

ACO SlabDrain H_100

Subassembly Installation and Reference Guide

User Guide for Autodesk AutoCAD Civil 3D files

Contents

1.	Introduction	2
2.	Installing the ACO SlabDrain subassembly.....	2
3.	Using the ACO SlabDrain H_100 subassembly.....	4
3.1	User Defined Parameter	5
3.2	SlabDrain H100K/H100KS with different Edge rail channel types	5
3.3	SlabDrain H_100 grating types	6
3.4	Haunch types	8
3.5	Point Codes	10
4.	Code Set Styles.....	11
4.1	Import Code Set Styles from one drawing to another.....	11

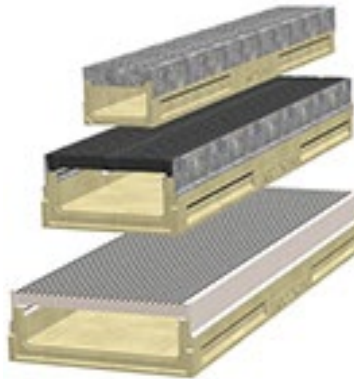
ACO Water Management:
Civils + Infrastructure

ACO USA
Corporate Office
825 W. Beechcraft St.
Casa Grande, AZ 85122
Australia

website: [Water Management
Solutions - ACO SWM](#)

1. Introduction

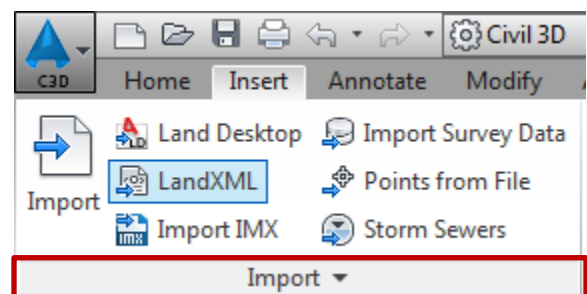
This document describes the installation, configuration and use of the ACO SlabDrain subassembly component for AutoCAD Civil 3D Sub Assembly Composer.



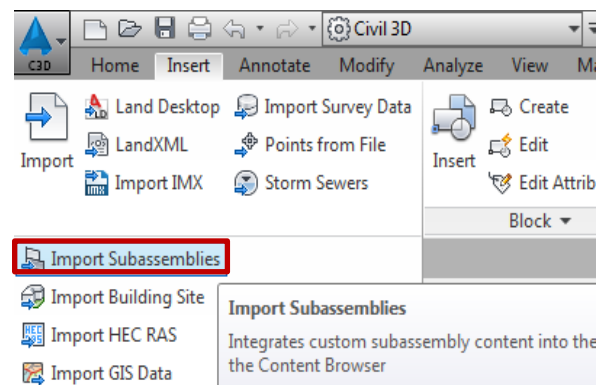
2. Installing the ACO SlabDrain subassembly

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.

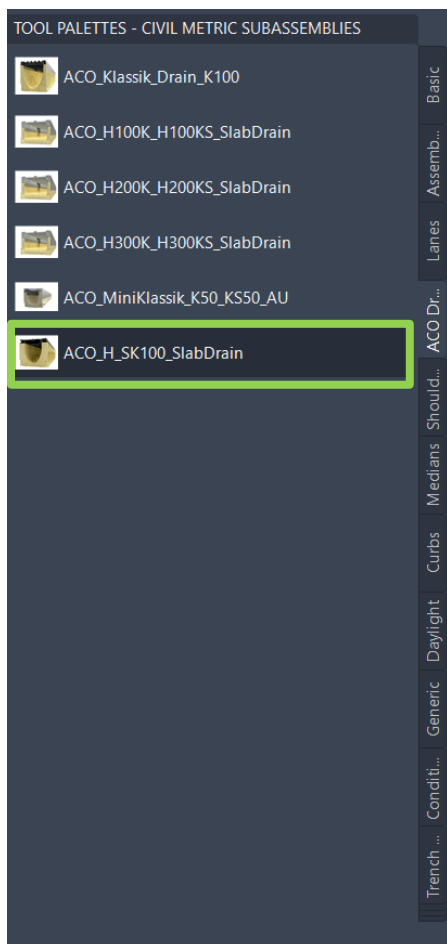
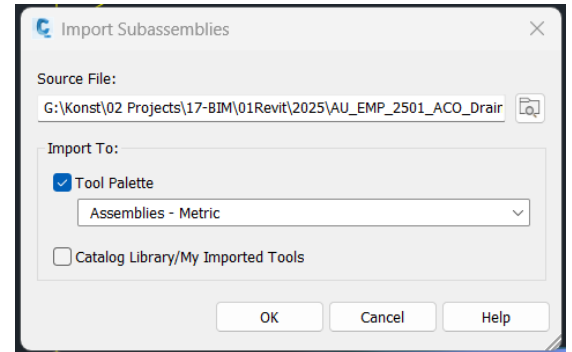
To install the subassembly, click on the Import panel title on the Insert ribbon.



Choose import subassemblies

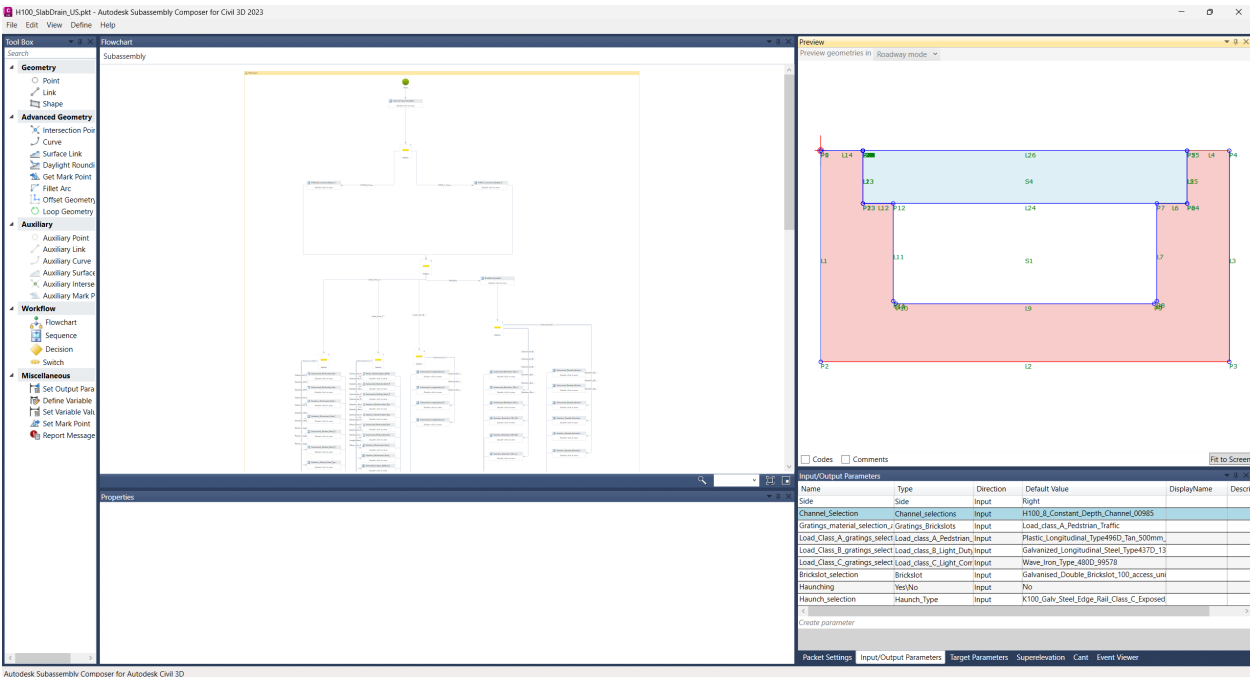


Browse to the location of the ACO SlabDrain H_100.pkt file, and choose a tool palette to import to, or create a new palette. The subassembly can also optionally be added to the user Catalog Library. The tool palette in civil 3D will now show the ACO SlabDrain H_100 subassembly. Note that by right-clicking in the tool palette, the palette can be customized by creating a separate item for the ACO SlabDrain H_100, as shown here.

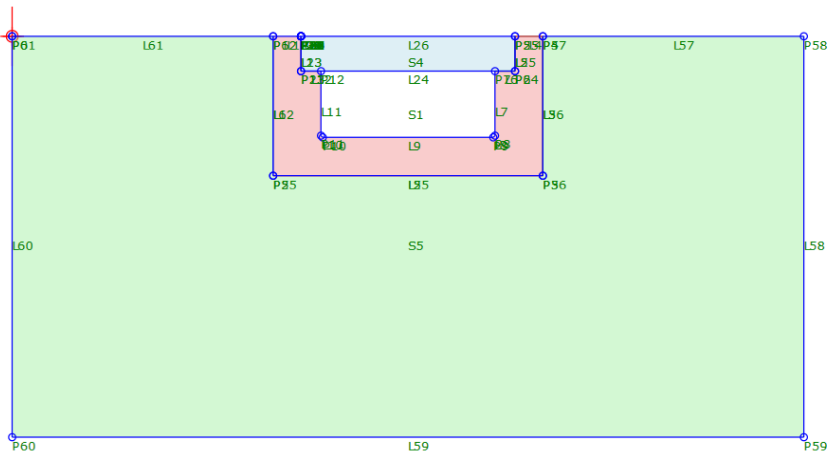


3. Using the ACO SlabDrain H_100 subassembly

The ACO SlabDrain H_100 subassembly includes H100_8_Constant_Depth_Channel_00985 and H100_1_Constant_Depth_Channel_00549



The subassembly also optionally includes haunching detail.



3.1 User Defined Parameter

Input/Output Parameters			
Name	Type	Direction	Default Value
Side	Side	Input	Right
Channel_Selection	Channel_selections	Input	H100_8_Constant_Depth_Channel_00985
Gratings_material_selection_and	Gratings_Brickslots	Input	Load_class_A_Pedstrian_Traffic
Load_Class_A_gratings_select	Load_class_A_Pedstrian	Input	Plastic_Longitudinal_Type496D_Tan_500mm_99577
Load_Class_B_gratings_select	Load_class_B_Light_Duty	Input	Galvanized_Longitudinal_Steel_Type437D_132550
Load_Class_C_gratings_select	Load_class_C_Light_Corr	Input	Wave_Iron_Type_480D_99578
Brickslot_selection	Brickslot	Input	Galvanised_Double_Brickslot_100_access_unit_500mm_Type483_13805
Haunching	Yes\No	Input	Yes
Haunch_selection	Haunch_Type	Input	K100_Galv_Steel_Edge_Rail_Class_C_Exposed_Paver_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 H100K/H100KS 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 two different height depth of slabDrain channel.
using the parameter Channel_Selection user can able to their required channel.

H100_8_Constant_Depth_Channel_00985

H100_1_Constant_Depth_Channel_00549

Channel_Selection	Channel_selections	Input	H100_8_Constant_Depth_Channel_00985
Gratings_class_selection_and	Gratings_Brickslots	Input	H100_8_Constant_Depth_Channel_00985
Load_Class_A_gratings_select	Load_class_A_Pedstrian	Input	H100_1_Constant_Depth_Channel_00549

3.3 SlabDrain H_100 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 Brickslot” from this user can select their required grating material and brickslot.

Gratings_class_selection_and	Gratings_Brickslots	Input	Load class B Light Duty Traffic
Load_Class_A_gratings_select	Load_class_A_Pedstrian	Input	Load_class_A_Pedstrian_Traffic
Load_Class_B_gratings_select	Load_class_B_Light_Duty	Input	Load_class_B_Light_Duty_Traffic
Load_Class_C_gratings_select	Load_class_C_Light_Com	Input	Load_class_C_Light_Commercial_Vehicle
Brickslot_selection	Brickslot	Input	Brickslot

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_select	Load_class_A_Pedstrian	Input	Plastic Longitudinal Type496D Tan 500mm 99577
Load_Class_B_gratings_select	Load_class_B_Light_Duty	Input	Galvanized_Perforated_Steel_Type_410D_1000mm_12666
Load_Class_C_gratings_select	Load_class_C_Light_Com	Input	Galvanized_Perforated_Steel_Type_412D_500mm_12667
Brickslot_selection	Brickslot	Input	Stainless_Perforated_Steel_Type_451D_1000mm_12664
Haunching	Yes\No	Input	Stainless_Perforated_Steel_Type_453D_500mm_12665
Haunch_selection	Haunch_Type	Input	Galvanized_Slotted_Steel_Type_420D_1000mm_12610
< Create parameter			Galvanized_Slotted_Steel_Type_421D_500mm_12611
			Stainless_Slotted_Steel_Type_450D_1000mm_12640
			Stainless_Slotted_Steel_Type_452D_500mm_12641
			Plastic_Longitudinal_Type494D_Black_500mm_99575
Packet Settings Input/Output Parameters Target Parameters St			Plastic_Longitudinal_Type495D_Gray_500mm_99576
			Plastic_Longitudinal_Type496D_Tan_500mm_99577

Load_Class_B_gratings_select	Load_class_B_Light_Duty	Input	Galvanized Longitudinal Steel Type437D 132550
Load_Class_C_gratings_select	Load_class_C_Light_Com	Input	Galvanized_Longitudinal_Steel_Type447D_142215
Brickslot_selection	Brickslot	Input	Galvanized_Longitudinal_Steel_Type448D_142216
Haunching	Yes\No	Input	Galvanized_Longitudinal_Steel_Type438D_132555
Haunch_selection	Haunch_Type	Input	Galvanized_Longitudinal_Steel_Type437D_132550

P6U

☐ Codes ☐ Comments

Input/Output Parameters

Name	Type	Direction	
Side	Side	Input	Galvanized_Slotted_Steel_Type_425D_1000mm_12614
Channel_Selection	Channel_selections	Input	Galvanized_Slotted_Steel_Type_426D_500mm_12615
Gratings_class_selection_and	Gratings_Brickslots	Input	Stainless_Slotted_Steel_Type_455D_1000mm_12644
Load_Class_A_gratings_select	Load_class_A_Pedstrian	Input	Stainless_Slotted_Steel_Type_457D_500mm_12645
Load_Class_B_gratings_select	Load_class_B_Light_Duty	Input	Galvanized_Perforated_Steel_Type_411D_1000mm_12656
Load_Class_C_gratings_select	Load_class_C_Light_Corr	Input	Galvanized_Perforated_Steel_Type_413D_500mm_12657
			Stainless_Perforated_Steel_Type_465D_1000mm_12654
			Stainless_Perforated_Steel_Type_466D_500mm_12655
			Steel_Mesh_Type_405D_Galvanized_132880
			Steel_Mesh_Type_406D_Galvanized_132881
			Steel_Mesh_Type_430D_Stainless_132882
			Steel_Mesh_Type_431D_Stainless_132883
			Slotted_Iron_Type_460D_12670
			Longitudinal_Iron_Type_476D_142171
			Wave_Iron_Type_480D_99578
			Wave Iron Type 480D 99578

☐ Codes ☐ Comments

Input/Output Parameters

Name	Type	Direction	
Side	Side	Input	Galvanised_Brickslot_100_1000mm_Type441_138040
Channel_Selection	Channel_selections	Input	Galvanised_Brickslot_100_500mm_Type442_138041
Gratings_class_selection_and	Gratings_Brickslots	Input	Galvanised_Brickslot_100_access_unit_500mm_Type482_138042
Load_Class_A_gratings_select	Load_class_A_Pedstrian	Input	Stainless_Brickslot_100_1000mm_Type443_138045
Load_Class_B_gratings_select	Load_class_B_Light_Duty	Input	Stainless_Brickslot_100_500mm_Type444_138046
Load_Class_C_gratings_select	Load_class_C_Light_Corr	Input	Stainless_Brickslot_100_access_unit_500mm_Type484_138047
Brickslot_selection	Brickslot	Input	Galvanised_Double_Brickslot_100_1000mm_Type470_138050
			Galvanised_Double_Brickslot_100_500mm_Type471_138051
			Galvanised_Double_Brickslot_100_access_unit_500mm_Type483_138052
			Stainless_Double_Brickslot_100_1000mm_Type472_138055
			Stainless_Double_Brickslot_100_500mm_Type473_138056
			Stainless_Double_Brickslot_100_access_unit_500mm_Type485_138057
			Galvanised Double Brickslot 100 access unit 500mm Type483 1

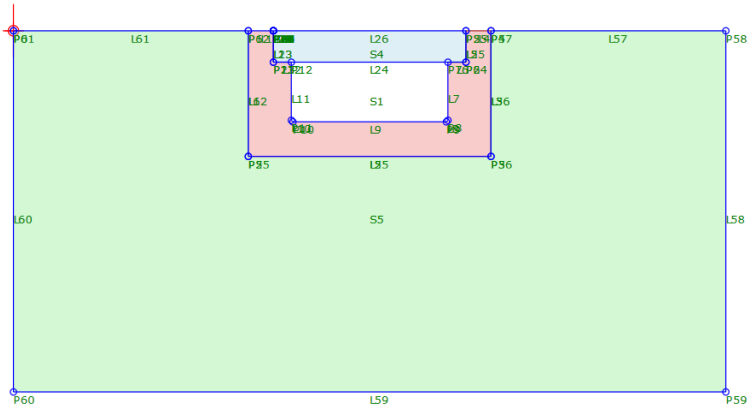
3.4 Haunch types

To include Haunching we have provided decision option so user can select yes/or from the parameter Haunching.

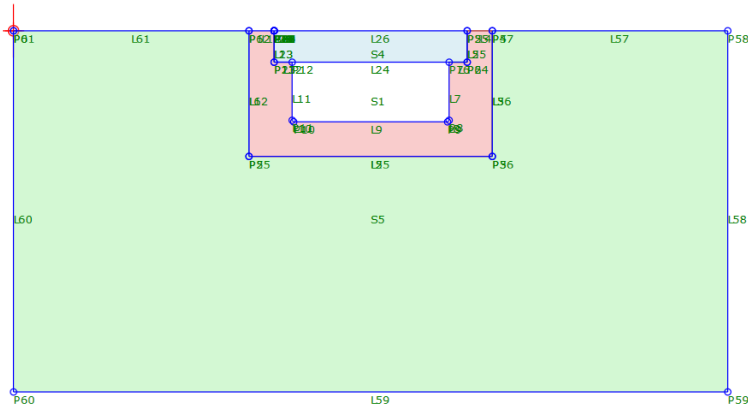
Haunching	Yes\No	Input	Yes
-----------	--------	-------	-----

There are fifteen different type of haunching including classes A,B & C. user can able to select required haunch using parameter Haunching_Selection.

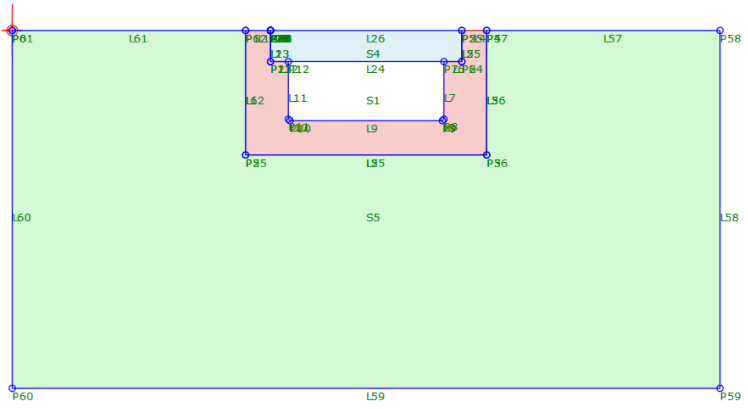
Name	Type	Direction	
Side	Side	Input	K100_Galv_Steel_Edge_Rail_Class_A_Exposed_Asphalt_Pavement
Channel_Selection	Channel_selections	Input	K100_Galv_Steel_Edge_Rail_Class_A_Exposed_Concrete_Pavement
Gratings_class_selection_and	Gratings_Brickslots	Input	K100_Galv_Steel_Edge_Rail_Class_A_Exposed_Paver_Pavement
Load_Class_A_gratings_select	Load_class_A_Pedstrian_	Input	K100_Galv_Steel_Edge_Rail_Class_B_Exposed_Asphalt_Pavement
Load_Class_B_gratings_select	Load_class_B_Light_Duty	Input	K100_Galv_Steel_Edge_Rail_Class_B_Exposed_Concrete_Pavement
Load_Class_C_gratings_select	Load_class_C_Light_Corr	Input	K100_Galv_Steel_Edge_Rail_Class_B_Exposed_Paver_Pavement
Brickslot_selection	Brickslot	Input	K100_Galv_Steel_Edge_Rail_Class_C_Exposed_Asphalt_Pavement
Haunching	Yes\No	Input	K100_Galv_Steel_Edge_Rail_Class_C_Exposed_Concrete_Pavement
Haunch_selection	Haunch_Type	Input	K100_Galv_Steel_Edge_Rail_Class_C_Exposed_Paver_Pavement



Exposed Asphalt Pavement



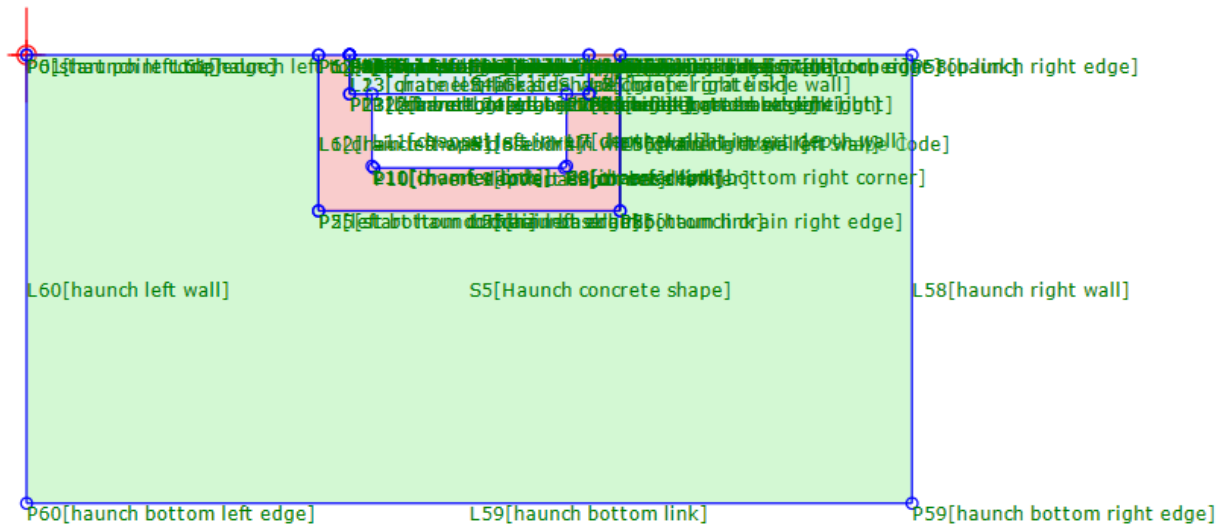
Exposed Concrete Pavement



Exposed Paver Pavement

3.5 Point Codes

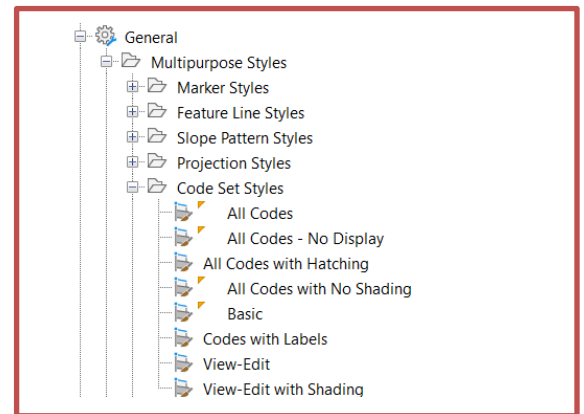
The point codes can be used in the code set styles to generate featurelines at the specific positions on the subassembly. The link codes can be used to display the outline of the subassembly in cross-sections, and also to create surface from the codes. The default values supplied with the subassembly 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