Canadian Stations Set

for

Transport Tycoon Deluxe

OpenTTD and TTDPatch

User Guide

v0.3

July 2007

Canadian Stations Set

The Canadian Stations Set is a comprehensive passenger station set depicting Canadian station buildings and platforms, but is equally at home anywhere in the world and is one of the sets in the Canadian/American suite of graphic sets.

It complements the Canadian Trains Set as well as the North American Roads Set, although they are not required.

For details on individual station tiles, in particular time frames of station tile availability, see the station list at the end of this document.

Compatible Platforms :

The set is compatible with OpenTTD nightlies, TTDPatch* 2.5 beta 5+ and TTDPatch* 2.6 alpha. It is not compatible with OpenTTD v0.5.x (any version) due to its size. The set is available for Windows (CanStnw.grf) and DOS (CanStnd.grf) environments.

* some features are not available prior to TTDPatch r1220.

Climate Support :

Although the stations set has been designed for the temperate and arctic climates, it can also be used in a sub-tropical game.

Waypoints :

7 new waypoints have been added to the set, changing over time; at any one time up to 4 are available to be built.

Please note : if building waypoints across multiple tracks, there are 2 ways of building them :

a) if you build a waypoint in one click; i.e. say, across 4 tracks, you will get 1 building and 3 switches.
b) if you build a 4 track waypoint, but each tile separately; you'll get 4 buildings.

The same applies if you build a multi track waypoint consisting of different tiles; i.e. a mixture of different waypoints (e.g. 1 Control Tower, 1 Switch Tower and 1 Marker Point)

OpenTTD players please note : these waypoints can also be built across multiple tracks. In order to build a single waypoint across multiple tracks, go the 'Miscellaneous Canadian Features' menu. The waypoints in this menu will behave as normal stations do. You'll need to use the 'Non-Stop Tag' in the trains order list for them to function as waypoints. Visually there won't be a difference; 3 independently built waypoints across 3 tracks from the waypoints menu will look the same as a single multi-track waypoint across more than one track.

AI Support :

The AI will build 'Standard Platforms' for passenger services and 'Plain Platforms' for freight services. Both in brick before 1946 and concrete from 1946+. However, this may depend on other station sets in use. (Currently TTDPatch only)

Railtrack Fence Support :

If you hate the TTD Original fences along your rail tracks, then there are 3 other options available. They range from no fences at all, the same fences used for station platforms, hedges (temperate game) and stone walls (arctic game). Use set parameter 1 to select your choice (see under parameter settings). In a sub-tropical game, you can select no fences or TTD Original fences only.

Please note : if you use the Dutch Catenary Set, you must place the Dutch Catenary Set above the Canadian Stations Set. In OpenTTD, there will be a warning message, in TTDPatch the CanStn set will be disabled, if the Dutch Catenary Set is loaded below CanStn.

Language Support :

The set has been translated into English (default), French, German, Spanish and Dutch. If the correct or desired language is not shown, then it can be overridden using set parameter 3 (see under parameters settings).

Installation and Configuration :

OpenTTD : add CanStnw.grf to the \DATA directory and activate the set in 'NewGRF Settings' on the title screen.

TTDPatch : add CanStn[w/d].grf to the \NEWGRF directory and add the entry 'newgrf\CanStn[w/d].grf' to the newgrf.cfg file, found in the game directory. You will also require the following patch settings in ttdpatch.cfg : 'newstations on' and 'irregularstations on' as well as 'tempsnowline on', if snow line height option selected.

Parameter Settings :

There are 3 parameters available for set customisation. They are :

. **Fence Option**, selects different rail track fences :

0 - no fences
1 – [default] normal TTD fences
2 - small fences, same fences used for station platforms [not available in a sub-tropical game].
3 - hedges (in temperate) or stone walls (in arctic) [not available in a sub-tropical game].

. **Snowline Option**, selects snow line height, i.e. variable or seasonally changing :

0 – [default] no snow in temperate or level 7 in arctic
1 .. 15 - set snow line height to level 1 to 15
129 .. 132 - seasonally changing snow line (4 scenarios) :
129 - up to level 14 in summer, down to level 3 in winter (deep winter, hot summer)
130 - up to level 14 in summer, down to level 7 in winter (mild winter, hot summer)
131 - up to level 10 in summer, down to level 3 in winter (sub-arctic winter)
132 - up to level 7 in summer, down to level 3 in winter (arctic winter)

This parameter applies only in temperate or arctic games, it is ignored in a sub-tropical game and may not yet be available in OpenTTD.

. **Language**, select the station set language :

0 – [default] English or game language
2 - German
3 - French
4 - Spanish
31 - Dutch

This parameter is only necessary, if the automatic language detection does not work and it only affects the language within the set itself.

Credits :

Graphics by lifeblood and Oz, coding by OzTransLtd, language translations by astath (Dutch), lepkka (Spanish), OzTransLtd (German) and wallyweb (French).

Copyright :

Technical Information :

Name : Canadian Stations Set

Version : v0.3b [27 July 2007]

Graphics ID : 43415463

Active Sprites 'Other' category: 5,240

TTDPatch vs OpenTTD :

There are a few differences between the 2 platforms, they are :

. **Waypoints** : see above for waypoints across multiple tracks in OpenTTD.

. **Year Built** : in TTDPatch the foundation stone of a station will determine the generation of the station, i.e. brick (until 1945) vs concrete (1946+); in OpenTTD, every time a station is modified, new tiles are added or existing tiles updated, the date is updated too. That means, if you add a new platform to a 1st generation station after 1946, it will be updated to a 2nd generation station immediately. In some instances, some tiles with brick surface will remain brick whereas others will become concrete; this is the case with single generation station buildings with brick surface. For more information see 'How to upgrade from 1st Gen (brick) to 2nd Gen (concrete)' later on in this guide.

Known Issues :

The following are issues that have not been resolved yet ...

TTDPatch only -

GRF Resource conflicts :

Some members have already experienced GRF resource conflicts while using the Canadian Stations Set. This set is very large, it has 5,240 (reduced from 7,486) active sprites in the 'Other' category. The maximum of active sprites in the 'Other' category is 11,483. It does not take many more other sets to reach the maximum. Once you reach that maximum, a lot of sets, that contain sprites of the 'Other' category type, will report resource conflicts. The only solution at the moment is to be very selective what sets you are playing; in v0.3b this has been addressed by reducing the number of active sprites (removing of not yet used animation sprites), in the meantime you cannot afford to have a multitude of station sets active.

Apart from other Railway Stations sets, the following sets also have sprites that count towards the 'Other' category limit : Rail Signals, Tram Tracks, Drive Through Bus/Truck stops.

Basic Buffers :

. The basic buffers (in Extra Canadian Features menu) is only available in TTDPatch 2.5 beta 10+ or TTDPatch 2.6 r1220+.

Other Issues :

. Sprite sorter problems with stations built on level 15, in particular roofed stations. Also having tall bridges across and right in front of Gare Centrale causes graphics glitches to the bridge.

. Unable to auto-detect some languages.

OpenTTD only -

. Waypoints built tile by tile won't look any different compared to building them in one click.

TTDPatch and OpenTTD -

. With waypoints and depending on fence option, there are graphical glitches in some instances (having adjacent 'foreign' railtracks, depots, and/or tracks on different levels). A solution will be sought for the OpenTTD platform.

Update History :

v0.3b - Update [27 July 2007]

- renamed menu description 'Canadian Waypoints' to just 'Waypoints' or language equivalent.
- fixed graphical glitches with Gare Centrale; however it will no longer display wires in transparency mode for electrified platforms; the pylons now fit under the car park deck.
- fixed graphical problems with Midland station.
- added support to Pacific Central and Car Parks for NA Roads 1st generation 'dirt/brick' and 'snow covered' roads [see note].
- updated Canadian Stations Set User Guide [this document] and added quick setup guide to download GRFs.
- added some extra features to the set; i.e. half platforms, fenced an unfenced basic buffers as well as an access ramp to underground car parks, delivery and service/maintenance areas (see 4th menu : Extra Canadian Features).
- Added double buffers (back-to-back) using only 1 tile; if a buffer detects rail tracks or platforms with track on either side, then a double buffer is built. This applies to normal, roofed, low level and basic buffers alike.

Important : If you will be using the Canadian Stations Set with the new North American Roads Set (v0.5), you will need this update.

v0.3a - Initial Release [17 June 2007]

How to Build Gare Centrale

Overview

Gare Centrale is located in Montréal, Québec, Canada.

It is a bit more than just a station. It is also a portal to an electrified double track tunnel that runs under Mont Royal, the mountain at the centre of Montréal. The tunnel gives access from the suburbs north of Montréal to the down town core. Due to the slope of the land from the banks of the St. Lawrence river up to the mountain, the platforms of Gare Central are above street level at one end and below street level at the other.

Lifeblood's artwork have caught this effect perfectly; although the station as it exists today has Place Bonaventure and the Hotel Reine Elizabeth over the top instead of the station building and a parking lot.

How to build Gare Centrale ?

To build the station in your game, you should dig a one-tile deep excavation, the size of your station. The tunnels should be built at the mountain end of your station, somewhere behind where the station building will appear. The station building is just tall enough to conceal the portals of the tunnels, thus giving the illusion that the tunnel opens directly into the station. The station extensions provide a means to cover the sloped tiles on either side of the station and although you can't run your vehicles over them, they provide for an interface between your streets and the station's parking lot. Note that because the tunnel will abut directly against the station, signals will have to be placed at the other end of the tunnel instead of at the end of the platform.

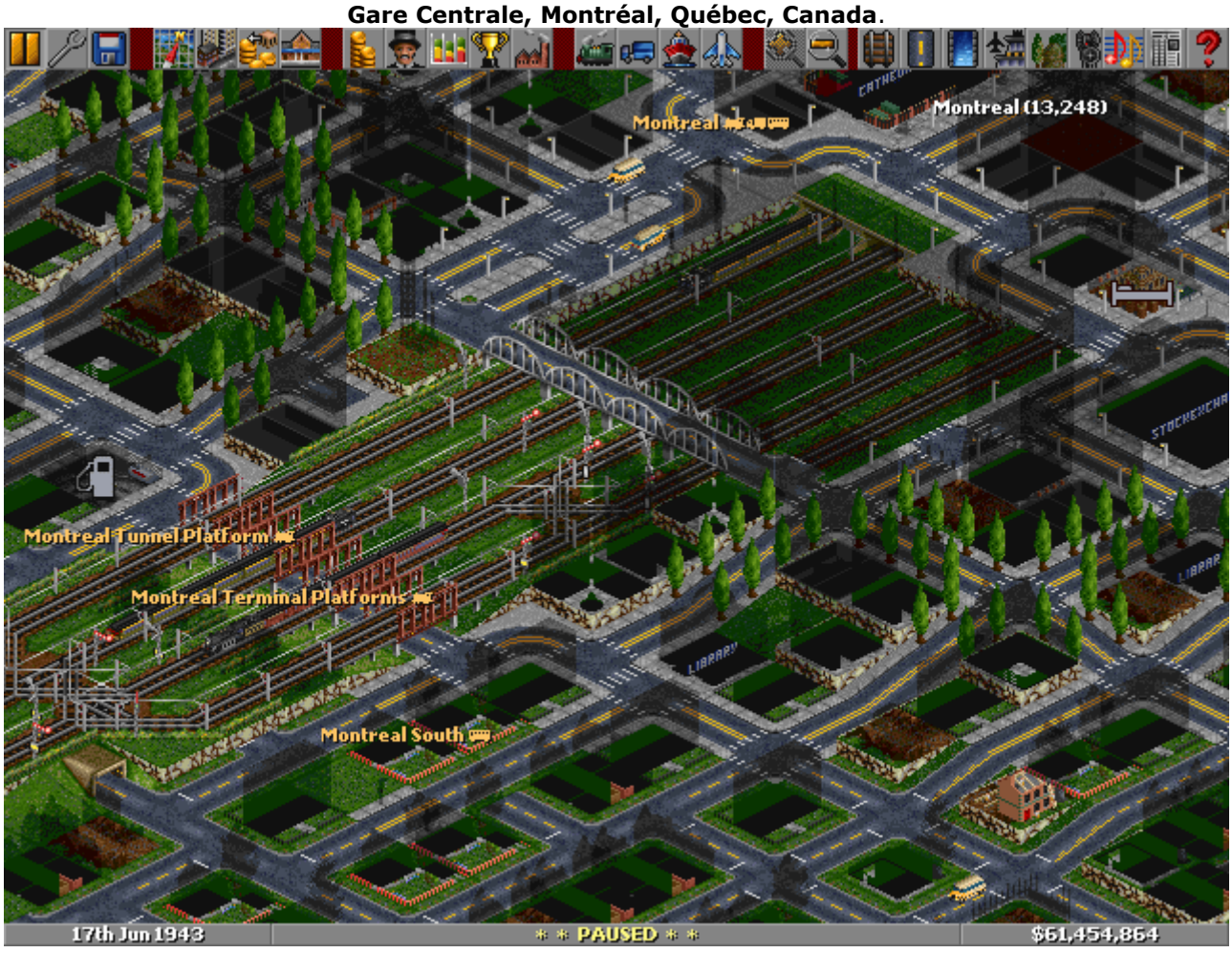
Please refer to the attached images (see next page).

Gare Centrale above and below Snowline

Please note, the rail track level (platform) determines whether the station displays snowy car parks; i.e. If the platform level is below the snowline and the car park level above or at the snowline, then the station is shown snow free. Except for the extension tiles, they will be shown with snow. For the time being, this cannot be fixed, because we have no access to information where the actual snowline is.

Note : information and screenshots contributed by wallyweb

Gare Centrale, Montréal, Québec, Canada.



How to use Low Level Platforms

What are low level platforms ?

With low level platforms you can build stations on more than one level and they still look safe and good. The platform, one level up, will get safety railings and there can be stairs going up to the upper level. If the upper level platform has roofs and subways, you can get access to the concourse from the lower level platform.

What are the rules ?

1] Each independent level of platforms can only have one low level platform, all the others must be ordinary platforms.

2] A low level platform needs to be built adjacent to an upper level platform (which is an ordinary platform). If the 2 platforms are located in the southern half of the station complex, the low level platform needs to be to the south of the upper level. If located in the northern half, the low level platform needs to be to the north of the upper level. If built in the northern half, you will not see as much, as the low level platform is partially obscured by the upper level platform.

3] You can build terraced stations, as long as rule 2] is obeyed.

What low level platforms are available ?

There are 4 different tiles (we have run out of station IDs and real sprites to have any more) :

1] Base Low Level Platform; this is a no frills platform, it simply places safety railings to the upper level platform.

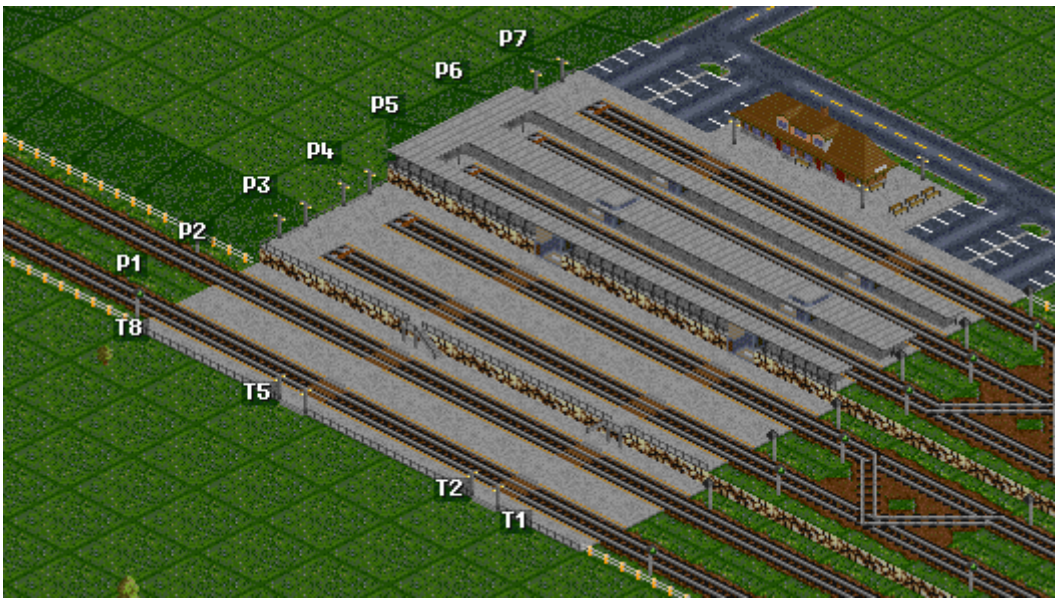
2] Low Level Buffer; same as 1], but it is the companion to the buffer.

3] Upper Level Access; this will give you stairs going up to the upper level. At the same time it is also a cross walk.

4] Concourse Access; this one will give you access to the concourse, or subway on the upper level platform. It, too, has a cross walk. It should only be used, if you have a subway adjacent to it on the upper level.

They, of course, come in 1st and 2nd generation, snow and no snow.

Multi Level Station



In the above sample station, P1 ... P7 refer to the platforms and T1 ... T8 are tile numbers.

In order to build a station complex as shown above, the following needs to be observed :

All platforms (except P2 and P4) are made up of ordinary platform tiles, no low level platform tiles have been used and must not be used.

All tiles of platforms P2 and P4 are made up of low level platform tiles. If you want stairs to go up, use Upper Level Access (T2 and T5 on P2). If there is a subway on the upper level, use Concourse Access (T2 and T5 on P4). If you want a buffer, use the Low Level Buffer (T8 on P4) and all other tiles are Low Level Platform tiles (T1, T3, T4, T6, T7 on P2 as well as T1, T3, T4 and T6 on P4).

One very important point is this, you must have a balanced station; i.e. Low level platforms behave according which half of the station complex there are in (see above for the rules). If you have problems, you may have to add some more station tiles on the other side of the station complex. This may be the case, if you have buildings or car parks to the south, then you need to add something to the north to keep the low level platforms in the relevant station half.

Also, if you would like to have roofs on platforms P2 and P4, then you can use ordinary roofed platforms. In this case it is not necessary to use Low Level Platform tiles.

How to build Buffer Stops

What Buffer Stops are available ?

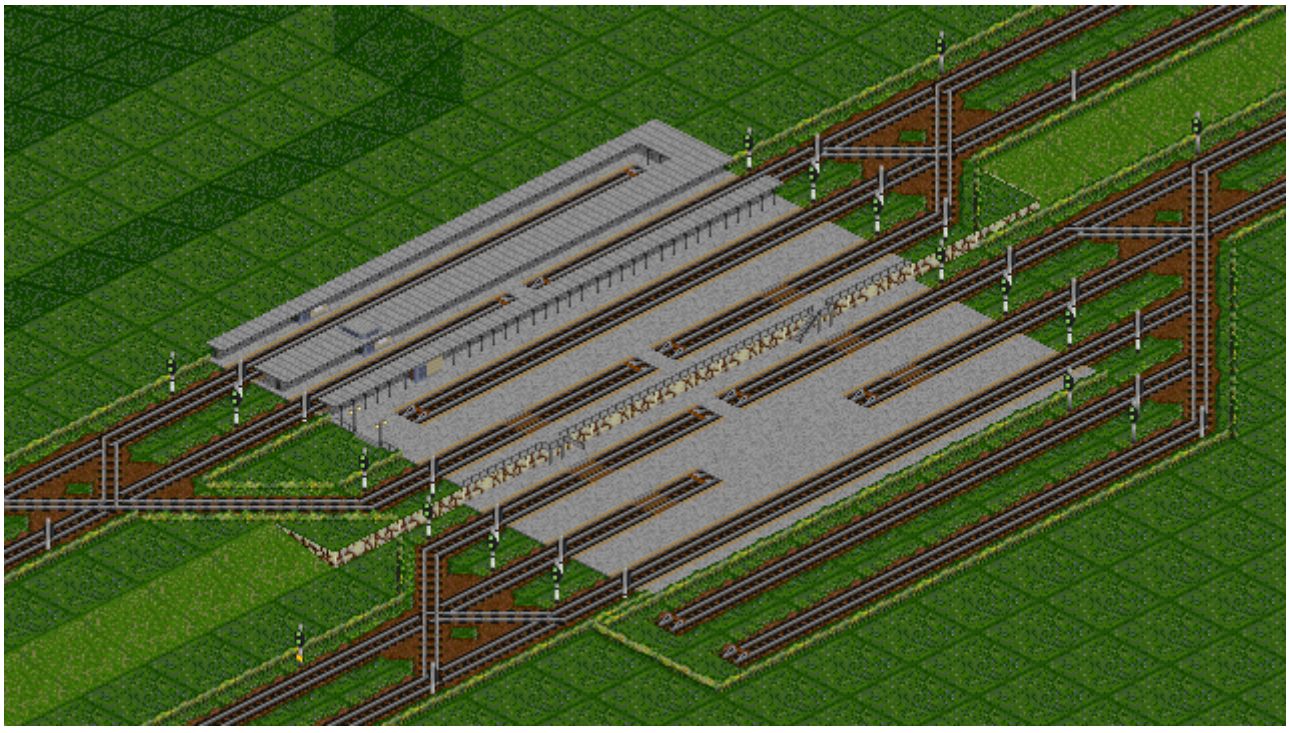
The kinds of buffer stops available are, normal (without roof), roofed and low level buffers as well as platform free buffers (basic).

Then they come in brick and concrete, with below and above snow variants. The platform free buffers blend into all 5 terrain types; i.e. temperate, sub-arctic, above snow line, rainforest and desert. They will be fenced, with the fences option chosen (GRF parameter 1). There is also an unfenced option (not available, if GRF parameter 1 set to 0 = no fences), then the platform free buffer will simply show no fences.

How do Buffer Stops work ?

Apart from being able to choose the type of buffer stop, i.e. normal, roofed, low level etc, the way buffers are displayed is automatic; there is no need to select north or south buffers. The only decision to make is what kind of buffer and in what rail track direction to build them.

The buffer stop will then seek out rail tracks, that can be a normal rail track or a platform tile with track. If there is rail track that can connect to the buffer, the buffer will align itself automatically along the tile direction chosen. If there is rail track at both ends, then you'll get a back-to-back buffer stop. If 2 buffers are built behind each other, then 2 tiles are used to get a back-to-back buffer, otherwise it will only be the one tile. If there is no track at all, the buffer stop as shown in the menu will be used.



Various Buffer Stops on Offer

How to upgrade from 1st Gen (brick) to 2nd Gen (concrete)

1st Generation vs 2nd Generation

For most of the station platforms and buildings there are 2 generations available; i.e. 1st generation with brick surfaces from start of game until the end of 1945 and 2nd generation with concrete surfaces and buildings from 1946 onwards.

What determines what generation a station is ?

In **TTDPatch** it is the date the foundation stone was laid. This may be the construction of a bus terminal or airport. If the very first station tile is built before 1946, the station will be a 1st generation station. If later on, say in 1975, a railway station is added, that station will be in 'brick', because the station as a whole is a 1st generation station.

In **OpenTTD**, whenever a station tile is added or modified, the station built date is updated. If the station was originally built prior to 1946 and modified after 1945, it will result in an automatic upgrade from 'brick' to 'concrete'. Now, not all station tiles will actually upgrade automatically; the ones that will not, do not have a 2nd generation equivalent. Mainly station buildings will be affected thus, simply build over with a new station building or remove the station tile.

Both situations are unsatisfactory and are currently impossible to solve.

How to upgrade from 'brick' to 'concrete' (in a TTDPatch game) ?

The entire station complex (established prior to 1946) needs to be demolished and once the station sign has disappeared the station can be rebuilt. It will then become a 2nd generation station, if re-established after 1945.

But, there are consequences : firstly all your trains, buses, aircrafts and ships that have serviced the 'old' station will loose the station in the order list and may simply get lost. Also, the local authority may be against rebuilding a new station after that terrible demolition job of your company.

A much better solution, at present, is the establishment of a brand new 'concrete' station next to the old 'brick' station. You may have to make a little bit of room first by demolishing (removing) parts of the old station. Then start constructing a new station, making sure a new station is actually established; i,.e. with a new station sign and not touching the old one, unless you have the 'adjacent station' feature activated. Once you have a few new platforms, start redirecting some of your trains to the 'new' station. Then, continue removing parts of the 'old' station and adding more platforms and facilities to the 'new' one. Followed by further re-directing your services to the 'new' station. Repeating this until you can finally remove the 'old' station from service. Quite a job, a huge task and time consuming, but quite realistic.

Note : in OpenTTD, this is not a problem, because any modification to an 'old' station upgrades the station to 'concrete' anyway. Here the problems is retaining a station in 'brick'. Don't touch it post 1945 !

Solution for the Future ?

A solution has been worked out. Basically, post 1945, overbuilding a 'brick' station tile will upgrade it to 'concrete'; however, adding the same station tile on bare ground to a 1st generation station, will not give you an upgraded tile, it will be in 'brick'. A double build; i.e. add a tile on bare ground, then overbuild straight away, will result in an upgrade to 'concrete'. A good solution for all; i.e. nostalgic and modern players.

However, currently it cannot be implemented, as there is a design flaw in the station animation feature, requiring an enhancement.

Canadian Stations Set – v0.3b [July 2007]

Description	Year (built) from	to	Track	Surface	Notes
Waypoints					
Traffic Control Tower	1921	1954	Yes	gravel	with switch manual
	1955	1990	Yes	gravel	with switch automatic
Switch Tower 'modern'	1936	1962	Yes	gravel	with switch manual
	1963	--	Yes	gravel	with switch automatic
Switch Tower 'wood'	1921	1947	Yes	gravel	with switch manual
Marker Point	1921	1966	Yes	gravel	with path
	1967	--	Yes	gravel	with switch automatic
Canadian Platforms					
Standard Platforms	1921	1945	Yes	brick	[ready made station with crosswalk, lights and benches]
	1946	--	Yes	concrete	The AI will build this station for passenger services
Standard Platforms [roofed]	1921	1945	Yes	brick	[ready made roofed station with subways]
	1946	--	Yes	concrete	
Plain Platforms	1921	1945	Yes	brick	The AI will build this station for freight services
	1946	--	Yes	concrete	
Plain Platforms [roofed]	1921	1945	Yes	brick	
	1946	--	Yes	concrete	
Rural Platforms [roofed]	1921	--	Yes	brick	
. Crosswalks	1921	1945	Yes	brick	
	1946	--	Yes	concrete	
. Subways	1921	1945	Yes	brick	
	1946	--	Yes	concrete	
. Lights	1921	1945	Yes	brick	
	1946	--	Yes	concrete	
. Benches	1921	1945	Yes	brick	
	1946	--	Yes	concrete	
. Lights+Benches	1921	1945	Yes	brick	
	1946	--	Yes	concrete	
. Buffers	1921	1945	No	brick	
	1946	--	No	concrete	
. Buffers [roofed]	1921	1945	No	brick	
	1946	--	No	concrete	
. Low Level Platform	1921	1945	Yes	brick	
	1946	--	Yes	concrete	
. Low Level Buffer	1921	1945	No	brick	
	1946	--	No	concrete	
. Upper Level Access	1921	1945	Yes	brick	
	1946	--	Yes	concrete	
. Concourse Access	1921	1945	Yes	brick	
	1946	--	Yes	concrete	
. Accessibility Ramps	1993	--	Yes	concrete	
. Flora	1921	1945	Yes	brick	[flowerbeds (temperate) / pine trees (arctic)]
	1946	--	Yes	concrete	
. Tile [empty]	1921	1945	No	brick	
	1946	--	No	concrete	

Canadian Station Buildings

Locust Hill (1x1T)	1921	1945	Yes	brick	[succeeded by Midland]
Midland (2x2T)	1946	1975	Yes	concrete	[succeeded by Grimsby]
Grimsby (1x1T)	1976	--	Yes	concrete	
St.Catharines (1x2)	1921	1945	No	brick	
Port Stanley (1x2)	1921	1945	No	brick	
Whitehorse (1x2)	1921	1945	No	brick	
Belleville (1x2)	1921	1941	No	brick	
Louisburg (1x1)	1921	1927	No	brick	[succeeded by The Pas]
Niagara Falls (1x3)	1921	1945	No	brick	
Pacific Central (2x4)	1921	1945	No	brick	[automatic-upgrade to modern cars in 1946]
The Pas (1x3)	1928	1945	No	brick	
	1946	1950	No	concrete	
Havelock (1x2)	1929	1945	No	brick	
	1946	1950	No	concrete	
Gare centrale (4x4++)	1942	--	Yes	concrete	
Gare centrale (extension)	1942	--	No	concrete	
Chambord jonction (1x2)	1949	--	No	concrete	
Long Sault (1x1)	1956	1975	No	concrete	[succeeded by Grimsby]
Amos (1x2)	1958	--	No	concrete	
Campbellton (1x3)	1964	--	No	concrete	
Dorval (1x2)	1964	1998	No	concrete	
	1999	--	No	concrete	[roof upgrade]
Saskatoon (1x3)	1969	--	No	concrete	

Miscellaneous Canadian Features

Goods Depot (1x2)	1921	1945	No	brick	
	1946	--	No	concrete	
Parking Lot	1921	1945	No	road	[automatic upgrade to modern cars and road markings takes place at random between 15 Feb 1946 and 22 Dec 1947; parking lots built after 31 Dec 1945 will get modern cars and road markings immediately; Tiles are randomised when built and then every 7.5 game months]
	1946	--	No	road	

Extra Canadian Features

Half Platforms	1921	1945	Yes	brick	Only one side of track with platform; alternating between odd/even tracks.
	1946	--	Yes	concrete	
Buffers [basic]	1921	--	No	brick	Basic buffers fenced with rail track fences according to Fences Option.
. without fences	1921	--	No	brick	Same as above but with out fences; this option is not available, if Fence Option = no fences chosen.
Access Ramps	1942	--	No	brick	