Contractor Digital Construction Workshop

Andy Petrenko
Curran Contracting
GPS Manager

Tim Seiwert
Plote Construction
VP- Field Services

Tim Seiwert- Plote Construction

Tim Seiwert
Plote Construction
Vice President of Field Services
2004 University of Illinois Graduate

Plote Construction is a family-owned company founded in 1964 specializing in Excavation, Aggregates, Asphalt, and Concrete. We utilize our expertise in site development, roadway construction, and airport construction.

15+ years of experience at Plote Construction. Started out managing the GPS department and advancing that technology in excavation, asphalt paving, and concrete paving. We also create all of our 3D models in house. In 2018, I was promoted to VP of Field Services. I now manage the GPS, Quality Control, Safety, and Personnel Development departments.

3D Modeling Software

AUTOCAD

Bentley MicroStation

AGTEK part of Hexagon

Carlson

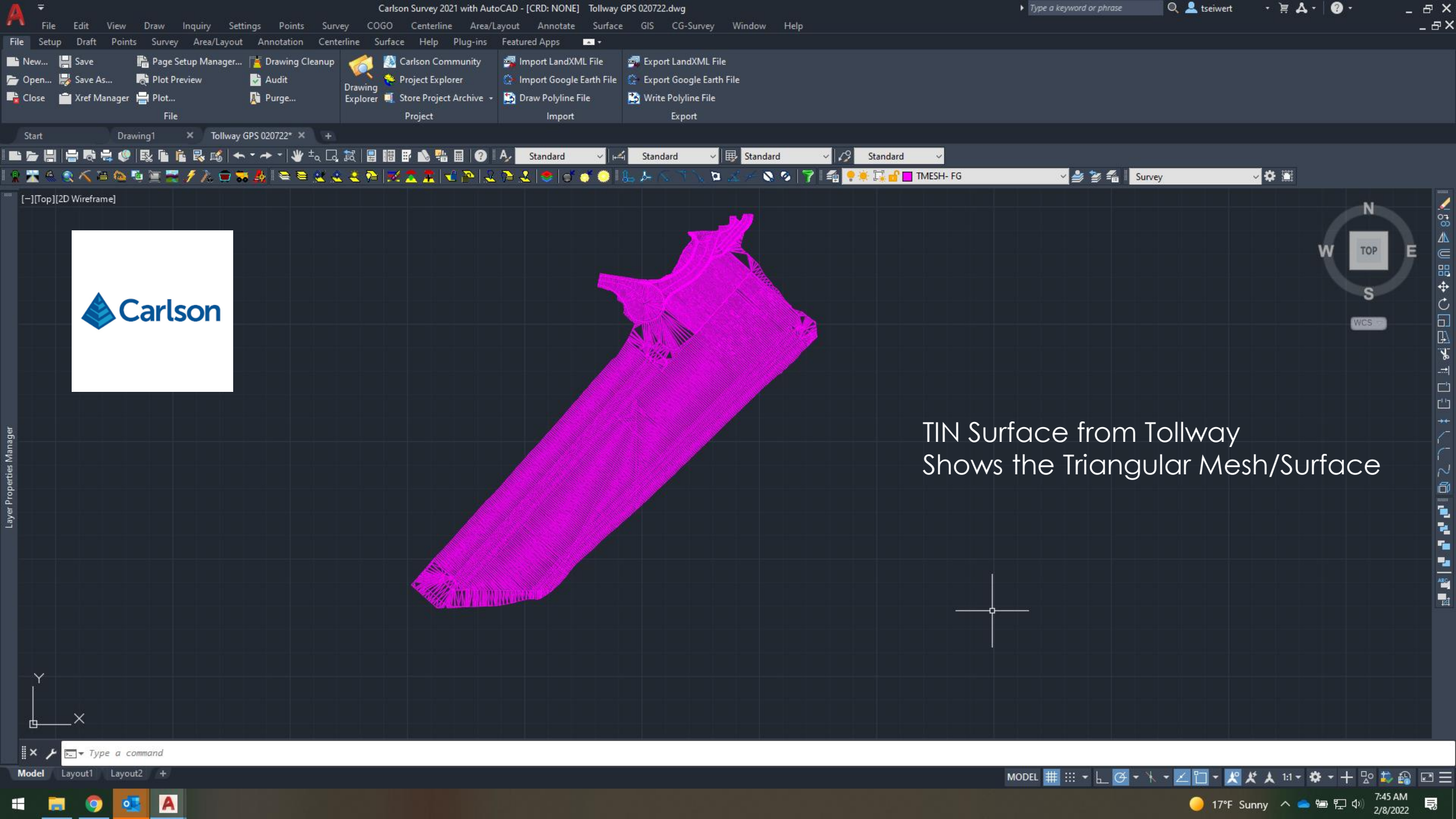
CIVIL 3D

Files from the Tollway

- **Surfaces**
  - Final Surface- gives the final grades for the job
  - Final Subgrade Surface- gives the final grades for the dirt on the job
- **Lines**- shows where different items are on the job

What can we do with these files???

- View the Job
- 3D Models
- Quantities
- Cut/Fill Maps
- Cross Sections


Carlson Survey 2021 with AutoCAD - [CRD: NONE] Tollway GPS 020722.dwg
File Edit View Draw Inquiry Settings Points Survey COGO Centerline Area/Layout Annotate Surface GIS CG-Survey Window Help
File Setup Draft Points Survey Area/Layout Annotation Centerline Surface Help Plug-ins Featured Apps
New... Save Page Setup Manager... Drawing Cleanup
Open... Save As... Plot Preview Audit
Close Xref Manager Plot... Purge...
File
Drawing Explorer
Carlson Community
Project Explorer
Store Project Archive
Project
Import LandXML File
Import Google Earth File
Draw Polyline File
Import
Export LandXML File
Export Google Earth File
Write Polyline File
Export
Start
Drawing1
Tollway GPS 020722*
Standard
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Standard
Standard
TMESH- FG
Survey
[−][Top][2D Wireframe]
Carlson
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WCS
TIN Surface from Tollway
Shows the Triangular Mesh/Surface
Layer Properties Manager
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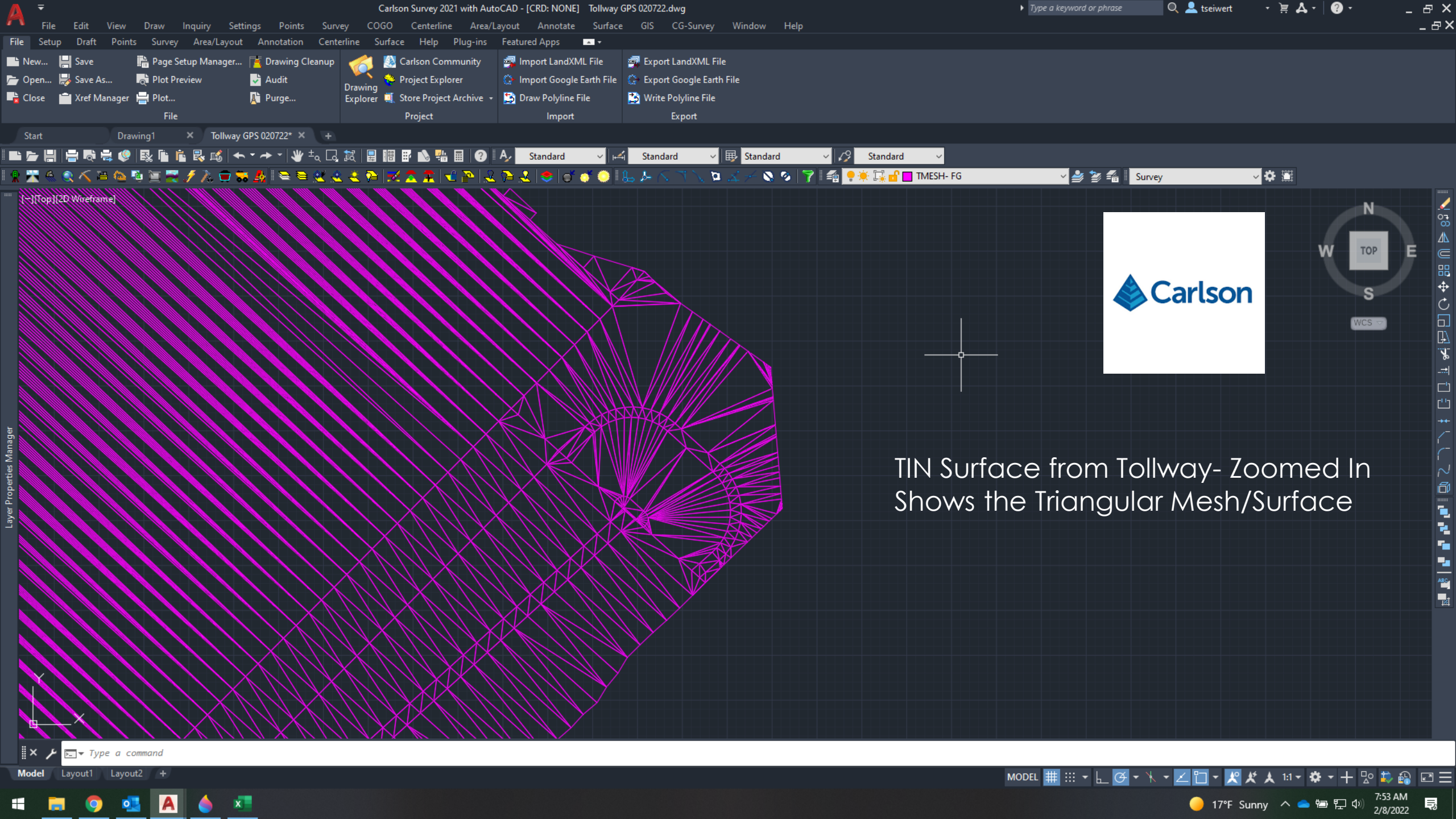
X
Type a command
Model
Layout1
Layout2
MODEL
1:1
17°F Sunny
7:45 AM
2/8/2022


Carlson Survey 2021 with AutoCAD - [CRD: NONE] Tollway GPS 020722.dwg
File Edit View Draw Inquiry Settings Points Survey COGO Centerline Area/Layout Annotate Surface GIS CG-Survey Window Help
File Setup Draft Points Survey Area/Layout Annotation Centerline Surface Help Plug-ins Featured Apps
New... Save Page Setup Manager... Drawing Cleanup
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File
Drawing Explorer
Carlson Community
Project Explorer
Store Project Archive
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Import Google Earth File
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Survey
Layer Properties Manager
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Carlson
TIN Surface from Tollway- Zoomed In
Shows the Triangular Mesh/Surface
Type a command
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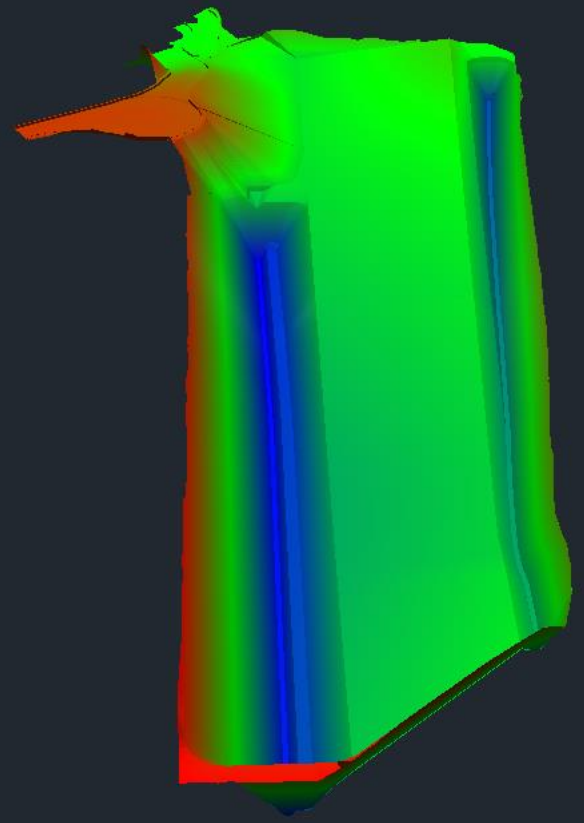
MODEL
17°F Sunny
7:53 AM
2/8/2022

Carlson Software 3D Viewer: NVIDIA GeForce RTX 3060 Laptop GPU/PCIe/SSE2

TIN Surface from Tollway- Final Grade 3D Viewer



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View Control | Settings | Model

Ignore Zero Elevation
Color By Elevation: All
Sky: None
Background Color Below Horizon
Vertical scale: 5.000
Lighting by Location/Time
Camera based light

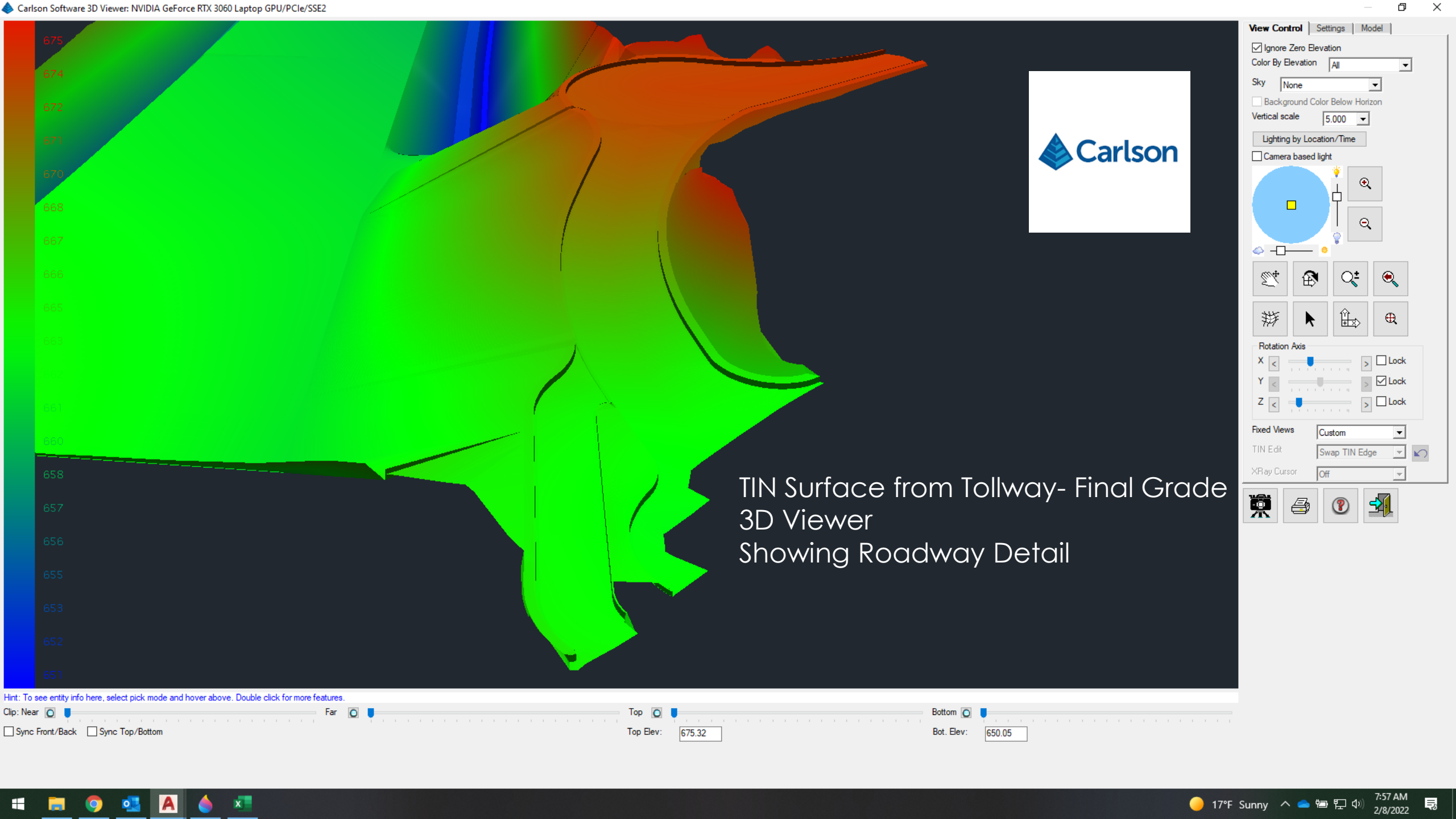
Rotation Axis
X Lock
Y Lock
Z Lock

Fixed Views: Custom
TIN Edit: Swap TIN Edge
XRay Cursor: Off

Hint: To see entity info here, select pick mode and hover above. Double click for more features.

Clip: Near | Far | Top | Bottom
Sync Front/Back | Sync Top/Bottom
Top Elev: 675.32
Bot. Elev: 650.05

17°F Sunny
7:56 AM
2/8/2022


Carlson Software 3D Viewer: NVIDIA GeForce RTX 3060 Laptop GPU/PCIe/SSE2
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Carlson
TIN Surface from Tollway- Final Grade
3D Viewer
Showing Roadway Detail
View Control
Settings
Model
Ignore Zero Elevation
Color By Elevation
All
Sky
None
Background Color Below Horizon
Vertical scale
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Lighting by Location/Time
Camera based light
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Fixed Views
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Hint: To see entity info here, select pick mode and hover above. Double click for more features.
Clip: Near
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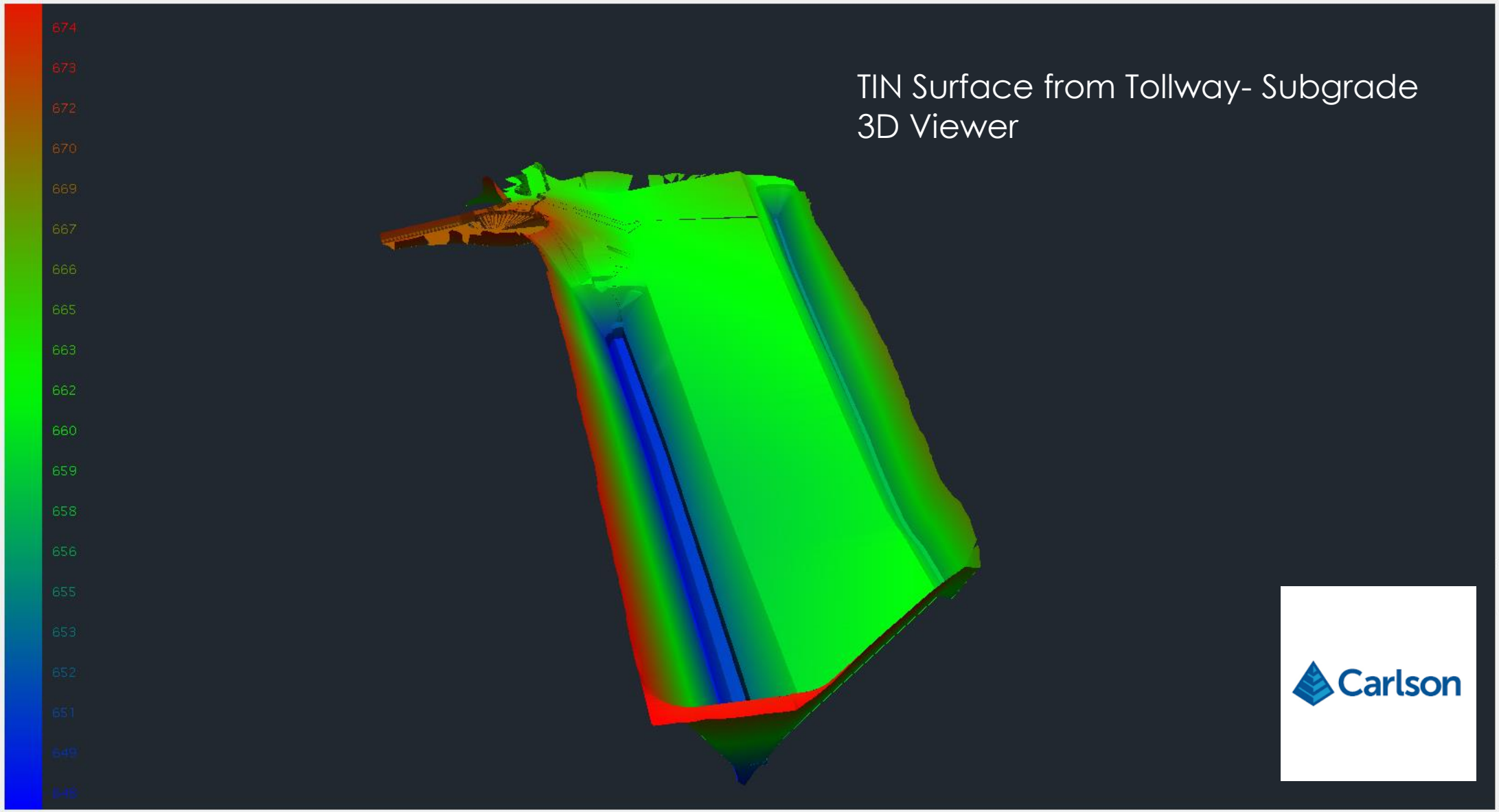
Top
Bottom
Sync Front/Back
Sync Top/Bottom
Top Elev:
675.32
Bot. Elev:
650.05
17°F Sunny
7:57 AM
2/8/2022

Carlson Software 3D Viewer: NVIDIA GeForce RTX 3060 Laptop GPU/PCIe/SSE2

TIN Surface from Tollway- Subgrade 3D Viewer



View Control | Settings | Model

Ignore Zero Elevation
Color By Elevation: All
Sky: None
Background Color Below Horizon
Vertical scale: 5.000
Lighting by Location/Time
Camera based light

Rotation Axis
X Lock
Y Lock
Z Lock

Fixed Views: Custom
TIN Edit: Swap TIN Edge
XRay Cursor: Off

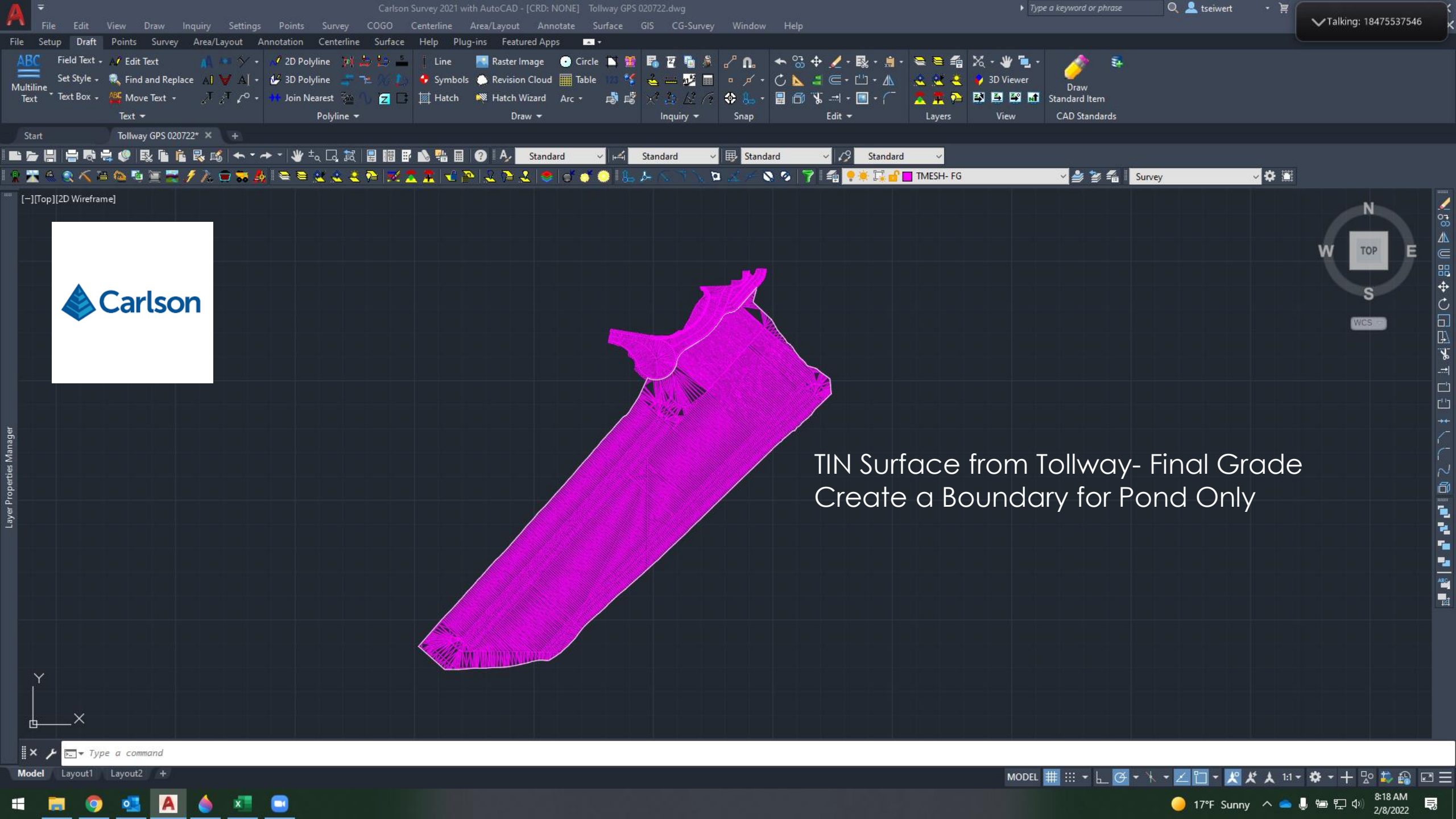
Hint: To see entity info here, select pick mode and hover above. Double click for more features.

Clip: Near | Far | Top | Bottom

Sync Front/Back | Sync Top/Bottom

Top Elev: 674.82
Bot. Elev: 647.05

17°F Sunny
7:54 AM
2/8/2022


Carlson Survey 2021 with AutoCAD - [CRD: NONE] Tollway GPS 020722.dwg
Talking: 18475537546
[−][Top][2D Wireframe]
Carlson
TIN Surface from Tollway- Final Grade
Create a Boundary for Pond Only
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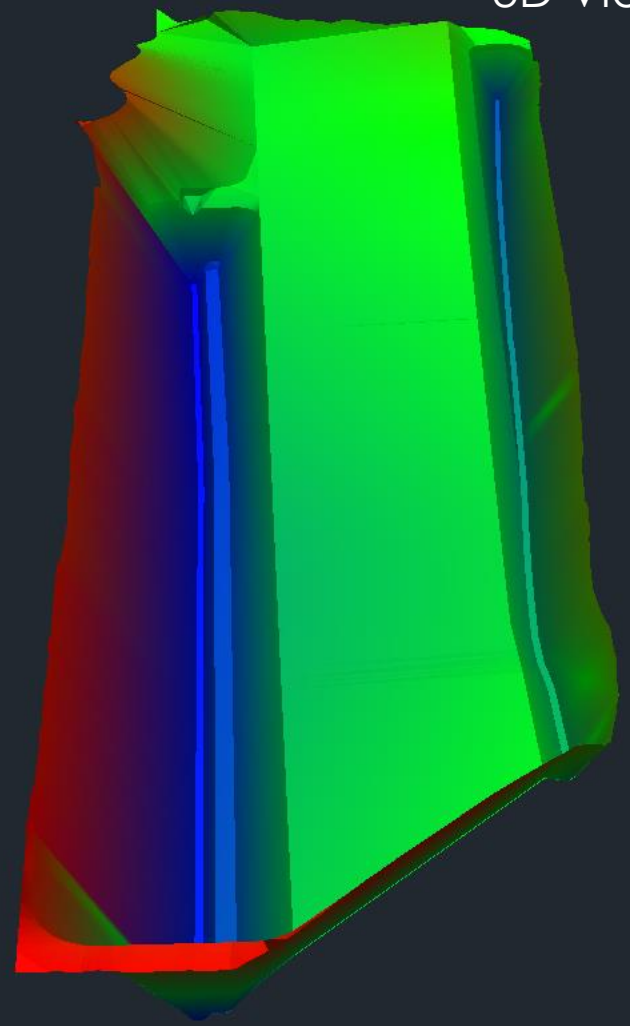
Type a command
Model
Layout1
Layout2
17°F Sunny
8:18 AM
2/8/2022

Carlson Software 3D Viewer: NVIDIA GeForce RTX 3060 Laptop GPU/PCIe/SSE2

Talking: Terry Madden

TIN Surface from Tollway- Final Grade
3D View Pond Only



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View Contr

Ignore Zero Elevation
Color By Elevation: All
Sky: None
Background Color Below Horizon
Vertical scale: 5.000
Lighting by Location/Time
Camera based light

Rotation Axis
X Lock
Y Lock
Z Lock

Fixed Views: Custom

Hint: To see entity info here, select pick mode and hover above. Double click for more features.

Clip: Near | Far | Top | Bottom

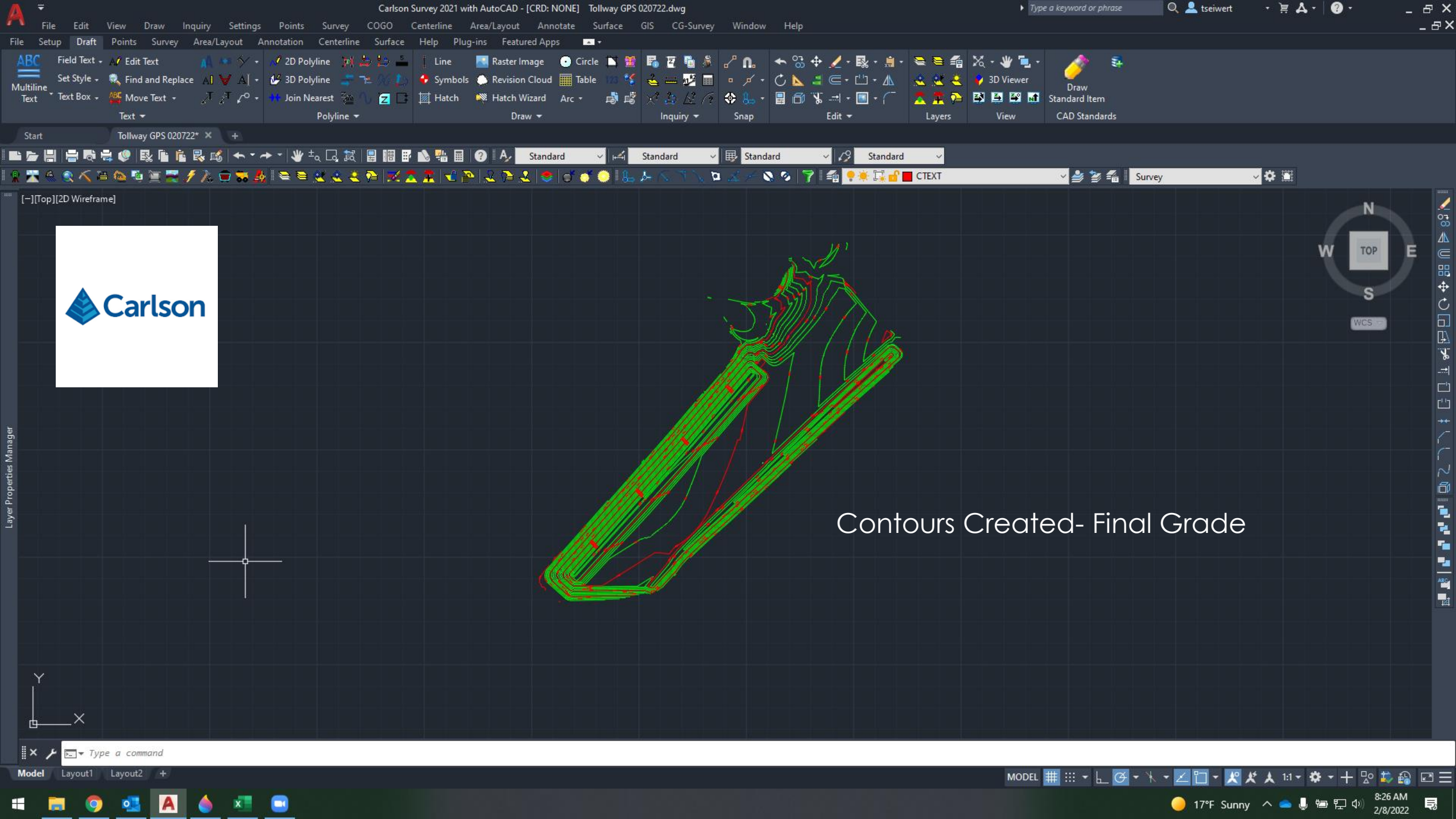
Sync Front/Back | Sync Top/Bottom

Top Elev: 675.32

Bot. Elev: 650.05

17°F Sunny

8:20 AM
2/8/2022


Carlson Survey 2021 with AutoCAD - [CRD: NONE] Tollway GPS 020722.dwg
Type a keyword or phrase
tseiwert
File Edit View Draw Inquiry Settings Points Survey COGO Centerline Area/Layout Annotate Surface GIS CG-Survey Window Help
File Setup Draft Points Survey Area/Layout Annotation Centerline Surface Help Plug-ins Featured Apps
Multiline Text
Field Text
Set Style
Text Box
Edit Text
Find and Replace
Move Text
Text
2D Polyline
3D Polyline
Join Nearest
Polyline
Line
Symbols
Hatch
Raster Image
Revision Cloud
Hatch Wizard
Circle
Table
Arc
Draw
Inquiry
Snap
Edit
Layers
3D Viewer
View
Draw Standard Item
CAD Standards
Start
Tollway GPS 020722*
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[−][Top][2D Wireframe]
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Contours Created- Final Grade
Layer Properties Manager
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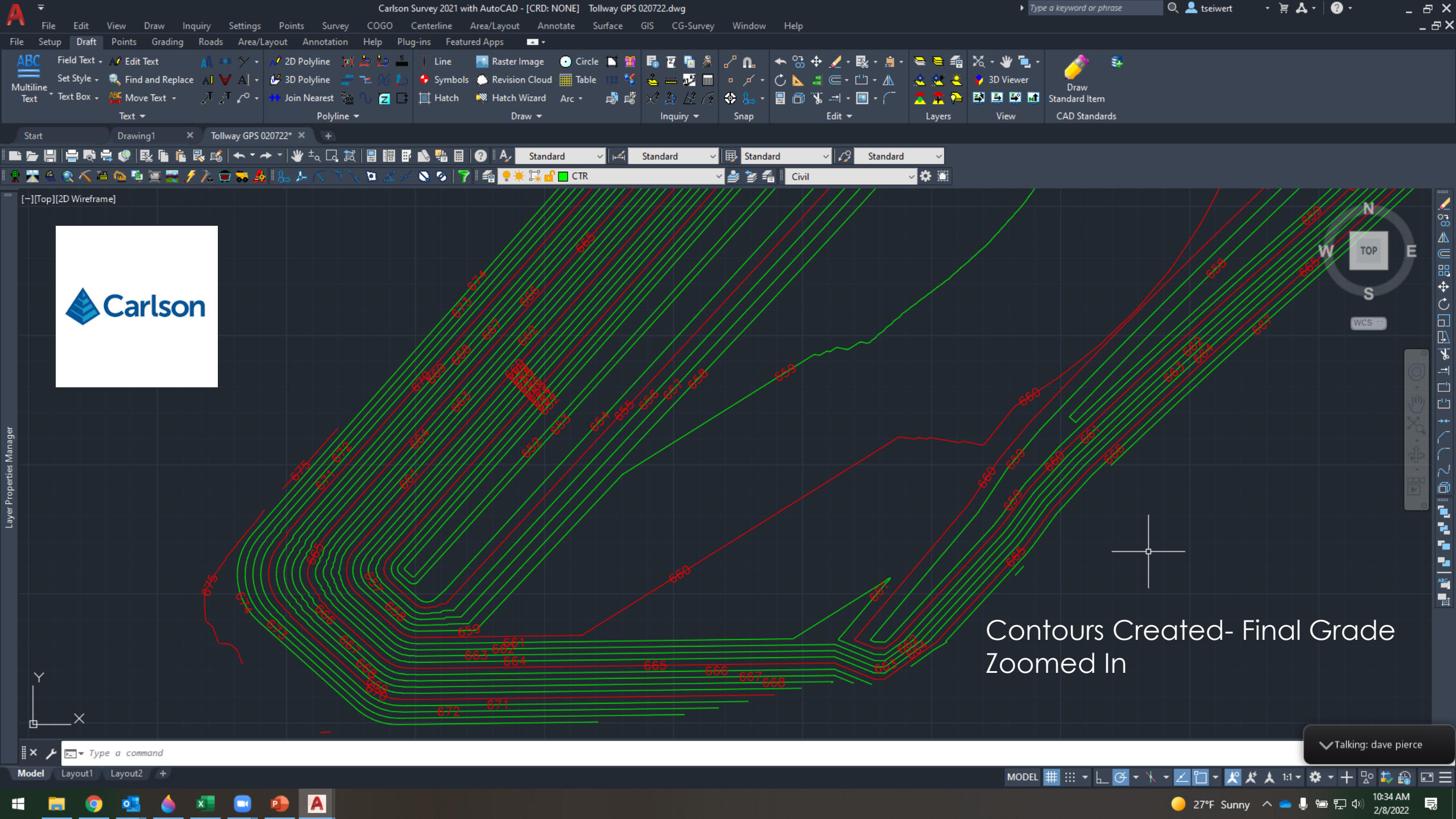
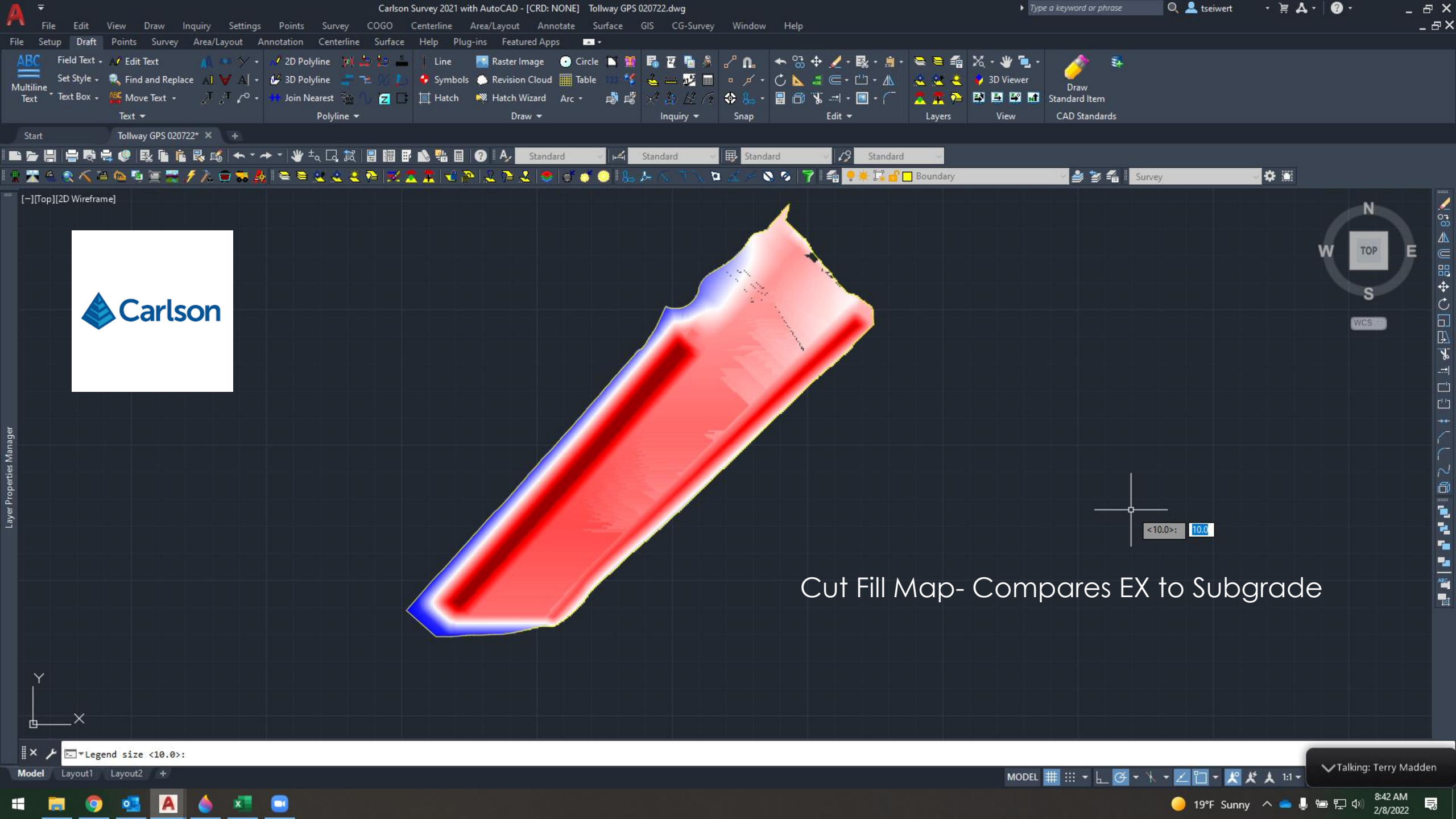
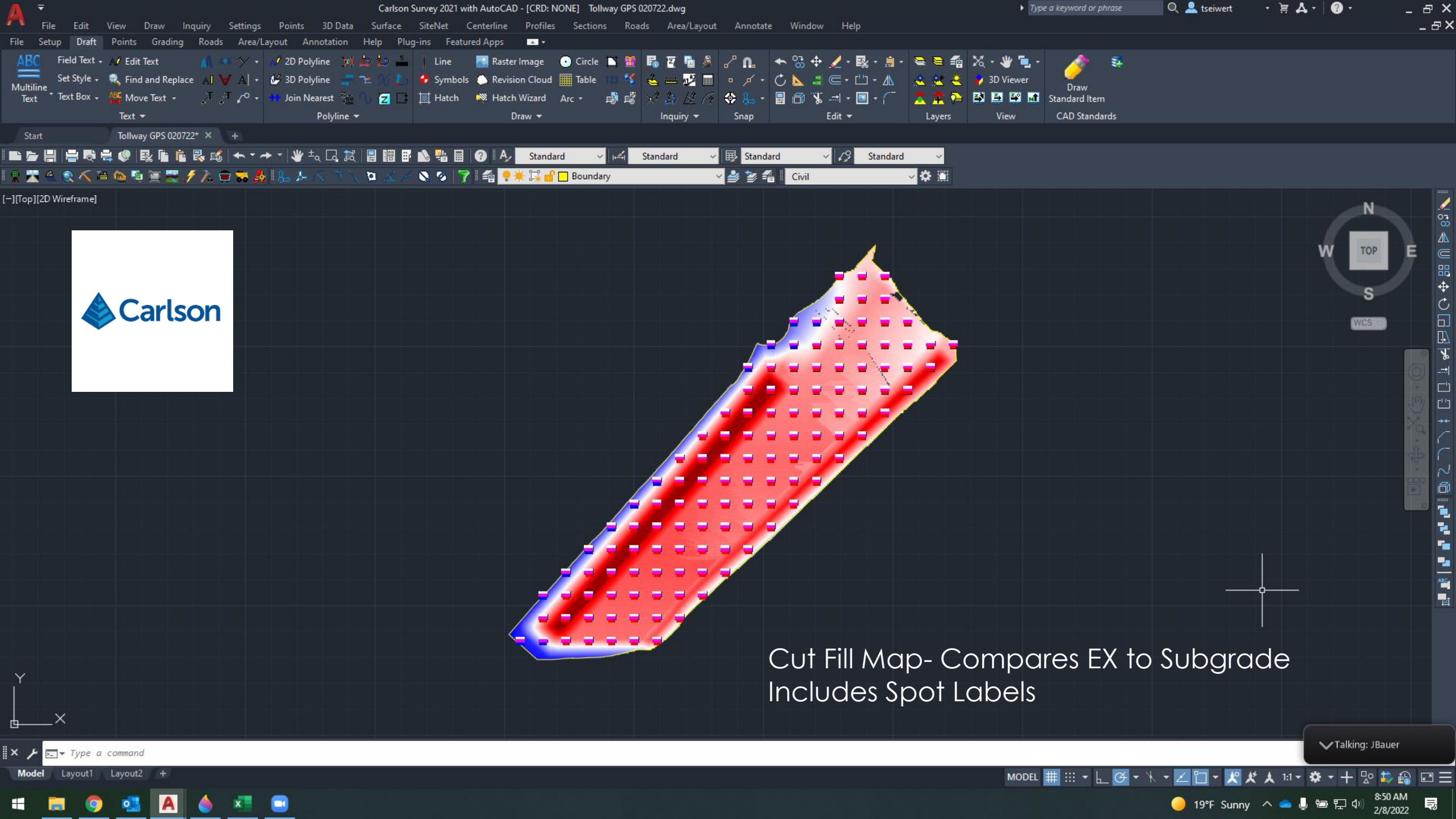
17°F Sunny
8:26 AM
2/8/2022


Carlson Survey 2021 with AutoCAD - [CRD: NONE] Tollway GPS 020722.dwg
[−][Top][2D Wireframe]
Carlson
Contours Created- Final Grade
Zoomed In


Carlson Survey 2021 with AutoCAD - [CRD: NONE] Tollway GPS 020722.dwg
Carlson
[−][Top][2D Wireframe]
Cut Fill Map- Compares EX to Subgrade
Legend size <10.0>:
Model
Layout1
Layout2
Talking: Terry Madden
19°F Sunny
8:42 AM
2/8/2022


Carlson Survey 2021 with AutoCAD - [CRD: NONE] Tollway GPS 020722.dwg
Carlson
[−][Top][2D Wireframe]
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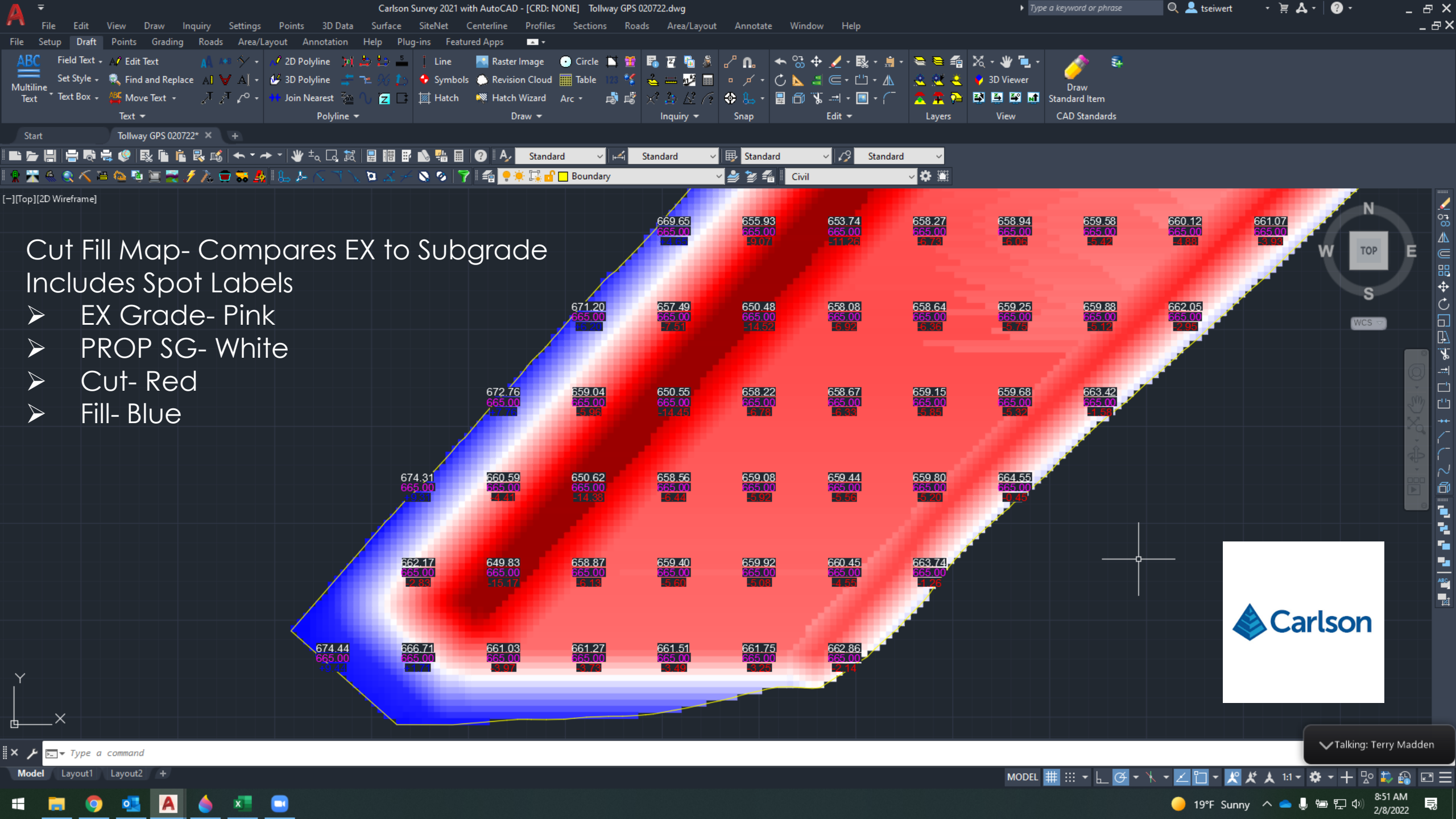
Cut Fill Map- Compares EX to Subgrade
Includes Spot Labels
Talking: JBauer
Model
Layout1
Layout2
19°F Sunny
8:50 AM
2/8/2022


Carlson Survey 2021 with AutoCAD - [CRD: NONE] Tollway GPS 020722.dwg
[−][Top][2D Wireframe]
Cut Fill Map- Compares EX to Subgrade
Includes Spot Labels
EX Grade- Pink
PROP SG- White
Cut- Red
Fill- Blue
669.65 655.93 653.74 658.27 658.94 659.58 660.12 661.07
671.20 657.49 650.48 658.08 658.64 659.25 659.88 662.05
672.76 659.04 650.55 658.22 658.67 659.15 659.68 663.42
674.31 660.59 650.62 658.56 659.08 659.44 659.80 664.55
662.17 649.83 658.87 659.40 659.92 660.45 663.74
674.44 666.71 661.03 661.27 661.51 661.75 662.86
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Carlson
Talking: Terry Madden
Type a command
Model
Layout1
Layout2
19°F Sunny
8:51 AM
2/8/2022

Earthwork Report

EX vs PROP SG Report - Notepad

File Edit Format View Help

```
Volumes by Triangulation (Prisms)                    Tue Feb  8 08:36:33 2022
Existing Surface: C:\Users\TSeiwert\OneDrive - Plote Inc\Desktop\Tollway GPS Class\Carlson\TIN\EX TIN.tin
Final Surface:   C:\Users\TSeiwert\OneDrive - Plote Inc\Desktop\Tollway GPS Class\Carlson\TIN\4678-N07A-LOCATION5-BOT.TIN

Cut volume: 1,873,925.0 C.F., 69,404.63 C.Y.
Fill volume: 179,109.0 C.F., 6,633.67 C.Y.

Area in Cut : 323,581.8 S.F., 7.43 Acres
Area in Fill: 46,787.9 S.F., 1.07 Acres
Total inclusion area: 370,369.7 S.F., 8.50 Acres

Average Cut Depth: 5.79 feet
Average Fill Depth: 3.83 feet
Cut to Fill ratio: 10.46
Export Volume: 62,771.0 C.Y.
Elevation Change To Reach Balance: 4.576
Volume Change Per .1 ft: 1,371.7 C.Y.

Cut (C.Y.) / Area (acres): 8162.83
Fill (C.Y.) / Area (acres): 780.20

Max Cut: 17.954 at 1093454.387,1944595.360
Max Fill: 9.817 at 1092883.815,1944063.400
```

Topsoil Report

Topsoil Volume Report - Notepad

File Edit Format View Help

```
Volumes by Triangulation (Prisms)                    Tue Feb  8 08:21:26 2022
Existing Surface: C:\Users\TSeiwert\OneDrive - Plote Inc\Desktop\Tollway GPS Class\Carlson\TIN\4678-N07A-LOCATION5-BOT.TIN
Final Surface:   C:\Users\TSeiwert\OneDrive - Plote Inc\Desktop\Tollway GPS Class\Carlson\TIN\4678-N07A-LOCATION5.TIN

Cut volume: 338.5 C.F., 12.54 C.Y.
Fill volume: 193,801.9 C.F., 7,177.85 C.Y.

Area in Cut : 1,164.5 S.F., 0.03 Acres
Area in Fill: 369,153.6 S.F., 8.47 Acres
Total inclusion area: 370,318.1 S.F., 8.50 Acres

Average Fill Depth: 0.52 feet
Cut to Fill ratio: 0.00
Import Volume: 7,165.3 C.Y.
Elevation Change To Reach Balance: -0.522
Volume Change Per .1 ft: 1,371.5 C.Y.

Cut (C.Y.) / Area (acres): 1.47
Fill (C.Y.) / Area (acres): 844.32

Max Cut: 1.096 at 1093720.418,1944862.400
Max Fill: 3.151 at 1093503.111,1944673.928
```

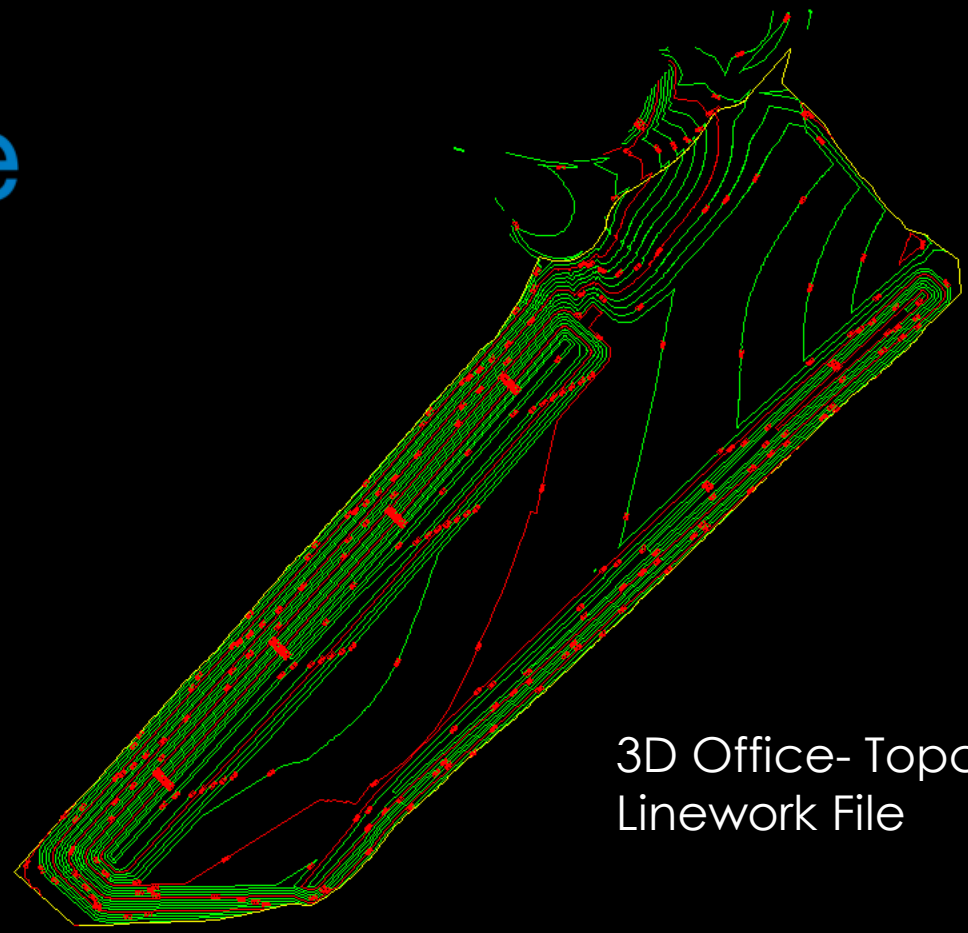
GPS File Building Software

3D Office - [Project1]

File Edit View Project Points Linework TIN Alignment Plane Grid Sitelink3D Tools Window Help

152'

3D Office



3D Office- Topcon
Linework File

Sitelink3D clients (no connection)

Name	IP	Type	Sub Type	Operator	Task	Material	Activity	Active Project	Design Surface	Design Offset	Alignment	As-Built Surface	Position Quality	North	East	Elevation	Stationing	Offset from CL

Talking: Terry Madden

Ready | Sitelink3D not Available | N 1944401.491' | E 1094163.024'

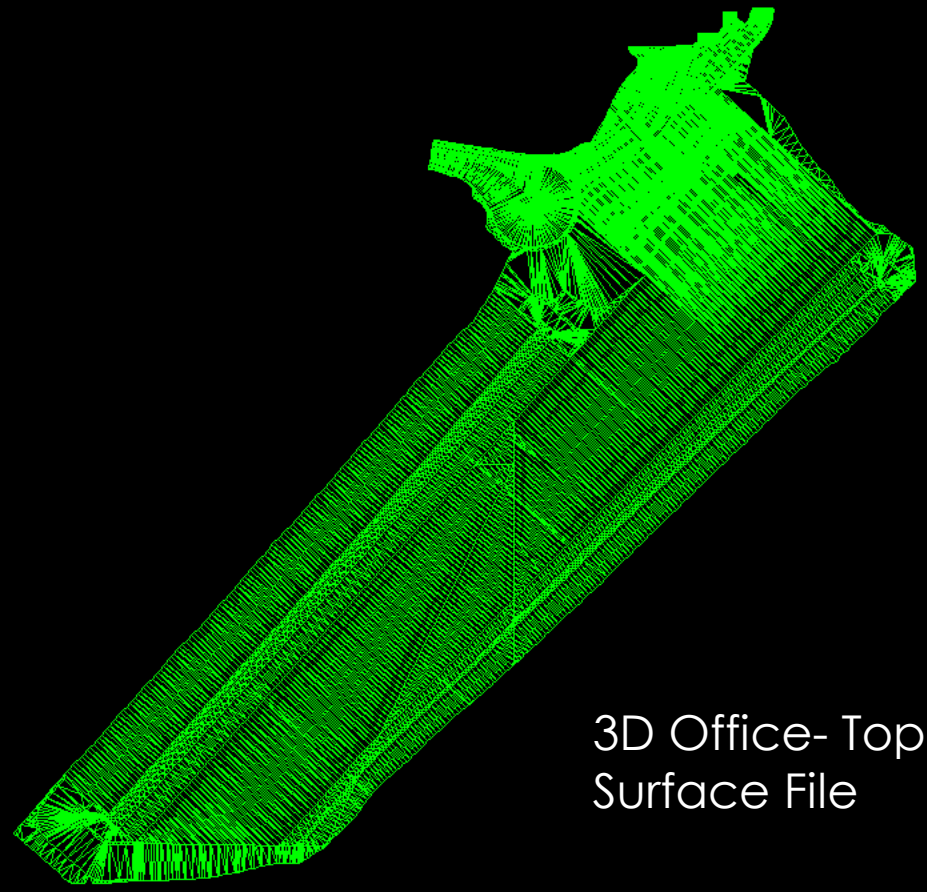
19°F Sunny 8:56 AM 2/8/2022

3D Office - [Project1]

File Edit View Project Points Linework TIN Alignment Plane Grid Sitelink3D Tools Window Help

160'

3D Office



3D Office- Topcon Surface File

Sitelink3D clients (no connection)

Name	IP	Type	Sub Type	Operator	Task	Material	Activity	Active Project	Design Surface	Design Offset	Alignment	As-Built Surface	Position Quality	North	East	Elevation	Stationing	Offset from CL

Talking: Terry Madden

Ready | Sitelink3D not Available | N 1944212.171' | E 1093942.389'

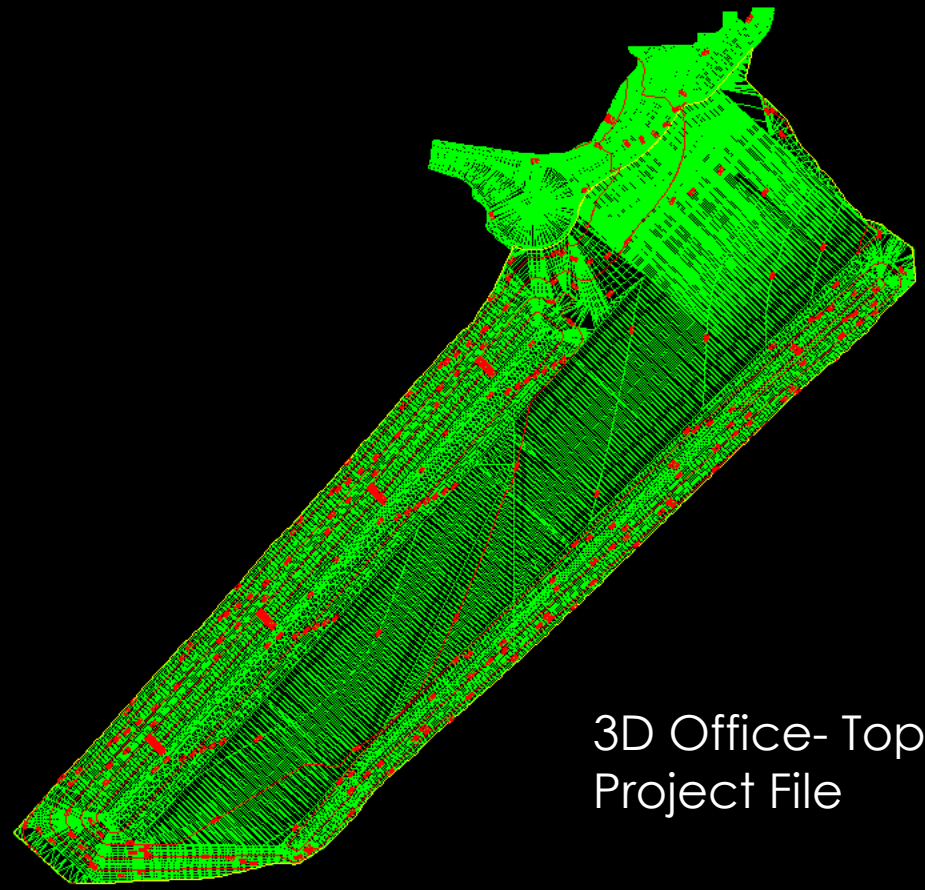
19°F Sunny 8:57 AM 2/8/2022

3D Office - [GPS Tollway]

File Edit View Project Points Linework TIN Alignment Plane Grid Sitelink3D Tools Window Help

160'

3D Office



3D Office- Topcon
Project File

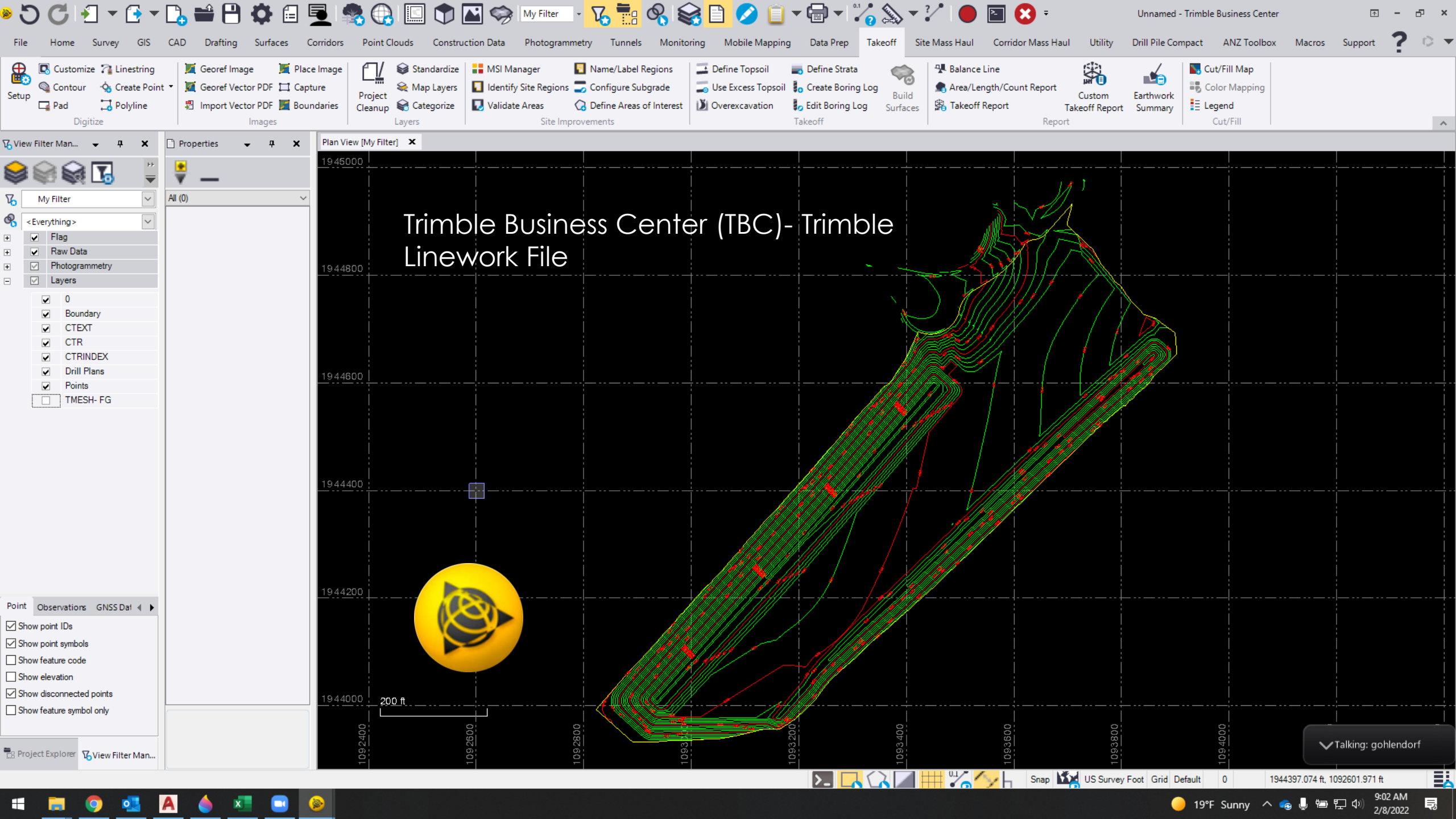
Sitelink3D clients (no connection)

Name	IP	Type	Sub Type	Operator	Task	Material	Activity	Active Project	Design Surface	Design Offset	Alignment	As-Built Surface	Position Quality	North	East	Elevation	Stationing	Offset from CL

Talking:

Ready | Sitelink3D not Available | N 1944191.469' | E 1093903.332'

23°F Sunny 9:24 AM 2/8/2022


Unnamed - Trimble Business Center
File Home Survey GIS CAD Drafting Surfaces Corridors Point Clouds Construction Data Photogrammetry Tunnels Monitoring Mobile Mapping Data Prep Takeoff Site Mass Haul Corridor Mass Haul Utility Drill Pile Compact ANZ Toolbox Macros Support
Setup Customize Contour Pad Linestring Create Point Polyline Digitize
Georef Image Georef Vector PDF Import Vector PDF Place Image Capture Boundaries Images
Project Cleanup Standardize Map Layers Categorize Layers
MSI Manager Identify Site Regions Validate Areas Name/Label Regions Configure Subgrade Define Areas of Interest Site Improvements
Define Topsoil Use Excess Topsoil Overexcavation Define Strata Create Boring Log Edit Boring Log Build Surfaces Takeoff
Balance Line Area/Length/Count Report Takeoff Report Custom Takeoff Report Earthwork Summary Report
Cut/Fill Map Color Mapping Legend Cut/Fill
View Filter Man...
My Filter
<Everything>
Flag
Raw Data
Photogrammetry
Layers
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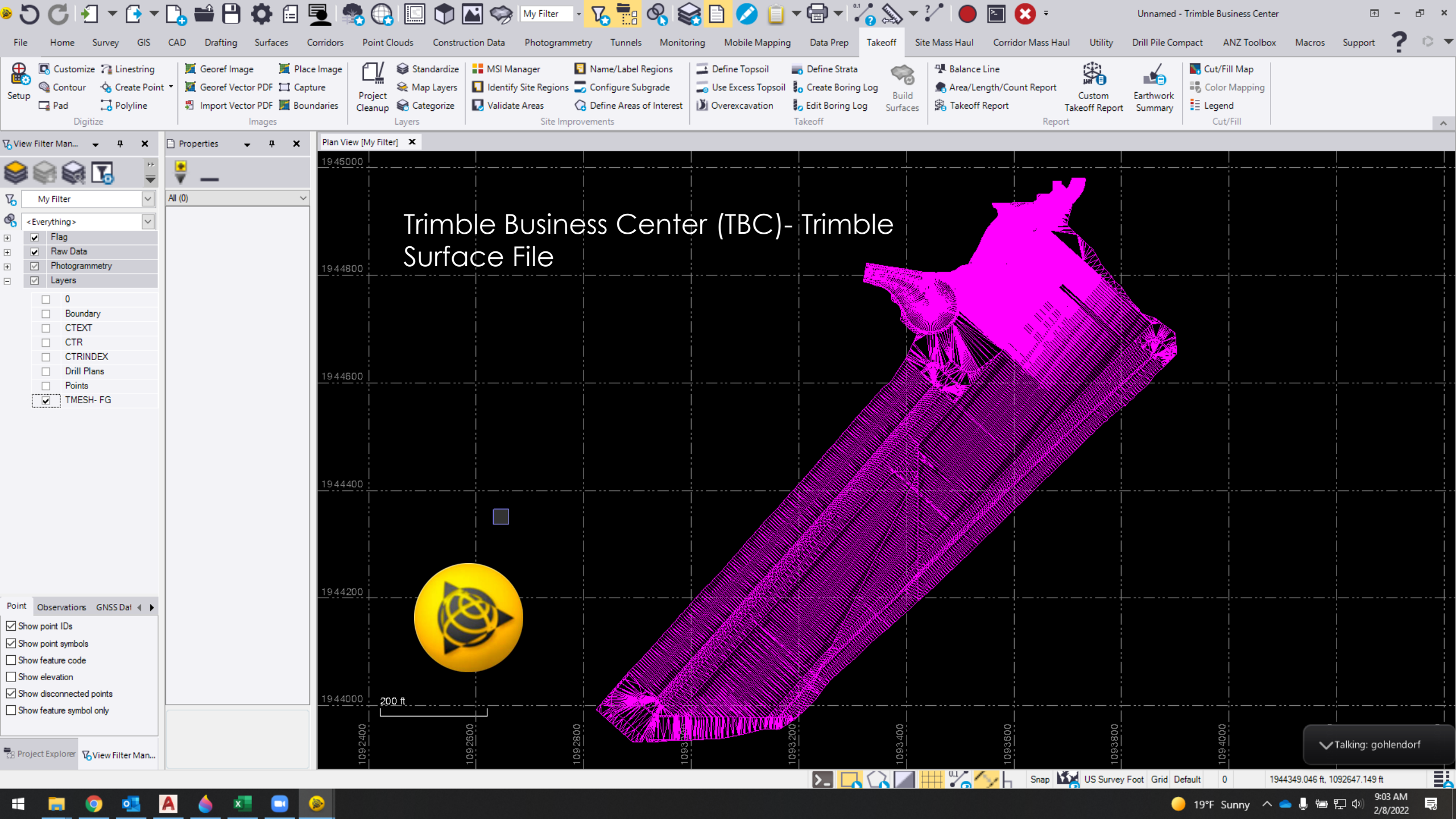
Boundary
CTEXT
CTR
CTRINDEX
Drill Plans
Points
TMESH- FG
Properties
All (0)
Plan View [My Filter]
Trimble Business Center (TBC)- Trimble Linework File
1945000
1944800
1944600
1944400
1944200
1944000
200 ft
1092400
1092600
1092800
1093000
1093200
1093400
1093600
1093800
1094000
Point Observations GNSS Dat
Show point IDs
Show point symbols
Show feature code
Show elevation
Show disconnected points
Show feature symbol only
Project Explorer
View Filter Man...
Talking: gohlendorf
Snap US Survey Foot Grid Default 0
1944397.074 ft, 1092601.971 ft
19°F Sunny
9:02 AM
2/8/2022


Trimble Business Center (TBC)- Trimble Surface File
Unnamed - Trimble Business Center
File
Home
Survey
GIS
CAD
Drafting
Surfaces
Corridors
Point Clouds
Construction Data
Photogrammetry
Tunnels
Monitoring
Mobile Mapping
Data Prep
Takeoff
Site Mass Haul
Corridor Mass Haul
Utility
Drill Pile Compact
ANZ Toolbox
Macros
Support
Setup
Customize
Contour
Pad
Linestring
Create Point
Polyline
Georef Image
Georef Vector PDF
Import Vector PDF
Place Image
Capture
Boundaries
Project Cleanup
Standardize
Map Layers
Categorize
MSI Manager
Identify Site Regions
Validate Areas
Name/Label Regions
Configure Subgrade
Define Areas of Interest
Define Topsoil
Use Excess Topsoil
Overexcavation
Define Strata
Create Boring Log
Edit Boring Log
Build Surfaces
Balance Line
Area/Length/Count Report
Takeoff Report
Custom Takeoff Report
Earthwork Summary
Cut/Fill Map
Color Mapping
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Layers
Site Improvements
Takeoff
Report
Cut/Fill
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Raw Data
Photogrammetry
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CTR
CTRINDEX
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1093800
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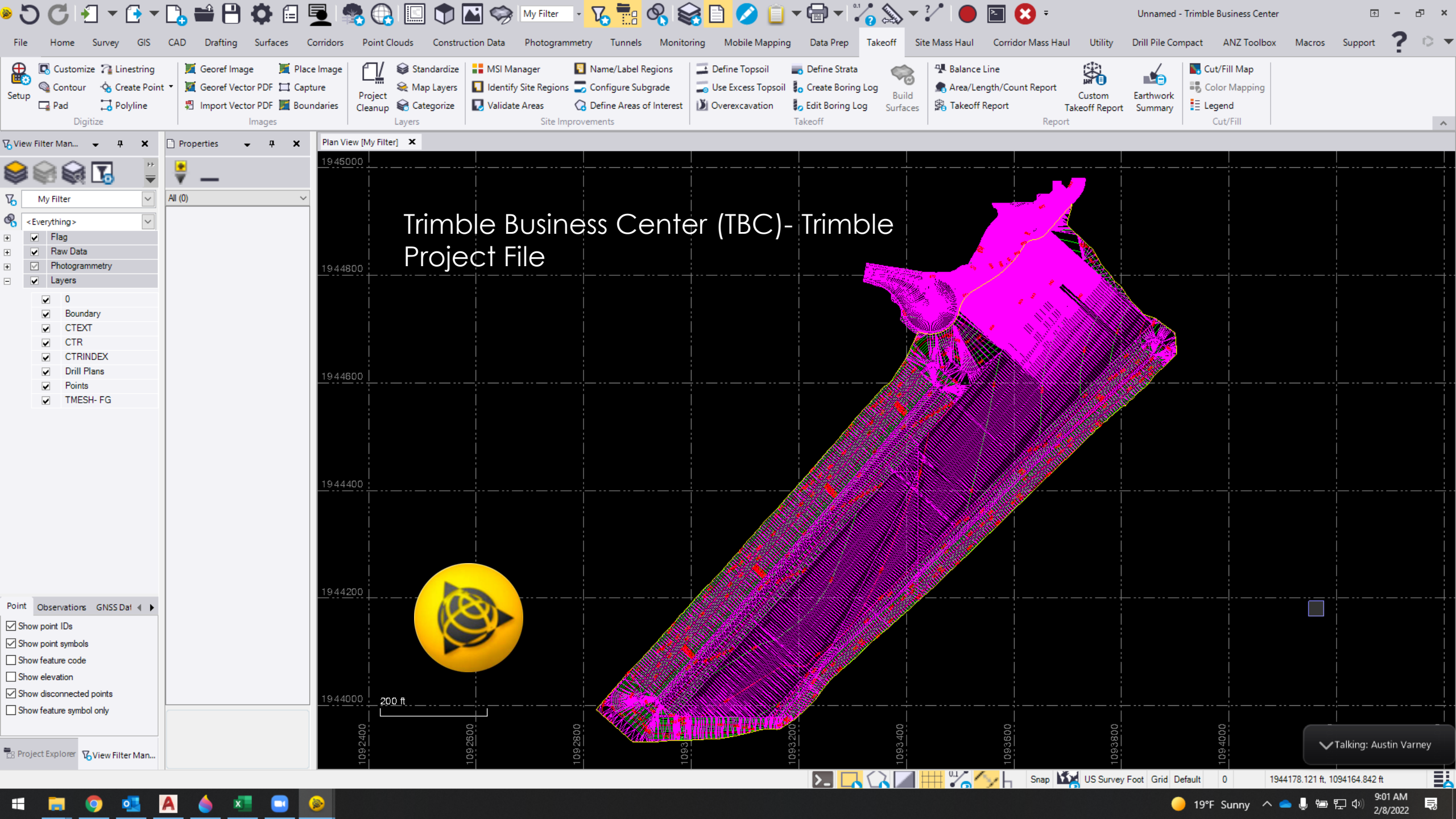
Point
Observations
GNSS Dat
Show point IDs
Show point symbols
Show feature code
Show elevation
Show disconnected points
Show feature symbol only
Project Explorer
View Filter Man...
Talking: gohlendorf
Snap
US Survey Foot
Grid
Default
0
1944349.046 ft, 1092647.149 ft
19°F Sunny
9:03 AM
2/8/2022


Unnamed - Trimble Business Center
File Home Survey GIS CAD Drafting Surfaces Corridors Point Clouds Construction Data Photogrammetry Tunnels Monitoring Mobile Mapping Data Prep Takeoff Site Mass Haul Corridor Mass Haul Utility Drill Pile Compact ANZ Toolbox Macros Support
Setup Customize Contour Pad Linestring Create Point Polyline Digitize
Georef Image Georef Vector PDF Import Vector PDF Place Image Capture Boundaries Images
Project Cleanup Standardize Map Layers Categorize Layers
MSI Manager Identify Site Regions Validate Areas Name/Label Regions Configure Subgrade Define Areas of Interest Site Improvements
Define Topsoil Use Excess Topsoil Overexcavation Define Strata Create Boring Log Edit Boring Log Build Surfaces Takeoff
Balance Line Area/Length/Count Report Takeoff Report Custom Takeoff Report Earthwork Summary Report
Cut/Fill Map Color Mapping Legend Cut/Fill
View Filter Man...
My Filter
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Raw Data
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CTRINDEX
Drill Plans
Points
TMESH- FG
Properties
All (0)
Plan View [My Filter]
Trimble Business Center (TBC)- Trimble Project File
1945000
1944800
1944600
1944400
1944200
1944000
200 ft
1092400
1092600
1092800
1093200
1093400
1093600
1093800
1094000
Point Observations GNSS Dat
Show point IDs
Show point symbols
Show feature code
Show elevation
Show disconnected points
Show feature symbol only
Project Explorer
View Filter Man...
Talking: Austin Varney
Snap US Survey Foot Grid Default 0
1944178.121 ft, 1094164.842 ft
19°F Sunny
9:01 AM
2/8/2022

Recap...

- 3D Modeling Software
- Tollway CAD Files
- 3D Surfaces and Linework
- Creating Field Data

Tim Seiwert
Plote Construction
VP- Field Services

Questions???

Tim Seiwert
Plote Construction
VP- Field Services

Andy Petrenko – Curran Contracting

Andy Petrenko
Curran Contracting
GPS Manager

The Curran family has owned Curran Contracting for four generations, with the fifth generation starting to join the legacy. William Curran first founded our company in 1918.

8 years of experience with GPS in the construction industry. I started out as a field tech doing layout with the GPS equipment then moved into the management roll creating all the 3D models. I now manage the GPS for Curran Contracting and has been with curran for 2 years now.

3D Software For Field

Pocket 3D

FIVE YEAR FREE SOFTWARE UPDATES
Trimble.
TRIMBLE® EARTHWORKS

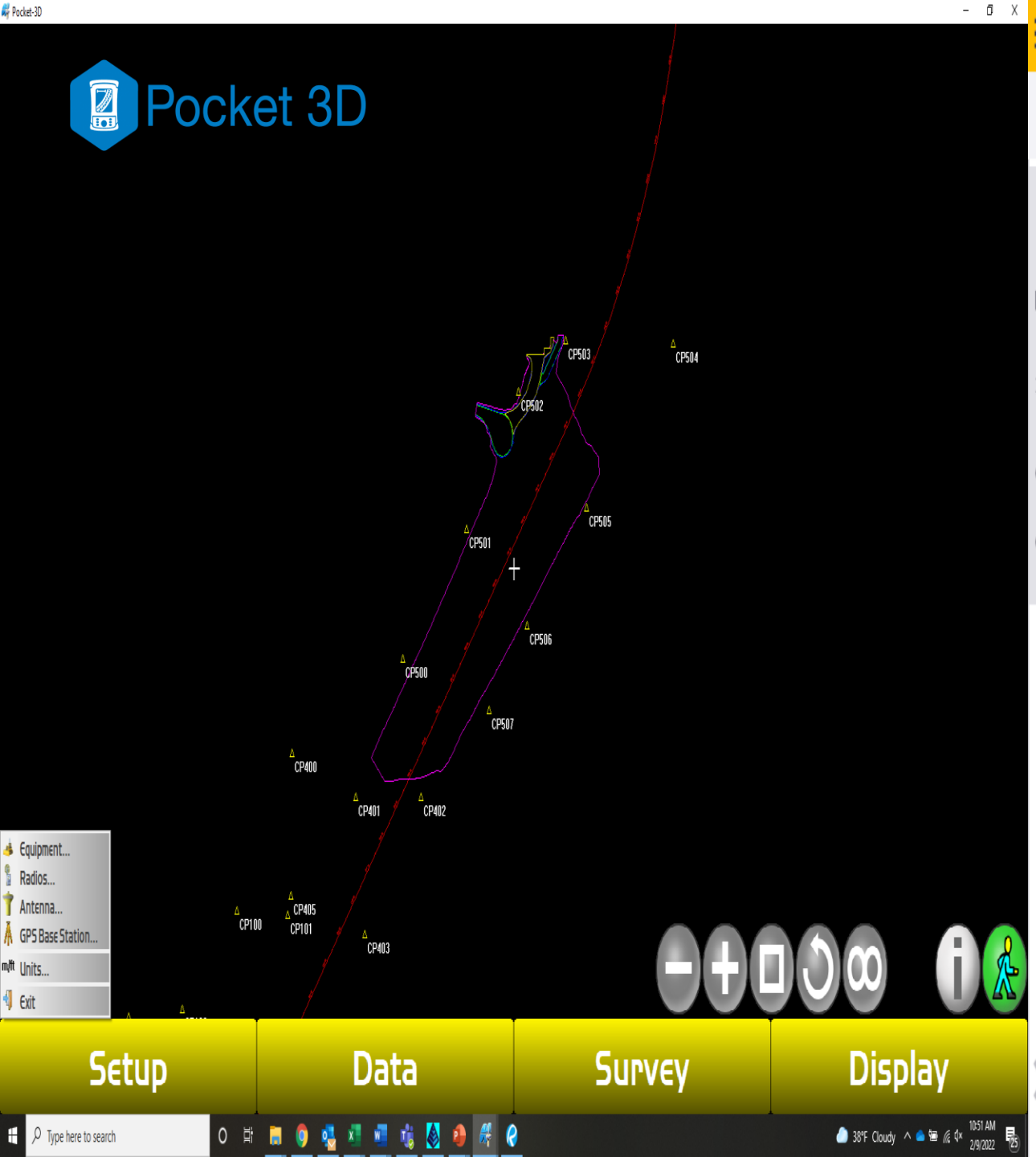
MAGNET®
YOUR WORK CONNECTED

Trimble.
SITEWORKS

3D-MC

Pocket 3D Tabs

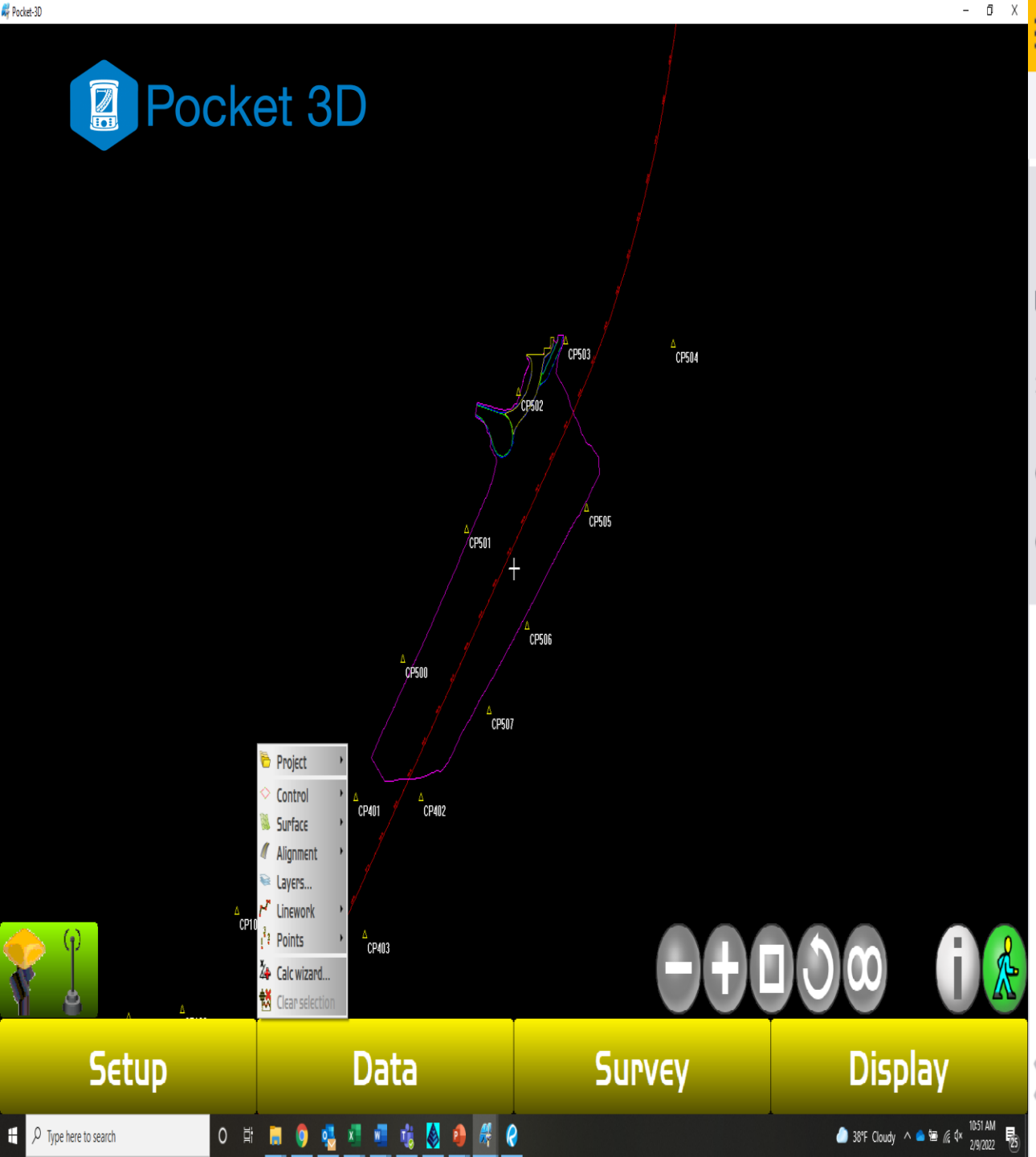
- **Setup**
  - Equipment
  - Radios
  - Antenna
  - GPS Base Station
  - Units
  - Exit


Pocket-3D
Pocket 3D
CP503
CP504
CP502
CP505
CP501
CP506
CP500
CP507
CP400
CP401
CP402
CP100
CP405
CP101
CP403
Equipment...
Radios...
Antenna...
GPS Base Station...
Units...
Exit
Setup
Data
Survey
Display
Type here to search
38°F Cloudy
10:51 AM
2/9/2022


Trimble Siteworks
Measure mode - LOCATION 5 490
11
Hz: 0.026
Vt: 0.049
Fill A: 6.562
0.000
6.562
N: 1944432.808
E: 1093505.586
Elv: 654.215
Trimble.
SITEWORKS
CP503
CP504
CP502
CP505
CP501
CP506
CP500
CP507
CP400
CP401
CP402
CP100
CP405
CP101
CP403
1000 usft

Pocket 3D Tabs

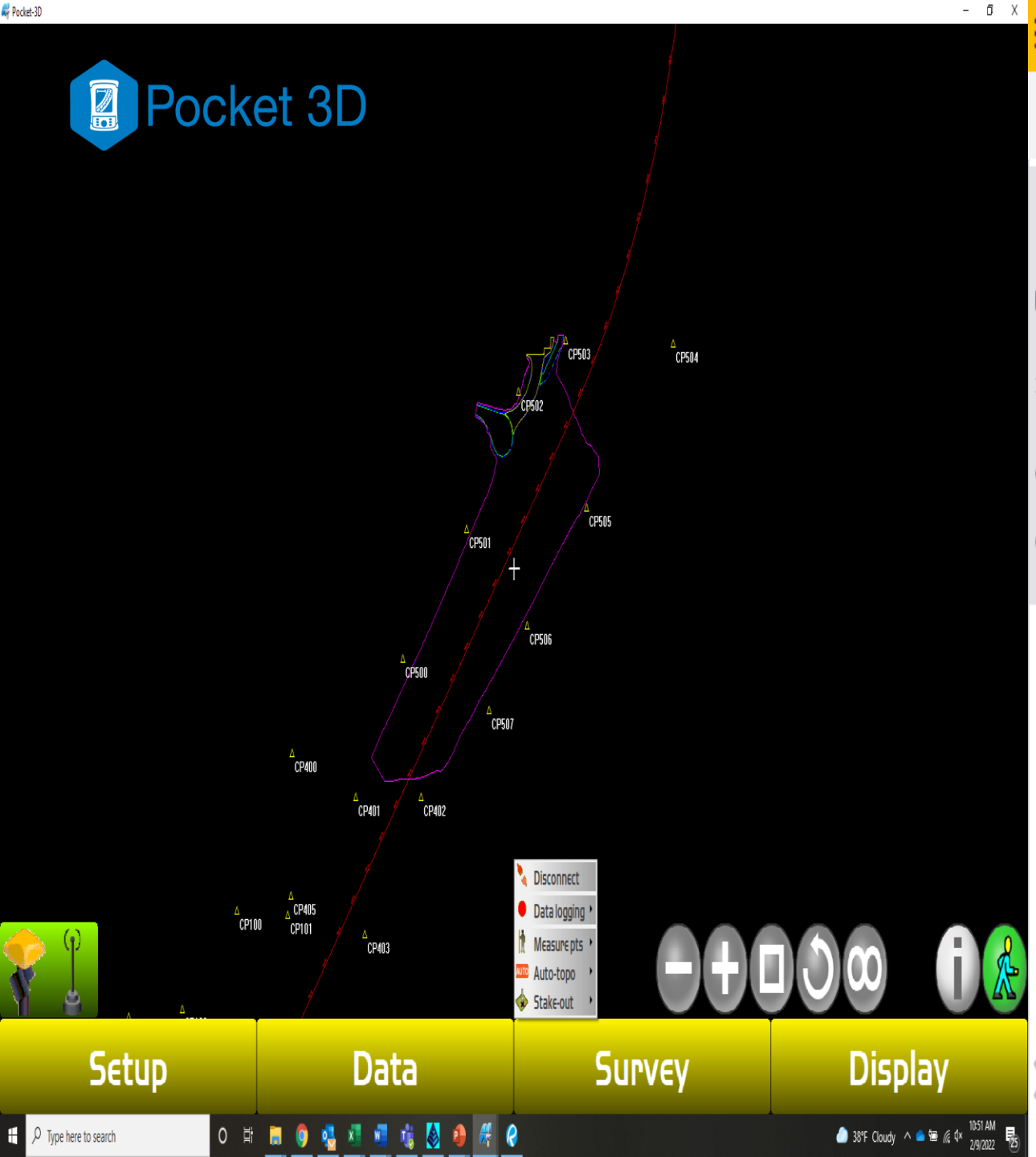
- **Data**
  - Project
  - Control
  - Surface
  - Alignment
  - Layers
  - Linework
  - Points
  - Calc Wizard


Pocket-3D
Pocket 3D
CP503
CP504
CP502
CP505
CP501
CP506
CP500
CP507
CP401
CP402
CP403
Project
Control
Surface
Alignment
Layers...
Linework
Points
Calc wizard...
Clear selection
Setup
Data
Survey
Display
Type here to search
38°F Cloudy
10:51 AM
2/9/2022


Trimble Siteworks
Measure mode - LOCATION 5 490
11
Hz: 0.026
Vt: 0.049
Fill A: 6.562
0.000
6.562
N: 1944432.808
E: 1093505.586
Elv: 654.215
Trimble.
SITEWORKS
CP503
CP504
CP502
CP505
CP501
CP506
CP500
CP507
CP400
CP401
CP402
CP405
CP100
CP101
CP403
1000 usft

Pocket 3D Tabs

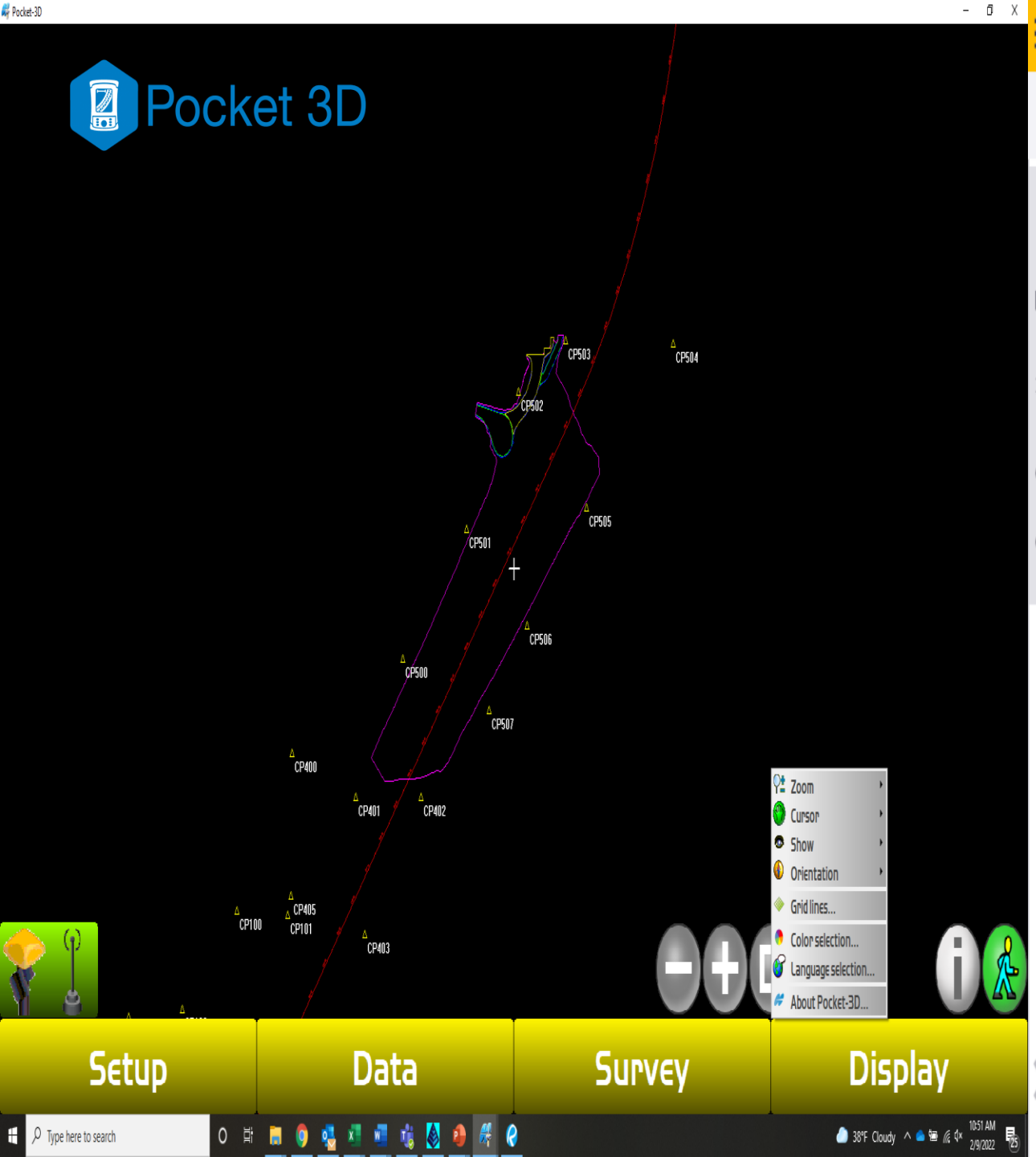
- **Survey**
  - Disconnect
  - Data Logging
  - Measure Points
  - Auto Topo
  - Stake Out


Pocket-3D
Pocket 3D
CP503
CP504
CP502
CP505
CP501
CP506
CP500
CP507
CP400
CP401
CP402
CP405
CP100
CP101
CP403
Disconnect
Data logging
Measure pts
Auto-topo
Stake-out
Setup
Data
Survey
Display
Type here to search
38°F Cloudy
10:51 AM
2/9/2022


Trimble Siteworks
Measure mode - LOCATION 5 490
11
Hz: 0.026
Vt: 0.049
Fill A: 6.562
0.000
6.562
N: 1944432.808
E: 1093505.586
Elv: 654.215
Trimble.
SITEWORKS
CP503
CP504
CP502
CP505
CP501
CP506
CP500
CP507
CP400
CP401
CP402
CP405
CP100
CP101
CP403
1000 usft

Pocket 3D Tabs

- **Display**
  - Zoom
  - Cursor
  - Show
  - Orientation
  - Grid lines
  - Color selection
  - Language selection
  - About Pocket-3D


Pocket-3D
Pocket 3D
CP503
CP504
CP502
CP505
CP501
CP506
CP500
CP507
CP400
CP401
CP402
CP405
CP100
CP101
CP403
Zoom
Cursor
Show
Orientation
Grid lines...
Color selection...
Language selection...
About Pocket-3D...
Setup
Data
Survey
Display
Type here to search
38°F Cloudy
10:51 AM
2/9/2022


Trimble Siteworks
Measure mode - LOCATION 5 490
11
Hz: 0.026
Vt: 0.049
Fill A: 6.562
0.000
6.562
N: 1944432.808
E: 1093505.586
Elv: 654.215
Trimble.
SITEWORKS
CP503
CP504
CP502
CP505
CP501
CP506
CP500
CP507
CP400
CP401
CP402
CP405
CP100
CP101
CP403
1000 usft

Control For Project

- **What is Control?**

  Control consist of hard-set points surrounding your job site that include Northing, Easting and Elevation

  - These points are normally a cut cross in curb, PK-Nails in pavement or iron bars with a cap.
  - If the GC does not supply control, you will have to hire a surveyor to have control set for you.
  - **You cannot start your project without this**

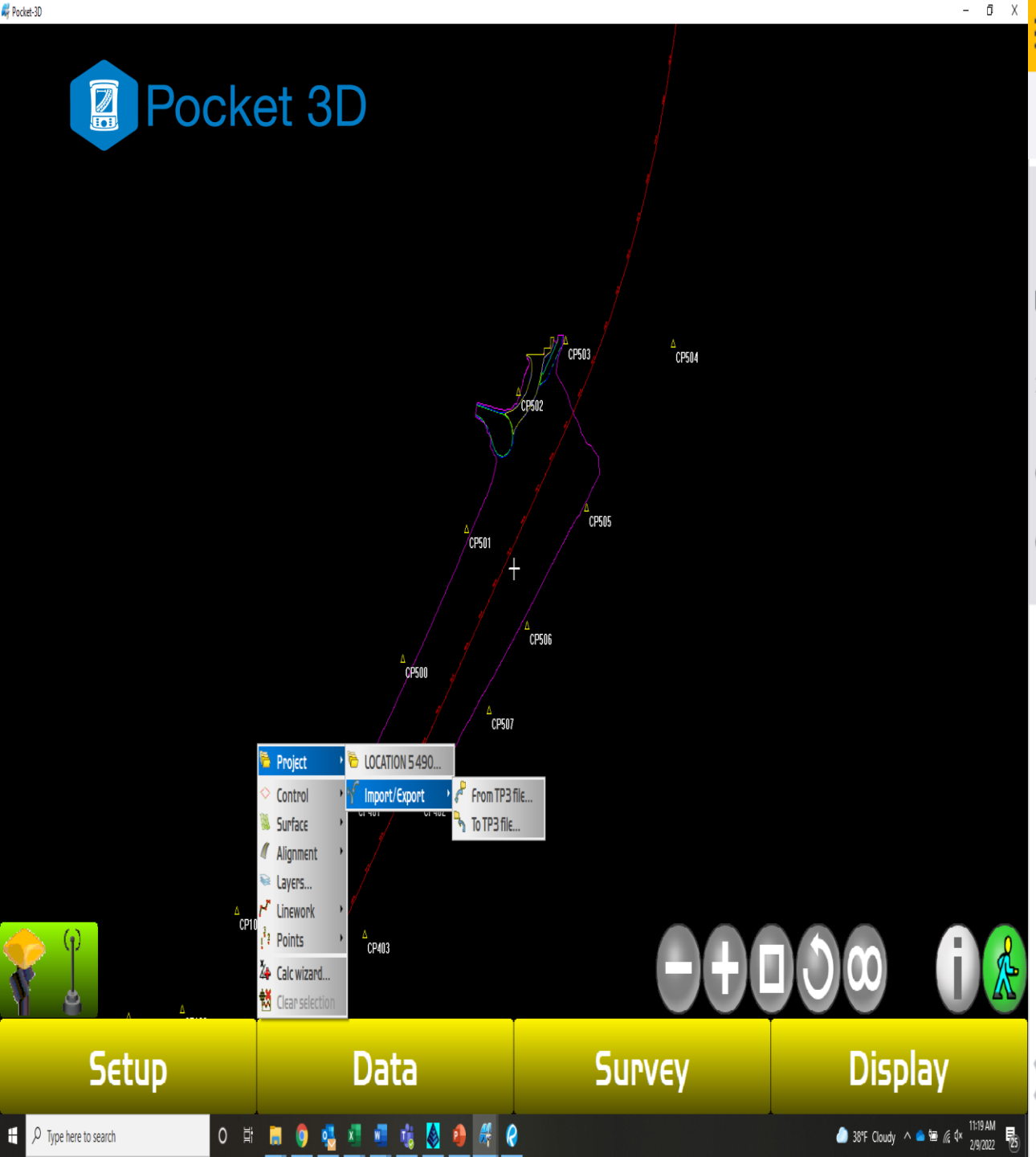
Localizing your Project

- Once you get your control for the project you will have to locate and shoot in each point.
- Once this is completed you can now set a Base pole and start work.

Importing Project

- There are a few different ways to import a project. The 4 major files needed for a project are.
- **GC3 File (control)**
- **LN3 File (linework)**
- **TN3 File (Surface)**
- **RD3 File (Alignment**)

If the office puts this together all you will need is a **TP3 file.**


Pocket-3D
Pocket 3D
CP503
CP504
CP502
CP505
CP501
CP506
CP500
CP507
CP403
Project
LOCATION 5 490...
Control
Import/Export
From TP3 file...
To TP3 file...
Surface
Alignment
Layers...
Linework
Points
Calc wizard...
Clear selection
Setup
Data
Survey
Display
Type here to search
38°F Cloudy
11:19 AM
2/9/2022

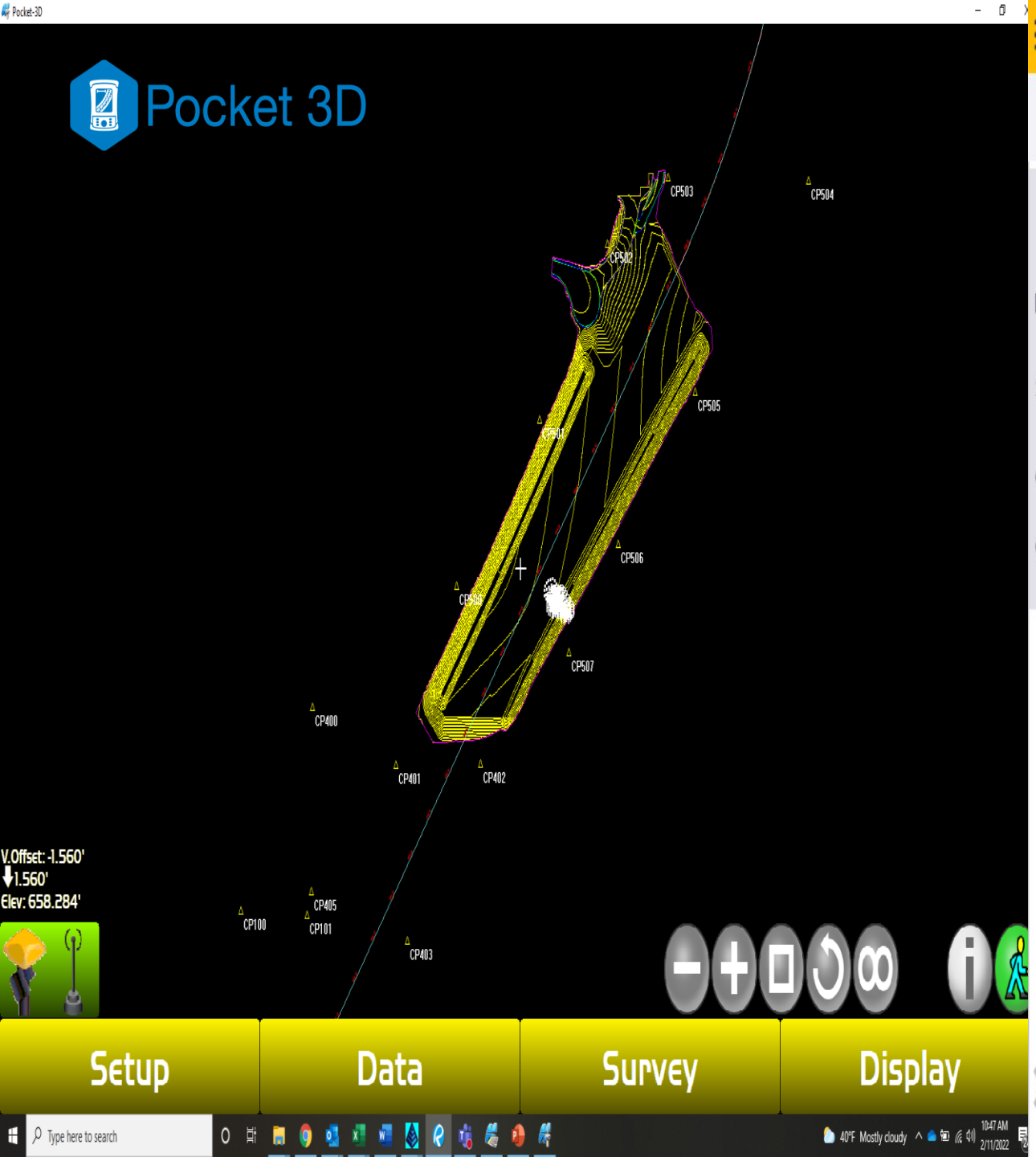

Trimble Siteworks
Measure mode - LOCATION 5 490
11
Hz: 0.026
Vt: 0.049
Fill A: 6.562
0.000
6.562
N: 1944432.808
E: 1093505.586
Elv: 654.215
Trimble.
SITEWORKS
CP503
CP504
CP502
CP505
CP501
CP506
CP500
CP507
CP400
CP401
CP402
CP100
CP405
CP101
CP403
1000 usft

Checking Grade

- There are many functions in the data collector, but one of the main functions is to check grade.
- This will provide you a Cut/Fill from the bottom of your rover pole.


Pocket-3D
Pocket 3D
CP503
CP504
CP502
CP505
CP501
CP506
CP508
CP507
CP400
CP401
CP402
CP405
CP100
CP101
CP403
Surface check
Point list...
Alignment...
Polyline...
Coordinate...
Control point...
Custom point list...
Side slopes...
V. Surf. Offset (-1.560')
Options...
Disconnect
Data logging
Measure pts
Auto-topo
Stake-out
Setup
Data
Survey
Display
Type here to search
42°F Mostly cloudy
11:24 AM
2/11/2022

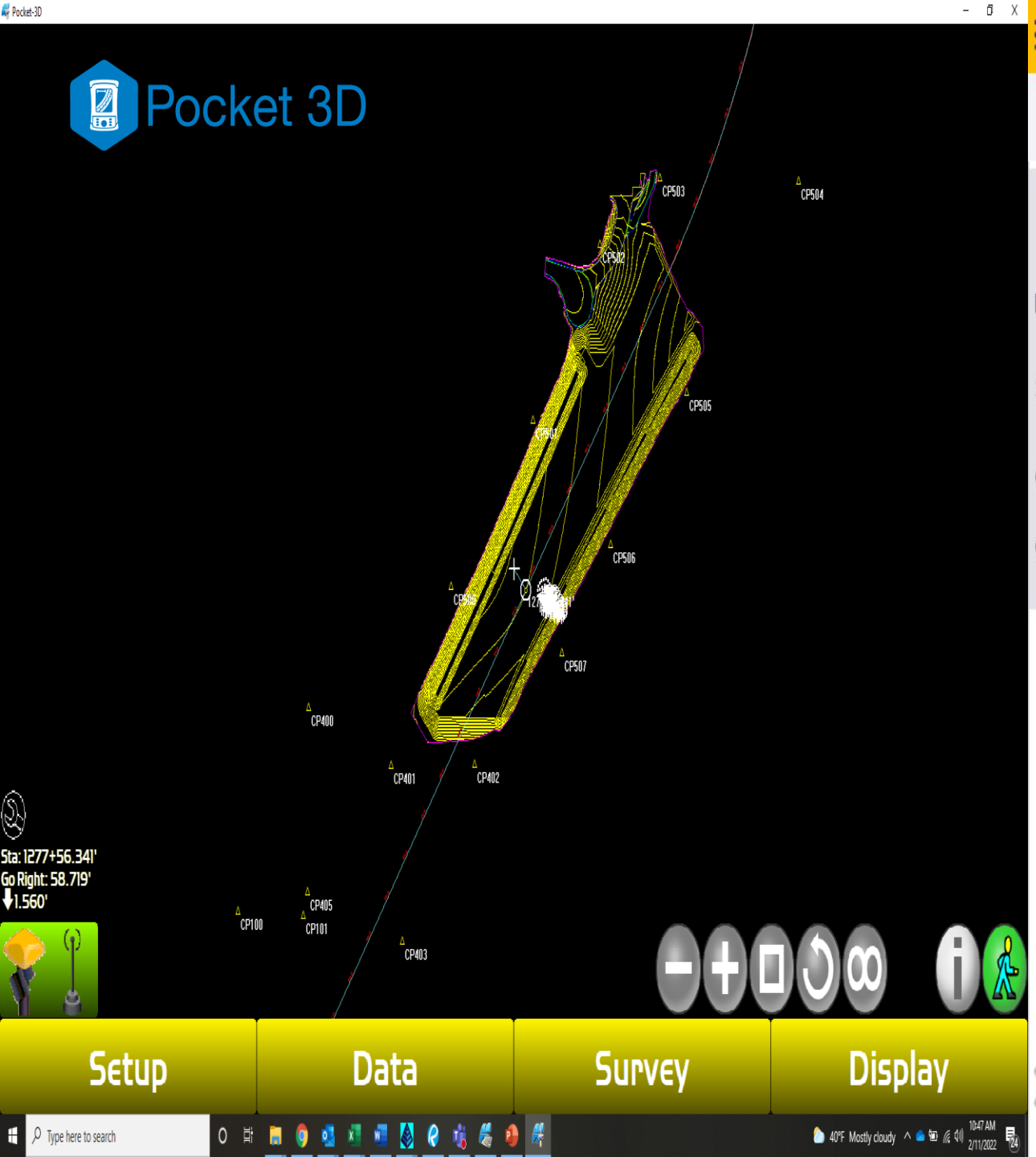

Trimble Siteworks
Measure mode - LOCATION 5 490
11
Hz: 0.026
Vt: 0.049
Fill A: 6.562
0.000
6.562
N: 1944288.759
E: 1093164.429
Elv: 644.328
Trimble.
SITEWORKS
CP503
CP504
CP502
CP505
CP501
CP506
CP508
CP507
CP400
CP401
CP402
700 usft


Pocket-3D
Pocket 3D
CP503
CP504
CP502
CP505
CP501
CP506
CP508
CP507
CP400
CP401
CP402
CP405
CP100
CP101
CP403
V.Offset: -1.560'
1.560'
Elev: 658.284'
Setup
Data
Survey
Display
Type here to search
40°F Mostly cloudy
10:47 AM
2/11/2022


Trimble Siteworks
Measure mode - LOCATION 5 490
11
Hz: 0.026
Vt: 0.049
Fill A: 6.562
0.000
6.562
N: 1944288.759
E: 1093164.429
Elv: 644.328
Trimble.
SITEWORKS
CP503
CP504
CP502
CP505
CP501
CP506
CP508
CP507
CP400
CP401
CP402
700 usft

Staking out to alignment

- Once you stake out to an alignment it will provide you with your station and offset as well as a cut/fill at your location.


Pocket-3D
Pocket 3D
CP503
CP504
CP502
CP505
CP501
CP506
CP500
CP507
CP400
CP401
CP402
CP405
CP100
CP101
CP403
Sta: 1277+56.341'
Go Right: 58.719'
1.560'
Setup
Data
Survey
Display
Type here to search
40°F Mostly cloudy
10:47 AM
2/11/2022


Trimble Siteworks
Measure mode - LOCATION 5 490
11
Hz: 0.026
Vt: 0.049
Fill A: 6.562
0.000
6.562
N: 1944288.759
E: 1093164.429
Elv: 644.328
Trimble.
SITEWORKS
CP503
CP504
CP502
CP505
CP501
CP506
CP500
CP507
CP400
CP401
CP402
700 usft

Shooting a TOPO/Pile

- The data collector is a wonderful tool when you need to do a site TOPO or shooting a pile.
- Once you complete your topo you can then save that data to a flash drive and send to the office for a quantity calculation.

Pocket-3D

Pocket 3D

1278.00

1277.00

Disconnect

Data logging

Measure pts

Auto-topo

Stake-out

Topo-shot...

Topo-shot w. offset...

Control pt...

Reference line...

Start Pline...

Start tape dimension...

Options...

Setup

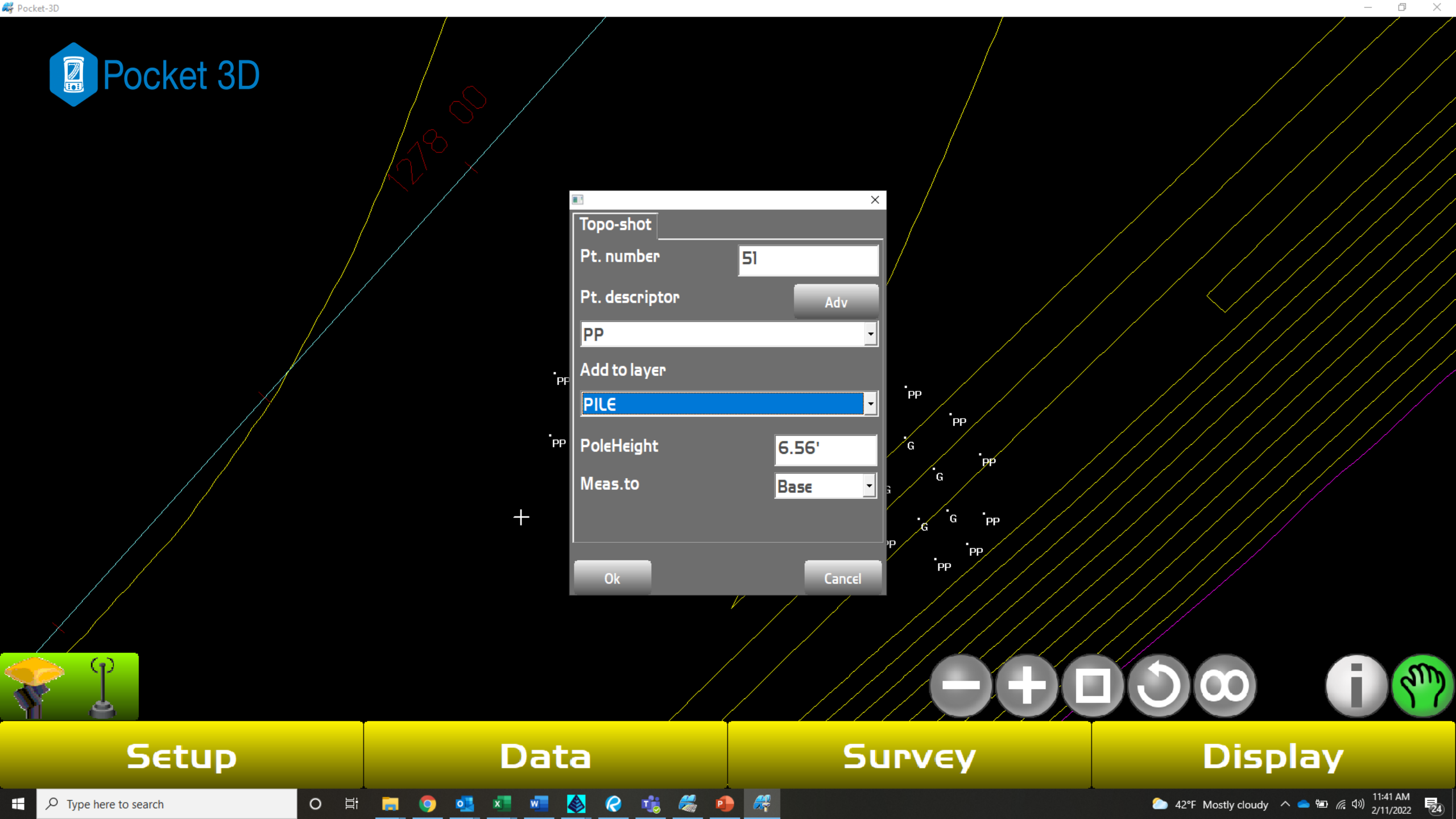
Data

Display

Type here to search

39°F Cloudy

11:41 AM
2/9/2022


Pocket-3D
Pocket 3D
1278.00
Topo-shot
Pt. number
51
Pt. descriptor
Adv
PP
Add to layer
PILE
PoleHeight
6.56'
Meas.to
Base
Ok
Cancel
Setup
Data
Survey
Display
Type here to search
42°F Mostly cloudy
11:41 AM
2/11/2022

Pocket-3D

Pocket 3D

CP507

Setup | Data | Survey | Display

Type here to search

39°F Cloudy

11:46 AM
2/9/2022

Questions???

Andy Petrenko
Curran Contracting
GPS Manager