

Decommissioning Process

Boreholes, Monitoring Wells & Hot Air Injection Systems

Before Decommissioning

1. Complete application for decommissioning
2. Apply for HUP <https://www.dnv.org/sites/default/files/edocs/temp-street-use-application.pdf>
3. Submit monitoring reports.

Vertical Wells on Roadways

1. Saw-cut the area to a clean, rectangular shape with each side having a minimum of 150mm clearance. Area removed must be large enough to accommodate compactive equipment capable of achieving MMCD compaction requirements (95% Modified Proctor for base gravels and 97% Marshall Density for asphalt).
2. Testing for base gravel and asphalt density to be completed by the contractor with copies of results forwarded to the District eng@dnv.org
3. Excavate materials to a minimum depth of 2 feet
4. Remove standpipe
5. Fill standpipe/hole with non-shrinkable grout
6. Backfill with road base and sub-base material per road design requirements (per DNV Development Servicing Bylaw No. 8145, Schedule A.1, Section 5 - Roads, Table 5d attached)
7. Restore/Replace
 - a) asphalt to match the thickness of the existing asphalt
 - b) restore to match existing surface treatment
 - c) Asphalt mix design must be approved by the District prior to paving
 - d) District reserves the right to determine whether or not a 65mm grind and overlay is required over the entire lane width
 - e) Based on in-field conditions, the District will determine the scope of the area to be ground and overlaid and the type of hot mix asphalt to be used
 - f) All affected traffic lines and road markings to be replaced at the permits holder's expense

Vertical Wells on Boulevard

1. Excavate materials to a minimum depth of 600mm.
2. Remove standpipe.
3. Fill standpipe with non-shrinkable grout
4. Restoration to match the existing surface treatment

Horizontal Piping

1. All horizontal and vertical piping must be removed at project completion or at the end of its service life.
2. Repair requirements are the same as those for vertical wells (see above).
3. After all trenches have been restored, the entire area must be ground and overlaid with 65mm of asphalt.
4. Based on in-field conditions the District will determine the scope of the area to be overlaid and the type of hot mix asphalt to be used.

In all Cases

- Allow the District to request the wells be removed with two weeks notice and if this has not been completed, allow the District to complete the removal and restoration at the permit holder's expense
- Contact the Construction Department at 604-990-3654 48 hours prior to construction so a DNV Construction Inspector can be made available to provide final acceptance.

District of North Vancouver
Development Servicing Bylaw No. 8145, Schedule A.1, Section '5' – Roads

Table 5d – Minimum Pavement Structure for Asphaltic Concrete (AC) Pavement

Road Classification	Granular Section		Asphalt Concrete Pavement Section		Max. Seasonally Adjusted Design Deflections (mm)	
	Min. Thickness (mm)		Min. Thickness (mm)			
	Subbase	Base	Base	Surface	Granular Section	Asphalt Pavement Section
Arterial	300	150	85	65	1.10	0.75
Collector-Residential	300	150	80	50	1.40	1.00
Collector-Commercial/Industrial	300	150	80	50	1.40	1.00
Local-Residential (and Rural)	200	150	60	40	1.90	1.30
Local-Commercial/Industrial	300	150	60	40	1.40	1.00
Lane- Residential	200	150	60	40	1.90	1.30
Lane-Commercial/Industrial	300	150	60	40	1.40	1.00

Supplementary Notes to Table 5d:

1. The road structure must match the existing abutting structure, or the designs noted in the table above, whichever is greater.
2. Where rebound readings are greater than the design reading for the granular base course, the subgrade must be further investigated for potential weakened areas.
3. The standard pavement material is hot mix, machine laid asphalt concrete.
4. When asphalt base and surface courses are required, the surface course placement must be withheld until building construction and property improvements are completed and all underground utilities have been successfully tested and the results have been certified and approved by the Consulting Engineer and accepted by the Authorized Person.
5. Asphalt pavement driveways must be 65mm minimum asphalt pavement thickness on a minimum 150mm thick 19mm minus crushed granular base material.
6. Concrete pavement driveways must be 120mm minimum for residential and 200mm for commercial and industrial driveways on a minimum of 100mm of 19mm minus crushed granular base.
7. Milled asphalt surfaces require inspection by the Consulting Engineer and the District prior to any overlay. All base failures must be repaired to the satisfaction of the Consulting Engineer, and reported as such by the Consulting Engineer, and subsequently approved by the Authorized Person prior to any overlay.