



## FeH2OLoc System

### Project Summary

**Project Name** Sample 2 - two acres  
**Project Address**  
**City**

#### Parcel Excavated Area

N/S Length (avg) 600 ft 182.9 m  
E/W Width (avg) 300 ft 91.5 m

#### Original depth of final excavation (if raft slab used)

Depth (avg) 44 ft 13.4 m

#### Original Supported Earth Area

79,200 sq.ft 7,362 sq.m

#### Other Key Project Variables

Is raft slab being replaced by SOG?: Yes

Original Shoring Pile Diameter: 1 m

Shoring Pile Spacing: 0.61 m

Original Shoring Pile QTY:

Original Thickness of Raft Slab (if appl): 1.2 m

Thickness of shotcrete wall: 0.25 m

Excavation production: 400 m<sup>3</sup>/day

Original Waterproofing production: 100 sq.m/day



## FeH2OLoc System

### System Compare Summary

Key Savings Summary		
Cost	\$9,599,185	-32%
Schedule (work days)	384	-37%
Concrete (m3)	27,168.0	-77%
Steel (kg)	769,508.1	-49%
Fuel (L)	124,388.3	-76%
CO2 (tons)	70,599.3	-74%

Description	Original (Before FeH2OLoc)	With FeH2OLoc	Delta	%
Steel (Bar and Beams) - Supply	\$ 2,610,621	\$ 1,803,303	\$ (807,318)	-31%
Excavation	\$ 15,205,267	\$ 13,618,108	\$ (1,587,159)	-10%
Waterproofing - Supply and	\$ 1,563,000	\$ 71,210	\$ (1,491,790)	-95%
Concrete - Supply	\$ 7,541,870	\$ 1,849,538	\$ (5,692,332)	-75%
Drilling	\$ 739,924	\$ 309,792	\$ (430,132)	-58%
Shotcrete - Install	\$ -	\$ 1,110,310	\$ 1,110,310	100%
Anchors - Supply and Install	\$ 1,772,700	\$ 1,262,250	\$ (510,450)	-29%
Fuel - Drilling Rigs	\$ 251,609	\$ 61,295	\$ (190,314)	-76%
<b>Totals:</b>	<b>\$ 29,684,991</b>	<b>\$ 20,085,806</b>	<b>-\$9,599,185.02</b>	<b>-32%</b>

<b>Schedule (work days)</b>	<b>1026</b>	<b>643</b>	<b>-384</b>	<b>-37%</b>
Concrete Volume (m3)	35,215	8,047	- 27,168	-77%
Steel Weight (kg)	1,582,595	813,086	- 769,508	-49%
Fuel (L)	164,450	40,062	- 124,388	-76%

### CO2 Produced (kg)

Concrete	84,248,902	19,170,561	- 65,078,341	-77%
Steel (Bar and Beams)	11,078,162	5,691,605	- 5,386,557	-49%
Fuel Drilling	7,155	2,556	- 4,600	-64%
Fuel Disposal	410,617	366,627	- 43,990	-11%
Grout	183,593	97,788	- 85,805	-47%
<b>Totals:</b>	<b>95,928,428</b>	<b>25,329,136</b>	<b>-70,599,292</b>	<b>-74%</b>

Seda Score =  $\frac{\text{CO2 Original Design}}{\text{CO2 FeH2OLoc}}$

Seda Score	3.79
Tons CO2 Saved	70,599