

# SAFETRACK<sup>®</sup> MTI

Fast, Efficient Microtrenching Reinstatement



PROUDLY PART  
OF SAINT-GOBAIN



# There are three main types of fiber optic installations



## 1. Aerial cable

(stringing along power lines of telephone poles)



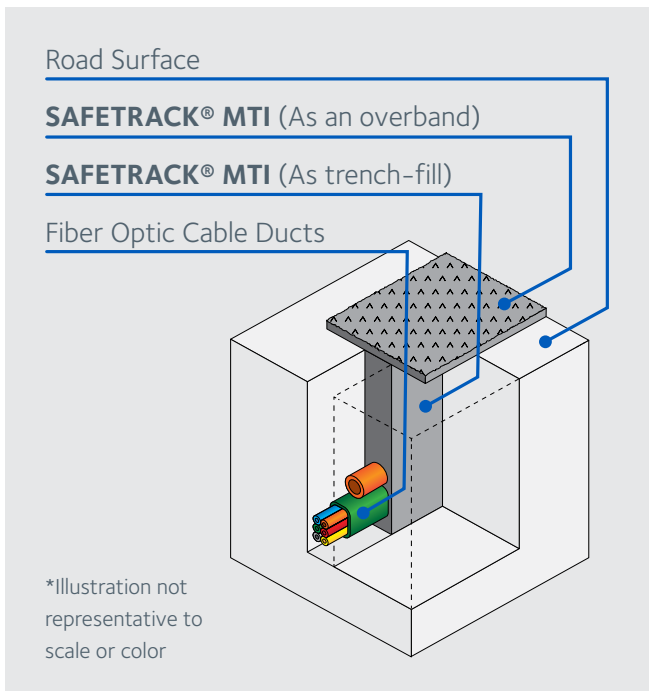
## 2. Direct bore

(digging a large trench directly into the earth)



## 3. Microtrenching

## What is microtrenching?



**“Microtrenching” is a technique for deploying cables at a lower cost that is less invasive than usual methods.**

The microtrench is cut by a small rockwheel, which can navigate busy city streets and tight corners. The cutting wheel saws a microtrench with smaller dimensions than can be achieved with conventional trench digging equipment. Microtrench dimensions range from approximately ½-2 inches in width and at maximum depths of two feet. Microtrenches can thus be cut much quicker and at a lower cost than larger, bored trenches, and are less likely to disturb existing utilities under the road.

Once the trench is cut workers lay the protective duct work, which houses the fiber optic cables. Finally, the microtrenched road is reinstated with an infill to further protect the installed cable and “heal” where the road was cut.

Contractors can cut installation time for 50 homes from a month to a day with microtrenching when compared to conventional installation methods.

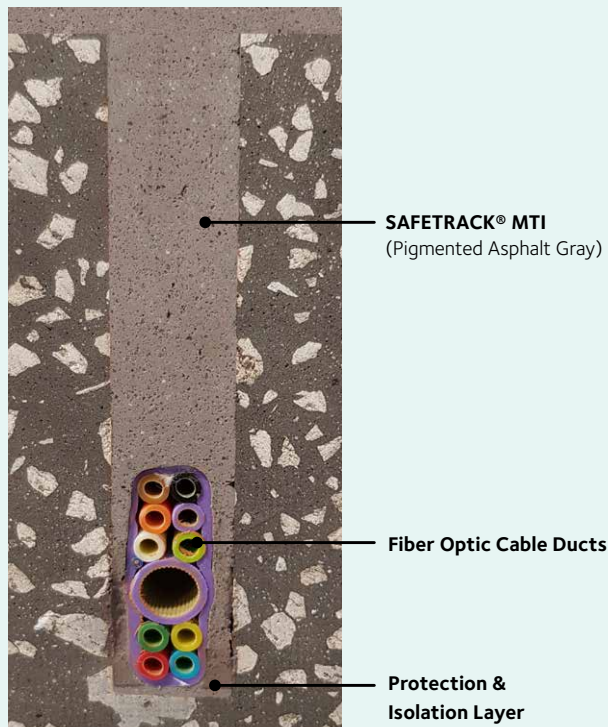


# Infill material comparisons

It is crucial to select the product that will provide maximum performance. Other trench infill technologies exist - each with their own limitations which could be risky for applicators, municipalities and drivers alike. Taking the time to clearly understand differences in the product options will help you see why SAFETRACK® is the best solution.

- **Asphalt** could experience compaction issues when placing asphalt in a narrow slot like a micro-trench. This results in air pockets that allow for water intrusion and ultimately failure.
- **Polyurea/polyurethane** can be too viscous for gradient application and is very sensitive to water. The sensitivity to water can often lead to bread-loafing, where the infill can pop out of the trench.
- **Hot bitumen** lacks strength or skid resistance. It can also cause potential damage to the duct/fiber. Moisture sensitivity can also be an issue when installing and could ultimately lead to failure.
- **Cement grout** is not flexible. It lacks a sufficient bond, and has slow strength gain. Cracking is often seen along each side of the trench with this infill, leading to water ingress.
- **Epoxy mortar** is not flexible. It has a long cure time, with low temperature performance issues, often resulting in cracking and water ingress.

## SAFETRACK® MTI is optimized for microtrenching



- **Rapid cure:** Fast return to service
- **Cold applied:** No hot trades, which can potentially damage the fiber optic cable
- **Free-flowing and self-consolidating:** No compaction required; forms a continuous barrier in the trench to prevent water intrusion
- **Excellent mechanical interlock**
- **Flexible and strong** enough to sustain a bond through traffic load and freeze/thaw- related movements and cycles
- **Multiple colors available:** Supplied in neutral beige and asphalt grey. Can also be custom colored on-site to match the road surface or create an orange dig-safe indicator layer.
- **Compatible:** Can be placed on top of cementitious fill and/or compacted grout

# Smooth installation with the SAFETRACK® Pump

Having the best product for microtrench infill is just part of a successful project. Let our team of experts outfit you with the equipment needed to get the job done right.

- **Enhanced Productivity:** Complete projects faster, putting roads back into service and minimizing traffic disruption
- **Cost-Effective:** Save on material costs and reduce waste, enhancing your project's profitability
- **Precision and Control:** Achieve perfect application every time with advanced control features



## Not just products – superior service

With expert field technical support, we are here to add value to all key stakeholders:.

- **General Contractors** benefit for our help in optimization, installation efficiencies and problem-solving capabilities
- **Applicators** benefit at every level from support and guidance
- **Municipalities and DOTs** benefit from knowing their roads are put quickly back into service with a long-lasting solution



# Testing results

The SAFETRACK® MTI microtrenching infill system's superior bond strength is due to proprietary ESSELAC® technology. This high bond strength ensures the reinstatement product has a strong enough bond to flex and heave with the asphalt and also is viscous enough to apply on a gradient.

## Test Data (as of publishing date)

TEST	ASTM	RESULTS
Compressive Strength	D 695	>3000 psi
Tensile Strength	D 638/D 412	Min. 450 psi
Elongation	D 638/ D 412	>10%
Pull-off Adhesion Strength	D4541	Concrete > 150 psi Asphalt > 150 psi Structural Steel > 290 psi
Initial Skid Resistance Value	E 303	Min. 70
Void Content	n/a	<1%
Installation Temperature	n/a	23F - 120F

# A track record of success

For nearly 15 years, SAFETRACK® MTI has been used to successfully bring roads back into service, quickly and safely. Nearly 2,000 in over 100 cities worldwide trust GCP.

LOCATION	DISTANCE	LOCATION	DISTANCE
Alexandria, VA	65 Miles	Le Zion, Israel	50 Miles
Anchorage, AK	3 Miles	Los Angeles, CA	12 Miles
Aurora, CO	54 Miles	Louisville, KY	1 Mile
Austin, TX	59 Miles	Miami, FL	1 Miles
Baldwin County, AL	15 Miles	Nashua, NH	10 Mile
Beverly Hills, CA	1 Mile	Opelika, AL	10 Miles
Boston, MA	75 Miles	Perry Sound, ON	20 Miles
Cambridge, MA	10 Miles	Pittsfield, MA	2 Miles
Charlotte, NC	9 Miles	Raleigh, NC	17 Miles
Culver City, CA	55 Miles	Roanoke, VA	5 Miles
Dallas, TX	12 Miles	Shetland Islands, UK	40 Miles
Eagan, MN	115 Miles	South Africa	5 Miles
Galway, Ireland	10 Miles	Toronto, ON	6 Miles
Hagerstown, MD	120 Miles	Washington D.C./Baltimore, MD	29 Miles
Johnson City, TN	10 Miles	Western PA	115 Miles
Las Vegas, NV	21 Miles	York, UK	70 Miles

# Keeping our world connected

From bridges to tunnels and everything in between, we protect the infrastructure that connects people. With a comprehensive, wide array of infrastructure protection products, every solution that we offer is durable, cost-effective and versatile to keep the world moving:

- **SAFETRACK® SC:** a fast curing, UV stable coating creating a highly visible, slip resistant demarcation system
- **SAFETRACK® DS:** a rapidly curing, liquid applied waterproofing and surfacing system designed specifically for parking garage application
- **SAFETRACK® HFS:** a liquid applied, rapid cure high friction surfacing system
- **ELIMINATOR®:** high performance waterproofing membrane for the protection of concrete and steel bridge decks
- **BRIDGEMASTER®:** a fast curing, waterproofing and skid resistant wearing course for the protection of bridge decks

**Contact Greg Laugeni at [greg.laugeni@saint-gobain.com](mailto:greg.laugeni@saint-gobain.com)  
or 203.215.0537 for more product information.**

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