NDS, Inc. April 2015

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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. 33 49 23

STORM DRAINAGE WATER RETENSION STRUCTURES

Specifier Notes: This section covers NDS, Inc. “Flo-Well” manufactured dry wells. Consult NDS, Inc. for assistance in editing this section for the specific application.

Use of “Flo-Well” manufactured dry wells may contribute to LEED credits. Consult NDS, Inc. for more information.

* 1. GENERAL
		1. SECTION INCLUDES
			1. Manufactured dry wells.
		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 31 23 00 – Excavation and Fill.
			2. Section 33 41 00 – Storm Utility Drainage Piping.
		1. PREINSTALLATION MEETINGS

Specifier Notes: Edit preinstallation meetings as necessary. Delete if not required.

* + - 1. Convene preinstallation meeting [1 week] [2 weeks] before start of Work of this Section.
			2. Require attendance of parties directly affecting Work of this Section, including Contractor, Architect, installer, and manufacturer’s representative.
			3. Review the Following:
				1. Materials.
				2. Installation.
				3. Adjusting.
				4. Protection.
				5. Coordination with other Work.
		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. Shop Drawings: Submit manufacturer's shop drawings, indicating layout, dimensions, materials, components, and accessories.
			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 manufactured dry wells.
				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 manufactured dry well projects, including project name and location, name of architect, and type and quantity of manufactured dry wells furnished.
			7. Installer’s Project References: Submit installer’s list of successfully completed manufactured dry well projects, including project name and location, name of architect, and type and quantity of manufactured dry wells installed.
			8. 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 manufactured dry wells of similar type to that specified.
			2. Installer's Qualifications:
				1. Installer regularly engaged, for a minimum of 5 years, in installation of manufactured dry wells of similar type to that specified.
				2. Employ persons trained for installation of manufactured dry wells.
		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].
			2. Single Source: Provide materials from single manufacturer.
		1. MATERIALS
			1. Manufactured Dry Wells: “Flo-Well” manufactured dry wells.
				1. Description: Round dry well system, includes 3 side panels and 1 top component.
				2. Part Number: FWAS24WH.
				3. Material: Structural-foam polyolefin with UV inhibitors.
				4. Diameter: 24 inches.
				5. Height: 28.75 inches.
				6. Capacity: 50 gallons.
				7. Fits: 4-inch Schedule 40 pipe, 4-inch DWV pipe, and 4-inch sewer and drain pipe.
				8. Knockout Leaching Ports per Panel: Ten 1.5-inch diameter.
				9. Knockout Inlet/Outlet Ports per Panel: Four 4.5-inch diameter.
				10. Color: Black.
			2. Round Dry Well Covers:
				1. Part Number: FWAS24C.
				2. Material: Structural-foam polyolefin with UV inhibitors.
				3. Diameter: 24-1/4 inches.
				4. Height: 4-5/8 inches.
				5. Outer Lip: 3/4 inch.
				6. Center Knockout: 4.5-inch diameter.
				7. Color: Black.
			3. Dry Well Side Panels/Extensions:
				1. Includes: 3 side panels; makes 1 round dry well.
				2. Part Number: FWSPS3.
				3. Material: Structural-foam polyolefin with UV inhibitors.
				4. Height: 24 inches with recessed 0.75-inch lip for stacking.
				5. Knockout Leaching Ports per Panel: Ten 1.5-inch diameter.
				6. Knockout Inlet/Outlet Ports per Panel: Four 4.5-inch diameter.
				7. Color: Black.
			4. Round Dry Well Bottoms:
				1. Part Number: FWBP24.
				2. Material: Structural-foam polyolefin with UV inhibitors.
				3. Diameter: 24 inches.
				4. Leaching Ports: Six 1.5-inch diameter.
				5. Center Knockout for Strut Coupling: 4.5-inch diameter.
				6. Color: Black.
			5. Dry Well Surface Drain Inlets with Grate:
				1. Part Number: FWSD69.
				2. Material: Structural-foam polyolefin with UV inhibitors.
				3. Grate Diameter: 6 inches.
				4. Diameter at Inlet: 6 inches.
				5. Height: 9 inches.
				6. Outside Diameter at Bottom: 4.5 inches, fits Schedule 40 PVC fittings.
				7. ADA compliant.
				8. Color: Black.
			6. Filter Fabric Wrap to Surround Dry Wells:
				1. Part Number: FWFF67.
				2. Material: Porous, non-woven filter fabric.
				3. Length: 7 feet.
				4. Width: 2 feet.
				5. Weight: 1 ounce.
				6. Mullen Burst: 175 psi.
				7. Flow Through: 200 gpm.
				8. Color: Black.
		2. ACCESSORIES

Specifier Notes: Specify required accessories. Delete accessories not required.

* + - 1. 9-Inch-Square Dome Atrium Grates:

Specifier Notes: Specify part number and color required for Project.

* + - * 1. Part Number and Color: [981, Black] [991, Green].
				2. Material: Structural-foam polyolefin with UV inhibitors.
				3. Grate Openings: 3/8 inch.
				4. Open Surface Area: 31.50 square inches.
				5. Inlet Capacity: 136.28 gpm.
			1. 9-Inch-Square Grates:

Specifier Notes: Specify part number and color required for Project.

* + - * 1. Part Number and Color: [980, Black] [990, Green] [999, Gray] [999S, Sand].
				2. Material: Structural-foam polyolefin with UV inhibitors.
				3. Grate Openings: 7/16 inch.
				4. Open Surface Area: 37.49 square inches.
				5. Inlet Capacity: 114.69 gpm.
				6. Load: 61 to 175 psi.
			1. 12-Inch-Square Dome Atrium Grates:

Specifier Notes: Specify part number and color required for Project.

* + - * 1. Part Number and Color: [1280, Green] [1290, Black].
				2. Material: Structural-foam polyolefin with UV inhibitors.
				3. Grate Openings: 3/8 inch.
				4. Open Surface Area: 50.60 square inches.
				5. Inlet Capacity: 154.79 gpm.
			1. 12-Inch-Square Grates:

Specifier Notes: Specify part number and color required for Project.

* + - * 1. Part Number and Color: [1210, Gray] [1211, Black] [1212, Green] [1212S, Sand].
				2. Material: Structural-foam polyolefin with UV inhibitors.
				3. Grate Openings: 3/8 inch.
				4. Open Surface Area: 50.76 square inches.
				5. Inlet Capacity: 155.28 gpm.
				6. Load: 61 to 175 psi.
			1. 9-Inch-Square Low-Profile Adapters:
				1. Part Number: 930.
				2. Bayonet bottom outlet.
				3. Color: Black.
			2. 12-Inch-Square Low-Profile Adapters:
				1. Part Number: 1230.
				2. Bayonet bottom outlet.
				3. Color: Black.
			3. 3-Inch and 4-Inch Universal Locking Outlets:
				1. Part Number: 1243.
				2. Color: Black.
	1. EXECUTION
		1. EXAMINATION
			1. Examine areas to receive manufactured dry wells.
			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 manufactured dry wells in accordance with manufacturer’s instructions at locations indicated on the Drawings.
			2. Excavate hole for manufactured dry wells to dimensions and elevations indicated on the Drawings.
			3. Excavate trench to slope towards manufactured dry wells as indicated on the Drawings.
			4. Install manufactured dry wells level and plumb.
			5. Connect pipes to manufactured dry wells in accordance with manufacturer’s instructions.
			6. Do not allow soil from entering manufactured dry wells or pipes.
			7. Backfill evenly around manufactured dry wells with specified material.
			8. Ensure no large stones or debris are in contact with manufactured dry wells.
		3. ADJUSTING
			1. Remove and replace with new material, damaged components that cannot be successfully repaired.
		4. PROTECTION
			1. Protect Work of this Section to ensure that Work will be without damage or deterioration at time of Substantial Completion.

END OF SECTION