



APLIN MARTIN

ENGINEERING ARCHITECTURE PLANNING SURVEYING

DRAFT

2020-09-04

City File: 3360-20-2002

A&M File: 20-8009

Lovick Scott Architects
3707 First Avenue
Burnaby, BC V5C 3V6

Attention: Darren Strang, CAD Tech.
Project Manager

Dear Darren:

Re: Holiday Inn Express

Please find attached the Design Development Report for the Holiday Inn Express project located at 310 Hunt Road, Courtenay, BC.

Yours truly,

APLIN & MARTIN CONSULTANTS LTD.

Scott Lewis, P. Eng.
Branch Manager - Senior Project Manager

Enclosure

20-8009 - Civil Schematic Design Report.docx

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1.0 WATER SERVICING ANALYSIS

No existing water service exists for the proposed development lot.

Based on an initial servicing review, the proposed combined water service to the building is to be 150mmø to support the hotels domestic and fire protection water demands. The service will be completed with a water meter and double detection check valve assembly within independent concrete chambers at the property line. The service will connect to the existing 150mmø watermain on Hunt Road.

2.0 SANITARY SERVICING ANALYSIS

No existing sanitary service exists for the proposed development lot. An existing manhole in Hunt Road contains a short service stub directed at the proposed lot and capped near to the manhole.

Based on an initial servicing review, the proposed sanitary service to the building is to be 150mmø to support the hotels sanitary demands. The site service will be completed with a sanitary inspection chamber at the property line and connect to the existing 200mmø sanitary main on Hunt Road at the existing manhole service stub.

3.0 STORM SERVICING ANALYSIS

No existing storm service exists for the proposed development lot.

Based on an initial servicing review, the proposed sanitary service to the building is to be 250mmø to support the hotels roof water drainage demands. The service to the site will be a 250mmø to support the overall stormwater management requirements. The site service will be completed with a storm inspection chamber at the property line and connect to the existing 250mmø storm main on Tunner Drive at and existing manhole.

4.0 STORMWATER MANAGEMENT ANALYSIS

Onsite stormwater management will be as per City of Courtenay Subdivision and Development Bylaw 2919. Stormwater retention is not required under this bylaw, but bio-swales and drainage rock trench(es) are implemented in select areas. Surface rainwater run-off will be directed towards catch basins in the pavement, and lawn drains in the bio-swales and landscaping. Roof rainwater runoff will be captured by the building mechanical system and routed to a single building storm service connection at the south-east end of the building.

To promote stormwater retention, bio-swales have been added near the Hunt Road driveway entrance, as well as along the neighbouring properties to the east of the proposed building. These bio-swales include 250mm thick drain rock at the bottom as well as lawn basins at the low points; The lawn basin rim elevations are set at 75mm above the top of the drain rock layer. These bio-swales will collect rainwater runoff in the drain rock and promote groundwater recharge. As the water level increases and pools, it will flow into the lawn basins and into the underground stormwater pipe network.

Stormwater will be detained up to a 25-year return event with each of the 2-year, 5-year, 10-year, and 25-year return event flows release at pre-development rates. The flow control structure will account for multiple orifices to release flows as per site specific calculations. The detention storage will be achieved by upsizing select storm drainage pipes at the low end of the site. To increase detention volumes, and promote groundwater recharge, the building storm service connection is to be a perforated pipe within a rock trench under the impermeable paved parking area.

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5.0 ROADWORKS

Based on comments received by City of Courtenay Application Review, Tunner Drive requires widening of one-half road fronting the property to the centreline of the roadway. Road classifications and extents of roadworks in unclear form the City's comments; coordination and confirmation on the roadworks are required to move forward. Hunt Road will require removal and replacement of infrastructure that is at the end of its lifecycle. Approximately 50m of poor condition asphalt pavement and concrete curb/sidewalk will be removed and replaced on Hunt Road near the intersection with Ryan Road. The transition from Hunt Road to Tunner Drive will be included in the roadworks for Tunner Drive. Architectural design requires the construction of two concrete driveway letdowns, one on Hunt Road, and one on Tunner Drive. The existing concrete letdown on Hunt Road will be removed and replaced with concrete barrier curb, gutter, and sidewalk. Damaged sidewalk panels along Ryan Road will be replaced at the direction of the City of Courtenay field staff. Road trenching will be replaced with pavement restoration to match existing, or better.

6.0 SHALLOW UTILITIES

The shallow utilities of BC Hydro electrical, Telus communications, Shaw Cable communications, and Fortis BC natural gas will be coordinated as the project progresses.