

ANNA MANN HOUSE | PORTLAND, OR

MaxWell Installation

| Owner

Anna Mann Limited
Partnership/Innovative
Housing, Inc.

| Contractor

Silco Commercial

| Engineer

Vega Civil Engineering

| Solution:

**2 - Primary Pretreatment
Settling Chambers**

**6 - 50' deep
MaxWell IV Drywells**



The Anna Mann House is a historic affordable housing development located in the Kerns neighborhood of Portland, Oregon.

In order to meet the City of Portland's stormwater management regulations, (10) 30' deep traditional drywells were originally specified for the project, which would require a large excavation area and a long construction timeline. To minimize the space needed, Oldcastle Infrastructure conducted performance modeling, leveraged the MaxWells smaller footprint and reduced the number of drywells needed from ten traditional drywells to six MaxWells.

The solution needed to address fast installation within a confined project site utilizing a reduced footprint and provide a cost savings over traditional drywells.

CHALLENGE

Site restrictions such as existing buildings, narrow streets surrounding the property and limited access to the site made traditional drywell installation difficult and expensive.

Using traditional stormwater management solutions to meet site parameters 10 Conventional 30' deep drywells were required needing significant space for excavation.

Handle the water quality flow rate from 1.4 acres of impervious surface, or 1,300 gpm.

The City of Portland required onsite stormwater elimination which can be challenging when surface soil doesn't infiltrate.

SOLUTION

A MaxWell drywell can be precision drilled and installed inside of an 8' circular footprint compared to a large excavation area required to install a standard drywell. These deep drywell systems are easy to install by using one drill rig and onsite equipment.

Through a combination of primary settling chambers and 50' deep MaxWell IV drywells the team provided a stormwater management solution that reduced the number of drywells needed by five which minimized installation time and footprint.

MaxWell drywells are a great solution in the Pacific Northwest when the surface soil doesn't infiltrate and groundwater is fairly deep because we drill deeper gaining access to more permeable soils.

BENEFITS

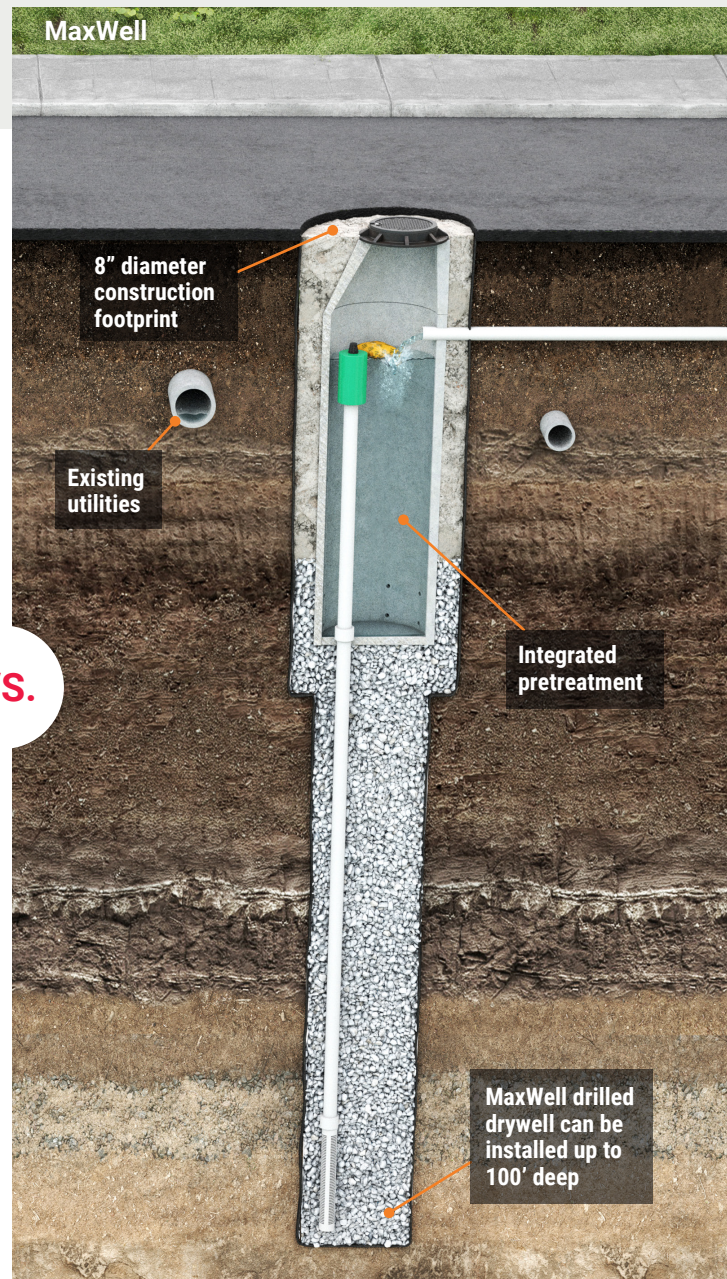
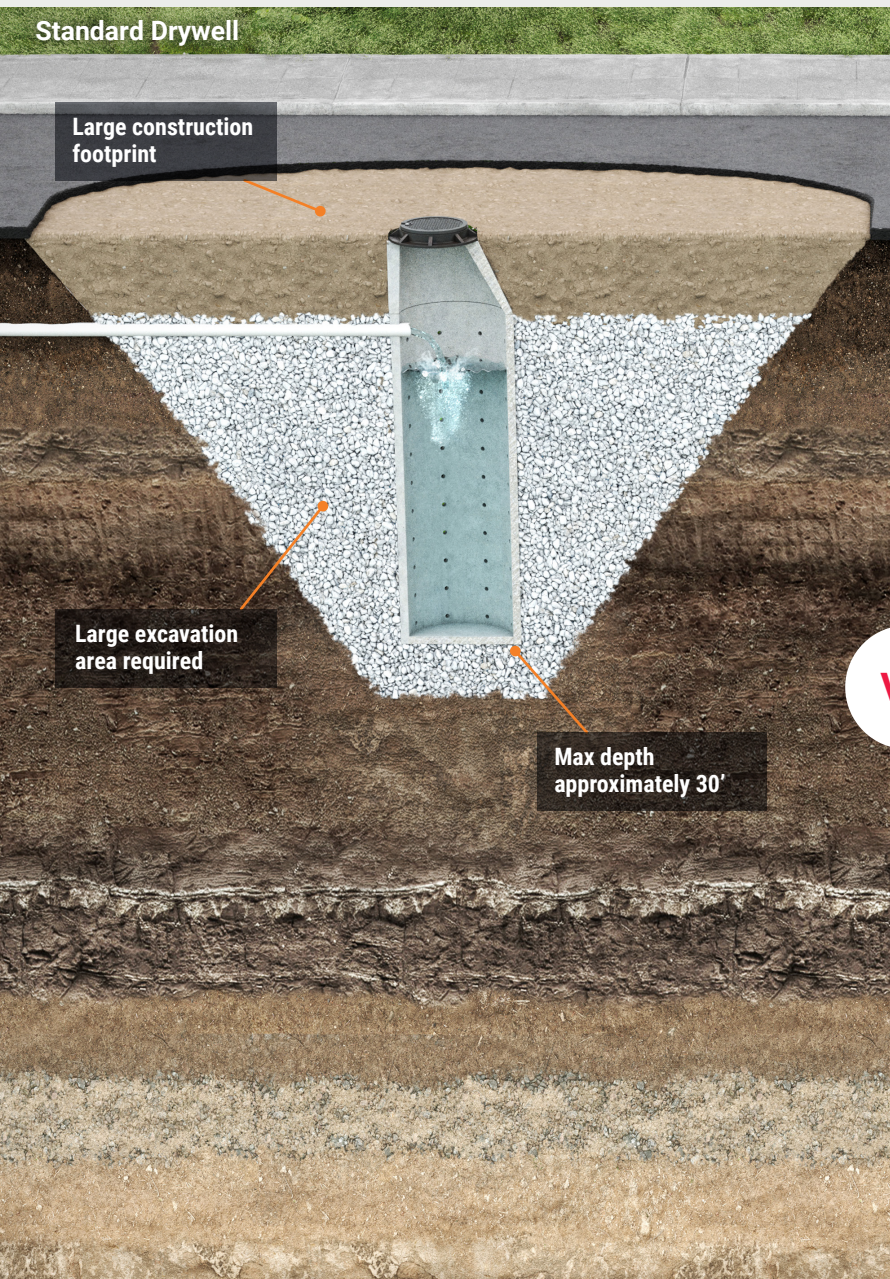
MaxWell drywells are an industry-leading, sustainable deep infiltration solution for onsite stormwater management with more than 50-years experience setting the standard for drywell stormwater management.

MaxWell's ability to drill to deeper soil levels which creates added head pressure creating better system performance within a smaller footprint than traditional drywell methods. Unlike traditional drywells, MaxWell systems are easy to maintain ensuring optimal performance. With a smaller footprint comes faster installation time and reduced costs due to less area impacted by excavation.



“The MaxWells allowed us to reduce the footprint of the stormwater system, and since Oldcastle handles the installation, we can feel confident that the work was done correctly. Oldcastle provided great design assistance and remained engaged from concept to construction.”

Alex Wesolovski | Principal | Vega Civil Engineering



VS.