

# Earthwork 4D

- SmartPlan-Android



Rev. 11-22-2016

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*Section 1*

# *Installation*

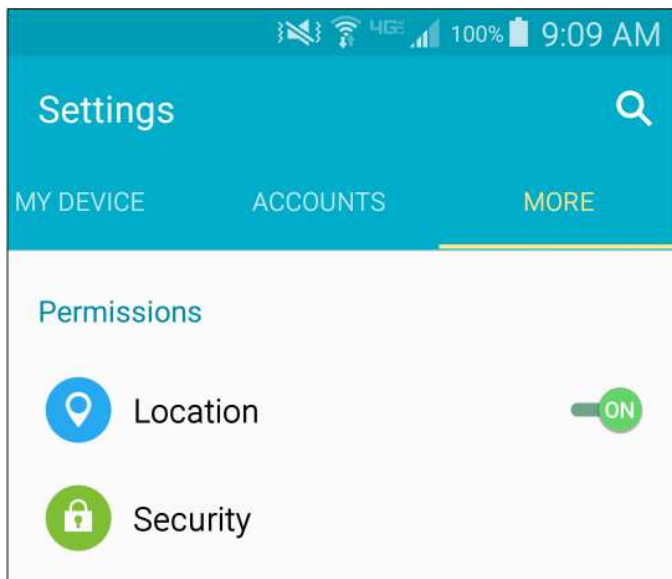
## Welcome to SmartPlan

### Instructions for Installing the AGTEK SmartPlan app on your Android Smartphone.

1. Check/Adjust your Smartphone settings.

a. Turn on Location.

Scroll down from top or select  
Menu>Settings>Location>On



b. Allow apps from unknown sources.

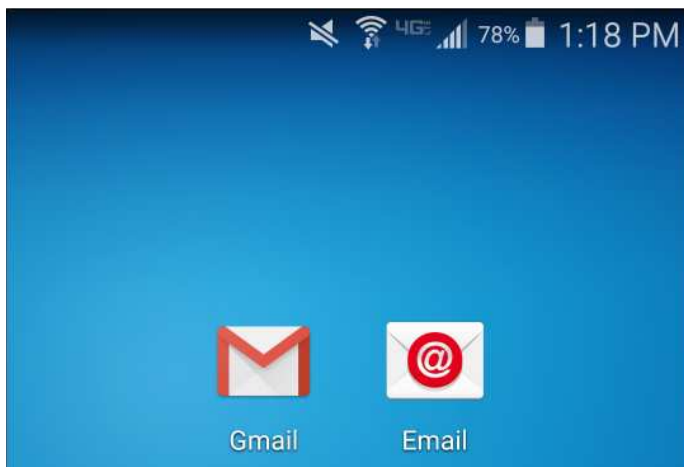
Menu>Settings>Security>Unknown Sources.

Note: It is recommended you disable this option after installation is complete.

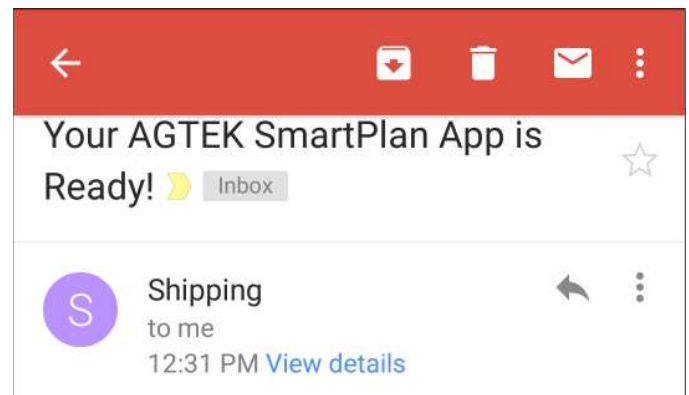


2. Install and use SmartPlan from an e-mail on your smartphone. These steps may vary with different phone O/S versions.

a. Go to your E-mail or G-mail on your phone.



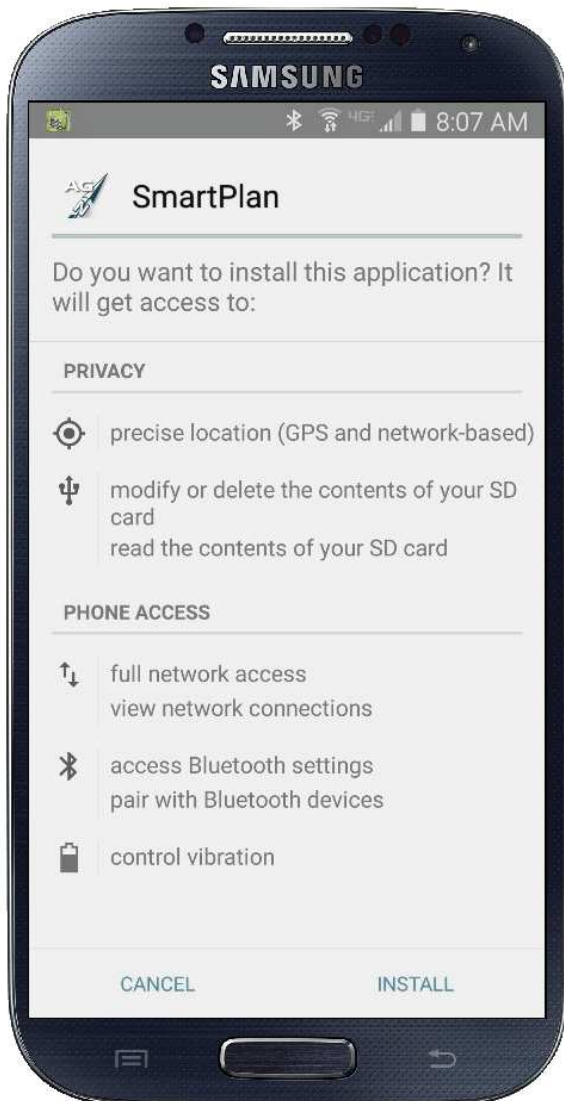
b. Locate the e-mail with the subject line Your AGTEK SmartPlan App is Ready!



c. Go to step 3 and click the link to download SmartPlan. You may also download SmartPlan from our website at [www.agtek.com](http://www.agtek.com).

1. Download and install [AGTEK Access](#) for managing your SmartPlan files on your smartphone or tablet.
2. Android users: You will need to check/adjust your settings on your smartphone so that location is turned on and apps from unknown sources are allowed as shown in the [SmartPlan Installation Guide](#).  
  
Apple IOS users: Please skip to step 3.
3. Android users: Open this email on your smartphone and click [here](#) to download and install SmartPlan.

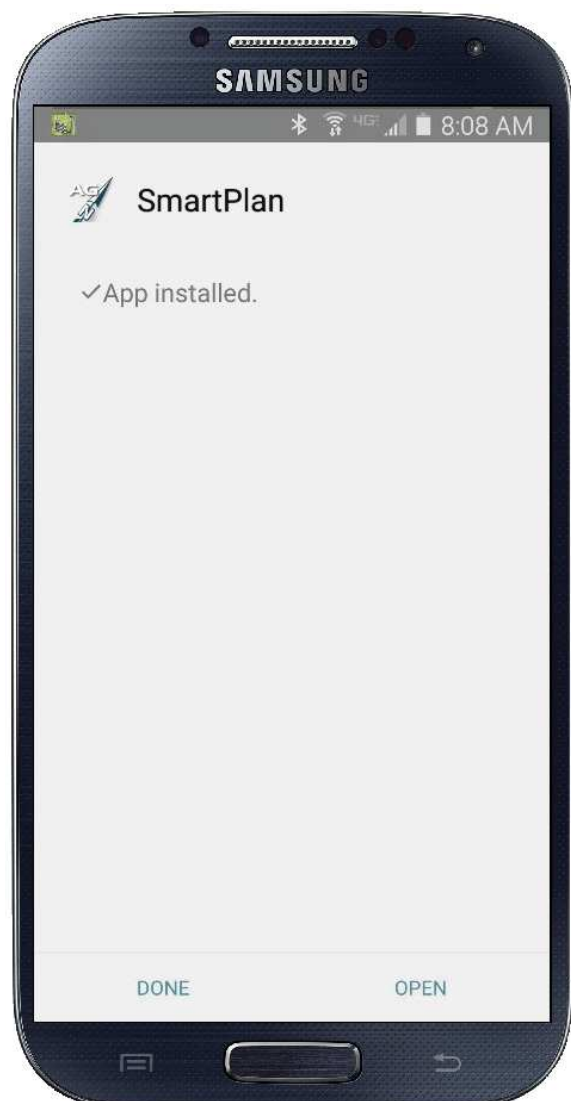
e. Select Install at the bottom of the screen.



d. Pull down the status bar from the top and locate the download. Select the SmartPlan#\_##.apk file.



f. When complete, the App Installed message will display. Select Open



g. Enter your License Key login information.  
Login: E-mail address Password: User defined. Select Login



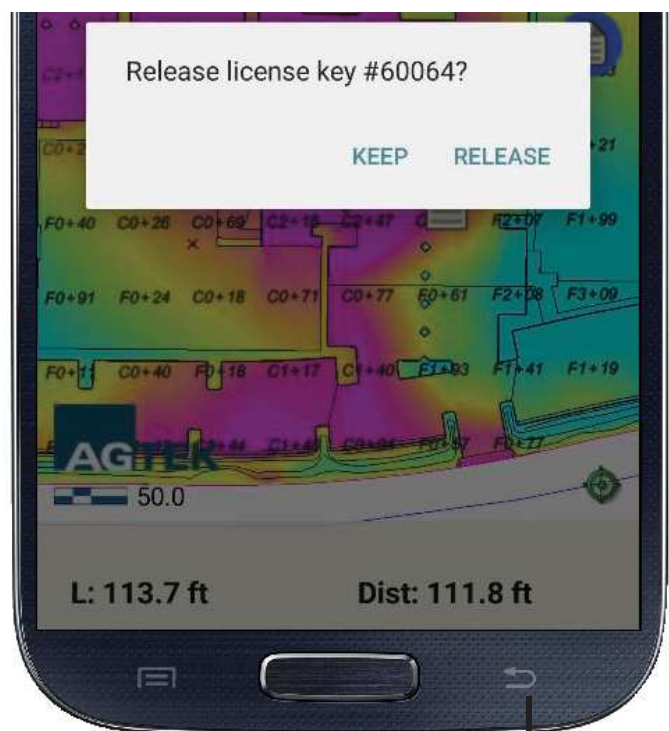
h. Select the SmartPlan key from the list of available keys



i. Select AGTEK Access. Select the desired file from the list



j. To exit SmartPlan, select Back, then Release



Back

k. To restart SmartPlan, select Apps then SmartPlan





*Section 2*

# *Geo-Referencing Files*

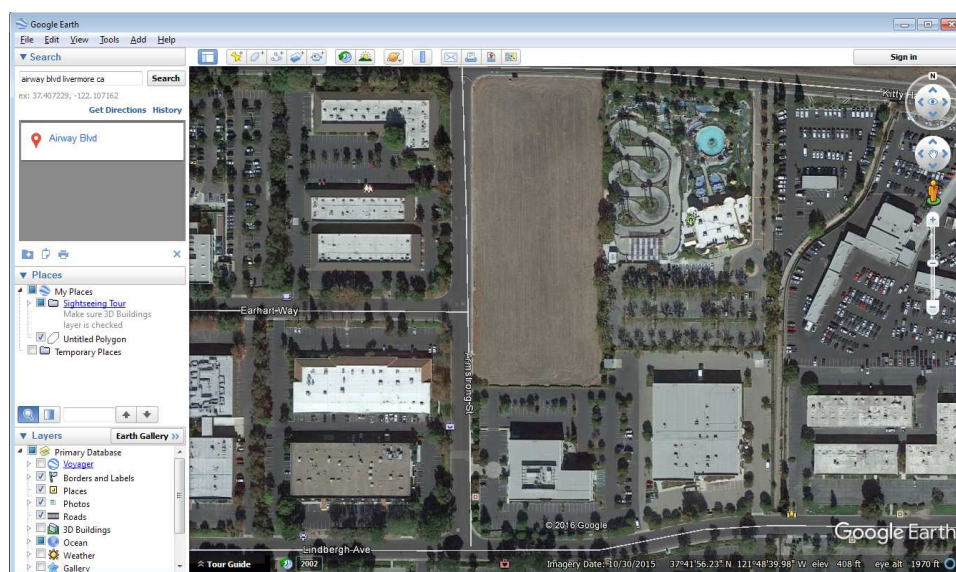
## SmartPlan Geo-Referencing Files

Before using SmartPlan on your job site, you must first geo-reference your job file by adding two benchmarks with approximate latitude and longitude information in Sitework 4D. You may use Google Earth® to locate these points. This procedure is the same for files containing plan sheets only for a pre-bid walk-thru, or a complete takeoff to be used for job planning and project management.

### Enter Benchmarks and Locate Lat/Long information

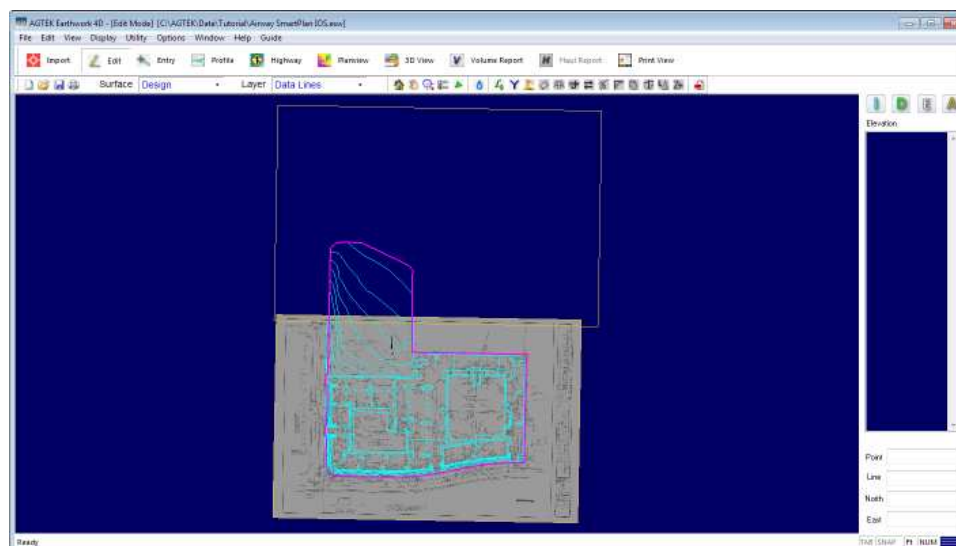
To locate benchmark coordinates, and assign those coordinates in Sitework 4D, it is best to have both Sitework 4D and Google Earth® open simultaneously.

1. Locate your job site on Google Earth.

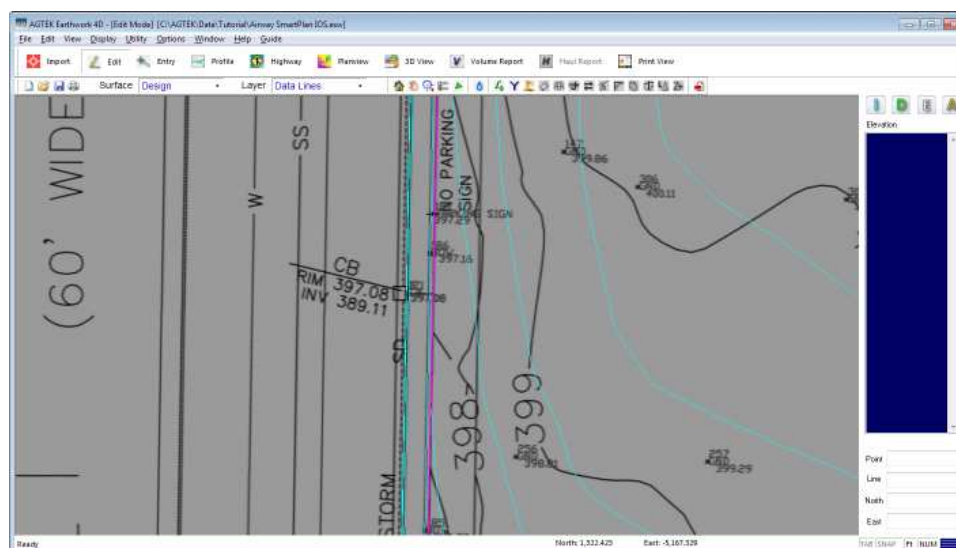


2. Identify some existing features that can be found on the plan sheets. Existing buildings, catch basins, or street intersections are good examples.

3. Open the job file in Earthwork 4D.
4. Import the plan sheet containing the existing features located on Google Earth.

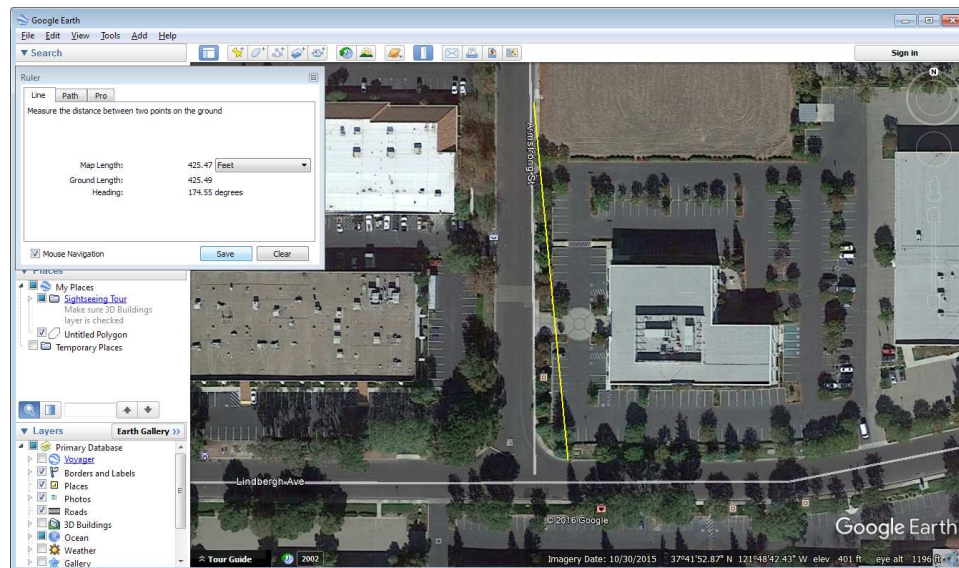


5. Locate the two common features found on Google Earth.

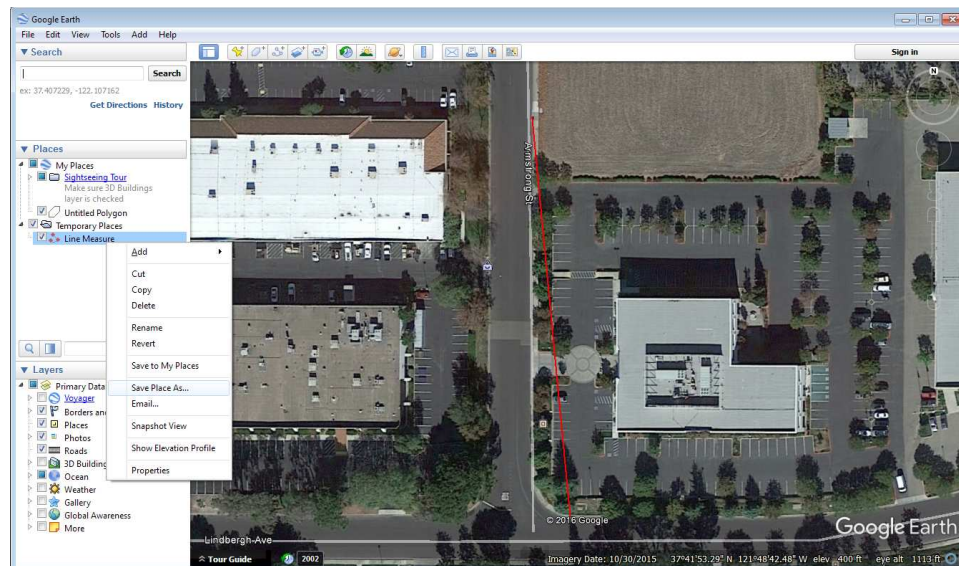


6. Minimize Earthwork 4D and return to Google Earth.

7. In Google Earth, select the **Show Ruler** icon, or select the **Tools** menu and select **Ruler**.
8. Draw a line connecting the two points. Click the **Save** button.

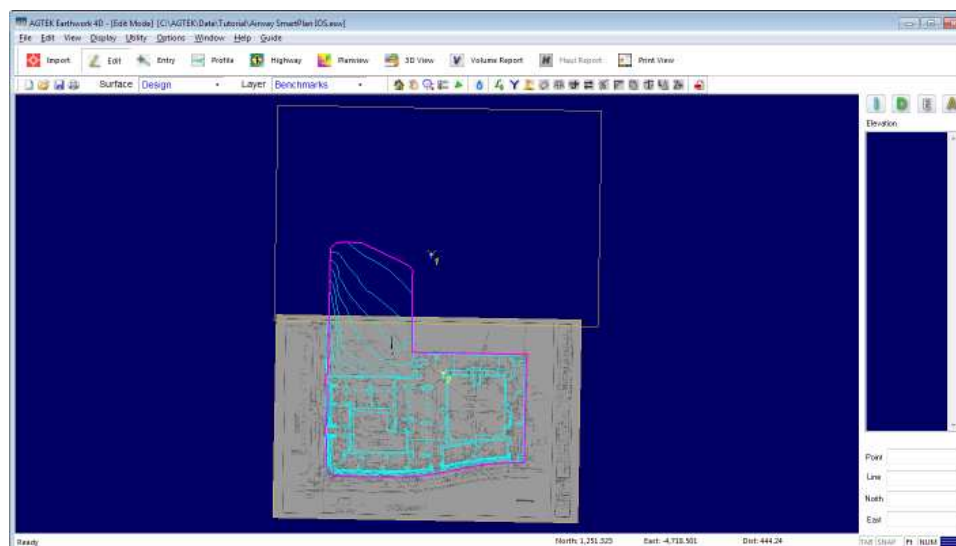


9. Keep the name Line Measure and click **OK**.
10. Right click on Line Measure under Temporary Places and select **Save Place As...**

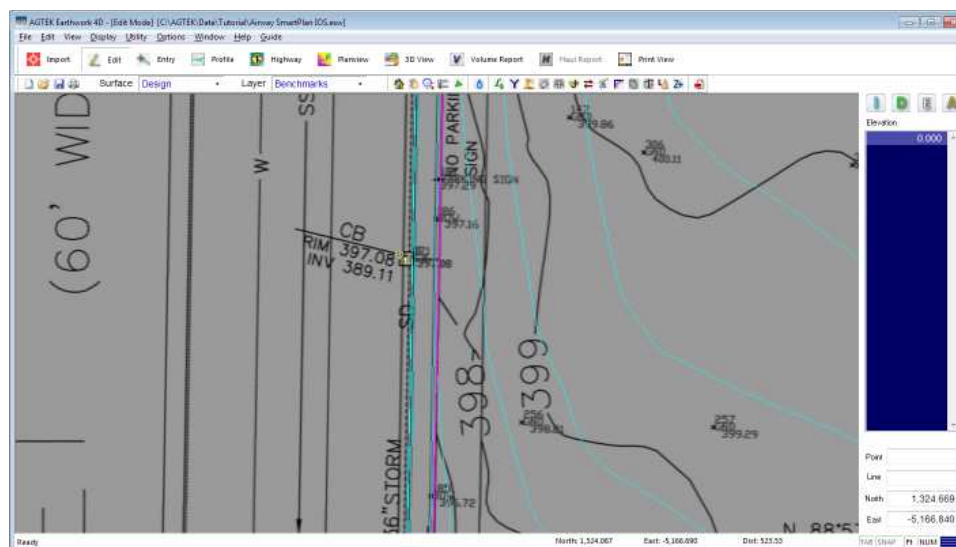


11. Save the file to the same file folder containing the Earthwork 4D job file.

12. In Earthwork 4D, right click and select **Import File**.
13. Select the Line Measure.KMZ file and click **Import**.



14. The Benchmarks will be inserted, however they will not be in the correct location.
15. Change the layer to **Benchmarks**.
16. Select one of the benchmarks. Position the tip of the arrow on the corresponding location on the plan sheet and press the **F7** key to move the benchmark to the new location.



13. Repeat this process for the second benchmark.
14. The KMZ file may now be exported.

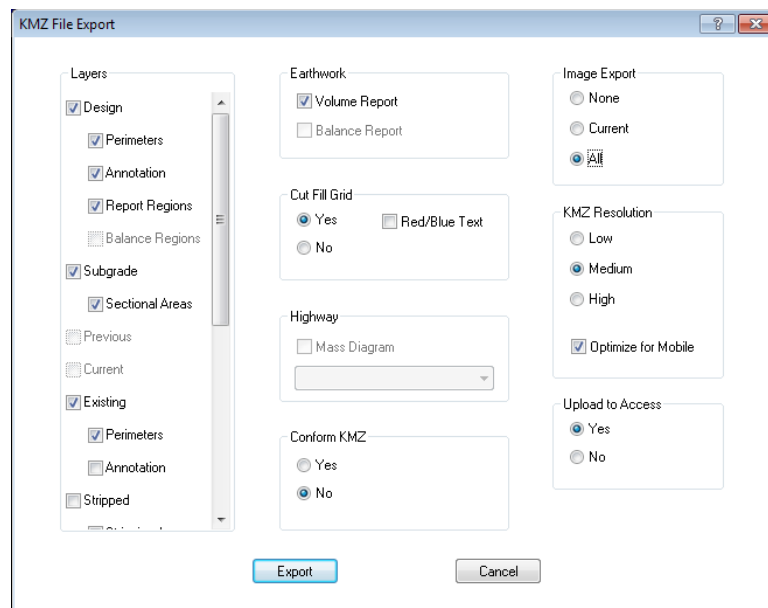
## Save KMZ File

SmartPlan will read a KMZ file containing the plan sheet images, plan view data, color cut/fill map and volume reports. To export the KMZ file, select the Plan View mode icon on the toolbar.

1. Select **File > Export KMZ File**. The Save As dialog box displays.



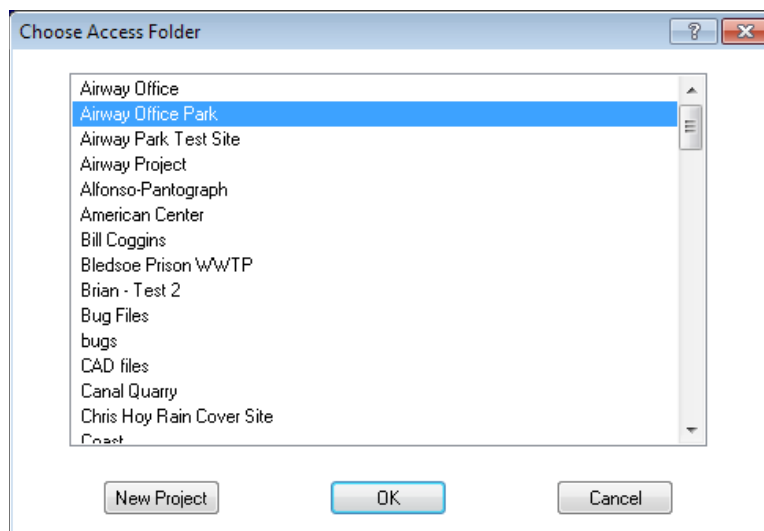
2. Enter a name for the KMZ file and click **Save**.
3. The KMZ File Export dialog will display.



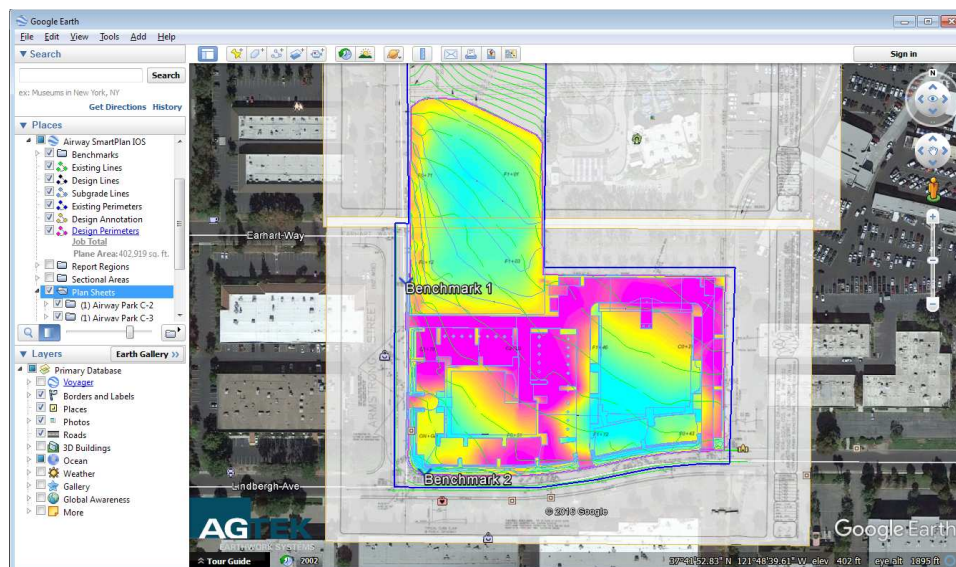
4. Select the desired layers to be saved to the KMZ file.
5. Check the desired additional options, such as the **Volume Report** or **Image Export**.
6. Check **Optimize for Mobile** when exporting the file to be used with SmartPlan.
7. Check Yes to Upload the file to AGTEK Access for use with SmartPlan. Click **Export**.



7. The Choose Access Folder dialog will display.



8. Select the desired Project folder. If no projects exist click New Project. Enter a name for the new project and click **OK**.
9. The file will be uploaded to AGTEK Access. The KMZ file will open in Google Earth. It is recommended you view the KMZ file on Google Earth to verify the accuracy of the alignment to the job site.



10. If the KMZ file is properly aligned, you are now ready to use SmartPlan in the field on the actual job site.

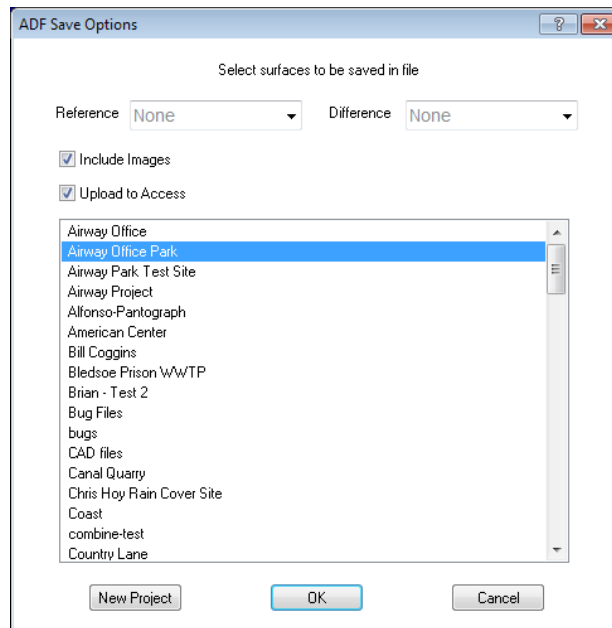
## Save ADF File

SmartPlan will read an ADF file containing the plan sheet images. It is recommended to use the ADF file when using plan sheets only for a higher resolution of the images.

1. In Sitework 4D, select the **File > Save As**. The Save As dialog box displays.



2. Click the **Save as Type** pulldown and select AGTEK Mobile Files (\*.adf).
3. Enter a name for the ADF file and click **Save**.
4. The ADF Save Options dialog will display.



5. If the file contains no takeoff data the Reference and Difference surfaces will show None.
6. Select the desired project folder. If no project folder exists, create a new project.
7. Check the boxes to Include Images and Upload to Access. Click **OK**.
8. The file will be uploaded to the project folder for use with SmartPlan.



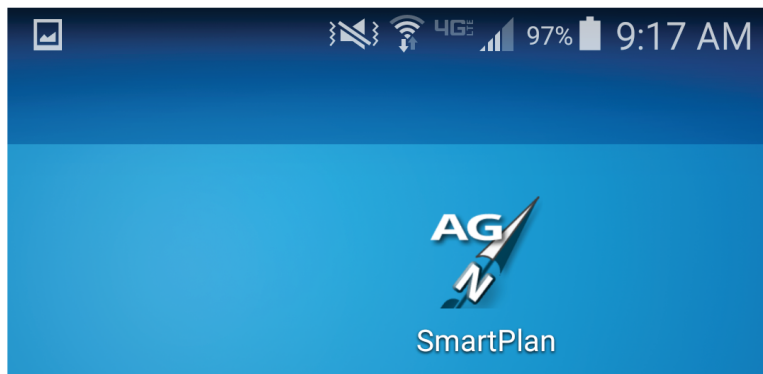
*Section 3*

# *Basics*

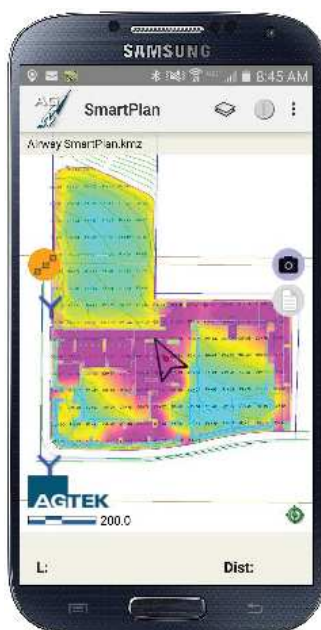
## SmartPlan - Basics

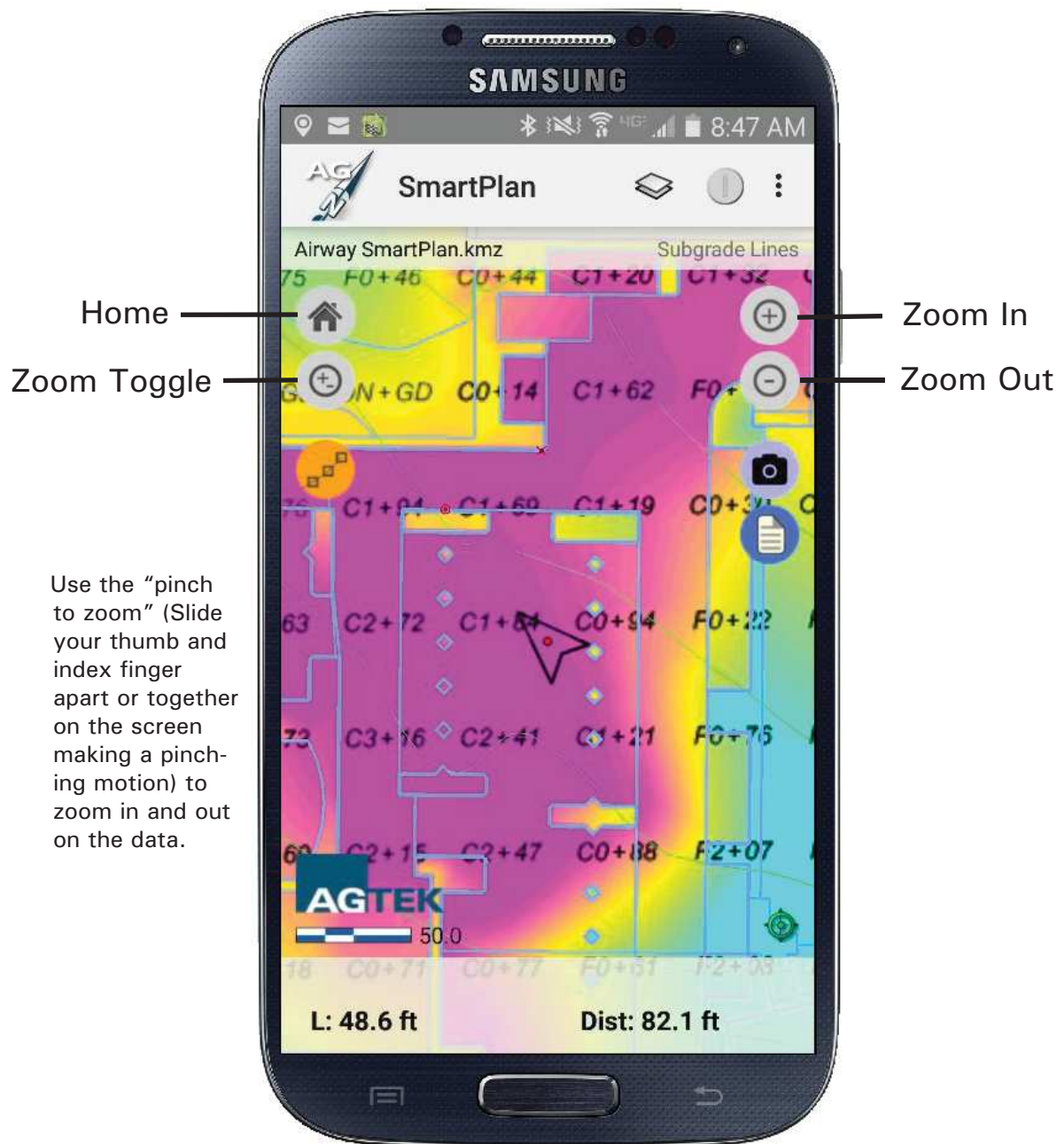
SmartPlan geo-references your plan sheets, cut/fill maps, paving areas, pipe runs and takeoff quantities using the GPS positioning capability built into your iPhone or iPad. Geo-reference the file using the procedure described in the previous section.

1. Before launching SmartPlan, make sure the GPS feature is enabled on your phone. This procedure will vary with different phone versions.
2. To launch SmartPlan, locate the SmartPlan icon in your Apps. You may move the icon to your Home screen if desired.



3. Enter your Login and Password information. Check the box to Remember password and select Login.
4. Select any available SmartPlan Key.
5. If the file has not been saved locally to the phone, select AGTEK Access.
6. Locate the project folder and select the desired KMZ file. The file will open and you will automatically be geo-referenced to the job site. When opening the file for the first time, the default view will depend on the contents of the file. If only plans sheets were saved, they will display. If the earthwork takeoff was complete, the cut/fill color map, report regions and sectional areas may be displayed.



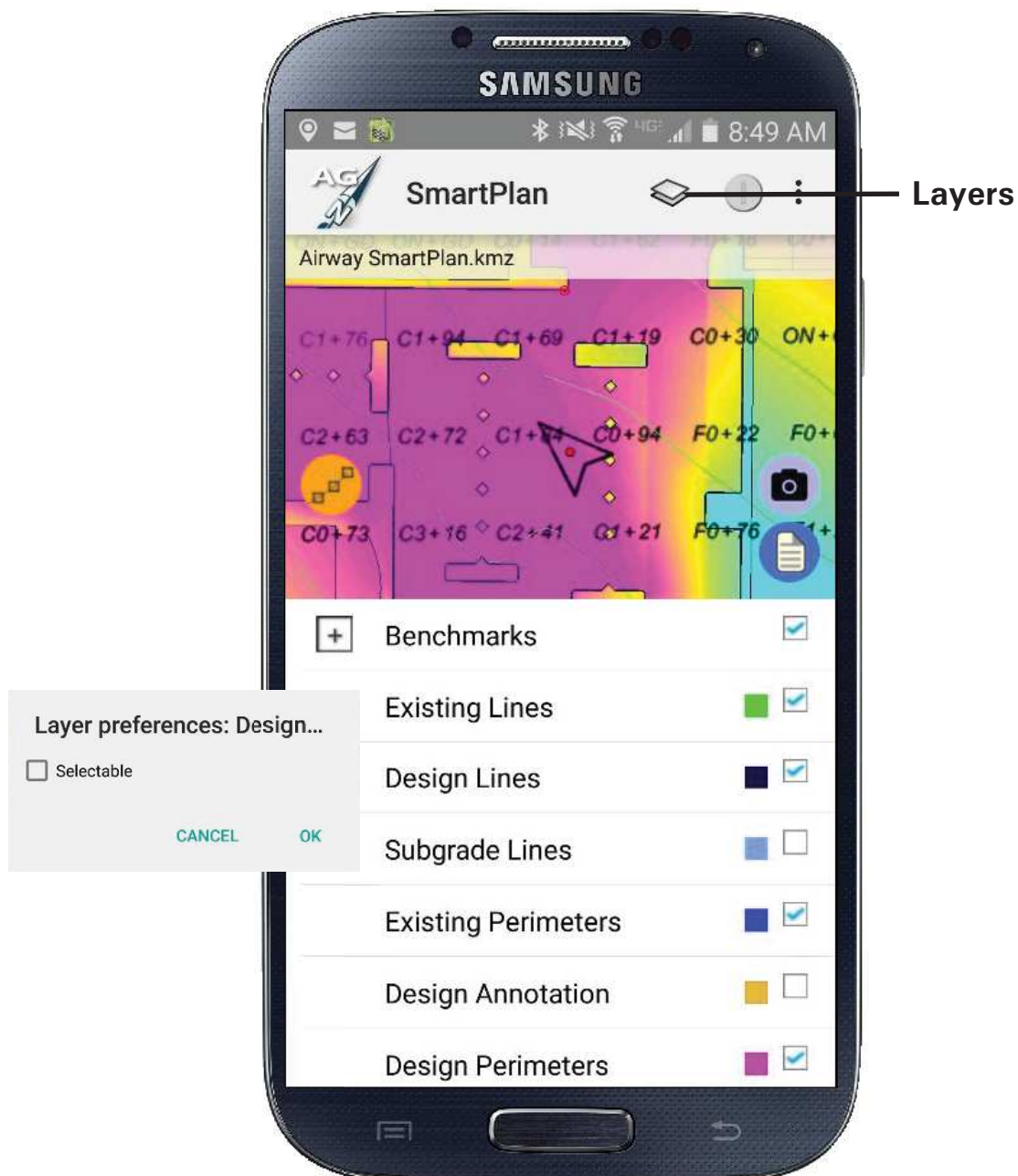


7. When the GPS signal is engaged, your current position will be locked to the center of the screen. To pan the data, tap the compass in the lower right corner to disengage the GPS signal. The cross-hairs inside the compass will turn off.
8. You may now pan the data by sliding your finger across the screen.
9. The length displayed at the bottom represents the distance between the last two entered points. The distance displayed is the distance from your current position to the last entered point.
10. Tap the compass again to engage the GPS signal.

## SmartPlan - Layer Controls

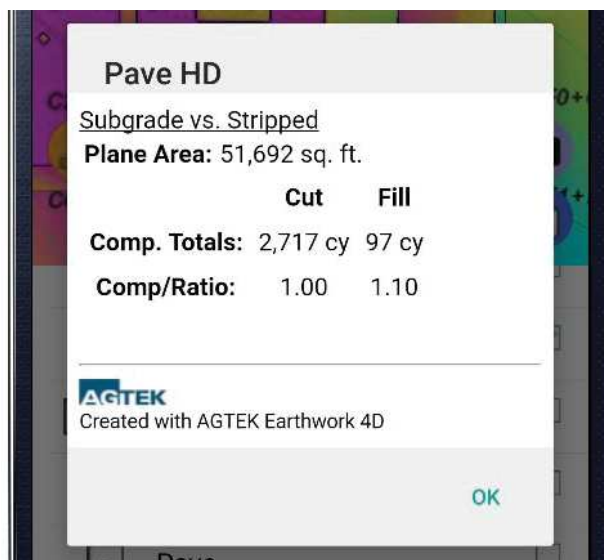
When using a KMZ file, all data saved in the file is stored in separate layers. You may turn layers on and off by using the layer controls.

1. To change the displayed data, select the **Layers** icon located at the top of the screen.



2. All data saved in the file will be listed at the bottom of the screen. Visibility is controlled by a checkbox.
3. To make lines unselectable when tapping the screen, tap and hold on the layer name and uncheck selectable. This allows you to choose which layers you wish to select on the screen.

4. To view the cut/fill volumes, check the box beside **Report Regions**. You may want to uncheck Cut/Fill Color to view the Report Regions more clearly.
5. Tap the Plus sign beside **Report Regions** to view all the regions.
6. Tap and hold on the region name to display the volumes. You may also tap the **Info** icon at the top right corner of the screen.

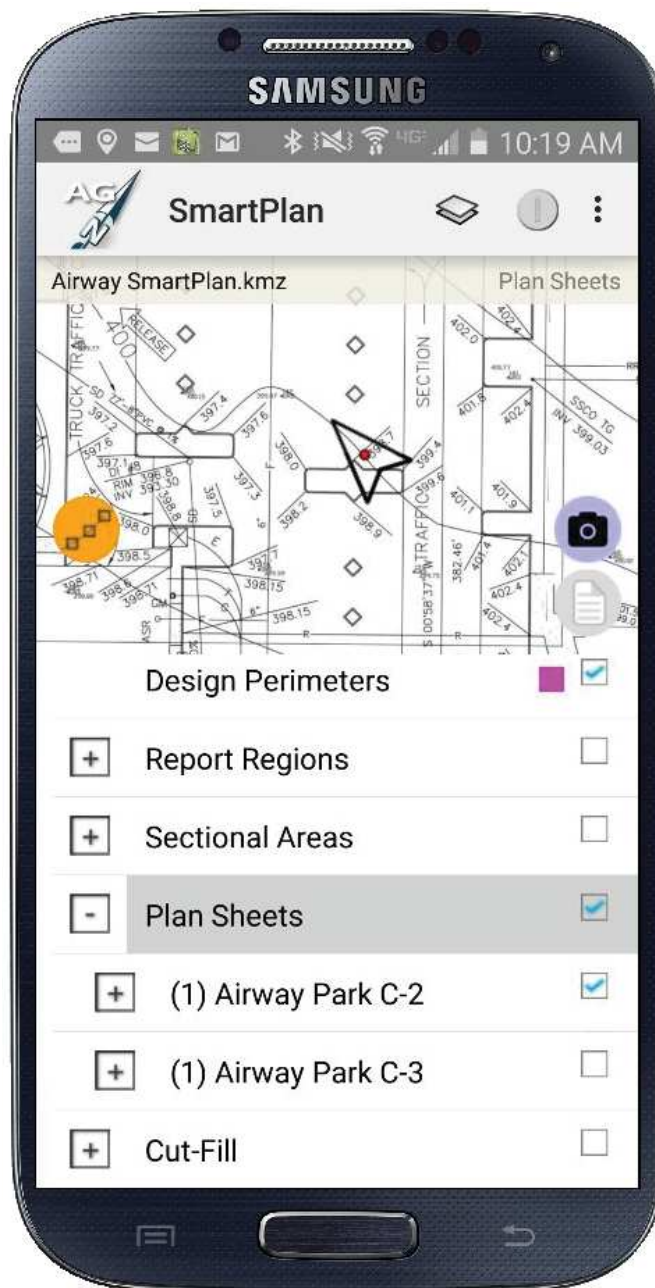


7. Tap **OK** to close the volume window.
8. You may also select the report region from the plan view. When the region is selected, the region name will display in the upper right corner.
9. Tap the **Info** icon in the upper right corner to display the volumes.



10. Sectional volumes may be displayed using the same procedure.

11. To display the plan sheets, check the box to the right of **Plan Sheets**. You may display all the sheets, or you may select the desired sheets.



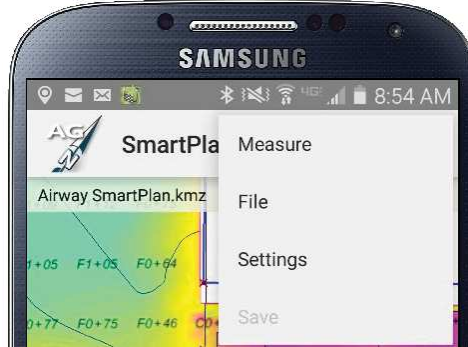
12. You will now be walking on the plan sheets.
13. To exit the layer controls, tap the **Layers** icon.



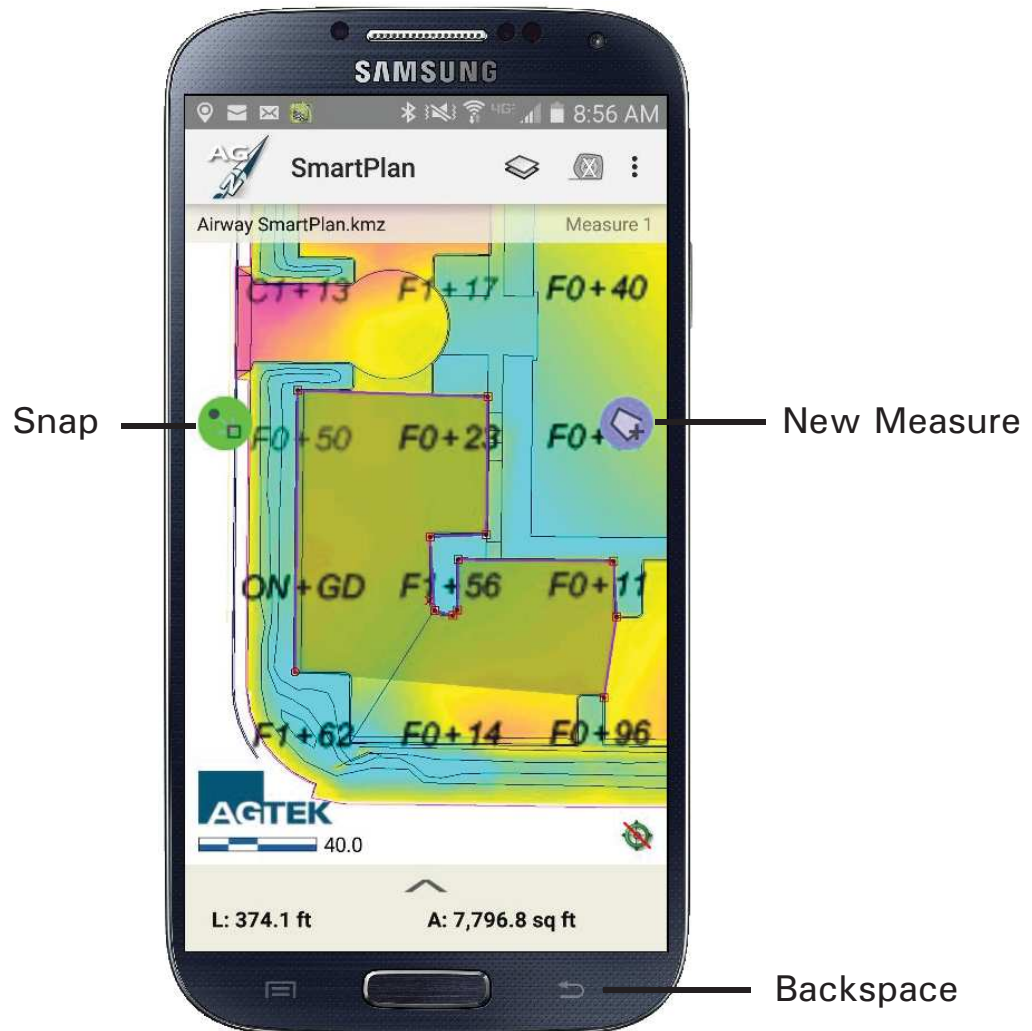
## SmartPlan - Measure Mode

Measurements may be made using either the plan sheets or the job data.

1. To enter Measure Mode, tap the **Menu** and select **Measure**.



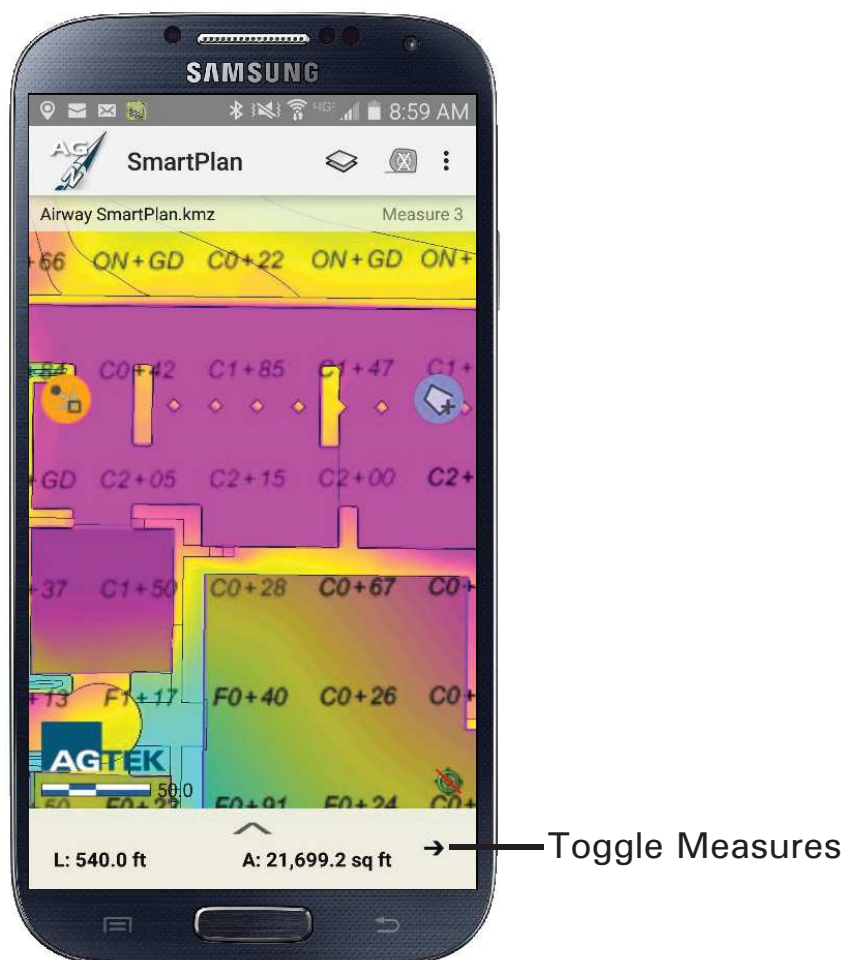
2. Tap the screen to enter the points. The length and area will be displayed at the bottom of the screen. The length is the accumulated length up to the last entered point. The area is the shaded area. To get the total length of the perimeter, you must enter a point back on the starting point. If you make a mistake, tap the **Backspace** button.



3. Multiple measure areas may be entered. To enter a new measure, tap the **New Measure** icon.



4. To cycle through the entered measures, tap the arrow in the lower right corner of the screen. The length and area of the different areas will display.



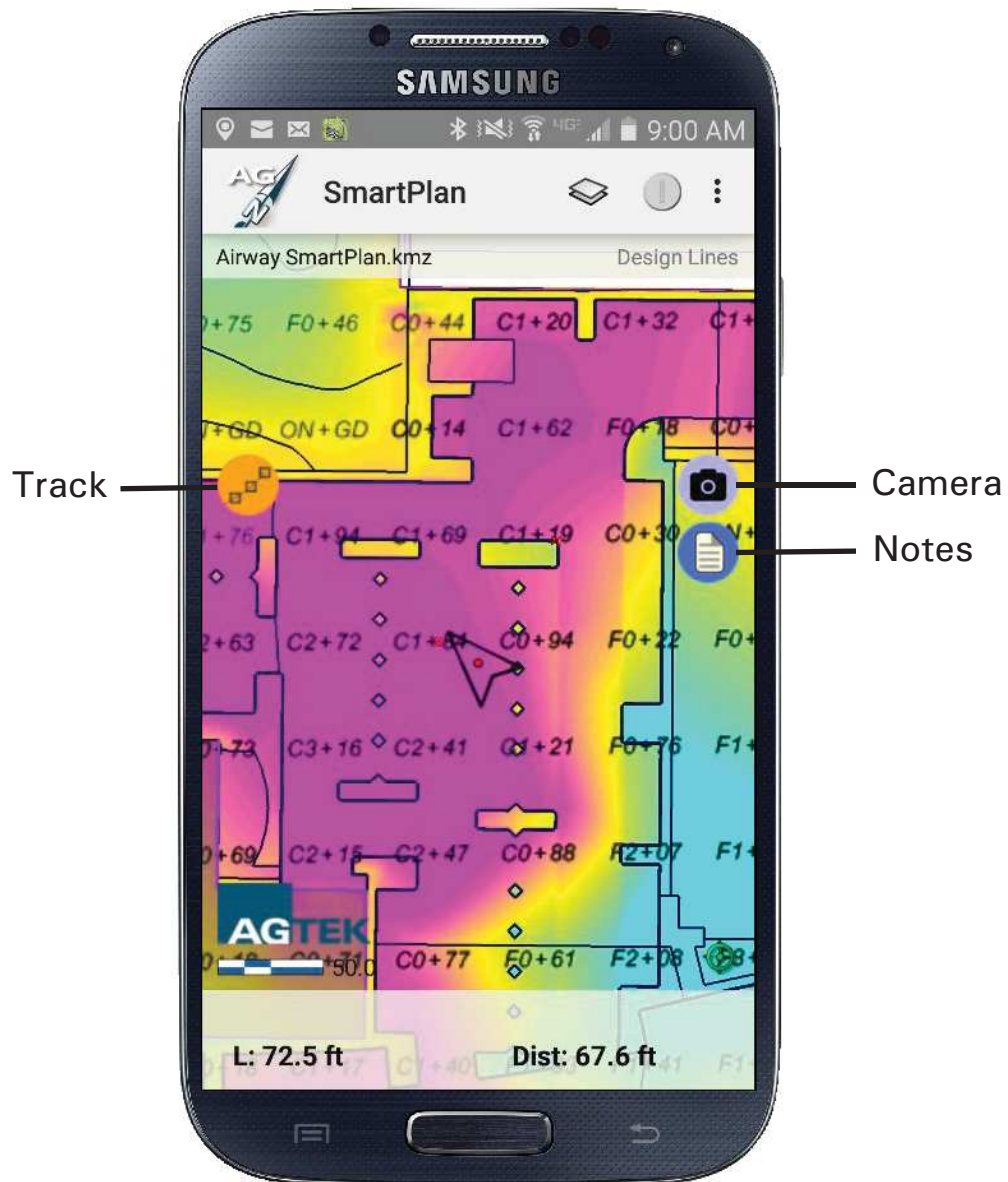
5. To exit Measure Mode, tap the **Menu** and select **Exit Measure**.



## SmartPlan - Photos, Tracks and Notes

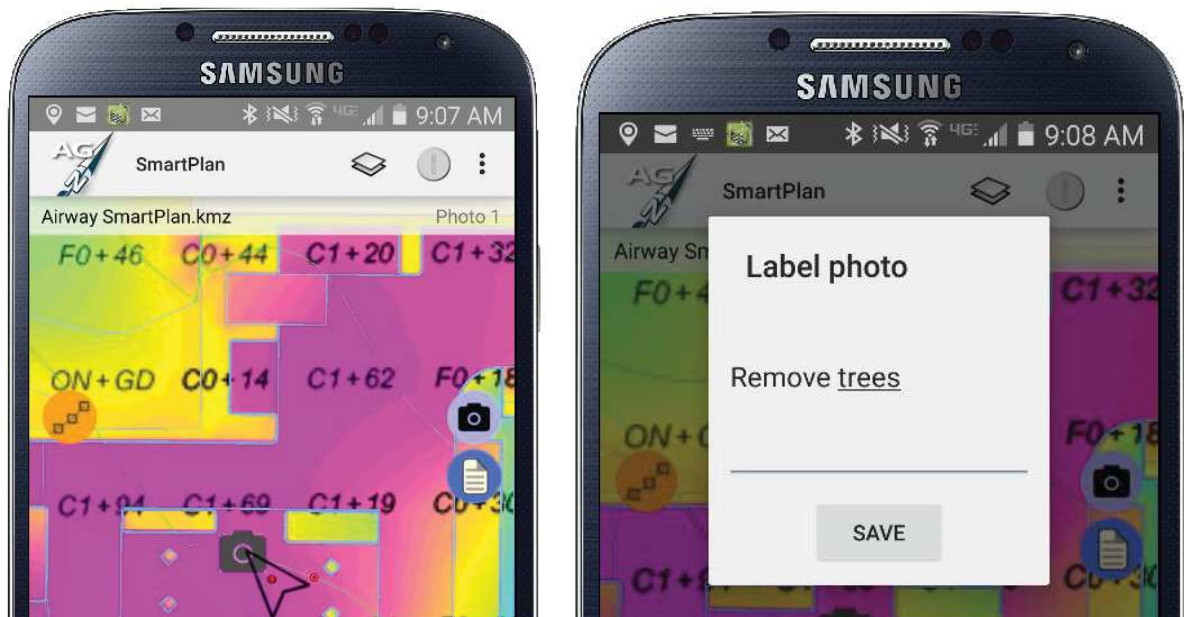
As you walk or drive the site, you may use the camera feature to record geo-referenced time stamped photos to document the site, as well as record your tracks to mark areas of interest, such as obstructions, spoil piles or haul paths. Notes may be added to document the site.

1. To take a photo, click the **Camera** icon on the right side of the screen.

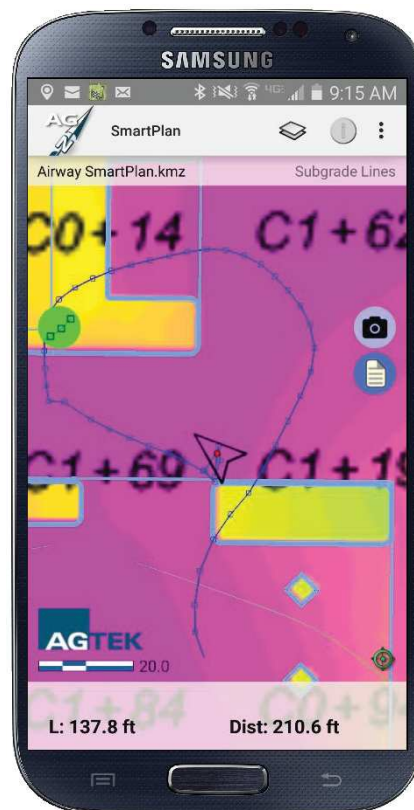


2. Record the desired photo. Camera options will vary from one device to another, so you must become familiar with your specific camera functions.

3. To label the photo, tap and hold on the camera icon located at the position the photo was taken.
4. Enter the label and tap OK.

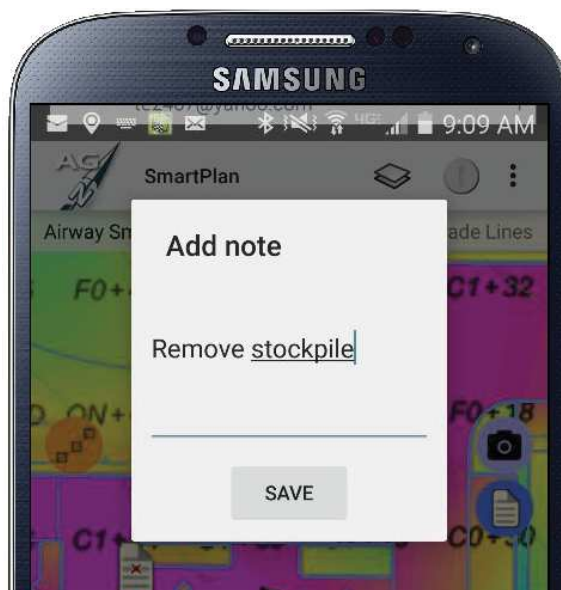


5. To record your path to mark areas of interest or haul paths, tap the **Track** icon on the left side of the screen. The icon will turn green to indicate tracking is on.

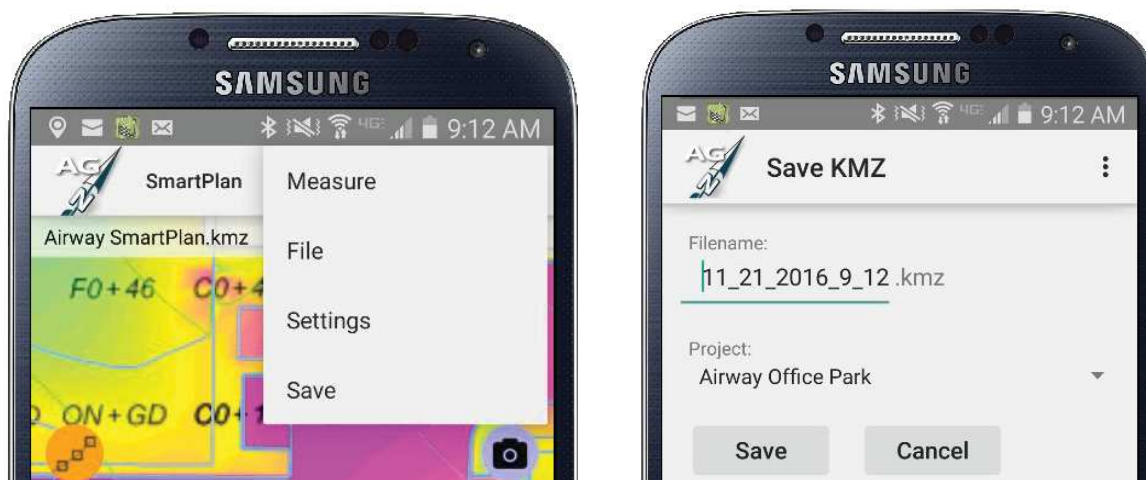


6. Walk around the area as your path is recorded.

7. When the path is complete, tap the **Track** icon to turn off tracking.
8. To label the tracks, tap and hold on the tracks.
9. Enter the label and tap **OK**.
10. To add notes, first tap the screen where you want the note to be placed. Tap the **Notes** icon on the right side of the screen.

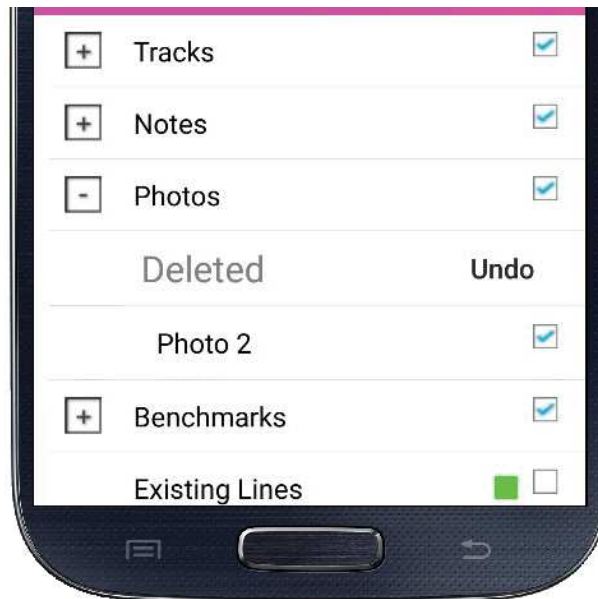


11. Entered the desired information and tap **OK**.
12. All photos, tracks and notes must be saved and uploaded to AGTEK Acces to be downloaded and reviewed back at the office. Tap the **Menu** and tap **Save**.

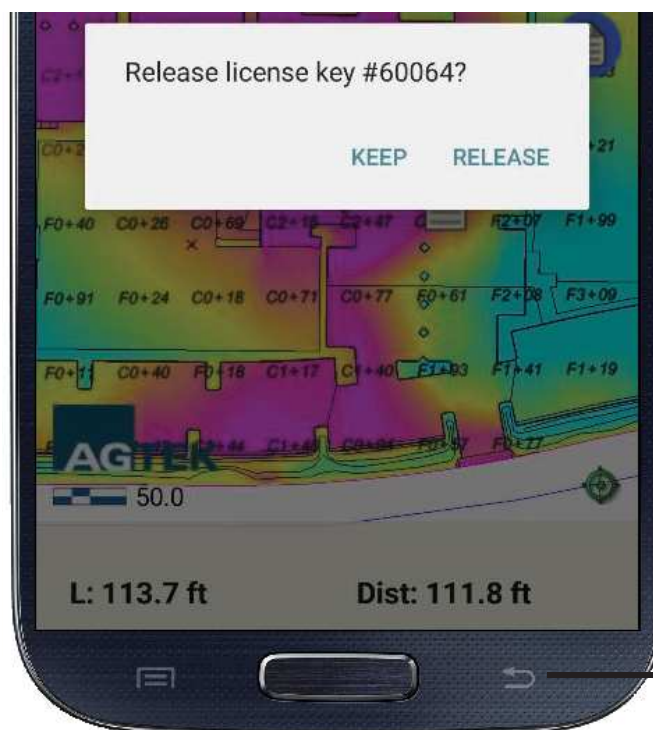


13. The default name will be time stamped with the current date and time. You may enter a name if desired and tap **Save**.

14. User added data, such as photos, tracks, notes or measures may be deleted from the file. Tap the **Layers** icon.



15. Locate the desired item to be deleted and drag the item name to the left and tap **Delete**.
16. To exit SmartPlan, tap the Back button on the phone or tablet.



Back

17. Tap **Release** in the bottom right corner of the screen. You must have an internet connection to release the key.

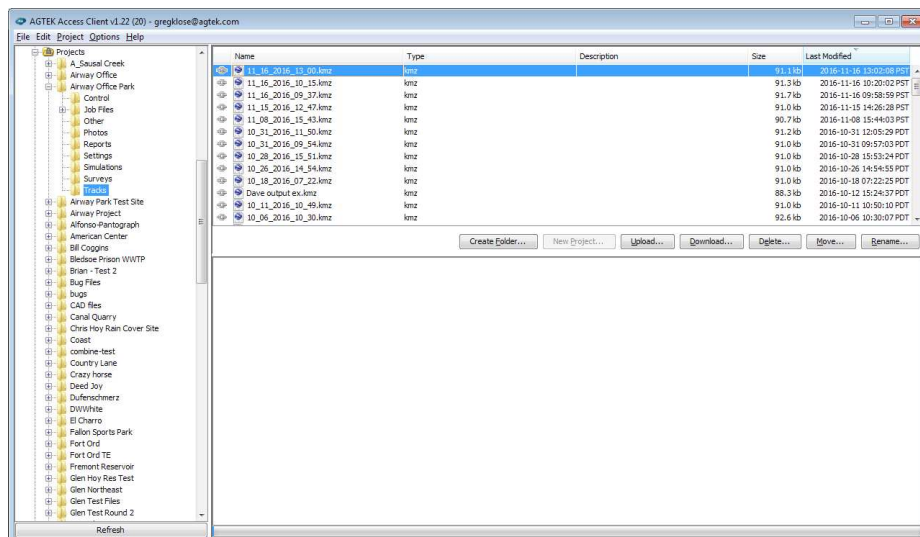
## SmartPlan - Download Photos, Tracks and Notes

If photos, tracks or notes were uploaded during the job site session, they may be downloaded to the office computer using AGTEK Access. AGTEK Access must be installed to use this option.

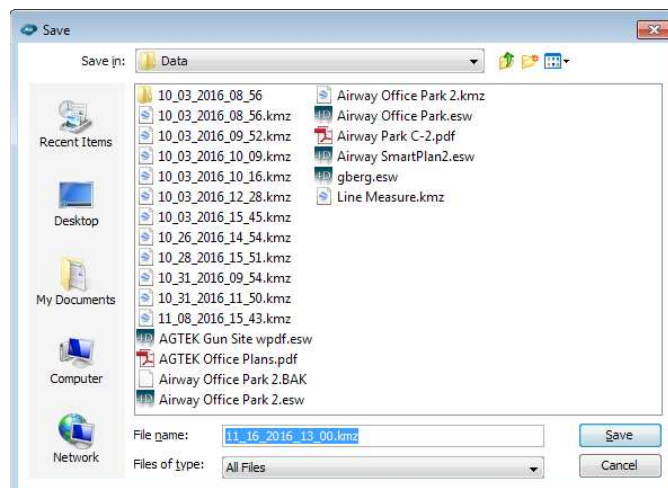
1. Launch AGTEK Access from your office computer.



2. Open the Projects folder and locate the desired project.
3. Open the desired project folder.
4. Open the Tracks folder to locate the KMZ file containing the tracks and photos. The individual photos will also be stored in the Photos folder.



5. Select the desired file and click **Download**.
6. Select the destination folder and click **Save**.





- The KMZ file may be opened in Google Earth to view the recorded photos, tracks, notes and measures.

