Annacis Auto Terminal: Modern automobile loading/unloading facility

Concept

The module is designed to be a modern vehicle loading/unloading port facility which imports Asian vehicles and exports vehicles from CAMI based on the Annacis prototype in Delta B.C. It also handles the delivery of odd/oversize vehicles like tractors etc. The design is an unconventional style module as a stub ended double mainline meant to be located on a branch. This design choice was made for four reasons. One, two tracks are needed so that one can store loaded auto racks (having been filled by unloading the ship) and a second one to store the empty auto racks to be set out. Secondly, as it imitates a port terminal, prototypically it would be on a branch. Thirdly, it couldn't be a FreeMo design as I need the space for the ship and parked cars and fourthly it needs to interface with a conventional module at home.



Design

It is a module made up of two four foot modules totalling 8 feet long. All modules are the standard 24 inch depth. Since the track arrangement is simple and there will be minimal industrial structures, the defining scenery element will be a partial Roll on Roll off (RoRo) ship (blue rectangle) and a large parking lot full of cars. The ship will be a bolt addition (about 8 inches wide) on to the module but will not always be used. At other times a backdrop will simulate the ship. Track 1 is meant to be switching storage, track 2 and 3 are for loading/unloading. Track 3 is meant articulated auto racks and flat cars. Tracks 2 and 3 are shorter than track 1 to accommodate an auto ramp whereas track 1 doesn't need one since it is only a storage track.

Operation

It is intended that unit auto trains will originate and terminate at this module. In addition, switching occurs before leaving and after arrival in that the auto racks or flat cars on track 1 needs to added to the departing train and replaced with a new one before the train departs. However, other options can be implemented at the discretion of the freight ops designer. To enable flat car loading, only track 3 can accommodate flat cars. Freight design can include only articulated autoracks, only flat cars or a mixture of the two on track 3.

Freight car usage is described below.

Car Type	Purpose	Spotting track location	Car length
Autorack (single)	Automobile transport	1,2	89'
Autorack (articulated)	Automobile transport	1,3	140'
Flat car or depressed well car	Heavy equipment, oversize vehicle transport	1,3	53'

The tracks' length and purpose are described in the table below.

Track Number	Purpose	Scale length (inches)	Equivalent car capacity	Complements
1	Automobile loading/unloading	64	4 auto racks (single - 89') and a locomotive 3 auto racks (articulated - 140') but no locomotive 8 flat cars (53') but no locomotive	CAMI interchange
2	Automobile loading/unloading	56	4 auto racks (single - 89') but no locomotive 3 auto racks (articulated - 140') but no locomotive	CAMI interchange
3	Autorack storage (full or empty)	48	2 auto rack (articulated - 140') but no locomotive 4 auto racks (single - 89') but no locomotive 6 flat cars (53') but no locomotive -or- 1 auto rack (articulated) and 3 flat cars	CAMI interchange Any module that accepts flat cars

Module Connection Possibilities





This module set prefers to be mated with a conventional or transition module with a crossover like Connaught, Garry, Jock River etc so that you can access all tracks from either mainline. Non crossover modules can be used but trains would then need to arrive and depart by track 2 so that tracks 1, 2 and 3 are accessible.



Connaught

Exception

Since this proposal isn't strictly a conventional module nor a FreeMo module, EXEC approval will be required as it does not prescribe exactly to the specifications laid out in the Handbook (i.e. the double mainline is stub ended).

Prototype

The prototype is part of the Vancouver port authority located on the Fraser river in Delta B.C. and is operated by Wallenius Wilhelmsen Logistics (WWL). It receives nearly 100 per cent of all Asian-manufactured imports destined for the Canadian market and serves more than a dozen of the world's top auto manufacturers including General Motors Daewoo, Honda, Hyundai, Kia, Mazda, Mitsubishi, Nissan, Subaru, Suzuki and Toyota. The terminal also handles additional cargo, such as heavy rolling machinery and equipment, and offers an extensive on-dock rail and truck loading capability.

