

T3RRA



7.14 | Levee Design

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'Levees' allows you to create repeating or singular levees at set elevations.



Levees | Terrain: Original | Layer: Elevation

100%

Design Regions Water flow Info

160.89m 162.96m

View 2D View Full In Out Settings Return

Levee Creation

Set Start Elevation using the map

Start Elevation 162.96 m
Levees elevations are offset by the vertical interval from this reference elevation.

Vertical interval 0.2 m

Min. Length 20 m

☐ Reverse numbering (highest is first)

Line smooth levees: 63.1%

Surface smooth strength: 5.0%

Delete a levee...

☒ on elevation
☐ on design

Delete All Levees Apply

W E

Drop box

Tail Drain

B 30 head ditch

- Levees can be added at set intervals.
- Levees can be smoothed.
- Levees can be selectively deleted.
- Levees can be applied selectively to field regions.
- Levees can be exported as guidance curves for use with John Deere AutoTrac™.

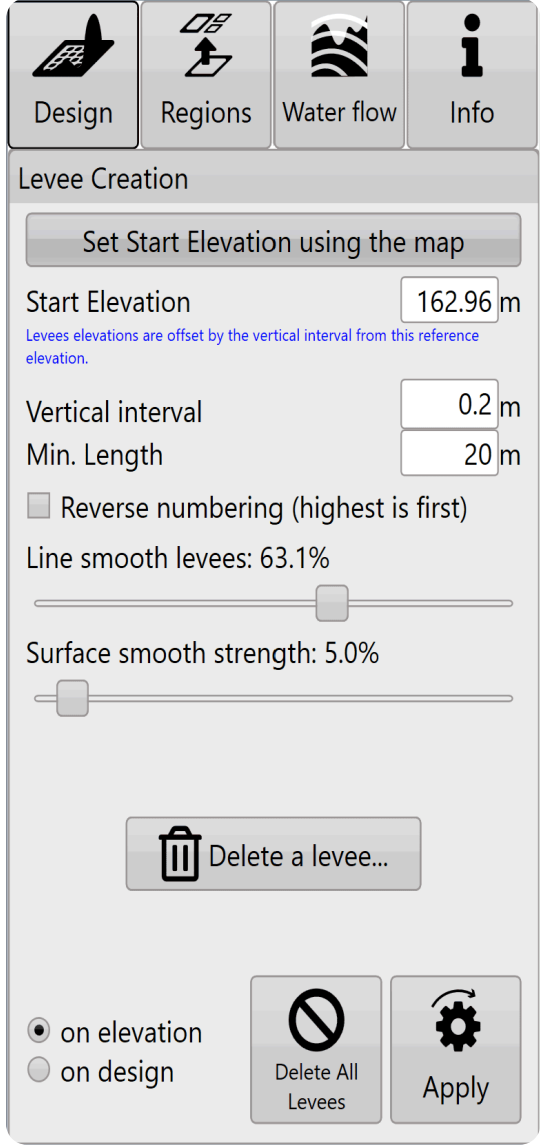
Levee Creation Parameters

'Start Elevation' will be populated automatically. You can also choose the 'Start Elevation' by manually pressing on the 'Start Elevation' button and then touching the design map at the location you would like to start the levees from. Press Finish selecting to apply.

'Vertical interval' tells T3RRA Cutta and T3RRA Ditch how much elevation change from the previous levee is needed before adding another levee.

'Min. size' determines the minimum length a levee must be before it is included as a drivable path. Levees that are shorter than this will appear greyed out and not be available as paths.

'Reverse numbering' – By default levees are numbered from highest elevation to lowest, reverse numbering switches it to count up from the lowest elevation.



The Levee Creation panel features a top navigation bar with four icons: Design (a map with a path), Regions (a map with a region outline), Water flow (a wavy line), and Info (an 'i' icon). Below the navigation bar, the panel is titled 'Levee Creation'. It includes a button 'Set Start Elevation using the map'. The 'Start Elevation' is set to 162.96 m, with a note: 'Levees elevations are offset by the vertical interval from this reference elevation.' The 'Vertical interval' is set to 0.2 m, and the 'Min. Length' is set to 20 m. There is a checkbox for 'Reverse numbering (highest is first)' which is currently unchecked. Below this, there are two sliders: 'Line smooth levees: 63.1%' and 'Surface smooth strength: 5.0%'. At the bottom, there is a button 'Delete a levee...' with a trash icon. At the very bottom, there are three buttons: a radio button for 'on elevation' (selected), a radio button for 'on design', a button 'Delete All Levees' with a crossed-out circle icon, and a button 'Apply' with a gear icon.

'Line smooth levees' adjusts how many sharp turns and how smoothly the levee lines will be created. The further to the right the slider is the more round the lines will be (with decreased sharp turns).

'Surface smooth strength' adjusts the surface by applying an averaging filter to the surface of the field to remove bumps and dips without creating a full field earthwork design.

'Delete a levee' will bring up a window allowing you to enter the number associated with the levees you want to remove.

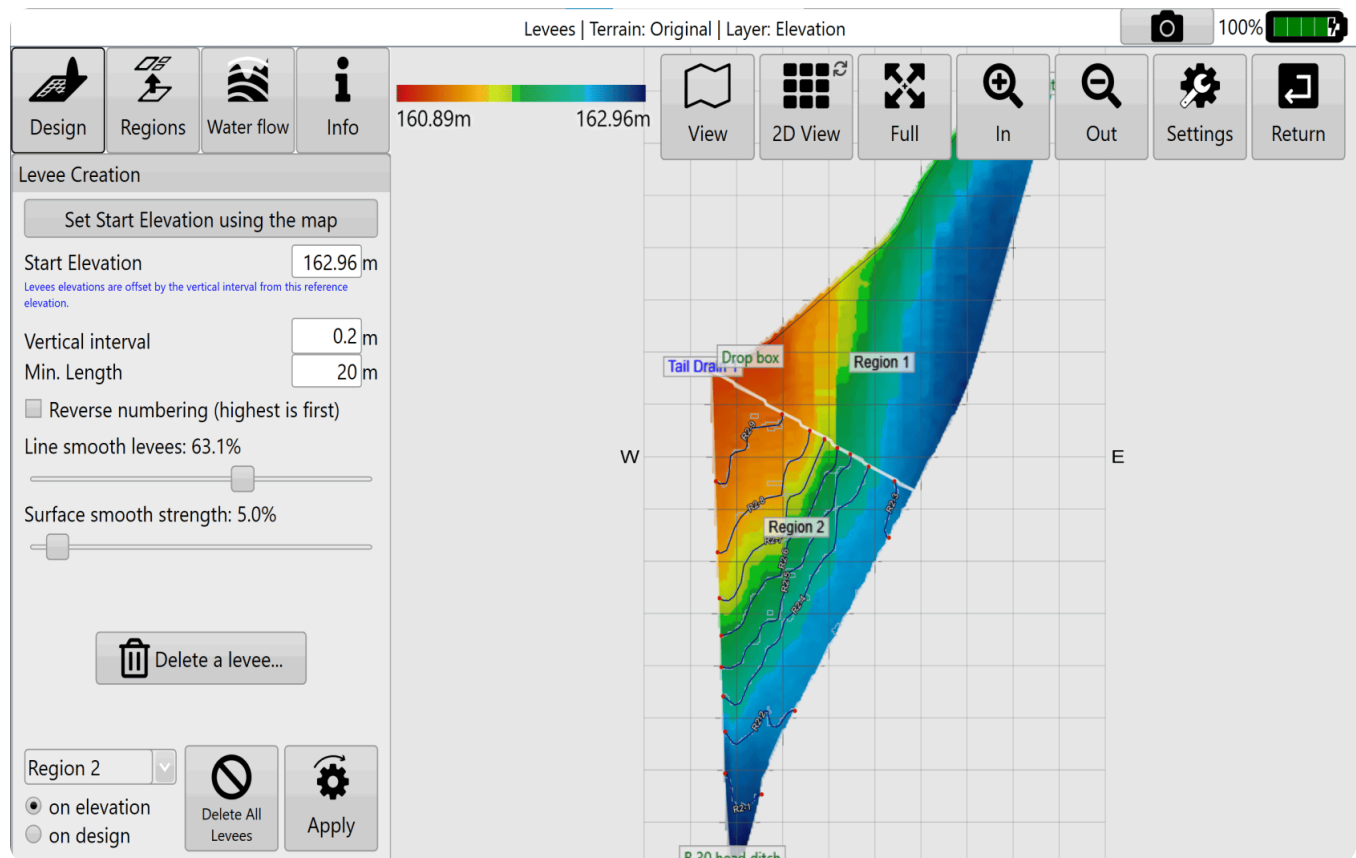
Like other design tools, Levees allows you to use either the original elevation surface, or a design surface as the basis for the calculations. It may be beneficial to perform a landforming operation on this field prior to putting in levees and then base the levees off the design surface.

Even if you are not performing a landforming operation it can sometimes be useful to perform a smoothing design on the surface first before attempting to lay out levees (ie, to work around poor data).

Press '**Apply**' (shown as the levees icon) after parameters are entered.

Levees can be applied separately to individual regions. It may be advantageous to do this if you have differently spaced levees in different sections of a field.

NOTE: Levees can be added to each region individually.



Once you have finished designing your levees and are happy with them there are two options available:

- export levee paths as guidance lines.
- begin implementation.

Exporting will allow the lines to be saved as guidance curves that can be loaded to John Deere's guidance system.

Select the Export button on the main design page to save as guidance curves (John Deere AutoTrac™ required).

If you want to continue and manually implement the levee paths or just display current position on the map while pulling levees, you can follow the instructions to begin implementation on the following page.

[Watch the Levee Design video on YouTube](#)

