NDS, Inc. April 2015

851 North Harvard Avenue

Lindsay, California 93247

Toll Free 800-726-1994

Phone 559-562-9888

Toll Free Fax 800-726-1998

Fax 559-562-4488

Website [www.ndspro.com](http://www.ndspro.com)

Email nds@ndspro.com

Product Guide Specification

Specifier Notes: This product guide specification is written in Construction Specifications Institute (CSI) 3-Part Format in accordance with *The CSI Construction Specifications Practice Guide,* including *MasterFormat, SectionFormat,* and *PageFormat.*

This section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate this section with Division 1, other specification sections, and the Drawings. Delete all Specifier Notes after editing this section.

Section numbers and titles are based on *MasterFormat 2014 Update.*

1. 32 94 13

LANDSCAPE EDGING

Specifier Notes: This section covers NDS, Inc. “EP Series” root barrier panels. Consult NDS, Inc. for assistance in editing this section for the specific application.

* 1. GENERAL
		1. SECTION INCLUDES
			1. Root barrier panels.
		2. RELATED REQUIREMENTS

Specifier Notes: Edit the following list of related sections as necessary. Limit the list to sections with specific information that the reader might expect to find in this section, but is specified elsewhere.

* + - 1. Section 32 91 00 – Planting Preparation.
			2. Section 32 93 00 – Plants.
		1. REFERENCE STANDARDS

Specifier Notes: List reference standards used elsewhere in this section, complete with designations and titles.

* + - 1. ASTM D 256 – Standard Test Methods for Determining the Izod Pendulum Impact Resistance of Plastics.
			2. ASTM D 638 – Standard Test Method for Tensile Properties of Plastics.
			3. ASTM D 785 – Standard Test Method for Rockwell Hardness of Plastics and Electrical Insulating Materials.
			4. ASTM D 790 – Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
		1. SUBMITTALS

Specifier Notes: Edit submittal requirements as necessary. Delete submittals not required.

* + - 1. Comply with Division 1.
			2. Product Data: Submit manufacturer’s product data, including installation instructions.
			3. Samples: Submit manufacturer’s 12-inch by 12-inch sample of root barrier panels.
				1. Include joiner strip, top edge, base flange, and reinforcing rib.
			4. Manufacturer’s Certification: Submit manufacturer’s certification that materials comply with specified requirements and are suitable for intended application.
			5. Sustainable Design Submittals: Submit manufacturer’s sustainable design submittals for root barrier panels.
				1. Recycled Content: Certify percentages of post-consumer and pre-consumer recycled content.
				2. Regional Materials: Certify distance between manufacturer and Project, in miles.
			6. Manufacturer’s Project References: Submit manufacturer’s list of successfully completed root barrier panel projects, including project name and location, name of architect, and type and quantity of root barrier panels furnished.
			7. Warranty Documentation: Submit manufacturer’s standard warranty.
		1. QUALITY ASSURANCE
			1. Manufacturer’s Qualifications: Manufacturer regularly engaged, for a minimum of 10 years, in the manufacturing of root barrier panels of similar type to that specified.
		2. DELIVERY, STORAGE, AND HANDLING
			1. Delivery Requirements: Deliver materials to site in manufacturer’s original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
			2. Storage and Handling Requirements:
				1. Store and handle materials in accordance with manufacturer’s instructions.
				2. Keep materials in manufacturer’s original, unopened containers and packaging until installation.
				3. Store materials in clean areas, protected from exposure to harmful weather conditions.
				4. Store materials out of direct sunlight.
				5. Protect materials during storage, handling, and installation to prevent damage.
		3. AMBIENT CONDITIONS
			1. During Cold Weather:
				1. Do not use frozen materials.
				2. Do not use materials mixed or coated with ice or frost.
				3. Do not build on frozen Work.
			2. During Wet Weather: Do not build on wet, saturated, or muddy subgrade.
	1. PRODUCTS
		1. MANUFACTURERS
			1. Manufacturer: NDS, Inc., 851 North Harvard Avenue, Lindsay, California 93247. Toll Free 800-726-1994. Phone 559-562-9888. Toll Free Fax 800-726-1998. Fax 559-562-4488. Website [www.ndspro.com](http://www.ndspro.com). Email nds@ndspro.com.

Specifier Notes: Specify if substitutions will be permitted.

* + - 1. Substitutions: [Not permitted] [Comply with Division 1].
		1. MATERIALS
			1. Root Barrier Panels: “EP Series” modular root barrier panels.
				1. Material: Injection-molded, high-impact polypropylene (HIPP) with UV inhibitors.

Post-Consumer Content: 50 percent.

* + - * 1. Panel Size:

Specifier Notes: Specify depth of root barrier panels.

Depth: [12 inches] [18 inches] [24 inches] [36 inches].

Width: 24 inches.

Wall Thickness: 0.090 inch.

* + - * 1. Joiner Strips: Factory installed, interlocking, independent.
				2. Top Edge: 0.98 inch by 0.57 inch.
				3. Base Flange: External ground anchoring, extends out 0.355 inch, 2.65 inches long.
				4. Reinforcing Ribs:

Raised vertical ribs running perpendicular to panels, 1/2 inch deep.

Spacing: 6 inches on center.

* + - * 1. Color: Black.
			1. Physical Properties:
				1. Tensile Stress, ASTM D 638: 3,600 psi to 4,200 psi.
				2. Yield Elongation, ASTM D 638: 12 percent.
				3. Flexural Modulus, ASTM D 790: 150,000 psi.
				4. Notched Izod Impact, ASTM D 256: 3.0 psi at 73 degrees F.
				5. Rockwell Hardness, ASTM D 785: R70.
	1. EXECUTION
		1. EXAMINATION
			1. Examine areas to receive root barrier panels.
			2. Notify Architect of conditions that would adversely affect installation or subsequent use.
			3. Do not begin installation until unacceptable conditions are corrected.
		2. INSTALLATION
			1. Install root barrier panels in accordance with manufacturer’s instructions at locations indicated on the Drawings.
			2. Install root barrier panels plumb.
			3. Linear/Root Pruning Applications: Place root barrier panels directly adjacent to hardscape being protected.
			4. Surround Applications: Place root barrier panels around root ball, at sufficient distance to allow proper backfill.
			5. Do not allow roots to circle or grow over top of root barrier panels.
		3. PROTECTION
			1. Protect Work of this Section from damage during construction.

END OF SECTION