.) manufacturing;
- b.) mining, oil and gas extraction;
- c.) other services;
- d.) public services;
- e.) residential or commercial;
- f.) transportation and warehousing; and,
- g.) utilities (including sewage treatment)

Environmental Assessment Stage

The stages of environmental assessment for each project undergoing review under the *B.C. Environmental Assessment Act* are added to this issue.

Latitude and Longitude

Fields Latitude and longitude in the format of Degrees minutes seconds (DMS).

Telephone

Contact number of the project developer or representative.

Update Activity

Readers can search for and select projects based on the following seven criteria:

- a.) new proposed projects;
- b.) project started construction;
- c.) cancelled-removing next issue;
- d.) project added-under construction;
- e.) project completed-removing next issue;
- f.) project placed on hold; and,
- g.) project removed from hold.

1. B.C. Major Projects Highlights – Q3 2017

The third quarter of 2017 issue of the BC Major Projects Inventory lists 46 new proposed projects over \$15 million (M) with available capital cost estimates totaling approximately \$2.35 billion (B) if all the projects proceed. The potential capital investment for new projects has increased slightly compared to \$1.92 B in the second quarter of 2017.

The estimated capital cost of all 941 major projects in the third quarter of 2017, totalling \$412.67 B, has decreased from \$432.16 B in the second quarter of 2017. Note that the total capital cost is the combined estimated value of projects identified as proposed, construction started, completed, and on hold excluding cancelled projects.

There are 29 projects that have started construction in B.C., representing an estimated capital cost of \$2.01 B, down from the \$2.32 B reported in the second quarter of 2017. Twenty-one projects completed construction in the third quarter, with an estimated capital cost of \$2.74 B compared to \$3.36 B in the second quarter of 2017. The largest completed project is the \$1 B Central City Neighbourhood in Surrey, followed by the \$400 M Tilbury LNG Facility Expansion in Delta.

The capital cost of all major projects currently under construction in BC is estimated at approximately \$74.73 billion, down slightly from the \$74.96 billion reported in the second quarter of 2017. Many major project proposals listed are in very preliminary stages and are not approved for construction, therefore capital cost estimates should be viewed with caution.

The available capital cost of proposed projects is estimated at \$304.72 B, down from \$307.50 B in the previous quarter. Approximately \$30.49 B of projects are judged to be 'on hold' for the time being, an increase from the previous quarter.

There were four projects that were cancelled this quarter at a total capital cost of \$17.40 B. These projects were: Aurora LNG Facility, Pacific Northwest LNG, Northern Gateway Pipeline Condensate Pipeline, and Northern Gateway Pipeline Project – Crude Oil Pipeline.

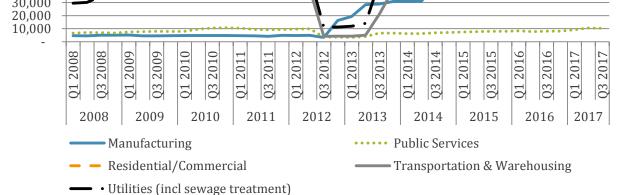
Figure 1 B.C. MPI Highlights

941	Number of total major projects
\$412.7 B	Value of all projects
499	Number of total proposed projects
\$304.7 B	Value of proposed projects
355	Number of projects under construction
\$74.7 B	Value of projects under construction
21	Number of projects completed
\$2.7 B	Value of projects completed
46	Number of new proposed projects
\$2.3 B	Value of newly proposed projects

2. B.C. Major Projects Inventory- Q3 2017

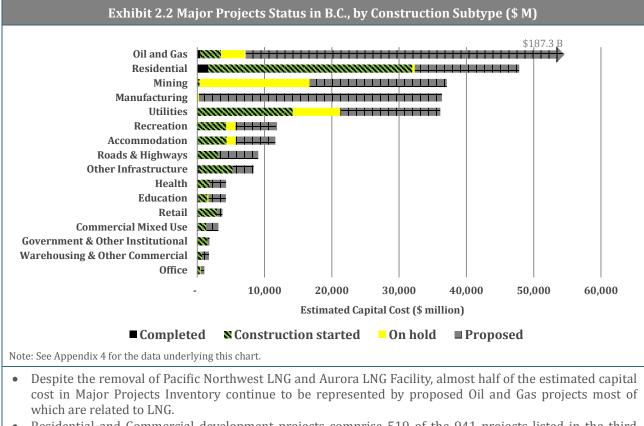
By Project Category, Construction Type or Subtype

Project Category	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Change from the previous quarter	Chang from the previou yea
Mining, Oil & Gas Extraction	201,342	201,530	201,550	201,194	185,933	-7.6%	-7.7%
Residential/Commercial	70,824	71,287	68,847	68,689	68,937	0.4%	-2.7%
Transportation & Warehousing	68,755	68,974	66,783	67,270	63,145	-6.1%	-8.29
Manufacturing	36,365	36,425	36,425	36,365	36,365	0.0%	0.09
Utilities	37,927	38,819	37,522	36,322	36,134	-0.5%	-4.7%
Public Services	8,071	8,123	9,199	10,492	10,358	-1.3%	28.3%
Other Services	11,713	11,779	11,911	11,826	11,804	-0.2%	0.89
Grand Total	434,997	436,937	432,237	432,158	412,676	-4.5%	-5.1%



Note: exclude mining oil & gas extraction and other services projects

- The total estimated capital cost of major projects in B.C declined significantly in the thrid quarter of 2017 (Q3), totalling \$412.7 B, representing a 4.5% decline over the previous quarter. The declined was mainly led by the removal of Aurora LNG Facility, Northern Gateway Pipeline projects, and Pacific Northwest LNG.
- In Q3 2017, the project value decreased in all project categories, except in Residential/Commercial (+0.5%).



- Residential and Commercial development projects comprise 519 of the 941 projects listed in the third quarter of 2017, representing a total estimated capital cost of \$80.9 B in the inventory.
- Residential projects are concentrated in the Mainland/Southwest region (57%), Vancouver Island (23%), and Thompson-Okanagan (20%).
- Central City Neighbourhood (\$1 B): Infinity Tower 1, Infinity 2 and 3 have been completed in Q3 2017 which will be removed from the Residential category in the following quarter.
- Utility projects continue to be a significant driver for the province. The total cost of utilities projects amounts to \$36.1 B while the total cost of projects which are currently underway is \$14.2 B. Core Area Wastewater Management Project Seaterra Program (\$765 M) has started construction in Q3 2017.
- Two newly proposed projects are added to Utilities in Q3 2017: Tofino Wastewater Treatment Plant (\$15 M) in Vancouver Island/Coast region and Second Narrows Water Supply Tunnel (\$400 M) in Mainland/Southwest region.
- There are 57 mining projects listed in the MPI with a total estimated value of \$37.1 B.
- North Coast region had the highest share in Mining projects cost (51%), followed by the Nechako region (17%) and the Northeast region (11%).
- The top three components of new projects added to the inventory in Q3 2017 are Primarily Residential Single Use (25%), Utilities (18%), and Roads & Highways (16%).

Construction Type & Subtype	Vancouver Island/ Coast	Mainland/ Southwest	Thompson -Okanagan	Kootenay	Cariboo	North Coast	Nechako	Northeast	Total
Residential Subtotal:	11,087	27,074	9,504	80	-	-	100	-	47,845
Primarily residential	2,900	9,008	1,450	-	-	-	-	-	13,358
Residential Mixed use	8,187	18,066	8,054	80	-	-	100	-	34,487
Commercial Subtotal:	2,147	18,409	5,679	4,902	1,343	46	-	540	33,066
Commercial Mixed use	462	2,690	-	-	-	-	-	-	3,152
Accommodation	281	4,780	3,299	2,302	940	-	-	-	11,602
Recreation	181	6,731	2,235	2,600	21	16	-	-	11,784
Retail	923	2,196	115	-	-	-	-	500	3,734
Office	260	762	15	-	-	-	-	-	1,037
Warehousing	-	190	-	-	-	-	-	-	190
Other Commercial	40	1,060	15	-	382	30	-	40	1,567
Industrial Subtotal:	32,130	2,803	1,864	3,246	7,231	192,017	6,296	22,235	267,822
Mining	130	160	1,834	3,036	2,646	18,807	6,296	4,171	37,080
Oil & Gas	32,000	2,593	-	-	4,570	141,150	-	14,064	194,377
Manufacturing - Wood Products	-	-	30	-	-	60	-	-	90
Manufacturing - Petrochemical	-	-	-	-	-	32,000	-	4,000	36,000
Other Manufacturing	-	50	-	210	15	-	-	-	275
Institutional & Government Subtotal:	3,273	5,252	1,319	36	59	383	-	56	10,378
Education	1,795	2,162	169	19	59	18	-	56	4,278
Health	-	2,789	1,110	17	-	365	-	-	4,281
Government buildings	1,458	301	40	-	-	-	-	-	1,799
Other Institutional & Government	20	-	-	-	-	-	-	-	20
Infrastructure Subtotal:	9,942	17,743	2,997	871	1,609	5,166	786	14,451	53,565
Utilities	7,724	5,421	1,436	871	1,070	4,517	741	14,354	36,134
Roads & Highways	386	6,484	1,411	-	539	99	45	97	9,061
Other Transportation	1,815	5,838	150	-	-	550	-	-	8,353
Other Infrastructure	17	-	-	-	-	-	-	-	17
Grand Total	58,579	71,281	21,363	9,135	10,242	197,612	7,182	37,282	412,676

By Project Status

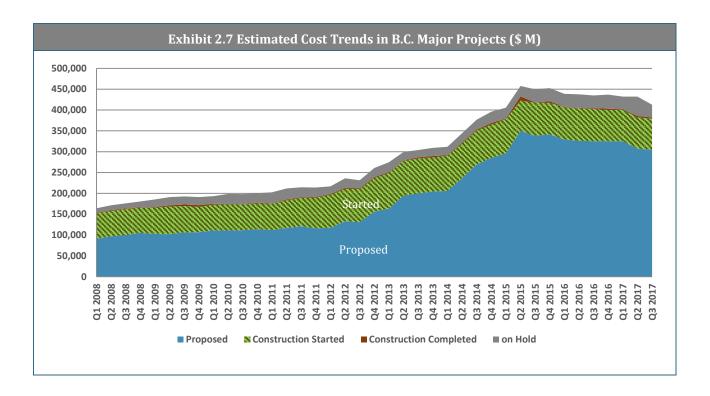
Exhibit 2.4 Est	imated Cos	t Trends in	ı B.C. Majo	or Projects,	by Project	t Status (\$	M)
Status	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Change from the previous quarter	Change from the previous year
Proposed	325,366	325,325	324,973	307,495	304,719	-0.9%	-6.3%
Construction started	76,609	75,064	75,282	74,957	74,729	-0.3%	-2.5%
Completed	2,188	2,927	1,341	3,357	2,737	-18.5%	25.1%
On hold	30,834	33,621	30,641	46,349	30,491	-34.2%	-1.1%
Total	434,997	436,937	432,237	432,158	412,676	-4.5%	-5.1%

The value of completed projects rose 25 percent to \$2.7 B in the Q3 2017 over the previous year. Notable projects completed were Central City Neighbourhood (\$1 B), Tilbury LNG Facility Expansion (\$400 M), and UBC - University Town (\$350 M).

Exhibit 2.5 Summary of B.C. Major Projects (by Project Status)										
	Estimated Capital Cost (\$M)	Percentage of Total	Number of Projects	Average Project Value (\$ M)	Average Years in Inventory					
Proposed	304,719	74%	499	705	4.7					
Preliminary/Feasibility	75,352	18%	108	942	4.0					
Consultation/Approvals	166,710	40%	227	825	5.7					
Permitting	14,849	4%	39	424	3.2					
Tender/Preconstruction	11,670	3%	84	148	2.8					
Stage Unknown	36,138	9%	41	1,004	6.6					
On Hold	30,491	7%	66	484	10.6					
Construction Started	74,729	18%	355	214	6.1					
Completed	2,737	1%	21	137	6.7					
Total	412,676	100%	941	478	5.7					

Note: Average project value is the average of those projects for which there is a cost estimate. An average year in inventory is the average time span between the projects as first recorded in the MPI and the current period.

Development Region	Proposed	Construction started	Completed	On Hold		Total change from the previous quarter	Total change from the previous year
Vancouver Island/Coast	44,825	12,431	175	1,148	60,519	2.9%	1.8%
Mainland/ Southwest	37,267	30,737	2,285	992	70,466	-0.1%	-0.9%
Thompson- Okanagan	5,703	14,038	0	1,622	22,533	5.9%	1.2%
Kootenay	2,349	3,626	0	3,160	9,135	-0.2%	0.2%
Cariboo	8,422	500	20	1,300	10,485	1.9%	0.8%
North Coast	182,874	141	200	14,397	218,597	0.4%	0.0%
Nechako	4,361	486	0	2,335	7,182	0.0%	2.7%
Northeast	18,918	12,770	57	5,537	37,340	0.4%	0.7%
Total	304,719	74,729	2,737	30,491	412,676	-4.5%	-5.1%

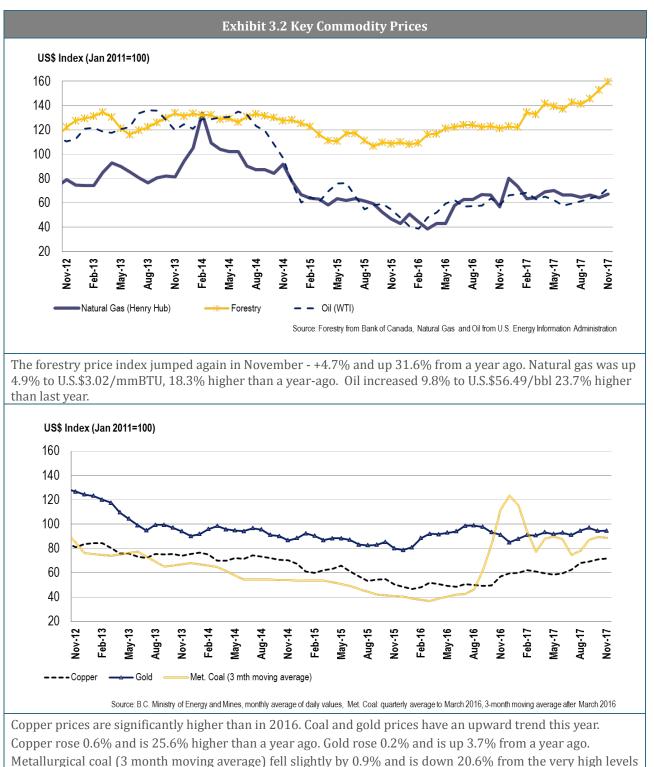


3. British Columbia's Economy

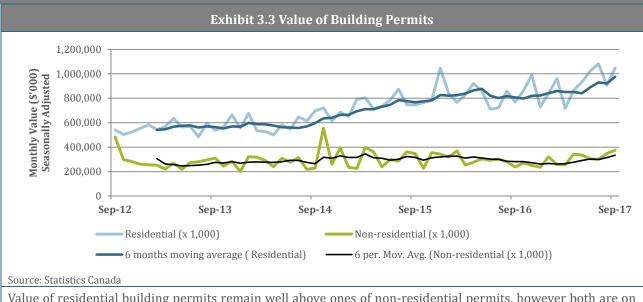
	2017f	2018f	20:	19f <u>2</u>	020f 2021f
Real GDP	+2.1 %	+2.1 %			2.0 % +2.0%
rce: B.C. Budget and Fiscal Plan 2017/18 – 2		. 2.1 /0		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
, ,	,				
			Change from previous month	Change from previous year	
Retail trade (\$ M)	Sep-17	7,113	+0.4%	+9.8%	seasonally adjusted
Manufacturing Sales (\$ M)	Sep-17	4,255	+0.4%	+7.2%	seasonally adjusted
Residential - building permits (\$ M)	Oct-17	907	-12.9 %	+5.0%	seasonally adjusted
Residential - housing starts (units)	Oct-17	42,628	+4.1%	+13.2%	seasonally adjusted at annual rates
Non-Residential building permits (\$ M)	Oct-17	421.8	+7.7%	+55.4%	seasonally adjusted
Exports - all merchandise (\$ M)	Oct-17	3,584	-0.7%	+0.2%	seasonally adjusted
		Prices			
B.C. Consumer price index (2002=100)	Oct-17	125.6	-0.1%	+2.0%	
Exchange rate	Oct-17	US \$0.79	-2.6%	+5.1%	
Average 5-year residential mortgage rate	Oct-17	3.89%	+0.1 p.p.	+0.3 p.p.	
	Labo	ur Market			
Employment	Nov-17	2,485,400	0.7%	3.8%	seasonally adjusted
Unemployment rate	Nov-17	4.8%	-0.1 p.p.	-1.3 p.p.	seasonally adjusted
Participation rate	Nov-17	65.3%	+0.4 p.p.	+0.8 p.p.	seasonally adjusted
Average weekly earnings	Sep-17	946.95	+0.9%	+3.0%	seasonally adjusted

Source: Statistics Canada & Bank of Canada

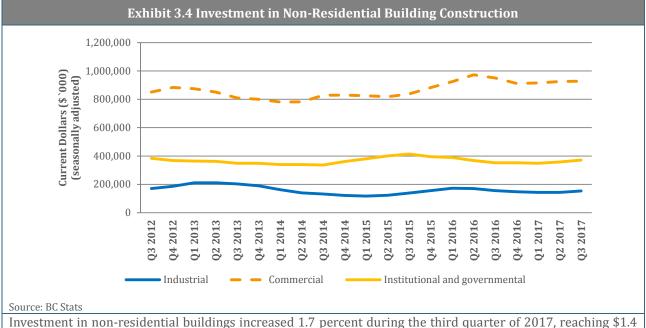
Note: p.p. is percentage point, used here to show the difference between two percentage rates.



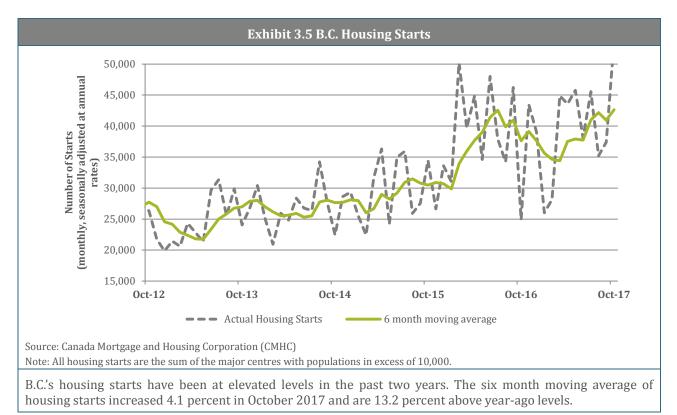
from November of last year.

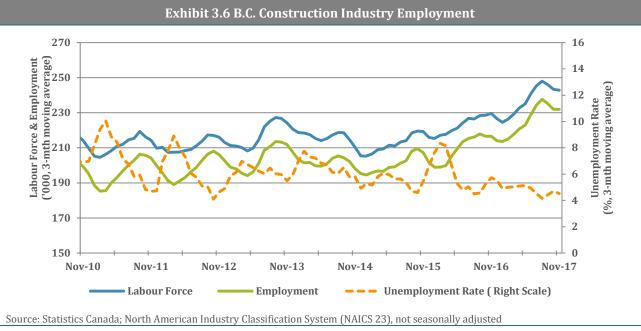


Value of residential building permits remain well above ones of non-residential permits, however both are on an upswing since May 2017.

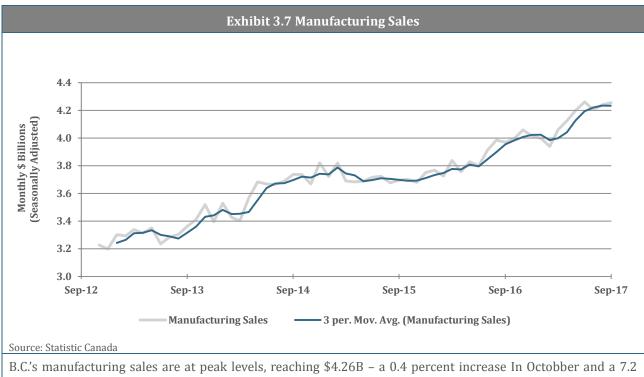


B. The current level of non-residential investment is 3.9 percent below the 5-year peak in quarter 2 2016.





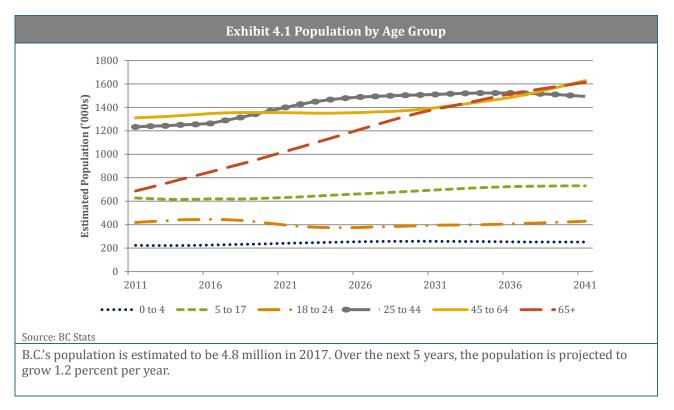
Employment levels in B.C.'s construction industry stayed 7.1 percent above year-ago levels. In November 2017 employment remained unchanged, while labour force slightly dipped 0.2 percent compared to the previous month. The unemployment rate in B.C.'s construction industry fell down to 4.5 percent in November – a 0.2 percent point drop from the previous month and a 1.2 percent point drop from November 2016.



percent increase from October 2016.

B.C. DEMOGRAPHICS

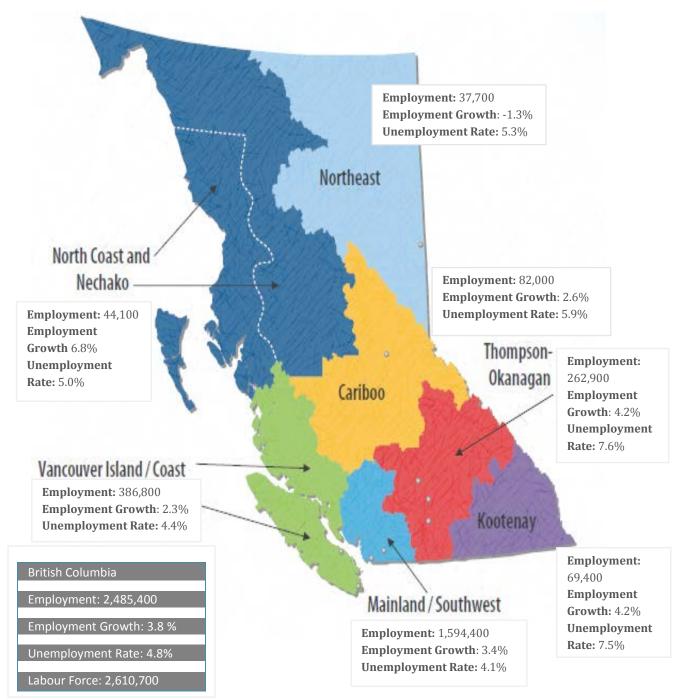
4. B.C. Demographics



REGIONAL SUMMARIES

5. Regional Summaries

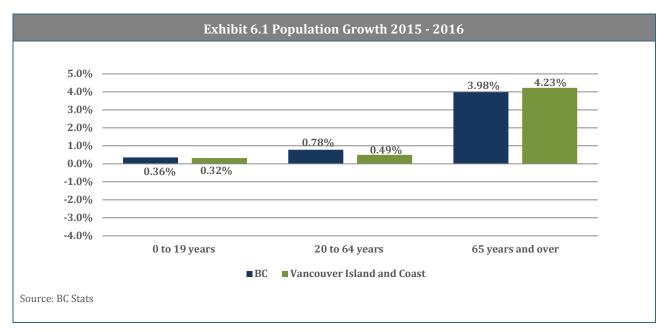
Regional Labour Market Statistics - November 2017

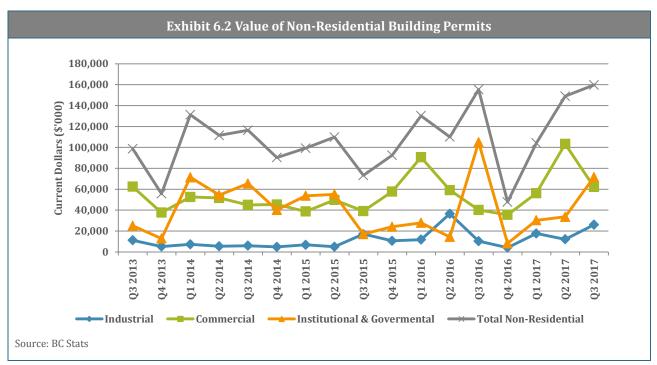


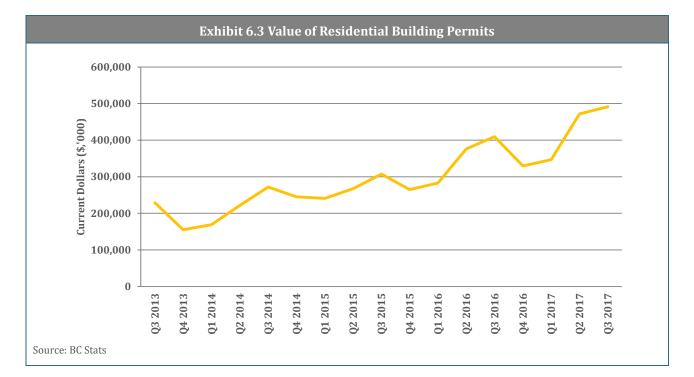
Note: Employment growth is over the previous 12 months. Data for B.C. at the provincial level are seasonally adjusted. Data for the regions are not seasonally adjusted and are 3-month moving averages. This means that the data at the provincial level are not directly comparable to the regional data, but the data for each region are directly comparable with the other regions. Source: Statistics Canada

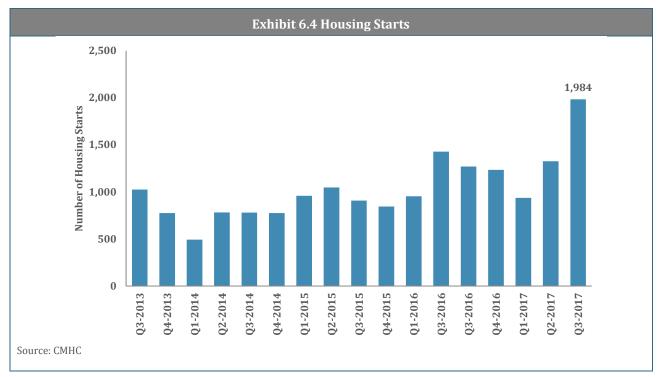
6. Vancouver Island/Coast Region

Key Economic Indicators

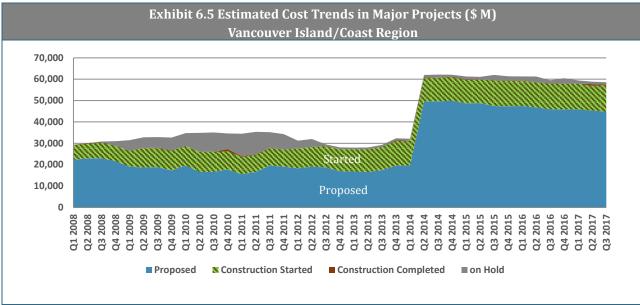








Trends in Major Projects



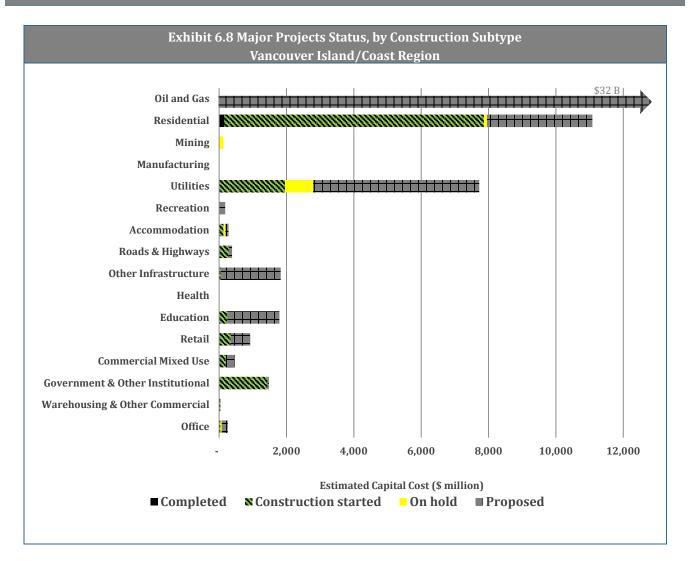
- In Q3 2017, the Vancouver Island/Coast region has a total of 150 major projects with a combined value of \$58.6 B, representing a 0.4 percent drop over the previous quarter and a 1.5 percent drop compared to one year earlier.
- There are 12 newly proposed projects added to the MPI this quarter. The top three largest projects are Marine Oil Spill response Project Vancouver Island (\$150 M), Aqua at Langford Lake (\$80 M), and Vivid at the Yates (\$40 M). See more new projects in Appendix 1.
- Two major projects completed in this quarter: Hudson Walk 1 & 2 (\$160 M) and North Courtney Connector (\$15 M).
- Eight major projects began construction in this quarter with total capital costs of \$1 B. Belmont Market Shopping Centre, Camosun College Centre for Health Sciences, Vancouver Island University Trades complex, West Shore Village, and The Wade Condominiums are expected to be completed in 2018. Lyra Residences is expected to be completed in the Fall of 2019. Core Area Wastewater Management Project Seaterra Program and Yates on Yates Condominium are expected to be completed in 2020.

Exhibit 6.6 Estimated Cost Trends in Major Projects, by Project Status (\$M) Vancouver Island/Coast Region										
Status	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Change from the previous quarter	Change from the previous year			
Proposed	45,970	45,895	45,898	45,313	44,825	-1.1%	-2.5%			
Construction started	11,878	11,942	11,985	11,580	12,431	7.3%	4.7%			
Completed	218	47	65	799	175	-78.1%	-19.7%			
On hold	1,411	2,571	1,471	1,148	1,148	0.0%	-18.6%			
Total	59,477	60,455	59,419	58,840	58,579	-0.4%	-1.5%			

Exhibit 6.7 Summary of Major Projects (by Project Status) Vancouver Island/Coast Region

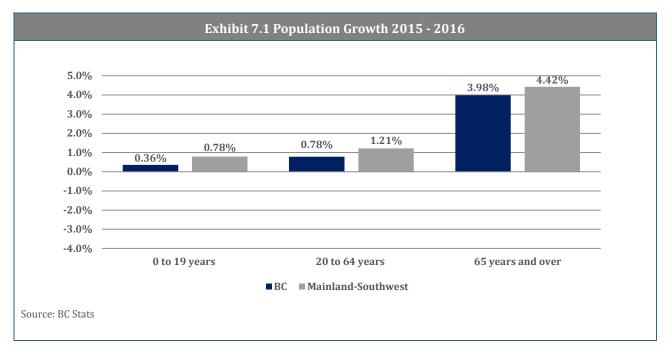
	Estimated Capital Cost (\$ million)	Percentage of Total	Number of Projects	Average Project Value (\$ million)	Average Year in Inventory
Proposed	44,825	77%	74	679	5.7
Preliminary/Feasibility	32,078	72%	19	2,139	4.5
Consultation/Approvals	10,438	23%	31	373	7.5
Permitting	638	1%	5	128	3.0
Tender/Preconstruction	1,421	3%	14	102	3.2
Stage Unknown	250	1%	5	63	9.0
On Hold	1,148	2%	10	115	12.0
Construction Started	12,431	21%	64	201	6.7
Completed	175	0%	2	88	6.3
Total	58,579	100%	150	418	6.6

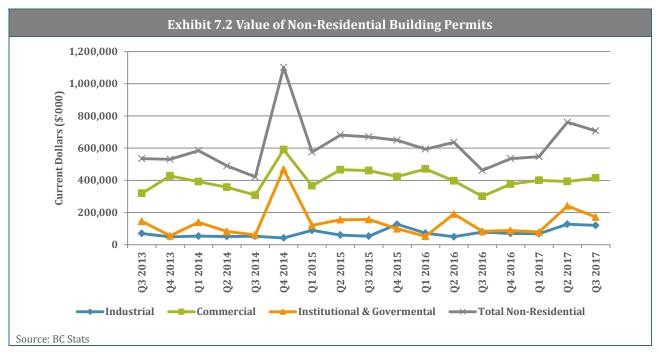
Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.

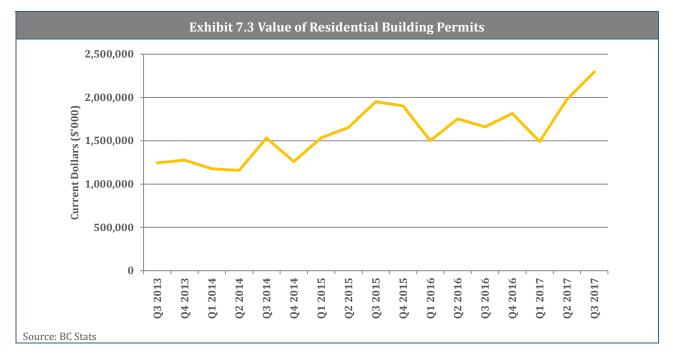


7. Mainland/Southwest Region

Key Economic Indicators

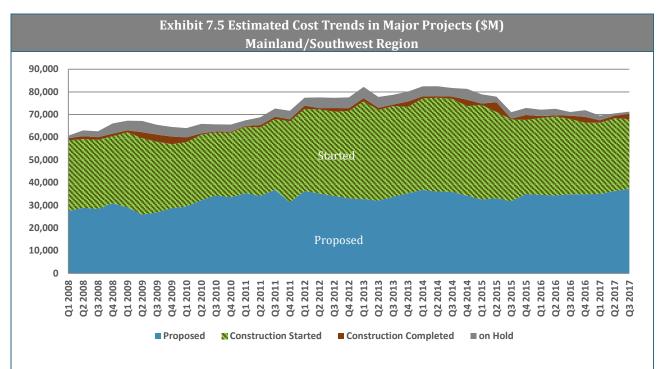








Trends in Major Projects



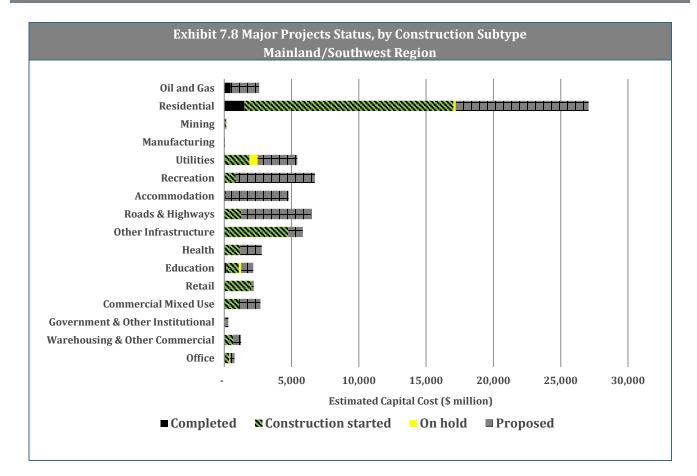
- In Q3 2017, the Mainland/Southwest region has a total of 491 major projects with a combined value of \$71.3 B, representing a 1.1 percent increase over the previous quarter and a 0.2 percent increase compared to one year earlier.
- There are 29 newly proposed projects added to the MPI this quarter. The top three largest projects are Second Narrows Water Supply Tunnel (\$400 M), Highway 91 to Highway 17 and Deltaport Way Corridor Improvements (\$245 M), and Lions Gate Hospital Redevelopment Phase 3 (\$165 M). See more new projects in Appendix 1.
- 15 major projects were completed in this quarter such as Central City Neighbourhood (\$1 B), Tilbury LNG Facility Expansion (\$400 M), and UBC University Town (\$350 M). See more completed projects in Appendix 3.
- 19 major projects began construction in this quarter with total capital costs of \$942 M. See more in Appendix 2.

Exhibit 7.6 Estimated Cost Trends in Major Projects, by Project Status (\$ M) Mainland/Southwest Region										
Status	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Change from the previous quarter	Change from the previous year			
Proposed	34,882	34,923	35,019	36,303	37,267	2.7%	6.8%			
Construction started	33,144	31,435	31,367	32,086	30,737	-4.2%	-7.3%			
Completed	1,482	2,638	1,099	1,137	2,285	101.0%	54.2%			
On hold	1,621	2,941	2,056	1,007	992	-1.5%	-38.8%			
Total	71,129	71,937	69,541	70,533	71,281	1.1%	0.2%			

Exhibit 7.7 Summary of Major Projects (by Project Status) Mainland/Southwest Region

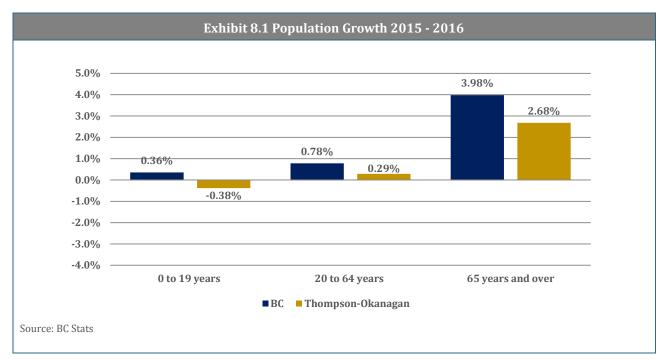
	Estimated Capital Cost (\$ million)	Percentage of Total	Number of Projects	Average Project Value (\$ million)	Average Year in Inventory
Proposed	37,267	52%	264	164	3.8
Preliminary/Feasibility	5,668	15%	52	145	3.7
Consultation/Approvals	15,493	42%	112	158	4.4
Permitting	2,347	6%	26	107	2.1
Tender/Preconstruction	4,540	12%	52	95	2.3
Stage Unknown	9,219	25%	22	461	6.1
On Hold	992	1%	12	90	9.2
Construction Started	30,737	43%	200	155	5.0
Completed	2,285	3%	15	163	7.8
Total	71,281	100%	491	158	4.5

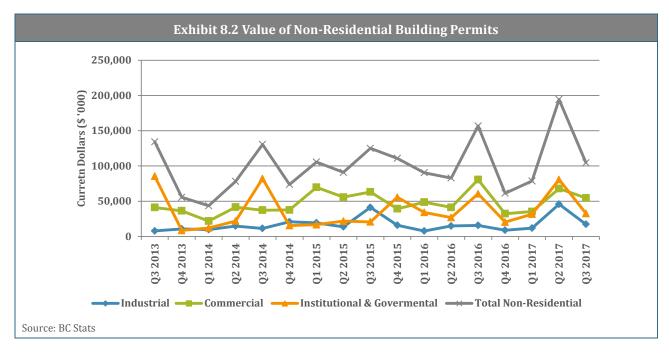
Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.

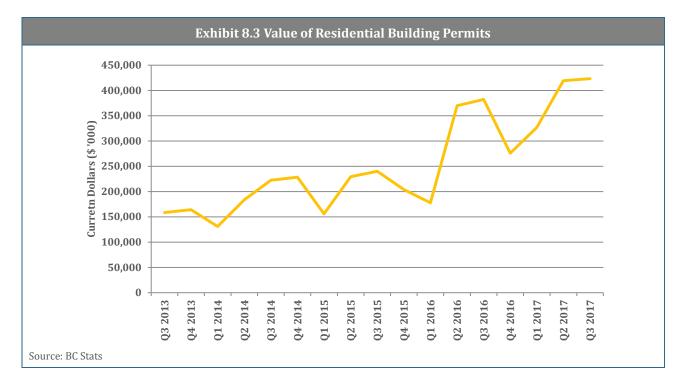


8. Thompson - Okanagan Region

Key Economic Indicators

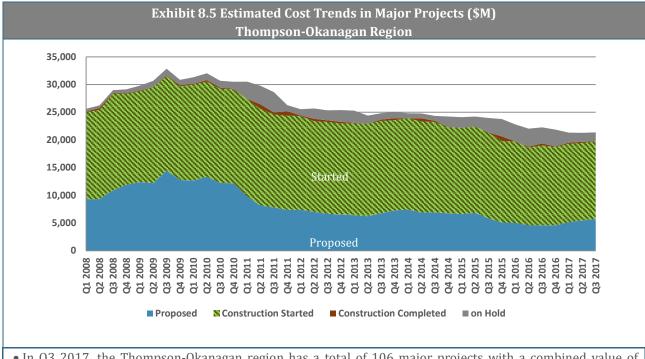








Trends in Major Projects

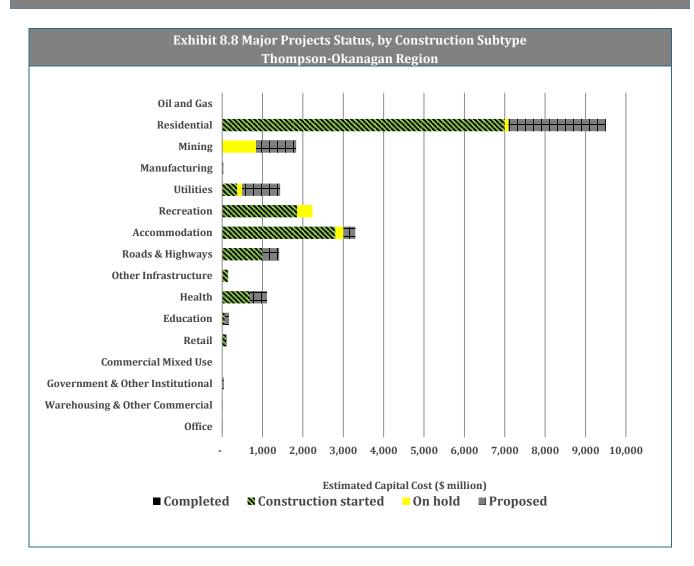


- In Q3 2017, the Thompson-Okanagan region has a total of 106 major projects with a combined value of \$21.4 B, representing a 0.4 percent increase over the previous quarter and a 4.1 percent drop compared to one year earlier.
- Three newly proposed projects added to the MPI this quarter. One water Street Condominium (\$65 M), OKAN Health Sciences Building (\$19 M), and Ecole Glenmore Elementary School Replacement (\$18 M).
- UBC Okanagan Teaching and Learning Centre (\$35 M) started construction this quarter and is expected to be completed in Spring 2018.

Exhibit 8.	6 Estimated Co	ost Trends Fhompson•			Project Sta	tus (\$ M)	
Status	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Change from the previous quarter	Change from the previous year
Proposed	4,586	4,586	5,170	5,471	5,703	4.2%	24.4%
Construction started	14,436	14,161	14,154	13,997	14,038	0.3%	-2.8%
Completed	337	81	177	194	0	-100.0%	-100.0%
On hold	2,913	3,032	1,812	1,622	1,622	0.0%	-44.3%
Total	22,272	21,860	21,313	21,284	21,363	0.4%	-4.1%

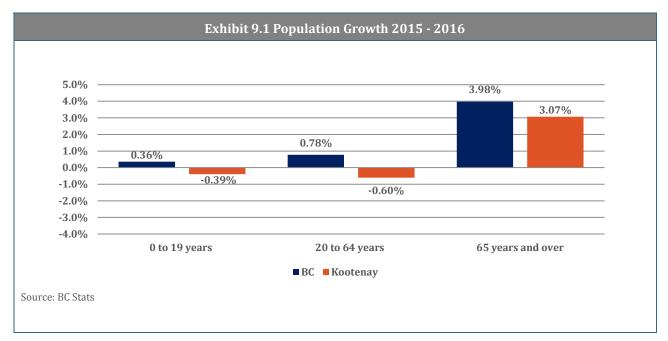
Exhibit 8.7 Summary of Major Projects (by Project Status) Thompson-Okanagan Region						
	Estimated Capital Cost (\$ million)	Percentage of Total	Number of Projects	Average Project Value (\$ million)	Average Year in Inventory	
Proposed	5,703	27%	49	127	5.3	
Preliminary/Feasibility	374	7%	12	42	4.1	
Consultation/Approvals	3,891	68%	21	185	6.7	
Permitting	264	5%	3	88	5.8	
Tender/Preconstruction	959	17%	9	107	2.8	
Stage Unknown	215	4%	4	72	6.7	
On Hold	1,622	8%	8	203	12.9	
Construction Started	14,038	66%	49	292	9.2	
Completed	0	0%	0	0	0.0	
Total	21,363	100%	106	212	7.7	

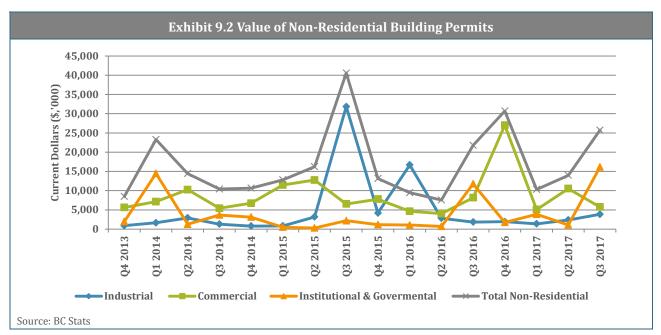
Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.

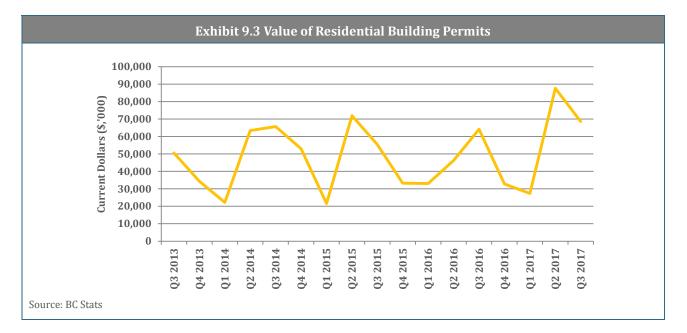


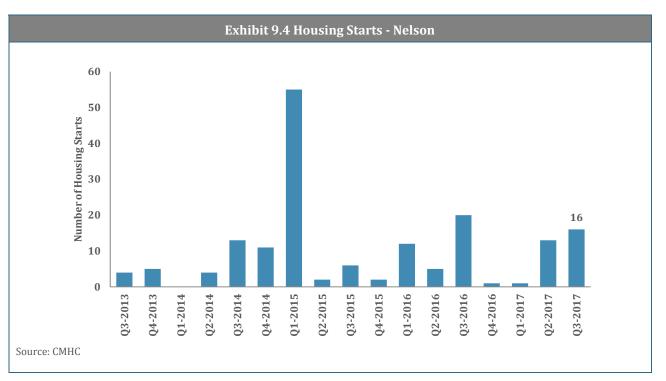
9. Kootenay Region

Key Economic Indicators

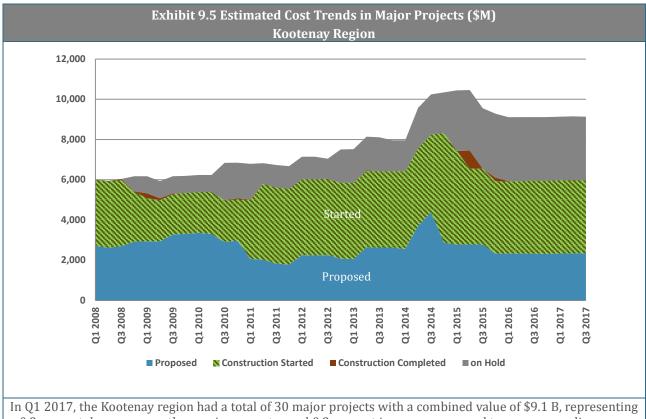








Trends in Major Projects

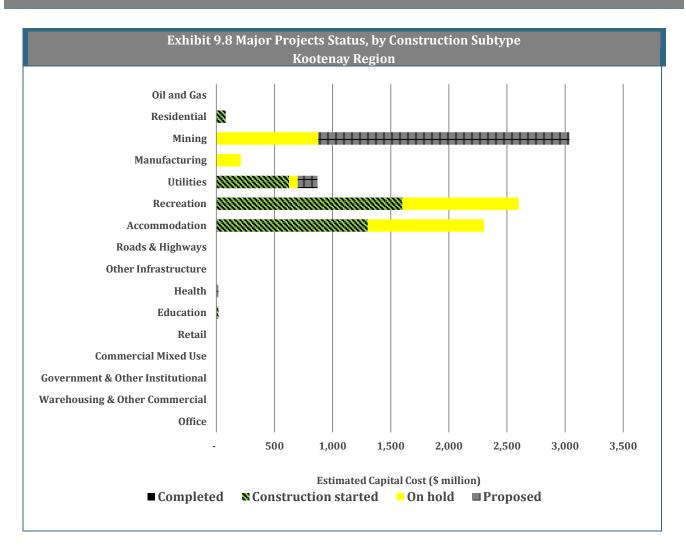


a 0.2 percent decrease over the previous quarter and 0.2 percent increase compared to one year earlier.

Exhibit 9.6 Estimated Cost Trends in Major Projects, by Project Status (\$M) Kootenay Region							
Status	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Change from the previous quarter	Change from the previous year
Proposed	2,331	2,312	2,332	2,349	2,349	0.0%	0.8%
Construction started	3,623	3,643	3,643	3,627	3,626	0.0%	0.1%
Completed	0	0	0	16	0	-	#DIV/0!
On hold	3,160	3,160	3,160	3,160	3,160	0.0%	0.0%
Total	9,114	9,115	9,135	9,152	9,135	-0.2%	0.2%

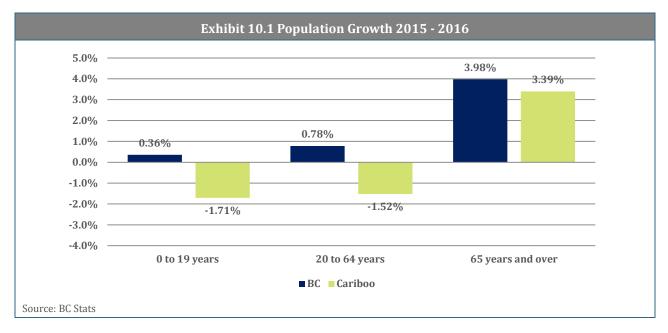
Exhibit 9.7 Summary of Major Projects (by Project Status) Kootenay Region						
	Estimated Capital Cost (\$ million)	Percentage of Total	Number of Projects	Average Project Value (\$ million)	Average Year in Inventory	
Proposed	2,349	26%	8	392	4.6	
Preliminary/Feasibility	0	0%	2	0	2.1	
Consultation/Approvals	2,332	99%	5	466	6.5	
Permitting	0	0%	0	0	0.0	
Tender/Preconstruction	17	1%	1	17	0.3	
Stage Unknown	0	0%	0	0	0.0	
On Hold	3,160	35%	7	451	10.4	
Construction Started	3,626	40%	15	242	12.8	
Completed	0	0%	0	0	0.0	
Total	9,135	100%	30	326	10.1	

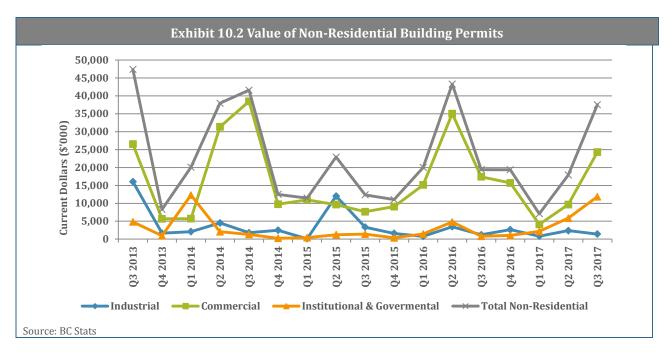
Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.

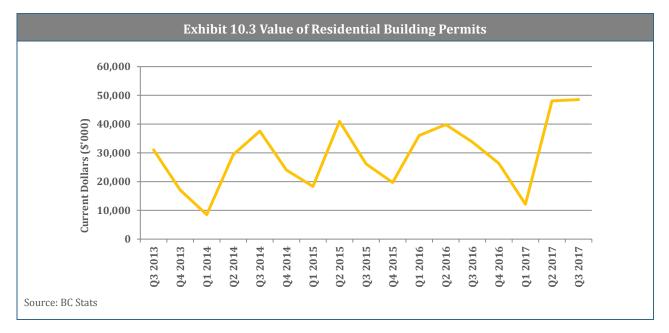


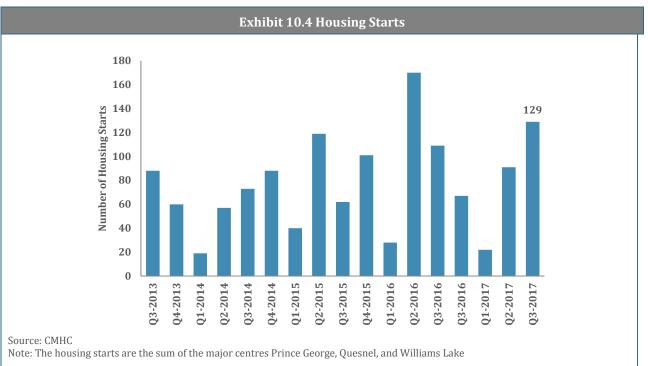
10. Cariboo Region

Key Economic Indicators

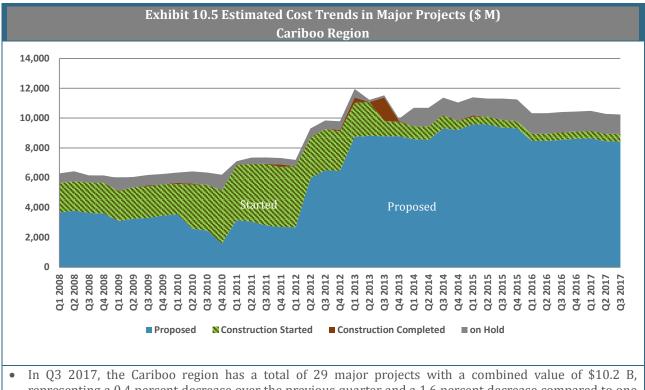








Trends in Major Projects



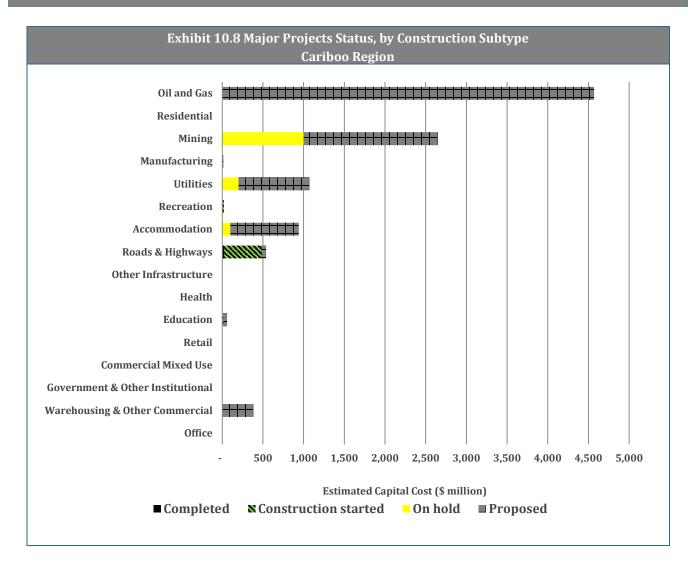
• In Q3 2017, the Cariboo region has a total of 29 major projects with a combined value of \$10.2 B, representing a 0.4 percent decrease over the previous quarter and a 1.6 percent decrease compared to one year earlier.

- The newly proposed project Cariboo Memorial Hospital is added to the MPI this quarter.
- Highway 97 Salmon River Bridge Replacement (\$ 20 M) has been completed this quarter.
- Highway 16 Bunce to Blackwater Widening started construction this quarter and is expected to be completed by Fall 2018.

Exhibit 10.6 Estimated Cost Trends in Major Projects, by Project Status (\$M) Cariboo Region							
Status	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Change from the previous quarter	Change from the previous year
Proposed	8,542	8,617	8,646	8,446	8,422	-0.3%	-1.4%
Construction started	481	481	496	496	500	0.8%	4.0%
Completed	40	0	0	0	20	-	-
On hold	1,343	1,343	1,343	1,343	1,300	-3.2%	-3.2%
Total	10,406	10,441	10,485	10,285	10,242	-0.4%	-1.6%

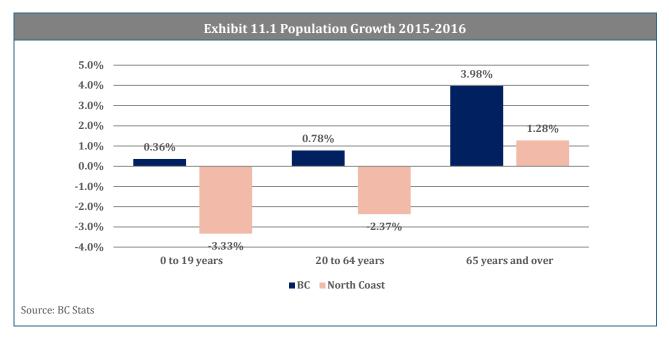
Exhibit 10.7 Summary of Major Projects (by Project Status) Cariboo Region						
	Estimated Capital Cost (\$ million)	Percentage of Total	Number of Projects	Average Project Value (\$ million)	Average Year in Inventory	
Proposed	8,422	82%	21	443	6.3	
Preliminary/Feasibility	1,692	20%	7	338	3.8	
Consultation/Approvals	2,045	24%	7	292	6.6	
Permitting	0	0%	0	0	0.0	
Tender/Preconstruction	4,592	55%	3	1,531	10.9	
Stage Unknown	93	1%	4	23	6.6	
On Hold	1,300	13%	3	433	15.6	
Construction Started	500	5%	4	125	6.0	
Completed	20	0%	1	20	1.6	
Total	10,242	100%	29	379	7.0	

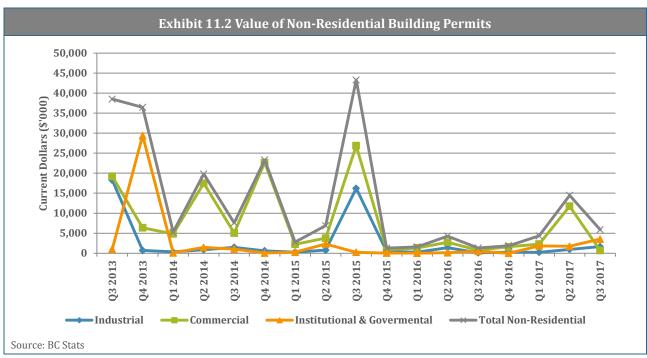
Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.

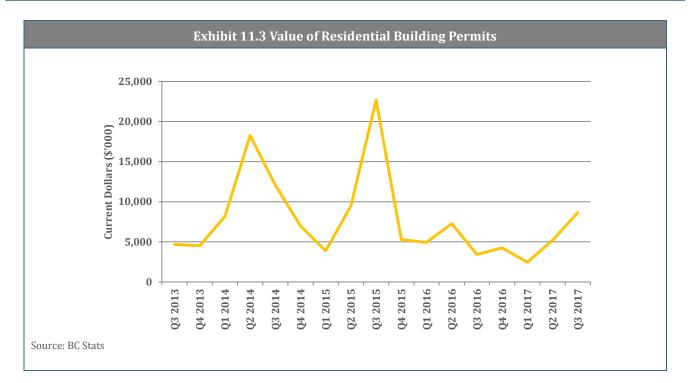


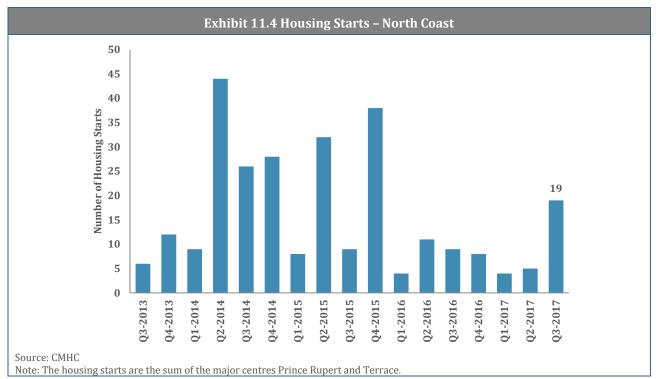
11. North Coast Region

Key Economic Indicators

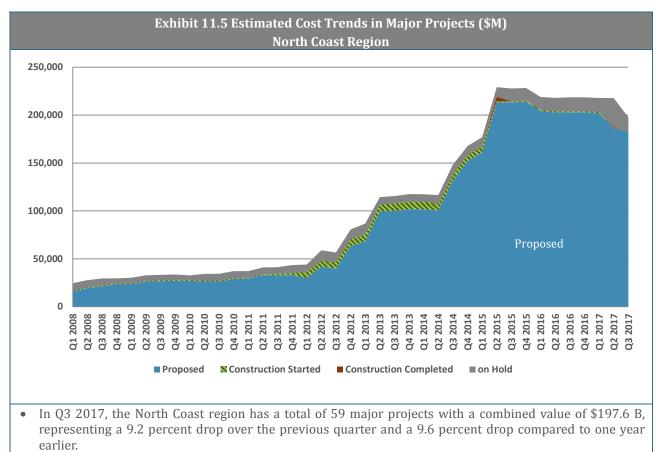








Trends in Major Projects

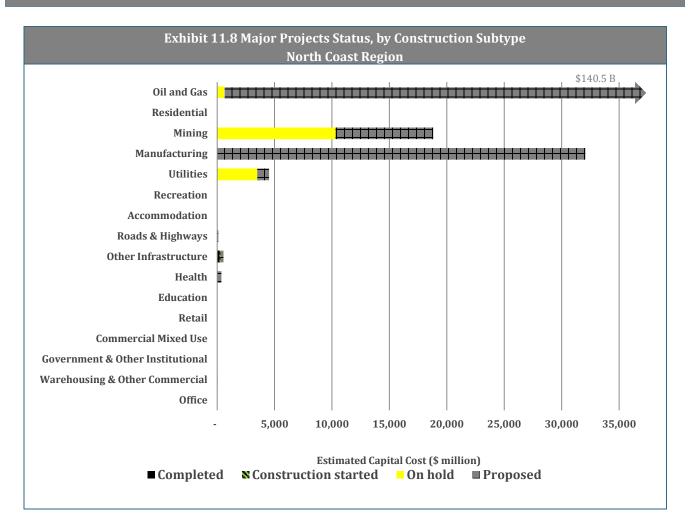


- Fairview container Terminal Expansion (\$200 M) completed this quarter.
- Highway 16 Passing Lanes and Intersection (\$38 M) started construction this quarter and is expected to be completed by Fall 2019.

Exhibit 11.6 Estimated Cost Trends in Major Projects, by Project Status (\$M) North Coast Region							
Status	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Change from the previous quarter	Change from the previous year
Proposed	202,802	202,800	201,926	186,374	182,874	-1.9%	-9.8%
Construction started	1,151	1,099	1,099	303	141	-53.5%	-87.7%
Completed	0	70	0	811	200	-	-
On hold	14,572	14,572	14,797	30,197	14,397	-52.3%	-1.2%
Total	218,525	218,541	217,822	217,685	197,612	-9.2%	-9.6%

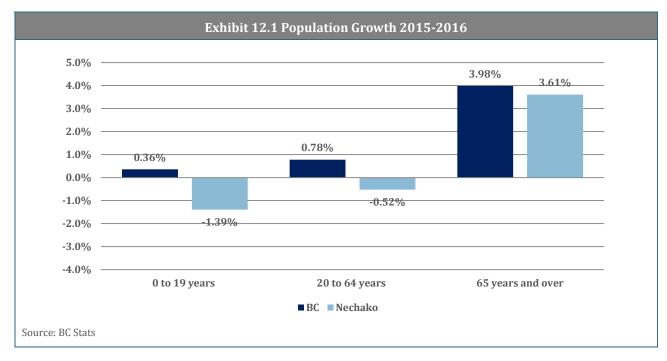
Exhib	Exhibit 11.7 Summary of Major Projects (by Project Status) North Coast Region						
	Estimated Capital Cost (\$ million)	Percentage of Total	Number of Projects	Average Project Value (\$ million)	Average Year in Inventory		
Proposed	182,874	93%	42	5,379	5.6		
Preliminary/Feasibility	34,520	19%	11	4,315	4.2		
Consultation/Approvals	115,647	63%	22	6,425	6.2		
Permitting	7,600	4%	3	2,533	9.9		
Tender/Preconstruction	61	0%	3	31	2.5		
Stage Unknown	25,046	14%	3	8,349	4.5		
On Hold	14,397	7%	12	1,309	10.2		
Construction Started	141	0%	4	35	2.5		
Completed	200	0%	1	200	4.3		
Total	197,612	100%	59	3,952	6.3		

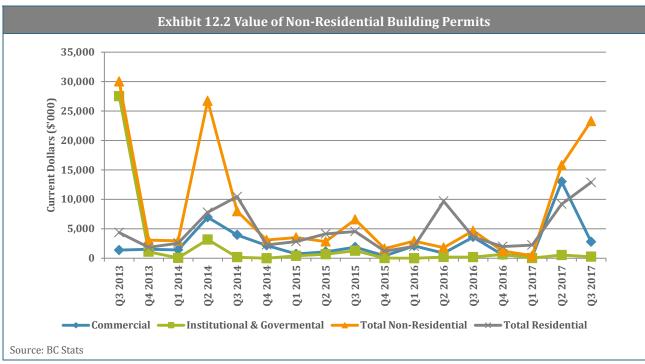
Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.

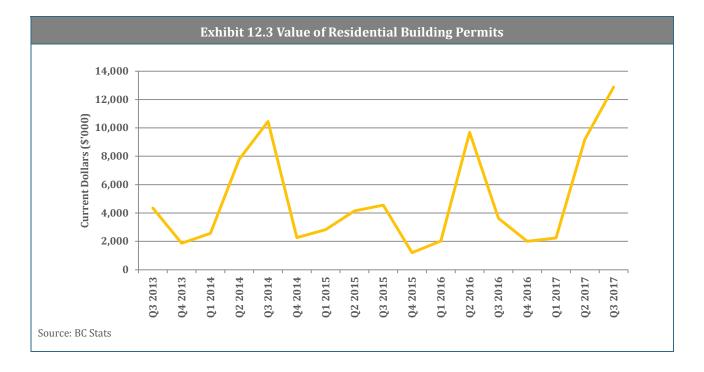


12. Nechako Region

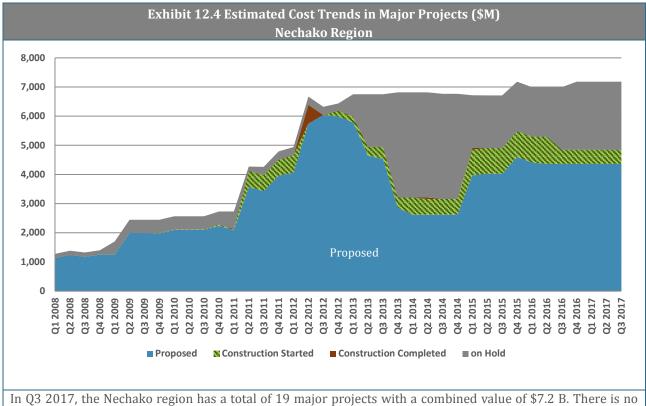
Key Economic Indicators







Trends in Major Projects

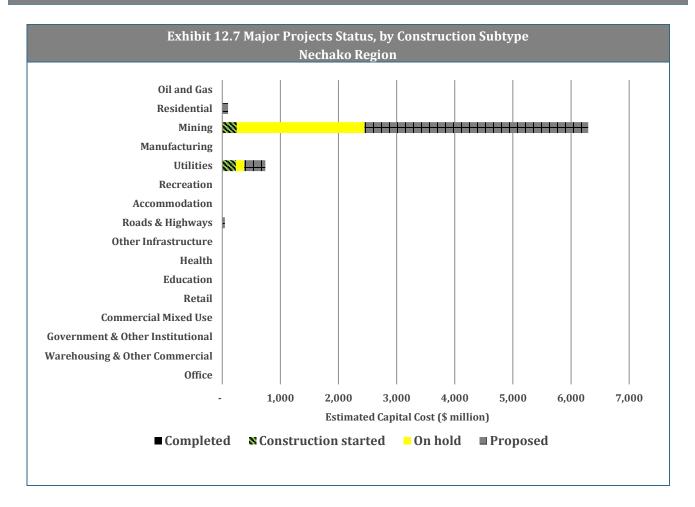


change in the total estimated cost compared to the previous quarter.

Nechako Region							
Status	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Change from the previous quarter	Change from the previous year
Proposed	4,361	4,361	4,361	4,361	4,361	0.0%	0.0%
Construction started	486	486	486	486	486	0.0%	0.0%
Completed	0	0	0	0	0	-	-
On hold	2,147	2,335	2,335	2,335	2,335	0.0%	8.8%
Total	6,994	7,182	7,182	7,182	7,182	0.0%	2.7%

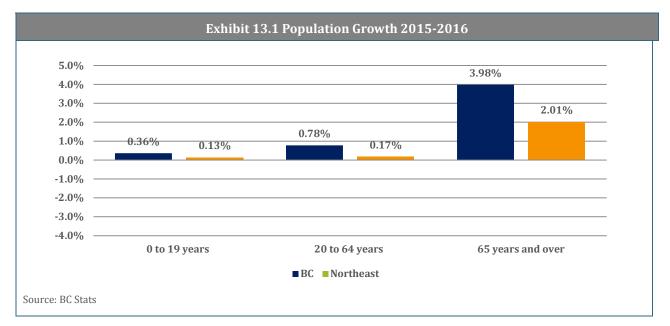
Exhibit 12.6 Summary of Major Projects (by Project Status) Nechako Region						
	Estimated Capital Cost (\$ million)	Percentage of Total	Number of Projects	Average Project Value (\$ million)	Average Year in Inventory	
Proposed	4,361	61%	11	436	9.6	
Preliminary/Feasibility	875	20%	2	438	10.8	
Consultation/Approvals	2,186	50%	7	312	9.7	
Permitting	0	0%	0	0	0.0	
Tender/Preconstruction	0	0%	0	0	0.0	
Stage Unknown	1,300	30%	2	1,300	8.1	
On Hold	2,335	33%	5	467	11.9	
Construction Started	486	7%	3	162	5.3	
Completed	0	0%	0	0	0.0	
Total	7,182	100%	19	399	9.5	

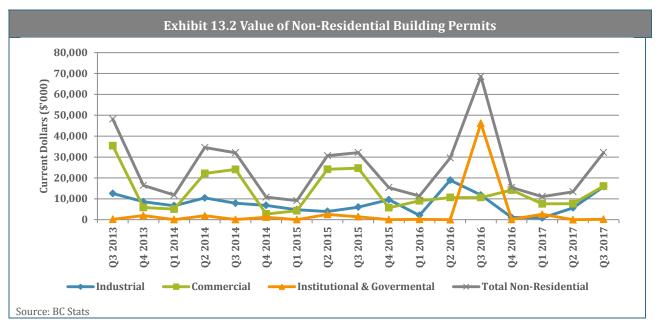
Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.

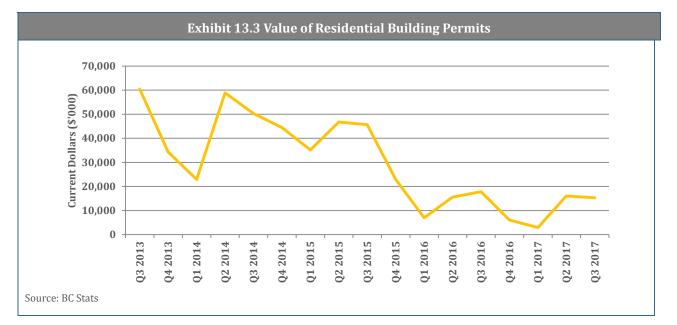


13. Northeast Region

Key Economic Indicators

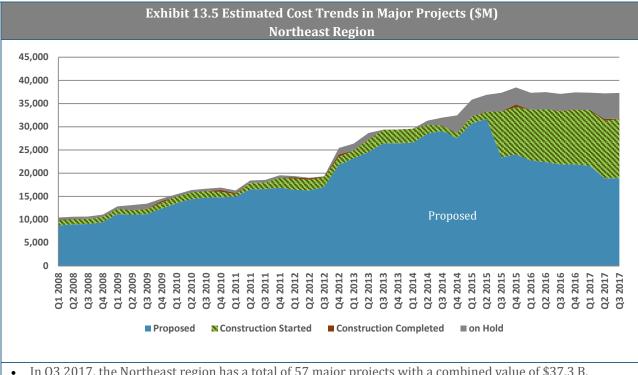








Trends in Major Projects



• In Q3 2017, the Northeast region has a total of 57 major projects with a combined value of \$37.3 B, representing a 0.2 percent increase over the previous quarter and a 0.5 percent increase compared to one year earlier.

• Highway 97 South Taylor Hill (Middle Section; \$40 M) is added to the MPI this quarter.

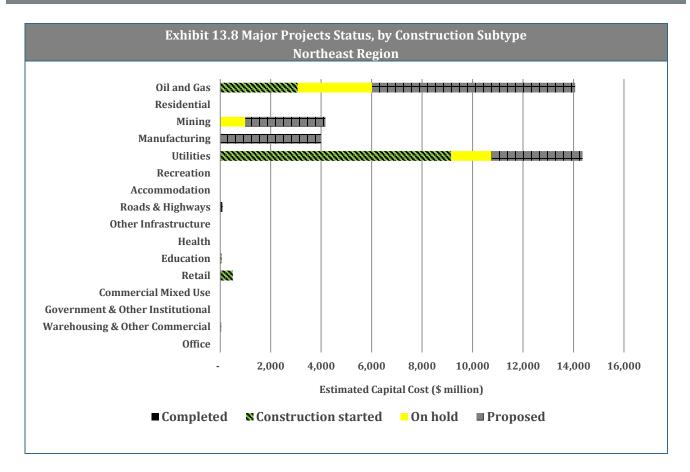
• Highway 77 Fort Nelson River Bridge and Highway 97 southbound passing land (\$40 M) and Highway 97 tower Lake Four-laning (\$17 M) have been completed in this quarter.

Exhibit 13.6 Estimated Cost Trends in Major Projects, by Project Status (\$M) Northeast Region							
Status	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Change from the previous quarter	Change from the previous year
Proposed	21,892	21,831	21,621	18,878	18,918	0.2%	-13.6%
Construction started	11,410	11,817	12,052	12,382	12,770	3.1%	11.9%
Completed	111	91	0	400	57	-85.8%	-48.6%
On hold	3,667	3,667	3,667	5,537	5,537	0.0%	51.0%
Total	37,080	37,406	37,340	37,197	37,282	0.2%	0.5%

Exhibit 13.7 Summary of Major Projects (by Project Status) Northeast Region

	Estimated Capital Cost (\$ million)	Percentage of Total	Number of Projects	Average Project Value (\$ million)	Average Year in Inventory
Proposed	18,918	51%	30	757	5.7
Preliminary/Feasibility	145	1%	3	73	2.0
Consultation/Approvals	14,678	78%	22	815	6.5
Permitting	4,000	21%	2	2,000	5.0
Tender/Preconstruction	80	0%	2	40	2.2
Stage Unknown	15	0%	1	15	6.8
On Hold	5,537	15%	9	692	7.4
Construction Started	12,770	34%	16	851	3.0
Completed	57	0%	2	29	2.1
Total	37,282	100%	57	746	5.1

Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.



Appendices

Region	Municipality	Project	Estimated Cost (\$
	Colwood	Brooks Westshore Private School	25
	Comox	Seniors Housing - 2137 Comox Ave	24
	Langford	Aqua at Langford Lake	80
	Langford	Danbrook One	20
	Nanaimo	Marine Oil Spill Response Project - Vancouver Island	150
. Vancouver	Saanich	Condominium Development - 433 Boleskin Road	18
sland/Coast	Tofino	Tofino Wastewater Treatment Plant	15
,	Ucluelet	Highway 4 Kennedy Lake Realignment	30
	Victoria	Vivid at the Yates	4(
	Victoria	Fort Street Condominium Development	20
	Victoria	Art Gallery of Greater Victoria	21
	View Royal	Thetis Lake Lowrise Condominiums	25
	Burnaby	BCIT Energy and Engineering Renewal (SW1)	7(
	Burnaby	Laurel Street Works Yard	55
	Burnaby	BCIT Health Sciences Centre for Advanced Simulation	78
	Burnaby	Starling at Lumina Brentwood	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Coquitlam	Hensley Condominiums	35
	Delta	Highway 91 to Highway 17 and Deltaport Way Corridor	245
	New Westminster	Pier One West Condominiums	210
	North Vancouver	Lions Gate Hospital Redevelopment Phase 3	165
	Port Moody	Platform Condominium	20
_	Surrey	Simon Fraser University - Science Health & Technology	9(
	Surrey	Clayton Village NW Elementary #2 (site 218)	26
	Vancouver	Marine Oil Spill Response Project - Vancouver	20
	Vancouver	Chelsea Condominiums	
	Vancouver	Vancouver General Hospital Upgrades and Pacific Health	100
. Mainland/Southwest	Vancouver	Second Narrows Water Supply Tunnel	400
. Maimanu/ Southwest	Vancouver	Sir Matthew Begbie Elementary	400
	Vancouver	The Post on Georgia Mixed Use Development	
		Bayview Community Elementary	2/
	Vancouver Vancouver	Condominium Tower - Harwood St	24
	Vancouver	Condominium Development - West Georgia St	22
	Vancouver Vancouver	Office Tower - 400 West Georgia Thurlow + Harwood Condominiums	45
	Vancouver	Second + Main Condominiums	4:
			80
	Vancouver	Mixed Use Development - 399 East 1st Ave	
	Vancouver	Office Complex - 401 W Georgia	20
	Vancouver	Mirabel Condominium 1400 Alberni Condominium Development	25
	Vancouver		60
	Vancouver	Condominium Tower - Thurlow and Burnaby St	21
	Pitt Meadows, Maple Ridge	Highway 7 Corridor Enhancements	7(
. Thompson-	Kelowna	One Water Street Condominium	65
)kanagan	Kelowna	Ecole Glenmore Elementary School Replacement	18
Carrilla a	Kelowna	OKAN Health Sciences Building	19
. Cariboo	Williams Lake	Cariboo Memorial Hospital	
8. Northeast	Taylor	Highway 97 South Taylor Hill (Middle Section)	4(2,34 5

Region	Municipality	Project	Completion Date	Estimated Cost (\$ million)
	Colwood	West Shore Village	2018-Q4	20
	Langford	Belmont Market Shopping Centre	2018-Q4	100
	Nanaimo	Vancouver Island University - Trades Complex	2018-Q2	20
1. Vancouver	Victoria	Core Area Wastewater Management Project - Seaterra Program	2020-Q4	765
Island/Coast	Victoria	Yates on Yates Condominium	2020-Q2	30
	Victoria	Camosun College - Centre for Health Sciences	2018-Q4	49
	Victoria	Lyra Residences	2019-Q4	
	Victoria	The Wade Condominiums	2018-Q4	20
	Burnaby	Imperial Condominiums	2019-Q4	22
	Burnaby	Kings Crossing by Cressey	2019-Q4	60
	Burnaby	Seniors Housing Redevelopment	2018-Q3	20
	Burnaby	BCIT Burnaby Electrical Infrastructure Ungrades	2018-Q4	47
	Burnaby	The Seasons Condominium	2018-Q2	20
	Coquitlam	Centre for Mental Health and Addiction	2021-Q4	101
	Coquitlam	Maples Adolescent Centre and the Provincial Assessment Centre	2019-Q4	75
	Langley	Langley Secondary School Replacement	2020-Q1	26
	Langley	Willoughby Area Secondary School	2019-Q4	55
2. Mainland/Southwest	Langley	Parkhill Condominiums	2018-Q4	24
	Lillooet	Highway 99 - Ten Mile Slide Improvements	2018-Q4	60
	North Vancouver	Highway 1 Lower Lynn Interchange Improvement Project	2021-Q2	198
	North Vancouver	Promenade at the Quay	2019-Q1	25
	Surrey	Fleetwood Rise Townhomes	2018-Q4	22
	Surrey	The Bristol	2018-Q2	20
	Vancouver	Belpark Condominiums	2018-Q3	22
	Vancouver	Cardero Condominium Development - 1575 West Georgia St	2019-Q1	35
	Vancouver	Ironworks Commercial Development	2018-Q4	90
	Vancouver	Cambria Park Condominium Development	2018-Q2	20
3. Thompson-Okanagan	Kelowna	UBC - Okanagan Teaching and Learning Centre	2018-Q2	35
5. Cariboo	Prince George	Highway 16 Bunce to Blackwater Widening	2018-Q4	24

Region	Municipality	Project	Estimated Cost (\$ million)		
1. Vancouver Island/Coast	Courtenay	North Courtney Connector	15		
	Victoria	Hudson Walk 1 & 2	160		
	Burnaby	Great Northern Way Campus Development	123		
		Modello in Metrotown	35		
	Coquitlam	Crown at Burquitlam Station	25		
2. Mainland/Southwest	Delta	Tilbury LNG Facility Expansion			
	Furry Creek south of Squamish	Furry Creek Recreation/Residential Project			
	Harrison Hot Springs	Harrison Highlands Resort and Residential Development	85		
	Langley	Mixed Housing Development - 50 Ave	40		
	Richmond	Hopewell Distribution Centre	30		
		Tempo Condominiums	40		
	Surrey	Central City Neighbourhood	1,000		
		Surrey Organics Biofuel Facility	68		
	Vancouver	Containers Commercial Centre	30		
		Strathcona Library and Housing Project	29		
		Totem Park Student Residence In-Fill Phase 2	30		
		UBC - University Town	350		
5. Cariboo	Prince George	Highway 97 Salmon River Bridge Replacement	20		
6. North Coast	Prince Rupert	Fairview Container Terminal Expansion	200		
8. Northeast	Fort Nelson	Highway 77 Fort Nelson River Bridge and Highway 97 southbound passing lane	40		
	Taylor	Highway 97 Tower Lake Four-laning	17		

Appendix 4

Project Value and	d Project Status	for each Indus	stry Sector –	(July - September	: 2017)
	Proposed	Construction started	Completed	On hold	Total
Oil and Gas	187,294	3,065	468	3,550	194,377
Residential	15,517	30,325	1,650	353	47,845
Mining	20,396	351	-	16,333	37,080
Manufacturing	36,105	50	-	210	36,365
Utilities	14,857	14,208	-	7,069	36,134
Recreation	6,090	4,319	-	1,375	11,784
Accommodation	5,887	4,274	85	1,356	11,602
Roads & Highways	5,934	3,035	92	-	9,061
Other Infrastructure	3,140	5,030	200	-	8,370
Health	2,407	1,874	-	-	4,281
Education	2,606	1,354	153	165	4,278
Retail	764	2,970	-	-	3,734
Commercial Mixed Use	1,842	1,310	-	-	3,152
Government & Other Institutional	306	1,484	29	-	1,819
Warehousing & Other Commercial	1,047	680	30	-	1,757
Office	527	400	30	80	1,037
Total	304,719	74,729	2,737	30,491	412,676

Development Region	Residential/ Commercial	Transportation & Warehousing	Mining, Oil & Gas Extraction	Utilities	Manufacturing	Public Services	Other Services	Total
Vancouver Island/Coast	88	15	6	18	0	13	8	148
Mainland/So uthwest	308	52	4	36	2	62	12	476
Thompson- Okanagan	55	12	4	18	1	10	6	106
Kootenay	10	0	7	5	1	2	5	30
Cariboo	5	5	6	7	1	3	1	28
North Coast	2	12	27	9	5	2	1	58
Nechako	1	1	12	5	0	0	0	19
Northeast	2	9	23	17	2	2	0	55
Total	471	106	89	115	12	94	33	920

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