

The Alex & Jo Campbell Centre for Health and Wellness at Camosun's Interurban campus is a four storey, 95,000 square feet health sciences facility that will accommodate 15 health and human service disciplines, as well as university-transfer health courses for more than 1,000 students.

Total Project Cost: \$63.8M (Province and other contributors).

BRITISH COLUMBIA MAJOR PROJECTS INVENTORY

THIRD QUARTER 2019



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British Columbia Major Projects Inventory

Third Quarter 2019

Major Projects Inventory as of September 30, 2019.

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Report prepared by Workforce Innovation and Division Responsible for Skills Training staff.

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About this Report

The objectives of this report are to analyze the updates to the Major Projects Inventory and to provide additional context on changes to economic conditions and construction activities. These snapshots of current economic activities are provided to help readers form expectations of the construction activities into the next quarter. This report was prepared with the most current data from economic indicators.

Detailed project listings are available in a searchable Excel database: www.majorprojectsinventory.com

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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 (CAD) or greater (\$20 million or greater within the Lower Mainland–Vancouver area).

Since 2019 Quarter 1, about 75% of all the existing projects received an update. 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.

Information collected in the MPI includes:

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, Indigenous peoples' agreements, the number of construction jobs and operating jobs.

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 since projects need to be publicly announced in order 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.

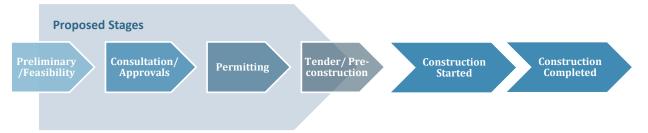
Start and Finish Dates

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 identified 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.

The following diagram illustrates the project stages listed in the database.



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

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 four stages prior to reaching the construction stage.

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

The Consultation/Approvals stage includes approvals for the zoning, environmental assessment, Indigenous peoples and other public open house processes.

A proposed project will enter the **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.

The 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 designs and construction projects that are registered and certified under a recognized green building rating system are identified. Examples of green building rating system include Leadership in Energy and Environmental Design (LEED®) and Green Globes. LEED buildings provide an environmentally responsible standard for energy efficiency at home and in the workplace. This designation has been added to the project description to promote awareness of the benefits of green buildings.

Indigenous Affiliation

Information related to Indigenous peoples' 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 Indigenous Business and Investment Council Database (BCIBIC: www.bcibic.ca).

Project Category

Project Category lists 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).

Note: Liquefied Natural Gas (LNG) projects are classified under mining, oil and gas extraction. This is different from the North American Industry Classification System in which LNG is classified as being in the transportation industry.

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

Field latitude and longitude are noted in the Degrees Minutes Seconds (DMS) format.

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 2019

The estimated capital cost of all 981 major projects in the third quarter of 2019 has increased from \$350.14 billion (B) in the second quarter to \$352.95 B. 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 27 new proposed projects over \$15 million (M) with available capital cost estimates totaling \$1.02 B if all the projects were to proceed. The potential capital investment for new projects has decreased compared to \$1.25 B in the second quarter of 2019.

There are 25 projects that have started construction in B.C., representing an estimated capital cost of \$1.27 B, down from the \$1.76 B reported in the second quarter of 2019. Twenty-seven projects completed construction in the second quarter of 2019, with an estimated capital cost of \$1.82 B compared to \$1.45 B in the second quarter of 2019.

There are 240 projects with public funding contributions with a total capital cost of \$43.63 B. Funding for these projects is allocated through municipal, provincial and/or federal levels of government, crown corporations, public institutions and may include private partnerships. Of these, 141 projects worth a total of \$21.8 B have provincial government funding contributions.

There are 63 projects with a total estimated cost of \$124 B involving Indigenous communities in capacities such as project owners, project partners or benefit agreements.

Major projects currently under construction in B.C. totaled \$114.77 B, down from the \$115.17 B in the second quarter of 2019. Proposed projects totaled \$205.16 B, slightly decreased from \$205.64 B in the previous quarter. 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. Approximately \$31.22 B of projects are judged to be 'on hold' for the time being, an increase from the previous quarter value of \$27.89 B.

All capital costs in this report are estimates and therefore subject to change. 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.

Figure 1 B.C. MPI Highlights

	Number of total major projects
	Value of all projects
	Number of total proposed projects
	Value of proposed projects
384	Number of projects under construction
	Value of projects under construction
	Number of projects completed
	Value of projects completed
27	Number of new proposed projects
\$1.02 B	Value of newly proposed projects

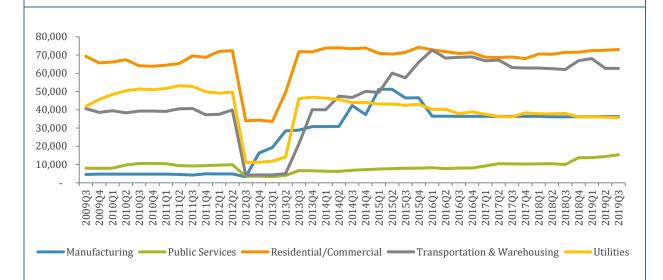
2. B.C. Major Projects Inventory – Q3 2019

By Project Category, Construction Type or Subtype

Exhibit 2.1 Estimated Cost Trends in B.C. Major Projects, by Project Category (\$ M)

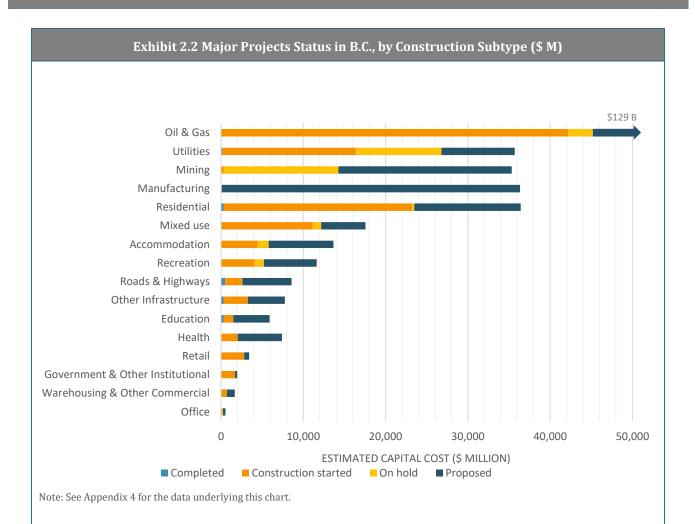
Project Category	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3	Change from the previous quarter	Change from the previous year
Mining & Oil & Gas Extraction	178,669	173,035	117,125	116,530	118,200	1.4%	-33.8%
Residential/Commercial	71,478	71,581	72,382	72,614	72,994	0.5%	2.1%
Transportation & Warehousing	62,055	66,910	68,001	62,701	62,732	0.0%	1.1%
Manufacturing	36,155	36,195	36,195	36,337	36,337	0.0%	0.5%
Utilities (incl sewage treatment)	37,958	36,005	36,237	35,916	35,692	-0.6%	-6.0%
Public Services	9,970	13,721	13,818	14,403	15,354	6.6%	54.0%
Other Services	11,229	11,539	11,539	11,641	11,637	0.0%	3.6%
Grand Total	407,514	408,986	355,297	350,142	352,946	0.8%	-13.4%

Note: Liquefied Natural Gas (LNG) projects are classified under mining, oil and gas extraction. This is different from the North American Industry Classification System in which LNG is classified as being in the transportation industry.



Note: chart excludes mining oil & gas extraction and other services projects

The total estimated capital cost of major projects in B.C was up in the third quarter of 2019 (Q3), totalling \$352.94 B, representing a 0.8% increase over the previous quarter and a 13.4% decrease compared to last year.



- In the third quarter of 2019, Oil and Gas projects (including LNG) represent 36.6% of the total estimated capital cost in the MPI.
- Residential and Commercial development projects comprise 587 of the 981 projects listed in the third quarter of 2019, representing a total estimated capital cost of \$84.9 B.
- Residential projects are concentrated in the Mainland/Southwest region (73.1%), Vancouver Island (17.6%), and Thompson-Okanagan (8.7%).
- Utility projects continue to be a significant driver for the province. The total cost of utilities projects is nearly \$35.7B while the total cost of projects which are currently underway is over \$16 B.
- There are 53 mining projects listed in the MPI with a total estimated value of \$35.3 B.
- The top categories for new projects added to the MPI are Primarily Residential Single Use (\$816 M), Roads and Highways (\$120 M) and Education (\$84 M),.
- Public Infrastructure The value of public funding contributions was \$43.63 B for 240 projects across all levels of government. Of these, 141 projects worth a total of \$21.8 B have provincial government funding contributions. It is important to note that this figure reflects the total cost, not just the provincial contribution.

Exhibit 2.3 Estimated Cost of Regional Major Projects, by Construction Type and Subtype (\$ M)

Construction Type & Subtype	Vancouver					Exhibit 2.5 Estillated Cost of Regional Major Projects, by Construction Type and Subtype (\$ M)									
Type & Subtype	Island/Coast	Mainland/ Southwest	Thompson- Okanagan	Kootenay	Cariboo	North Coast	Nechako	Northeast	Total						
Residential Subtotal	12,215	29,103	9,545	80	0	0	100	20	51,058						
Primarily residential - Single use	8,415	19,693	8,095	80	0	0	100	20	36,403						
Residential Mixed Use	3,800	9,410	1,450	0	0	0	0	0	14,660						
Commercial Subtotal	3,640	17,709	5,654	4,902	1,322	46	0	540	33,813						
Commercial Mixed Use	200	2,690	0	0	0	0	0	0	2,890						
Accommodation	2,266	4,867	3,299	2,302	940	0	0	0	13,674						
Recreation	216	6,575	2,210	2,600	0	16	0	0	11,617						
Retail	848	1,960	115	0	0	0	0	500	3,423						
Office	70	472	0	0	0	0	0	0	542						
Warehousing	0	265	0	0	0	0	0	0	265						
Other Commercial	40	880	30	0	382	30	0	40	1,402						
Industrial Subtotal	2,130	2,517	1,069	2,936	7,231	158,831	6,328	19,745	200,787						
Mining	130	160	1,039	2,936	2,646	17,991	6,328	4,101	35,331						
Oil & Gas	2,000	2,125	0	0	4,570	108,780	0	11,644	129,119						
Manufacturing - Wood Products	0	0	30	0	0	60	0	0	90						
Manufacturing - Petrochemical	0	0	0	0	0	32,000	0	4,000	36,000						
Other Manufacturing	0	232	0	0	15	0	0	0	247						
Institutional & Government Subtotal	4,439	8,528	1,219	76	341	448	79	124	15,254						
Education	2,142	3,139	450	18	96	0	29	31	5,905						
Health	662	5,156	729	58	245	448	50	50	7,398						
Government buildings	1,615	233	40	0	0	0	0	43	1,931						
Other Institutional & Government	20	0	0	0	0	0	0	0	20						
Infrastructure Subtotal	8,724	16,006	2,976	1061	1,560	4,663	551	16,488	52,029						
Utilities	6,760	4,838	1,117	1006	1,090	3,939	506	16,436	35,692						
Roads & Highways	306	5,750	1,709	55	470	189	45	52	8,576						
Other Transportation	1,658	5,418	150	0	0	535	0	0	7,761						
Grand Total	31,148	73,863	20,463	9,055	10,454	163,988	7,058	36,917	352,946						

By Project Status

Exhibit 2.	Exhibit 2.4 Estimated Cost Trends in B.C. Major Projects, by Project Status (\$ M)												
Status	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3	Change from the previous quarter	Change from the previous year						
Proposed	301,051	260,341	205,769	205,635	205,140	-0.2%	-31.9%						
Construction started	74,406	115,366	114,825	115,165	114,768	-0.3%	54.2%						
Completed	748	2,214	2,393	1,452	1818	25.2%	143.0%						
On hold	31,309	31,065	32,310	27,890	31,220	11.9%	-0.3%						
Grand Total	407,514	408,986	355,297	350,142	352,946	0.8%	-13.4%						

The value of completed projects increased to \$1.82 B in Q3 2019, a 25.2% over the previous quarter. Notable projects completed were Cariboo Connector - Highway 97 Improvements (\$440 M) in Cariboo region and GCT Deltaport Terminal Road and Rail Improvement Project (\$300 M) in Delta.

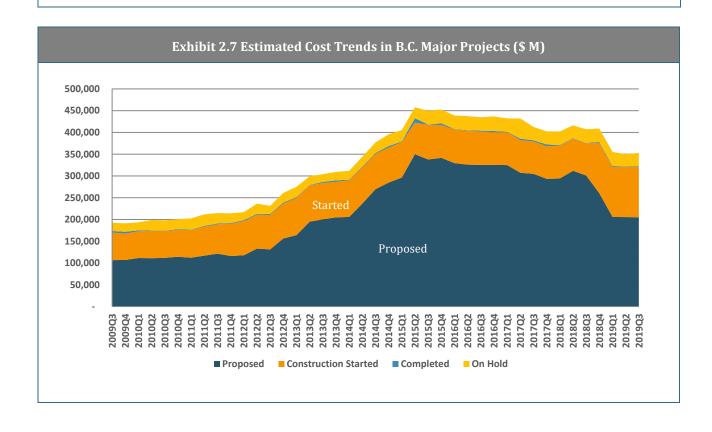
Exhibit 2.5 Summary of B.C. Major Projects (by Project Status)

	Estimated Capital Cost (\$M)	Percentage of Total	Number of Projects	Average Project Value (\$ M)	Average Years in Inventory
Proposed	205,140	58%	514	441	5.5
Preliminary/Feasibility	49,694	14%	111	523	4.6
Consultation/Approvals	74,179	21%	225	360	6.2
Permitting	44,511	13%	46	1086	3.7
Tender/Preconstruction	20,364	6%	79	268	3.3
Stage Unknown	16,387	5%	53	349	8.8
On hold	31,220	9%	56	600	11.6
Construction started	114,768	33%	384	306	6.4
Completed	1818	1%	27	67	4.2
Total	352,946	100%	981	384	6.1

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. Regional detail is provided in Exhibit 2.6.

Exhibit 2.6 Estimated Cost of Regional Major Projects, by Project Status (\$ M)

Development Region	Proposed	Started	Completed	On Hold		Change from the previous quarter	Change from the previous year
1. Vancouver Island/Coast	13,665	11,693	337	5,453	31,148	2.0%	-48.5%
2. Mainland/Southwest	42,324	30,335	812	392	73,863	0.8%	6.2%
3. Thompson-Okanagan	4,628	14,358	139	1,338	20,463	-1.6%	-4.3%
4. Kootenay	2,684	3,951	0	2,420	9,055	1.0%	2.5%
5. Cariboo	9,640	74	440	300	10,454	0.5%	1.5%
6. North Coast	115,770	36237	0	11,981	163,988	1.1%	-14.9%
7. Nechako	4,522	201	0	2,335	7,058	0.0%	0.0%
8. Northeast	11,907	17,919	90	7,001	36,917	0.1%	-0.4%
Total	205,140	114,768	1818	31,220	352,946	0.8%	-13.4%



3. B.C. Economy

Exhibit 3.1 Economic Activity

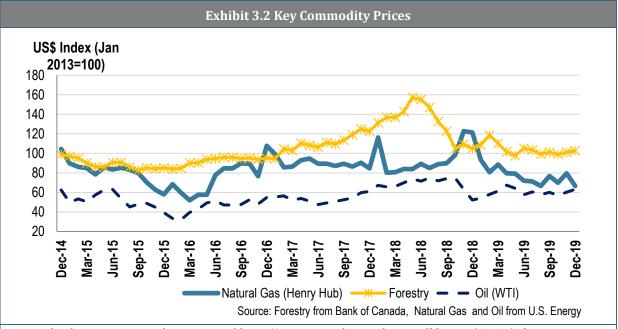
	2019	2020	2021	2022	2023
Real GDP	+2.4 %	+2.3 %	+2.1 %	+2.0 %	+2.0%

Source: B.C. Budget and Fiscal Plan 2019/20 – 2021/22

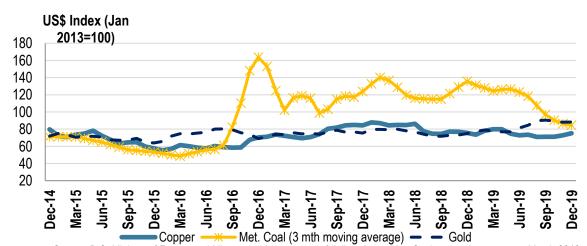
	Most Recent Period	Amount	Change from previous month	Change from previous year	Data Type
Retail trade (\$ M)	Oct-19	7,132	-0.9%	-0.7%	seasonally adjusted
Manufacturing sales (\$ M)	Oct-19	4,256	-3.6%	-5.4%	seasonally adjusted
Residential - building permits (\$ M)	Nov-19	865	-6.5%	-20.4%	seasonally adjusted
Residential - housing starts (units)	Nov-19	47,087	42.7%	26%	seasonally adjusted at annual rates
Non-Residential building permits (\$ M)	Nov-19	432	20.4%	-31.2%	seasonally adjusted
Exports - all merchandise (\$ M)	Nov-19	3,241	-1%	-14.6%	seasonally adjusted
	P	rices			
B.C. Consumer price index (2002=100)	Nov-19	131.8	0.2%	2.4%	not seasonally adjusted
Exchange rate	Dec-19	US 0.76	0.5%	-1.8%	not seasonally adjusted
Average 5-year residential mortgage rate	Dec-19	4.08%	-0.01p.p.	-0.51p.p.	not seasonally adjusted
	Labou	r Market			
Employment	Dec-19	2,542,200	-0.2%	0.1%	seasonally adjusted
Unemployment rate	Dec-19	4.8%	-0.2p.p.	0.3p.p.	seasonally adjusted
Participation rate	Dec-19	64.6%	-0.4p.p.	-0.9p.p.	seasonally adjusted
Average weekly earnings	Dec-19	1031.82	0.8%	6.0%	seasonally adjusted

Source: Statistics Canada & Bank of Canada

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

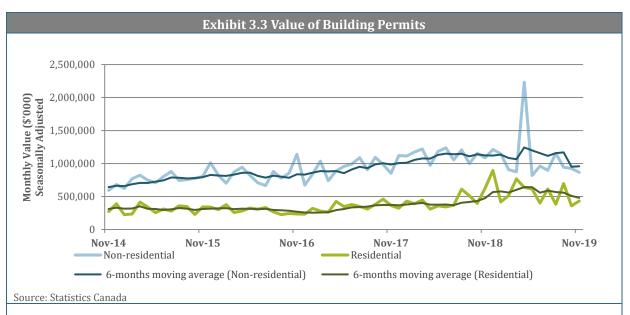


- The forestry price index increased by 1.5% in December and it is still lower (-2.1%) than a year ago.
- Natural gas dropped to US\$2.22/mm BTU, 45% decrease from the previous year.
- Oil (WTI) decreased 5% to US\$59.88/bbl in December, up by 21% from a year ago.



Source: B.C. Ministry of Energy and Mines, monthly average of daily values, Met. Coal: quarterly average to March 2016, 3-month moving average after March 2016

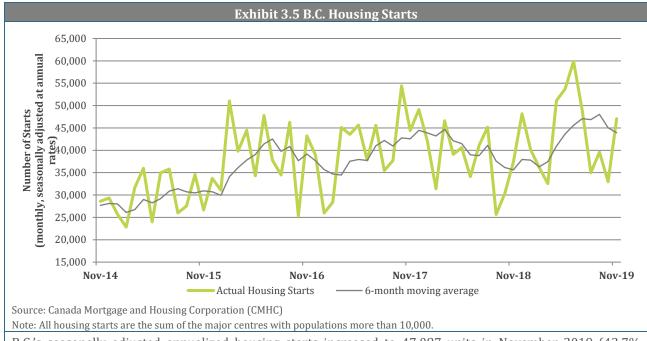
- Copper remained unchanged compared to December 2018 and up by 3% from previous month.
- Gold remained unchanged from previous month and up greatly by 18% from a year ago.
- Metallurgical coal (3 month moving average) decreased by 2% in December, and down 38% from the previous year.



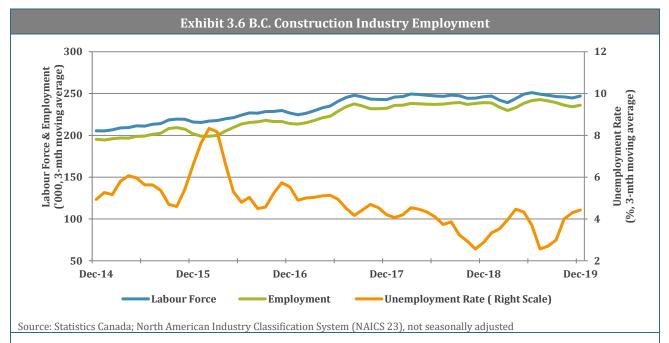
During November 2019, an average of \$1.4 billion worth of building permits was issued in B.C. (Based on 6-month moving average, 1.5% decrease compared to the previous month and 10.1% decrease compared to the same month in the previous year.)



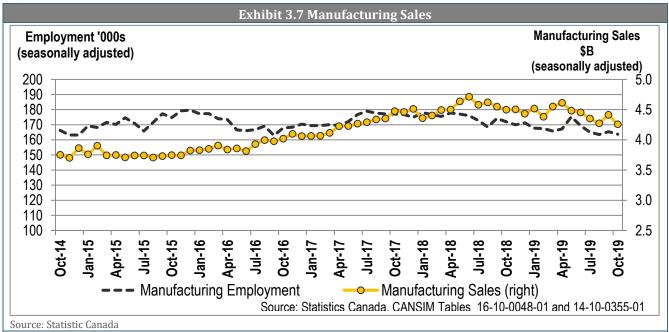
B.C. spending in non-residential building construction was increased by 1.7% from the previous month and up 30% from the previous year. The current level of non-residential building investment in November 2019 was \$794.3 M. Note that this is the building investment only and does not include infrastructure investment.



B.C.'s seasonally adjusted annualized housing starts increased to 47,087 units in November 2019 (42.7% increase from October). The 6-month moving average of the series declined by 2.4% from the previous month and by 23.3% from the previous year.



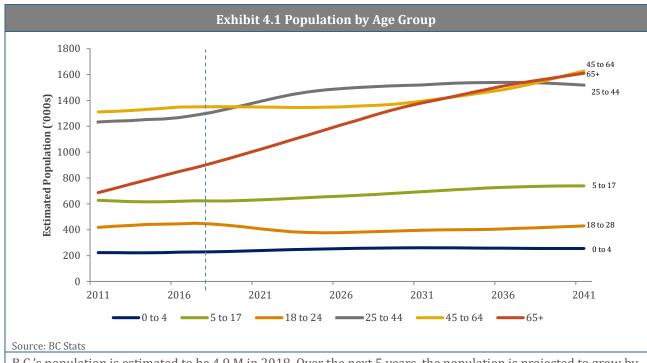
Employment in the construction sector in December 2019 was slightly increased (0.8%) as with the labour force which was up 1% from the previous month. The unemployment rate in B.C.'s construction industry increased 1.6% compared to the previous year.



In October 2019, B.C.'s manufacturing sales dropped 3.6%, down to 4.26 B. In comparison to August 2018, sales declined by 5.4%.

B.C. DEMOGRAPHICS

4. B.C. Demographics

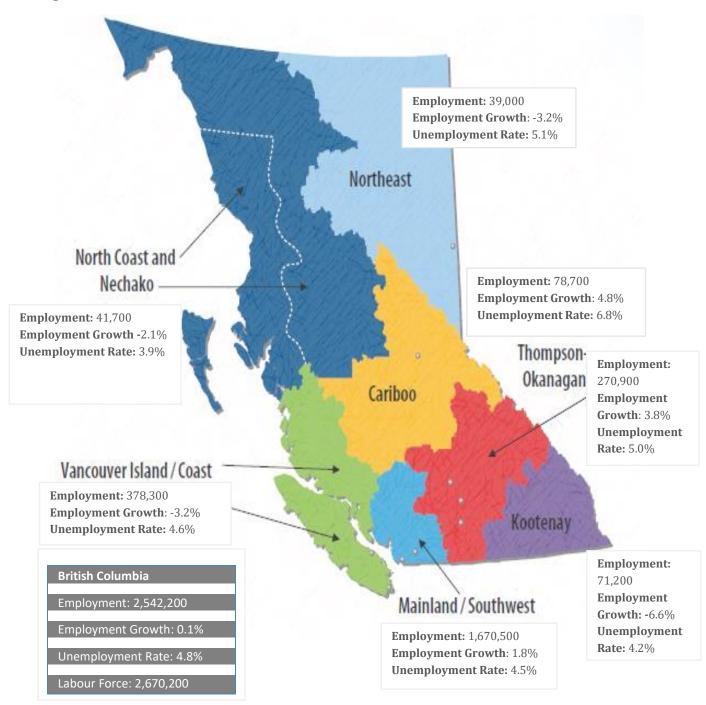


B.C.'s population is estimated to be 4.9 M in 2018. Over the next 5 years, the population is projected to grow by 1.2% per year.

REGIONAL SUMMARIES

5. Regional Summaries

Regional Labour Market Statistics - December 2019

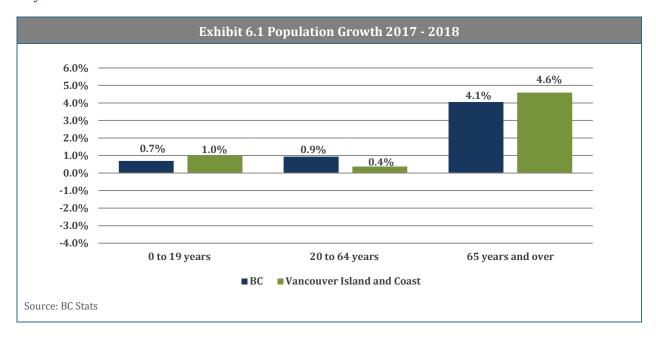


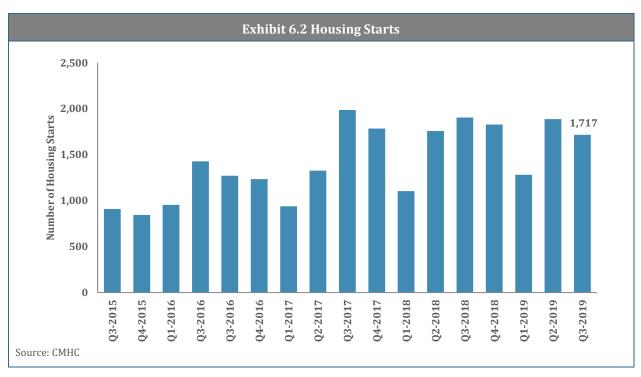
Note: Employment growth is over the previous 12 months. Data for B.C. at the provincial level is seasonally adjusted. Data for the regions is not seasonally adjusted and is based on 3-month moving averages. This means that the data at the provincial level is not directly comparable to the regional data,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

VANCOUVER ISLAND/COAST REGION

6. Vancouver Island/Coast Region

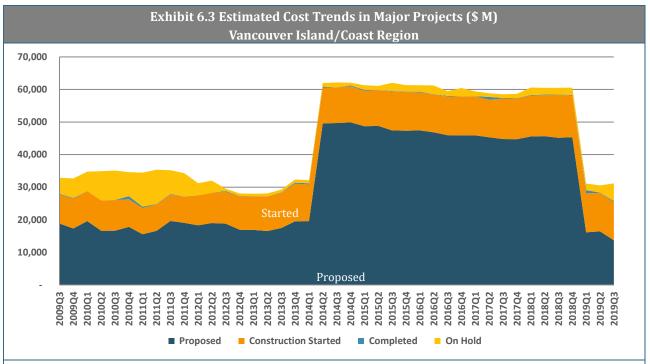
Key Economic Indicators





VANCOUVER ISLAND/COAST REGION

Trends in Major Projects



- In Q3 2019, the Vancouver Island/Coast region has a total of 149 major projects with a combined value of \$31.1B.
- The newly proposed projects added to the MPI this quarter is Valleyview Long Term Care Facility in Comox (\$28 M).
- Seven major projects were completed in this quarter, the top three are: Eagle Creek Village Mix Use Development (100 M) in View Royal, Camosun College Alex & Jo Campbell Centre for Health and Wellness (64 M) in Victoria and Expansion of Vancouver Island University (60 M) in Nanaimo. See more completed projects in Appendix 3.
- Victoria International Airport Expansion (28 M) in North Saanich and Westbay Quay (\$18 M) in Victoria began construction in this quarter.

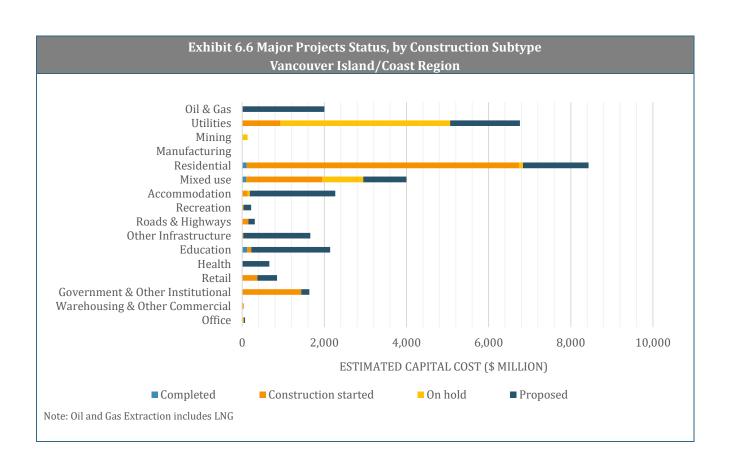
Status	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3	Change from the previous quarter	Change from the previous year
Proposed	45,157	45,317	16,152	16,449	13,665	-16.9%	-69.7%
Construction started	13,205	12,834	11,923	11,838	11,693	-1.2%	-11.5%
Completed	68	195	985	100	337	237.0%	395.6%
On hold	2,073	2,223	2,073	2,153	5,453	153.3%	163.0%
Grand Total	60,503	60,569	31,133	30,540	31,148	2.0%	-48.5%

VANCOUVER ISLAND/COAST REGION

Exhibit 6.5 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	13,665	44%	74	192	6.3				
Preliminary/Feasibility	4,127	13%	21	206	4.8				
Consultation/Approvals	5,549	18%	33	179	6.7				
Permitting	608	2%	6	101	5.0				
Tender/Preconstruction	135	0%	6	23	2.5				
Stage Unknown	3266	10%	9	363	11.4				
On hold	5,453	17%	12	496	11.4				
Construction started	11,693	38%	56	213	8.1				
Completed	337	1%	7	48	6.3				
Total	31,148	100%	149	216	7.4				

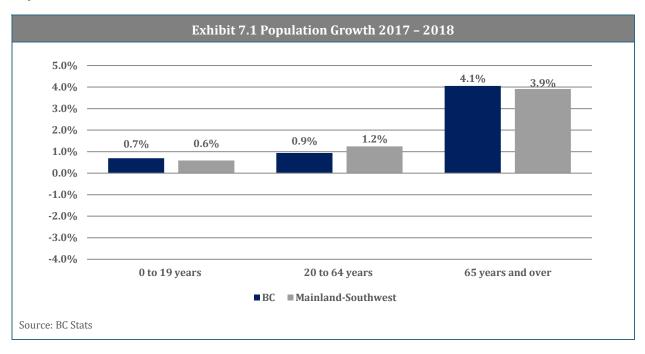
Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.



MAINLAND/SOUTHWEST REGION

7. Mainland/Southwest Region

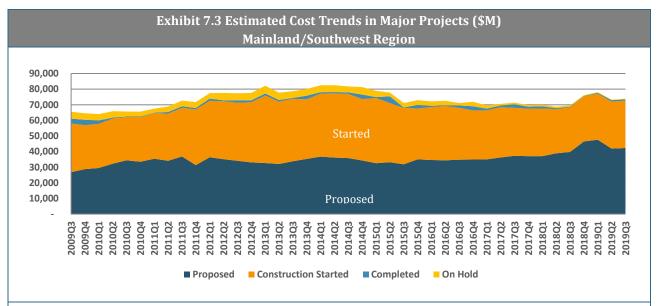
Key Economic Indicators





MAINLAND/SOUTHWEST REGION

Trends in Major Projects



- In Q3 2019, the Mainland/Southwest region has a total of 546 major projects with a combined value of \$73.9 B, representing a 0.8% up from the previous quarter and a 6.2% increase compared to the previous year.
- There are 22 newly proposed projects added to the MPI this quarter. The top three largest projects are Era Master Planned Community (\$150 M) in Maple Ridge and Highline Metrotown Condominium Tower (\$62 M) and Highrise Condominium Wilson Ave (\$60 M) in Burnaby. See more new projects in Appendix 1.
- Thirteen major projects were completed in this quarter, such as GCT Deltaport Terminal Road and Rail Improvement Project in Delta (\$300 M), RiverSky Condominiums in New Westminster (\$120 M) and UBC Exchange Residence at Gage South (\$77 M). See more completed projects in Appendix 3.
- Sixteen major projects began construction in this quarter with total capital costs of \$1.05 B. The top three largest projects are Sea and Sky Residential Development (\$350 M) in Squamish, Centerm Expansion Project (250 M) in Vancouver, and Westbank/First Baptist Church Redevelopment (\$91 M) in Vancouver. See more projects underway in Appendix 2.

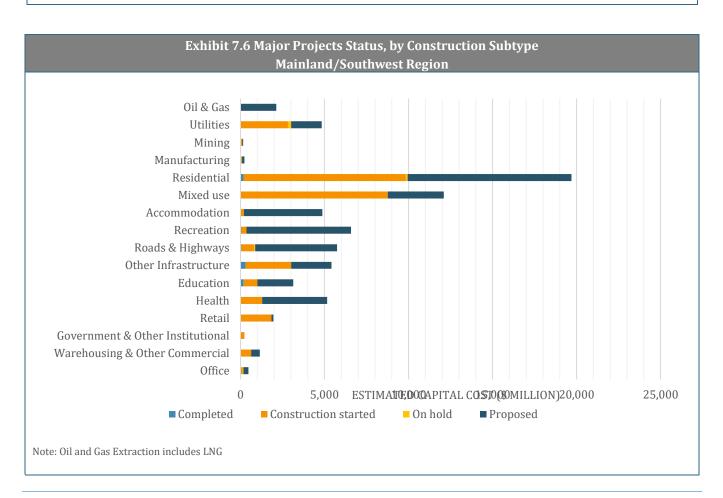
Exhibit 7.4 Estimated Cost Trends in Major Projects, by Project Status (\$ M) Mainland/Southwest Region								
Status	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3	Change from the previous quarter	Change from the previous year	
Proposed	39,725	46,522	47,607	41,898	42,324	1.0%	6.5%	
Construction started	28,515	28,725	29,415	30,098	30,335	0.8%	6.4%	
Completed	451	384	643	933	812	-13.0%	80.0%	
On hold	892	467	362	362	392	8.3%	-56.1%	
Grand Total	69,583	76,098	78,027	73,291	73,863	0.8%	6.2%	

MAINLAND/SOUTHWEST REGION

Exhibit 7.5 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	42,324	57%	287	164	4.3
Preliminary/Feasibility	8,276	11%	56	176	4.3
Consultation/Approvals	16,547	22%	124	152	4.9
Permitting	4,039	5%	27	162	2.3
Tender/Preconstruction	7,615	10%	60	131	2.7
Stage Unknown	5,847	8%	20	308	8.1
On Hold	392	1%	10	49	9.4
Construction Started	30,335	41%	236	132	4.9
Completed	812	1%	13	62	3.0
Total	73,863	100%	546	145	4.6

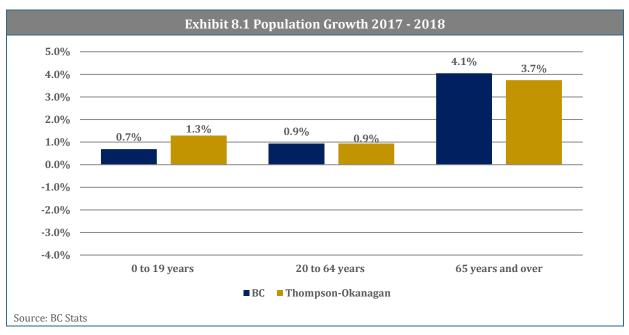
Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.



THOMPSON - OKANAGAN REGION

8. Thompson - Okanagan Region

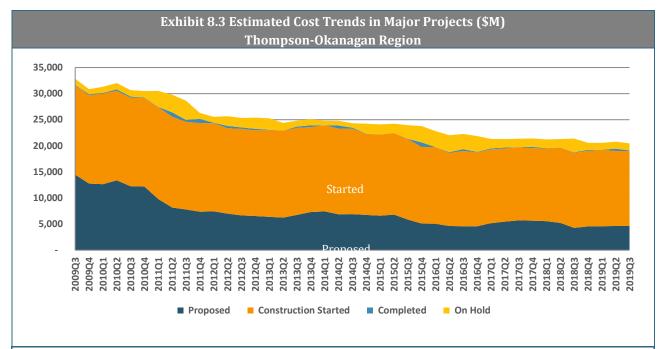
Key Economic Indicators





THOMPSON - OKANAGAN REGION

Trends in Major Projects



- In Q3 2019, the Thompson-Okanagan region has a total of 109 major projects with a combined value of \$20.5 B, a 1.6% decrease from previous quarter and a 4.3% decline compared to the previous year.
- Bernard Block Condominiums (60 M) in Kelowna is the new proposed project added to the MPI this quarter:
- Four major projects were completed in this quarter. The top three are BC Lottery Corporation Head Office (40 M) in Kamloops, Lowrise Condominium (40 M) in Kelowna and Mica Powerhouse Cranes Upgrade Project (36 M) in Revelstoke. See more completed projects in Appendix 3.
- Mica Upgrade Heating Ventilation Air Conditioning (HVAC) System Project in Revelstoke (\$40M), Beverly at Kelowna Condominium (18 M) and Peace Region to Kelly Lake Reactor Replacement (Phase I) Project (16 M) in Clinton began construction in this quarter.

Exhibit 8.4 Estimated Cost Trends in Major Projects, by Project Status (\$ M) Thompson-Okanagan Region								
Status	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3	Change from the previous quarter	Change from the previous year	
Proposed	4,276	4,533	4,581	4,648	4,628	-0.4%	8.2%	
Construction started	14,387	14,516	14,641	14,383	14,358	-0.2%	-0.2%	
Completed	90	183	0	419	139	-66.8%	54.4%	
On hold	2,621	1,338	1,338	1,338	1,338	0.0%	-49.0%	
Grand Total	21,374	20,570	20,560	20,788	20,463	-1.6%	-4.3%	

THOMPSON - OKANAGAN REGION

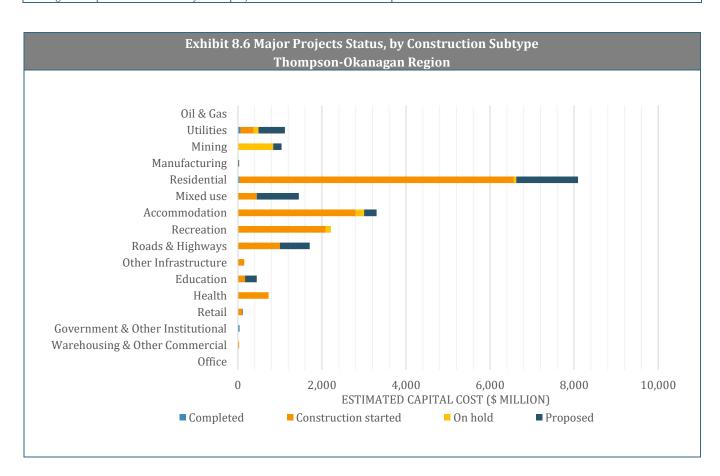
Exhibit 8.5 Summary of Major Projects (by Project Status)

Thompson-Okanagan Region

Average

Thompson oranagan region									
	Estimated Capital Cost (\$ million)	Percentage of Total	Number of Projects	Average Project Value (\$ million)	Average Year in Inventory				
Proposed	4,628	23%	41	122	6.6				
Preliminary/Feasibility	823	4%	12	82	3.5				
Consultation/Approvals	2,537	12%	12	211	9.5				
Permitting	444	2%	5	89	9.7				
Tender/Preconstruction	485	2%	5	97	1.5				
Stage Unknown	339	2%	7	57	8.6				
On hold	1,338	7%	6	223	12.8				
Construction started	14,358	70%	58	252	9.3				
Completed	139	1%	4	35	2.2				
Total	20,463	100%	109	195	8.2				

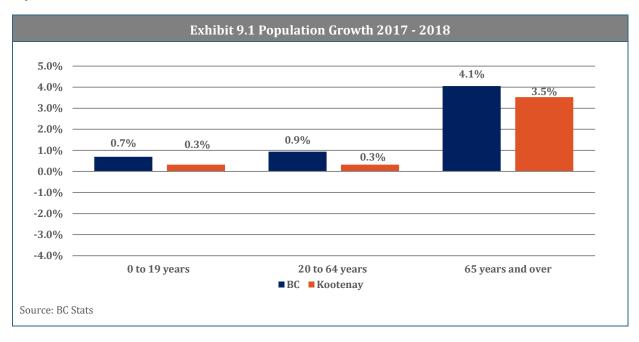
Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.

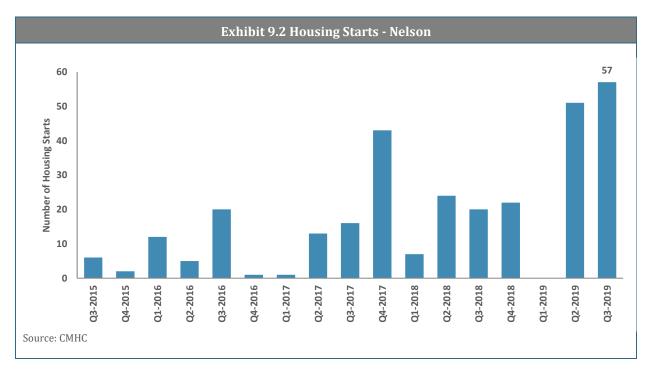


KOOTENAY REGION

9. Kootenay Region

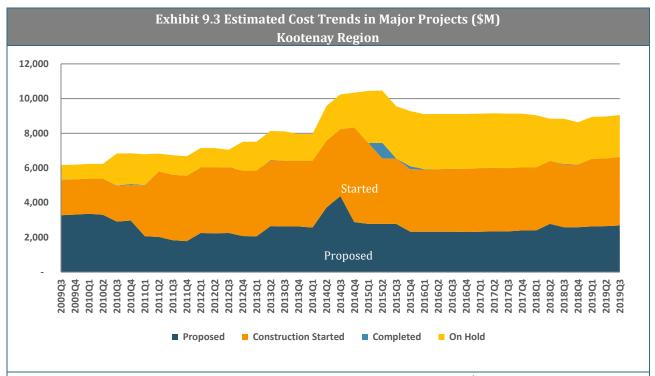
Key Economic Indicators





KOOTENAY REGION

Trends in Major Projects



- In Q3 2019, the Kootenay region had a total of 30 major projects with nearly \$9.1 B combined value, with a 1.0% increase compared to the previous quarter, which represents a 2.5% increase compared to the previous year.
- College of the Rockies student housing (\$18 M) in Cranbrook began construction this quarter.

Kootenay Region Change								
	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3	from the previous quarter	Change fro the previo ye	
Proposed	2,590	2,590	2,629	2,647	2,684	1.4%	3.6	
Construction started	3,623	3,601	3,901	3,901	3,951	1.3%	9.:	
Completed	28	22	-	-	-	0.0%	0.0	
On hold	2,592	2,420	2,420	2,420	2,420	0.0%	-6.6	
Grand Total	8,833	8,633	8,950	8,968	9,055	1.0%	2.5	

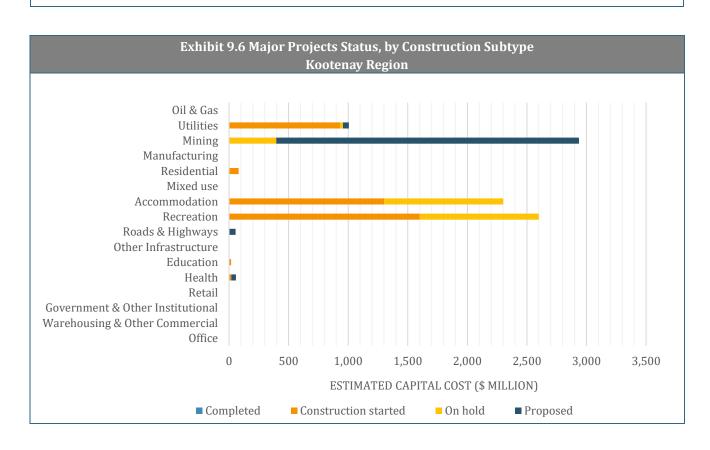
KOOTENAY REGION

Exhibit 9.5 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	2,684	30%	10	336	5.8
Preliminary/Feasibility	39	0%	3	39	2.9
Consultation/Approvals	2,540	28%	5	508	7.7
Permitting	0	0%	0	0	0.0
Tender/Preconstruction	0	0%	0	0	0.0
Stage Unknown	105	1%	2	53	5.2
On hold	2,420	27%	4	605	15.4
Construction started	3,951	44%	16	247	13.6
Completed	0	0%	0	0	0.0
Total	9,055	100%	30	323	11.2

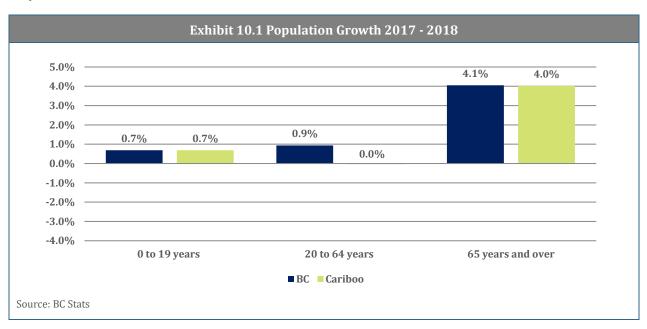
Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.

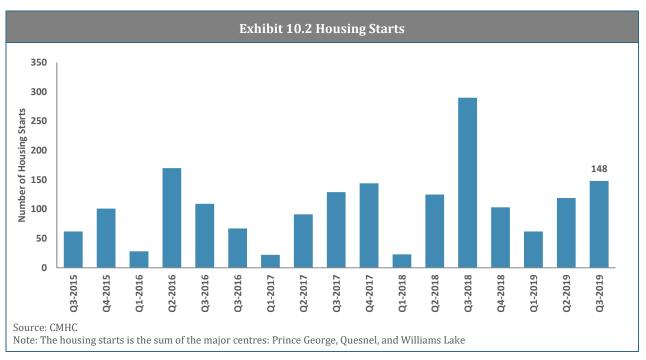


CARIBOO REGION

10. Cariboo Region

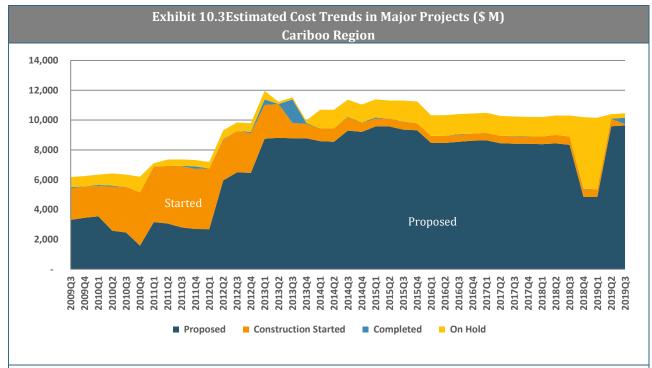
Key Economic Indicators





CARIBOO REGION

Trends in Major Projects



- In Q3 2019, the Cariboo region had a total of 26 major projects with a combined value of \$10.5 B, a slight increase (0.5%) from the previous quarter and up 1.5% compared to the same quarter last year.
- Quesnel Junior School Replacement in Quesnel (\$52 M) was newly proposed this quarter.
- Cariboo Connector Highway 97 Improvements (440 M) from Prince George to Cache Creek was completed this quarter.

Exhibit 10.4 Estimated Cost Trends in Major Projects, by Project Status (\$M) Cariboo Region									
	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3	Change from the previous quarter	Change fron the previou yea		
Proposed	8,343	4,843	4,843	9,588	9,640	0.5%	15.5%		
Construction started	559	514	514	514	74	-85.6%	-86.89		
Completed	0	43	0	0	440	0.0%	0.09		
On hold	1,400	4,800	4,800	300	300	0.0%	-78.69		
Grand Total	10,302	10,200	10,157	10,402	10,454	0.5%	1.59		

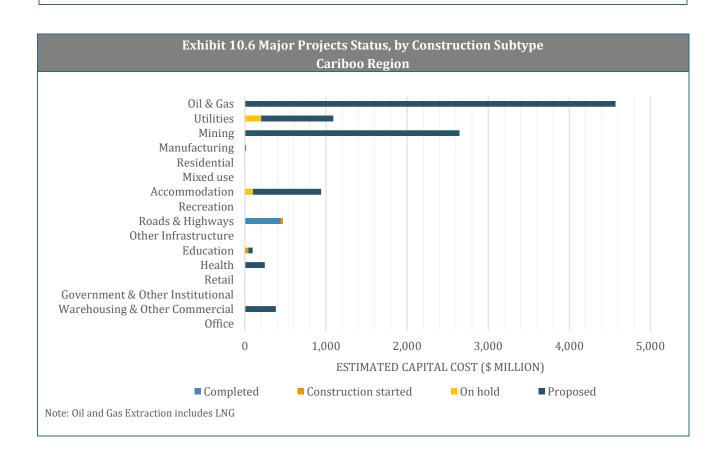
CARIBOO REGION

Exhibit 10.5 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	9,640	92%	21	482	8.5
Preliminary/Feasibility	1,019	10%	6	204	5.1
Consultation/Approvals	8,491	81%	11	772	8.6
Permitting	0	0%	0	0	0.0
Tender/Preconstruction	60	1%	1	60	20.6
Stage Unknown	70	1%	3	23	10.5
On hold	300	3%	2	150	15.5
Construction started	74	1%	2	37	2.7
Completed	440	4%	1	440	14.3
Total	10,454	100%	26	418	8.8

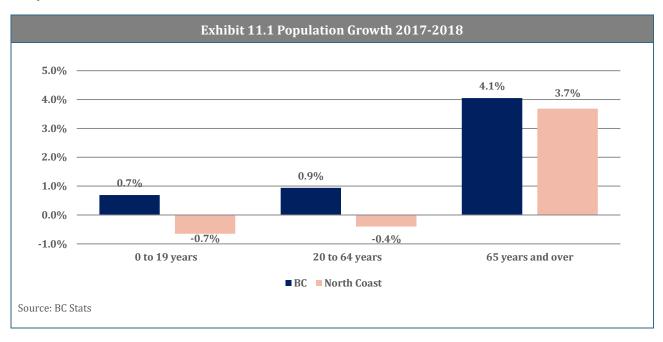
Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.

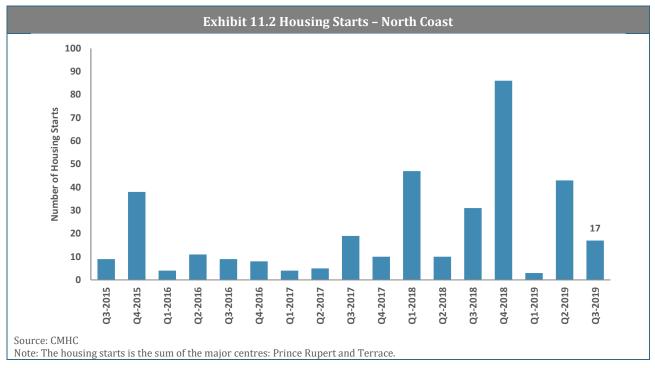


NORTH COAST REGION

11. North Coast Region

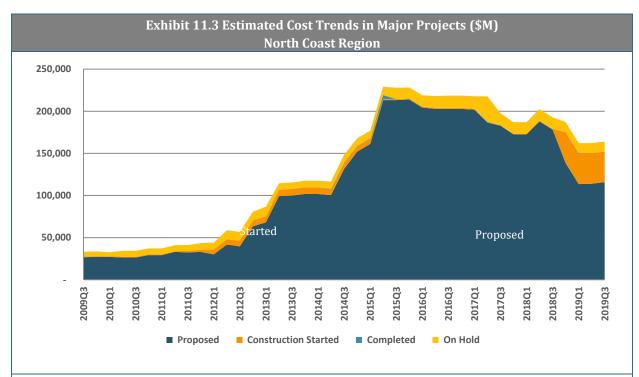
Key Economic Indicators





NORTH COAST REGION

Trends in Major Projects



- In Q3 2019, the North Coast region has a total of 53 major projects with a combined value of nearly 164 B, a 1.1% increase from previous quarter but a 14.9% decline compared to the previous year
- Zanardi Bridge and Causeway Upgrades (\$120 M) in Prince Rupert was newly proposed in this quarter.

Exhibit 11.4 Estimated Cost Trends in Major Projects, by Project Status (\$M) North Coast Region									
Status	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3	Change from the previous quarter	Change from the previous year		
Proposed	178,348	138,612	113,548	113,996	115,770	1.6%	-35.1%		
Construction started	669	36696	36221	36221	36237	0.0%	5316.6%		
Completed	0	18	475	0	0	0.0%	0.0%		
On hold	13,770	11,981	11,981	11,981	11,981	0.0%	-13.0%		
Grand Total	192,787	187,307	162,225	162,198	163,988	1.1%	-14.9%		

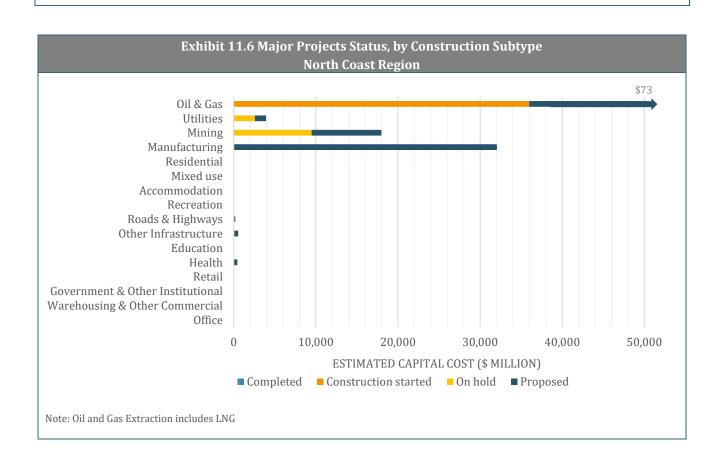
NORTH COAST REGION

Exhibit 11.5 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	115,770	71%	39	3,508	7.3
Preliminary/Feasibility	34,485	21%	10	3,832	6.2
Consultation/Approvals	28,680	17%	15	1,912	7.4
Permitting	35,400	22%	3	17,700	5.2
Tender/Preconstruction	12000	7%	5	3000	9.3
Stage Unknown	5,205	3%	6	1,735	8.3
On hold	11,981	7%	8	1,712	12.2
Construction started	36237	22%	6	6039.5	4.0
Completed	0	0%	0	0	0.0
Total	163,988	100%	53	3,565	7.7

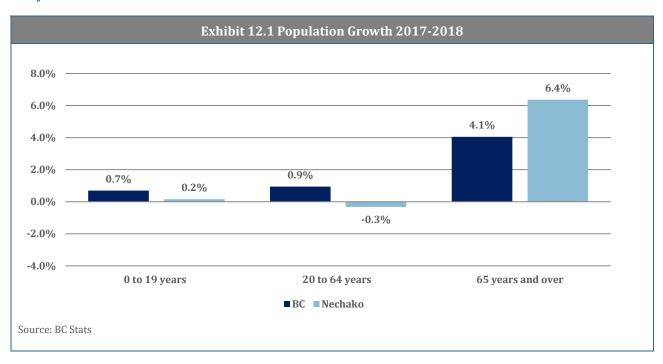
Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.



NECHAKO REGION

12. Nechako Region

Key Economic Indicators



NECHAKO REGION

Trends in Major Projects



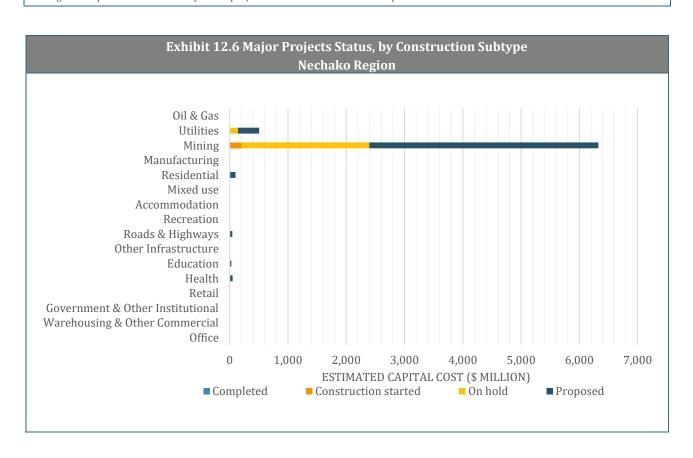
In Q3 2019, the Nechako region has a total of 20 major projects with a combined value of \$7.1 B, remained the same level as the previous quarter and the previous year.

Exhibit 12.4 Estimated Cost Trends in Major Projects, by Project Status (\$M) Nechako Region										
Status	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3	Change from the previous quarter	Change from the previous year			
Proposed	4,472	4,522	4,522	4,522	4,522	0.0%	1.1%			
Construction started	201	201	201	201	201	0.0%	0.0%			
Completed	50	0	0	0	0	0.0%	0.0%			
On hold	2,335	2,335	2,335	2,335	2,335	0.0%	0.0%			
Grand Total	7,058	7,058	7,058	7,058	7,058	0.0%	0.0%			

NECHAKO REGION

Exhibit 12.5 Summary of Major Projects (by Project Status) **Nechako Region Proposed** 4,522 64% 14 348 9.4 Preliminary/Feasibility 925 13% 3 308 8.9 8 Consultation/Approvals 2,268 32% 284 10.3 Permitting 0 0% 0 0 0.0 Tender/Preconstruction 29 0% 1 29 1.3 2 10.1 Stage Unknown 1,300 18% 1300 On hold 5 13.9 2,335 33% 467 **Construction started** 201 7.8 3% 1 201 Completed 0 0% 0 0 0.0 Total 7,058 100% 20 371 10.4

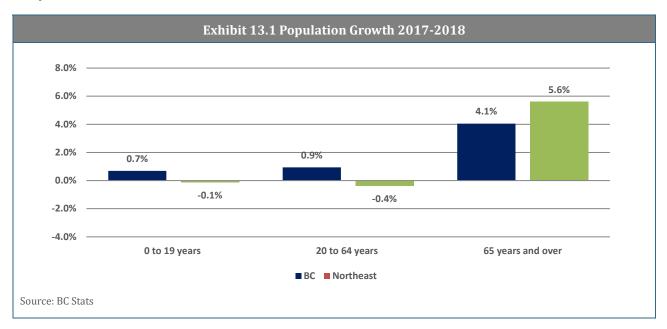
Notes: Average project value is the average of those projects for which there is a cost estimate. Average number of years in inventory is the average time span between the entry of the projects in the MPI and the current period.

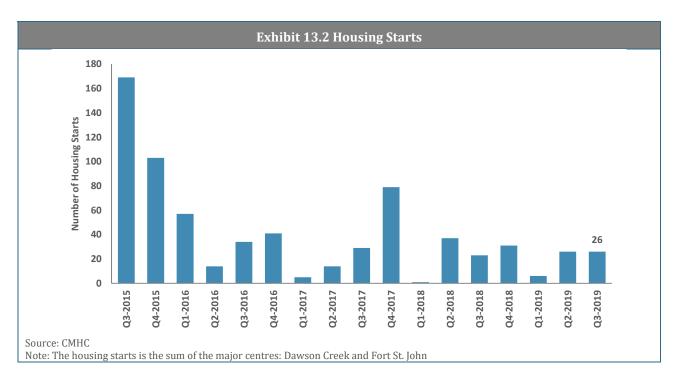


NORTHEAST REGION

13. Northeast Region

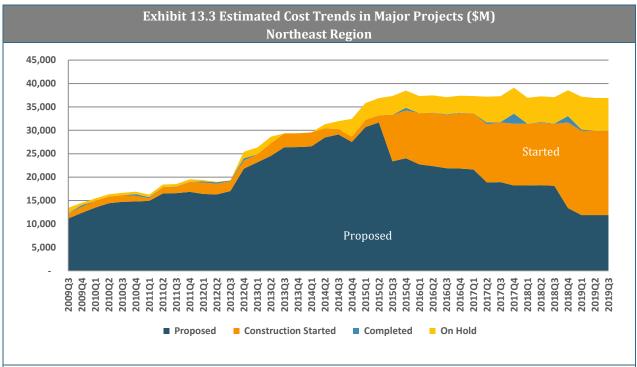
Key Economic Indicators





NORTHEAST REGION

Trends in Major Projects



- In Q3 2019, the Northeast region has a total of 48 major projects with a combined value of \$36.9 B, slightly up (0.1%) from the previous quarter and a 0.4% decrease compared to the previous year.
- Cambridge Estates (20 M) in Fort St. John was newly proposed this quarter.
- Moose Lake Wind Project (40 M) in Tumbler Ridge and Septimus Creek Wind Power Project (40 M) in Taylor were completed this quarter.

Exhibit 13.4 Estimated Cost Trends in Major Projects, by Project Status (\$M) Northeast Region									
Status	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3	Change from the previous quarter	Change from the previous year		
Proposed	18,140	13,402	11,887	11,887	11,907	0.2%	-34.4%		
Construction started	13,247	18,279	18,009	18,009	17,919	-0.5%	35.3%		
Completed	61	1369	290	0	90	0.0%	47.5%		
On hold	5,626	5,501	7,001	7,001	7,001	0.0%	24.4%		
Grand Total	37,074	38,551	37,187	36,897	36,917	0.1%	-0.4%		

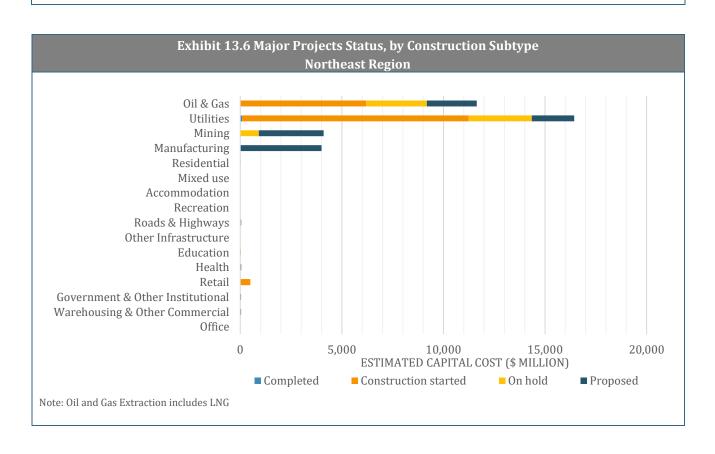
NORTHEAST REGION

Exhibit 13.5 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	11,907	32%	28	496	6.5
Preliminary/Feasibility	0	0%	0	0	0.0
Consultation/Approvals	7,567	20%	17	504	7.6
Permitting	4,020	11%	5	1340	3.2
Tender/Preconstruction	65	0%	2	33	4.2
Stage Unknown	255	1%	4	64	6.7
On hold	7,001	19%	9	778	9.1
Construction started	17,919	49%	9	1991	5.1
Completed	90	0%	2	45	3.7
Total	36,917	100%	48	839	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.



Appendices

	New Proposed Pi	rojects (July - September 2019)	
Region	Municipality	Project	Estimated Cost (\$ million)
1. Vancouver Island/Coast	Comox	Valleyview Long Term Care Facility	28
	Abbotsford	Cinema District Residences	40
		Terrazzo Midrise Condominium	20
		Ventura Condominium	20
	Burnaby	Highline Metrotown Condominium Tower	62
		Highrise Condominium - Wilson Ave	60
		Highrise Condominium	44
	Coquitlam	Highpoint Condominium	55
	Langley	South-West Yorkson Elementary	32
	Maple Ridge	Era Master Planned Community	150
2. Mainland/Southwest		Provenance Townhomes	22
	New Westminster	811 Carnarvon Street Condominium	
	North Vancouver	Purcell Way Development	30
		Marie Place Condominium	26
		2555 Whiteley Court Rental Housing	20
	Richmond	Fiorella Condominiums	34
		Glitz Condominiums	20
		CF Richmond Centre	
	Surrey	Midrise Apartments	22
	Vancouver	Ivy on the Park Condominium	26
		Cedar Walk	
	Victoria	468 Landmark Condominiums	40
	Fort Langley	Field + Fort Condominium	20
3. Thompson-Okanagan	Kelowna	Bernard Block Condominiums	60
5. Cariboo	Quesnel	Quesnel Junior School Replacement	52
6. North Coast	Prince Rupert	Zanardi Bridge and Causeway Upgrades	120
8. Northeast	Fort St. John	Cambridge Estates	20
Total			1,023

Region	Municipality	Project	Standardized Completion Date	Estimated Cost (\$ million)
	Courtenay	Lake Trail Middle School Seismic Upgrades	2021-Q3	27
1. Vancouver Island/Coast	North Saanich	Victoria International Airport Expansion	2020-Q1	28
		Westbay Quay	2021-Q4	18
	Victoria	1010 Fort Street Condominium	2020-Q3	15
		Jordan River Switchyard Upgrade Project	2022-Q4	44
	Burnaby	Sussex Highrise Condominium	2021-Q1	45
		South Burnaby Arena	2021-Q4	45
	Langley	Union Willoughby	2020-Q2	35
		The Georgia Midrise Condominium	2021-Q4	20
	North	Belle Isle Townhomes	2020-Q4	20
	vancouver	Circuit Refurbishments - 2L13/14 Project	2021-Q2	22
	Port Moody	Platform Condominium	2020-Q2	20
2.	Squamish	Breeze Townhomes	2020-Q4	20
Mainland/Southwest		Sea and Sky Residential Development	2020-Q4	350
	Surrey	Maverick Condominium Development	2020-Q4	30
Por Squ Mainland/Southwest Sur	Vancouver	Centerm Expansion Project	2021-Q4	250
		Office and Parkade Complex	2022-Q1	30
		Westbank/First Baptist Church Redevelopment	2022-Q4	91
		Union Gospel Mission Women's Centre	2020-Q2	36
		Cambie Gardens Condominiums	2023-Q4	
North Vancouver Port Moody Squamish Surrey Vancouver White Rock	Soliel Highrise Condominium	2021-Q4	35	
3. Thompson- Okanagan	Clinton	Peace Region to Kelly Lake - Reactor Replacement (Phase I) Project	2020-Q4	16
	Kelowna	Beverly at Kelowna Condominium	2020-Q4	18
	Revelstoke	Mica Upgrade Heating Ventilation Air Conditioning (HVAC) System Project	2022-Q4	40
4. Kootenay	Cranbrook	Student Housing	2020-Q4	18

	Construction Co	ompleted (July-September 2019)	
Region	Municipality	Project	Estimated Cost (\$ million)
	Nanaimo	Vancouver Island University (formerly Malaspina College)	60
	Saanich	Verve Condominium Development	18
	Victoria	Condominium Development - 989 Johnson Street	30
1. Vancouver Island/Coast		Encore at Bayview Place	40
		Harris Green Apartments	25
		Camosun College - Alex & Jo Campbell Centre for Health and Wellness	64
	View Royal	Eagle Creek Village Mixed Use Development	100
2. Mainland/Southwest	Abbotsford	Gateway East Business Centre	40
	Burnaby	BCIT Burnaby Electrical Infrastructure Upgrades	49
	Delta	GCT Deltaport Terminal Road and Rail Improvement Project	300
	Langley	Lattice at Milner Heights	20
	Maple Ridge	ćəsqənelə (South Albion) Elementary School	32
	New Westminster	RiverSky Condominiums	120
,	Surrey	North Surrey Sport and Ice Complex	52
Mainland/Southwest	Vancouver	Parc 26 Condominiums	20
		UBC Bus Exchange	22
		Elinor Condominiums	20
		UBC - Hebb Building Renewal	29
		UBC - Exchange Residence at Gage South	77
	Surrey/ Langley	South of Fraser RT Early Works	31
3. Thompson-Okanagan	Kamloops	BC Lottery Corporation Head Office	40
	Kelowna	Lowrise Condominium	40
	Revelstoke	Mica Townsite Augment Accommodations Capacity Project	23
		Mica Powerhouse Cranes Upgrade Project	36
5. Cariboo	Prince George To Cache Creek	Cariboo Connector - Highway 97 Improvements	440
	Taylor	Septimus Creek Wind Power Project	45
8. Northeast	Tumbler Ridge	Moose Lake Wind Project	45
Total			1,818

Project Value and	Project Value and Project Status for each Industry Sector – (April - June 2019)								
	Proposed	Construction started	Completed	On hold	Total				
Oil and Gas	83,935	42,200	-	2,984	129,119				
Utilities	8,904	16,245	149	10,394	35,692				
Mining	21,063	301	-	13,967	35,331				
Manufacturing	36,247	50	40	0	36,337				
Residential	12,922	22,894	333	254	36,403				
Mixed Use	5,387	11,063	100	1,000	17,550				
Accommodation	7,878	4,440	-	1,356	13,674				
Recreation	6,401	4,039	52	1,125	11,617				
Roads & Highways	5,987	2,036	493	60	8,576				
Other Infrastructure	4,500	2,961	300	0	7,761				
Education	4,414	1,180	311	0	5,905				
Health	5,362	2,036	-	0	7,398				
Retail	615	2,808	-	0	3,423				
Government & Other Institutional	241	1,670	40	0	1,951				
Warehousing & Other Commercial	962	705	-	0	1,667				
Office	322	140	-	80	542				
Total	205,140	114,768	1,818	31,220	352,946				

Appendix 5

Number of Regional Major Projects Excluding Completed Projects (by Project Category)

Development Region	Residential/ Commercial	Transportation & Warehousing	Mining, Oil & Gas Extraction	Utilities	Manufacturing	Public Services	Other Services	Total
Vancouver Island/Coast	88	9	4	17	0	16	8	142
Mainland/ Southwest	357	37	4	34	3	66	14	533
Thompson- Okanagan	55	10	3	18	1	13	5	105
Kootenay	10	1	7	4	0	3	5	30
Cariboo	5	2	6	7	1	4	0	25
North Coast	2	11	22	10	5	2	1	53
Nechako	1	1	12	4	0	2	0	20
Northeast	3	7	15	16	2	3	0	46
Total	538	78	73	110	12	109	33	954

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