

ACO SlabDrain H300K/H300KS

Subassembly Installation and Reference Guide

User Guide for Autodesk AutoCAD Civil 3D files

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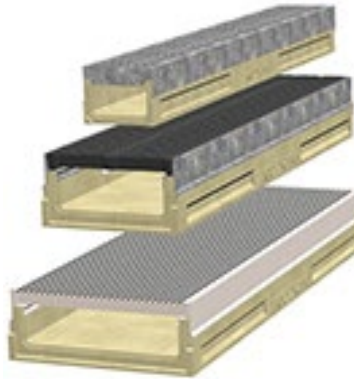
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1. Introduction

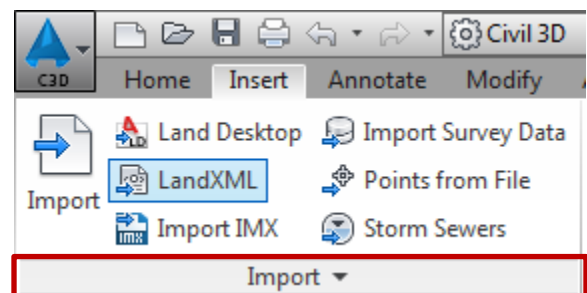
This document describes the installation, configuration and use of the ACO SlabDrain subassembly component for AutoCAD Civil 3D Sub Assembly Composer.



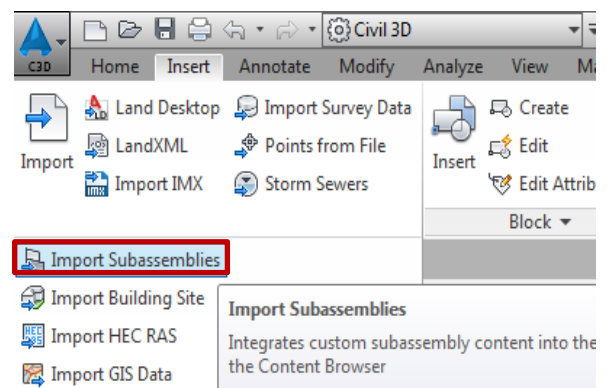
2. Installing the ACO SlabDrain subassembly

The SlabDrain 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.

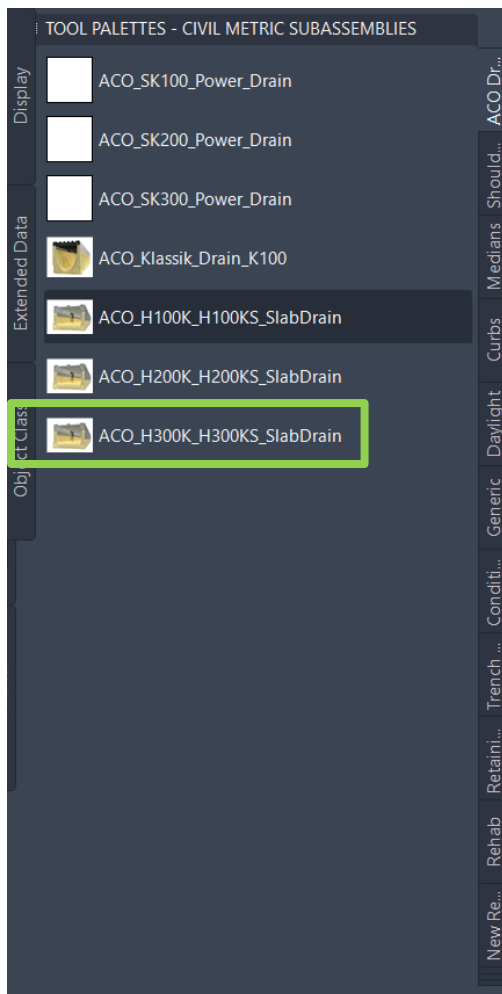
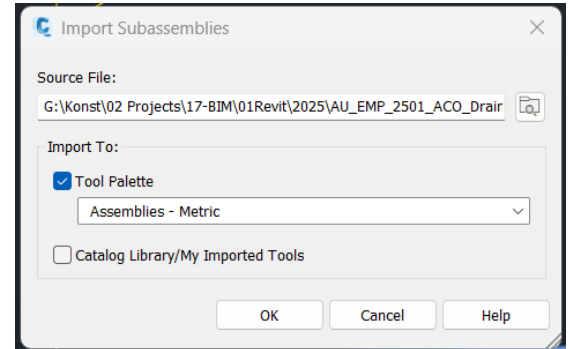
To install the subassembly, click on the Import panel title on the Insert ribbon.



Choose import subassemblies



Browse to the location of the ACO SlabDrain H300K/H300KS.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 SlabDrain H300K/H300KS subassembly. Note that by right-clicking in the tool palette, the palette can be customized by creating a separate item for the ACO SlabDrain H300K/H300KS, as shown here.



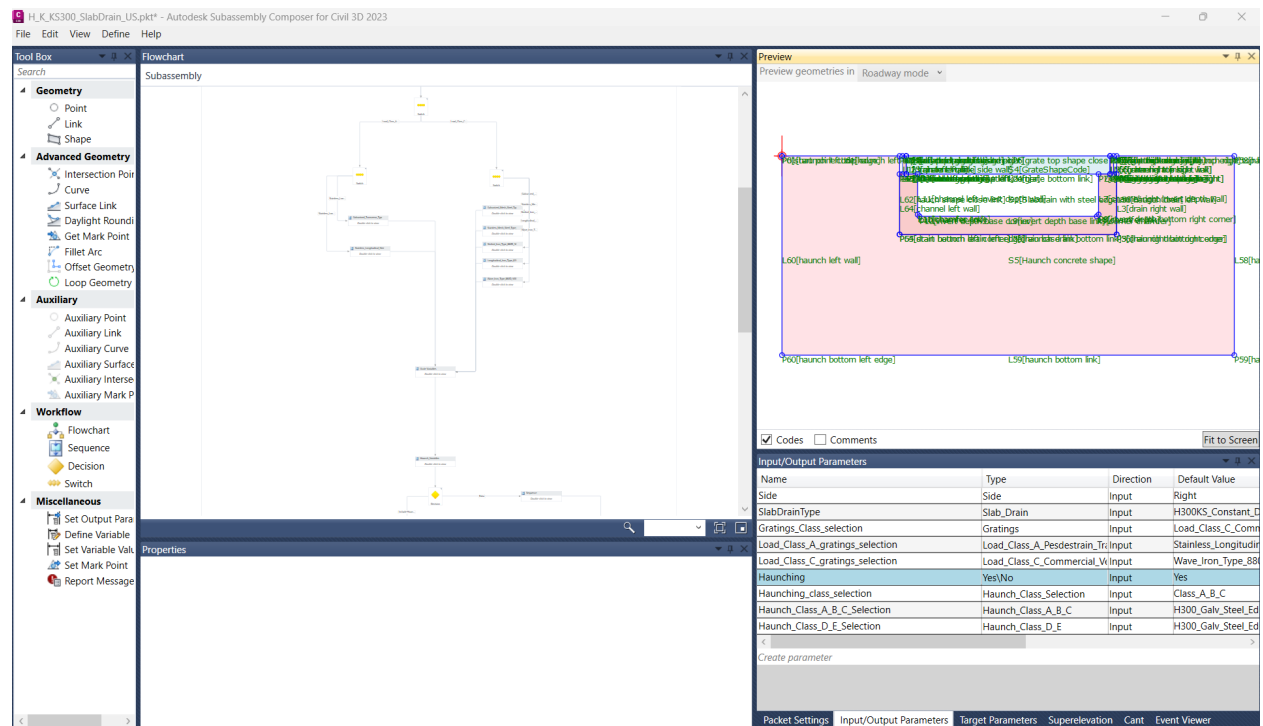
3. Using the ACO SlabDrain H300K/H300KS subassembly

The ACO SlabDrain subassembly includes definitions for the following Edge rail type:

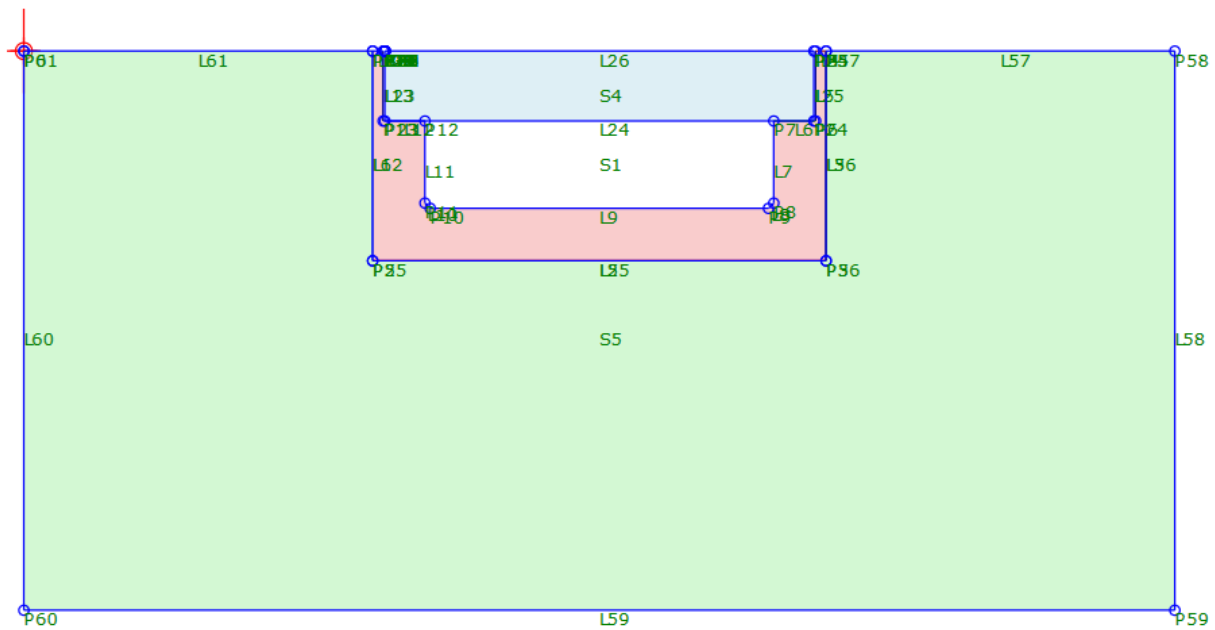
SlabDrain H300K/H300KS with Edge rail types:-

H300K_Constant_Depth_channel_with_galvanised_steel_edge_rails_1m_93464

H300KS_Constant_Depth_channel_with_Stainless_steel_edge_rails_1m_93465



The subassembly also optionally includes haunching detail.



3.1 User Defined Parameter

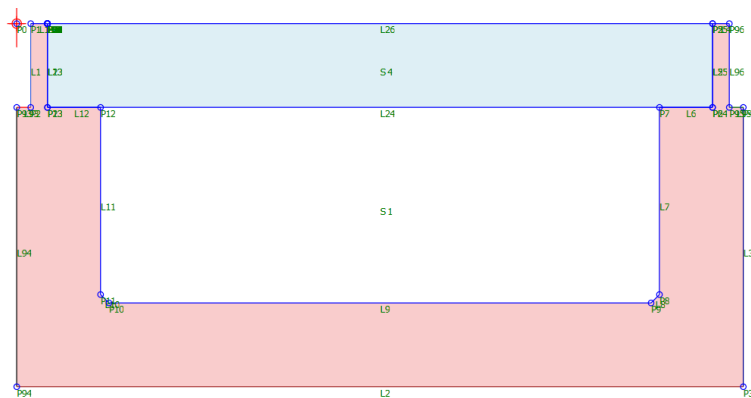
Input/Output Parameters			
Name	Type	Direction	Default Value
Side	Side	Input	Right
SlabDrainType	Slab_Drain	Input	H300KS_Constant_Depth_channel_with_Stainless_steel_edge_rails_1m_93465
Gratings_Class_selection	Gratings	Input	Load_Class_C_Commercial_Vehicle_Traffic
Load_Class_A_gratings_selection	Load_Class_A_Pedestrain_Traffic	Input	Stainless_Longitudinal_Steel_Type_848D_500mm_142224
Load_Class_C_gratings_selection	Load_Class_C_Commercial_Vehicle_Traffic	Input	Wave_Iron_Type_880D_500mm_99581
Haunching	Yes\No	Input	No
Haunching_class_selection	Haunch_Class_Selection	Input	Class_D_E
Haunch_Class_A_B_C_Selection	Haunch_Class_A_B_C	Input	H300_Galv_Steel_Edge_Rail_Class_A_Exposed_Asphalt_Pavement
Haunch_Class_D_E_Selection	Haunch_Class_D_E	Input	H300_Galv_Steel_Edge_Rail_Class_D_Exposed_Asphalt_Pavement

All the default value of the parameter can be edited by end-user. User can able to select their required SlabDrain, Grating and Haunch type.

3.2 SlabDrain H300K/H300KS with different Edge rail channel types

User can able to select their required SlabDrain channel by using the parameter SlabDrainType which has dropdown menu, with types of SlabDrain channel stainless steel and galvanized edge rail.

SlabDrainType	Slab_Drain	Input	H300KS Constant Depth channel with Stainless steel edge rails 1m 93465
Gratings_Class_selection	Gratings	Input	H300K_Constant_Depth_channel_with_galvanised_steel_edge_rails_1m_93464
Load_Class_A_gratings_selection	Load_Class_A_Pedestrain_Traffic	Input	H300KS_Constant_Depth_channel_with_Stainless_steel_edge_rails_1m_93465



3.3 SlabDrain H300K/H300KS grating types

Users be able to select their required gratings; gratings have been segregated as per load class its due to enumeration restriction in SAC. In parameter table there is a parameter with drop down menu “Grating load selection and Brikslot” from this user can select their required grating material and brickslot.

Gratings_Class_selection	Gratings	Input	Load Class C Commercial Vehicle Traffic
Load_Class_A_gratings_selection	Load_Class_A_Pesdestrain_Tra	Input	Load_Class_A_Pesdestrain_Traffic
Load_Class_C_gratings_selection	Load_Class_C_Commercial_Ve	Input	Load_Class_C_Commercial_Vehicle_Traffic

After Selection of load class and brickslot just below that with preferred selection there will be a parameter. From that user can able to select their preferred gratings.

Load_Class_A_gratings_selection	Load_Class_A_Pesdestrain_Tra	Input	Stainless Longitudinal Steel Type 848D 500mm 142224
Load_Class_C_gratings_selection	Load_Class_C_Commercial_Ve	Input	Stainless Longitudinal Steel Type 847D 1000mm 142223
Haunching	Yes\No	Input	Stainless Longitudinal Steel Type 848D 500mm 142224
Load_Class_C_gratings_selection	Load_Class_C_Commercial_Ve	Input	Wave Iron Type 880D 500mm 99581
Haunching	Yes\No	Input	Galvanized Mesh Steel Type 805D 1000mm 133675
Haunching_class_selection	Haunch_Class_Selection	Input	Stainless Mesh Steel Type 830D 500mm 133678
Haunch_Class_A_B_C_Selection	Haunch_Class_A_B_C	Input	Slotted Iron Type 860D 500mm 13870
Haunch_Class_D_E_Selection	Haunch_Class_D_E	Input	Longitudinal Iron Type 876D 500mm 99588
<			Wave Iron Type 880D 500mm 99581

3.4 Haunch types

To include Haunching we have provided decision option so user can select yes/or from the parameter Haunching. There are two different classes for haunching A-B and C-D

Haunching	Yes\No	Input	Yes
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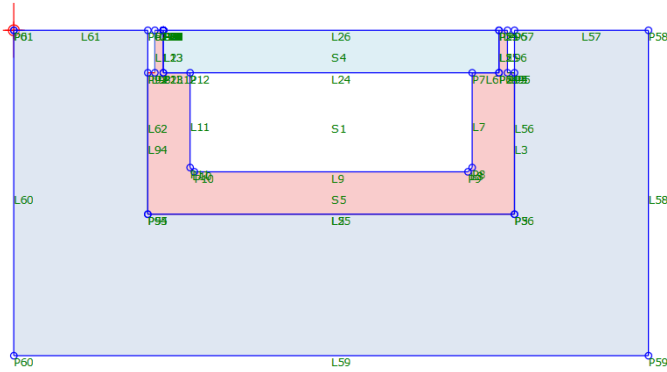
There are two different classes for haunching A-B and C-D it can be decided by user, using Haunch class parameter drop down menu.

Haunching	Yes\No	Input	Yes
Haunching_class_selection	Haunch_Class_Selection	Input	Class A B C
Haunch_Class_A_B_C_selection	Haunch_Class_A_B_C	Input	Class_A_B_C
Haunch_Class_D_E_selection	Haunch_Class_D_E	Input	Class_D_E

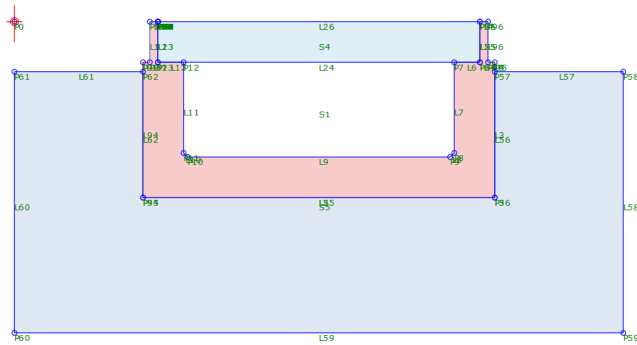
Haunch class A-B which has four type of haunch and C-D which have five types of haunch user can easily select their haunch type with provided parameters.

P64 ☐ Codes ☐ Comments			H300_Galv_Steel_Edge_Rail_Class_A_Exposed_Asphalt_Pavement H300_Galv_Steel_Edge_Rail_Class_A_Exposed_Concrete_Pavement H300_Galv_Steel_Edge_Rail_Class_A_Exposed_Paver_Pavement H300_Galv_Steel_Edge_Rail_Class_A_Haunched_Asphalt_Pavement H300_Galv_Steel_Edge_Rail_Class_A_Haunched_Paver_Pavement H300_Galv_Steel_Edge_Rail_Class_B_Exposed_Asphalt_Pavement H300_Galv_Steel_Edge_Rail_Class_B_Exposed_Concrete_Pavement H300_Galv_Steel_Edge_Rail_Class_B_Exposed_Paver_Pavement H300_Galv_Steel_Edge_Rail_Class_B_Haunched_Asphalt_Pavement H300_Galv_Steel_Edge_Rail_Class_B_Haunched_Paver_Pavement H300_Galv_Steel_Edge_Rail_Class_C_Exposed_Asphalt_Pavement H300_Galv_Steel_Edge_Rail_Class_C_Exposed_Concrete_Pavement H300_Galv_Steel_Edge_Rail_Class_C_Exposed_Paver_Pavement H300_Galv_Steel_Edge_Rail_Class_C_Haunched_Asphalt_Pavement H300_Galv_Steel_Edge_Rail_Class_C_Haunched_Paver_Pavement
Input/Output Parameters			
Name	Type	Direction	
Side	Side	Input	
SlabDrainType	Slab_Drain	Input	
Gratings_Class_selection	Gratings	Input	
Load_Class_A_gratings_selection	Load_Class_A_Pesdestrain_Tr	Input	
Load_Class_C_gratings_selection	Load_Class_C_Commercial_V	Input	
Haunching	Yes\No	Input	
Haunching_class_selection	Haunch_Class_Selection	Input	
Haunch_Class_A_B_C_Selection	Haunch_Class_A_B_C	Input	H300 Galv Steel Edge Rail Class A Exposed Asphalt Pavement

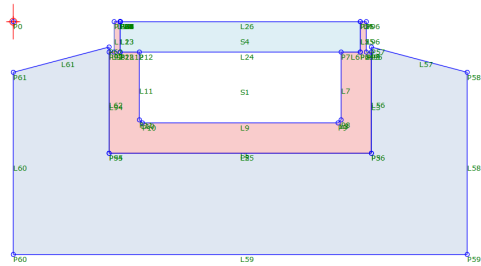
Input/Output Parameters			H300_Galv_Steel_Edge_Rail_Class_D_Exposed_Asphalt_Pavement H300_Galv_Steel_Edge_Rail_Class_D_Exposed_Concrete_Pavement H300_Galv_Steel_Edge_Rail_Class_D_Exposed_Paver_Pavement H300_Galv_Steel_Edge_Rail_Class_D_Haunched_Asphalt_Pavement H300_Galv_Steel_Edge_Rail_Class_D_Haunched_Paver_Pavement H300_Galv_Steel_Edge_Rail_Class_E_Exposed_Asphalt_Pavement H300_Galv_Steel_Edge_Rail_Class_E_Exposed_Concrete_Pavement H300_Galv_Steel_Edge_Rail_Class_E_Exposed_Paver_Pavement H300_Galv_Steel_Edge_Rail_Class_E_Haunched_Asphalt_Pavement H300_Galv_Steel_Edge_Rail_Class_E_Haunched_Paver_Pavement
Name	Type	Direction	
Side	Side	Input	
SlabDrainType	Slab_Drain	Input	
Gratings_Class_selection	Gratings	Input	
Load_Class_A_gratings_selection	Load_Class_A_Pesdestrain_Tr	Input	
Load_Class_C_gratings_selection	Load_Class_C_Commercial_V	Input	
Haunching	Yes\No	Input	
Haunching_class_selection	Haunch_Class_Selection	Input	
Haunch_Class_A_B_C_Selection	Haunch_Class_A_B_C	Input	
Haunch_Class_D_E_Selection	Haunch_Class_D_E	Input	H300 Galv Steel Edge Rail Class D Exposed Asphalt Pavement



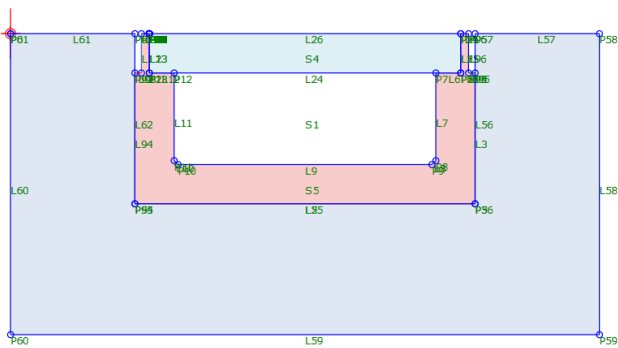
Exposed Asphalt Pavement



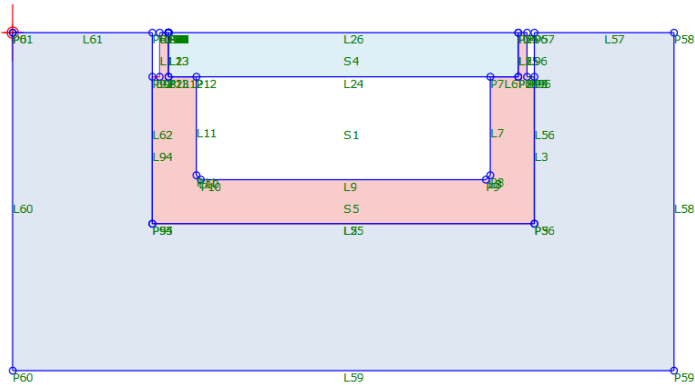
Haunched paver pavement



Haunched Asphalt Pavement

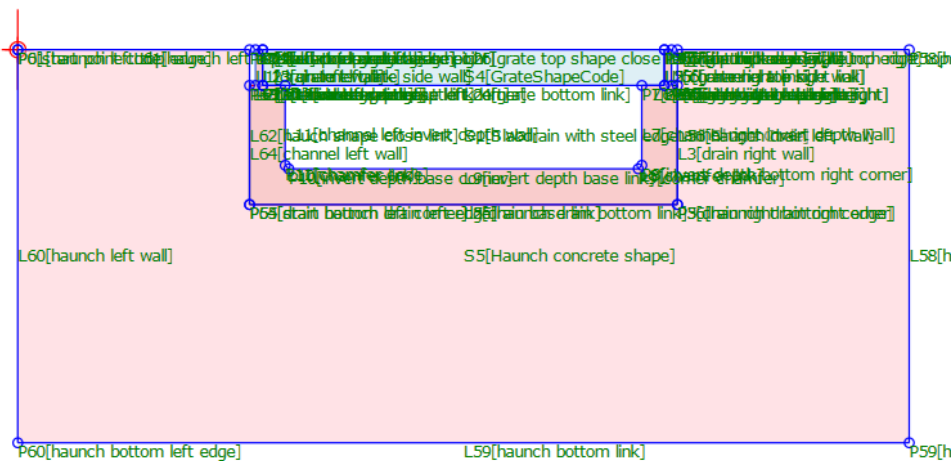


Exposed concrete pavement



3.5 Point Codes

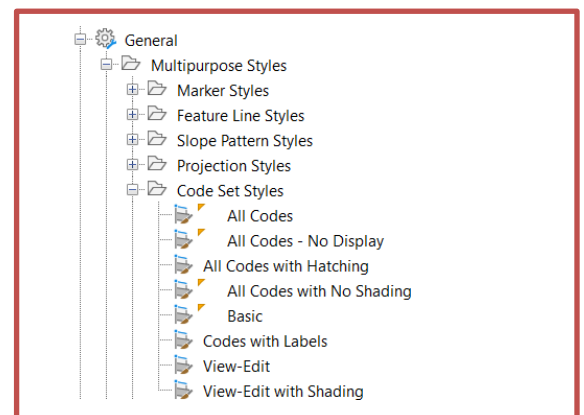
The point codes can be used in the code set styles to generate featurelines at the specific positions on the subassembly. The link codes can be used to display the outline of the subassembly in cross-sections, and also to create surface from the codes. The default values supplied with the subassembly 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 SlabDrain is indicated by the default link code of SlabDrain, and the default shape code of SlabDrain. The grating is indicated by the default link code of edge rail, and the default shape code of edge rail. The haunching is indicated by the default link code of Haunch, and the default shape code of Haunch. All of these codes can be overridden 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 SlabDrain Code set style template as shown here.



4.1 Import Code Set Styles from one drawing to another

Open the drawing in which SlabDrain Code Set style has to be imported.

- Run command IMPORTSTYLESANDSETTINGS
- Browse to the location of SlabDrain 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 SlabDrain Code Set Style template to this template