ACO Monoblock Access Unit

Subassembly Installation and Reference Guide

User Guide for Autodesk AutoCAD Civil 3D files

Contents

ACO Water Management:
Civils + Infrastructure

A division of ACO Technologies plc
ACO Business Park, Hitchin Road, Shefford,
Bedfordshire, SG17 5TE

Tel: 01462 816666
Fax: 01462 815895

e-mail: technical@aco.co.uk
website: www.aco.co.uk

1. Introduction

This document describes the installation, configuration and use of the ACO Monoblock Access Unit subassembly component for AutoCAD Civil 3D 2019.

PD 200 V Access Unit

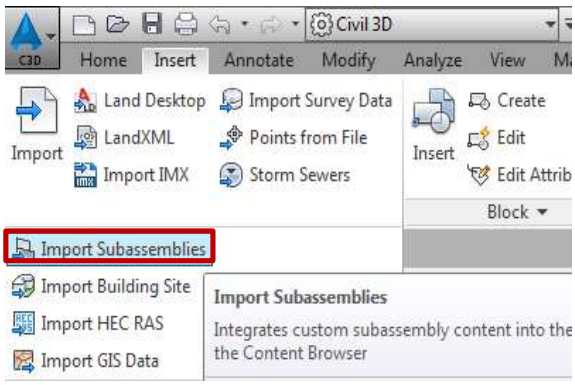
RD 200 V Access Unit

2. Installing the ACO Monoblock Access Unit subassembly

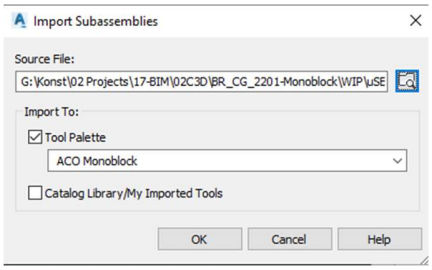
The Monoblock Access Unit sub-assembly is available as a .pkt file which contains the subassembly .dll file and associated configuration files for installing the subassembly in Civil 3D.

To install the subassembly, click on the Import panel title on the Insert ribbon.

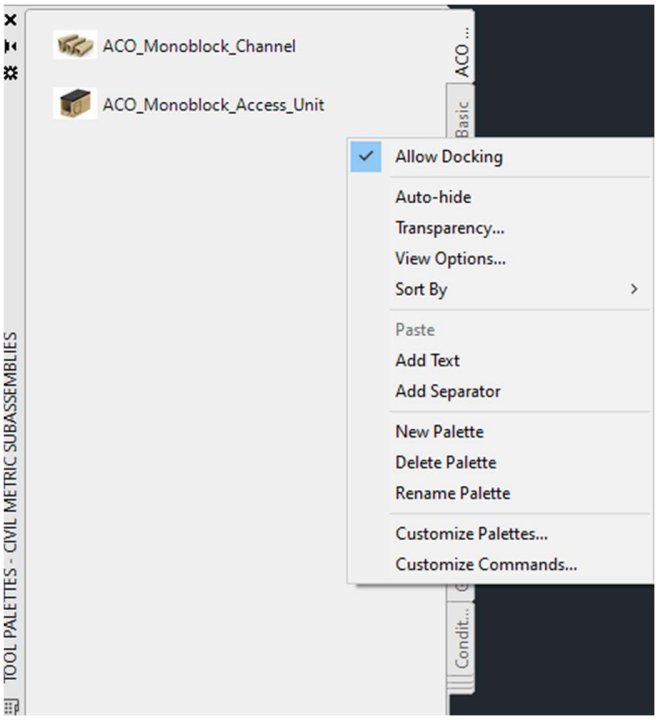
Choose import subassemblies



Browse to the location of the ACO MonoblockAccessUnit.pkt file, and choose a tool palette to import to, or create a new palette. The subassembly can also optionally be added to the user Catalog Library.



The tool palette in civil 3D will now show the ACO Monoblock Access Unit subassembly. Note that by right-clicking in the tool palette, the palette can be customized by creating a separate item for the ACO Monoblock Access Unit, as shown below.



3. Using the ACO Monoblock Access Unit channel subassembly

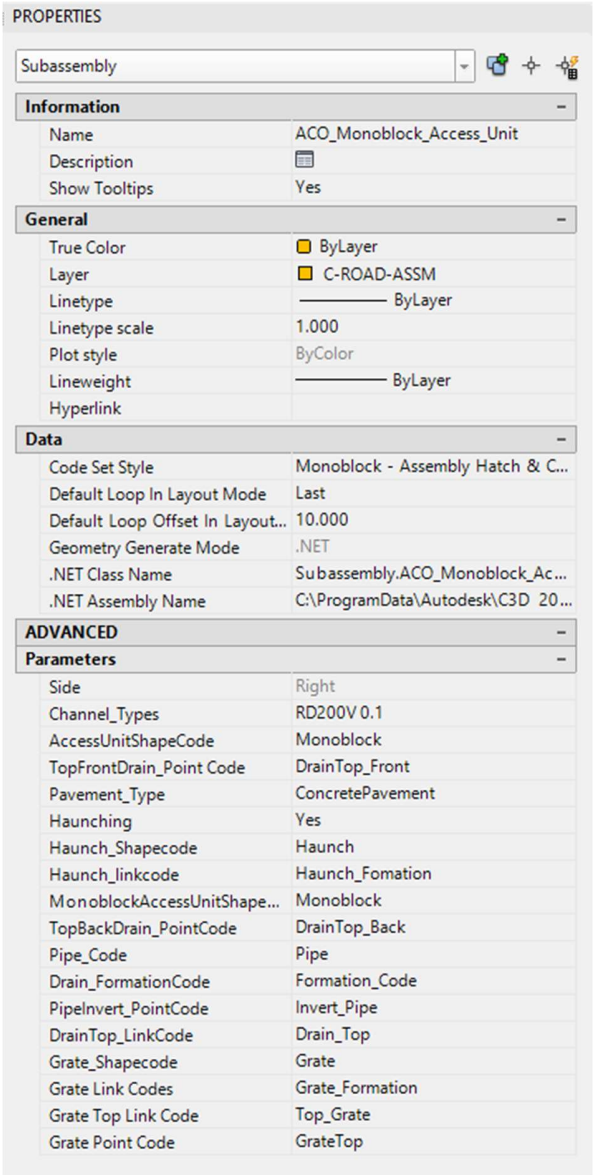
The ACO Monoblock Access Unit subassembly includes definitions for the following Monoblock Access Unit components:

Monoblock Access Unit types:-

PD200V 0.1

RD200V 0.1

RD200V 20.1



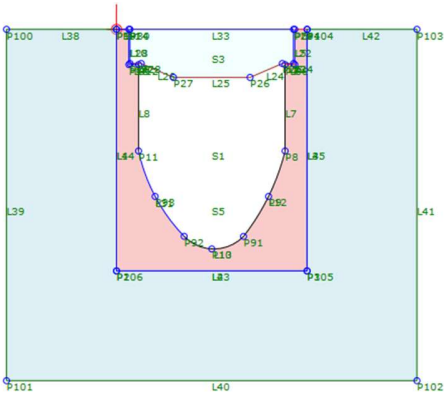
3.1 User Defined Parameters

Parameter	Default Value	Definition
Side	Right	Side to apply the Sub - assembly
Channel_Types	PD200V 0.1	Select the type of Access Unit
TopFrontDrainPointCode	DrainTop_Front	Pointcode for the front top left edge of Monoblock access unit
PavementType	ConcretePavement	Type of pavement used for Monoblock access unit
Haunching	Yes	Include haunch for the subassembly
HaunchShapeCode	Haunch	Shape code for the haunching
HaunchLinkCode	Haunch_Fomation	Link code for the haunching
MonoblockAccessUnitShapeCode	Monoblock	Shape code for the Monoblock access unit
TopBackDrainPointCode	DrainTop_Back	Pointcode for the back top left edge of Monoblock access unit
PipeCode	Pipe	Link code for Pipe
DrainFormationCode	Formation_Code	Link code for the Drain Formation
PipeInvertPointCode	Invert_Pipe	Pointcode for the invert point of the Pipe
DrainTopLinkCode	Drain_Top	Link codes for the Top surface of the Monoblock access unit
GrateShapeCode	Grate	Shape code for the grate
Grateformationlinkcode	Grate_Formation	Link code for the grate Formation
GrateTopLinkCode	Top_Grate	Link code for the grate top
TopFrontGratePointCode	GrateTop	Point code for the edge rail front
AccessUnitShapeCode	Monoblock	Shape code for the Monoblock access unit

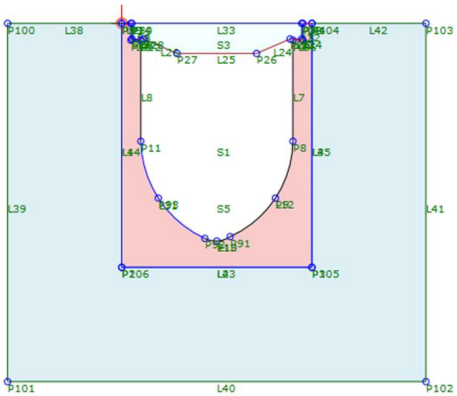
Parameters	
Side	Right
Channel_Types	RD200V 0.1
AccessUnitShapeCode	Monoblock
TopFrontDrain_Point Code	DrainTop_Front
Pavement_Type	ConcretePavement
Haunching	Yes
Haunch_Shapecode	Haunch
Haunch_linkcode	Haunch_Fomation
MonoblockAccessUnitShape...	Monoblock
TopBackDrain_PointCode	DrainTop_Back
Pipe_Code	Pipe
Drain_FormationCode	Formation_Code
PipeInvert_PointCode	Invert_Pipe
DrainTop_LinkCode	Drain_Top
Grate_Shapecode	Grate
Grate Link Codes	Grate_Formation
Grate Top Link Code	Top_Grate
Grate Point Code	GrateTop

3.2 ACO Monoblock Access Unit types

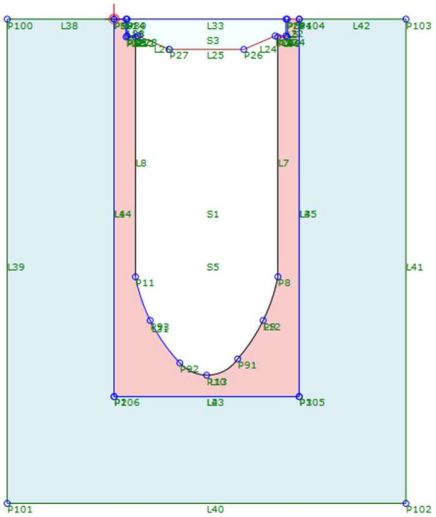
PD200V 0.1



RD200V 0.1



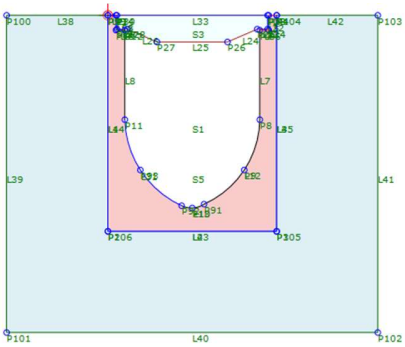
RD200V 20.1



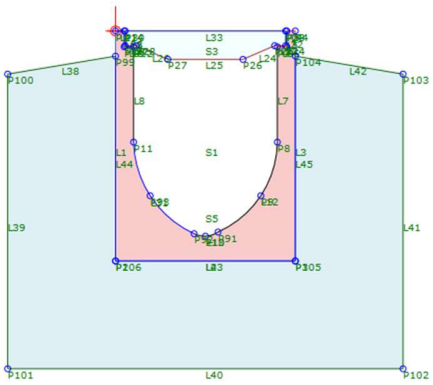
3.3 Haunch types

There are three types of haunching available for Monoblock Access Unit (applicable for all drain types).

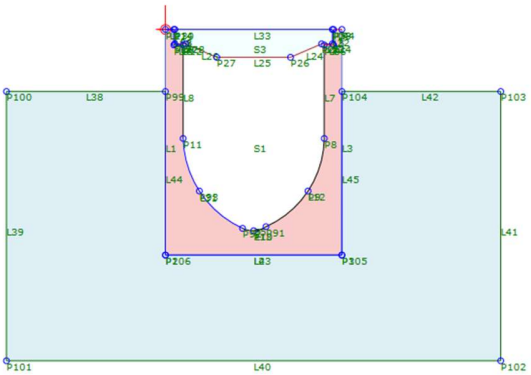
Concrete Pavement



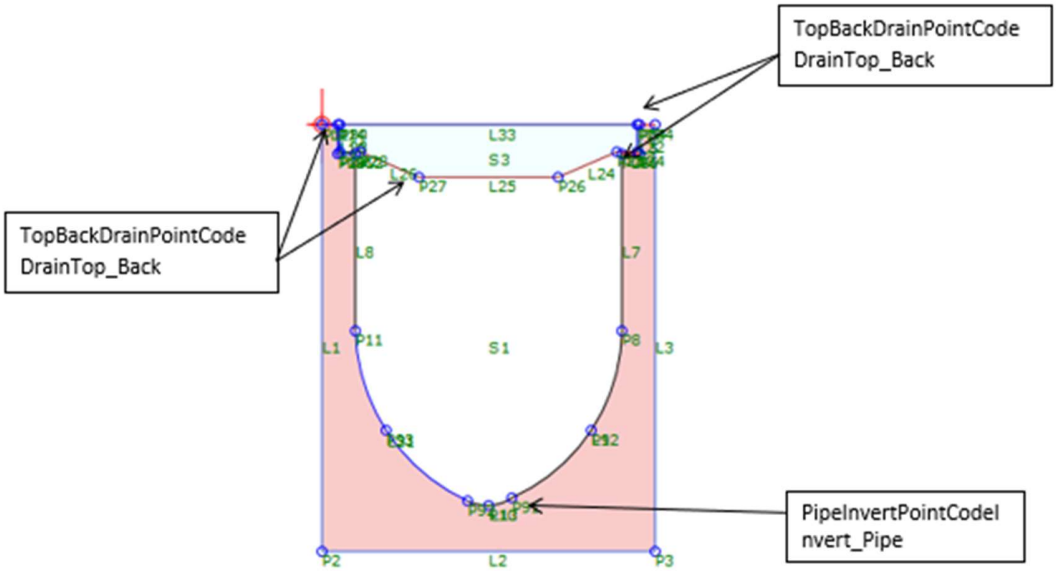
Asphalt Pavement



Block Pavement

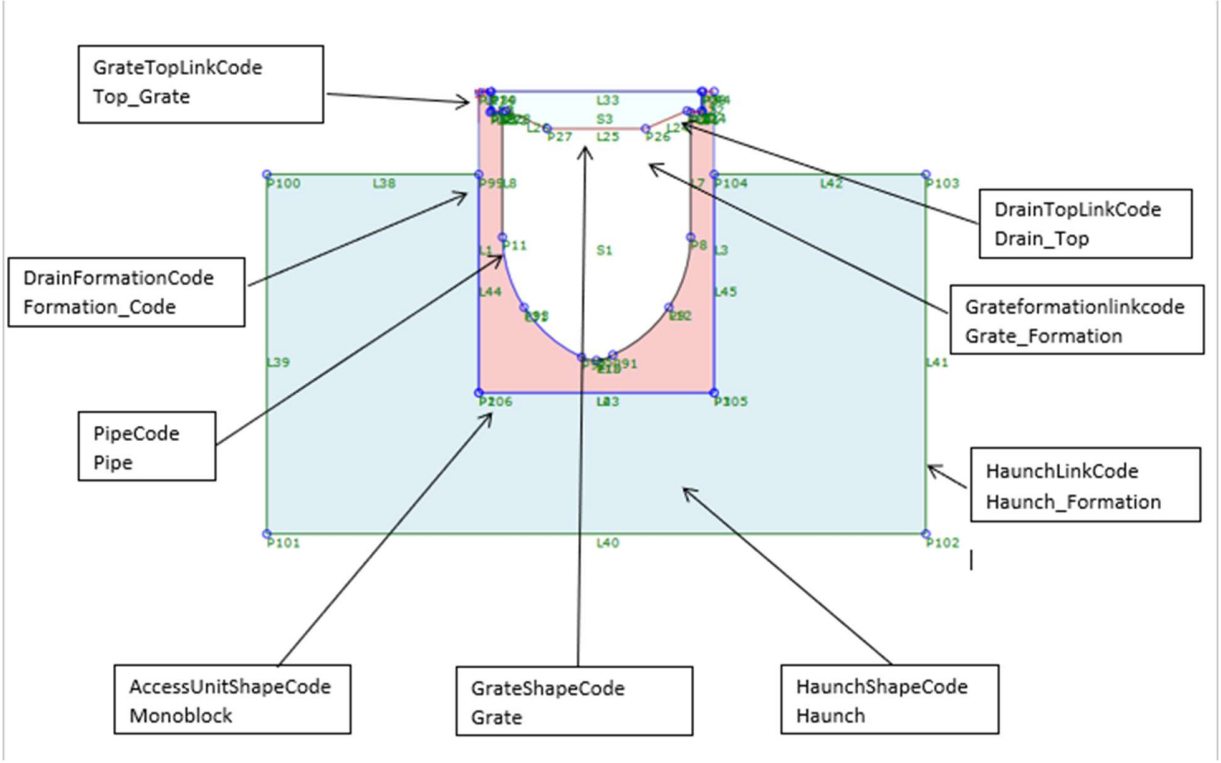


3.4 Point Codes



The point codes can be used in the code set styles to generate featurelines at the specific positions on the subassembly. The pipe point codes are included so that the user may project these lines onto a profile view, or possibly convert the featureline to a pipe object for exporting into an analysis package.

3.5 Link and Shape codes

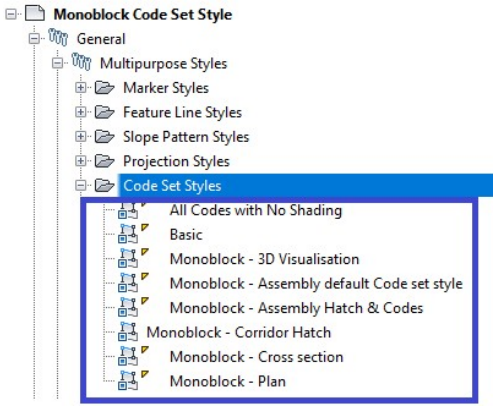


The link codes can be used to display the outline of the subassembly in cross-sections, and also to create surface from the codes. The default values supplied with the subassembly include the standard codes of Top and Formation which are used universally to indicate a Top surface of the corridor model or a Formation surface of the corridor model respectively. The Monoblock Access Unit is indicated by the default link code of the Monoblock Access Unit, and the default shape code of it. The haunching is indicated by the default link code of Haunch, and the default shape code of Haunch. All of these codes can be over-ridden by the user. The shape codes are used to enable hatching to be applied in the cross-section views, and also to enable volumes of materials to be generated.

4. Code Set Styles

Code Set Styles are used to control the appearance and labeling of the individual point, link, and shape components of the subassemblies. The many styles required are grouped into Code Sets. Code Set settings are located in the General collection on the Settings tab of the Tool space.

Different code set styles used in the Monoblock Access Unit Code set style template as shown here.



4.1 Import Code Set Styles from one drawing to another

Open the drawing in which Monoblock Access Unit Channel Code Set style has to be imported.

- Run command IMPORTSTYLESANDSETTINGS
- Browse to the location of Monoblock Access Unit Code Set Style template
- Select Styles as desired, check "Import Settings" toggle and click OK
- Warning will be displaying informing that duplicates styles may be overwritten
- Drawing will import styles and settings from Monoblock Access Unit Code Set Style template to this template