

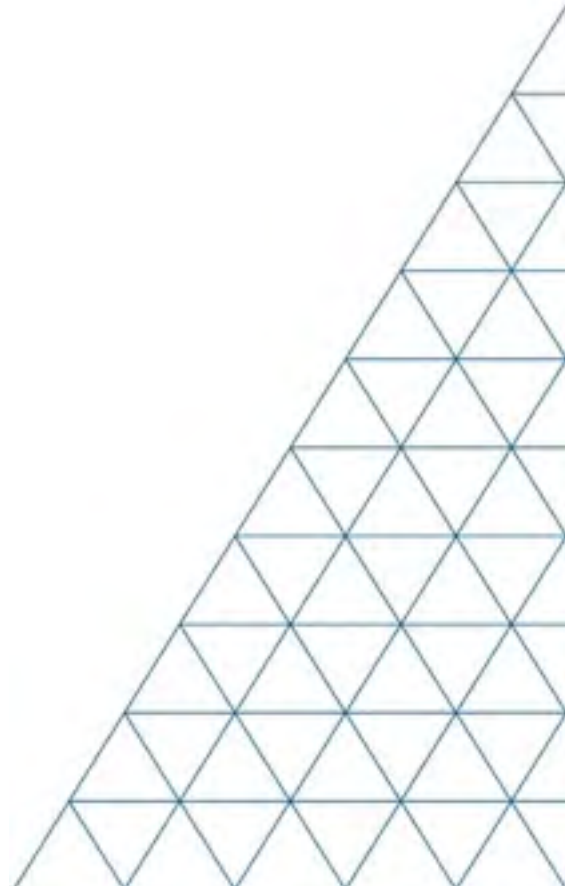
YOUR CONSTRUCTION TECHNOLOGY PROVIDER



# Field Reference Guides

EARTHWORKS EXCAVATOR VERSION 2.9

SITECH SOUTHWEST  
[SITECHSW.COM](http://SITECHSW.COM)





System: Earthworks Excavator

Version: 2.9

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SITECH TECHNOLOGY DEALER  
**TRAINING CHECKLIST**

System: Earthworks Excavator

Version: 2.9

**Training Checklist**

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<input type="checkbox"/> Surface Manager	28
<input type="checkbox"/> Layers Manager	29
<input type="checkbox"/> UTS Setup	30
<input type="checkbox"/> Change Radio Network	32
<input type="checkbox"/> Level Surface	33
<input type="checkbox"/> Sloping Surface	34

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**Customer Copy**

**Training Acknowledgement:**

---

Customer Signature

Date

SITECH Representative

Date



SITECH TECHNOLOGY DEALER  
**TRAINING CHECKLIST**

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<input type="checkbox"/> Sloping Surface	34

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**SITECH Copy**

**Training Acknowledgement:**

---

Customer Signature

Date

SITECH Representative

Date





## Starting Earthworks

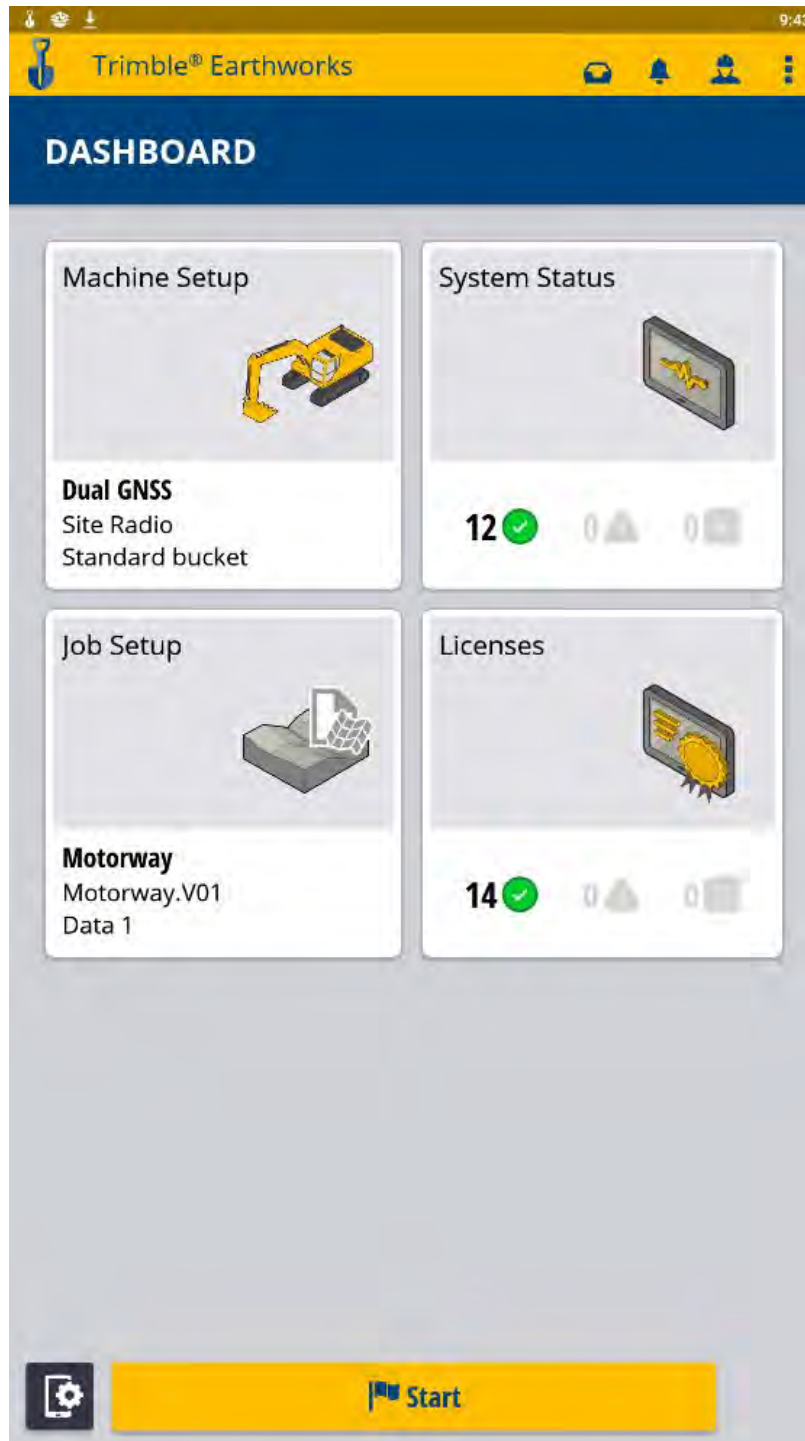


**1. Touch EarthWorks**



**2. Select Operator**  
**3. Enter Password if required and touch Login**

## Dashboard



### Machine Setup

#### Guidance

- Position Source
- Correction Source

#### Attachments

- Attachment Name

### Job Setup

- Select or Create project
- Select or Create Design
- Select or Create new Measured Data Folder
- Select Mode: Depth and Slope, Design, Infield

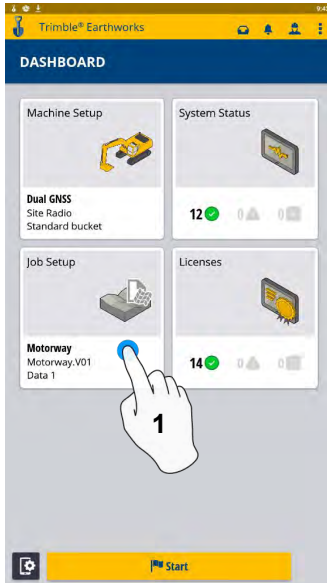
### System status

- Status of Devices
- Component warnings

### Licenses

- EC520 License
- TD520 License
- GNSS Receiver Licenses

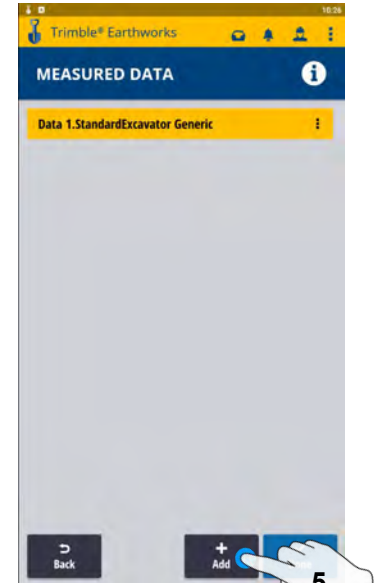
## Select Project, Design and Measured Data



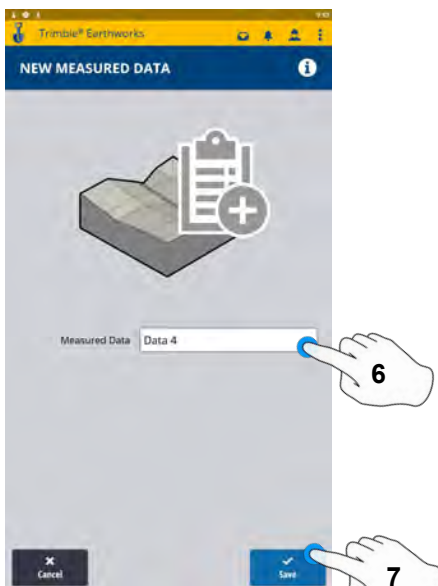
1. Touch Job Setup



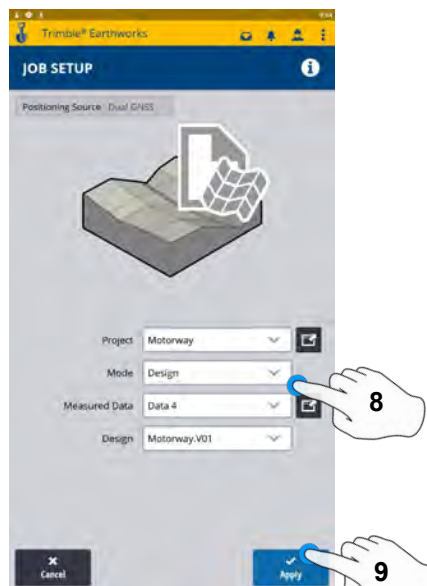
2. Touch project  
3. Touch Mode  
4. Measured Data (Create New)



5. Add Measured Data



6. Type New Measured Data Name  
7. Touch Save, on next screen  
Touch Done

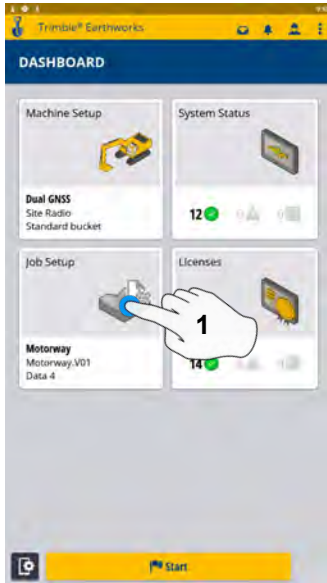


8. Touch Design  
9. Touch Apply

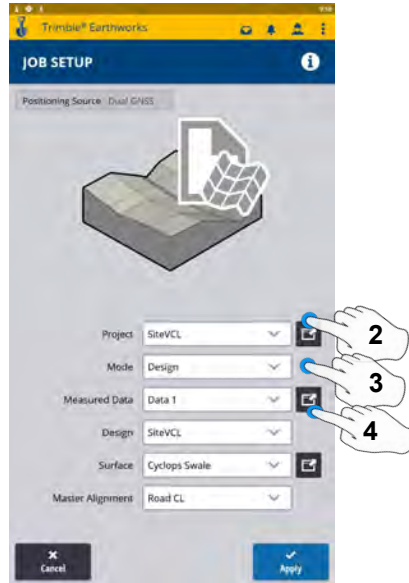


10. Touch Start

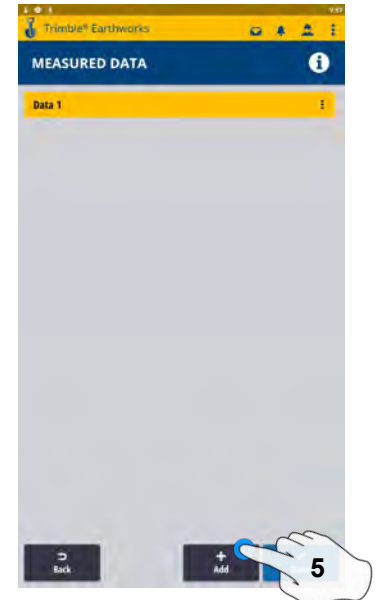
## Select Project, Design and Measured Data: VCL



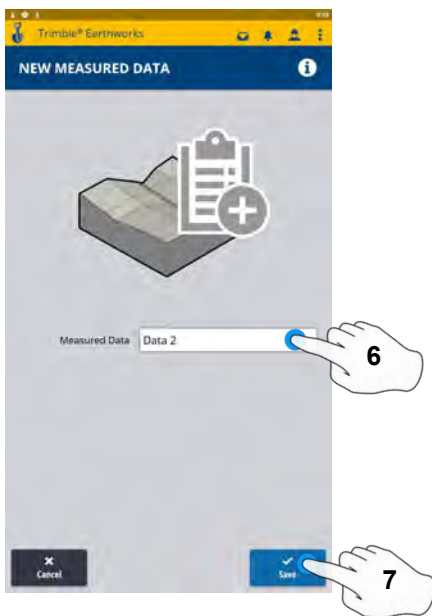
1. Touch Job Setup



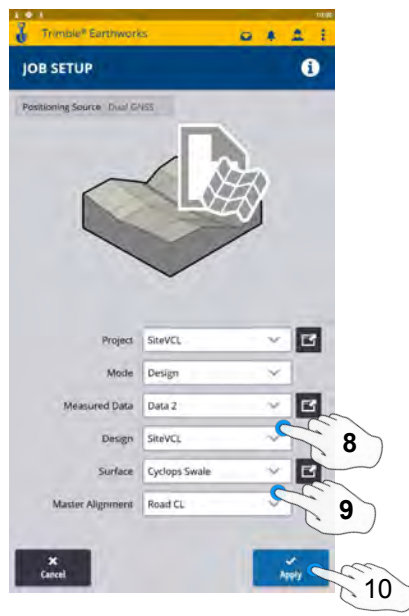
2. Touch Project- Select Project  
3. Touch Mode- Select Design  
4. Touch Measured Data



5. Add Measured Data



6. Type New Measured Data Name  
7. Touch Save on next screen touch Done



8. Touch Design- Select Design that Contains a VCL  
9. Touch Surface- Select Surface  
10. Touch Apply



11. Select Master Alignment  
12. Touch Apply

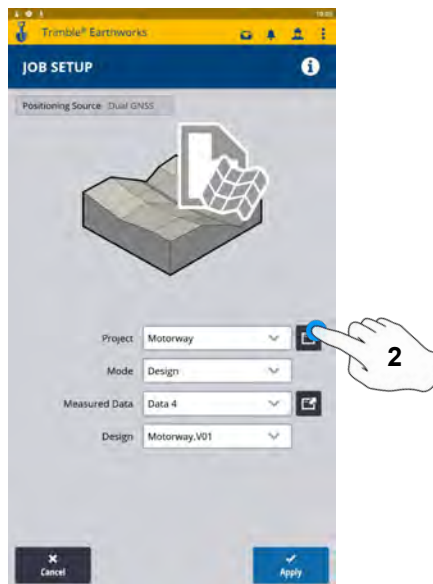


13. Touch Start

# Create New Project



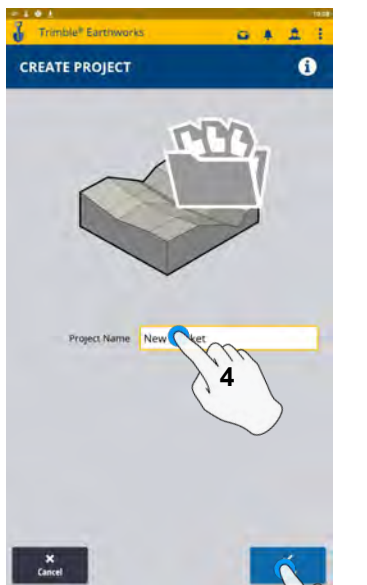
1. Touch Job Setup



2. Touch Project



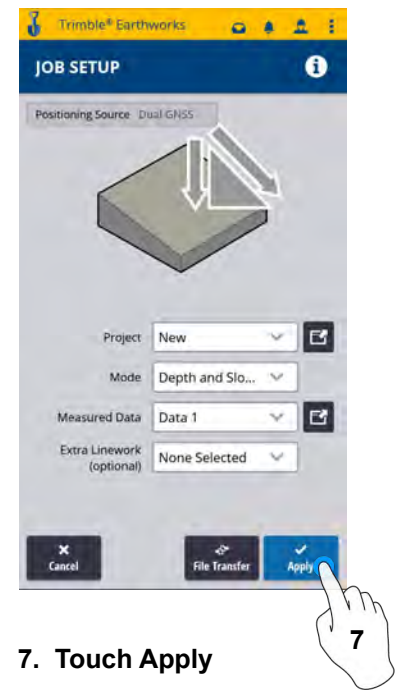
3. Touch Create



4. Enter Project Name  
5. Touch Save



6. Touch Select

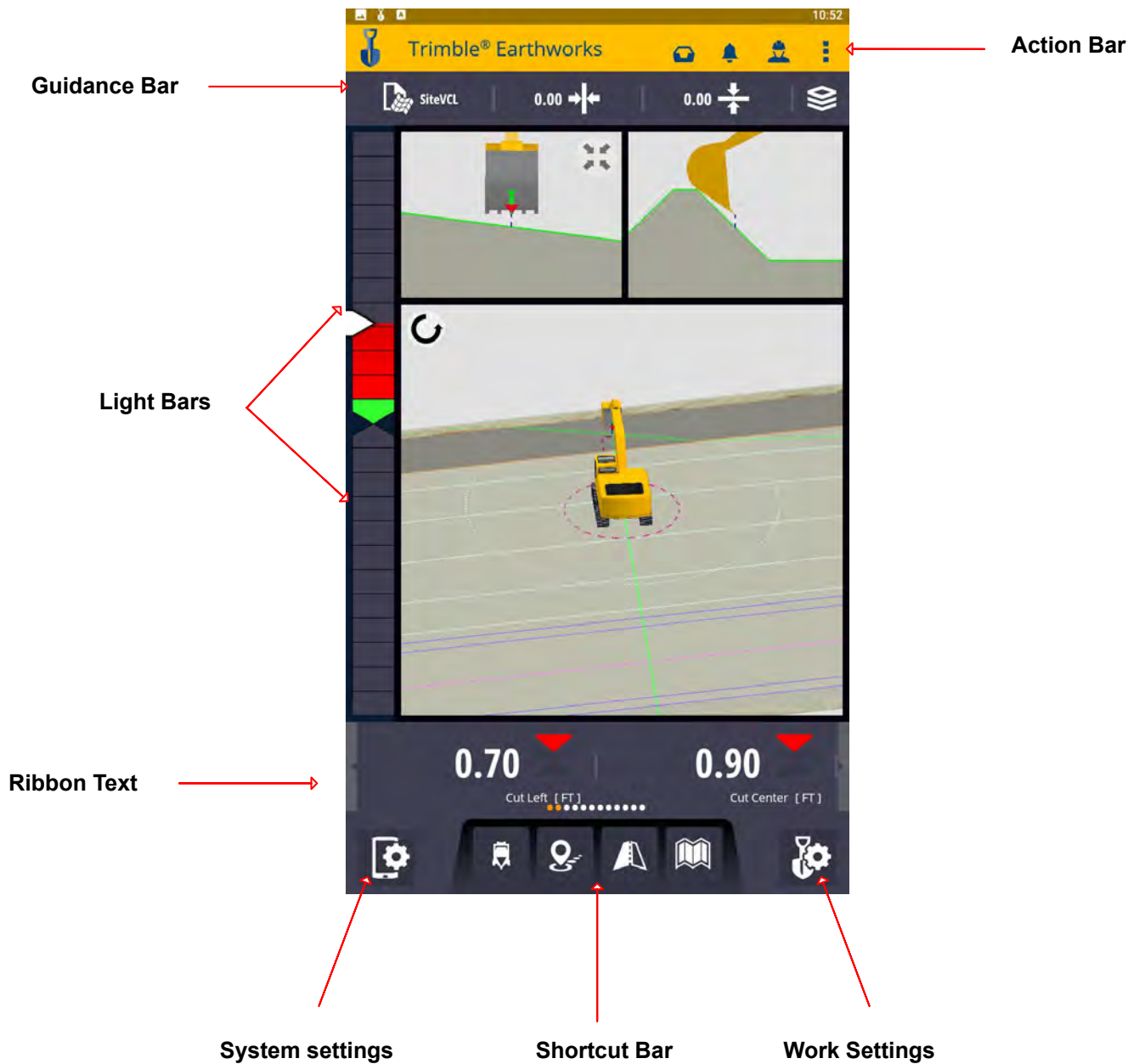


7. Touch Apply

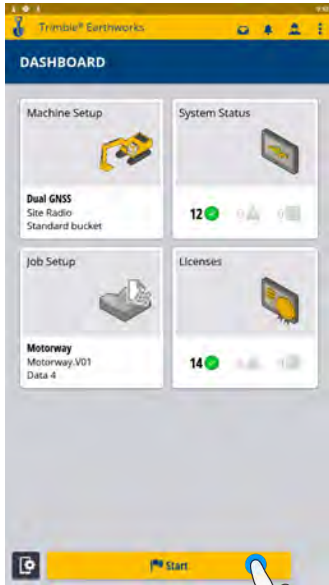


8. Touch Start

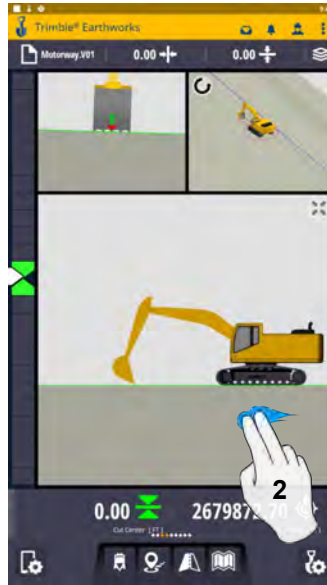
## Work Screen



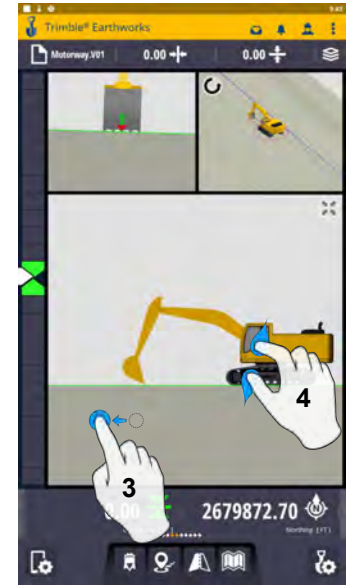
## Work Screen Interface



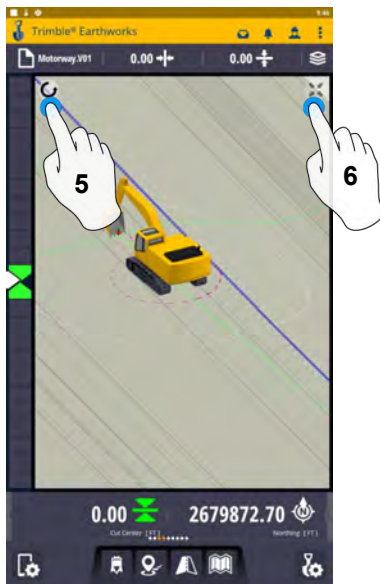
1. Touch to Start



2. 2 Finger Swipe to Change Views



3. Drag to Pan  
4. Pinch-Spread to Zoom in-out

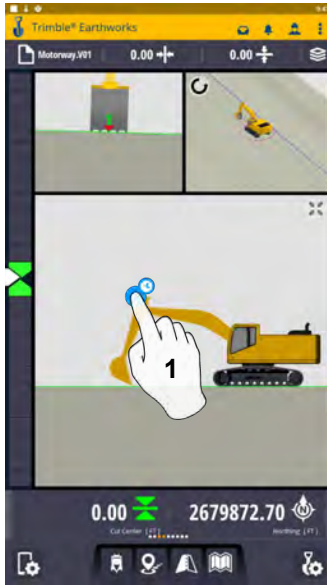


5. Touch to select Pan or Rotate  
6. Touch to re-center

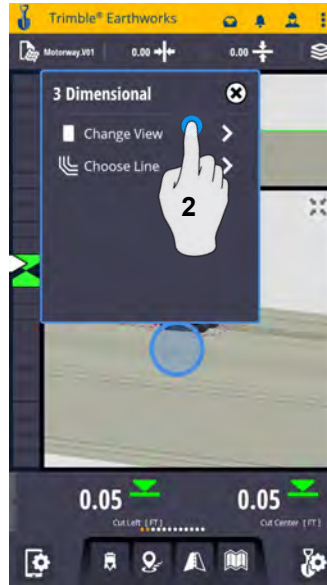




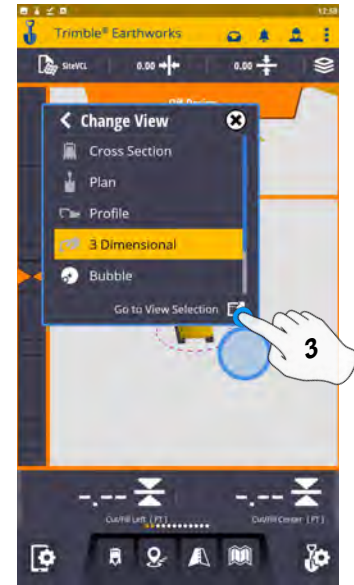
## Work Screen Setup



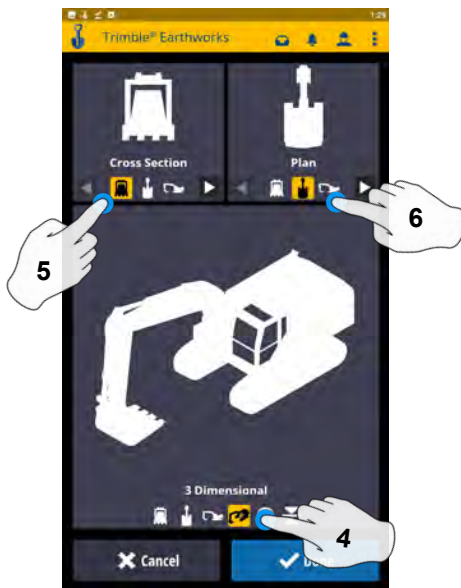
1. Touch and Hold



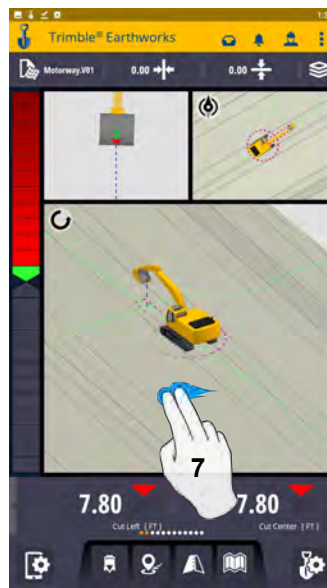
2. Change View



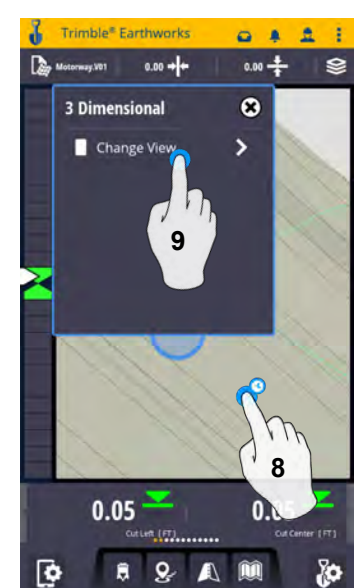
3. Touch View Selection



4. Touch 3 Dimensional  
5. Touch Cross Section  
6. Touch Plan

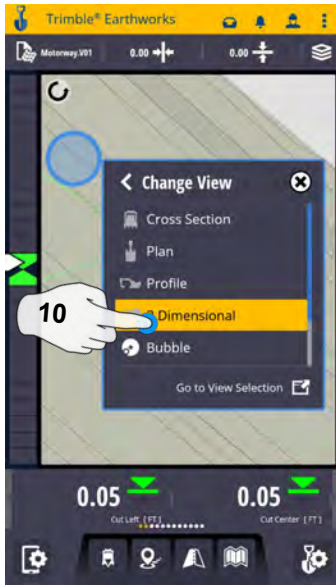


7. 2 finger swipe to 1 view screen

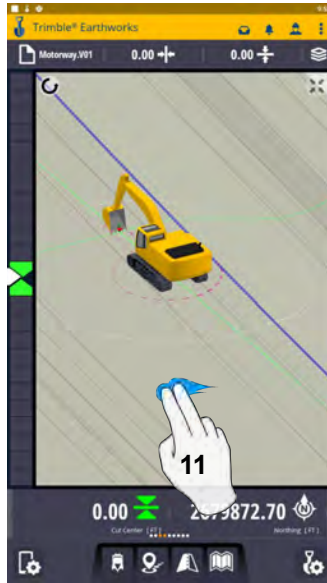


8. Touch and Hold  
9. Change View

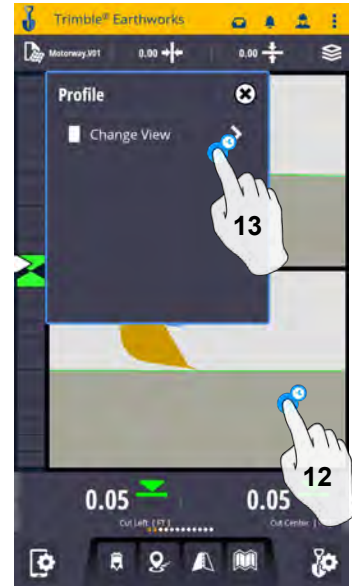
## Work Screen Setup: Continued



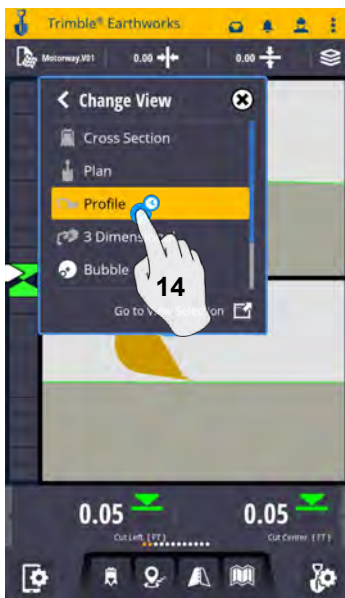
10. Touch 3D View



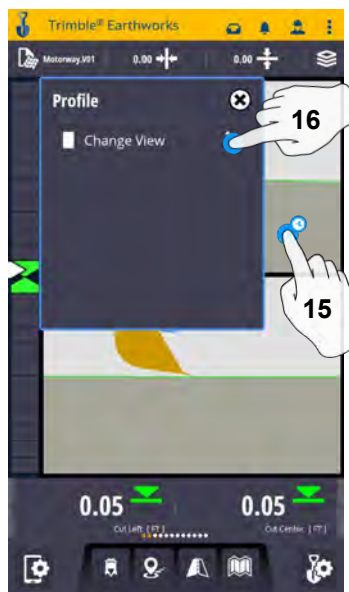
11. 2 Finger swipe to 2 view screen



12. Touch and hold  
13. Change View



14. Touch Profile



15. Touch and hold  
16. Change View



17. Touch Cross Section

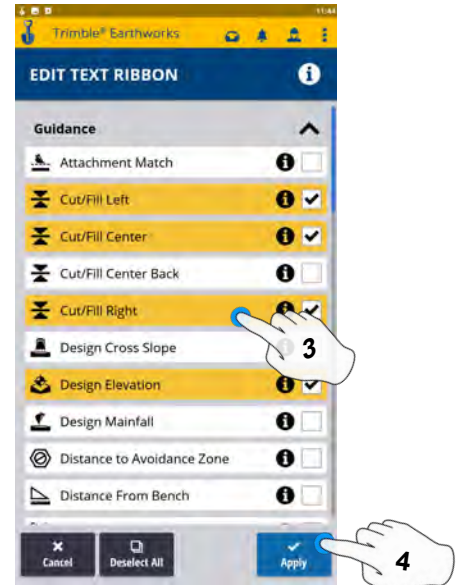
## Text Ribbon Setup



1. Touch and Hold Text Ribbon



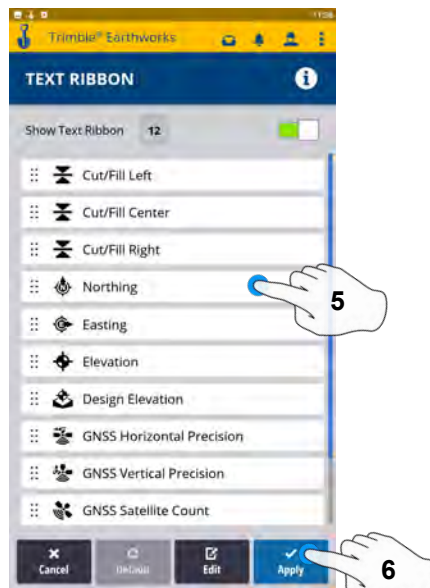
2. Touch Edit



3. Touch each Text Item

- Cut/Fill Center
- Offline
- Station
- Northing
- Easting
- Elevation
- Design Elevation
- Vertical GNSS Precision
- Satellite Count

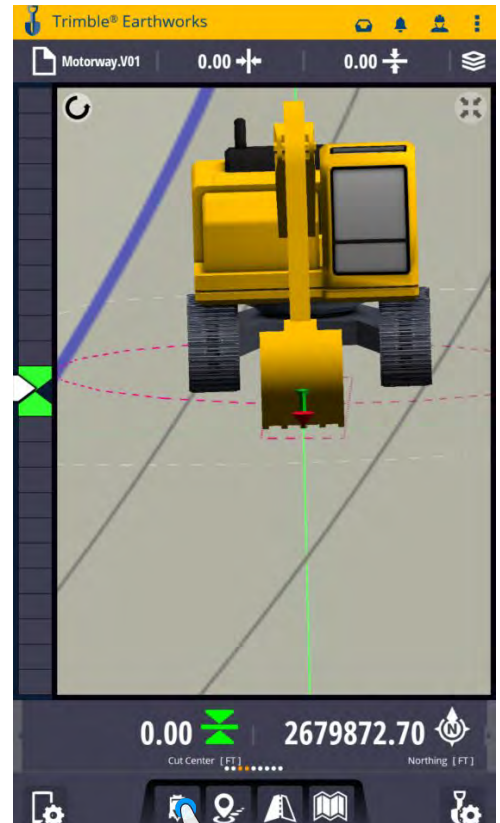
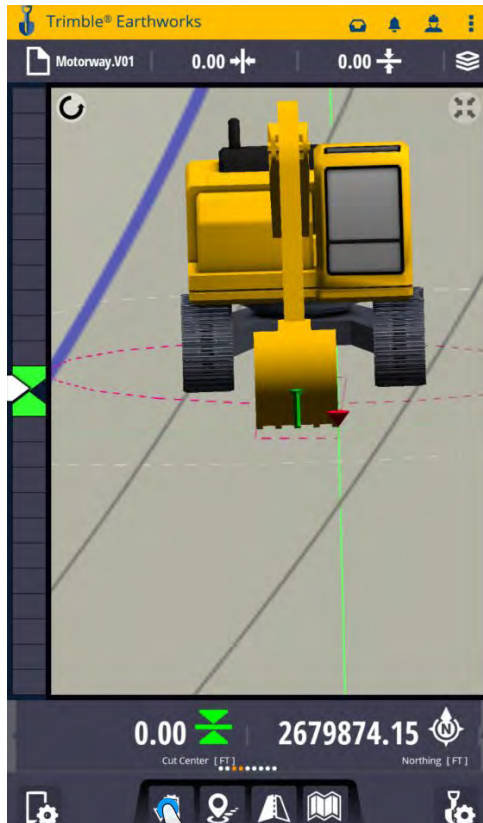
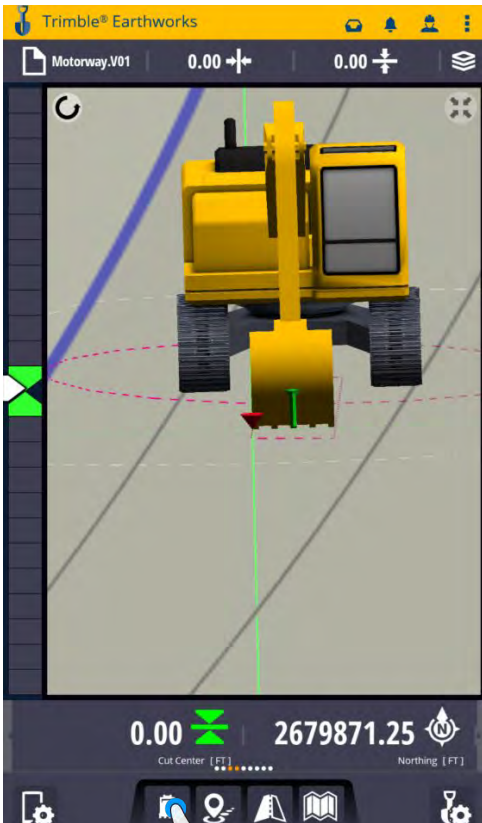
4. Touch Apply



5. Touch-hold-drag to change position

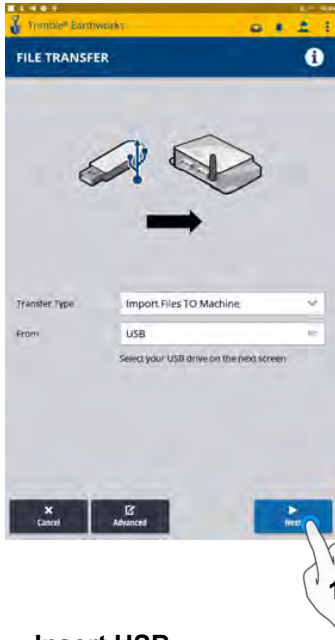
6. Touch Apply

## Focus Point



**Touch Bucket Focus to Change Focus point**

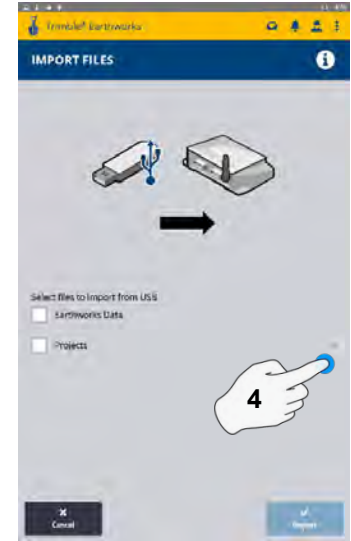
## Import Data With USB



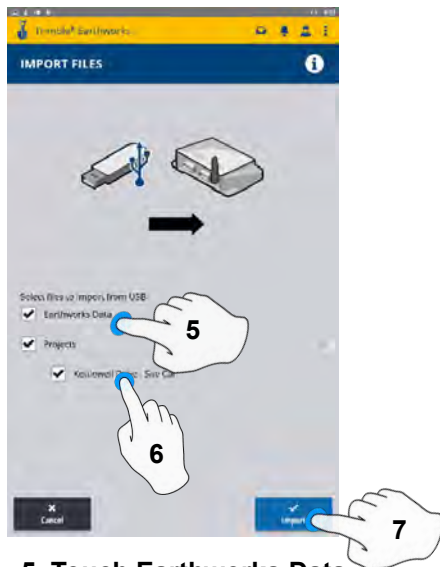
Insert USB  
1. Touch Next



2. Touch USB  
3. Touch Select



4. Touch "V"

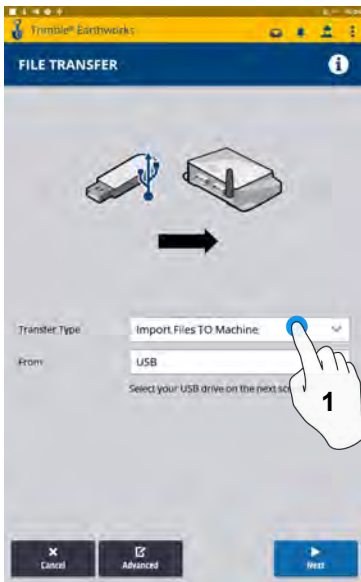


5. Touch Earthworks Data  
6. Touch Project  
7. Touch Import



8. Touch OK

## Export Data With USB



**Insert USB**  
1. Touch Transfer Type



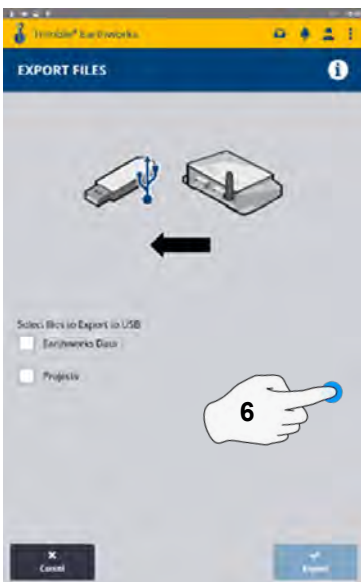
2. Touch Export Files



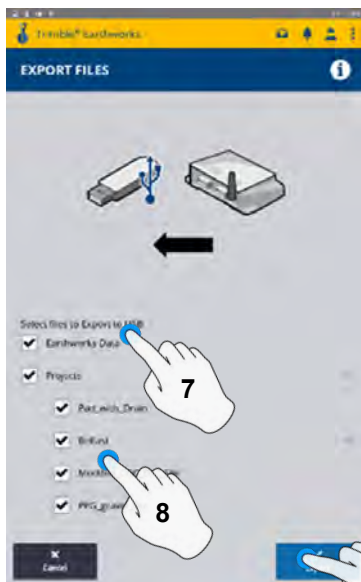
3. Touch Next



4. Touch USB  
5. Touch Select



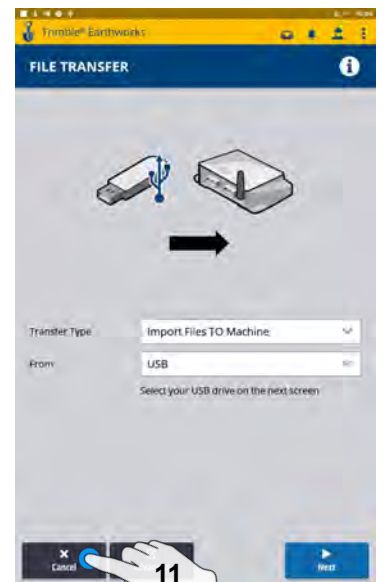
6. Touch "V"



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

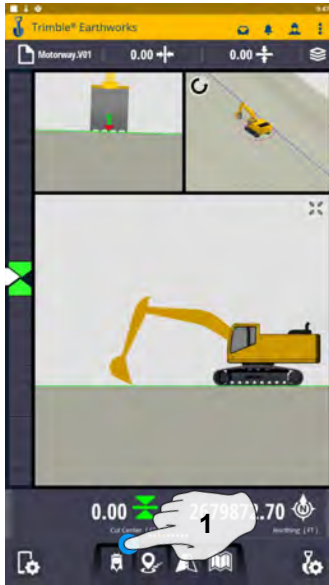


10. Touch OK

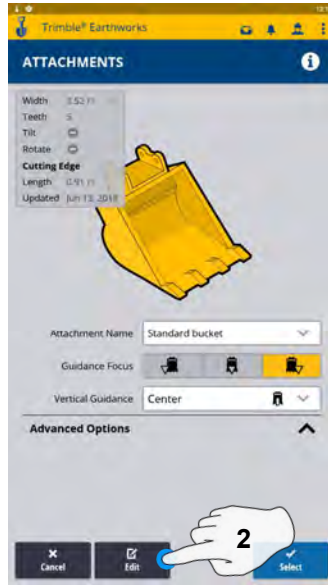


11. Touch Cancel  
Remove USB

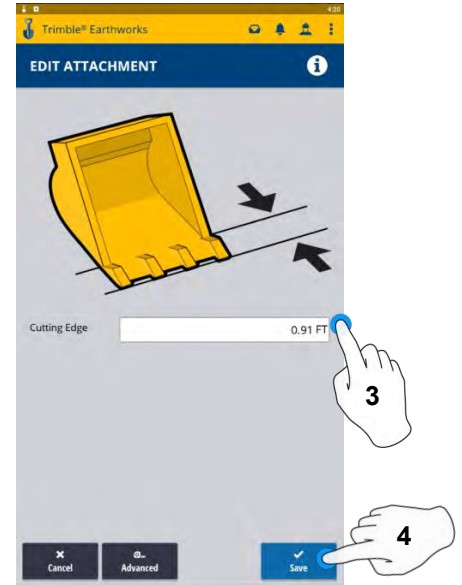
## Cutting Edge Wear / Overcut Protection



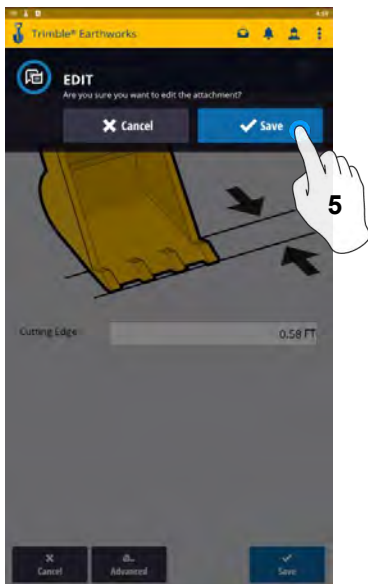
1. Touch and Hold Bucket Focus



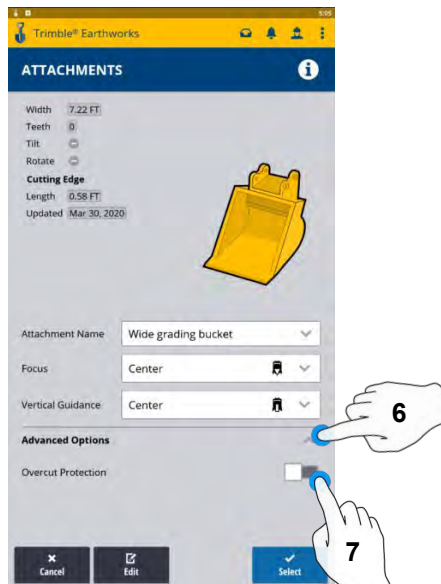
2. Touch Edit



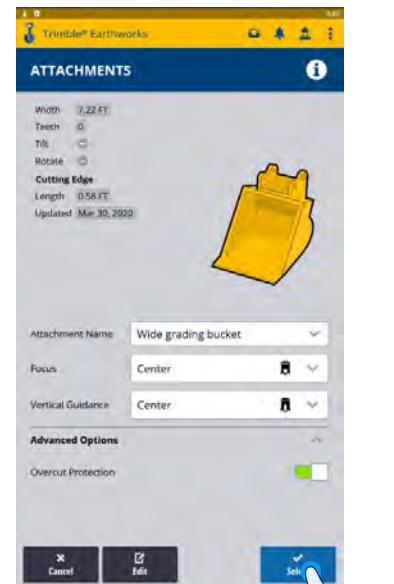
3. Enter Measured Length  
4. Touch save



5. Touch Save



6. Touch Advanced Options  
7. Touch Overcut protection to Turn On/Off



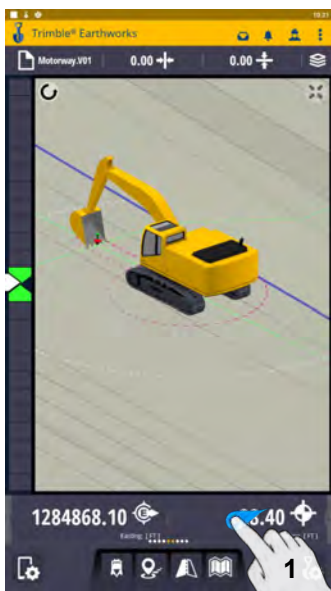
8. Touch Select

## Verify System Accuracy

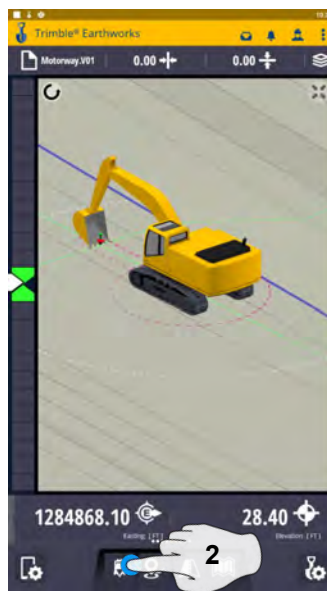
Verify the System accuracy by checking into a Bench Point



Position the Bucket Tip over the Bench point



1. Swipe Ribbon to View  
Northing, Easting, Elevation



2. Touch Bucket Focus  
Select Point on  
Bucket to Measure



3. Verify  
Northing, Easting, Elevation

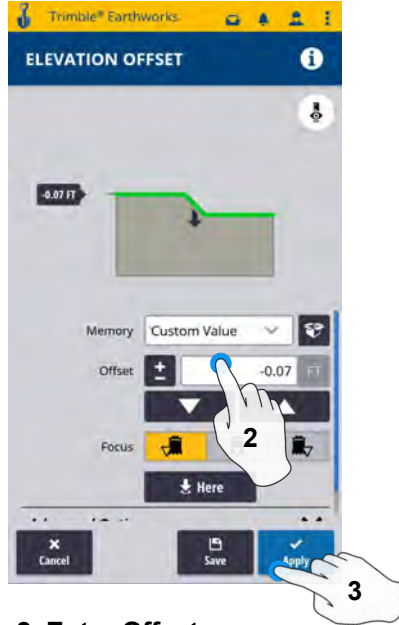
See Supervisor if Northing, Easting, and Elevation do not match Project Tolerances



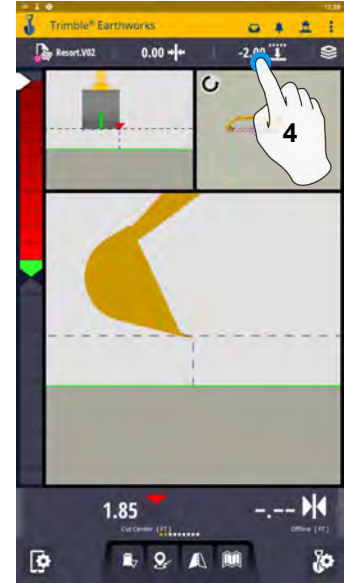
## Vertical Offset / Memories



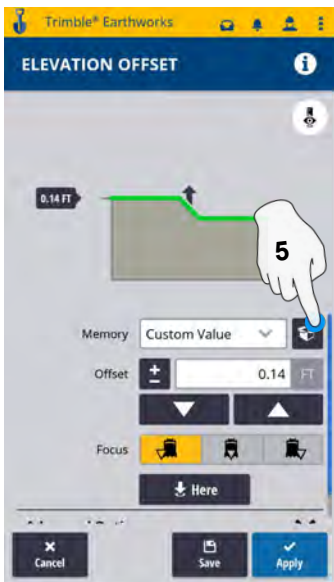
1. Touch and Hold Vertical Offset



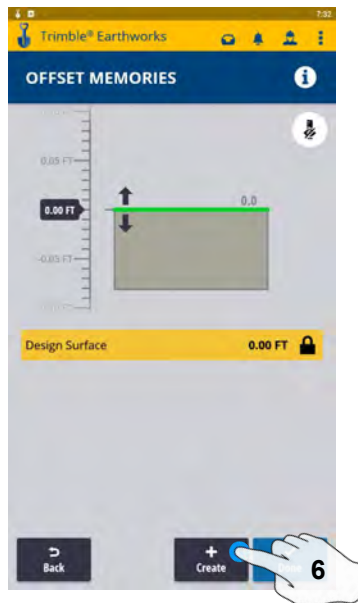
2. Enter Offset  
3. Touch Apply to Use Immediately



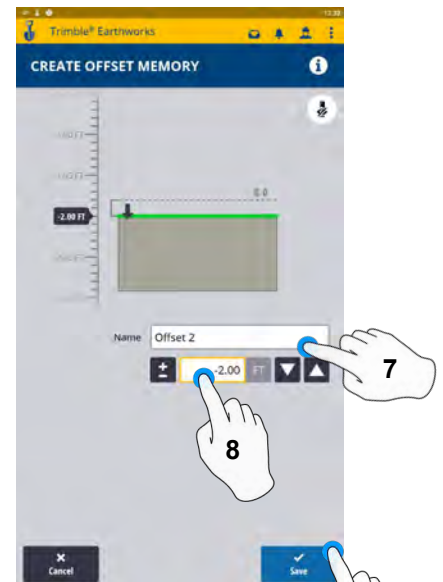
4. Touch and Hold Vertical Offset



5. Touch Memories

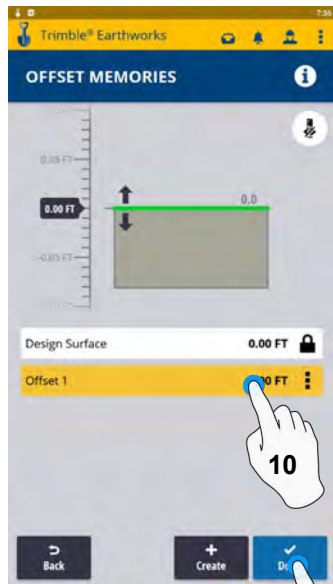


6. Touch Create to Add New Offset



7. Enter Description  
8. Enter Offset  
9. Touch Save

## Vertical Offset / Memories Cont:

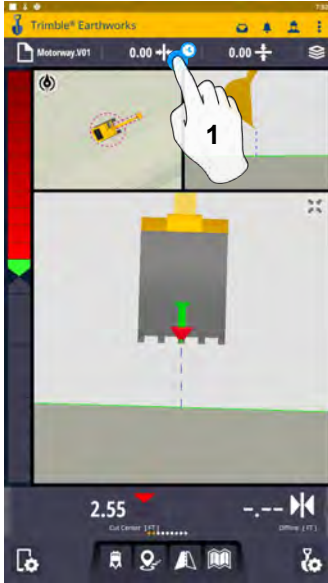


10. Touch Memory  
11. Touch Done

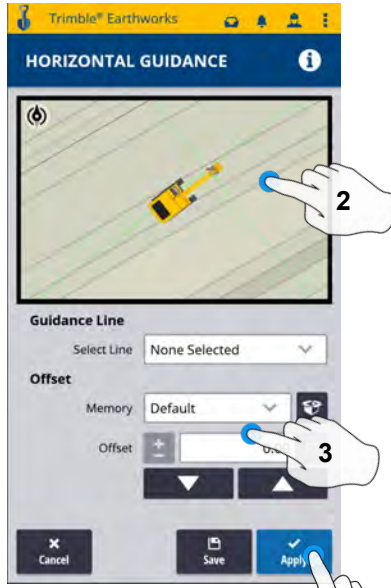


12. Touch Apply

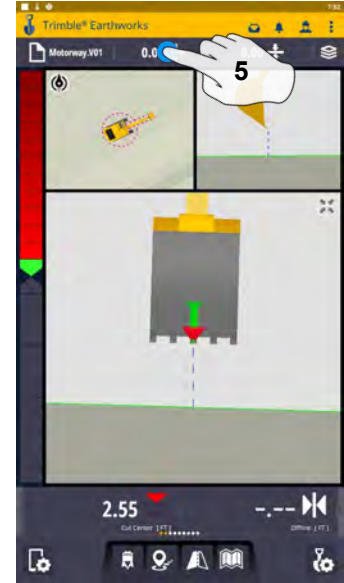
## Horizontal Offset / Memories



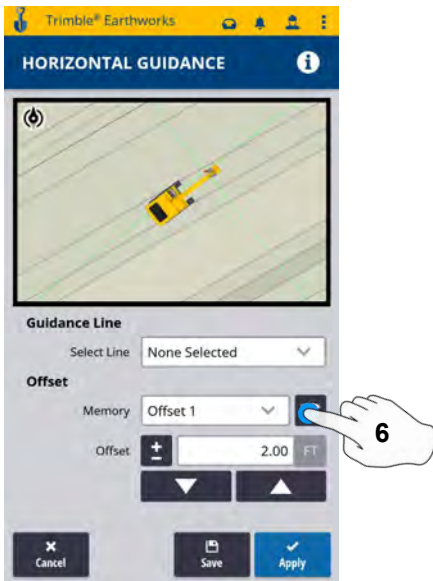
1. Touch and Hold Horizontal Offset or touch to cycle through memories



2. Touch Line to select  
3. Enter Offset Value  
4. Touch Apply to use immediately



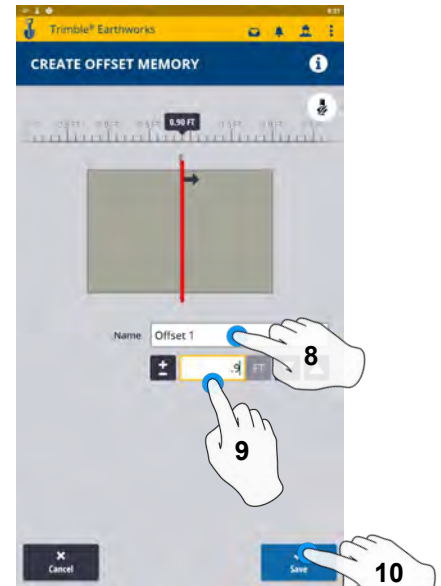
5. Touch and Hold Horizontal Offset



6. Touch Memories

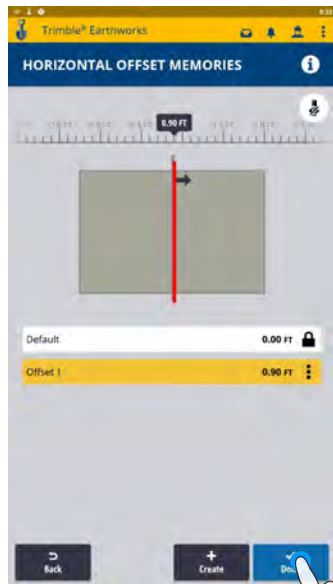


7. Touch Create



8. Name Offset to be saved  
9. Enter Offset Value  
10. Touch Save

## Horizontal Offset / Memories Cont:



11. Touch Done

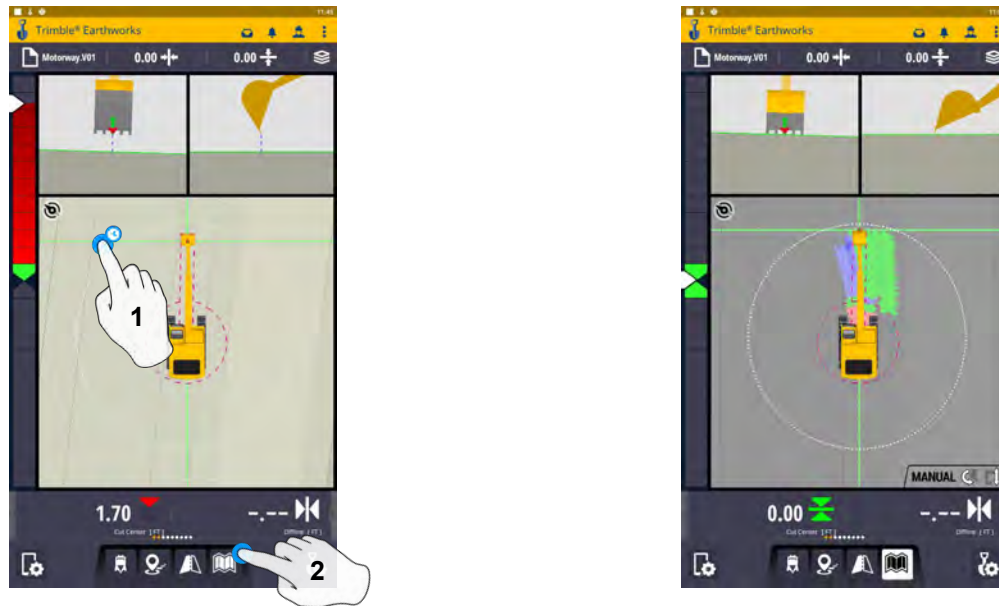
11



12. Touch Apply

12

## Cut and Fill Mapping



1. Touch and Hold screen to change to plan view
2. Press Mapping Icon to view

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

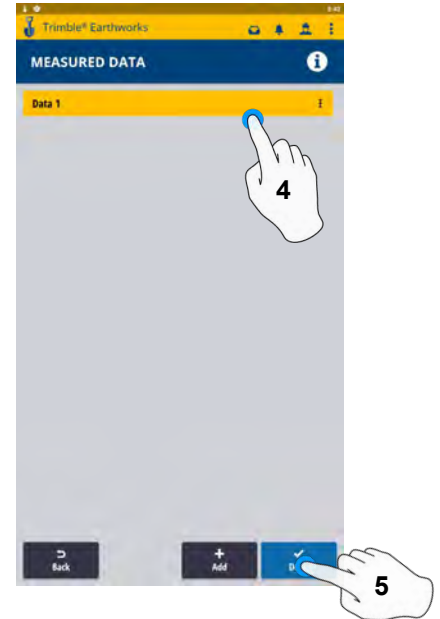
## Record Point



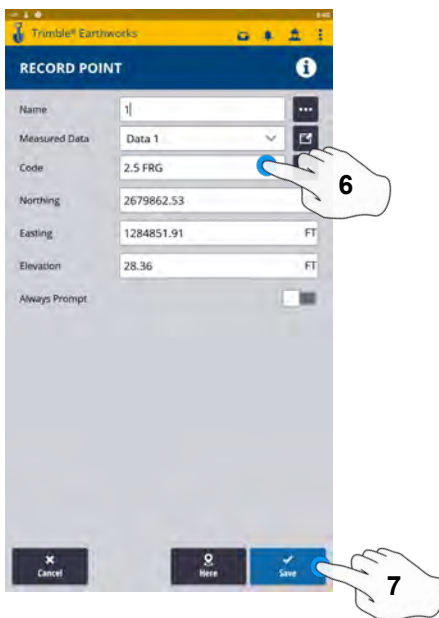
1. Press and Hold Record Point



2.Touch to Edit Name  
3.Select or create Measured Data



4. Select Measured Data Folder for Point location  
5. Select done



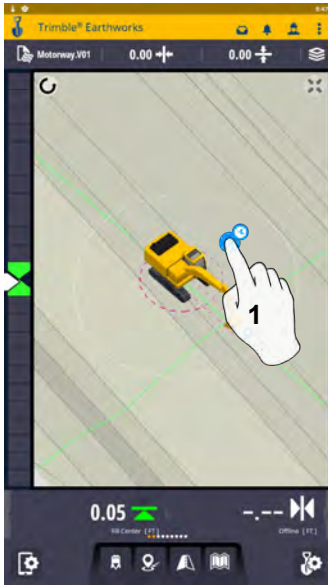
6. Type Code  
7. Touch Save to record point



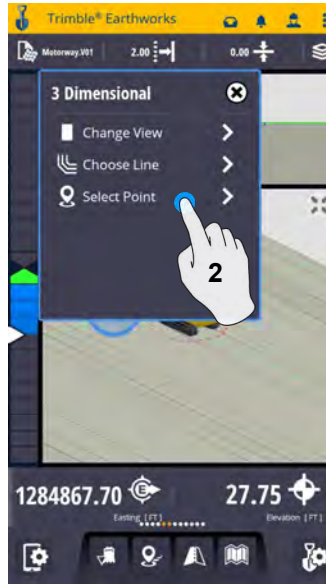
8. Touch Point Icon Records Point

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

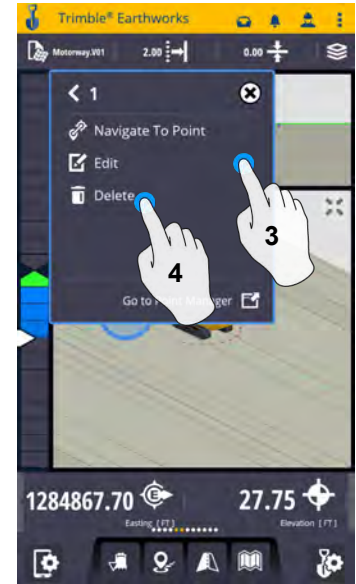
## Delete / Edit Point



1. Touch and Hold over point



2. Touch point information



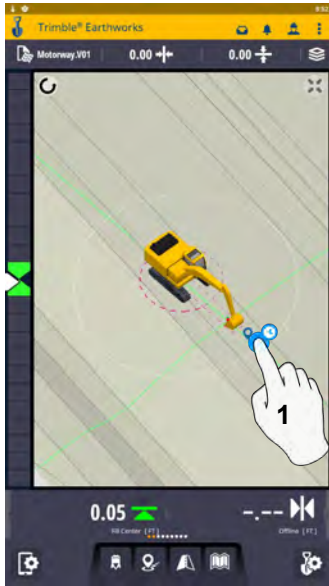
3. Edit point information if needed  
4. Touch Delete



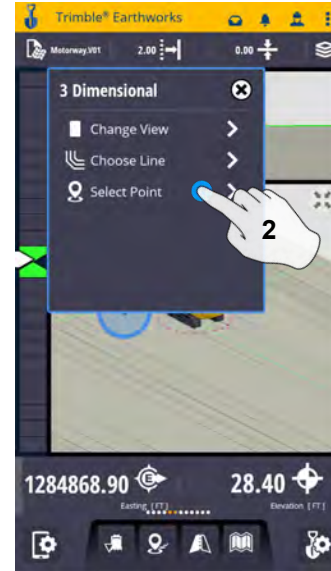
5. Confirm Delete  
(Once Deleted it can no longer viewed)



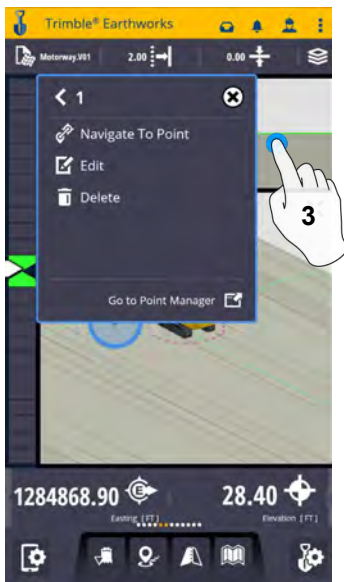
## Navigate to Point



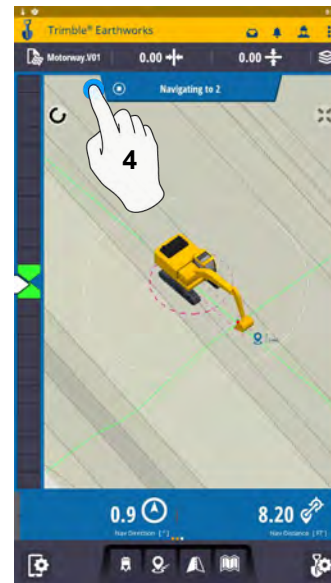
1. Touch and Hold on Point



2. Touch Point info



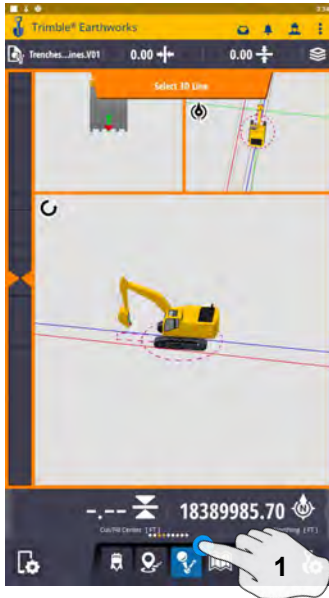
3. Touch Navigate to point



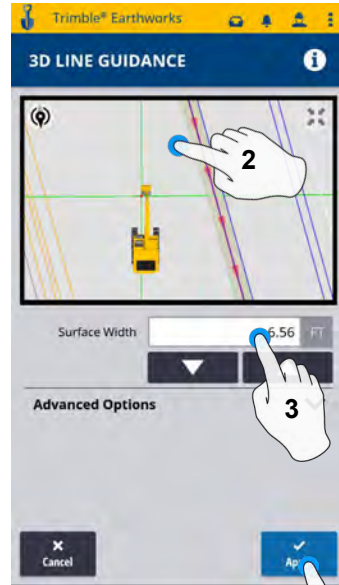
4. Touch Stop Icon once complete



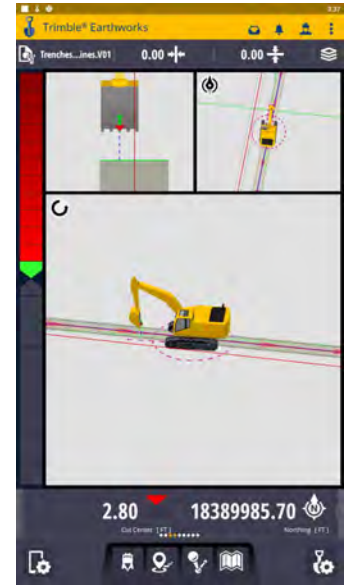
## 3D Line Guidance



1. Touch 3D Line Select



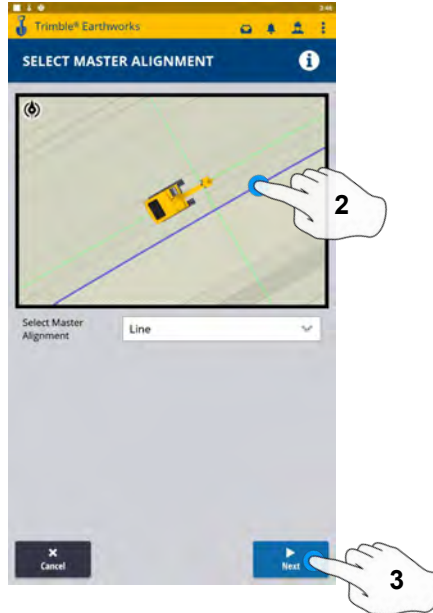
2. Touch 3D Line  
3. Enter Surface Width  
4. Touch Apply



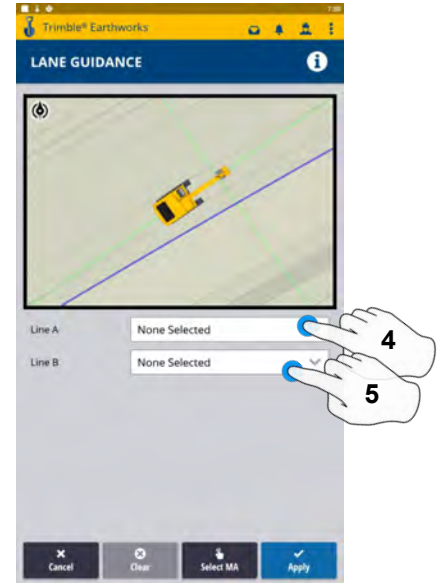
## Lane Guidance



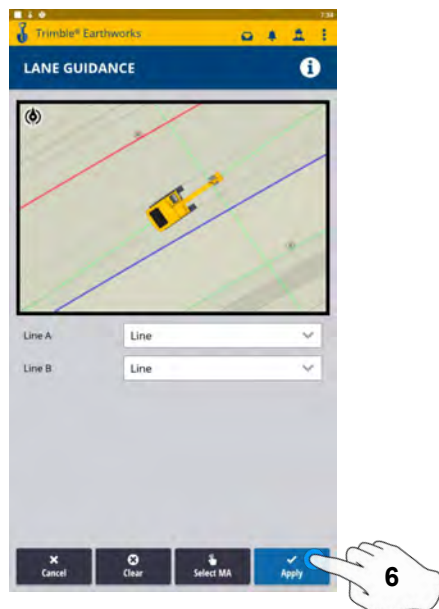
1. Touch and Hold Lane Guidance



2. Select Master Alignment  
3. Touch Next



4. Select Line A  
5. Select Line B



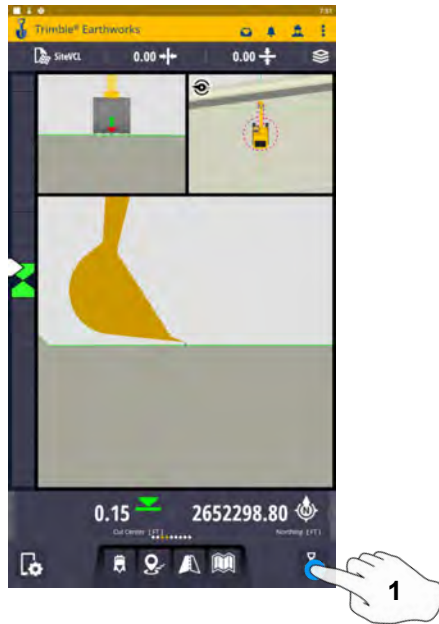
6. Touch Apply



7. Touch Lane Guidance icon to stop

**Note: Slope Between Alignment A and B will be projected slope**

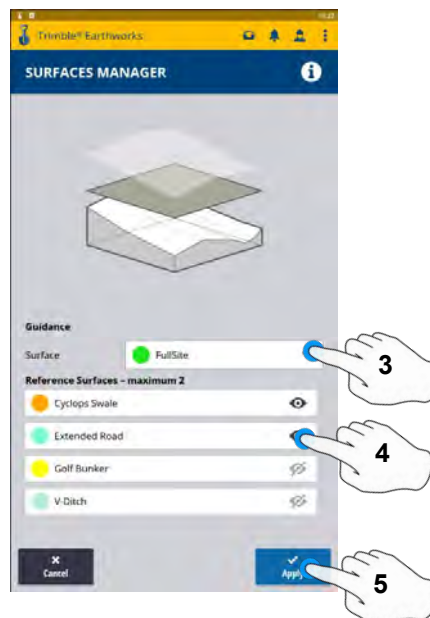
Surface Manager \*\* Will only work in VCL format Designs\*\*



1. Touch Worksettings



2. Select Surface Manager

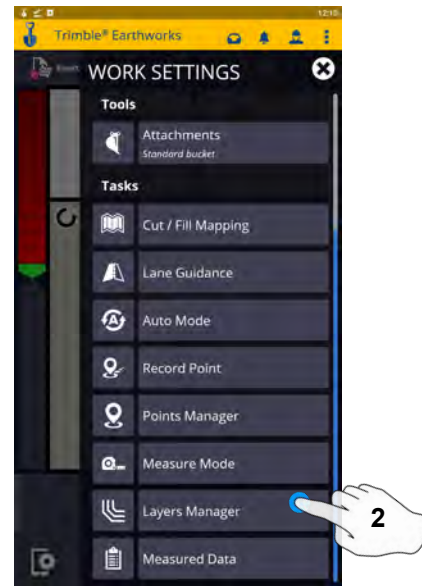


- 3. Select Surface Guidance
- 4. Select Reference Surface  
(Maximum of 2)
- 5. Touch Apply

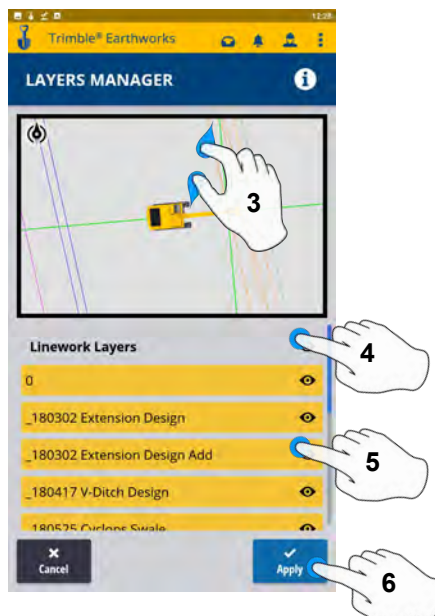
Layers Manager \*\* Will only work in VCL format Designs\*\*



1. Select Worksettings



2. Select Layers Manager

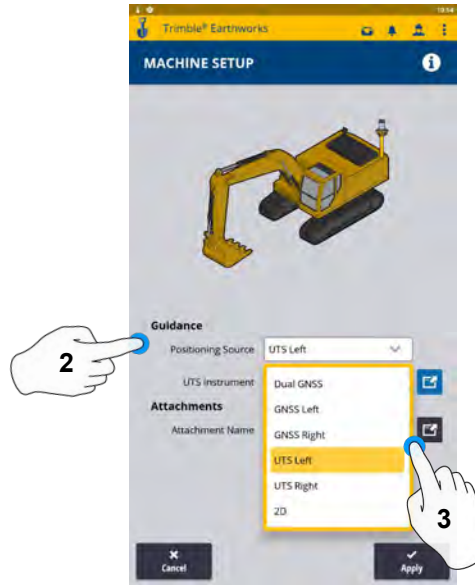


- 3. Zoom In/Out on the Design
- 4. Option to Select all Lines
- 5. Option to select individual Lines
- 6. Touch Apply

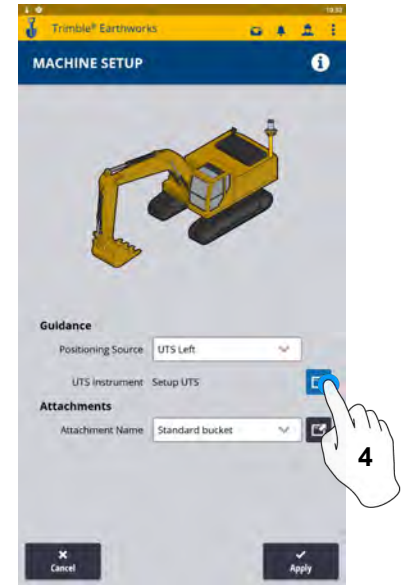
## UTS Setup



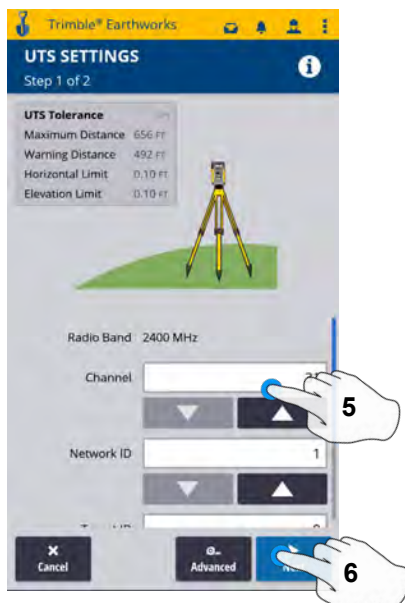
1. Touch Machine Setup



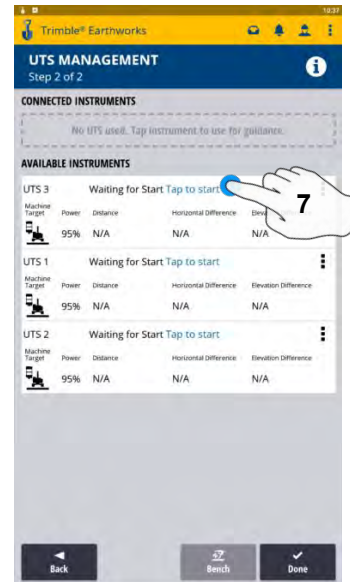
2. Touch Positioning Source  
3. Touch UTS (Right or Left)



4. Touch to Edit / Add UTS

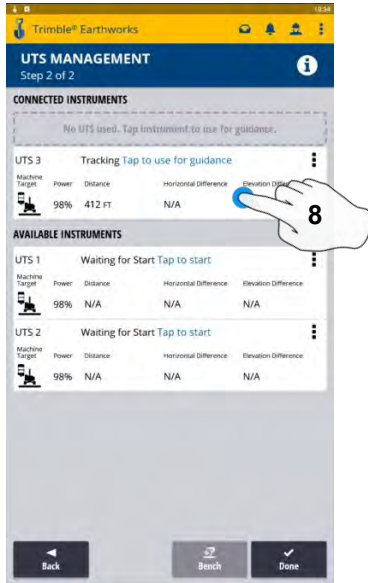


5. Select Channel / ID / Target ID  
6. Touch Next

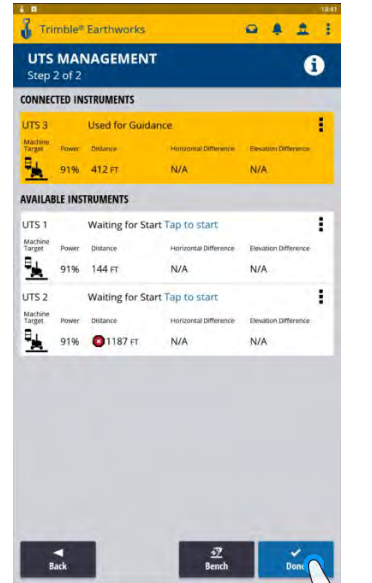


7. Tap to Start

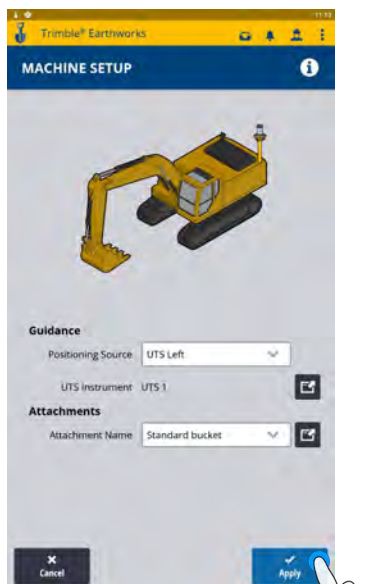
## UTS Setup Cont:



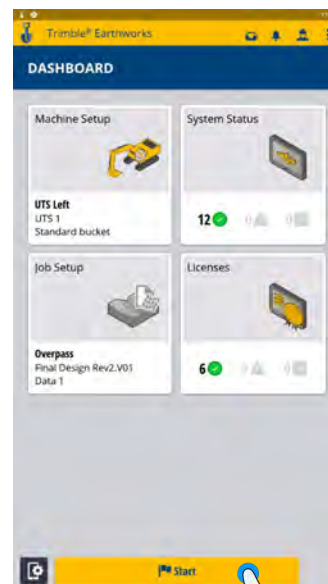
8. Tap to use for Guidance



9. Touch Done



10. Touch Apply

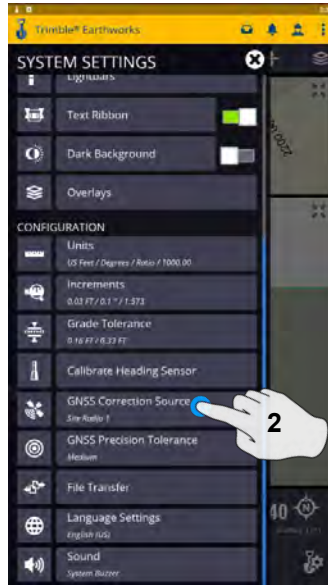


11. Touch Start

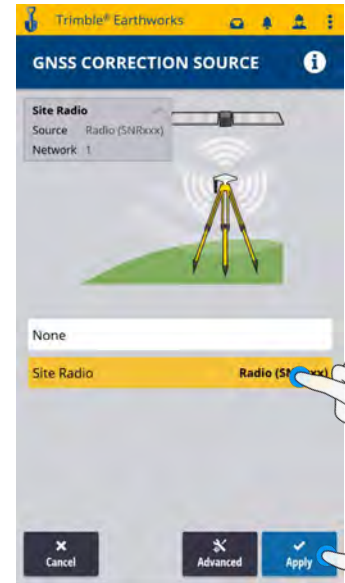
## Change Radio Network (GNSS)



1. Touch system settings



2. Touch GNSS correction source



3. Touch Radio Network  
4. Touch Apply

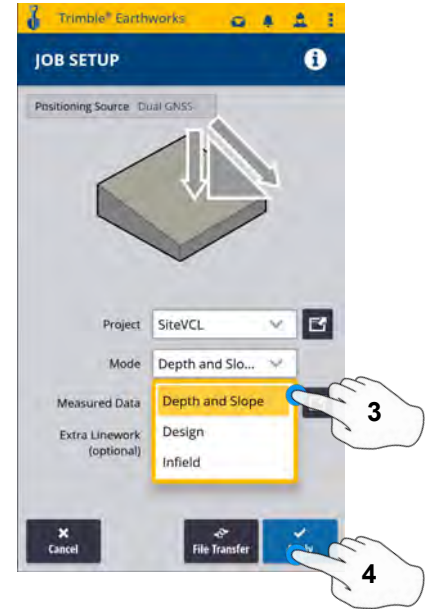
## Level Surface



1. Touch Work Settings



2. Touch Job setup



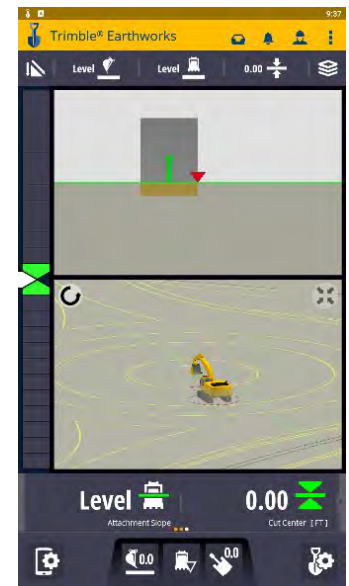
3. Touch Mode and select  
Depth and Slope  
4. Touch Apply



5. Touch Bench Heading



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





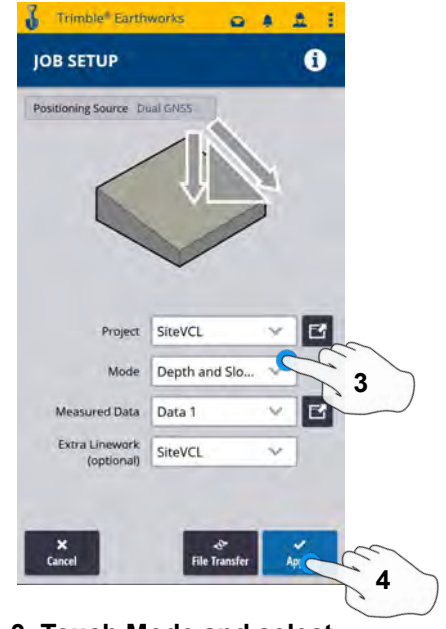
## Sloping Surface



1. Touch Work Settings



2. Touch Job setup



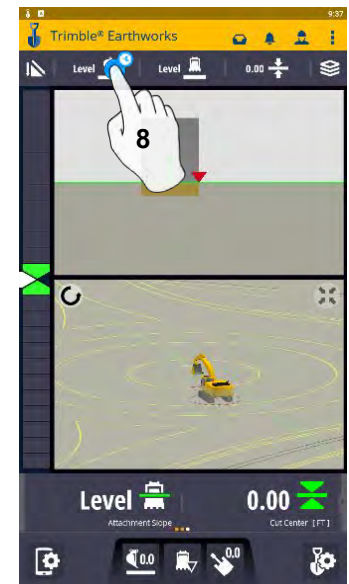
3. Touch Mode and select  
Depth and Slope  
4. Touch Apply



5. Touch Bench Heading



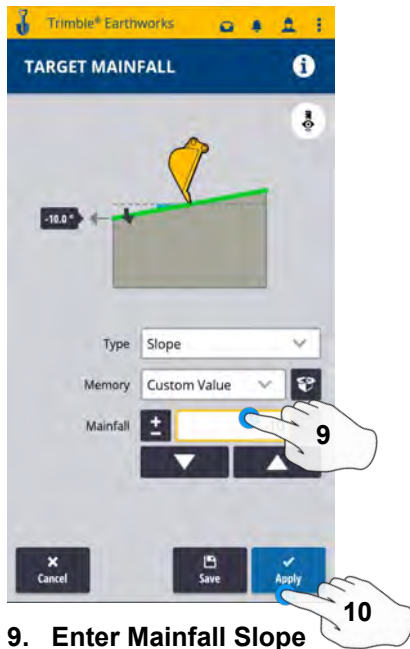
6. Select Blade Tip Focus Point  
7. Place Blade Tip at  
Elevation and Touch  
Bench



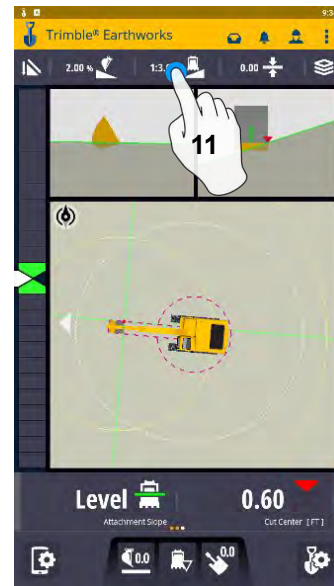
8. Touch and Hold Target Mainfall

Note: This will apply a slope parallel to the direction of heading

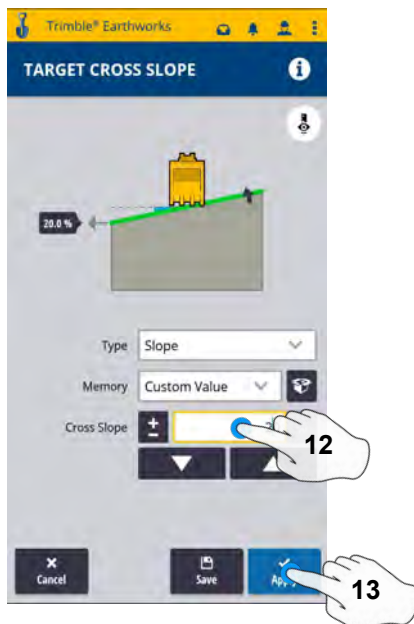
## Sloping Surface Cont:



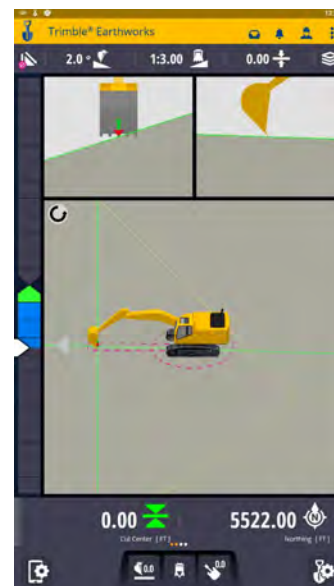
- 9. Enter Mainfall Slope
- 10. Touch Apply

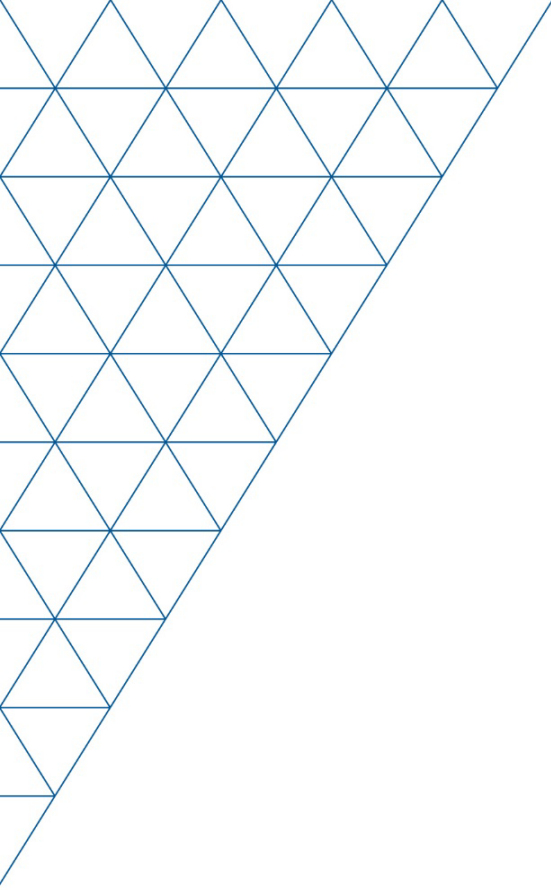


- 11. Press and Hold Cross Slope  
Note: This will apply a slope perpendicular to the direction of the heading



- 12. Enter Cross Slope
- 13. Touch Apply





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