

How to add a microduct inside a duct

HarborLink Network map · for editors and admins · screens from the demo dataset (desktop 1440×900)

A **microduct** is a small tube that one cable is blown into. It usually sits inside a bigger pipe: a **duct**, a **microduct casing** (a bundle of microducts) or an **innerduct**. In the map you record this by adding the microduct to the segment and choosing what it is **Inside**.

WHO CAN DO IT

Editors and admins, with **Edit** turned on. Viewers do not see the Edit button.

WHERE IT IS

Select the segment. In its panel, scroll to **Ducts** and press **Add duct or microduct**. Every kind of duct starts from this button.

What can sit inside what

The outer one	Can hold
Duct	Innerducts, microduct casings, microducts
Microduct casing	Microducts
Innerduct	Microducts
Microduct	Nothing (a cable goes in it)

Anything can also sit straight in the segment. **Inside** offers only the ducts that can hold the type you chose; one that already carries a cable is greyed out.

- 1 **Open the segment and turn on editing**
 - 1 Type the segment's code or name in **Find a segment, site or manhole** (for example *HLS-0004*).
 - 2 Click it in the list (or click the segment on the map). Its panel opens on the right.
 - 3 Press **Edit**, under **My location** and **Select area**. It turns blue and reads **Editing**.
 - 4 In the panel, scroll down to **Ducts**. It sits below the segment's details, routes and customers.

HarborLink Network

Live · updated Oct 6, 2026 · 84 segments · 4 sites · 114 manholes · 2 routes · 14 cables · 3 circuits

1

HLS-0004

Active HL Plus network only

On Direct Route only

Distance to network...

Trace...

Changed between...

SEGMENTS	PLANT MILES	BUILT MILES	% COMPLETE
84	979.3	107.4	11.1%

Click to select. Shift or ⌘/Ctrl-click adds to the selection. Click a group name to select the whole group.

ROUTE SEGMENTS (PLANT)

2

Built or in progress

21 · 107.4 mi

TierPoint Lateral East

695 ft

+

−

My location

Select area

3

Editing

Draw segment

Add structure

Add at my location

New cable

DEMO Sample data: not HarborLink's records [Leave the demo](#)

TIERPOINT LATERAL EAST

Zoom to

Copy

Clear

Length

695 ft (695 ft)

Ducts

4 · 0 used, 4 open

Active HL Plus

Yes

On Direct Route

No

Phase / group

HL2 / HL2

KMZ colour

Blue – Work completed or in progress

Source KMZs

Active HL Plus Partner Network 9-18-26 · Harbor Link Network KMZ (Sales)(9-18-26)

4

DUCTS · 4 DUCTS · 4 OPEN

1

Duct 1 1/2" · HDPE

Edit

2

Duct 1 1/2" · HDPE

Edit

3

Duct 1 1/2" · HDPE

Edit

4

Duct 1 1/2" · HDPE

Edit

Add duct or microduct

Add a duct bank...

CABLES ON THIS SEGMENT

No cables recorded on this segment.

New cable from here

CONSTRUCTION PROGRESS

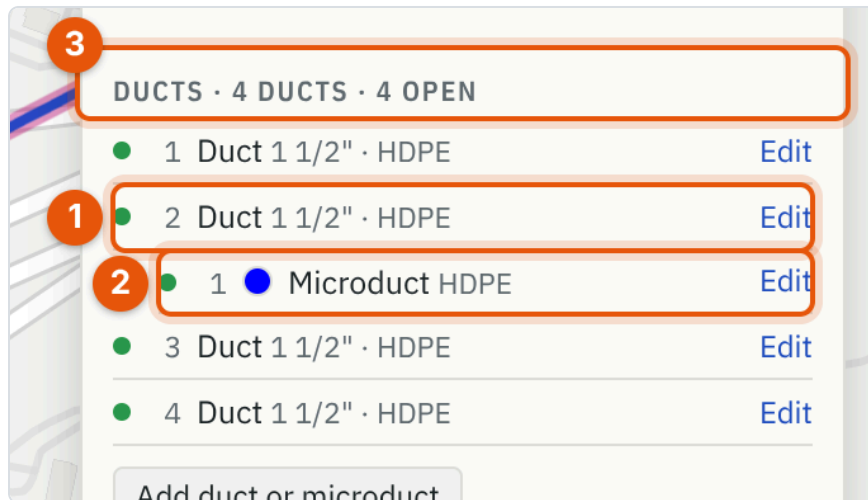
100%

2 Add a microduct inside a duct

- 1 Under **Ducts**, press **Add duct or microduct**. A form opens headed **New duct, innerduct or microduct on HLS-....**
- 2 **Type**: choose **Microduct**. (It starts on *Duct*.)
- 3 **Inside**: choose the duct it goes in, e.g. **Duct 2 · HLD-00042**. The list shows only the ducts on this segment that can hold a microduct, by type, position and code. Here four can, so the form asks you to *Choose the duct it goes in*; when only one can, it is already chosen. If you leave it on *The segment*, the microduct is saved loose in the segment, not in a duct: right only for one that really lies in the segment, such as a direct-buried microduct.
- 4 Fill in what you know. **Colour** takes a TIA-598 code (*BL*, *OR*, *GR*...) and shows as a swatch. Leave **Position** blank for the next number inside that duct.
- 5 Press **Add**. The panel refreshes with the new microduct listed under its duct.

Several microducts? Repeat the steps; each takes the next position in the same duct. For many at once, use the spreadsheet (section 5).

How it shows in the panel



- 1 The outer duct (here Duct 2) stays in its place in the list.
- 2 The microduct is indented under it, with its position, colour swatch and an **Edit** link. Its code (*HLD-...*) shows when you edit it.
- 3 The **Ducts** heading counts what a cable can go in. A duct that holds others is not counted, so here it still reads 4: Ducts 1, 3 and 4 and the new microduct.

This screenshot shows the 'NEW DUCT, INNERDUCT OR MICRODUCT ON HLS-0004' form. The form has several fields: 'Type' (set to 'Microduct'), 'Inside' (set to 'Duct 2 · HLD-00042'), 'Position' (set to 'Next'), 'Label' (empty), 'Colour' (set to 'BL'), 'Diameter' (set to 'Not known'), 'Material' (set to 'HDPE'), 'Reserved for' (set to 'e.g. City'), 'Lifecycle status' (set to 'Construction Complete'), and 'Notes' (empty). The form is titled 'DUCTS · 4 DUCTS · 4 OPEN'. At the bottom, there are 'Add' and 'Cancel' buttons. The form is highlighted with an orange box and labeled '1'.

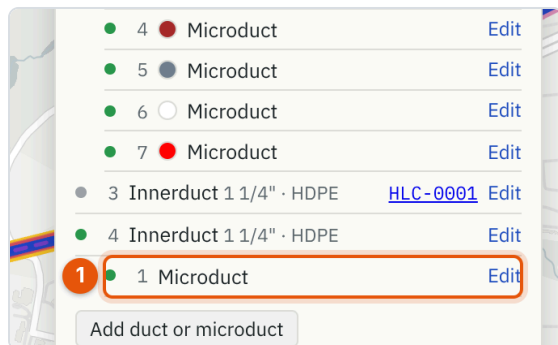
The form, with **Type Microduct** and **Inside Duct 2**.

3 Inside a microduct casing or an innerduct

The steps are the same. Under **Inside**, choose the casing or innerduct instead. On the I-95 segments of the demo (e.g. *HLS-0001*), the list offers *Microduct Casing 1 · HLD-00001*, *Microduct Casing 2 · HLD-00009* and *Innerduct 4 · HLD-00018*, and shows *Innerduct 3 · HLD-00017* (carries *HLC-0001*) greyed out.

- 1 **Type: Microduct.**
- 2 **Inside:** the casing or innerduct, e.g. **Innerduct 4 · HLD-00018.**
- 3 **Add.** It is listed under that innerduct.

Greyed out, "(carries HLC-0001)"? A cable already rides in that duct (here Innerduct 3), so nothing can be added inside it. Choose another duct, or move the cable first.



The new microduct under Innerduct 4. Innerduct 3 shows the cable it carries.

Adding a microduct inside Innerduct 4 (HLS-0001).

4 Change or retire a microduct

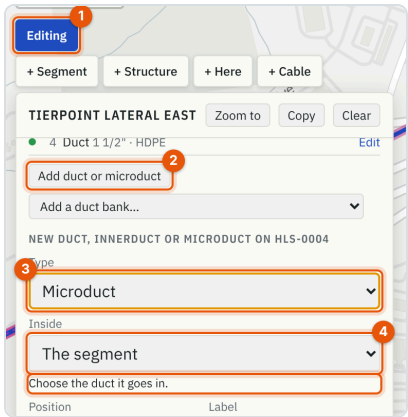
- 1 In edit mode, press **Edit** on the microduct's line. The form opens under it, headed **Edit HLD-....**
- 2 To move it into another duct, or out to the segment, change **Inside**.
- 3 Change anything else, e.g. **Colour**.
- 4 Press **Save**.
- 5 Or press **Retire**. The browser asks "Retire HLD-...? It leaves the segment but stays in the record." and offers an optional reason. Press **OK**. It disappears from the list and stays in the record.

A duct that still holds microducts, or carries a cable, cannot be retired: retire what is inside it, or move the cable, first.

Editing a microduct: **Inside, Colour, Save, Retire.**

On a phone

The steps are the same. Press **Edit** (1) at the top left (the tools show as **+ Segment**, **+ Structure**, **+ Here**, **+ Cable**). Tap the segment; its panel opens over the map. Scroll the panel to **Ducts** and press **Add duct or microduct** (2). Choose **Type** (3) and **Inside** (4): until you choose, *Choose the duct it goes in* shows under it. Then scroll down to **Add**. The panel is short on a phone, so the form scrolls inside it; for more than a few ducts, the spreadsheet below is quicker.



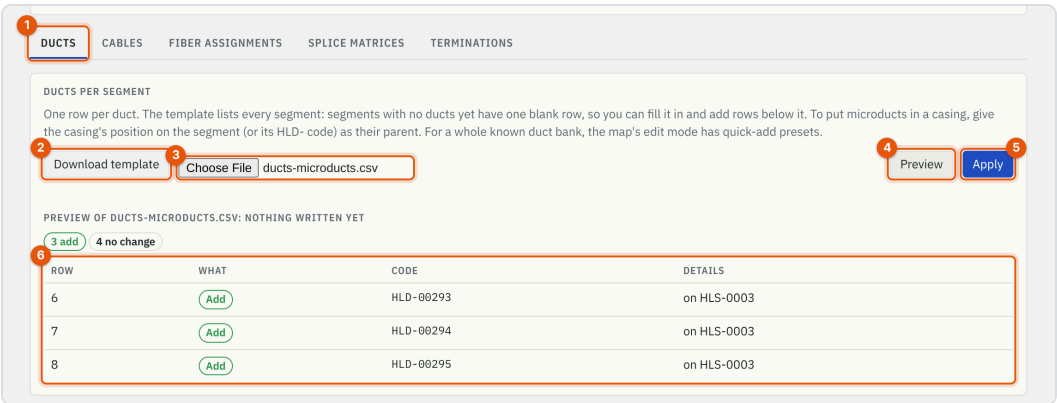
Phone, 390×844 (top of the screen).

5 Many at once: the Ducts spreadsheet

- 1 Open **Fiber data** (bottom of the map's left column) and stay on the **Ducts** tab.
- 2 Press **Download template**. It lists every duct already recorded, one row each.
- 3 Add one row per microduct: **segment_id**, **asset_type** *Microduct*, and in **parent** the duct it goes in. That is either the duct's position on the segment (e.g. 2) or its code (e.g. *HLD-00039*). Leave **duct_id** blank for a new one. Save as CSV and choose the file.
- 4 Press **Preview**. It checks every row and writes nothing.
- 5 If there are no errors, press **Apply**.
- 6 The table lists every row that changes something; for a new microduct it shows its new code.

segment_id	duct_id	parent	asset_type	position	color	notes
HLS-0003		2	Microduct		BL	
HLS-0003		2	Microduct		OR	
HLS-0003		HLD-00039	Microduct		GR	Pulled in May

The rows added in the demo; the template's other columns were left blank. **position** blank takes the next number inside the parent. A position in **parent** means a duct lying straight in the segment; for a microduct in a casing that sits inside a duct, give the casing's HLD- code.



The preview of the three rows above: 3 to add, nothing written yet.

To change or retire microducts in bulk, edit their rows in the template (their **duct_id** is filled in), or put yes in **retire**. More in the map's Help guide: section 6, "Ducts, cables and fibers", and section 9, "Collecting data by CSV". Every step here was carried out on the demo dataset (/demo); demo codes may differ from your network's.