YOUR CONSTRUCTION TECHNOLOGY PROVIDER



# Field Reference Guides EARTHWORKS EXCAVATOR VERISON 2.10

SITECH SOUTHEAST TEXAS



#### System: Earthworks Excavator

#### Version: 2.1

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#### Starting Earthworks



1. Touch Touch EarthWorks



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





### Dashboard

#### Machine Setup

Guidance

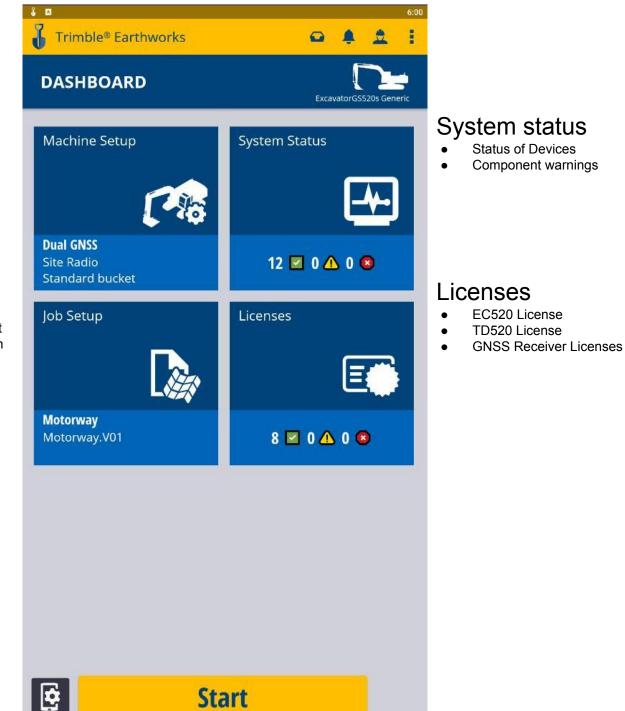
- Position Source
- Correction Source

#### Attachments

Attachment Name

#### Job Setup

- Select or Create project
- Select or Create Design
- Select or Create new Work Order
- Select Mode Depth n Slope, Design, Infield







## Select Project, Design and Work Order



1. Touch Job Setup



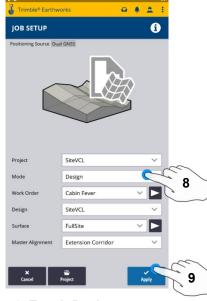
4. Work Order (Create New)

3. Touch Mode



Trimble® Earthworks NEW WORK ORDER Work Order Cabin Fever 6

6. Type New Work Order Name 7. Touch Save



8. Touch Design 9. Touch Apply



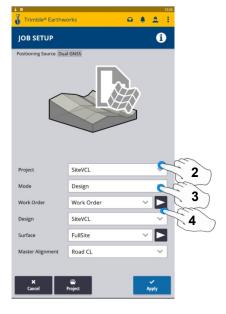




## Select Project, Design and Work Order: VCL



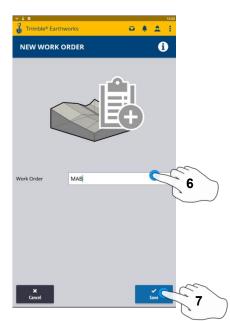
1. Touch Job Setup



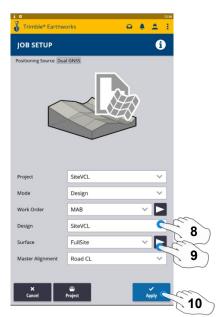
- 2. Touch Project- Select Project
- 3. Touch Mode- Select Design
- 4. Touch Work Order



5. Add Work Order



- 6. Type New Work Order Name
- 7. Touch Save



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



**11.Touch Master Alignment** Select Alignment **12.Touch Apply** 13. Touch Start 13

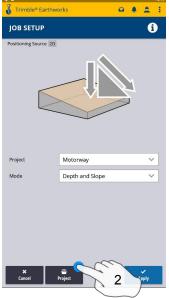
Start





#### **Create New Project**

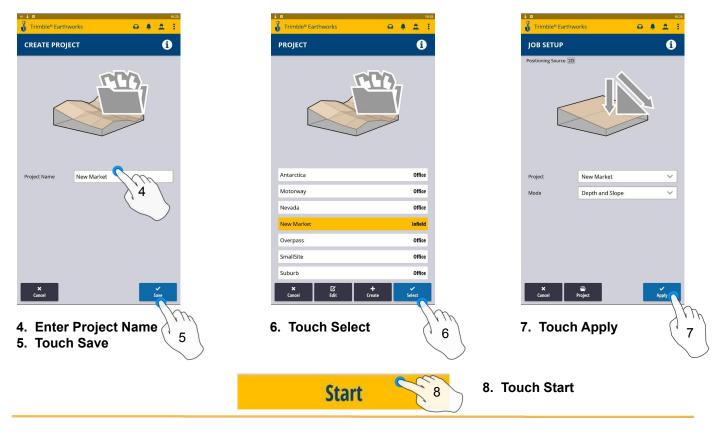






1. Touch Job Setup

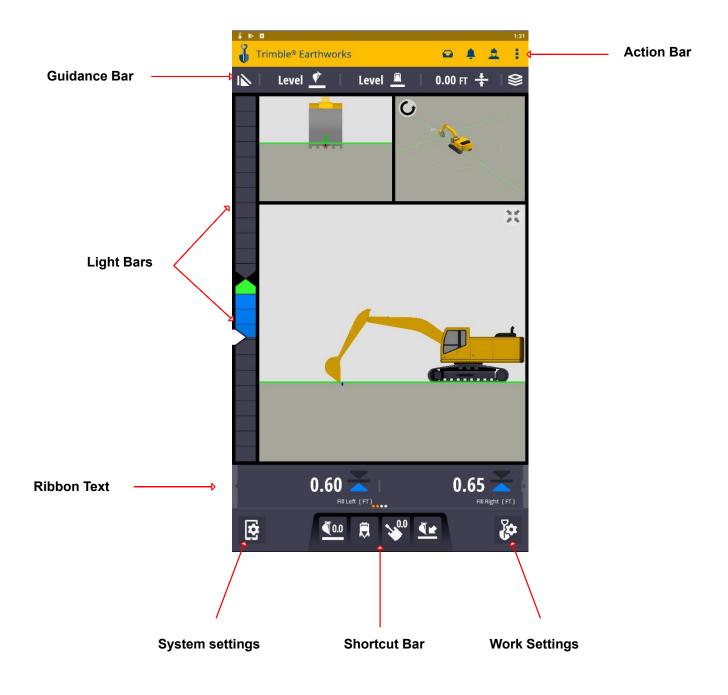
- 2. Touch Project







### Work Screen

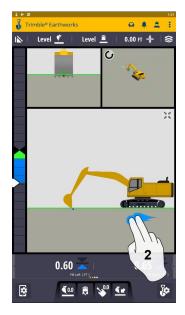




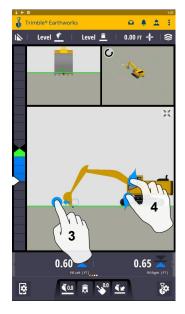


#### Work Screen Interface

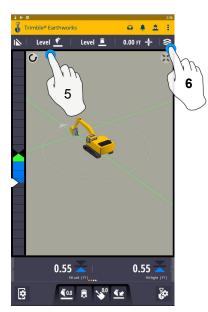




2. 2 Finger Swipe to Change



 Drag to Pan
 Pinch-Spread to Zoom in-out



Touch to select Pan or Rotate
 Touch to re-center



7. Swipe to change view

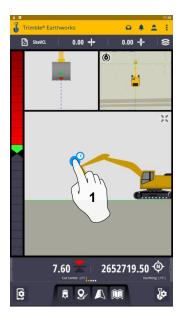


8. Touch and Hold for Setup

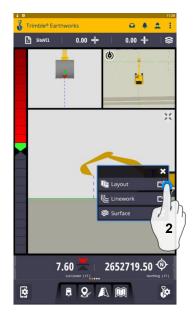




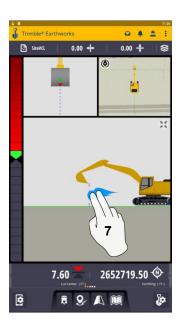
#### Work Screen Setup



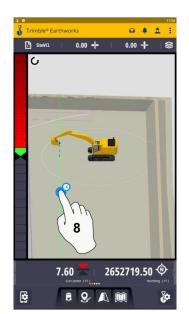
1. Touch and Hold



2. Touch Layout



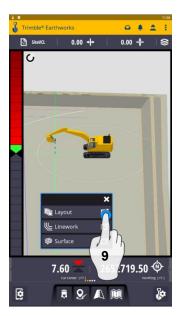
7. 2 finger swipe to 1 view Screen



8. Touch and Hold



- 3. Touch Cross Section
- 4. Touch Plan
- 5. Touch Profile
- 6. Touch Done



9. Touch Layout



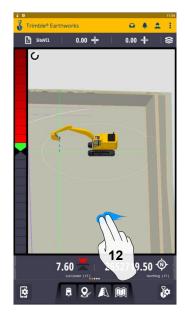


#### Work Screen Setup: Continued

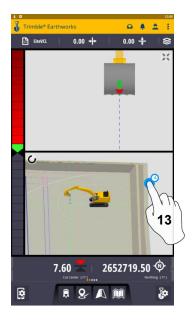


10.Touch 3D View 11. Touch Done

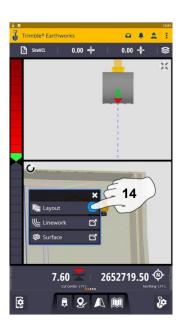
Trimble.



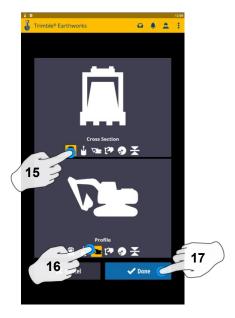
11. 2 Finger swipe to 2 view screen



13. Touch and Hold



14. Touch Layout

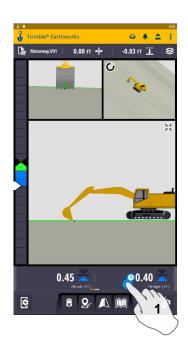


15. Touch Profile
 16. Touch Plan
 17. Touch Done



#### Text Ribbon Setup

1. Touch and Hold Text Ribbon



- 2. Touch each Text Item
  - Cut/Fill Center
  - Offline
  - Station
  - Northing
  - Easting
  - Elevation
  - Design Elevation
  - Vertical GNSS Precision
  - Satellite Count

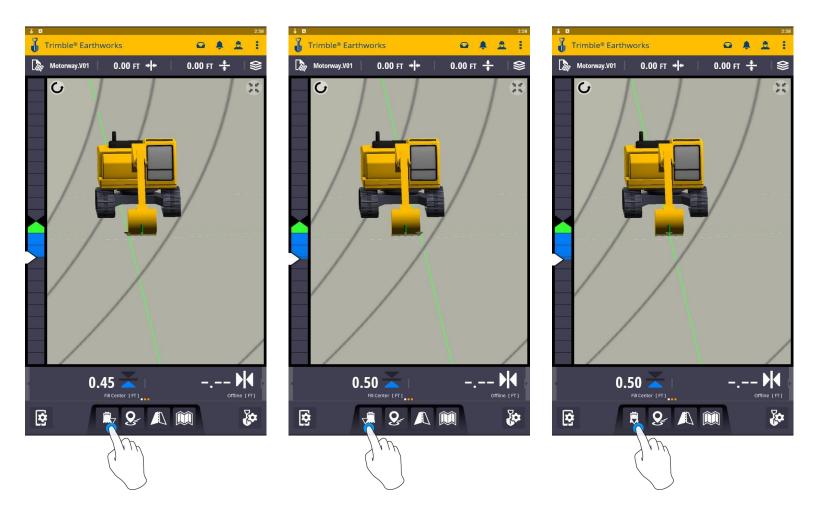
- 3. Touch Hold Drag to Change Position
- 4. Touch Done







#### **Focus Point**

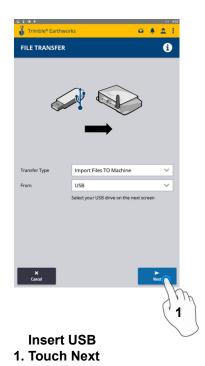


#### **Touch Bucket Focus to Change Focus point**



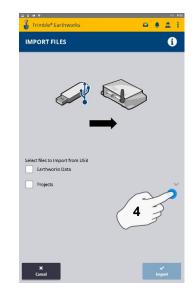


#### Import Data With USB

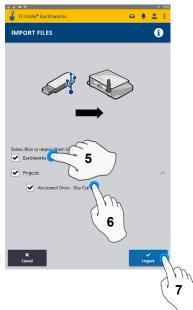




2. Touch USB 3. Touch Select



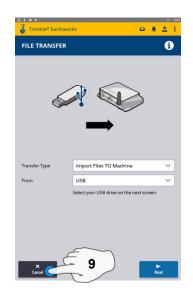




- 5. Touch Earthworks Data
- 6. Touch Project
- 7. Touch Import



8. Touch OK



9. Touch Cancel Remove USB



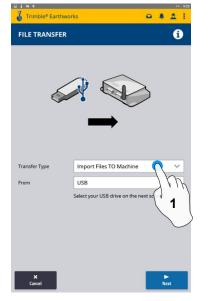


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## **Export Data With USB**

Trimble® Earthwork

FILE TRANSFER



Sync Files with Connected Community Transfer Type Import Files TO Machine То 2 × Cancel

....

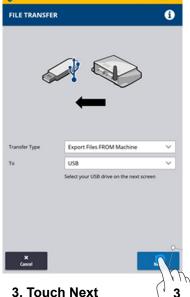
1

Trimble<sup>®</sup> Earthworks

Insert USB 1. Touch Transfer Type

2. Touch Export Files

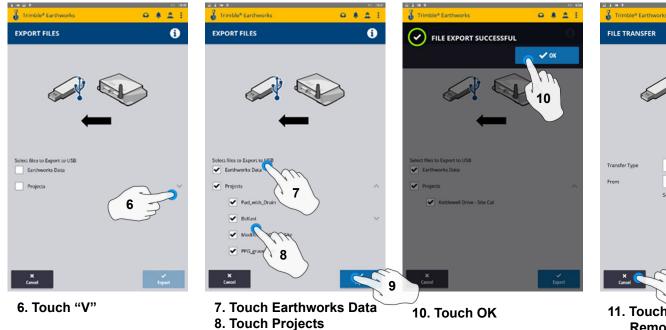
9. Touch Export







4. Touch USB 5. Touch Select





....

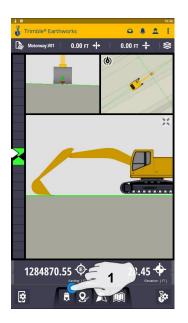
1

**Remove USB** 





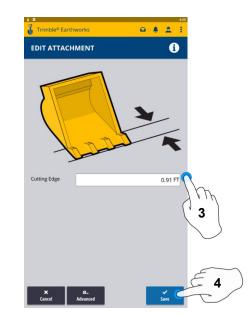
## **Cutting Edge Wear and Overcut Protection**



1. Touch and Hold Bucket Focus

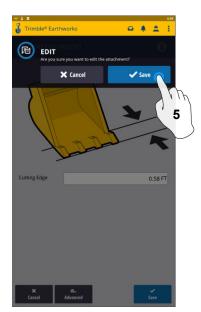
Width 3.52 FT Teeth 5		
Tilt 🔘		
Rotate 🔘		<u> </u>
Cutting Edge	_	
Length 0.91 FT Updated Jun 13, 2	/	
	4	
Attachment Name	Standard bucket	~
Focus	Center	8 ~
Vertical Guidance	Center	ñ ~
Advanced Option	s	~

2. Touch Advanced Options



3. Enter Measured Length





5. Touch Save



6. Touch Overcut protection to Turn On/Off





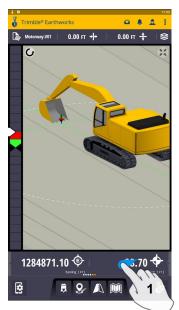


#### Verify System Accuracy

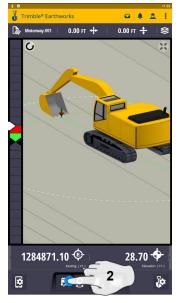
#### Verify the System accuracy by checking into a Bench Point



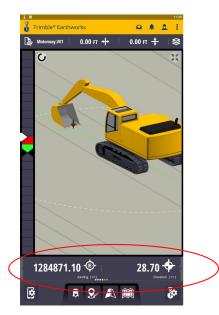
Position the Bucket Tip over the Bench point



1. Swipe Ribbon to View Northing, Easting, Elevation



2. Touch Bucket Focus Select Point on Bucket to Measure



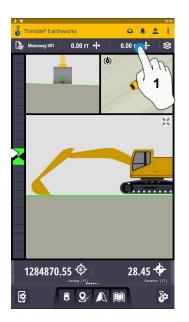
3. Verify Northing, Easting, Elevation

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

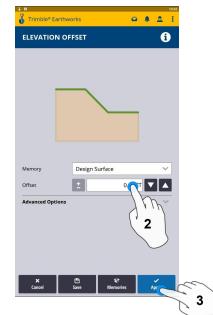




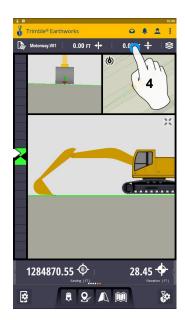
#### Vertical Offset / Memories



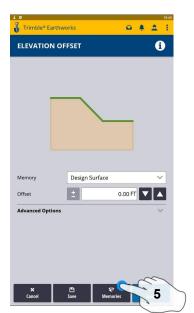
1. Touch and Hold Vertical Offset



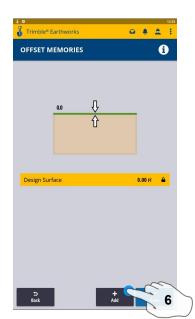
2. Enter Offset
 3. Touch Apply to Use Immediately



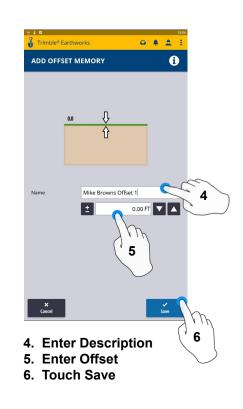
4. Touch and Hold Vertical Offset



5. Touch Memories



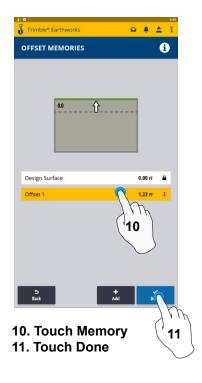
6. Touch Add to Add New Offset







#### Vertical Offset / Memories continued



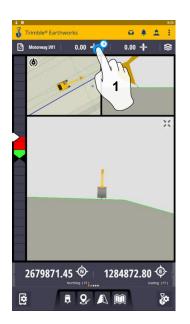


12. Touch Apply

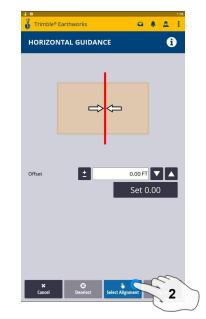




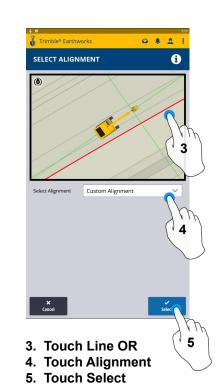
#### Horizontal Offset



1. Touch and Hold Horizontal Offset



2. Touch Select Alignment



Trimble® Earthworks

HORIZONTAL GUIDANCE

Offset

0.33 FT

Offset

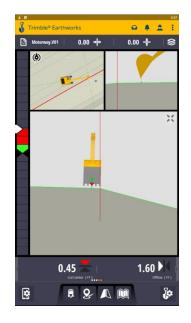
0.33 FT

Set

6

Enter Offset Value

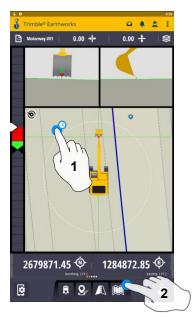
7

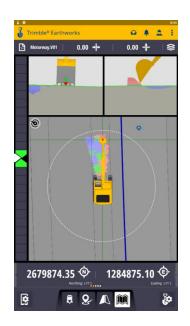






#### Cut and Fill Mapping





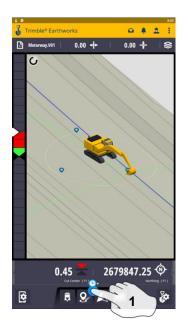
- 1. Touch and Hold screen to change view
- 2. Press Mapping Icon to view

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

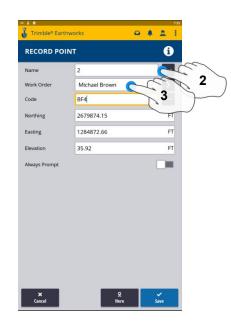




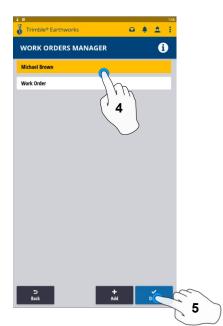
#### **Record Point**



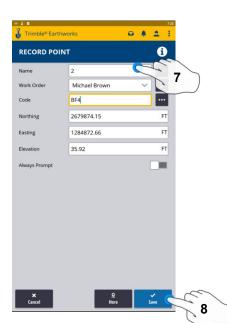
1. Press and Hold Record Point



2. Touch to Edit Name
 3. Select or create Work Order



 Select Work order for point location
 Select done



- Implefe Earthworks
   Implefe Earthworks
   Implefe Earthworks
   Implefe Earthworks
   Implefe Earthworks
   Implefe
   Impl
- 8. Touch Point Icon Records Point

\*\* Note- After recording a point, it will save automatically in Work Order Created during project setup. \*\*



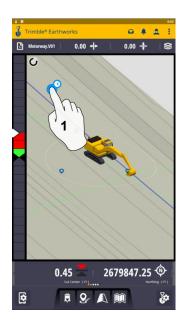
7. Type Code

8. Select Save

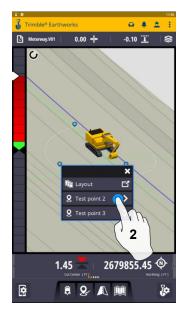




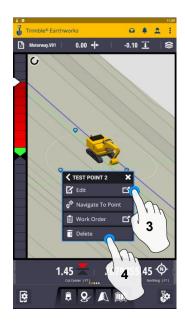
#### Delete / Edit Point



1. Touch and Hold over point



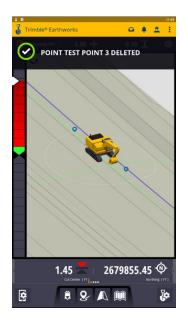
2. Touch point information



- 3. Can Edit point information if needed
- 4. Touch Delete

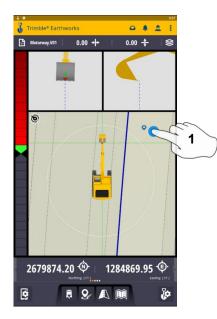


5. Confirm Delete Once Deleted can no longer view

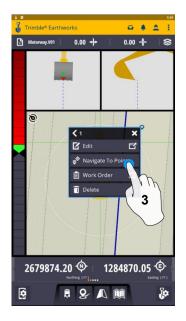




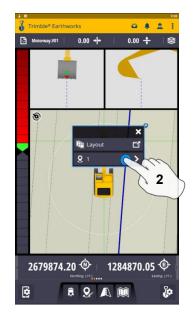
#### Navigate to Point



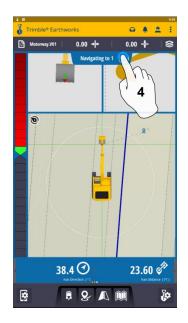
1. Touch and Hold on Point



3.Touch Navigate to point



2. Touch Point info

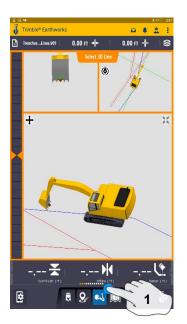


4. Touch Stop Icon once complete

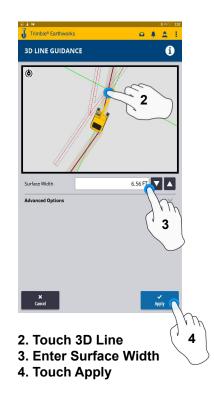


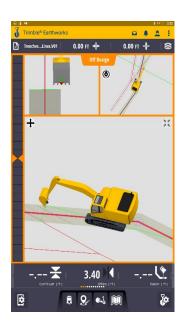


#### **3D Line Guidance**



1. Touch 3D Line Select

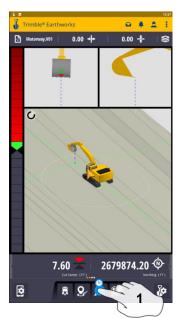




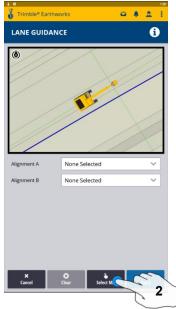




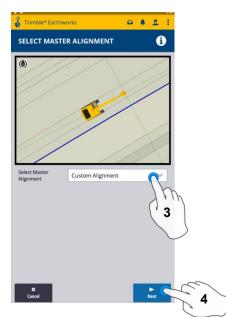
#### Lane Guidance



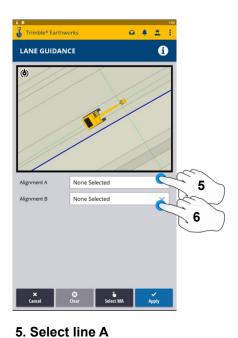
1. Touch and Hold Lane Guidance

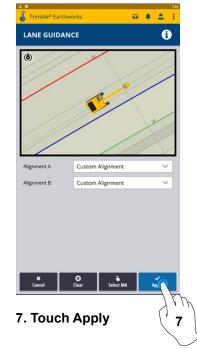


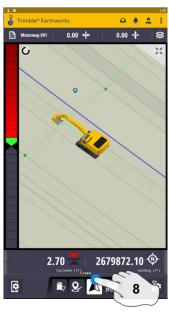
2. Touch MA



- 3. Select Master Alignment
- 4. Touch Next







8. Touch Lane Guidance icon to stop

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



6. Select line B



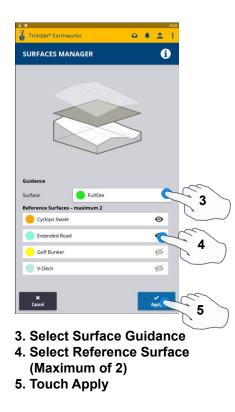
### Surface Manager \*\* Will only work in VCL format Designs\*\*



1. Touch Worksettings



2. Select Surface manager



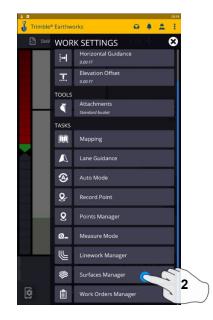




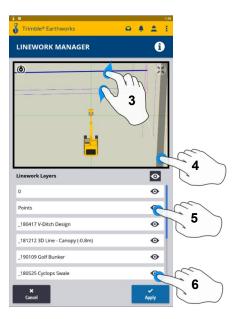
### Linework Manager \*\* Will only work in VCL format Designs\*\*



1. Select Worksettings



2. Select Linework manager



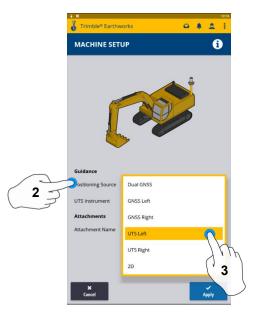
- 3. Zoom In/Out on the Design
- 4. Option to Select all Lines
- 5. Option to select individual Lines
- 6. Touch Apply



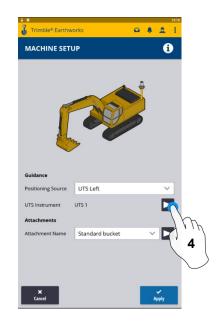


## **UTS Setup**



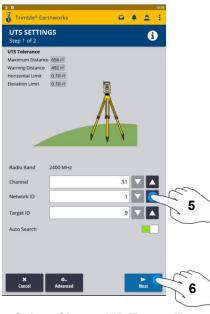


2. Touch Positioning Source 3. Touch UTS (Right or Left)

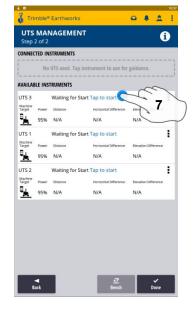


1. Touch Machine Setup

4. Touch to Edit/Add UTS



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

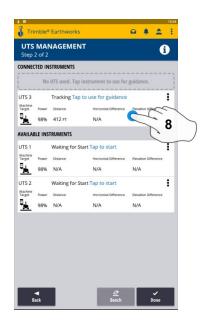


7. Tap to Start



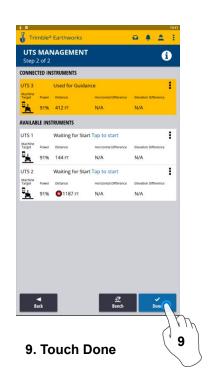


#### UTS Setup Cont:



8. Tap to use for Guidance











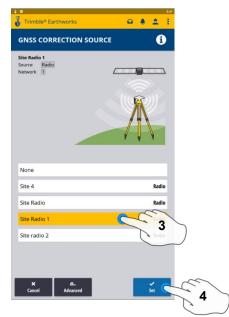
#### Change Radio Network



1. Touch system settings

7		3:38
Trim	ible® Earthworks	<b>*</b> ± :
SYST	EM SETTINGS	
	Lightoars	X
	Text Ribbon	8
Q	Dark Background	3052
\$}	Overlays	37
CONFIG	URATION	~
	Units US Feet / Degrees / Ratio / 1000.00	
	Increments	
Ð	0.03 FT / 0.1 ° / 1:573	
₩.	Grade Tolerance 0.16 FT / 0.33 FT	
ł	Calibrate Heading Sensor	
*	GNSS Correction Source	2
0	GNSS Precision Tolerance	
*\$*	File Transfer	
⊕	Language Settings English (US)	40 🔶
<b>(</b>	Sound System Buzzer	ŝ

2. Touch GNSS correction source

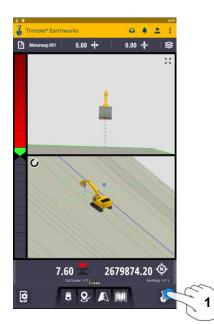


- 3. Touch Radio Network
- 4. Touch Set





#### Level Surface



1. Touch Work Settings



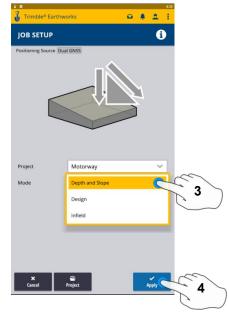
2. Touch Job setup



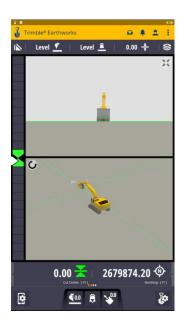
5. Touch Bench Heading



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



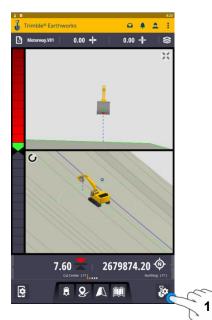
- 3. Touch Mode and select Depth and Slope
- 4. Touch Apply







#### **Sloping Surface**



1. Touch Work Settings



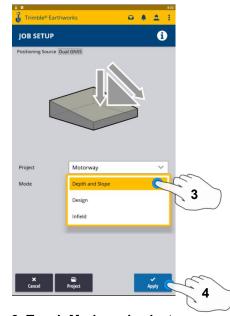
2. Touch Job setup



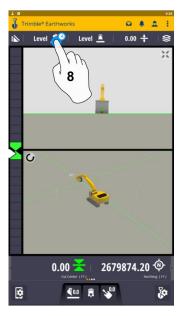
5. Touch Bench Heading



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



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



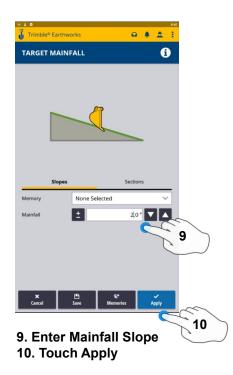
8. Touch and Hold Target Mainfall

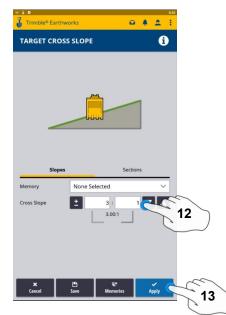
Note: This will apply a slope parallel to the direction of heading



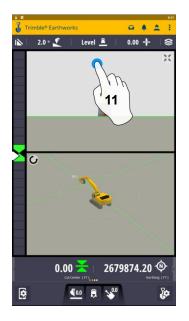


#### **Sloping Surface Continued**





12. Enter Cross Slope 13. Touch Apply



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

