



Contour Model Tutorial

from Geo Maps Data



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Auckland Council **GEOMAPS**

Address Search the map...

Info Legend Results

Title
GeoMaps Public

Description
Latest GIS Viewer for Auckland Council, containing spatial and non-spatial data from across the Auckland region that includes; Property, Rating, Parks and Underground Services. There is also a wealth of other data available at your finger tips, via the Themes or Data Discovery tool.

Please be aware that there are Terms and Conditions (see Disclaimer button at bottom of page) associated with this website and the information contained herein is provided to Auckland Council users as a service. Kerblines Removed From Print Templates:

SYSTEM MAINTENANCE
Public GeoMaps and other GIS services will be unavailable on **Tuesday September 13th** from **6pm - 10pm** for planned maintenance. We apologise for the inconvenience.

Announcements
2020-2022 Rural Aerial Imagery Available
The new 2020-2022 Rural 0.075m aerial imagery has been added to the Aerials theme and is available to extract via the Clip Zip and Ship Tool (data extract tool).

Alcohol License Layer Added to Bylaws Service
Please be aware that the alcohol licensing layers have been added to the Bylaws service

Biodiversity (public) and BioSecurity (public) layers to be decommissioned.
Please note that the layers Biodiversity & Biosecurity will be superseded by a new layer group Natural Environment Conservation, which is available to load via the Data Discovery tool or by switching to the Environment theme. For further

Auckland Council Help Disclaimer

NZTM : 1757480, 5920796

Go to

<https://geomapspublic.aucklandcouncil.govt.nz/viewer/>

And zoom in to your selected site, in this example we will be viewing High Street, Auckland CBD.

The screenshot displays the Auckland Council GeoMaps interface. On the left, the 'Info' panel contains a title 'GeoMaps Public', a description of the GIS viewer, and several announcements regarding rural aerial imagery, alcohol license layers, and biodiversity/biosecurity layers. The main map area shows a street grid in Auckland with various data layers overlaid. A dialog box titled 'Extract Data' is open, allowing users to select layers to download, choose an output coordinate system (NZTM), and select an output format (ESRI Shape, Image, or Email). The map is powered by Esri and shows a scale of 0 to 60 meters.

Auckland Council **GEOMAPS**

Address Search the map...

Info **Legend** **Results**

Title
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Description
A web-based GIS Viewer for Auckland Council, containing spatial and non-spatial data from across the Auckland region that includes: Property, Planning, Parks and Underground Services. There is also a wealth of other data available at your finger tips, via the Themes or Data Discovery tool.
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Extract Data
Cropping Area:
Layers to Download:
Water
Stormwater
Wastewater
Catchments & Hydrology
Contours 2016
Address
Building Footprints
Parcel
Kerb Line 2008
Impervious Surfaces 2008
Output Coordinate System:
New Zealand Transverse Mercator (NZTM)
Output Format:
Features: ESRI Shape
Image: JPG
Email:
Extract

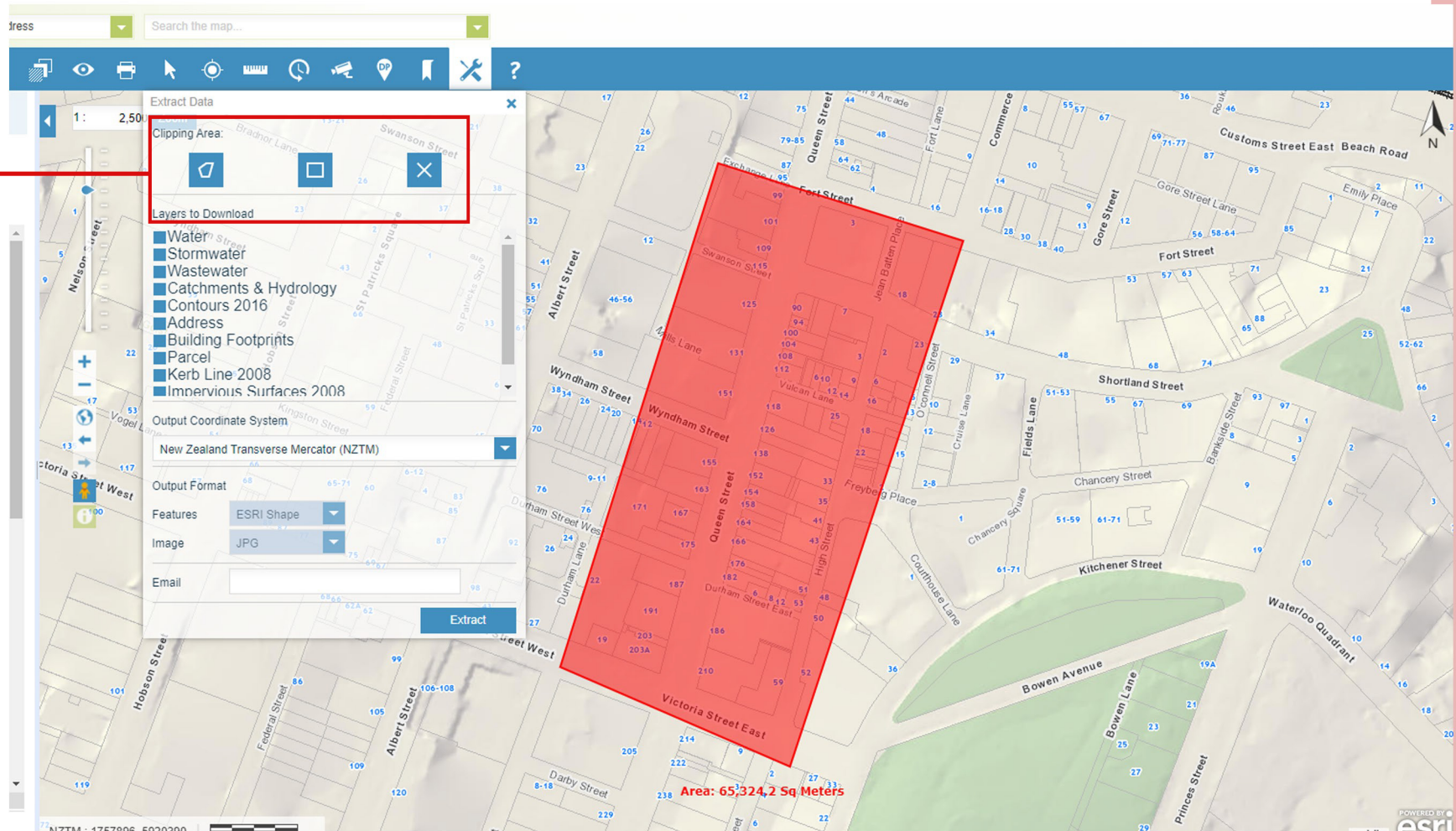
NZTM : 1757650, 5920321 0 30 60m

powered by **esri** public

Auckland Council Help Disclaimer

Click on the tool icon to bring up the tools drop down menu.
You will be presented with a prompt, press 'agree'

Use one of these options to select your area to export.



Highlight your selected area to export.

Keep NZTM

Change to AutoCAD DWG

Select either JPG or PNG (JPG is generally better)

Enter your Email

Then click 'Extract'

Extract Data

Zoom

Clipping Area:

Layers to Download

- ☒ Stormwater
- ☐ Wastewater
- ☐ Catchments & Hydrology
- ☒ Contours 2016
- ☒ Address
- ☒ Building Footprints
- ☐ Parcel
- ☐ Kerb Line 2008
- ☒ Impervious Surfaces 2008
- ☒ Aerials

Output Coordinate System

New Zealand Transverse Mercator (NZTM)

Output Format

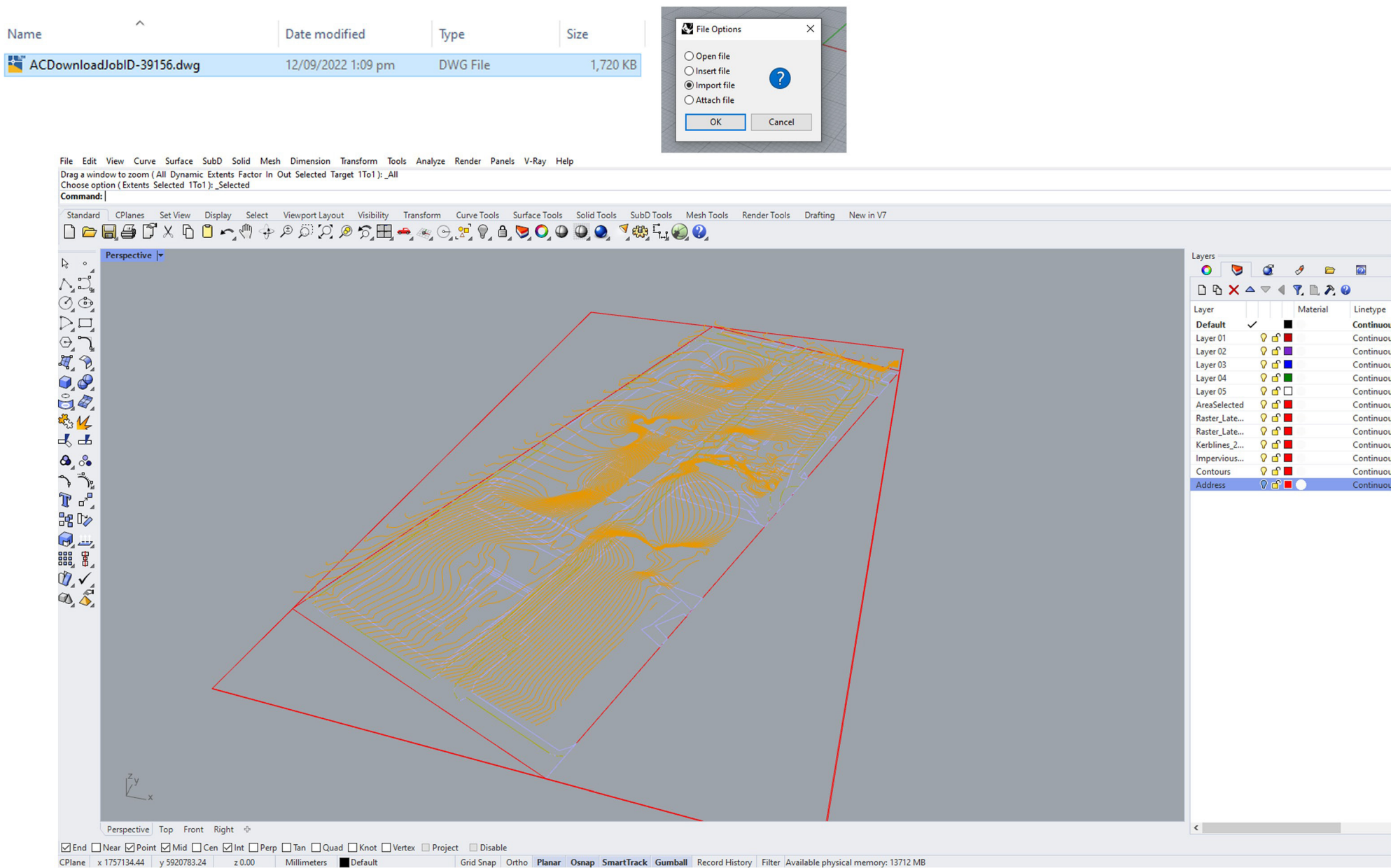
Features: AutoCAD DWG

Image: JPG

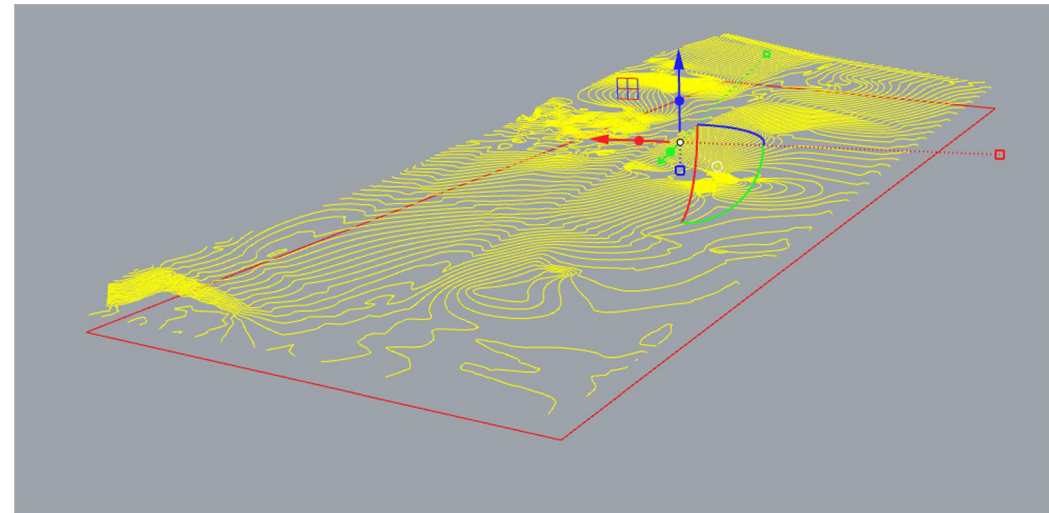
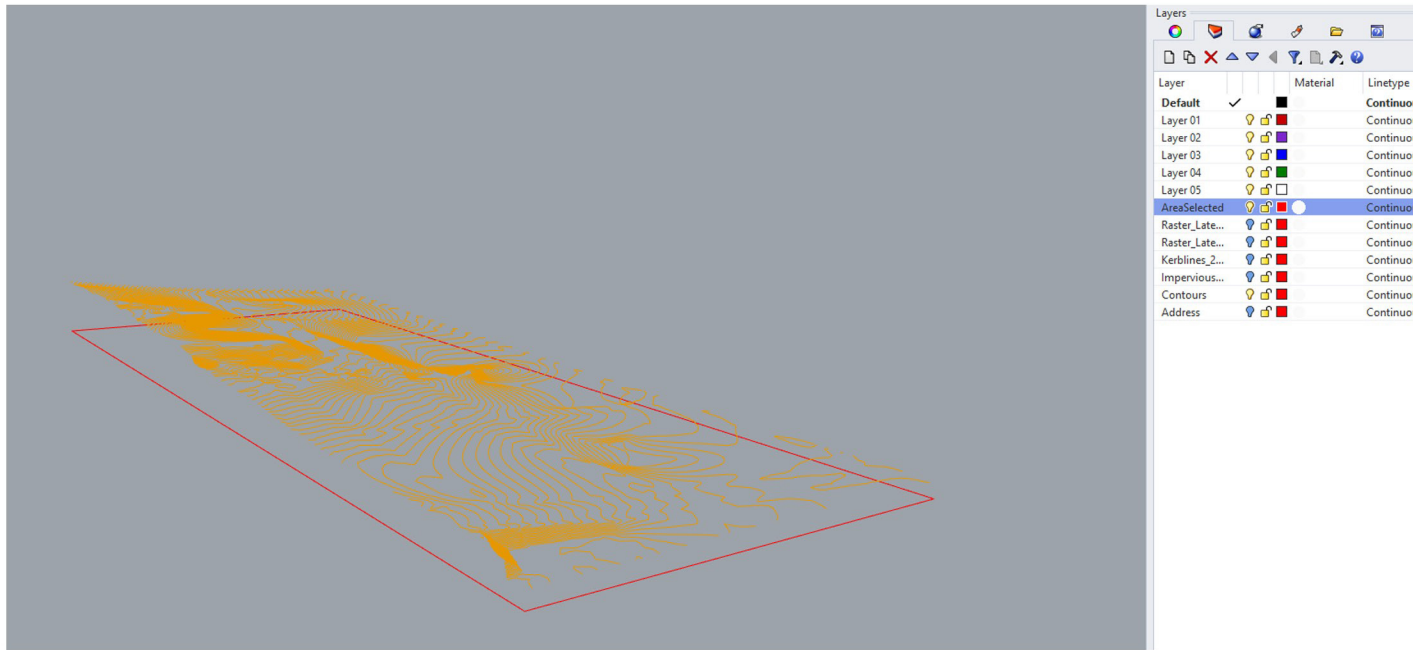
Email: drh@aucklanduni.ac.nz

Extract

Select which options you would like to import, generally you import contours, Kerb Lines, Addresses and Aerials. You can choose to import additional information.

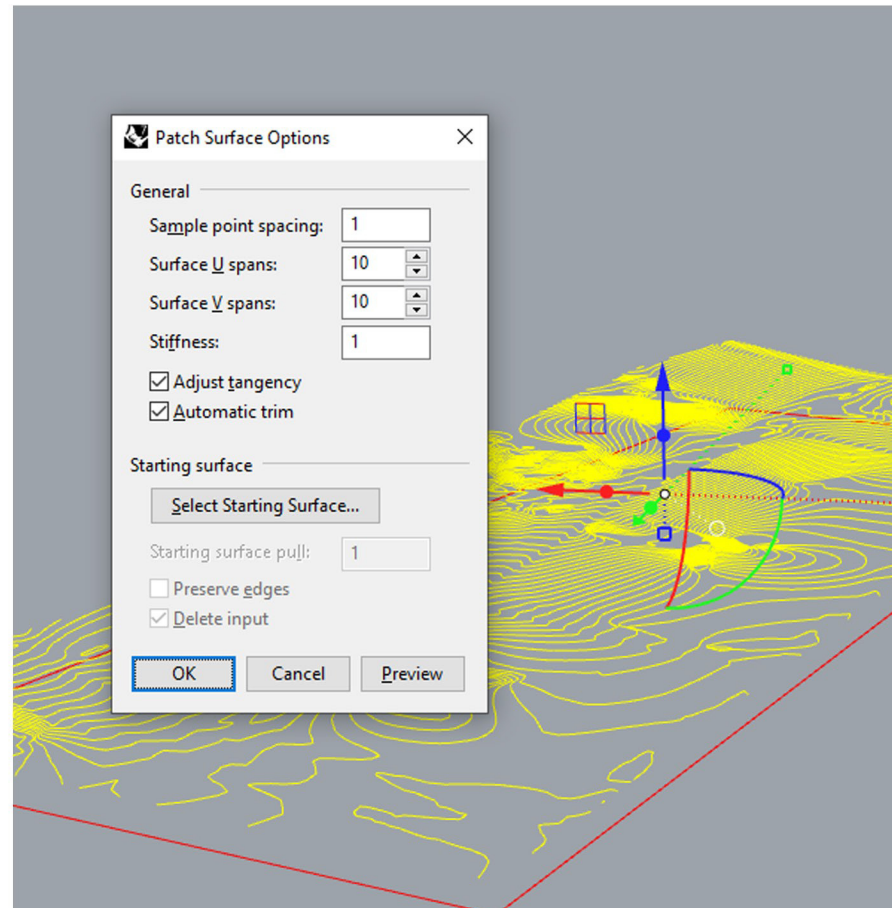
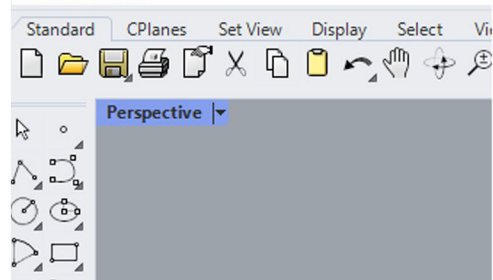


The files will be emailed to you, once you receive the Email, import the files into Rhino.



Then hide all other layers except for the contours and outline.
Select all of the contours.

Command: Patch

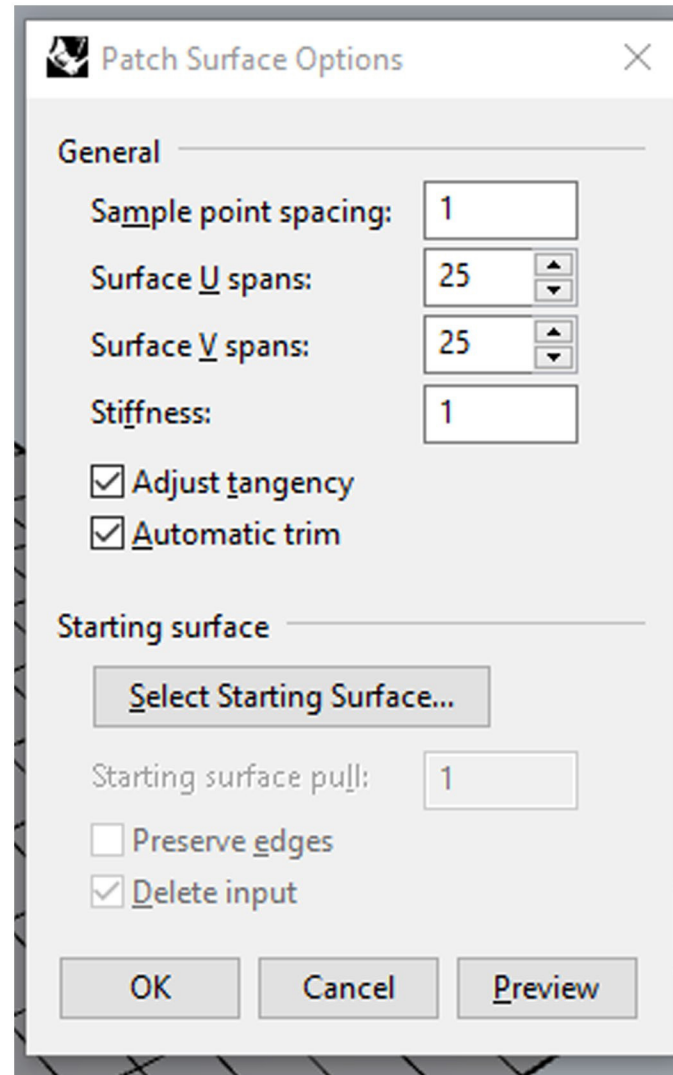


Type 'patch' command, you will then be prompted with the 'Patch Surface Options' box.

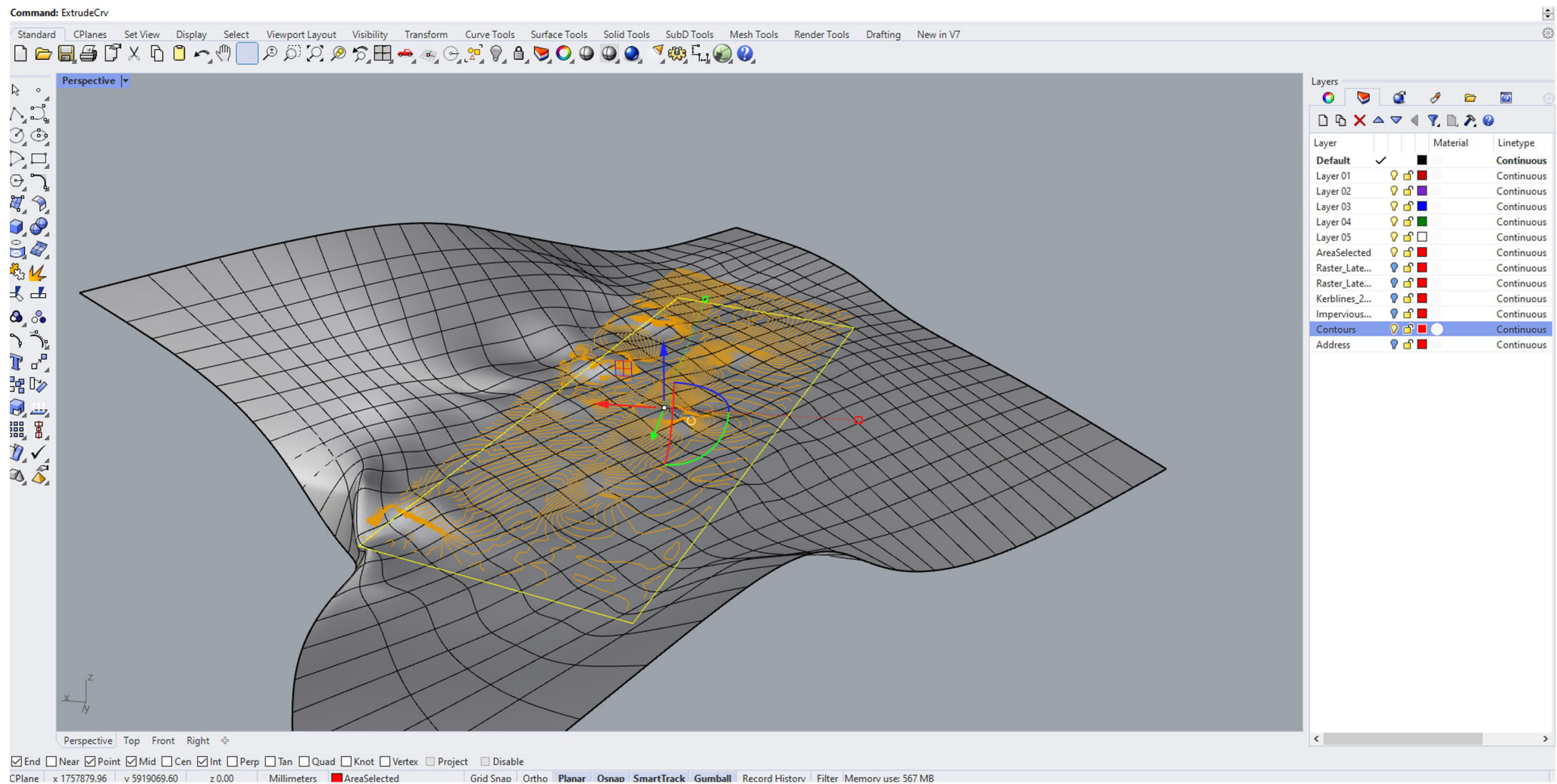
U V Spans determines how detailed your surface will be, the higher the number, the more detailed.

Stiffness defines how rigid the surface will be.

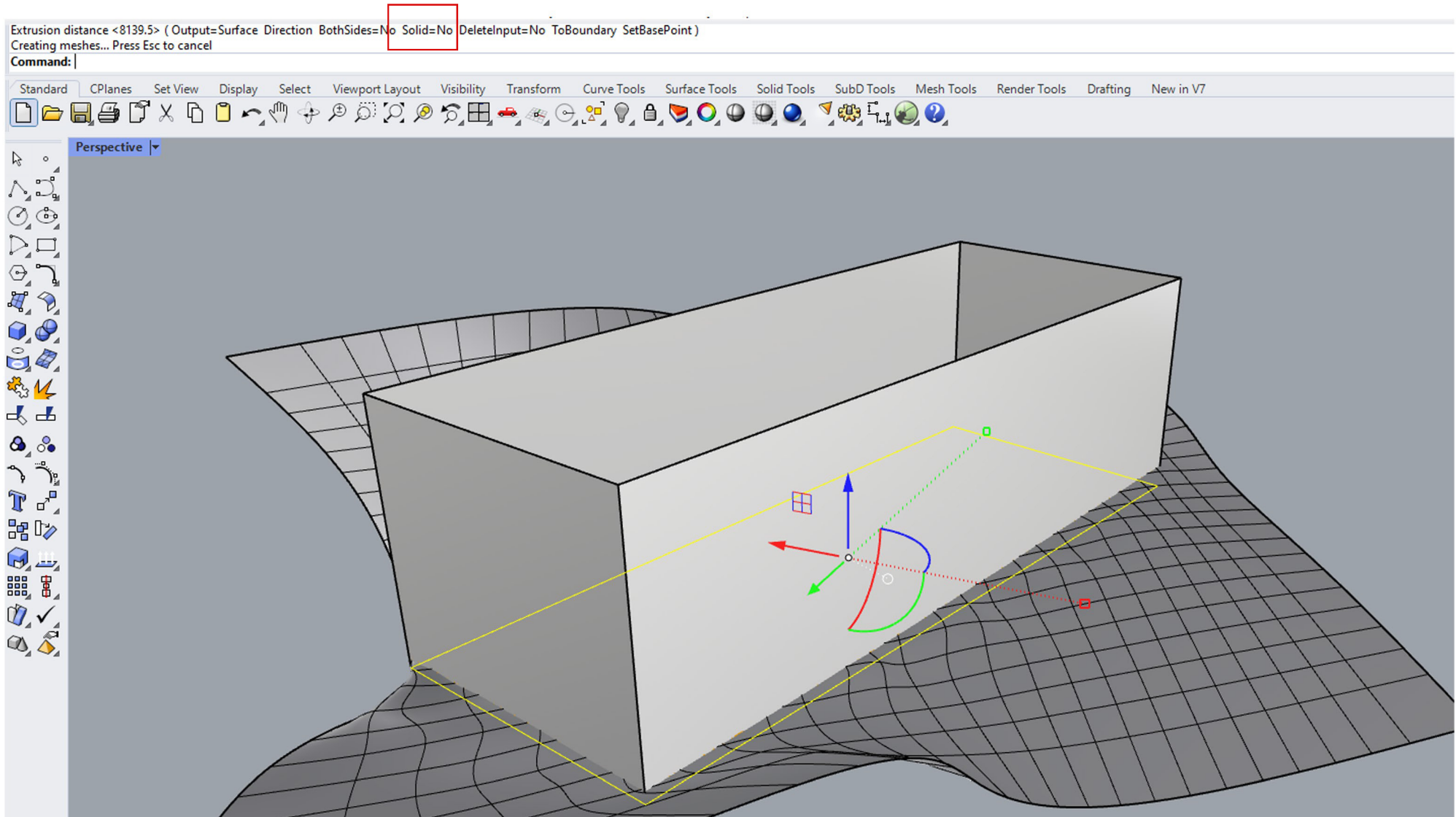
Keep in mind the result will take longer, the more UV Spans you have



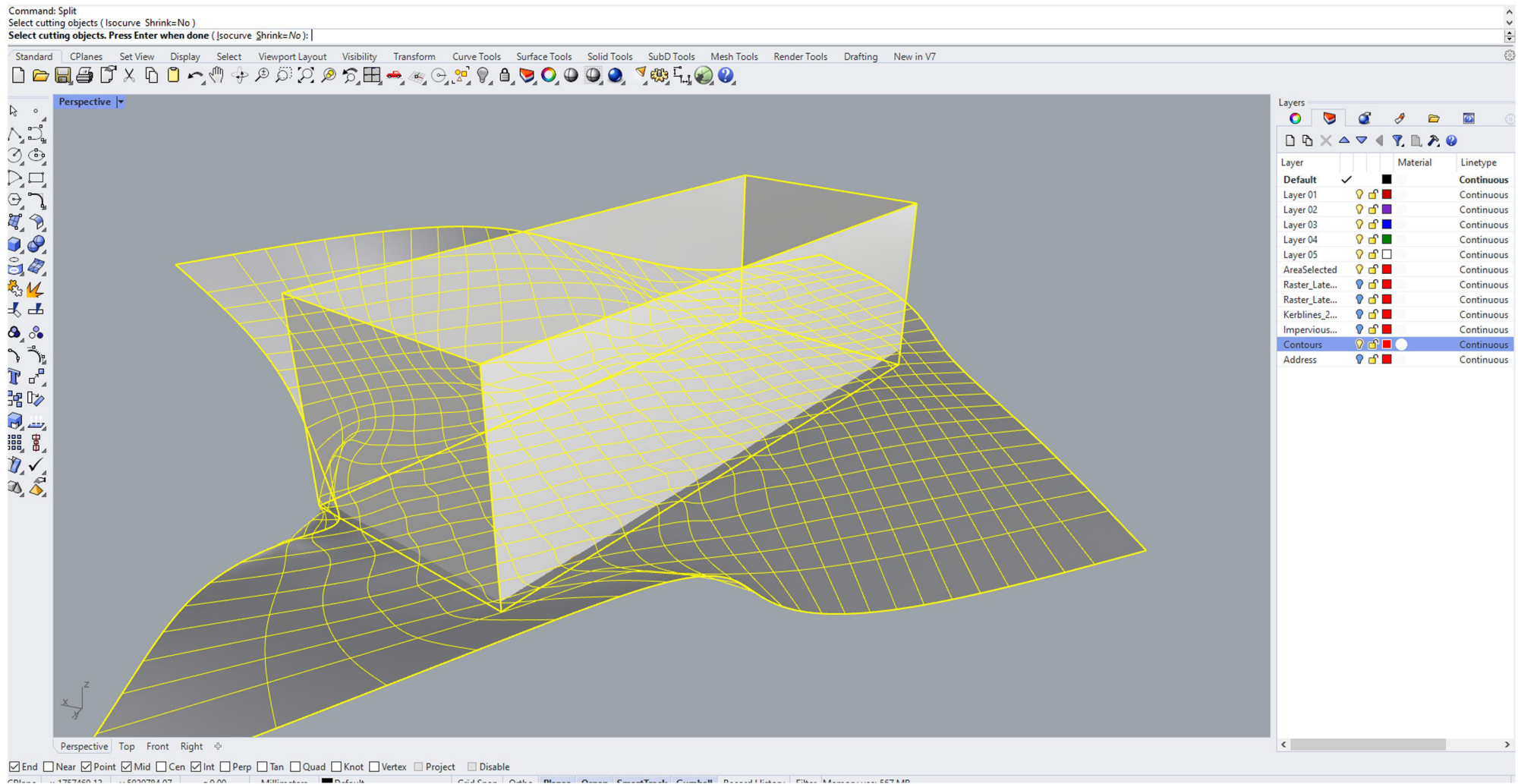
Set your UV spans and stiffness (these default settings provide a reasonably detailed surface). Then press OK or Preview if you would like to make adjustments.



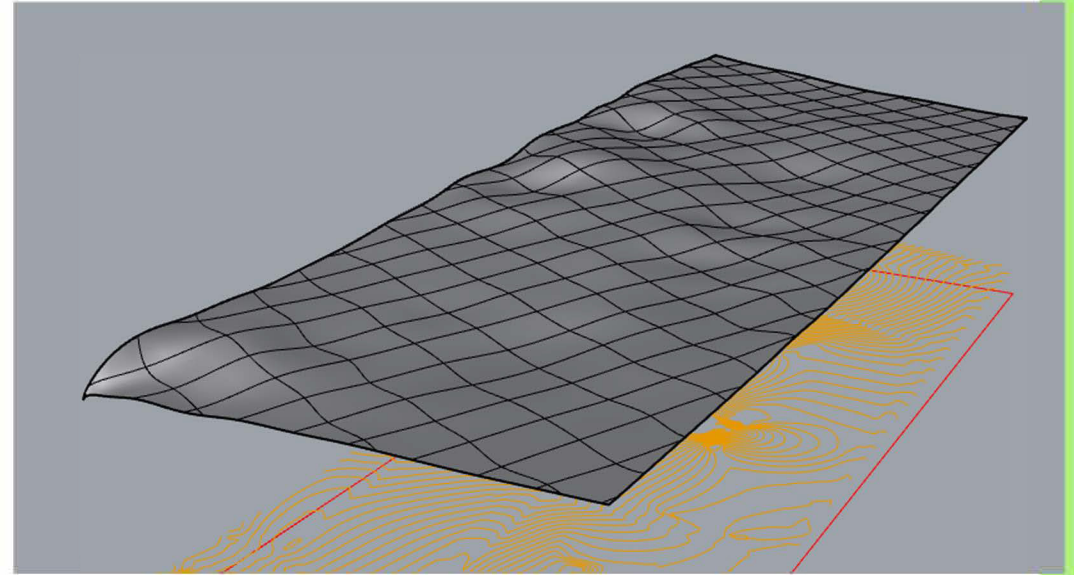
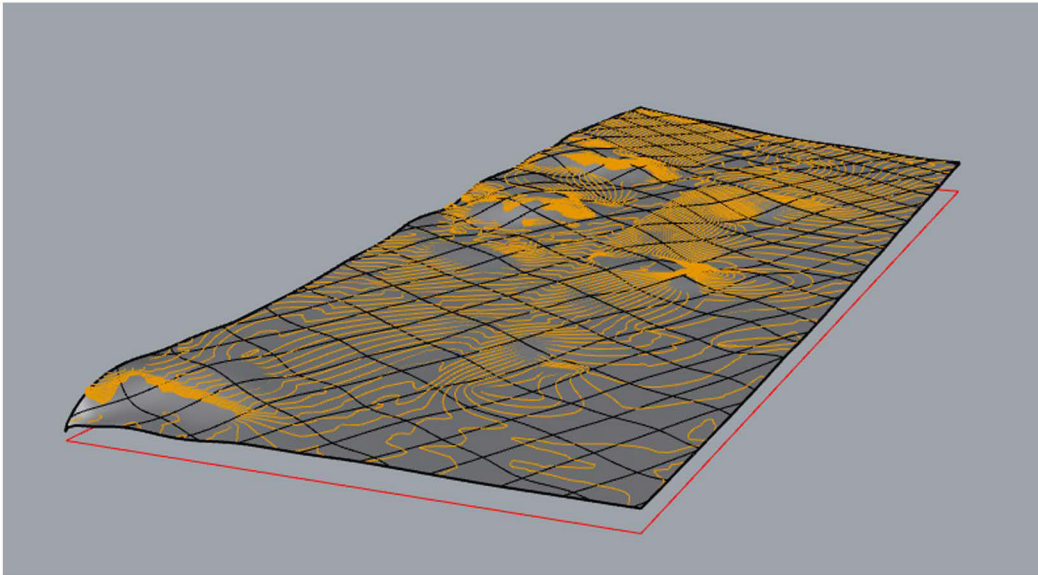
With your outline selected, type the command 'ExtrudeCrv'



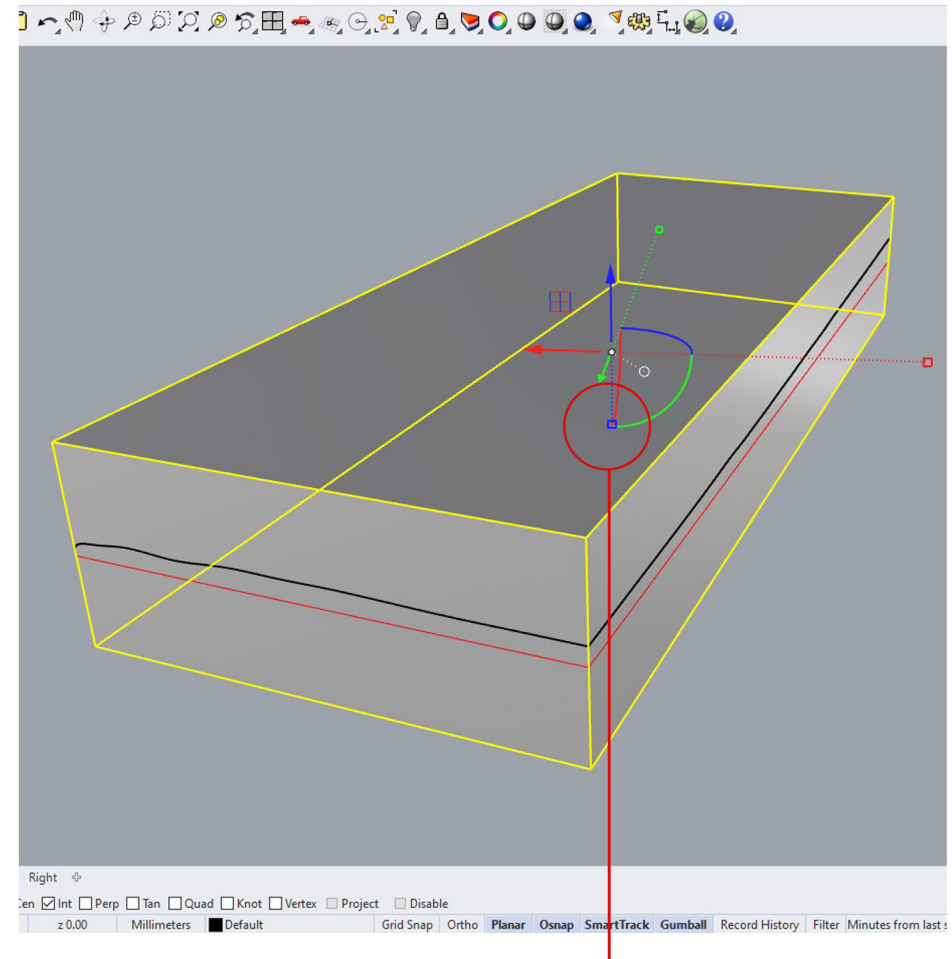
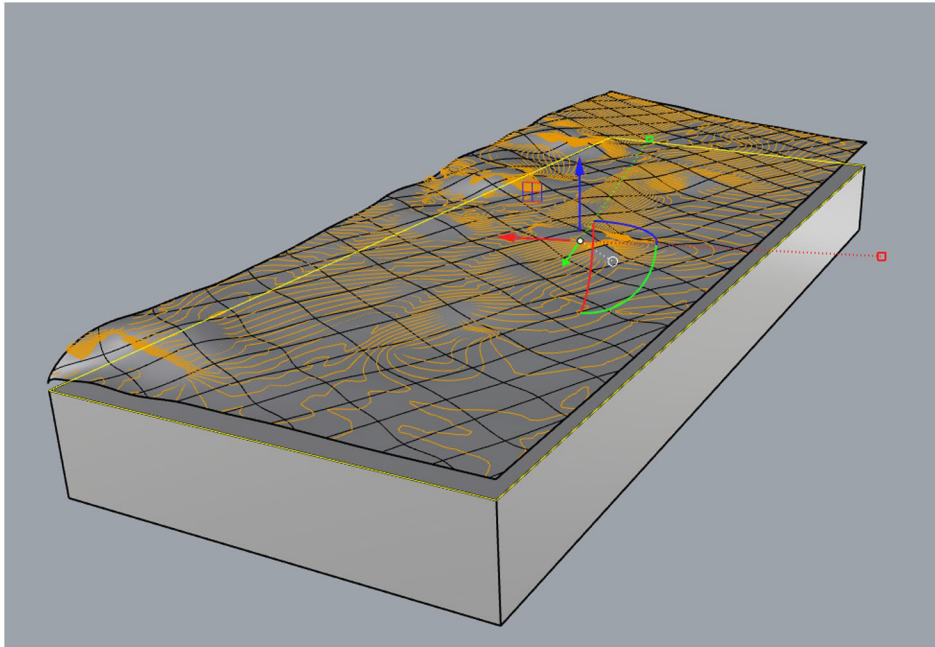
Then extrude the shape upwards, ensure that Solid=No



Use the 'split' command to split the ground using the box.



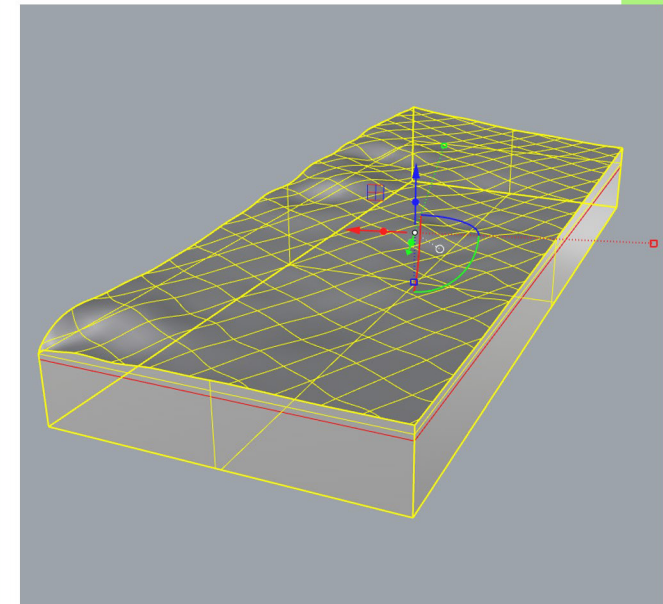
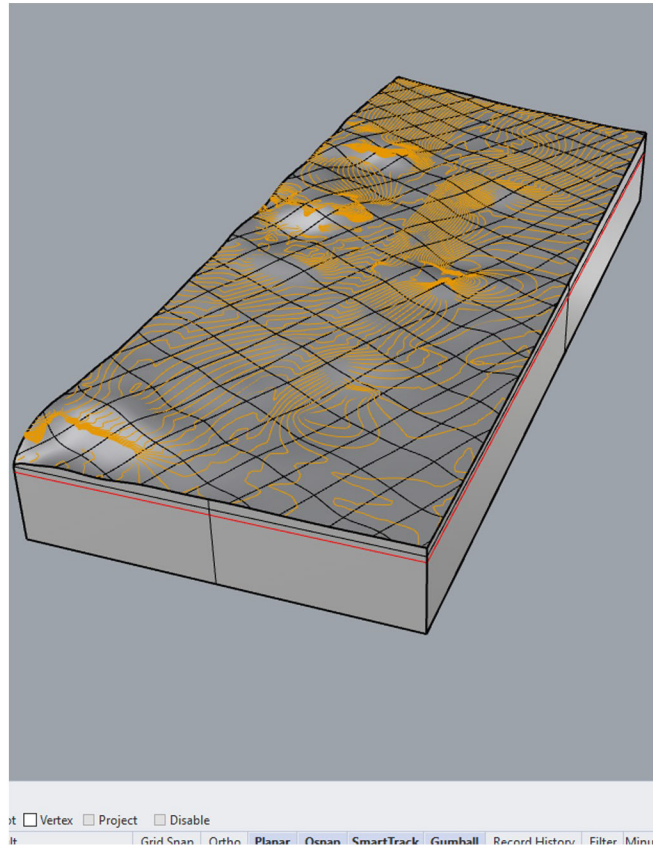
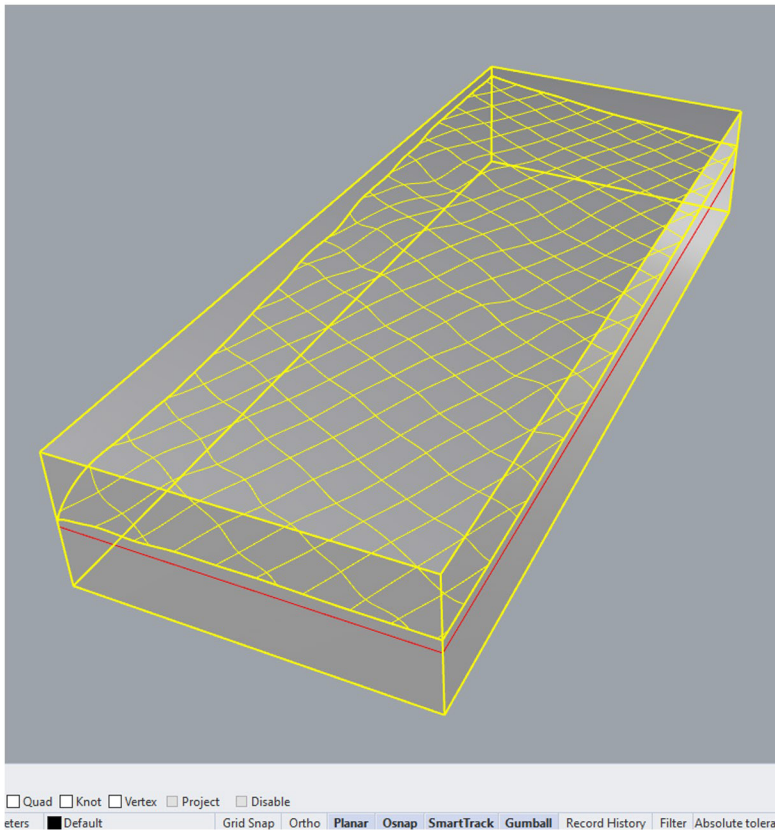
After the contour has been split, you can remove the excess surfaces outside of the bounding box.



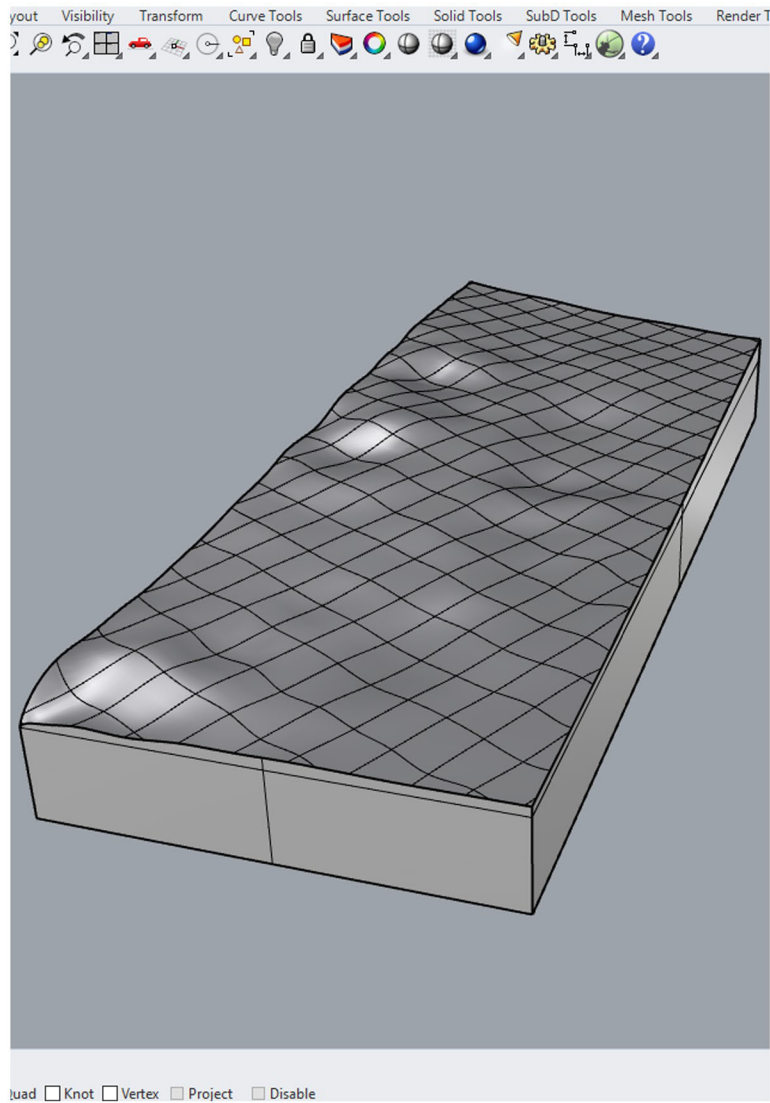
Each of these RGB boxes changes the size of the object, this is Gumball.

Using ExtrudeCrv on the bounding box again, set the extrusion to Solid=Yes, and drag the extrusion downwards.

Then using Gumball (highlighted in the second image) increase the size of the box until the top goes over the contours.



Then again using the 'Split' command, split the box using the contour surface. Remove the top of the box and you will be left with a box below in the shape of the contour. Then highlight both the surface and the box and type command 'Join'



You will be left with a solid polysurface as your contour model.