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# NARROW FOOTPRINT RETAINING WALL SYSTEM

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PANEL & POST DESIGN

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MINIMAL EXCAVATION/  
BACKFILL AREA

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HOLDS TIGHT TO  
RIGHT-OF-WAYS

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INTEGRATES WITH DURISOL  
PRECAST NOISE BARRIER  
SYSTEM



Durisol's **Narrow Footprint Retaining Wall System (NFRWS)** is a cantilevered system especially situated for installations with a narrow right-of-way and where space does not permit the use of a mechanically stabilized solution behind the wall. The absence of straps and tie-backs allows the panels to be independent of the backfill, minimizing the excavation/backfill area and permitting the system to be constructed tight to right-of-ways and lot lines.

The NFRWS is typically designed for wall heights up to 4m (13 feet), consisting of augered concrete footings, structural steel posts, and reinforced concrete facing panels. The system is designed around Durisol's NB12 and NB15 post spacing.

**STRONG & DURABLE**

- Designed for a minimum **75-year service life** (per CHBDC)
- Can handle **surcharge loads**
- Proven **long-term performance**

**ECONOMICAL**

- **Fast to construct** - Panel installation independent of backfill
- **No tie-backs** - System holds tight to lot lines
- **Simplifies removals** and other site construction considerations

**FUNCTIONAL**

- **Efficient land usage** - Minimizes property loss while protecting vegetation and structures
- **Minimal excavation/backfill area**
- **Ease of installation** - Lightweight post and panel system calls for minimal lifting equipment and crew
- **Engineered in-house** - To suit application

**VERSATILE**

- **Can be integrated** with Durisol precast noise barrier system (NB12 and NB15) and with precast concrete traffic barriers
- **Variety of finishes** - Absorptive or reflective textures and colours (can be coordinated with associated noise walls)
- **Flexibility in its construction process** - Can be constructed prior and subsequent to site servicing

**MTO DSM Listed**

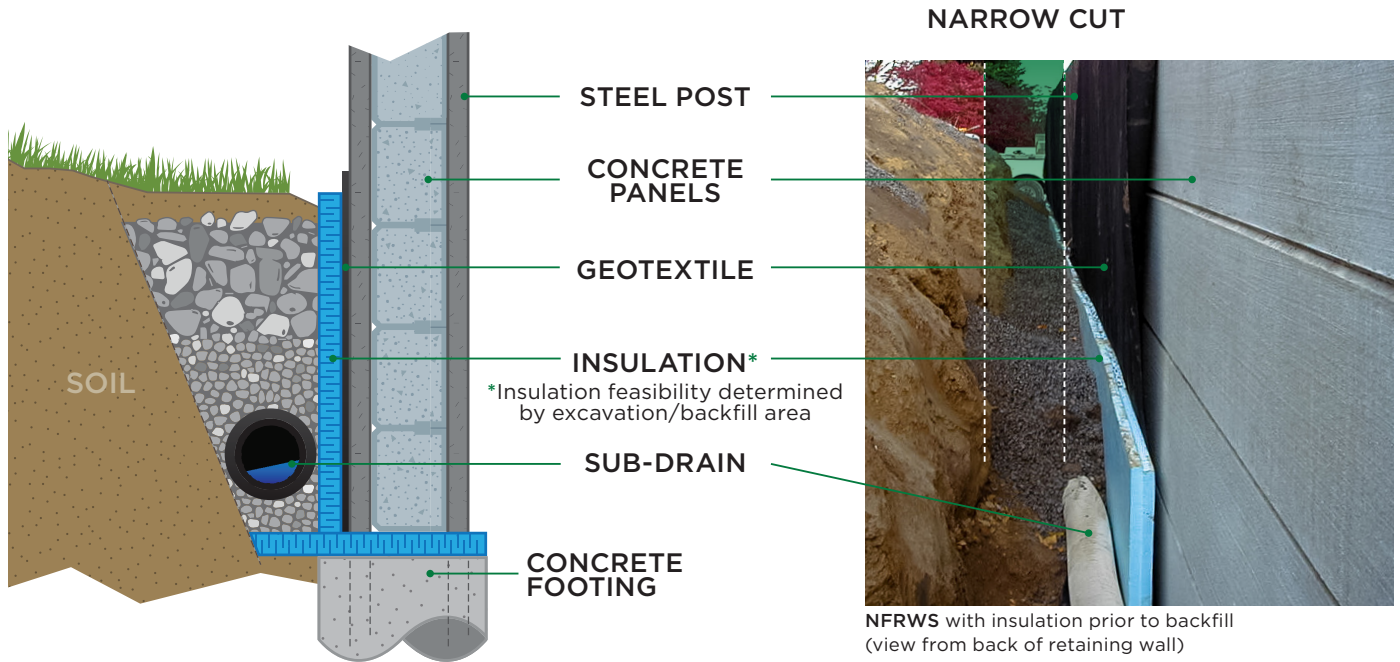
Approved up to 4.0m height, high performance (List #9.70.56)



Narrow Footprint design used for residential application next to existing housing structure.

# ENGINEERING WITH EXPERTISE

Durisol's in-house engineering designs all NFRWS based on their application and individual parameters. Design parameters include, but are not limited to, a full geotechnical report of soils present on site including borehole logs, proposed slopes at the top and bottom of the wall, any additional surcharge loads, and the proposed height of the retaining wall system. These factors help in determining the steel post section required and the depth and diameter of concrete footings needed to handle the retaining loads.



## FINISHES

### ON DURISOL



1004B NATURAL



1082D TAN



1538B GREY



02589 TAN



09187 GREY



11988 BROWN

### ON CONCRETE



NATURAL CONCRETE



PAINTED



We can match **ANY COLOUR!**



An **ANTI-GRAFFITI** coating can be applied onto concrete panels.

**FOR TIMELESS STYLE**, talk to us about having our natural stone pattern on your panels.



We can do **CUSTOM TEXTURES**, let us know what you have in mind!

## ROBUST & INTEGRATED SOLUTIONS

The NFRWS offers the integration of a noise/retaining wall system or integrated traffic barrier/retaining wall system, designed as a lean, vertical stacked system. It is an ideal system for grade separation applications that have a requirement for both noise attenuation and earth retaining. The integrated NFRWS combines two systems into one, minimizing property loss and the need to sequence construction for two separate systems.

The retaining wall post and footing design typically governs in this scenario, as it is designed to retain large earth pressures behind the wall and meet different code requirements. The integration of noise wall is designed to withstand wind loads, minimizing impact on the overall footing and post design.

## FEATURES & BENEFITS

- Engineered in-house to suit application
- Eliminates the need for two separate systems
- Integration of two systems minimizes property loss and simplifies construction process
- Noise barrier panels designed to integrate above reinforced concrete earth retaining panels
- A unique system with optional absorptive finish from top to bottom of wall

### PRIOR TO BACKFILL

View of the integrated noise/retaining wall during construction



### COMPLETION OF BACKFILL & FINAL GRADING

View of the integrated noise/retaining wall after construction

