

Preserved tunnel system



Self-guided tour map



1 Tunnel entry

More than 10 kilometres of tunnels were dug to support the Canadian Corps' assault at Vimy Ridge. This included 13 large subways to move troops and supplies, protect communications and help transport the wounded. Each subway was different. Some had rooms used for brigade headquarters or living accommodations. Others had cookhouses, storage rooms, water reservoirs and medical posts.

2 Grange Subway

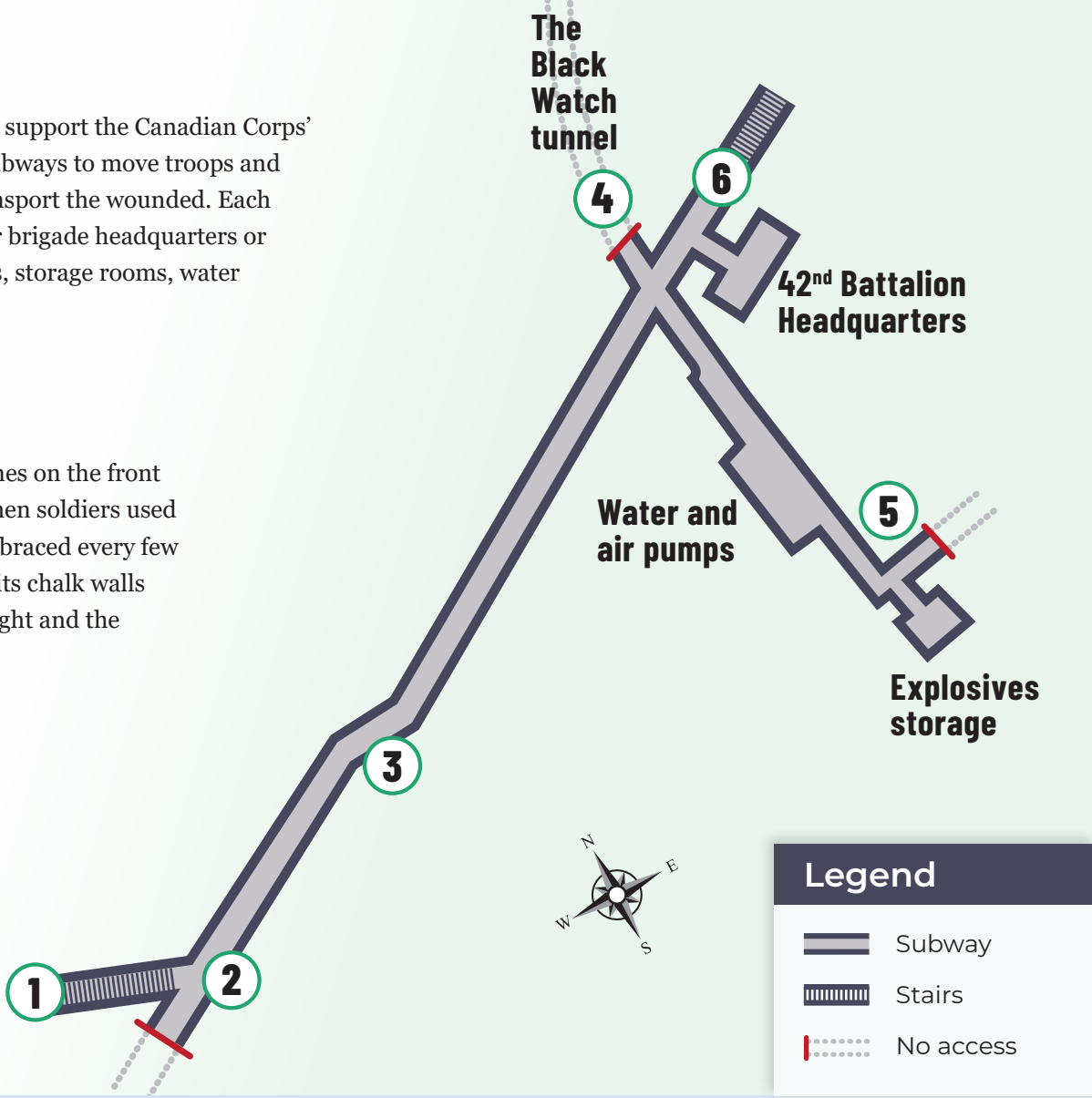
The Grange Subway connected Canadian trenches on the front line with support areas 1.4 kilometres away. When soldiers used this tunnel in 1917, it had a slightly arched roof braced every few metres with wooden beams. Though now grey, its chalk walls were bright white, which helped reflect candlelight and the dim 220 volt electric lighting. Originally, the tunnel was just 1.5 metres wide by 2 metres high. Its roof is approximately 8 metres underground.

3 Graffiti

Canadian soldiers sometimes passed the time carving their names and drawing on the soft chalk walls. Examples of tunnel graffiti have been found in several subways at Vimy. Because the Grange Subway was open to the public soon after the First World War, carvings found here may have been made after the war.

4 Black Watch Tunnel

Many of the men and officers in British tunnelling companies were experienced miners and mining engineers. At Vimy, they mostly used hand tools to do their work. With several teams working at a time, they could dig about six metres³ of subway a day. The chalk they excavated was moved to the exits in trolleys set on metal rails. For each metre of tunnel about 200 sandbags of chalk were removed.



The Grange Subway

5 Deep fighting tunnels

Tunnellers dug fighting tunnels forward from their main tunnel system. They used them to plant explosives under important military positions or to attack rival miners. Some fighting tunnels were as deep as 40 metres below the surface. Both sides had expert listeners and advanced equipment to search for sounds of tunnelling activity. To cut down on noise, miners sometimes wrapped their feet in sandbags. Explosions from these deep tunnels created the large craters seen on the battlefield today.

6 Tunnel exits

Troops and ammunition began moving to the front through the subways up to 36 hours before the assault on Vimy Ridge. Several had exits in No Man's Land, allowing units to move into position close to the German wire. In the Grange Subway, some 950 men from three Canadian battalions waited as quietly as possible for the initial order to advance. Before dawn on 9 April 1917, they exited to take their position for the start of the assault.

THE WAR UNDERGROUND

From 1915 to 1917, dozens of tunnels were dug at Vimy Ridge by French, British, Canadian and German forces. Both sides began by digging deep mines to blow up important military positions or destroy enemy tunnels. This focus continued until August 1916 when British tunnellers constructed underground defences to block mining attacks.

In October 1916, tunnelling companies of the British Royal Engineers began digging 13 communication tunnels along the northern half of Vimy Ridge. These tunnels were called subways and ranged in length from 265 metres to 1.7 kilometres. They connected rear support areas to the front lines. The subways would play an important role in the successful capture of Vimy Ridge.



Allied tunnellers at work on the Western Front during the First World War. Tunnels at Vimy Ridge were dug by men from many countries, including France, the United Kingdom, Canada and Germany.

Cover: Images from Library and Archives Canada. Coloured by The Vimy Foundation.

Life for soldiers living in front line trenches was tough. With very little protection from the weather, the men were often cold, wet and muddy. Rats, lice and fleas irritated them and spread diseases. In these conditions, keeping clean and finding a comfortable place to sleep was hard.

Trench life was also difficult mentally. Long periods of boredom were mixed with moments of intense action and fear. Soldiers on both sides had to be constantly alert for enemy raids, snipers, shelling and mine blasts. To stay healthy and sharp, infantry soldiers were regularly rotated. On average they spent only about 20% of their time in trenches on the front line.



Canadian troops in a support trench on the Somme. September 1916. Library and Archives Canada

A Canadian outpost line

This trench was the ideal place to monitor German activity because it was the furthest forward Allied position on this part of the battlefield. Small groups of soldiers were posted here night and day. Their job was to provide early warning of raids or attacks. Allied raiding patrols were also launched from this location to capture German prisoners and information.

B Trench features

Forward trenches were dug with many sharp turns called traverses. These curves helped limit the range of gunfire during raids. They also minimized damage from shell and grenade blasts. Trench walls were often braced with wooden posts, corrugated iron and sandbags. Raised wooden slats known as duckboards also helped soldiers keep their feet dry.

C Over the top

At 5:25 a.m. on 9 April 1917, whistles heard over the intense artillery fire signalled the start of the Canadian Corps' assault on Vimy Ridge. Within minutes, thousands of soldiers began their advance across No Man's Land. Near the Grange Subway, bagpipers with the Princess Patricia's Canadian Light Infantry played as the first wave of the attack climbed out of the trenches.

D No Man's Land

In trench warfare, soldiers faced each other across a dangerous strip of land known as No Man's Land. In this section of the Vimy battlefield, the Canadian and German observation trenches are just 25 metres apart at the narrowest point. Mud, barbed wire and deep craters marked this landscape as far as the eye could see.

E Crater line

Canadian and German observation trenches were placed here because of the view provided by the rims of nearby craters. French, British and German tunnellers made the craters in 1916 by detonating mines deep underground. Their mission was to destroy important targets, but the force of the explosions also changed the landscape above. Both sides used the high crater edges to watch and listen.

F German outpost line

In April 1917, the Canadians faced three German defensive lines. Front line defenses included barbed wire, machine gun posts and deep dugouts to protect soldiers from artillery fire. A network of communication trenches and tunnels hid movement and supported German soldiers in the line.

G We Will Remember Them

From 9 to 12 April 1917, the Canadian Corps fought bravely to capture Vimy Ridge. Their success came at a high price. In total, more than 10,600 members of the Canadian Corps became casualties, including almost 3,600 who died. Today, the Canadian National Vimy Memorial honours them and all Canadians who served during the First World War.

