YOUR CONSTRUCTION TECHNOLOGY PROVIDER

Field Reference Guides

EARTHWORKS GRADER VERSION 2.9

SITECH SOUTHWEST
SITECHSW.COM

Trimble® Authorized Dealer

System: Earthworks Grader

Version: 2.9

SITECH TECHNOLOGY DEALER

TRAINING CHECKLIST

System: Earthworks Grader Version: 2.9

SITECH Copy

Training Acknowledgement:

Customer Signature **Date** **SITECH Representative** **Date**

SITECH TECHNOLOGY DEALER

TRAINING CHECKLIST

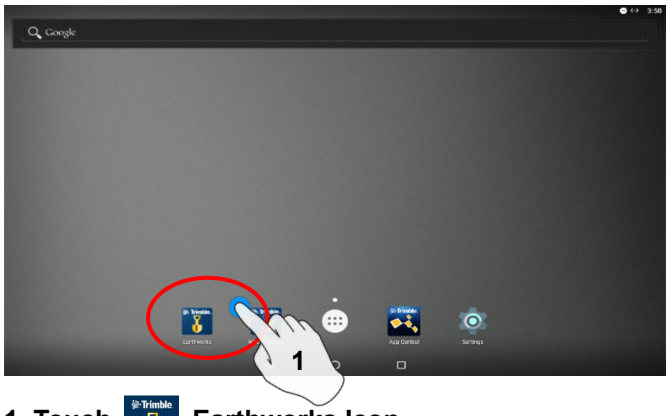
System: Earthworks Grader Version: 2.9

Customer Copy

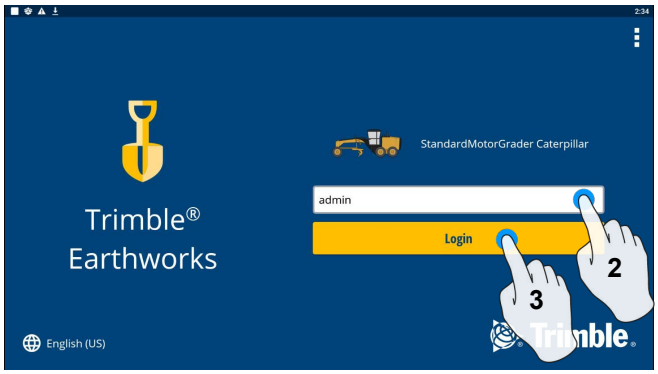
Training Acknowledgement:

Customer Signature **Date** **SITECH Representative** **Date**

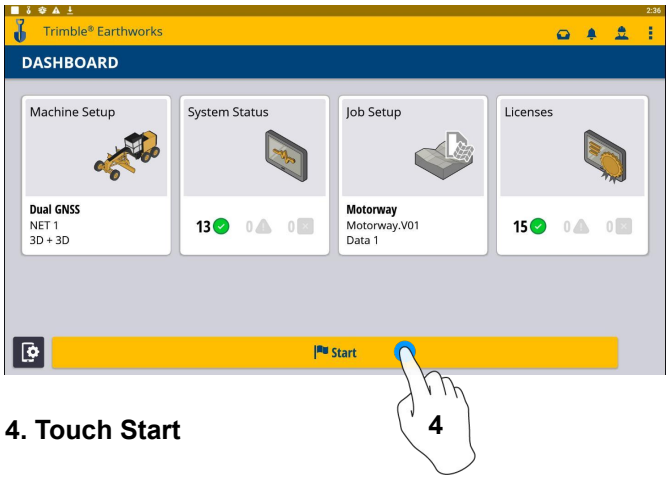
Starting Earthworks



1. Touch Earthworks Icon

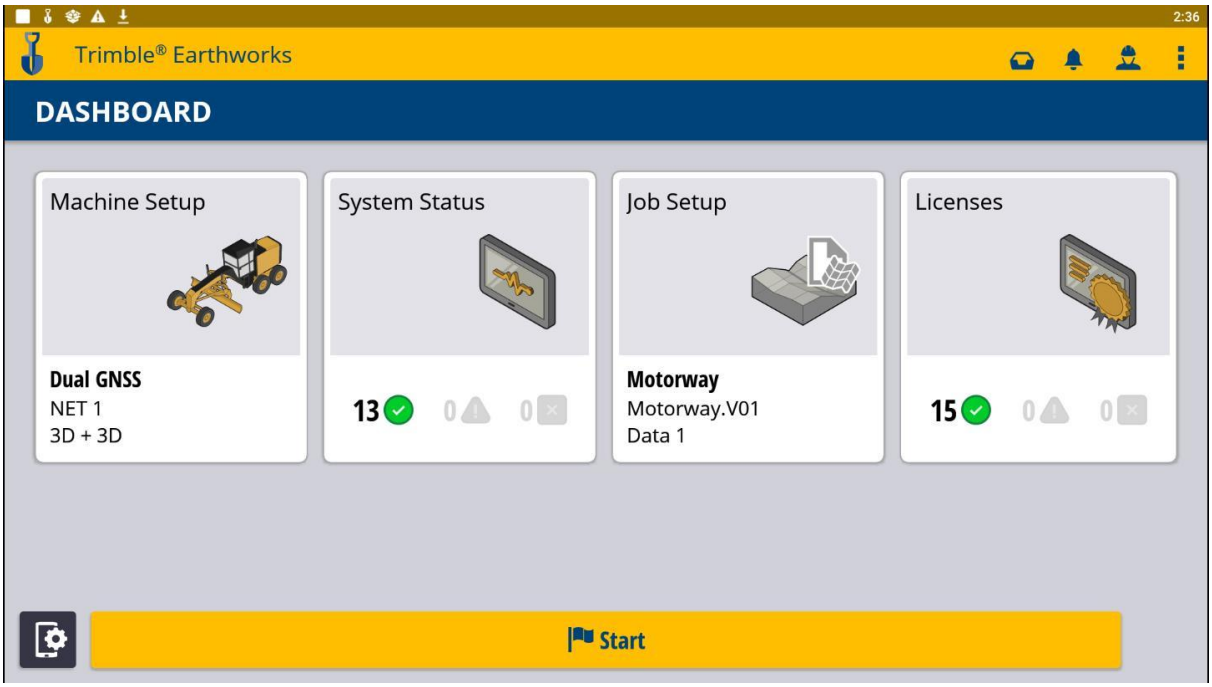


2. Select operator
3. Enter password if required and touch login

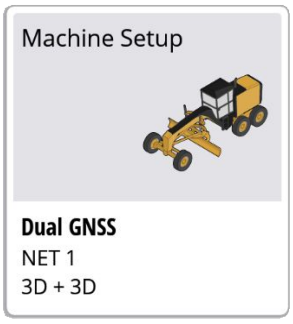


4. Touch Start

Dashboard

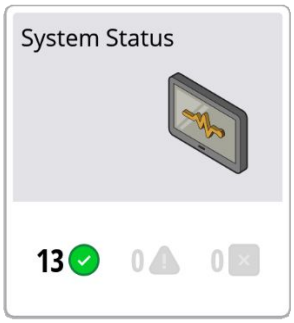


Machine Setup



- Position Source
- Correction Source

System Status

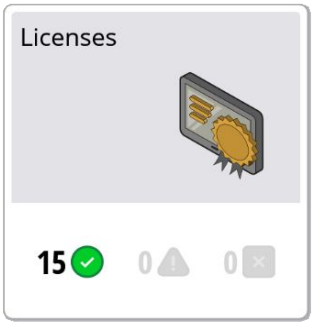


- Status of Devices
- Component Warnings

Job Setup

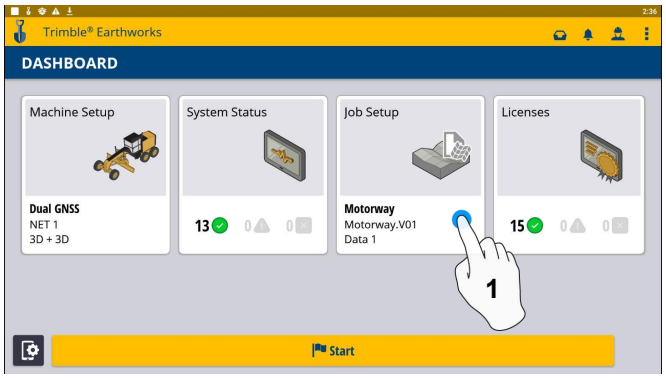
- Select or Create Project
- Select or Create Design
- Select or Create New Measured Data Folder

Licenses

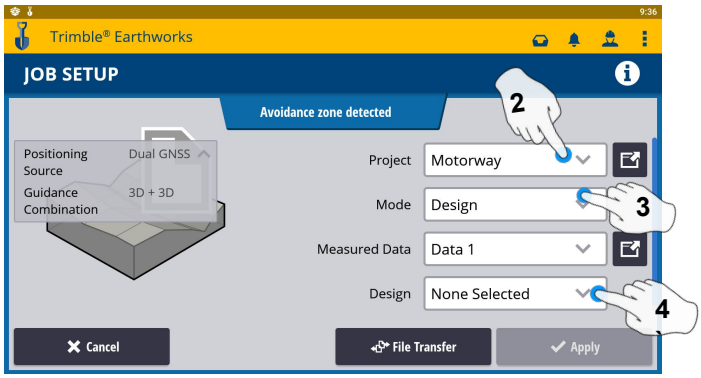


- EC520 License
- TD520 License
- GNSS Receiver License

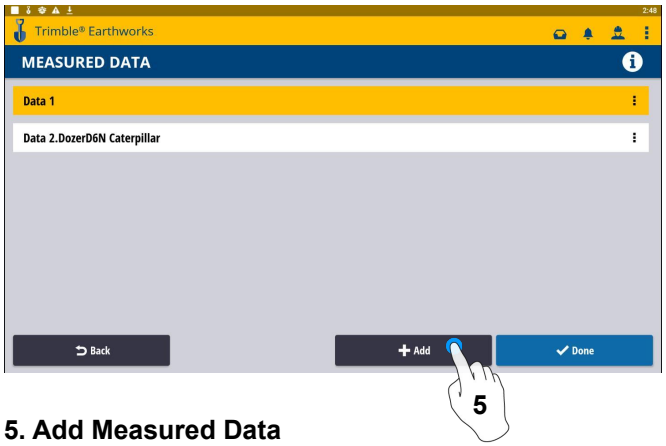
Select Project, Design and Measured Data



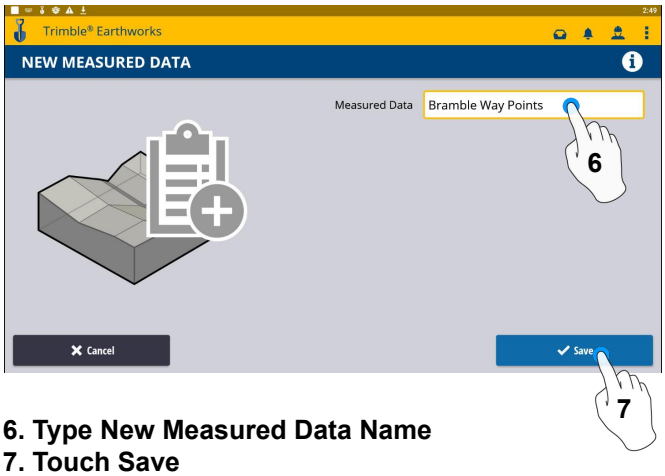
1. Touch Job Setup



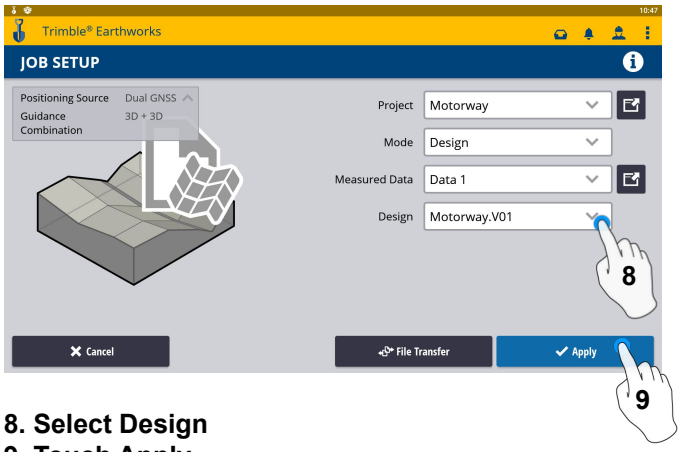
2. Select Project
3. Select Mode
4. Measured Data (Create New)



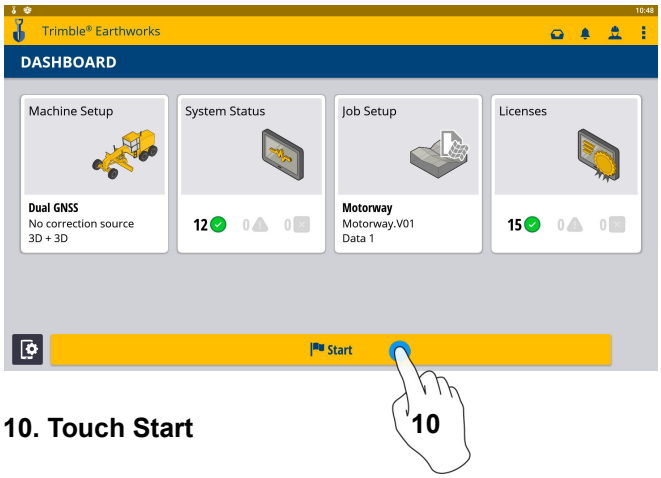
5. Add Measured Data



6. Type New Measured Data Name
7. Touch Save

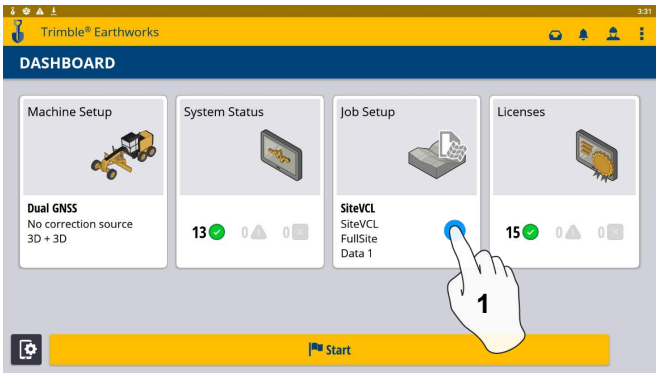


8. Select Design
9. Touch Apply

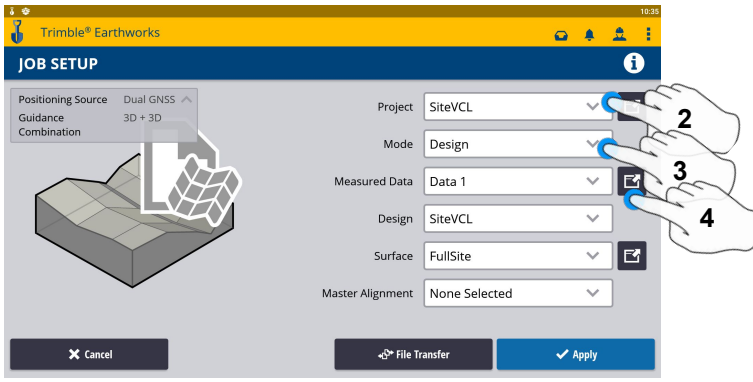


10. Touch Start

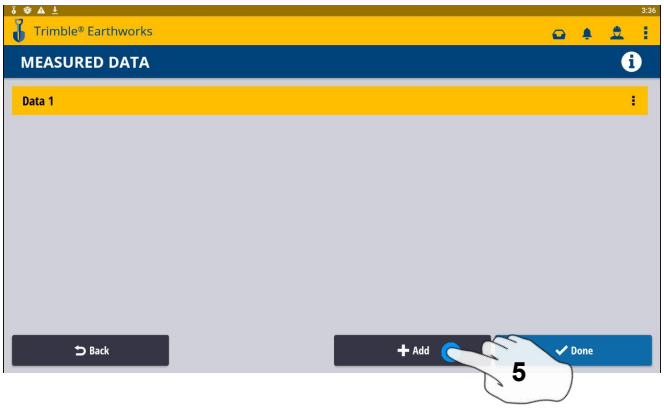
Select Project, Design and Measured Data: VCL



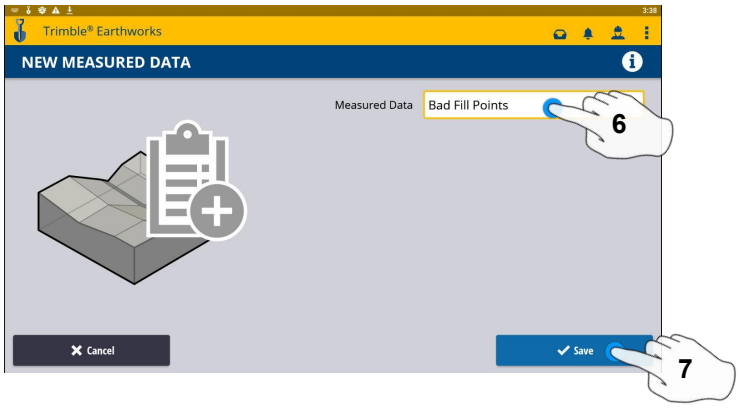
1.Touch Job Setup



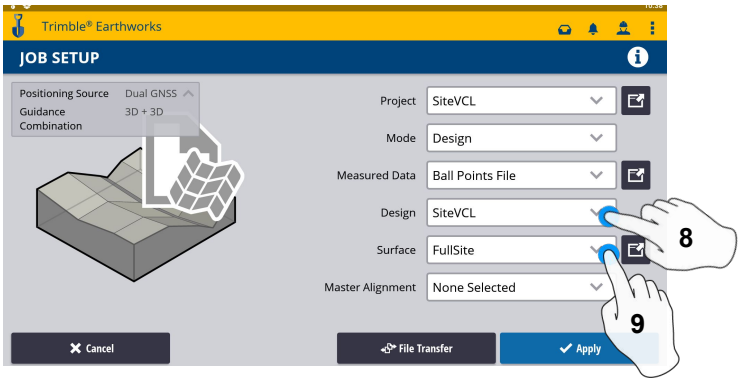
2. Touch Project- Select Project
3. Touch Mode- Select Design
4. Touch Measured Data



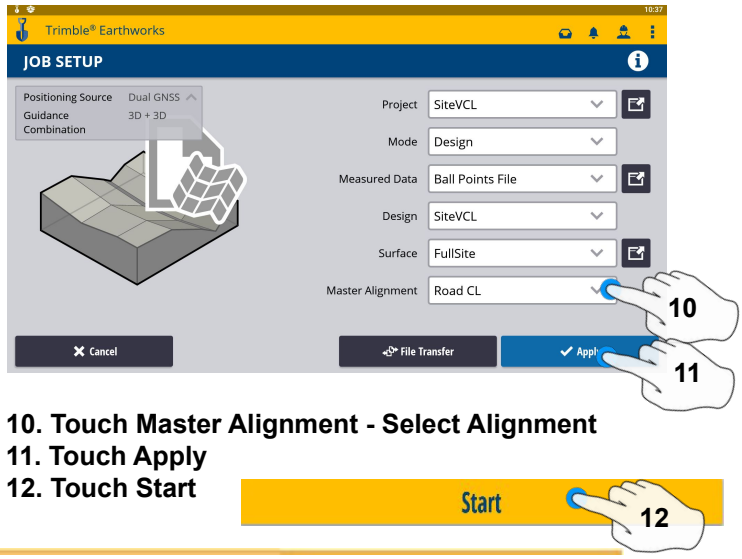
5. Add Measured Data



6. Type Measured Data Name
7. Touch Save

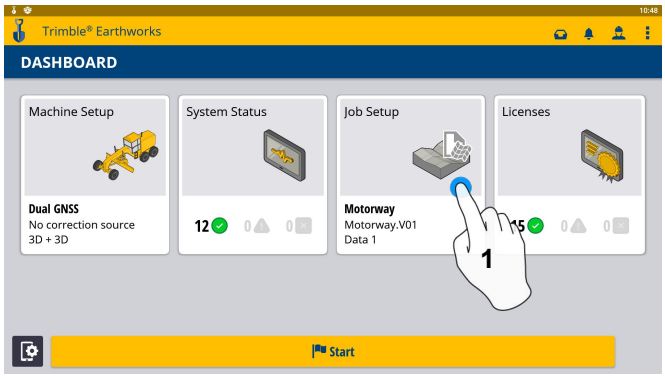


8. Touch Design- Select Design that contains a VCL
9. Touch Surface- Select Surface

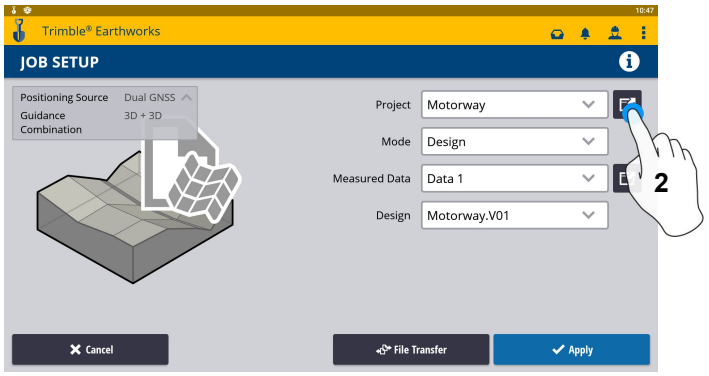


10. Touch Master Alignment - Select Alignment
11. Touch Apply
12. Touch Start

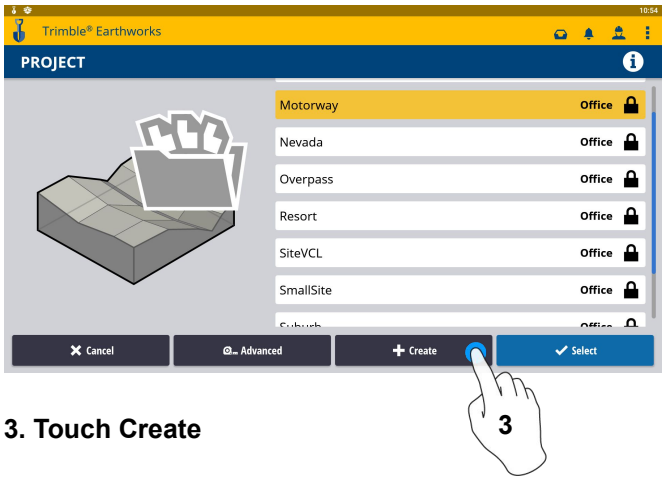
Create New Project



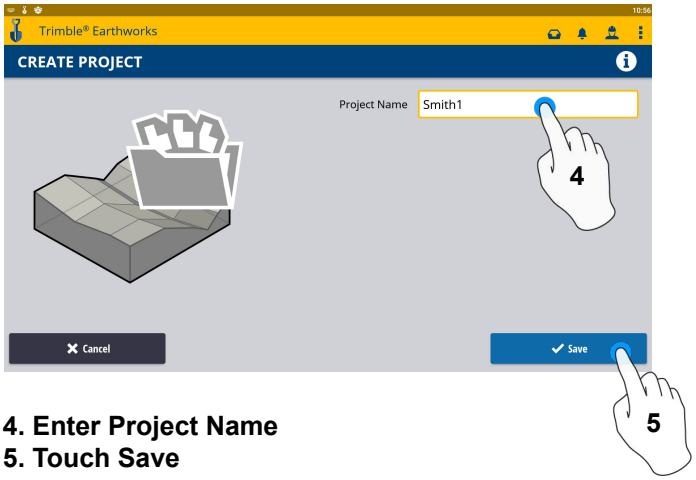
1. Touch Job Setup



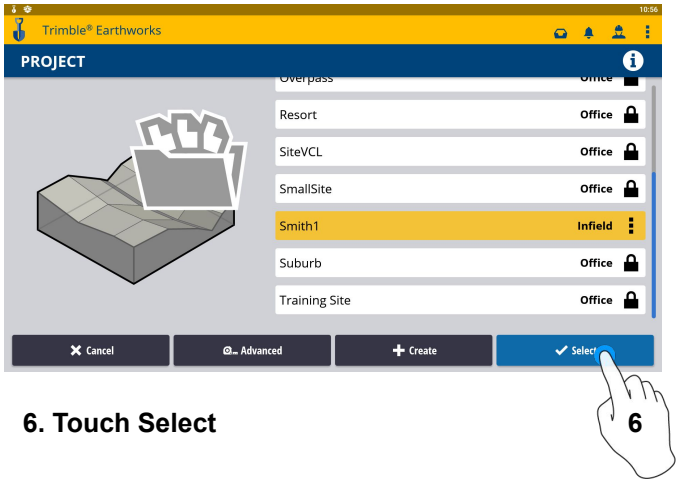
2. Touch Project



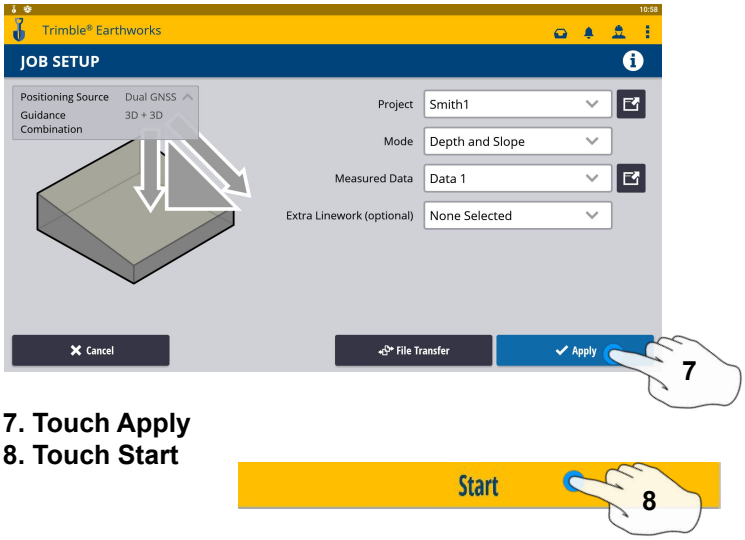
3. Touch Create



4. Enter Project Name
5. Touch Save

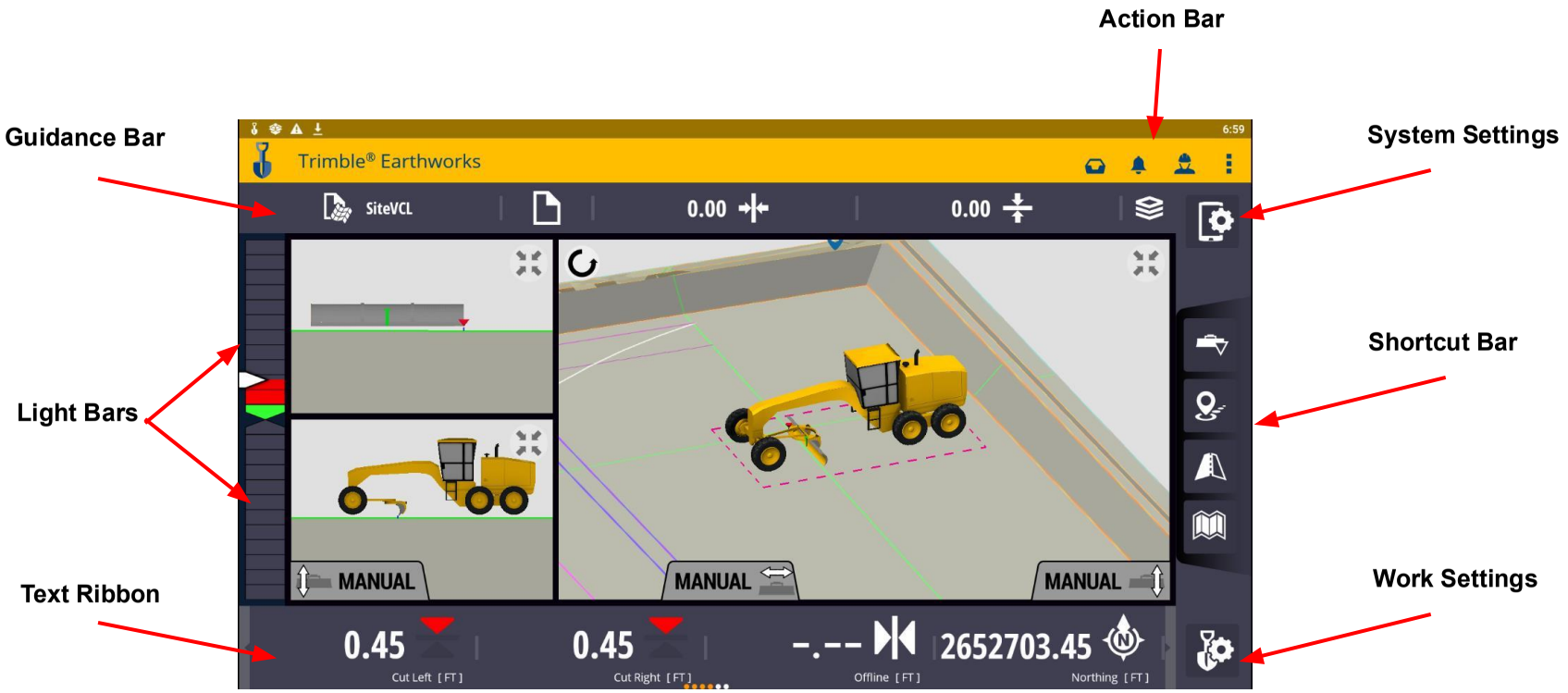


6. Touch Select

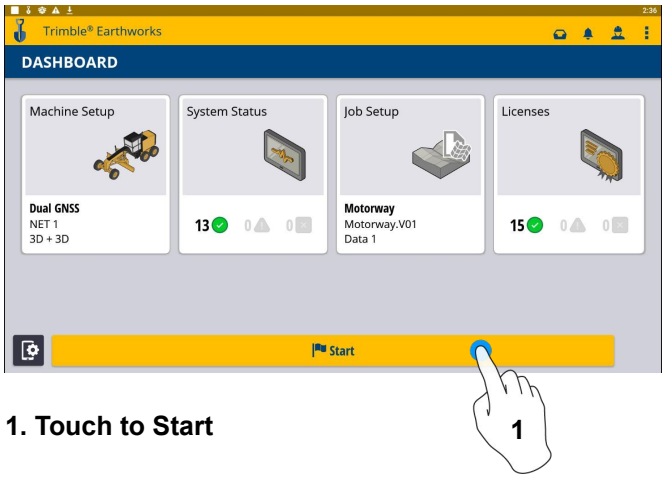


7. Touch Apply
8. Touch Start

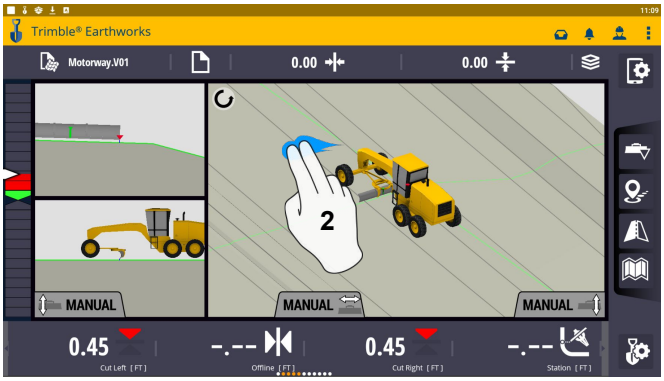
Earthworks Screen



Work Screen Interface

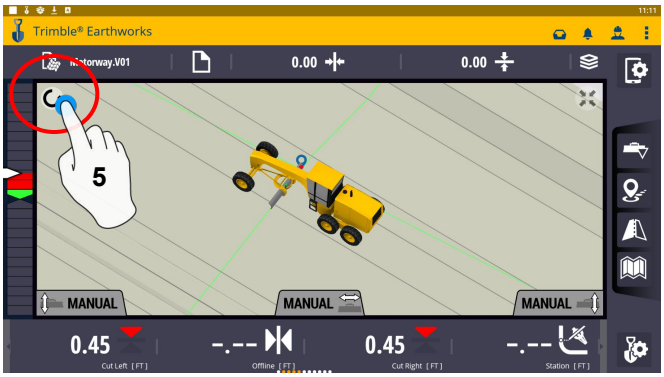


1. Touch to Start

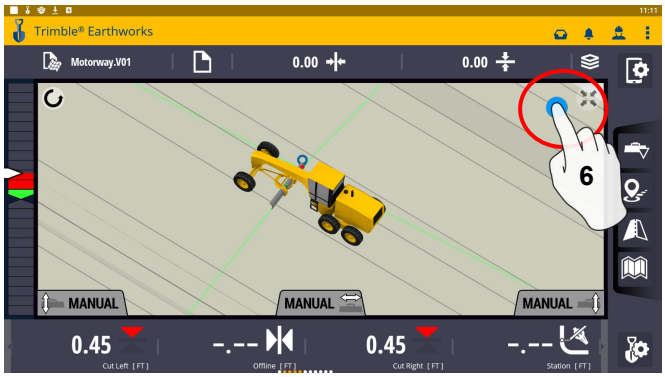


2. 2 Finger swipe to change views

3. Drag to pan
4. Pinch-Spread to zoom/Zoom out

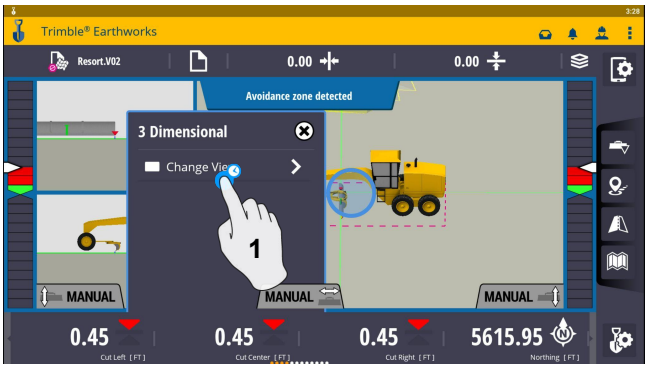


5. Touch to select Pan or Rotate

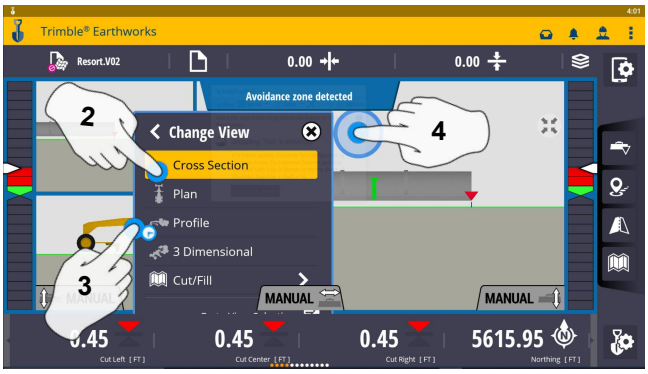


6. Touch to re-center

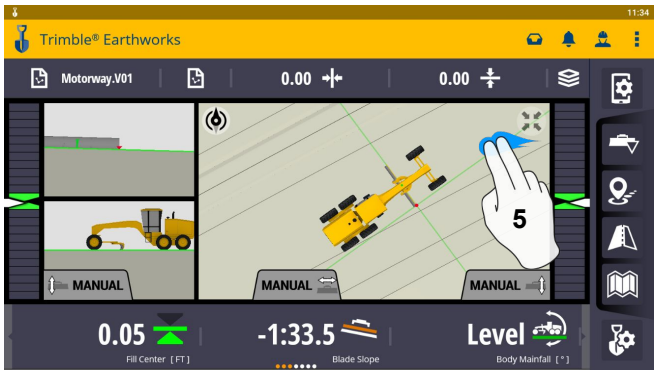
Work Screen Setup



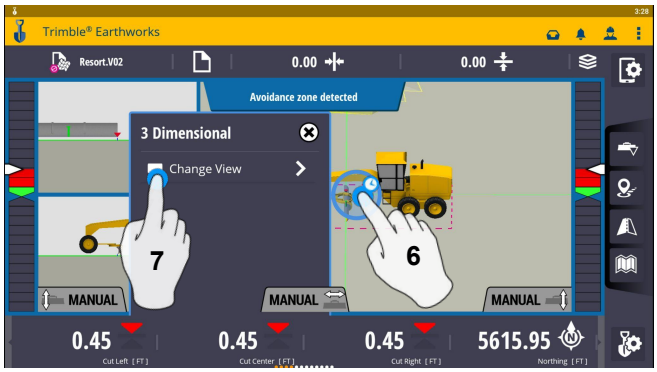
1. Touch Change View



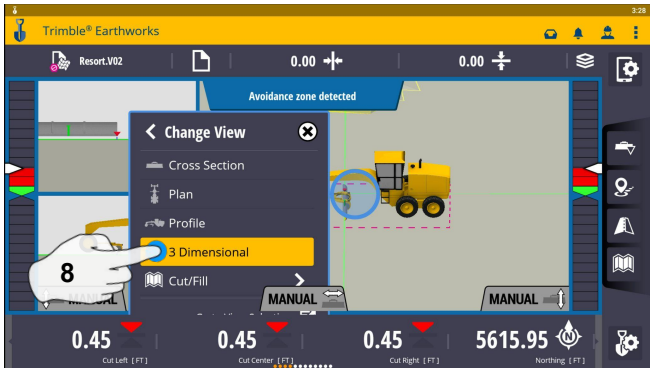
2. Touch Cross Section
3. Touch Profile View
4. Touch Plan View



5. 2 Finger Swipe to single view



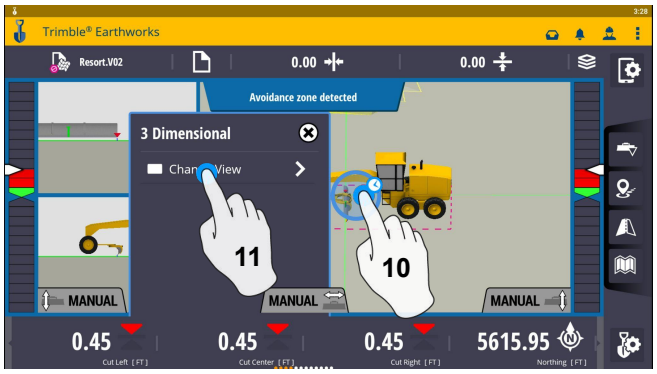
6. Touch and Hold
7. Select Change View



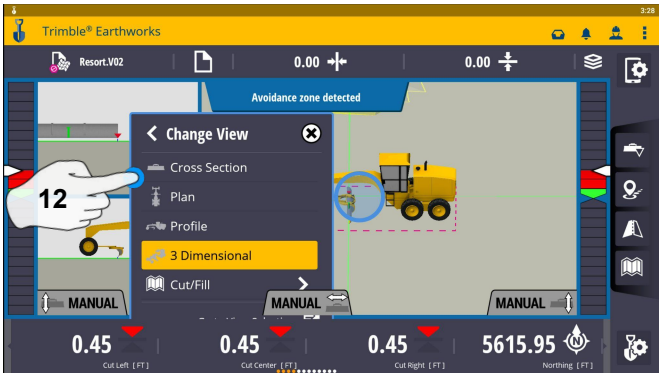
8. Touch 3D View

9. 2 Finger swipe to 2 Screen View

Work Screen Setup Cont:

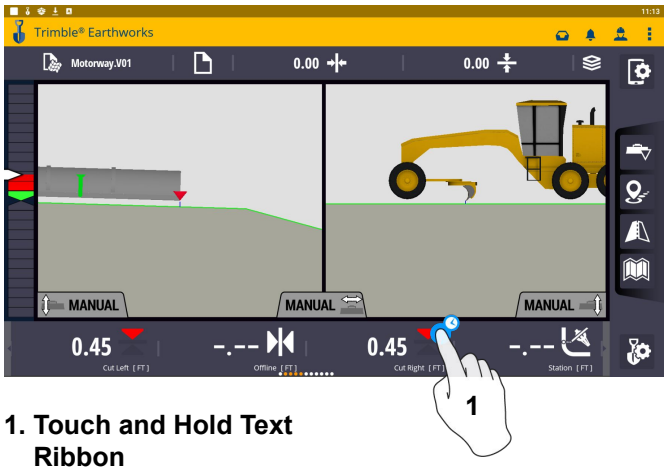


10. Touch and Hold
11. Touch Change View

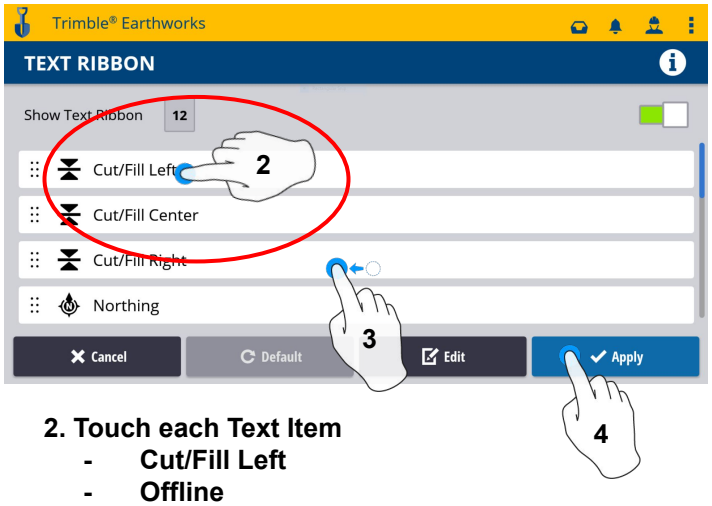


12. Touch Cross Section View

Text Ribbon Setup

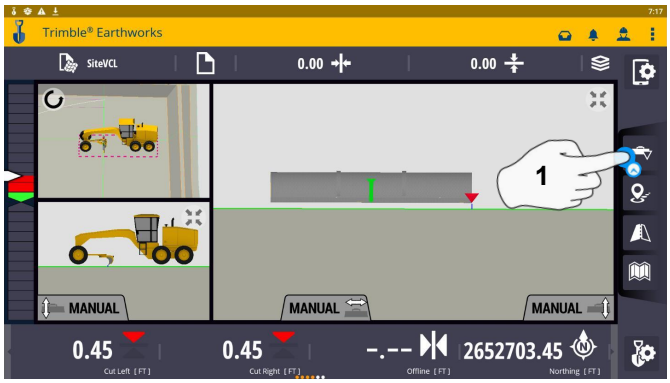


1. Touch and Hold Text Ribbon

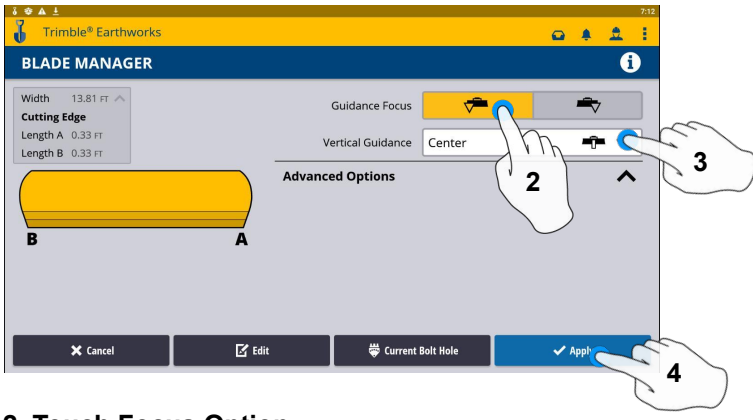


2. Touch each Text Item
   - Cut/Fill Left
   - Offline
   - Station
   - Cut/Fill right
   - Northing
   - Easting
   - Elevation
   - Design Elevation
   - Design Cross Slope
   - Design Mainfall
   - Vertical GNSS Precision
   - Satellite Count
3. Touch-Hold-Drag to change position
4. Touch Done

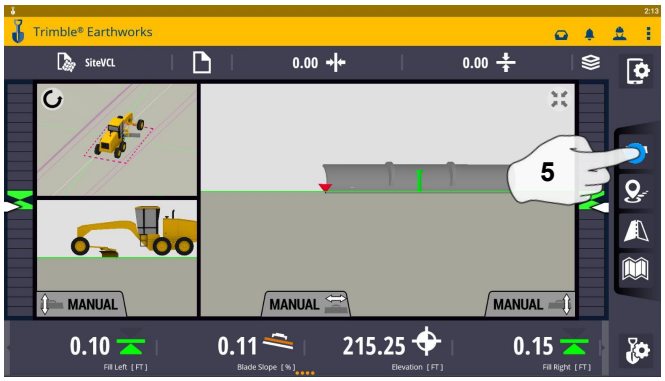
Blade Focus Point / Vertical Guidance



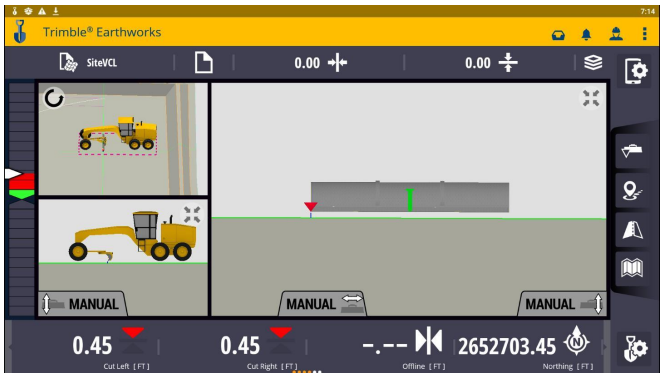
1. Touch and Hold Blade Icon



2. Touch Focus Option
3. Touch Vertical Guidance Option
4. Touch Apply

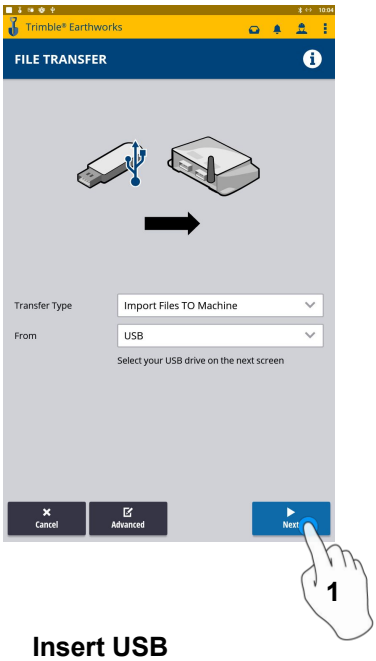


5. Touch Blade Icon to change focus point

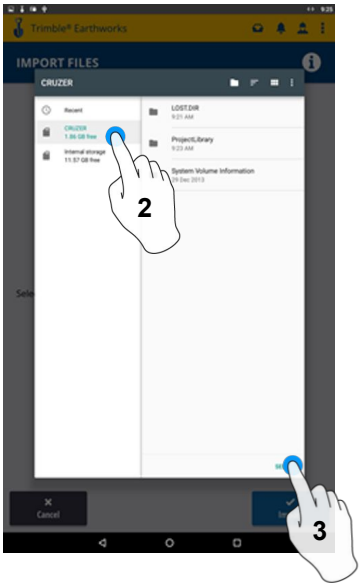


NOTE: "LINK TO FOCUS" vertical guidance will follow focus point.

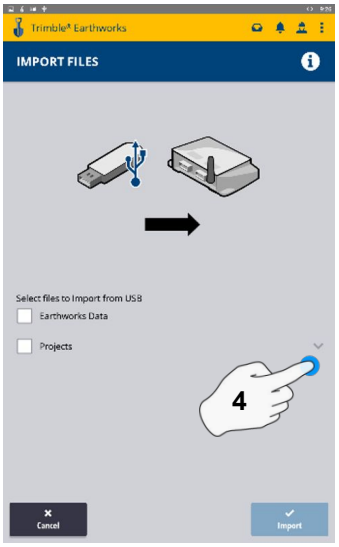
Import Data With USB



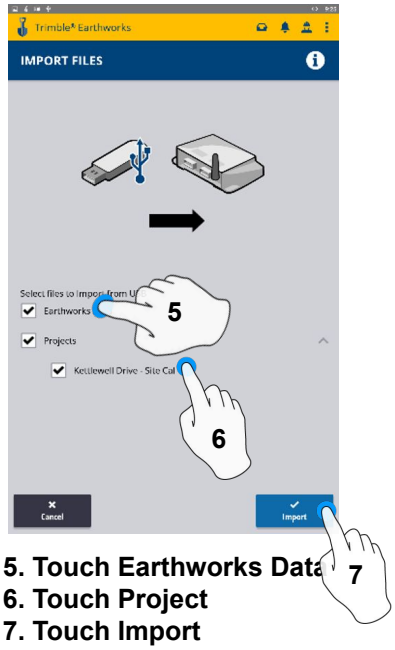
Insert USB
1. Touch Next



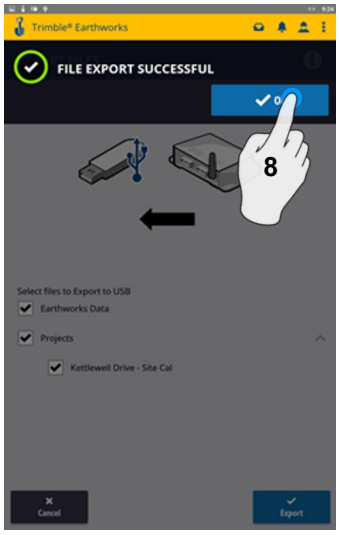
2. Touch USB
3. Touch Select



4. Touch "v"

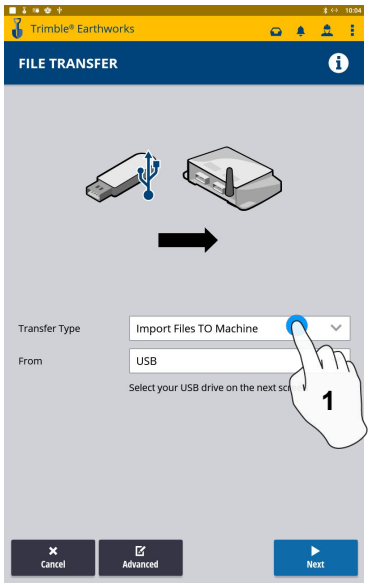


5. Touch Earthworks Data
6. Touch Project
7. Touch Import

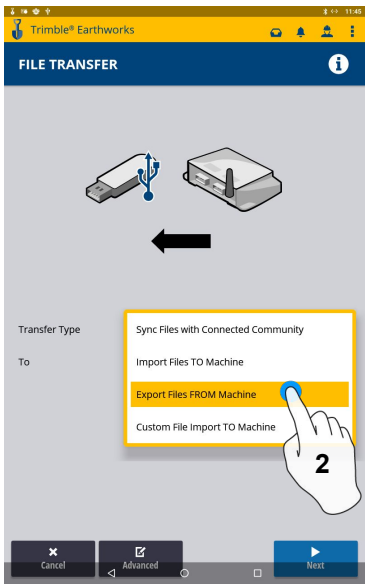


8. Touch OK

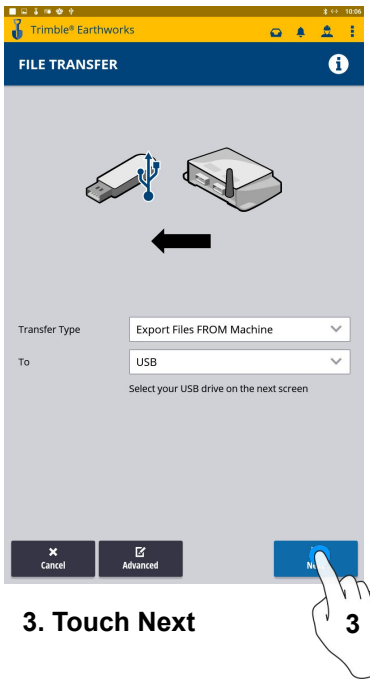
Export Data With USB



Insert USB
1. Touch Transfer Type

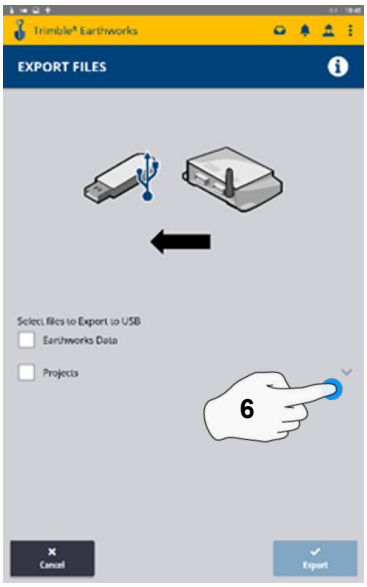


2. Touch Export Files

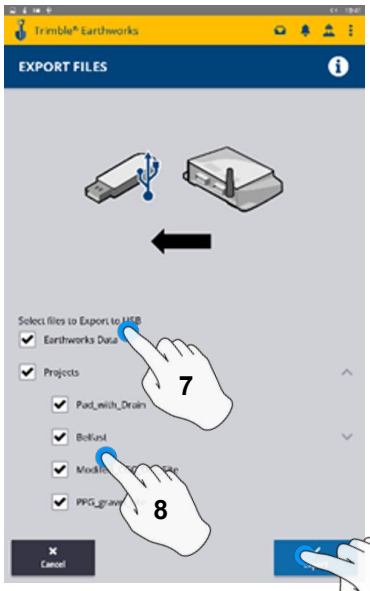


3. Touch Next

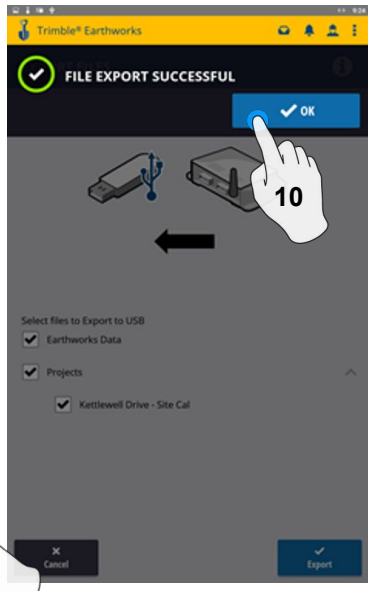
4. Touch USB
5. Touch Select



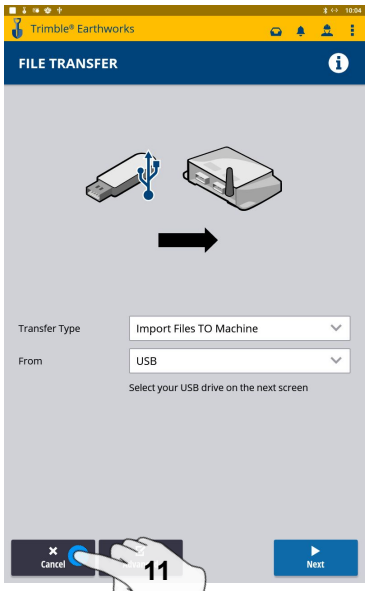
6. Touch "V"



7. Touch Earthworks Data
8. Touch Projects
9. Touch Export

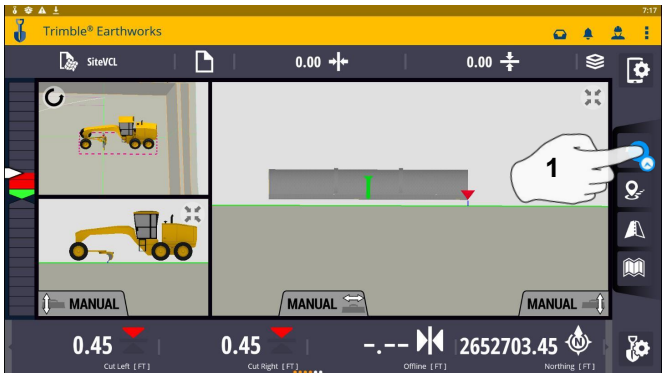


10. Touch OK

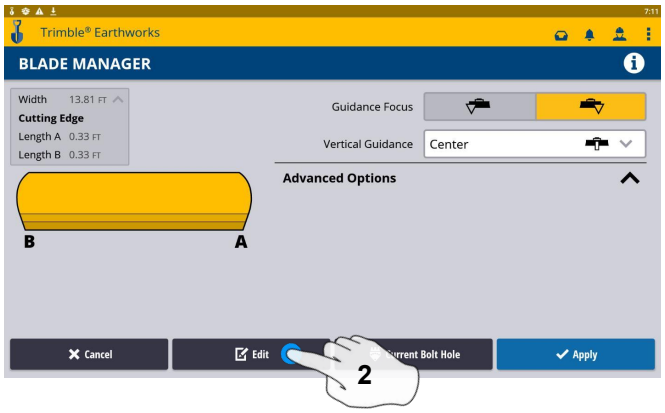


11. Touch Cancel
Remove USB

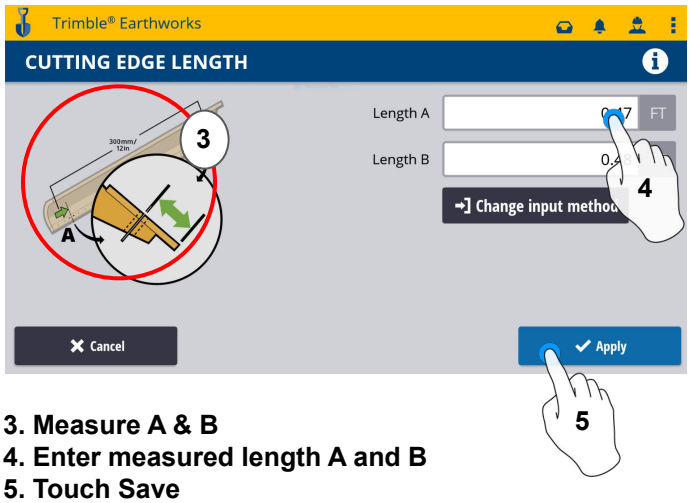
Cutting Edge Wear / Overcut Protection



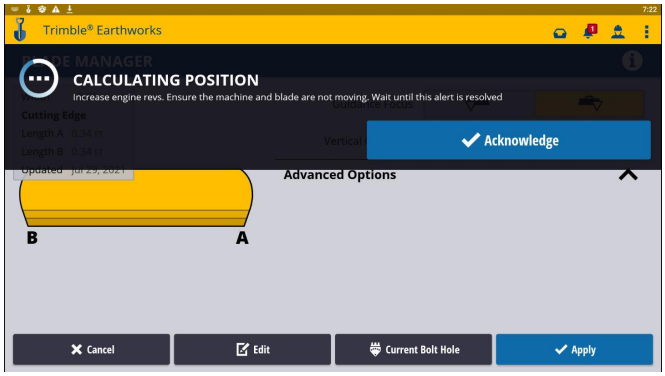
1. Touch and hold Focus Icon



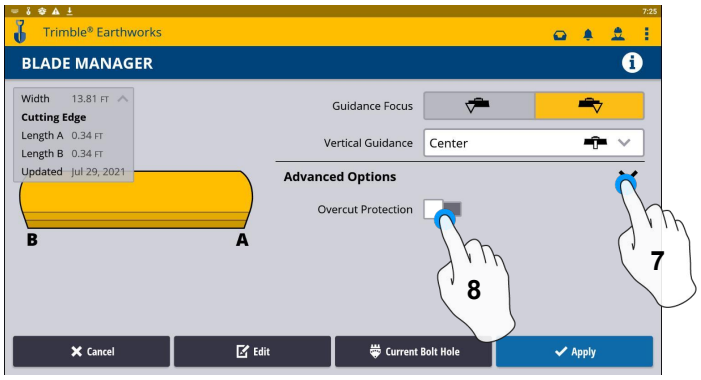
2. Touch Edit



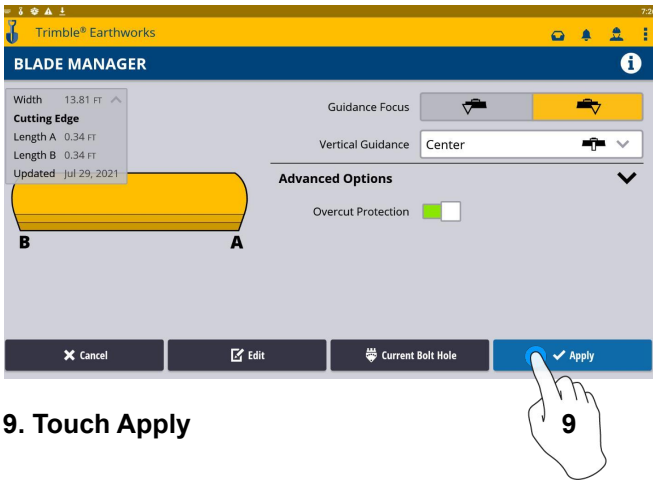
3. Measure A & B
4. Enter measured length A and B
5. Touch Save



6. Sensors will Initialize

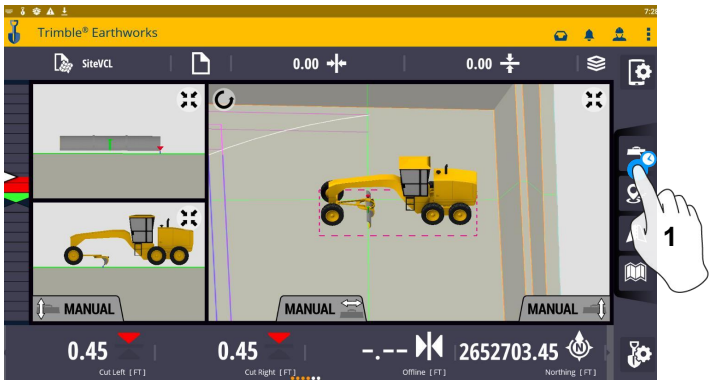


7. Touch Advanced Options
8. Touch Overcut Protection

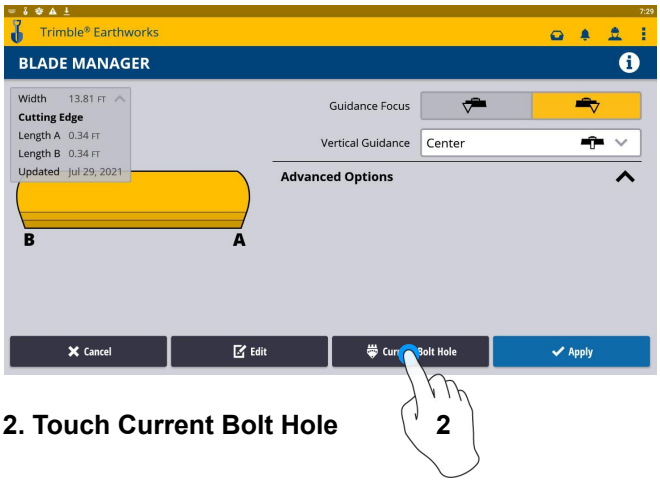


9. Touch Apply

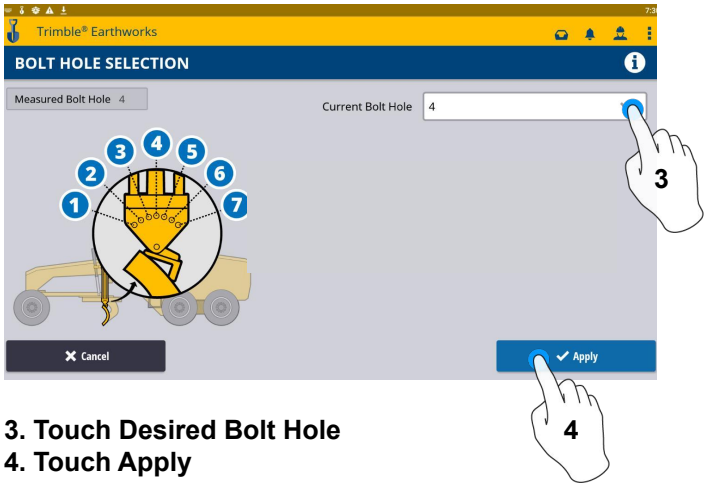
Select Bolt Hole



1. Touch and hold on Blade Manager Icon



2. Touch Current Bolt Hole



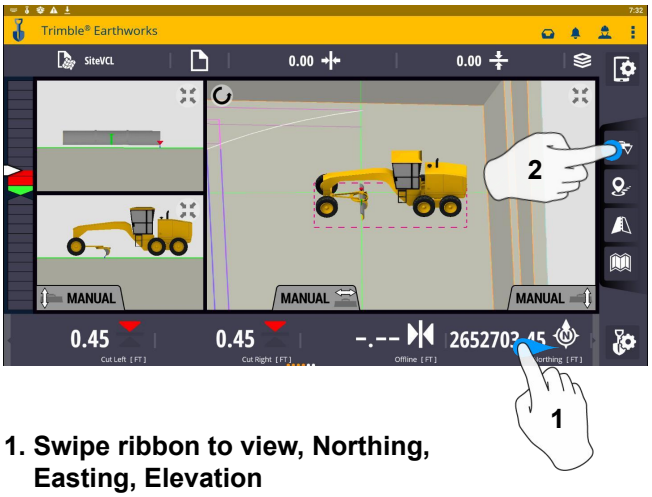
3. Touch Desired Bolt Hole
4. Touch Apply

****Note machine must be measured up for additional bolt holes.****

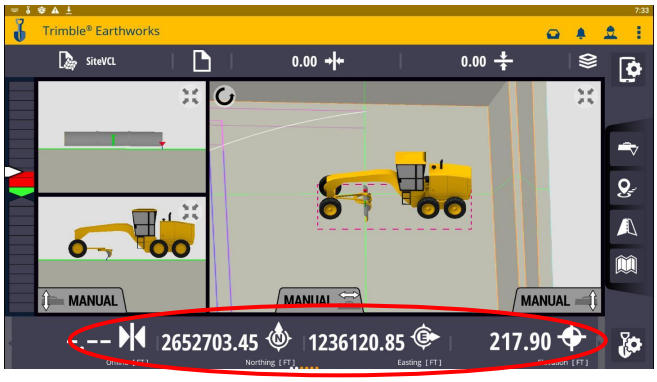
Verify System Accuracy

Verify the system accuracy by checking into a bench

Position the blade tip over the bench point



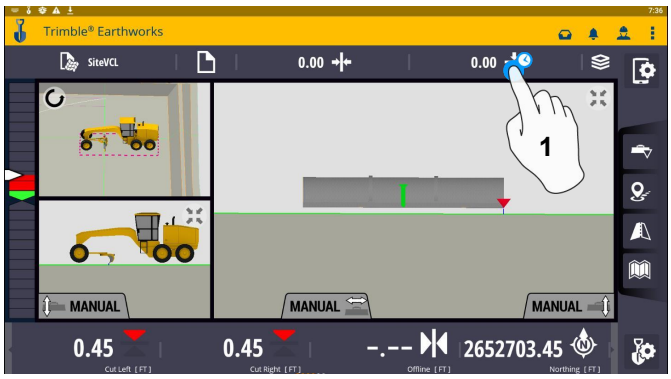
1. Swipe ribbon to view, Northing, Easting, Elevation
2. Touch blade focus to match verification location



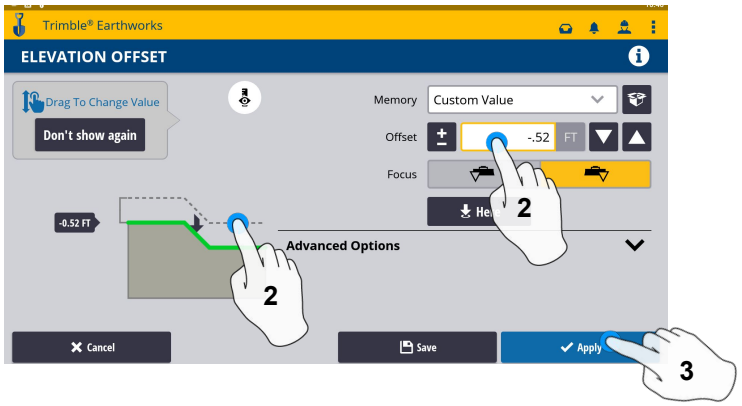
3. Verify Accuracy Northing, Easting, Elevation

See Supervisor if Northing, Easting and Elevation do not match Project tolerances

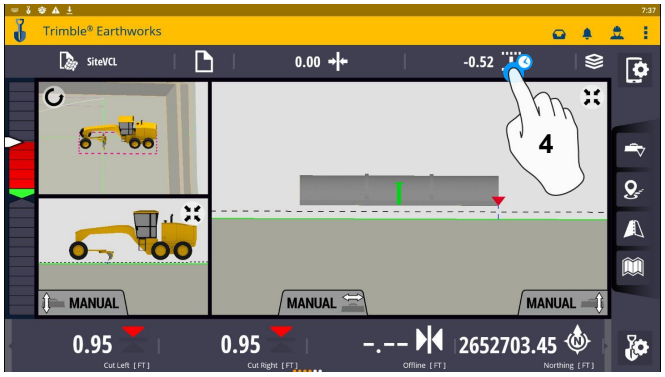
Vertical Offset / Memories



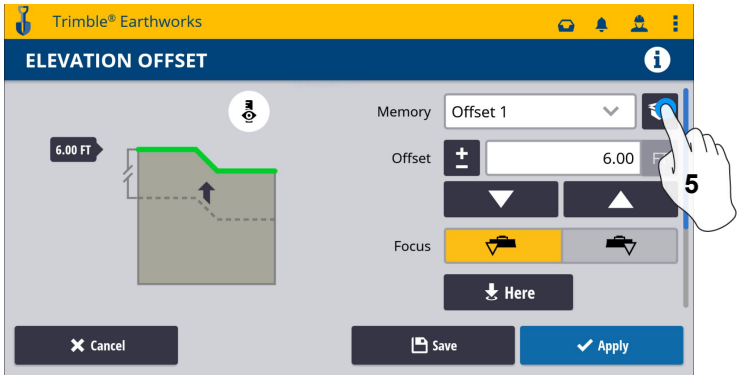
1. Touch and hold Vertical Offsets



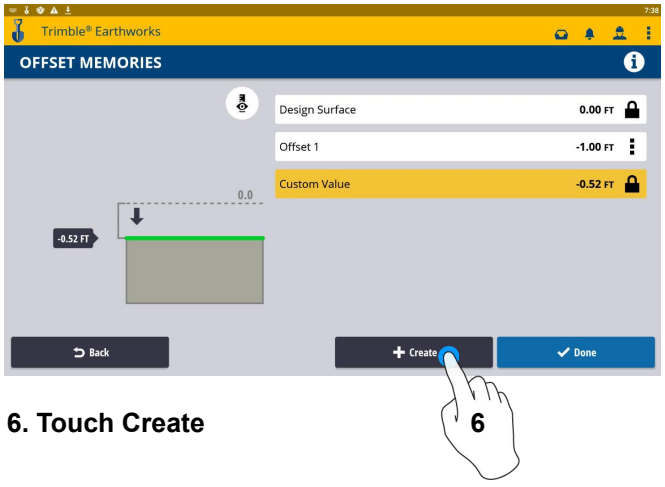
2. Enter Offset or Drag Green line to Desired Grade
3. Touch Apply to use immediately



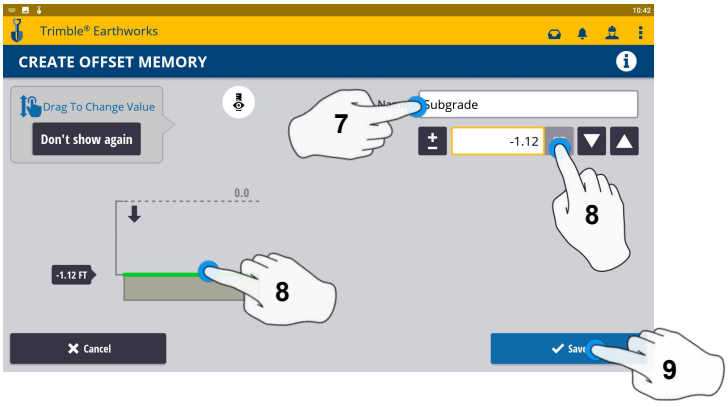
4. Touch and Hold Vertical Offsets



5. Touch Memories

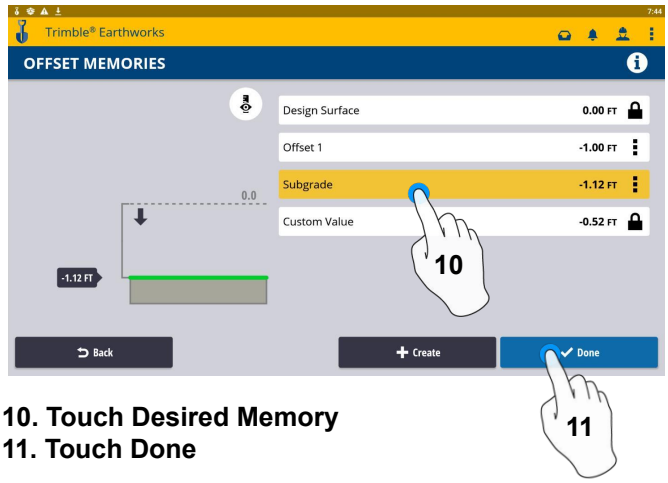


6. Touch Create

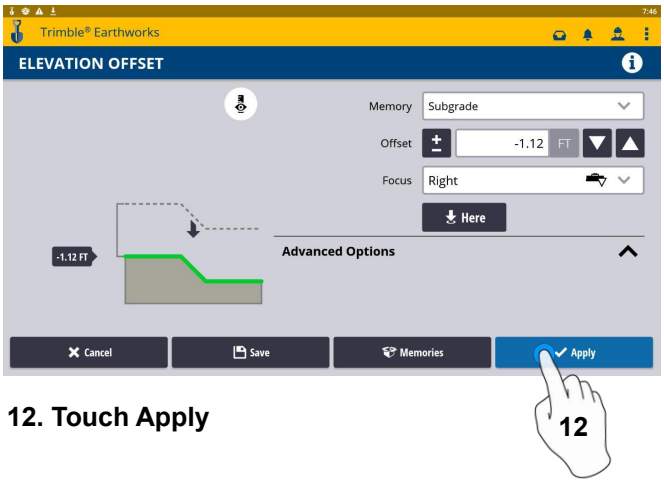


7. Enter Description
8. Enter a Value or Drag Green Line to Desired Grade
9. Touch Save

Vertical Offset / Memories Cont:

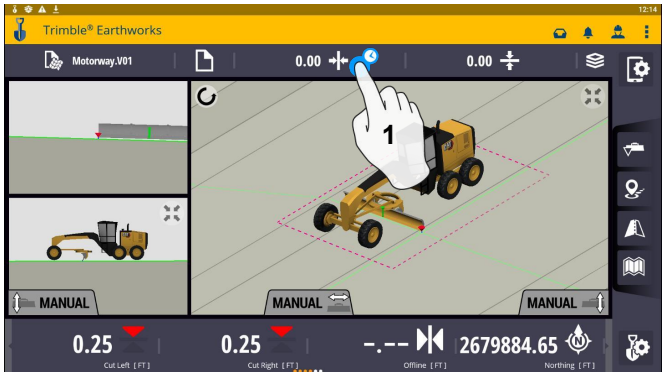


10. Touch Desired Memory
11. Touch Done

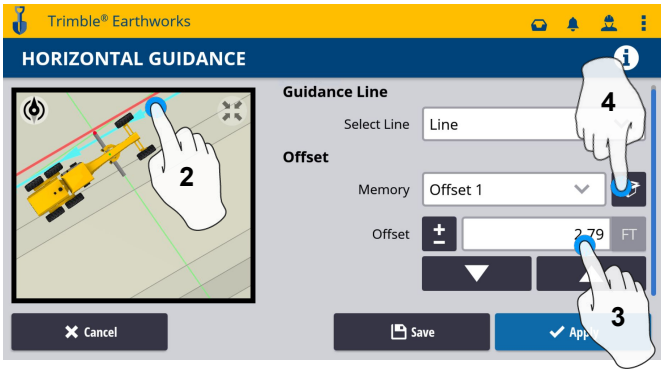


12. Touch Apply

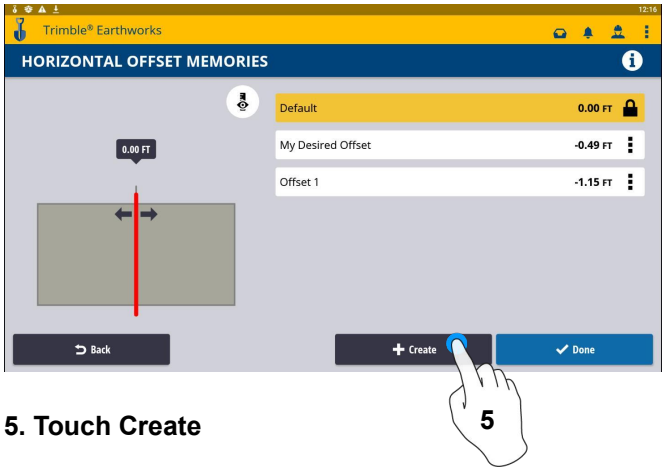
Horizontal Offset



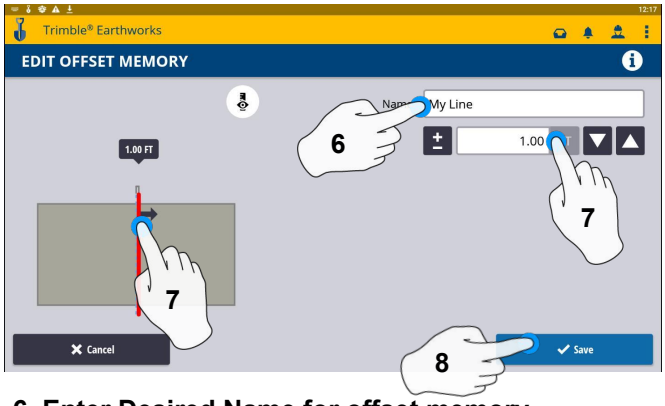
1. Touch and hold Horizontal Offset



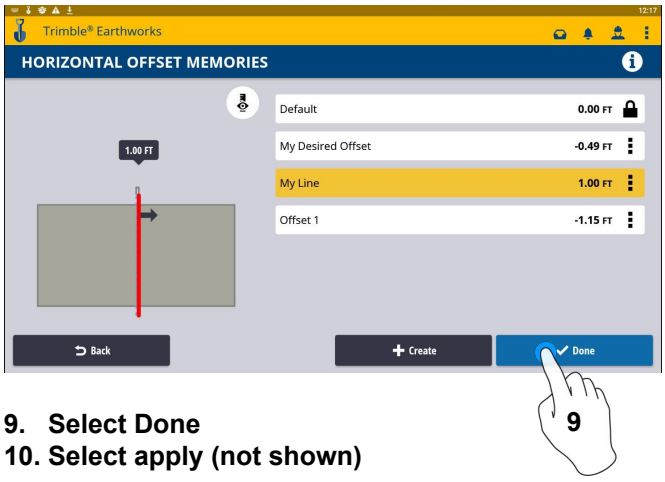
2. Touch Select Desired Alignment
3. Enter your desired offset (Manually) or:
4. Touch Memories



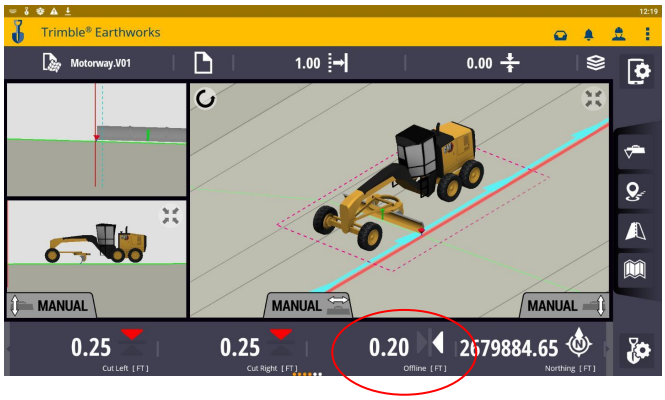
5. Touch Create



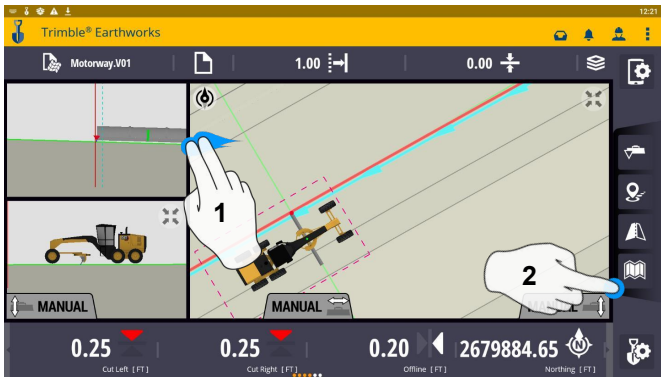
6. Enter Desired Name for offset memory
7. Adjust Offset or Drag Line to Desired Grade
8. Touch Save once complete



9. Select Done
10. Select apply (not shown)



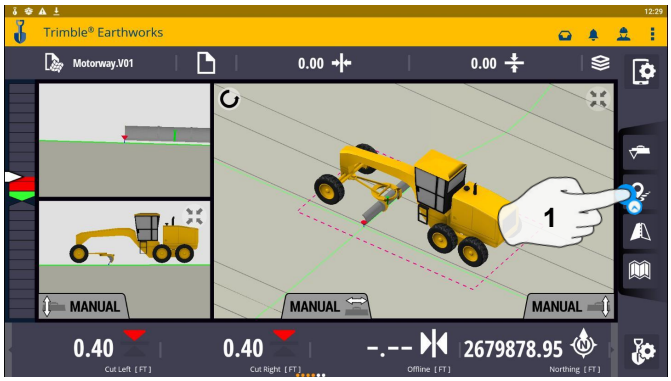
Cut Fill Mapping



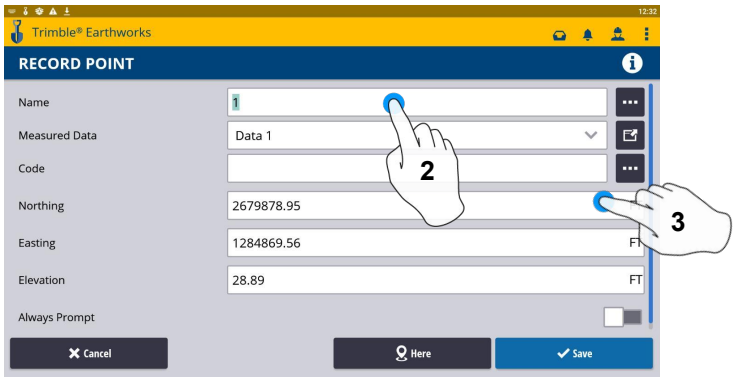
1. Two Finger Swipe to 3 screen view
2. Touch Mapping Icon to View

****Cut Fill Mapping will only be visible in Plan, Cross section, and Profile views****

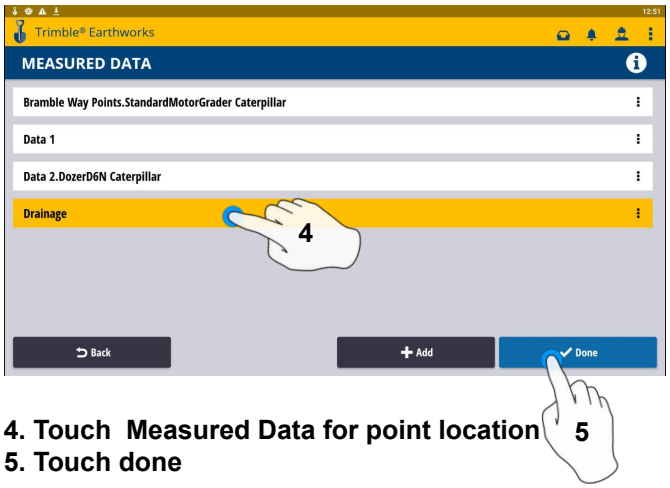
Record Point



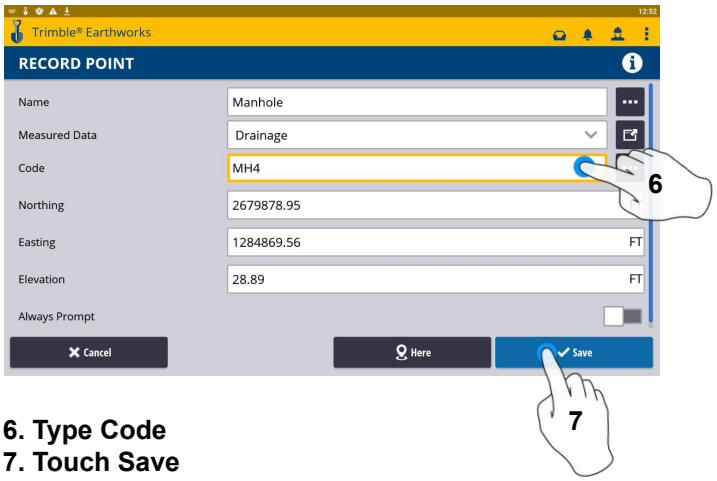
1. Touch and Hold Record Point



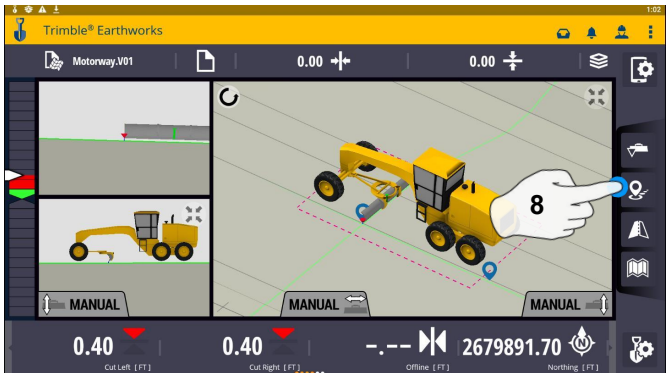
2. Touch to Edit Name
3. Touch and Select Measured Data Folder



4. Touch Measured Data for point location
5. Touch done



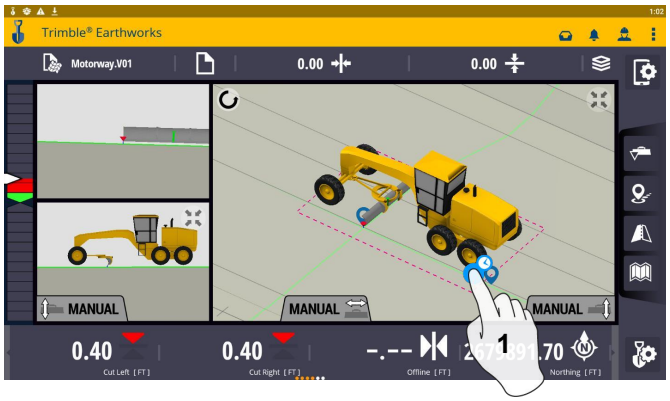
6. Type Code
7. Touch Save



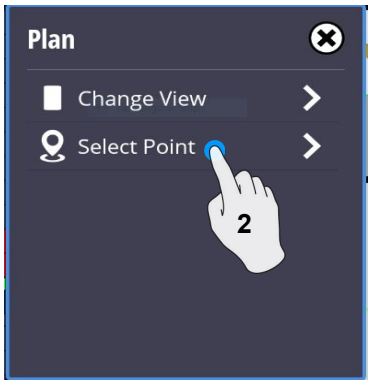
8. Touch Point Icon Records Point

**** Note- After recording a point, it will save automatically in the Measured Data folder created during project setup. ****

Delete / Edit Point

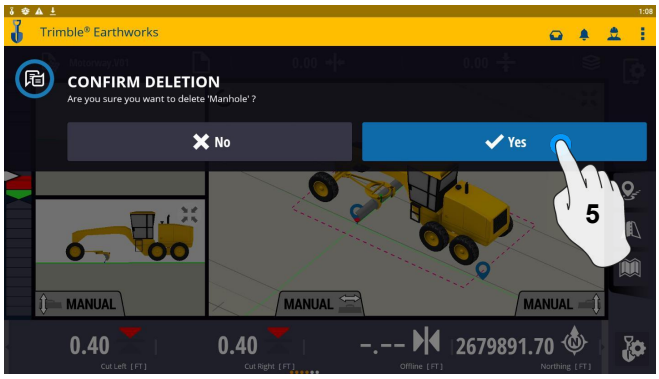


1. Touch and hold over point created



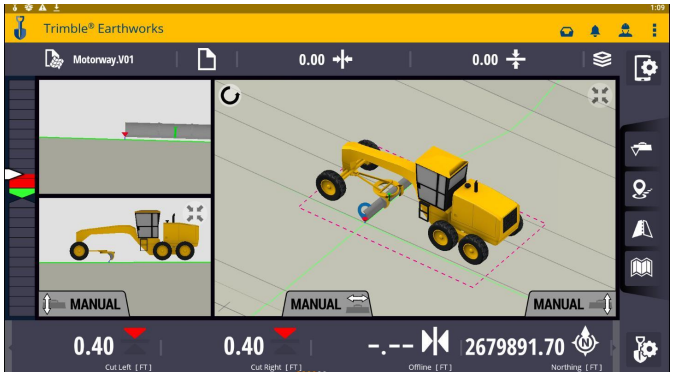
2. Touch point information

3. Edit point information if needed
4. Touch Delete

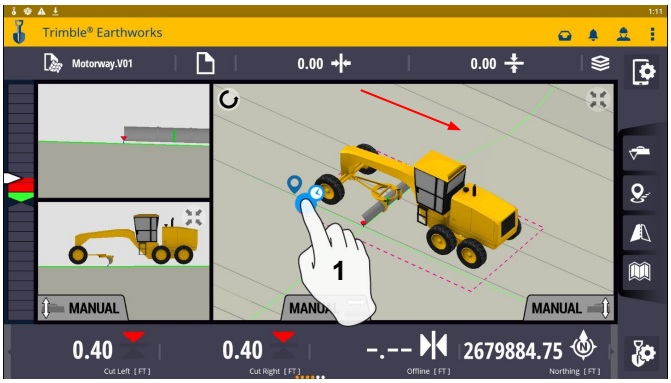


5. Touch Yes to Confirm Delete

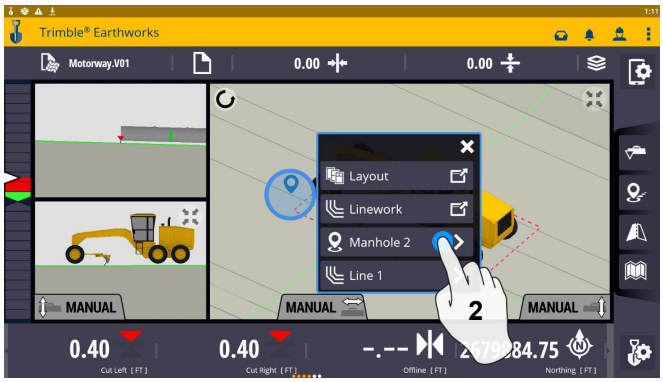
NOTE: once deleted can no longer retrieved



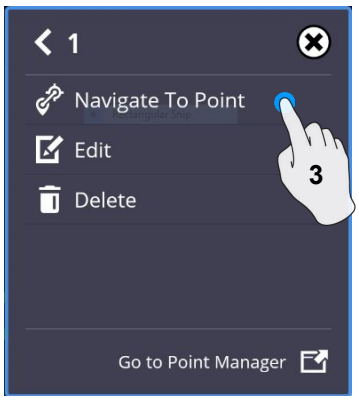
Navigate to Point



1. Touch and hold on Point



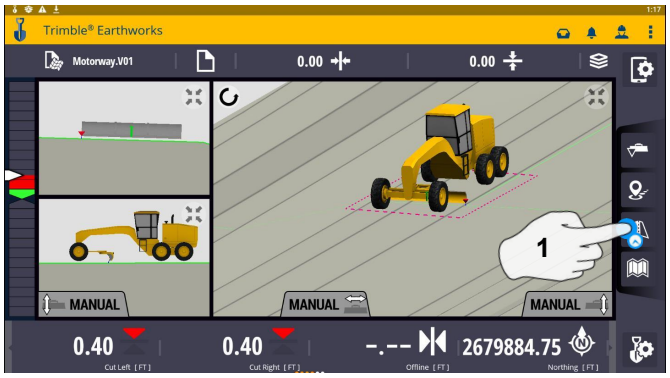
2. Touch Point Info



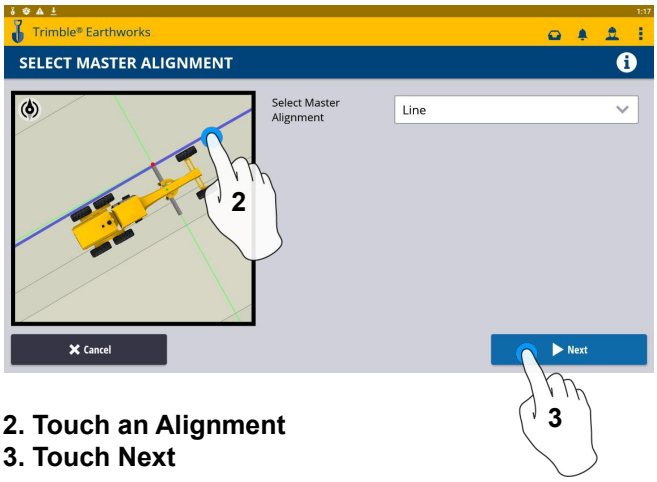
3. Touch Navigate to Point

4. Touch Stop icon once complete

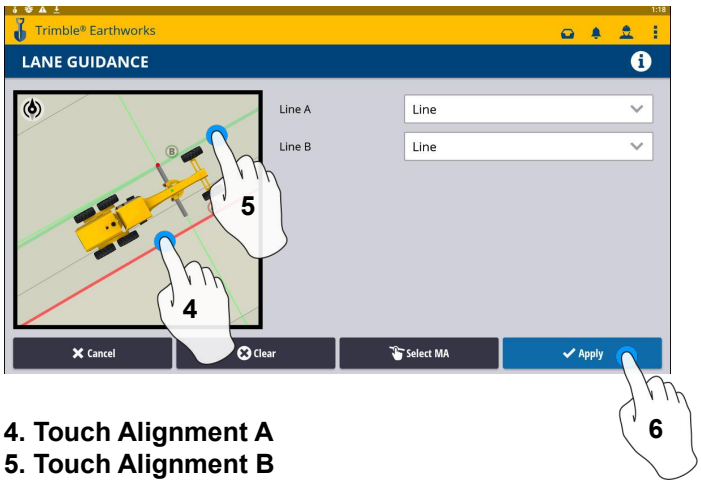
Lane Guidance



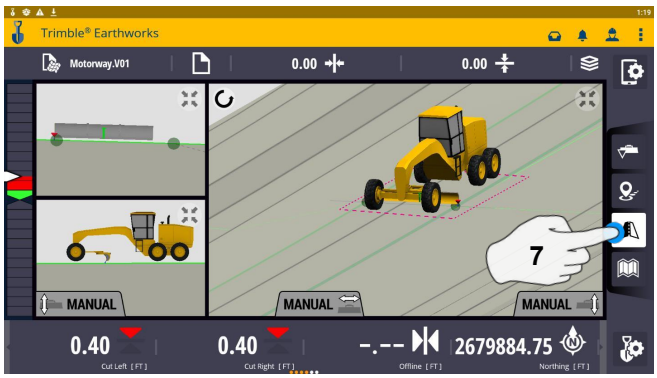
1. Touch and hold Lane Guidance



2. Touch an Alignment
3. Touch Next



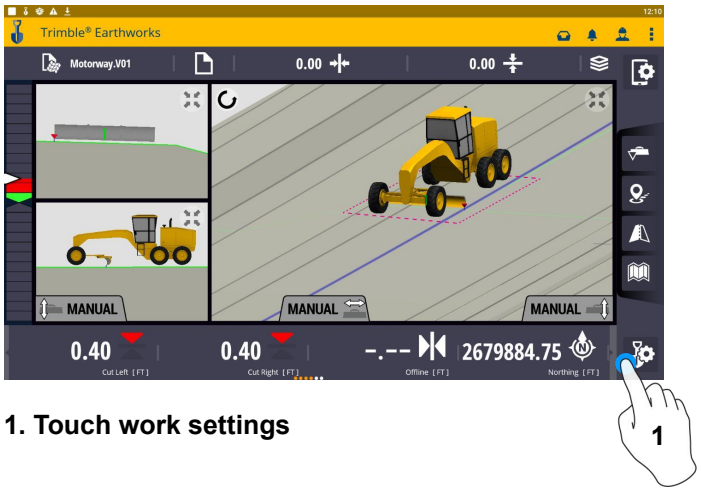
4. Touch Alignment A
5. Touch Alignment B
6. Touch Apply



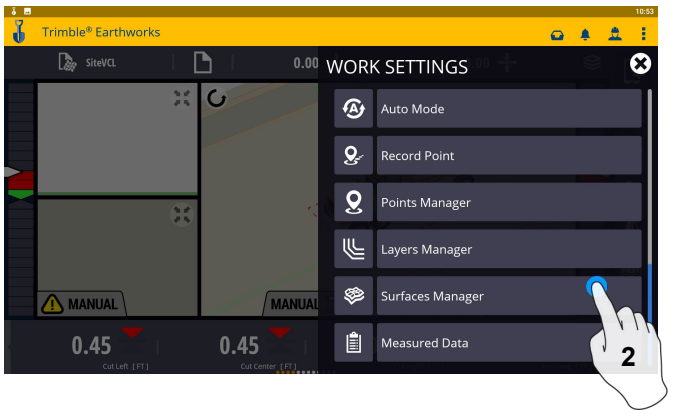
7. Touch Lane Guidance to Cancel

The slope between the two lines will be projected

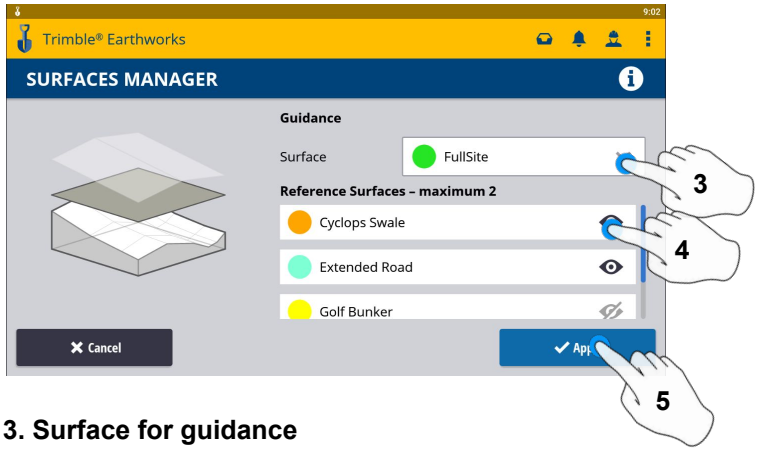
Surface Manager ** Will only work in VCL format Designs**



1. Touch work settings

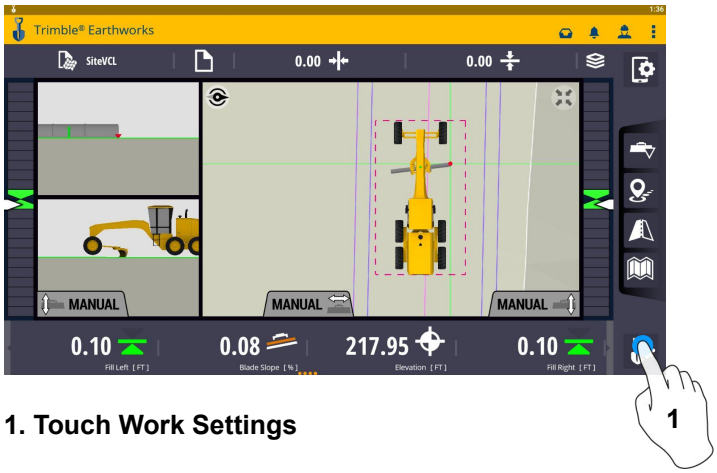


2. Touch Surfaces Manager

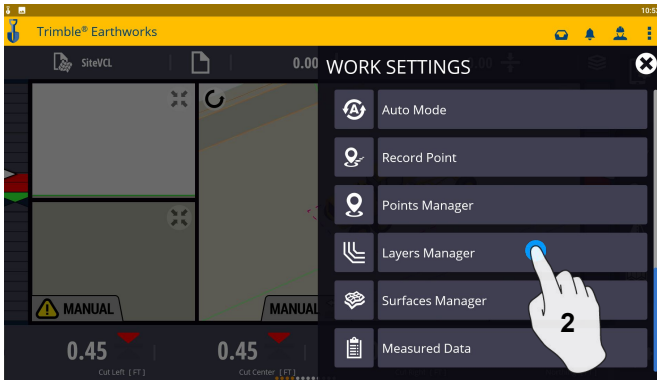


3. Surface for guidance
4. Touch which Reference Surface(Maximum of 2)
5. Touch Apply

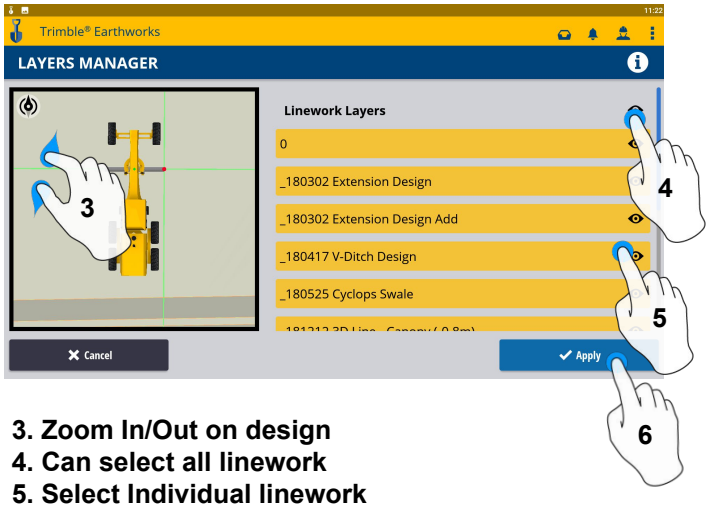
Layers Manager ** Will only work in VCL format Designs**



1. Touch Work Settings

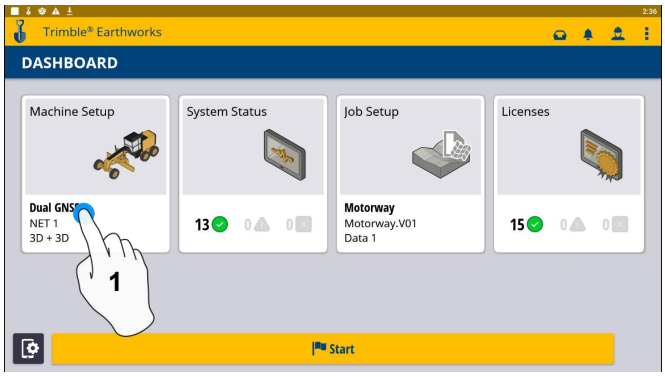


2. Touch Layers Manager

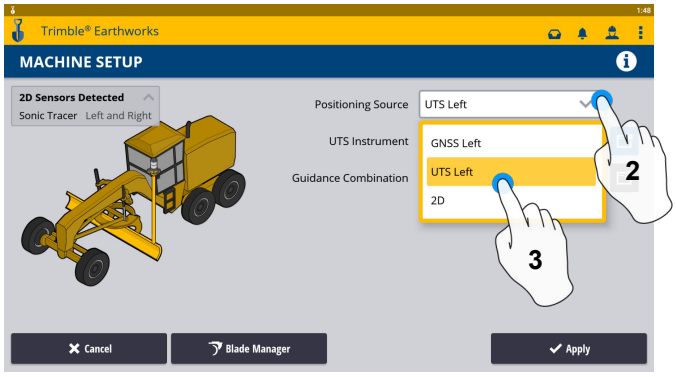


3. Zoom In/Out on design
4. Can select all linework
5. Select Individual linework
6. Touch apply once complete

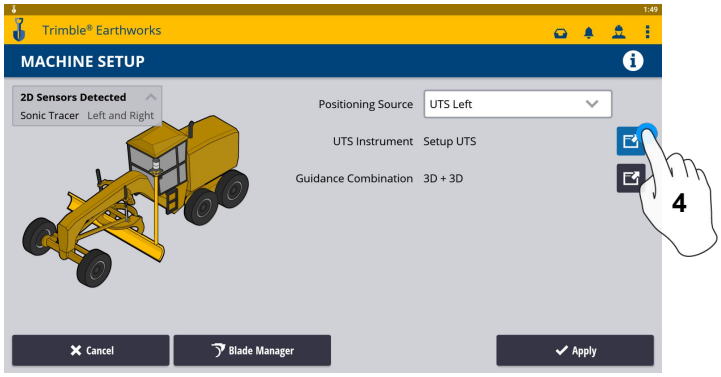
UTS Setup



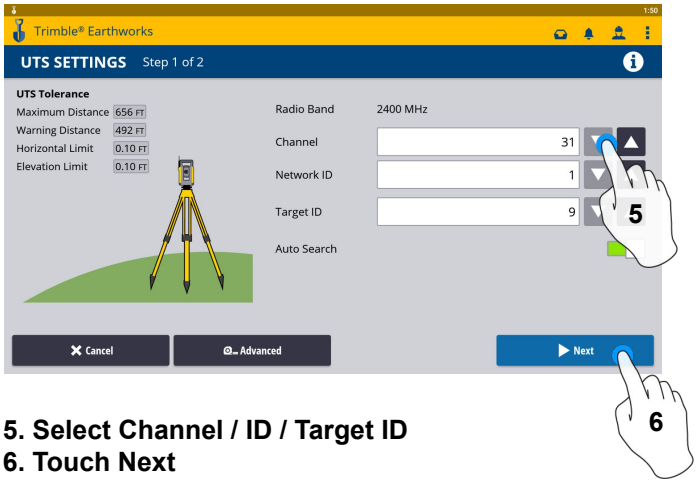
1. Touch Machine Setup



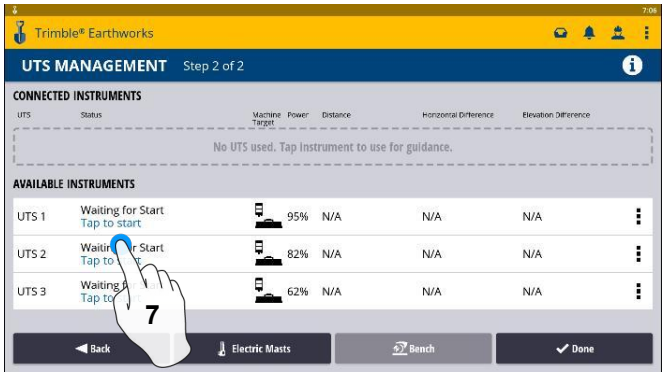
2. Touch Positioning Source
3. Touch UTS (Right or Left)



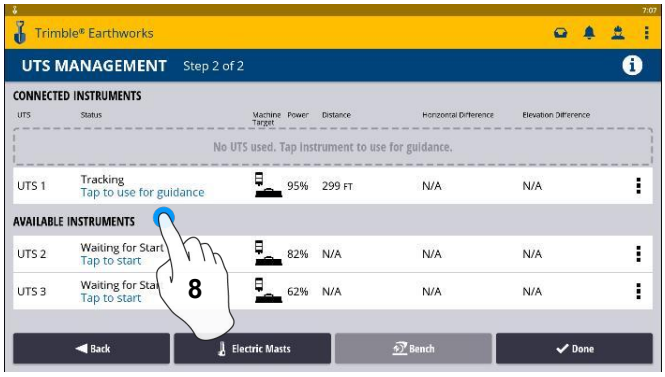
4. Touch to Edit / Add UTS



5. Select Channel / ID / Target ID
6. Touch Next

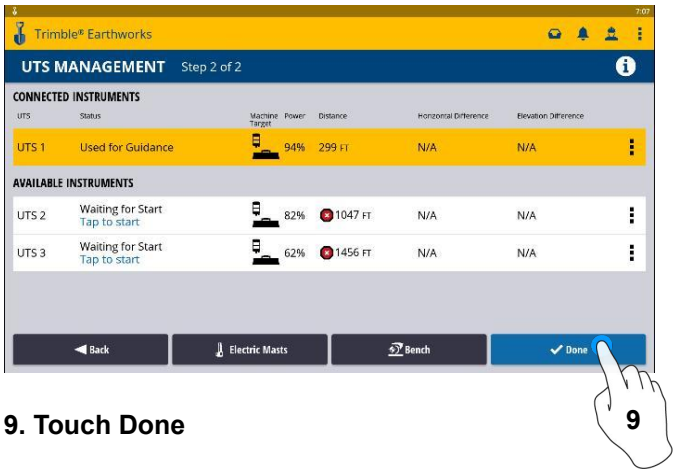


7. Touch to Start

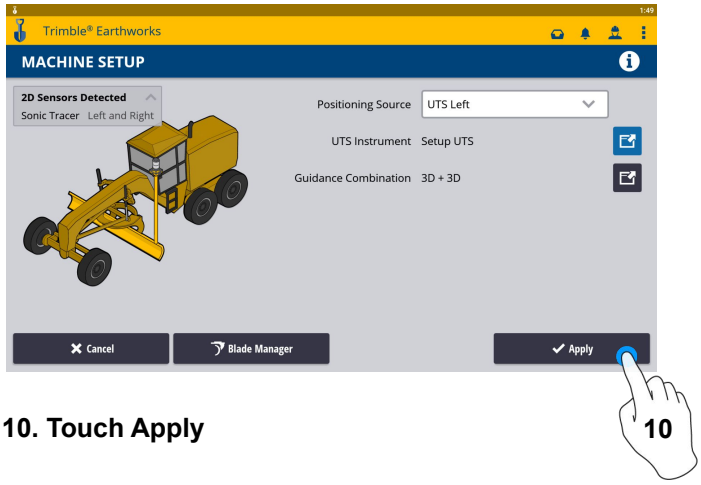


8. Touch to use for guidance

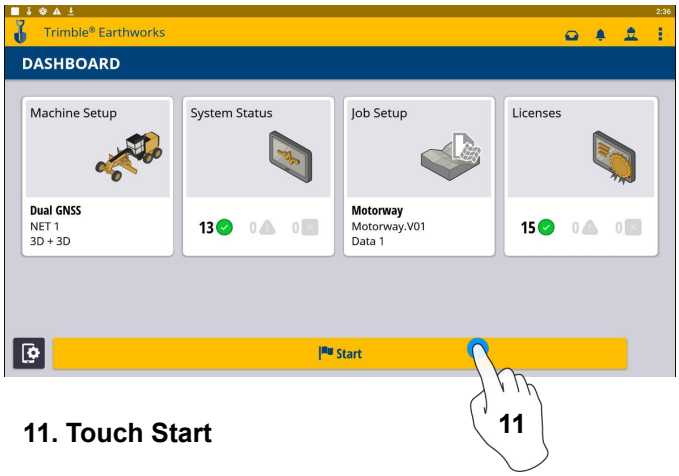
UTS Setup Cont:



9. Touch Done

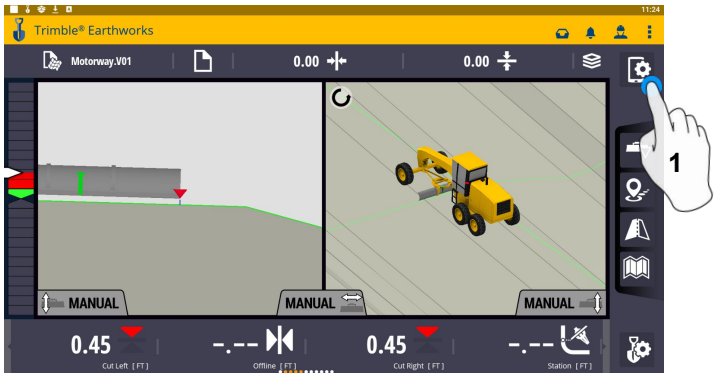


10. Touch Apply



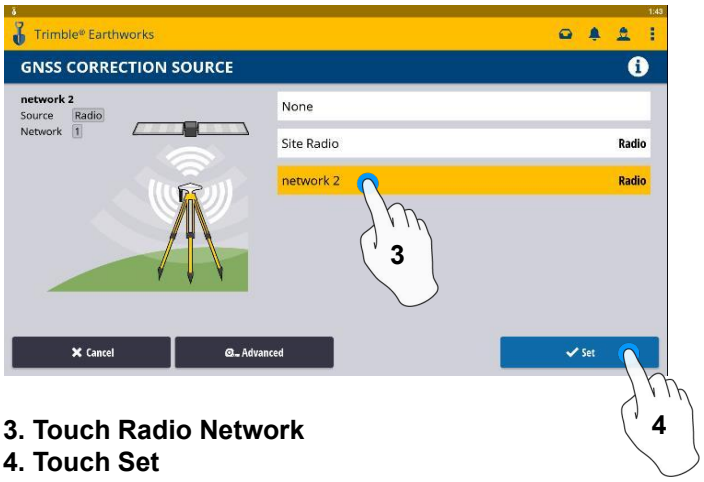
11. Touch Start

Change Radio Network



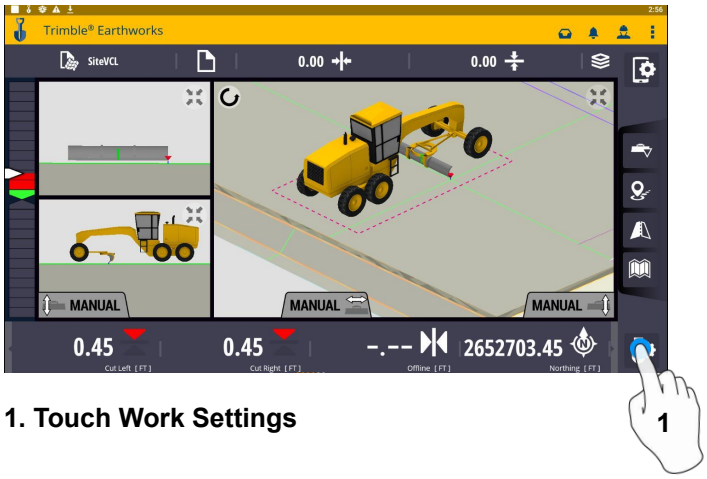
1. Touch System Settings

2. Touch GNSS Correction Source

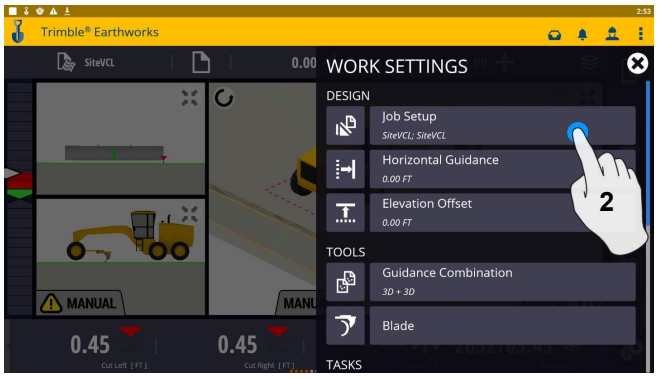


3. Touch Radio Network
4. Touch Set

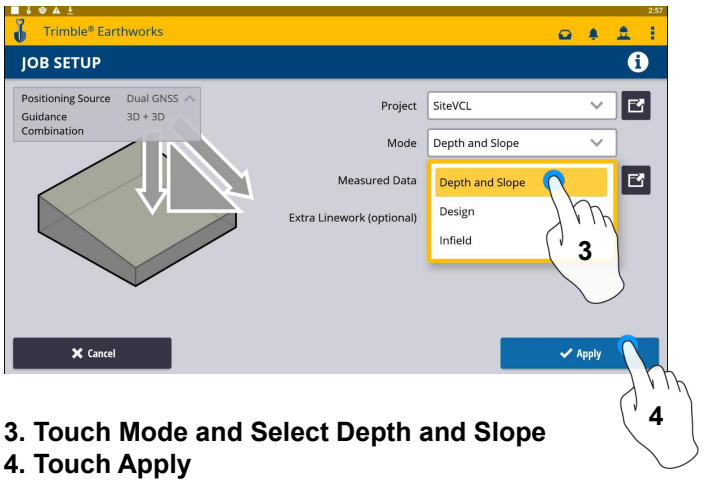
Level Surface



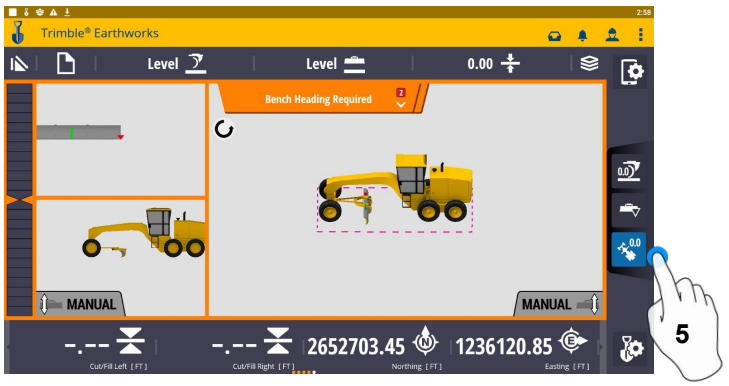
1. Touch Work Settings



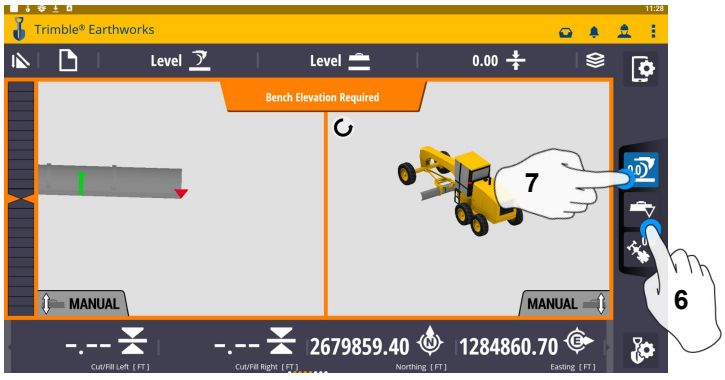
2. Touch Job Setup



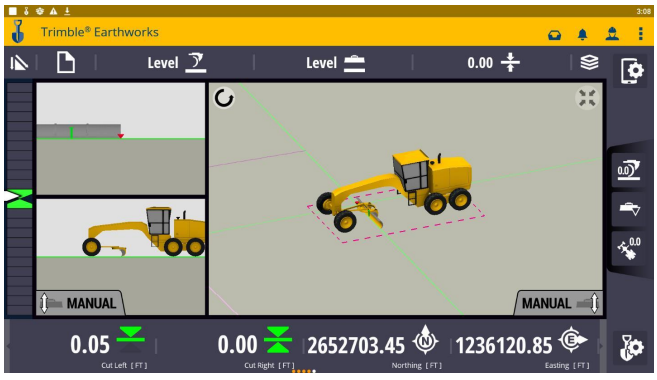
3. Touch Mode and Select Depth and Slope
4. Touch Apply



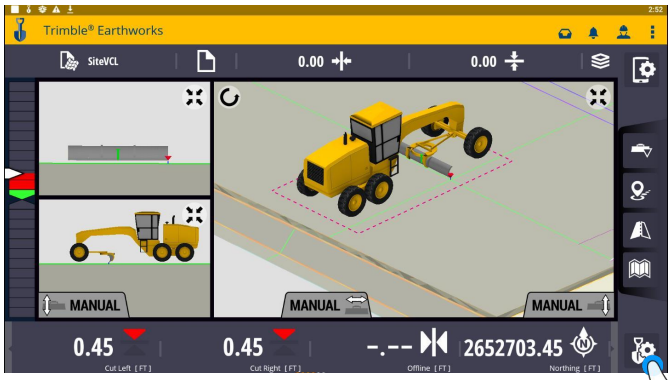
5. Touch Bench Heading



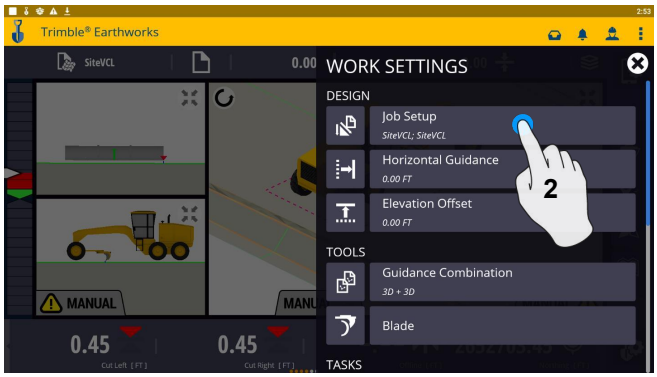
6. Touch Blade Tip Focus Point
7. Place Blade Tip at Elevation and Touch Bench



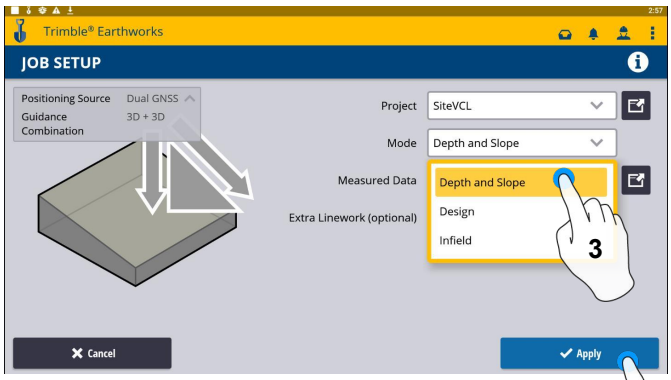
Sloping Surface



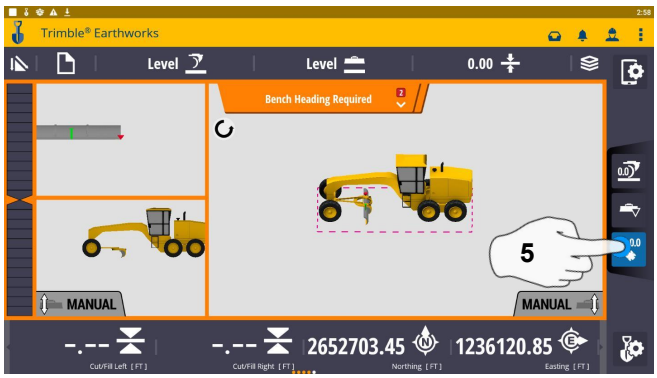
1. Touch Work Settings



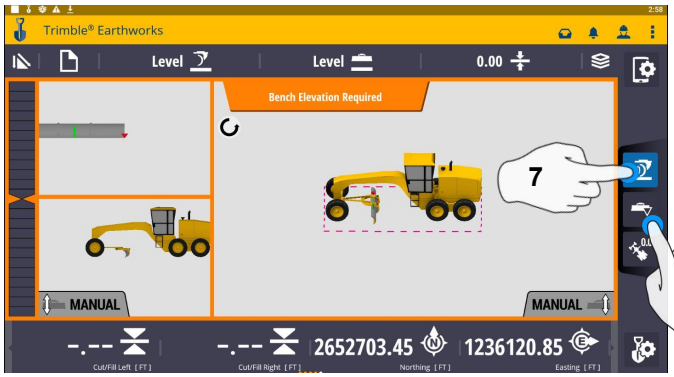
2. Touch Job Setup



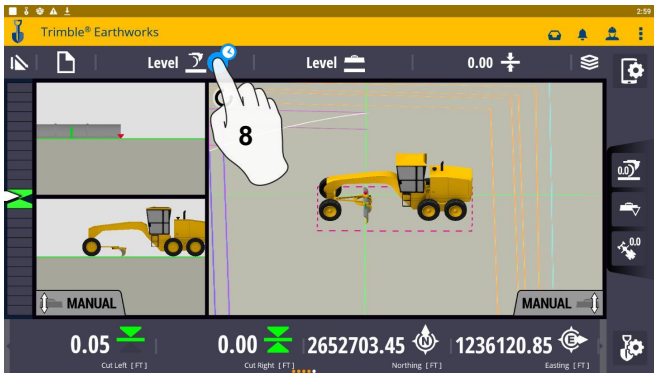
3. Touch Mode and Select Depth and Slope
4. Touch Apply



5. Touch Bench Heading

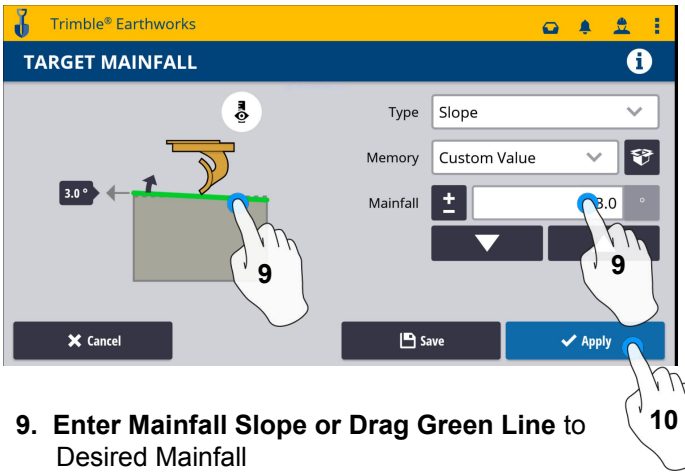


6. Select Blade Tip Focus Point
7. Place Blade Tip at Elevation and Touch Bench



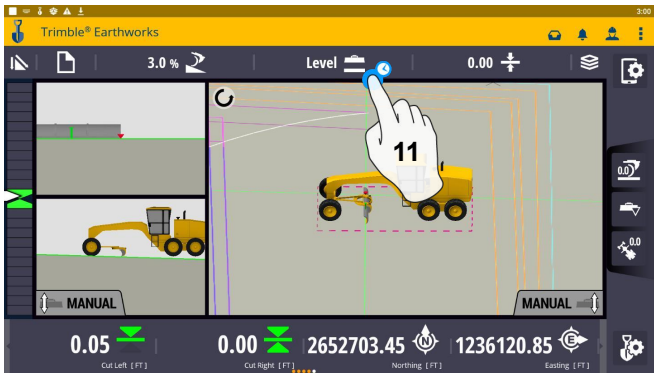
8. Touch and Hold Target Mainfall

Sloping Surface Cont:

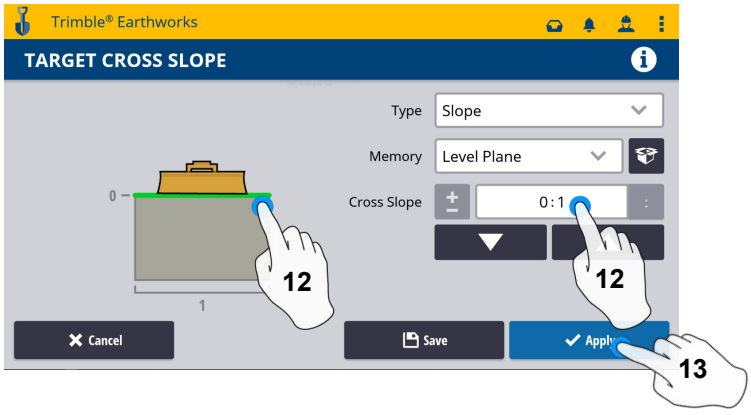


9. Enter Mainfall Slope or Drag Green Line to Desired Mainfall

10. Touch Apply

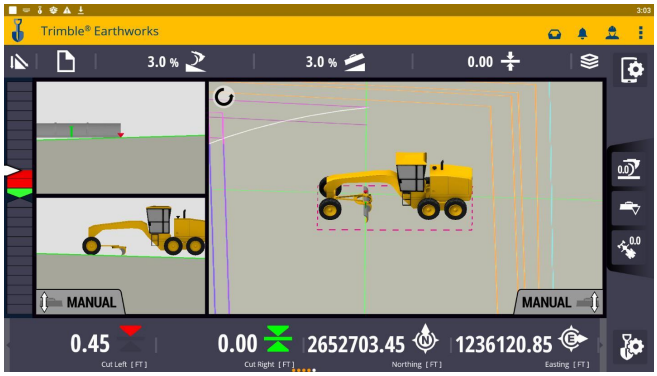


11. Touch and Hold Cross Slope



12. Enter Cross Slope or Drag Green Line to Desired Slope

13. Touch Apply



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