ACO SlabDrain H200K/H200KS

Subassembly Installation and Reference Guide

User Guide for Autodesk AutoCAD Civil 3D files

Contents

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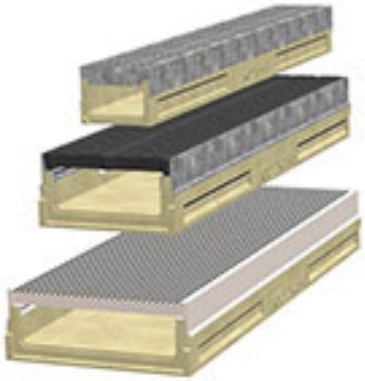
1. Introduction

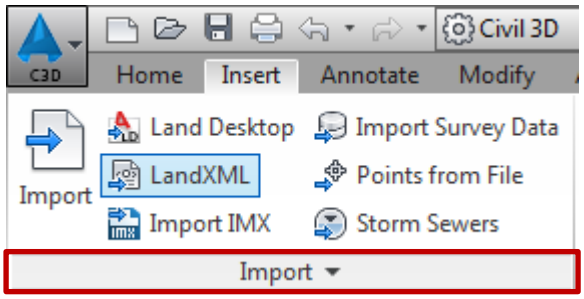
This document describes the installation, configuration and use of the ACO SlabDrain subassembly component for AutoCAD Civil 3D Sub Assembly Composer.



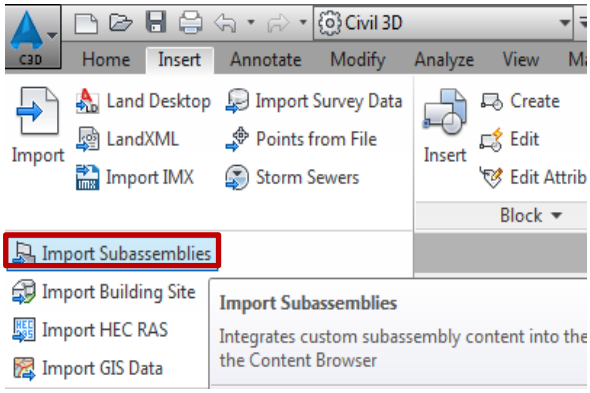
2. Installing the ACO SlabDrain subassembly

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.

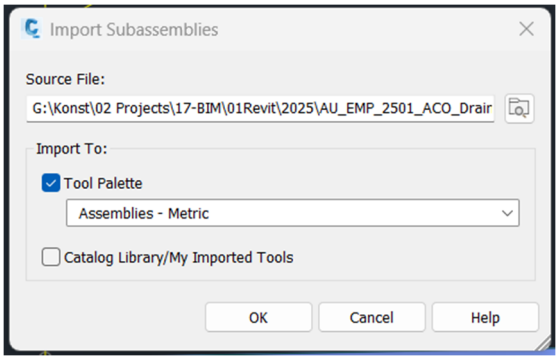
To install the subassembly, click on the Import panel title on the Insert ribbon.

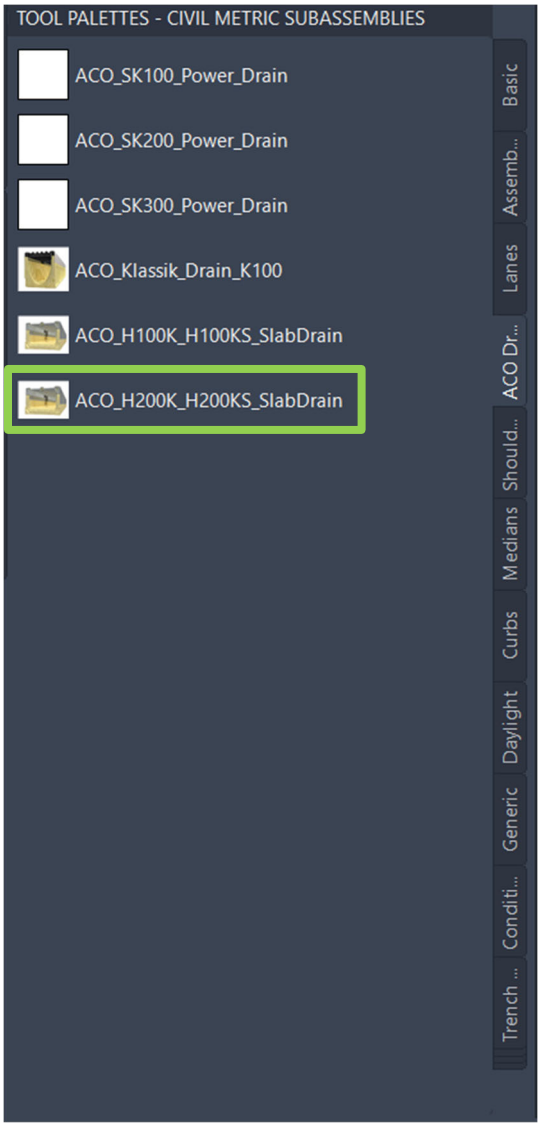


Choose import subassemblies



Browse to the location of the ACO SlabDrain H200K/H200KS.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 H200K/H200KS subassembly. Note that by right-clicking in the tool palette, the palette can be customized by creating a separate item for the ACO SlabDrain H200K/H200KS, as shown here.





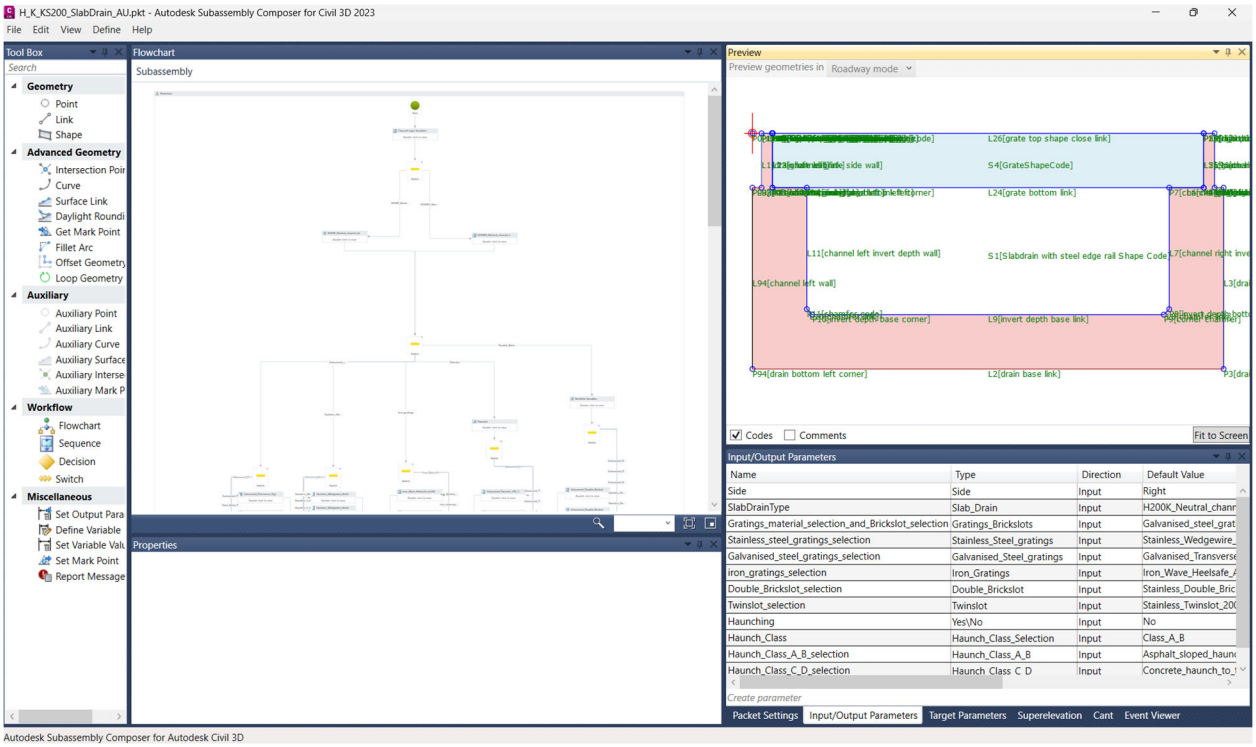
3. Using the ACO SlabDrain H200K/H200KS subassembly

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

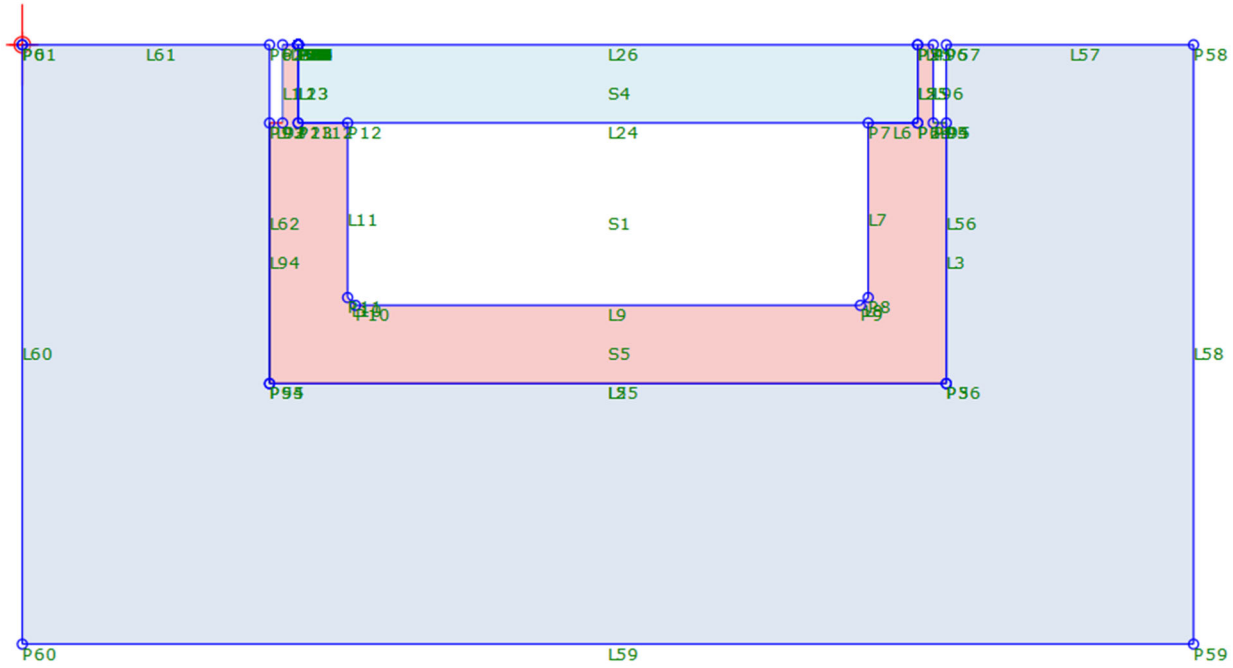
SlabDrain H200K/H200KS with Edge rail types:-

H200K_Neutral_channel_with_galvanised_steel_edge_rails_1m_141789

H200KS_Neutral_channel_with_Stainless_steel_edge_rails_1m_141790



The subassembly also optionally includes haunching detail.



3.1 User Defined Parameter

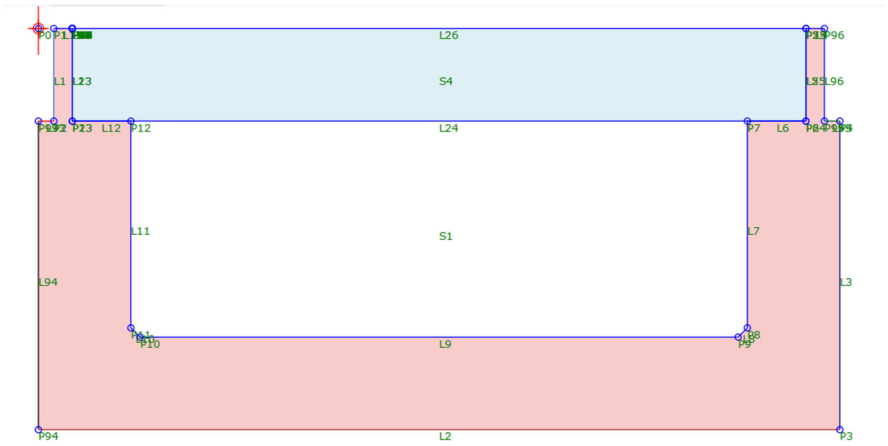
Input/Output Parameters			
Name	Type	Direction	Default Value
Side	Side	Input	Right
SlabDrainType	Slab_Drain	Input	H200K_Neutral_channel_with_galvanised_steel_edge_rails_1m_141789
Gratings_material_selection_and_Brickslot_selection	Gratings_Brickslots	Input	Galvanised_steel_gratings
Stainless_steel_gratings_selection	Stainless_Steel_gratings	Input	Stainless_Wedgewire_Heelsafe_Type_647D_Grade_304_stainless_142219
Galvanised_steel_gratings_selection	Galvanised_Steel_gratings	Input	Galvanised_Transverse_Type_607Q_Galvanised_142411
iron_gratings_selection	Iron_Gratings	Input	Iron_Wave_Heelsafe_AntiSlip_Type_680D_Ductile_iron_142462
Double_Brickslot_selection	Double_Brickslot	Input	Stainless_Double_Brickslot_200_500mm_142486
Twinslot_selection	Twinslot	Input	Stainless_Twinslot_200_access_unit_500mm_142481
Haunching	Yes\No	Input	No
Haunch_Class	Haunch_Class_Selection	Input	Class_A_B
Haunch_Class_A_B_selection	Haunch_Class_A_B	Input	Asphalt_sloped_haunch_class_A_B
Haunch_Class_C_D_selection	Haunch_Class_C_D	Input	Concrete_haunch_to_top_class_C_D

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 H200K/H200KS with different Edge rail channel types

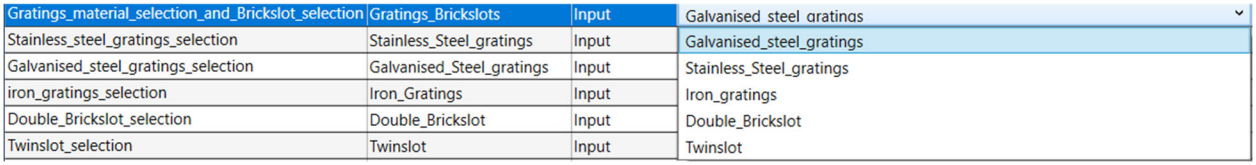
User can able to select their required slabdrain channel by using the parameter SlabDrainType which has dropdown menu, with types of salbdrain channel stainless steel and galvanized edge rail.

SlabDrainType	Slab_Drain	Input	H200K_Neutral_channel_with_galvanised_steel_edge_rails_1m_141789
Gratings_material_selection_and_Brickslot_selection	Gratings_Brickslots	Input	H200K_Neutral_channel_with_galvanised_steel_edge_rails_1m_141789
Stainless_steel_gratings_selection	Stainless_Steel_gratings	Input	H200KS_Neutral_channel_with_Stainless_steel_edge_rails_1m_141790



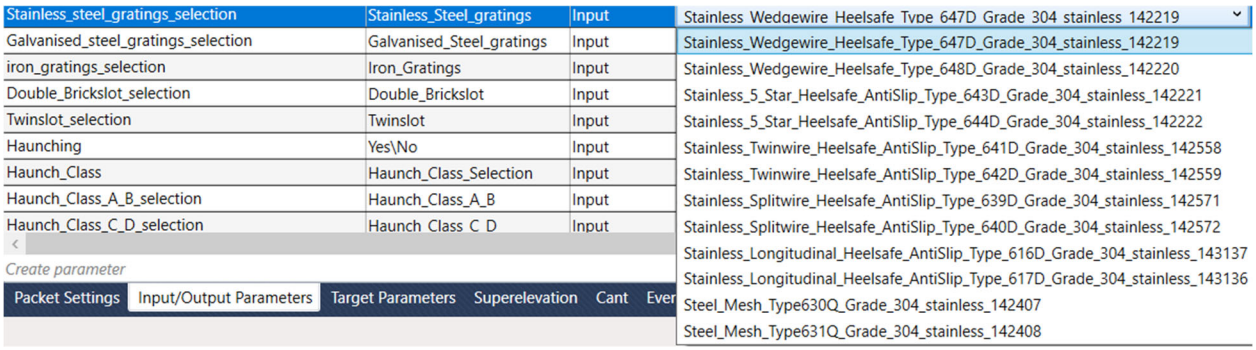
3.3 SlabDrain H200K/H200KS grating types

Users be able to select their required gratings; gratings have been segregated as per material 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_material_selection_and_Brickslot_selection	Gratings_Brickslots	Input	Galvanised_steel_gratings
Stainless_steel_gratings_selection	Stainless_Steel_gratings	Input	Stainless_Steel_gratings
Galvanised_steel_gratings_selection	Galvanised_Steel_gratings	Input	Iron_gratings
iron_gratings_selection	Iron_Gratings	Input	Double_Brickslot
Double_Brickslot_selection	Double_Brickslot	Input	Twinslot
Twinslot_selection	Twinslot	Input	

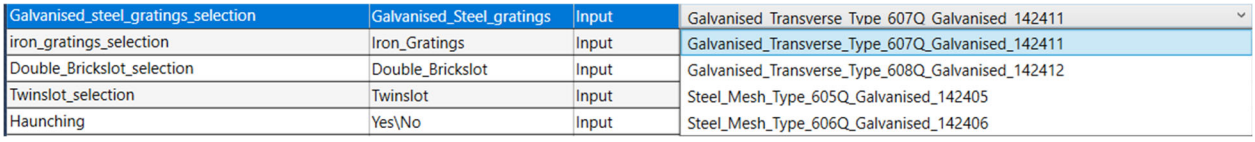
After Selection of material and brickslot just below that with preferred selection there will be a parameter. From that user can able to select their preferred gratings.



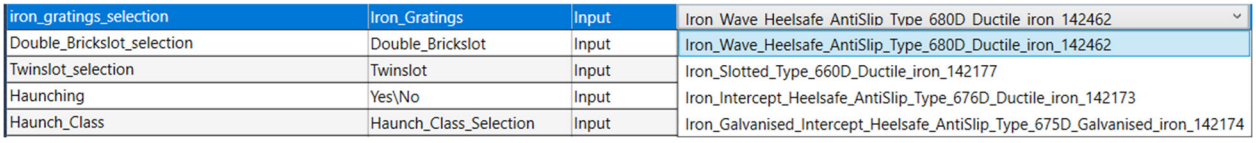
Stainless_steel_gratings_selection	Stainless_Steel_gratings	Input	Stainless_Wedgewire_Heelsafe_Type_647D_Grade_304_stainless_142219
Galvanised_steel_gratings_selection	Galvanised_Steel_gratings	Input	Stainless_Wedgewire_Heelsafe_Type_647D_Grade_304_stainless_142219
iron_gratings_selection	Iron_Gratings	Input	Stainless_Wedgewire_Heelsafe_Type_648D_Grade_304_stainless_142220
Double_Brickslot_selection	Double_Brickslot	Input	Stainless_5_Star_Heelsafe_AntiSlip_Type_643D_Grade_304_stainless_142221
Twinslot_selection	Twinslot	Input	Stainless_5_Star_Heelsafe_AntiSlip_Type_644D_Grade_304_stainless_142222
Haunching	Yes\No	Input	Stainless_Twinwire_Heelsafe_AntiSlip_Type_641D_Grade_304_stainless_142558
Haunch_Class	Haunch_Class_Selection	Input	Stainless_Twinwire_Heelsafe_AntiSlip_Type_642D_Grade_304_stainless_142559
Haunch_Class_A_B_selection	Haunch_Class_A_B	Input	Stainless_Splitwire_Heelsafe_AntiSlip_Type_639D_Grade_304_stainless_142571
Haunch_Class_C_D_selection	Haunch_Class_C_D	Input	Stainless_Splitwire_Heelsafe_AntiSlip_Type_640D_Grade_304_stainless_142572
			Stainless_Longitudinal_Heelsafe_AntiSlip_Type_616D_Grade_304_stainless_143137
			Stainless_Longitudinal_Heelsafe_AntiSlip_Type_617D_Grade_304_stainless_143136
			Steel_Mesh_Type630Q_Grade_304_stainless_142407
			Steel_Mesh_Type631Q_Grade_304_stainless_142408

Create parameter

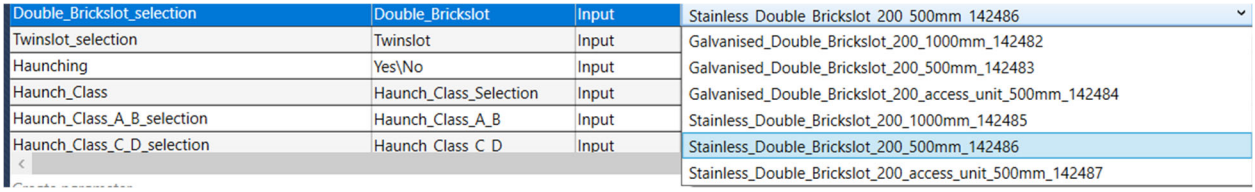
Packet Settings | Input/Output Parameters | Target Parameters | Superelevation | Cant | Ever



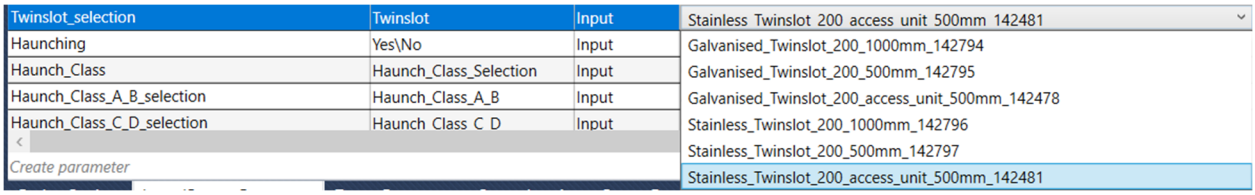
Galvanised_steel_gratings_selection	Galvanised_Steel_gratings	Input	Galvanised_Transverse_Type_607Q_Galvanised_142411
iron_gratings_selection	Iron_Gratings	Input	Galvanised_Transverse_Type_607Q_Galvanised_142411
Double_Brickslot_selection	Double_Brickslot	Input	Galvanised_Transverse_Type_608Q_Galvanised_142412
Twinslot_selection	Twinslot	Input	Steel_Mesh_Type_605Q_Galvanised_142405
Haunching	Yes\No	Input	Steel_Mesh_Type_606Q_Galvanised_142406



iron_gratings_selection	Iron_Gratings	Input	Iron_Wave_Heelsafe_AntiSlip_Type_680D_Ductile_iron_142462
Double_Brickslot_selection	Double_Brickslot	Input	Iron_Wave_Heelsafe_AntiSlip_Type_680D_Ductile_iron_142462
Twinslot_selection	Twinslot	Input	Iron_Slotted_Type_660D_Ductile_iron_142177
Haunching	Yes\No	Input	Iron_Intercept_Heelsafe_AntiSlip_Type_676D_Ductile_iron_142173
Haunch_Class	Haunch_Class_Selection	Input	Iron_Galvanised_Intercept_Heelsafe_AntiSlip_Type_675D_Galvanised_iron_142174

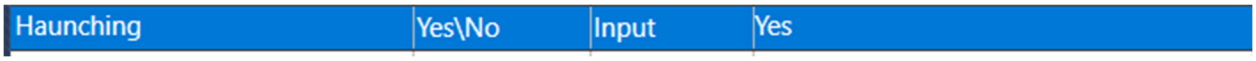


Double_Brickslot_selection	Double_Brickslot	Input	Stainless_Double_Brickslot_200_500mm_142486
Twinslot_selection	Twinslot	Input	Galvanised_Double_Brickslot_200_1000mm_142482
Haunching	Yes\No	Input	Galvanised_Double_Brickslot_200_500mm_142483
Haunch_Class	Haunch_Class_Selection	Input	Galvanised_Double_Brickslot_200_access_unit_500mm_142484
Haunch_Class_A_B_selection	Haunch_Class_A_B	Input	Stainless_Double_Brickslot_200_1000mm_142485
Haunch_Class_C_D_selection	Haunch_Class_C_D	Input	Stainless_Double_Brickslot_200_500mm_142486
			Stainless_Double_Brickslot_200_access_unit_500mm_142487

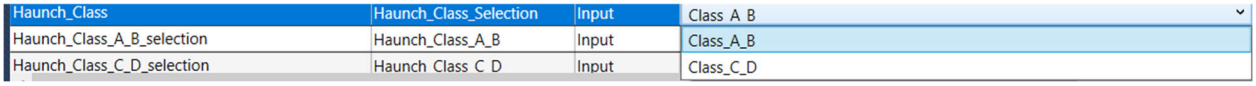


3.4 Haunch types

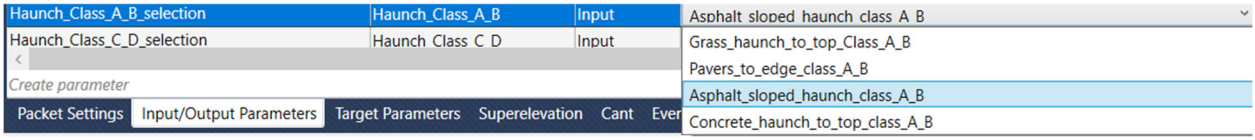
To include Haunching we have provided decision option so user can select yes/or from the parameter Haunching. There are two defferent classes for haunching A-B and C-D

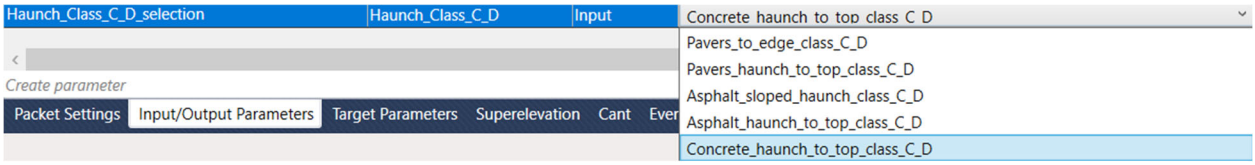


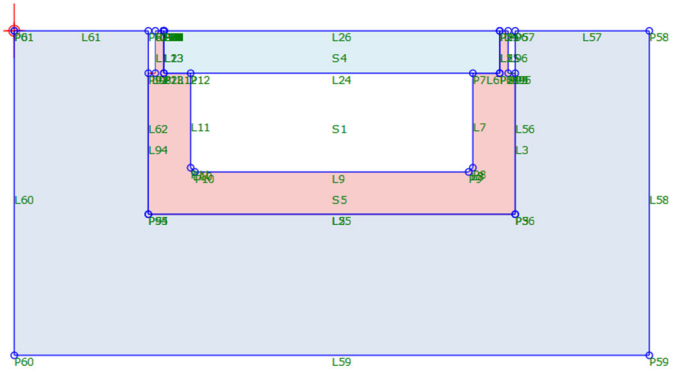
There are two defferent classes for haunching A-B and C-D it can be decide by user, using Haunch class parameter drop down menu.



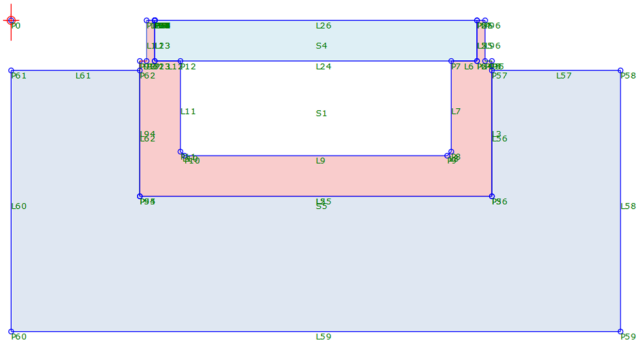
Haunch class A-B which has four type of haunch and C-D which have different types of haunch user can easily select their haunch type with provided parameters.



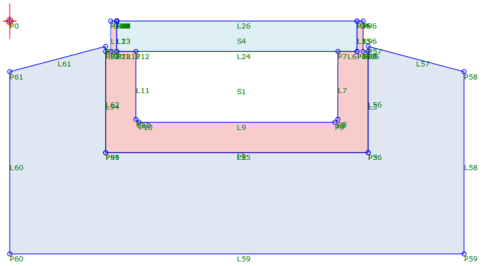




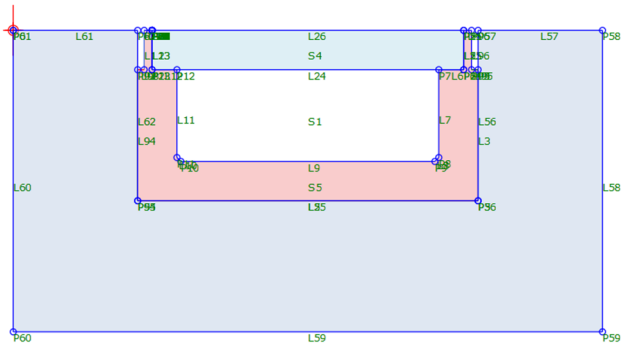
Grass haunch to top



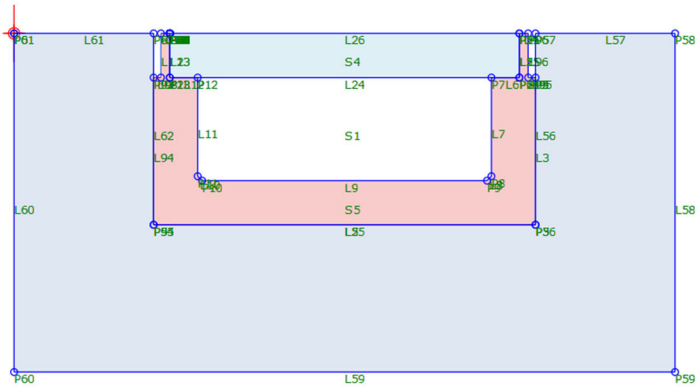
Pavers to edge



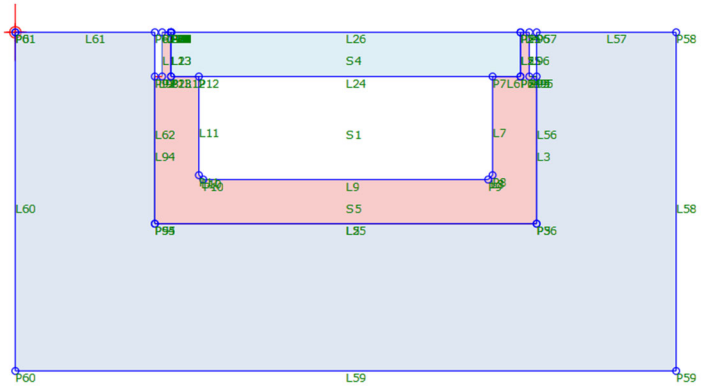
Asphalt sloped haunch



Concrete haunch to top



Pavers haunch to top



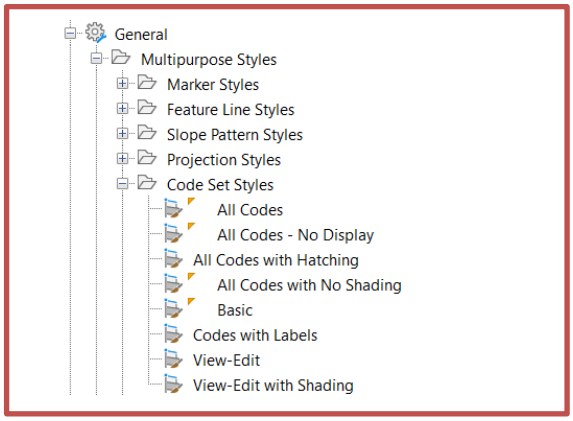
Asphalt haunch to top

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 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 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