

SOFT SITE ANALYSIS TOOL

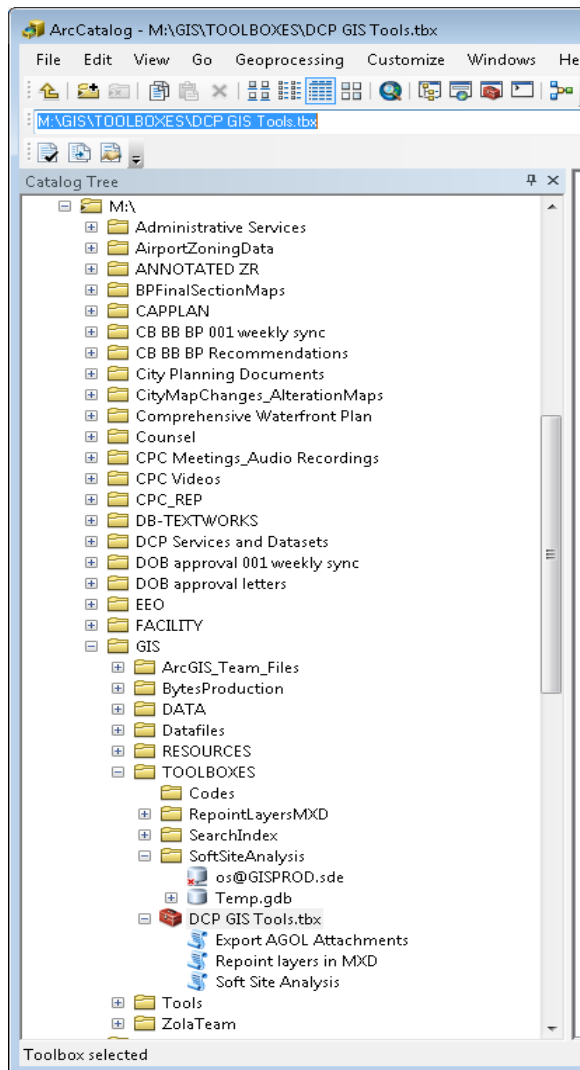
GIS Users Group Workshop

August, 5th 2016

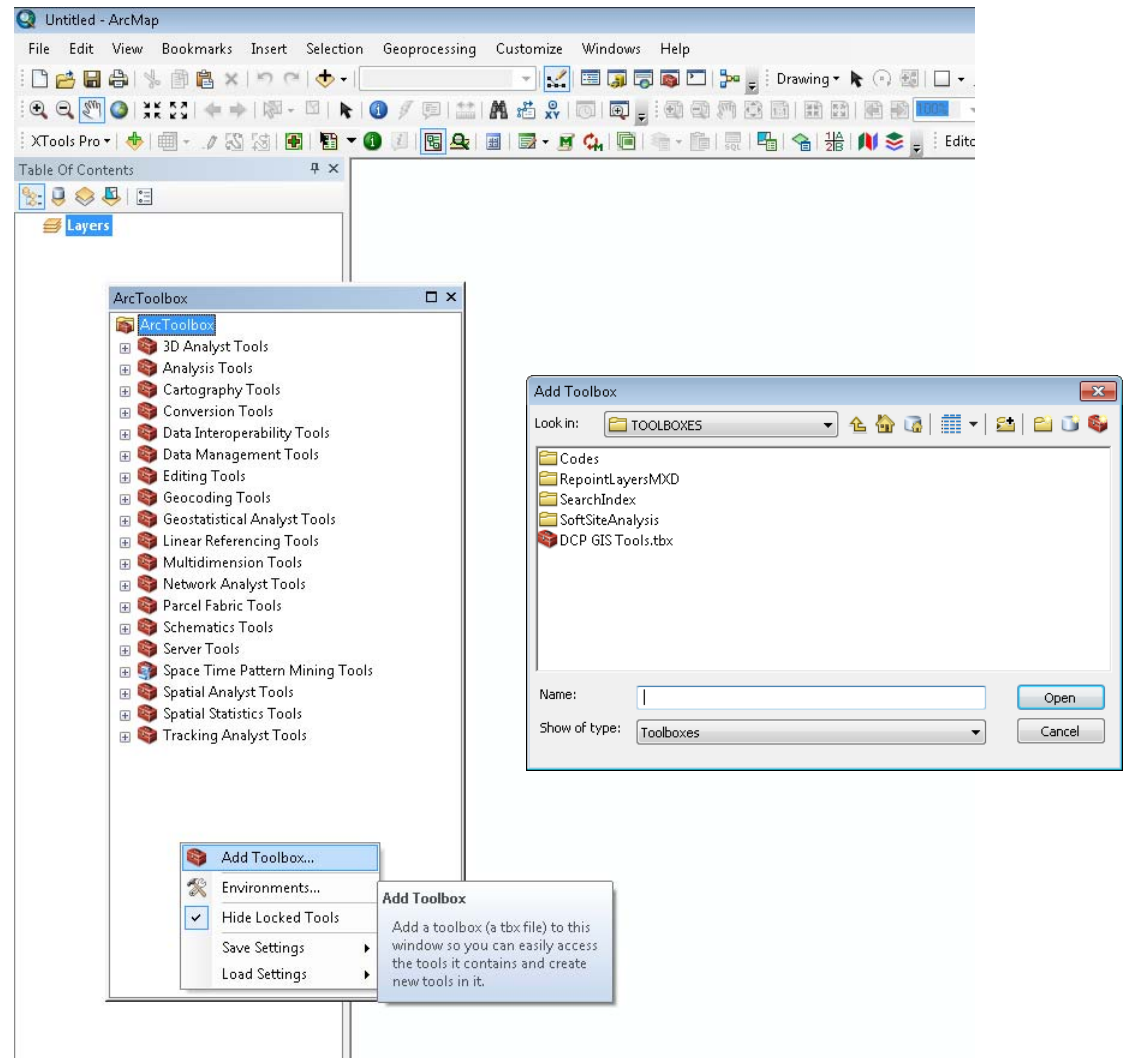


Accessing the Soft Site Analysis Tool

1) ArcCatalog



2) ArcMap



Using the Soft Site Analysis Tool

Soft Site Analysis Tool:

- Streamlines the process to identify potential soft sites in a project area using **MapPLUTO**
- All variables are **optional**
- 3 variables with inclusion parameters
- 5 variables to exclude certain lots
- Option to include Google streetview pictures

The screenshot shows the 'Soft Site Analysis' dialog box. It has a title bar with standard window controls. The main area is divided into two panes. The left pane contains the following options:

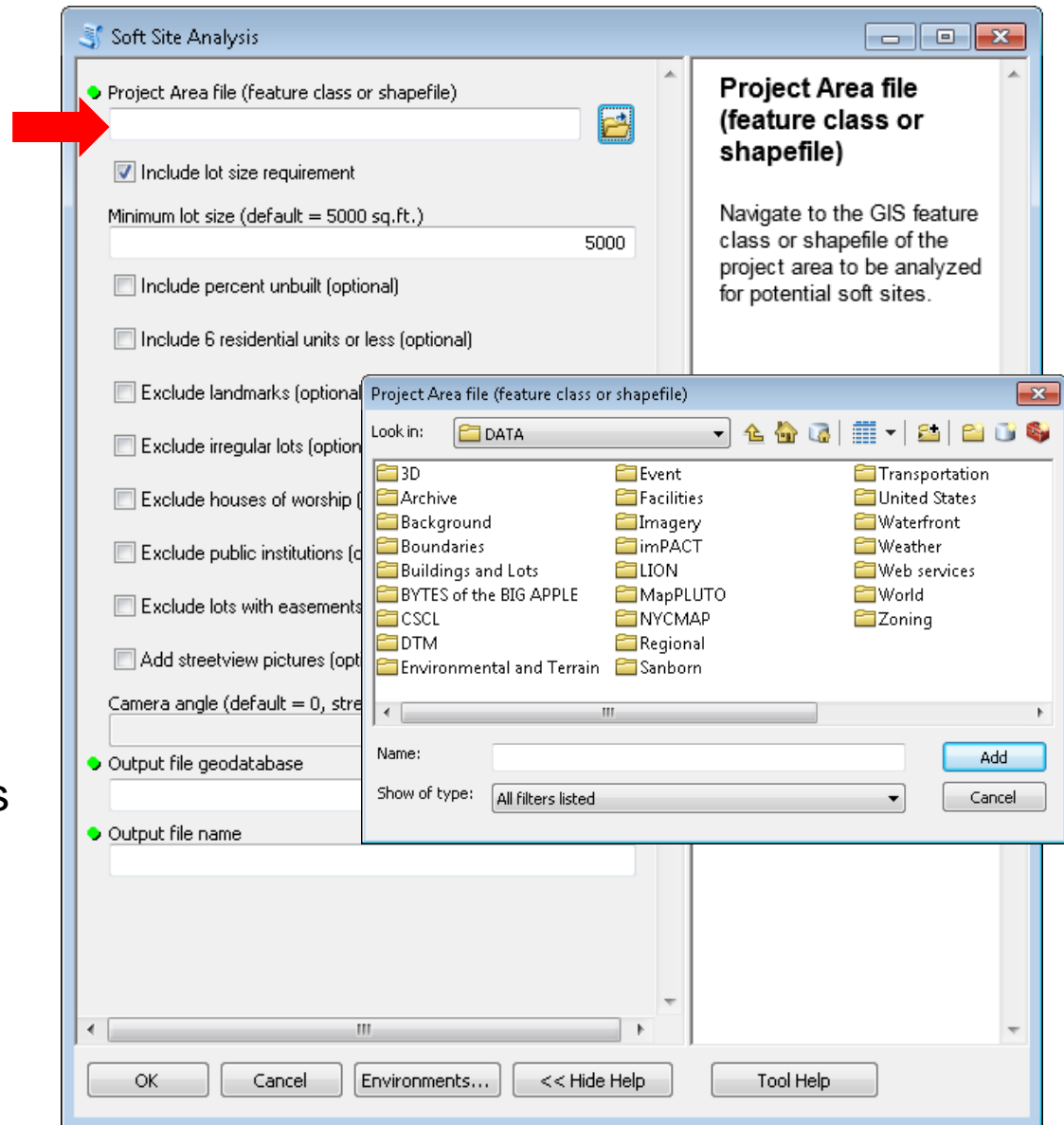
- Project Area file (feature class or shapefile)**: A text field with a folder icon to its right.
- ☒ **Include lot size requirement**: A checked checkbox.
- Minimum lot size (default = 5000 sq.ft.)**: A text field containing the value '5000'.
- ☐ **Include percent unbuilt (optional)**: An unchecked checkbox.
- ☐ **Include 6 residential units or less (optional)**: An unchecked checkbox.
- ☐ **Exclude landmarks (optional)**: An unchecked checkbox.
- ☐ **Exclude irregular lots (optional)**: An unchecked checkbox.
- ☐ **Exclude houses of worship (optional)**: An unchecked checkbox.
- ☐ **Exclude public institutions (optional)**: An unchecked checkbox.
- ☐ **Exclude lots with easements (optional)**: An unchecked checkbox.
- ☐ **Add streetview pictures (optional)**: An unchecked checkbox.
- Camera angle (default = 0, street level) (optional)**: A text field containing the value '0'.
- Output file geodatabase**: A text field with a folder icon to its right.
- Output file name**: A text field.

The right pane is titled 'Soft Site Analysis' and contains the text: 'This tool streamlines the process to identify potential soft sites for development in a project area.' At the bottom of the dialog are five buttons: 'OK', 'Cancel', 'Environments...', '<< Hide Help', and 'Tool Help'.

Using the Soft Site Analysis Tool

Project Area:

- Import your **Project Area** feature class or shapefile to be analyzed for potential soft sites
- **User:** Navigates to the their personal project folder where project area is saved
- **Function:** The file you import will be used to clip the current version of MapPLUTO
- **Result:** Only lots within project area will be included in analysis
- **Examples:** Polygon of study or project area, extract of MapPLUTO lots, etc. (Must be a polygon file and greater than or equal to lot size dimensions)



Using the Soft Site Analysis Tool

Minimum Lot Size:

- **User:**
 1. Selects check box to include a minimum lot size requirement (*default = checked*)
 2. Sets the minimum lot size in square feet (*default = 5,000 sf*)
- **Function:** Selects lots that are greater than or equal to the size specified
- **Result:** Lots that are greater than or equal to the size specified will be included as a **soft site**

Soft Site Analysis

Project Area file (feature class or shapefile)

☒ Include lot size requirement

Minimum lot size (default = 5000 sq.ft.) 5000

☐ Include percent unbuilt (optional)

☐ Include 6 residential units or less (optional)

☐ Exclude landmarks (optional)

☐ Exclude irregular lots (optional)

☐ Exclude houses of worship (optional)

☐ Exclude public institutions (optional)

☐ Exclude lots with easements (optional)

☐ Add streetview pictures (optional)

Camera angle (default = 0, street level) (optional) 0

Output file geodatabase

Output file name

Include lot size requirement

Select check box to include a minimum lot size requirement. Lots that are greater than or equal to the minimum lot size specified will be included as a soft site.

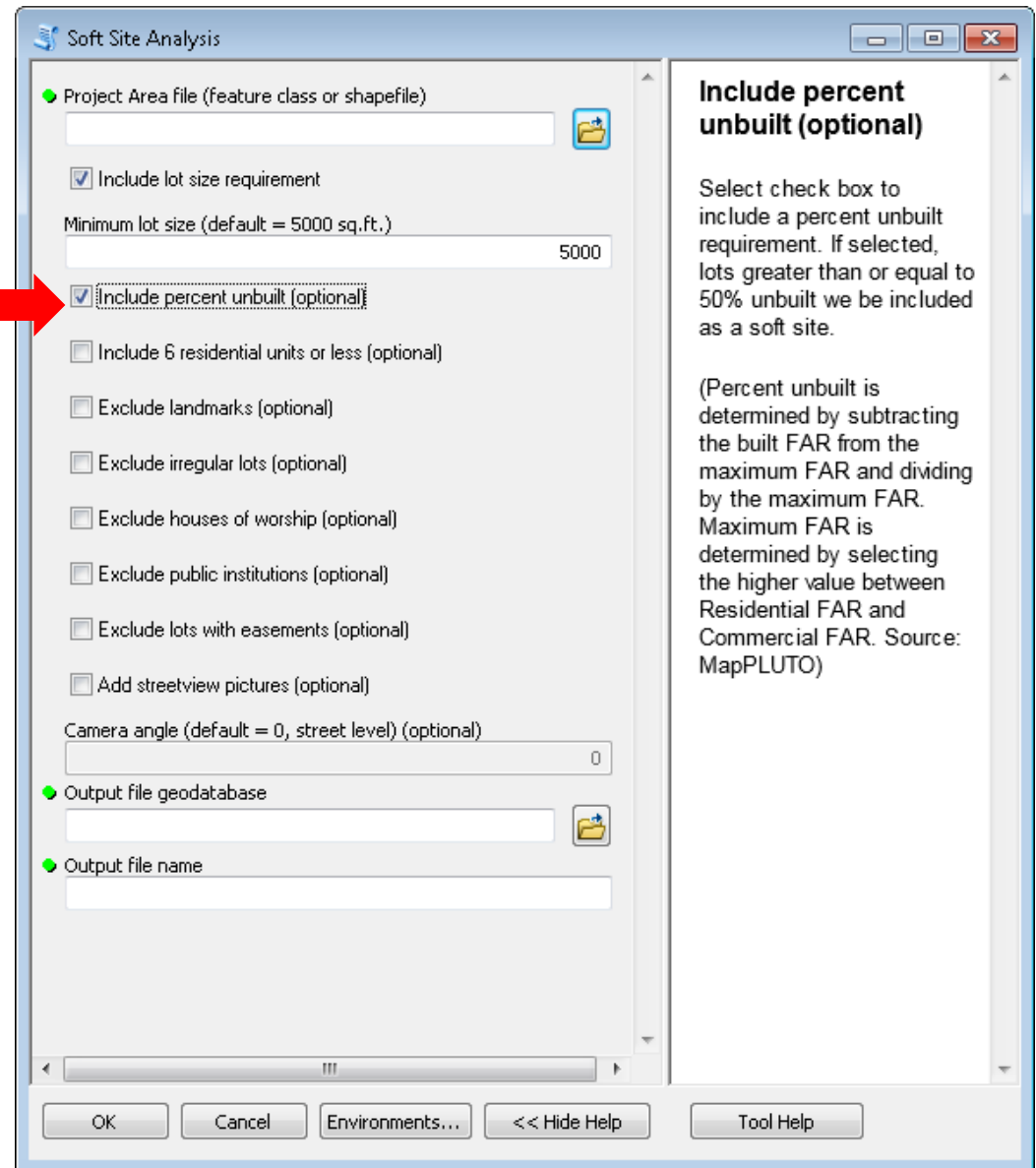
(Default = selected, you can uncheck the check box to remove the minimum lot size requirement. Source: MapPLUTO)

OK Cancel Environments... << Hide Help Tool Help

Using the Soft Site Analysis Tool

Percent Unbuilt:

- **User:** Selects check box to include a percent unbuilt requirement
- **Function:**
 1. Max FAR is determined by selecting higher FAR of R or C
 2. The built FAR is subtracted from the Max FAR
 3. The difference is divided by Max FAR
- **Result:** Lots that are greater than or equal to 50% unbuilt will be included as a **soft site** (Max FAR and % built are added as columns in the final output)



Soft Site Analysis

Project Area file (feature class or shapefile)

☒ Include lot size requirement

Minimum lot size (default = 5000 sq.ft.) 5000

☒ Include percent unbuilt (optional)

☐ Include 6 residential units or less (optional)

☐ Exclude landmarks (optional)

☐ Exclude irregular lots (optional)

☐ Exclude houses of worship (optional)

☐ Exclude public institutions (optional)

☐ Exclude lots with easements (optional)

☐ Add streetview pictures (optional)

Camera angle (default = 0, street level) (optional) 0

Output file geodatabase

Output file name

Include percent unbuilt (optional)

Select check box to include a percent unbuilt requirement. If selected, lots greater than or equal to 50% unbuilt will be included as a soft site.

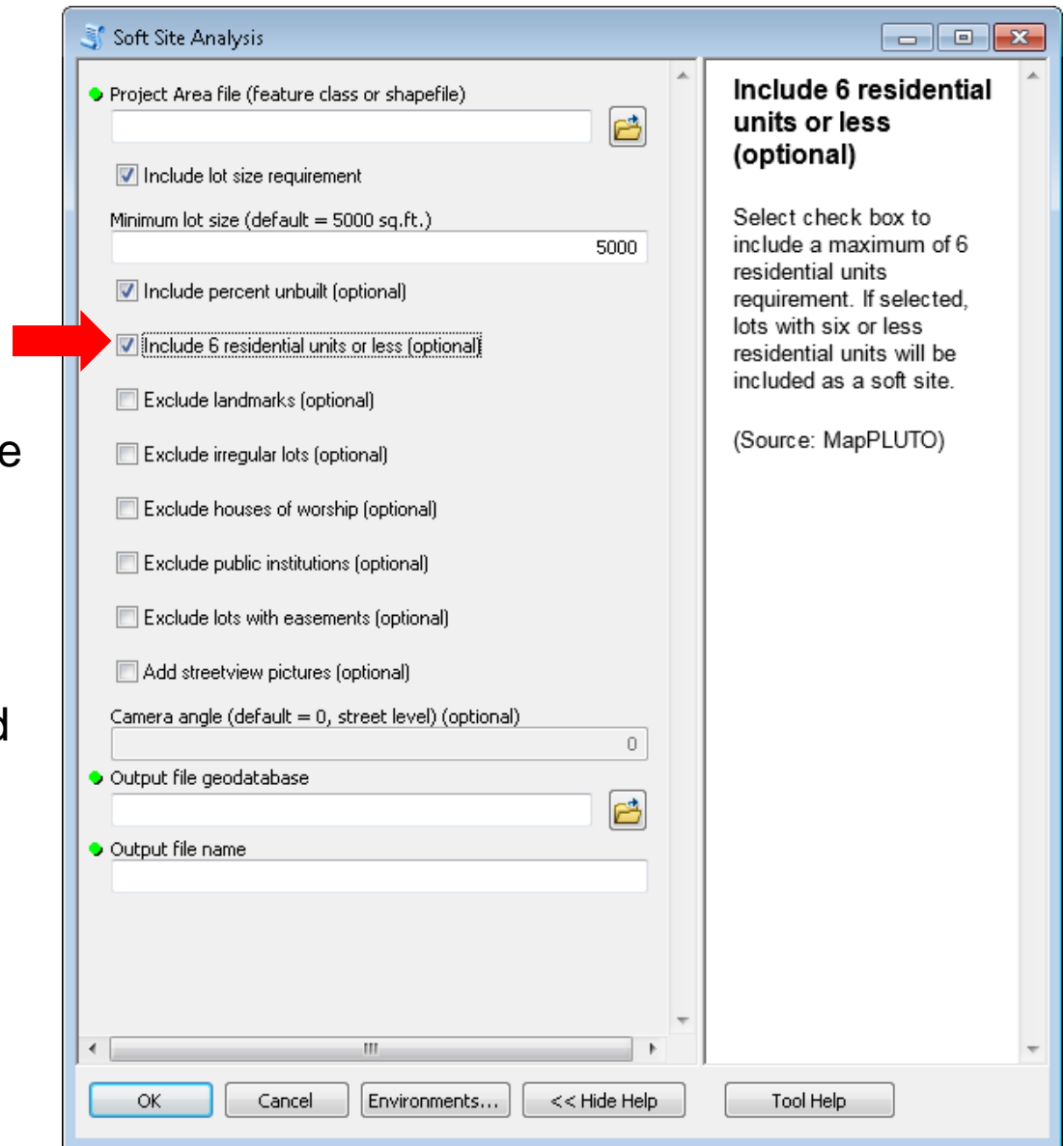
(Percent unbuilt is determined by subtracting the built FAR from the maximum FAR and dividing by the maximum FAR. Maximum FAR is determined by selecting the higher value between Residential FAR and Commercial FAR. Source: MapPLUTO)

OK Cancel Environments... << Hide Help Tool Help

Using the Soft Site Analysis Tool

6 or Less Residential Units :

- **User:** Selects check box to include a requirement of 6 or less residential units
- **Function:** Selects lots that have 6 or less residential units
- **Results:** Lots with 6 or less residential units will be included as a **soft site**



Soft Site Analysis

Project Area file (feature class or shapefile)

☒ Include lot size requirement

Minimum lot size (default = 5000 sq.ft.) 5000

☒ Include percent unbuilt (optional)

☒ Include 6 residential units or less (optional)

☐ Exclude landmarks (optional)

☐ Exclude irregular lots (optional)

☐ Exclude houses of worship (optional)

☐ Exclude public institutions (optional)

☐ Exclude lots with easements (optional)

☐ Add streetview pictures (optional)

Camera angle (default = 0, street level) (optional) 0

Output file geodatabase

Output file name

Include 6 residential units or less (optional)

Select check box to include a maximum of 6 residential units requirement. If selected, lots with six or less residential units will be included as a soft site.

(Source: MapPLUTO)

OK Cancel Environments... << Hide Help Tool Help

Using the Soft Site Analysis Tool

Exclude Landmarks:

- **User:** Selects check box to exclude lots with landmark designations
- **Function:** Selects lots with landmark designations
- **Results:** Lots with landmark designations will NOT be included as a **soft site**

Soft Site Analysis

Project Area file (feature class or shapefile)

☒ Include lot size requirement

Minimum lot size (default = 5000 sq.ft.) 5000

☒ Include percent unbuilt (optional)

☒ Include 6 residential units or less (optional)

☒ **Exclude landmarks (optional)**

☐ Exclude irregular lots (optional)

☐ Exclude houses of worship (optional)

☐ Exclude public institutions (optional)

☐ Exclude lots with easements (optional)

☐ Add streetview pictures (optional)

Camera angle (default = 0, street level) (optional) 0

Output file geodatabase

Output file name

Exclude landmarks (optional)

Select check box to exclude lots that contain landmarks.

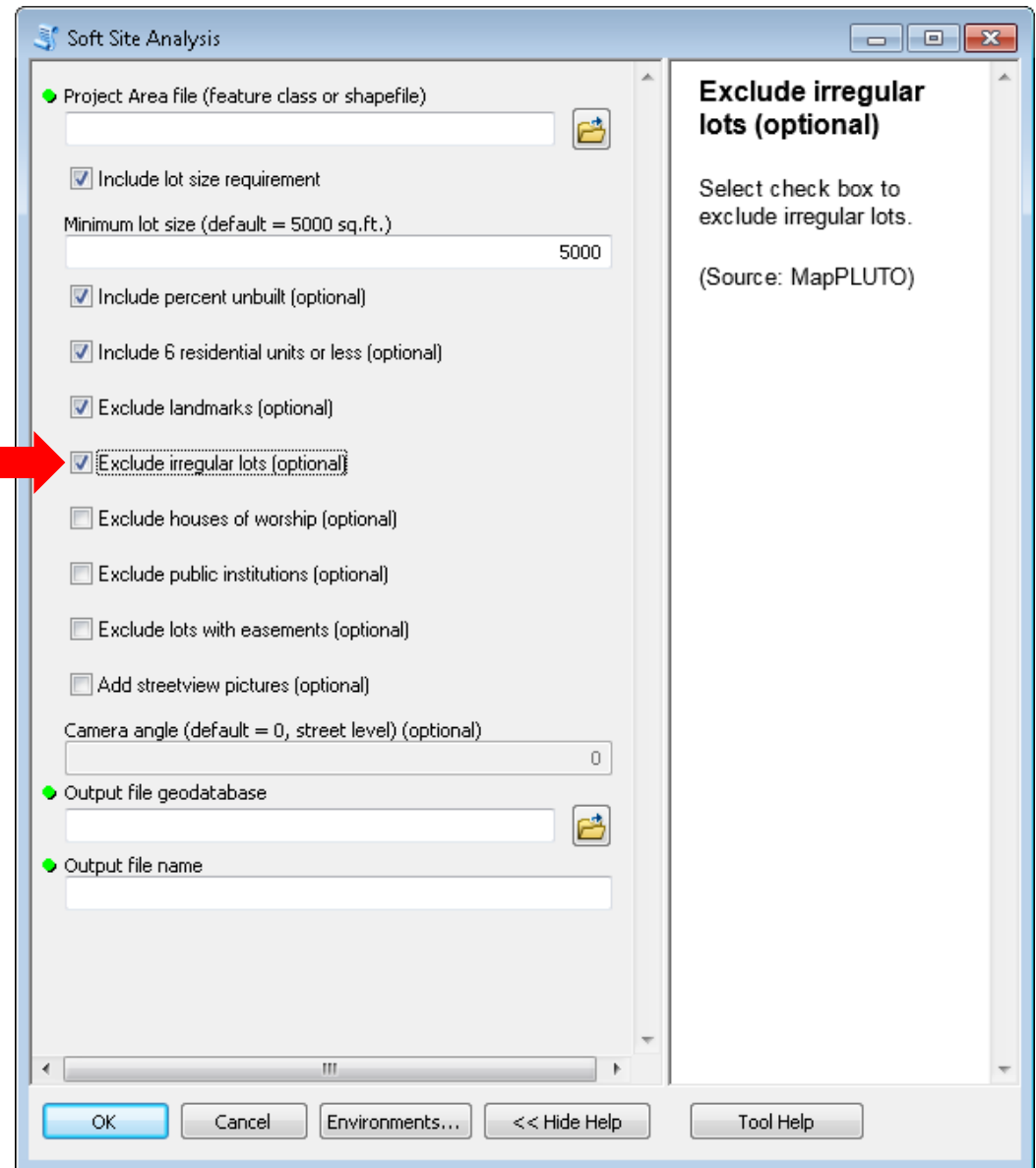
(Source: MapPLUTO)

OK Cancel Environments... << Hide Help Tool Help

Using the Soft Site Analysis Tool

Exclude Irregular Lots:

- **User:** Selects check box to exclude irregular lots
- **Function:** Selects irregular lots
- **Results:** Irregular lots will NOT be included as a **soft site**



Soft Site Analysis

Project Area file (feature class or shapefile)

☒ Include lot size requirement

Minimum lot size (default = 5000 sq.ft.) 5000

☒ Include percent unbuilt (optional)

☒ Include 6 residential units or less (optional)

☒ Exclude landmarks (optional)

☒ **Exclude irregular lots (optional)**

☐ Exclude houses of worship (optional)

☐ Exclude public institutions (optional)

☐ Exclude lots with easements (optional)

☐ Add streetview pictures (optional)

Camera angle (default = 0, street level) (optional) 0

Output file geodatabase

Output file name

Exclude irregular lots (optional)

Select check box to exclude irregular lots.

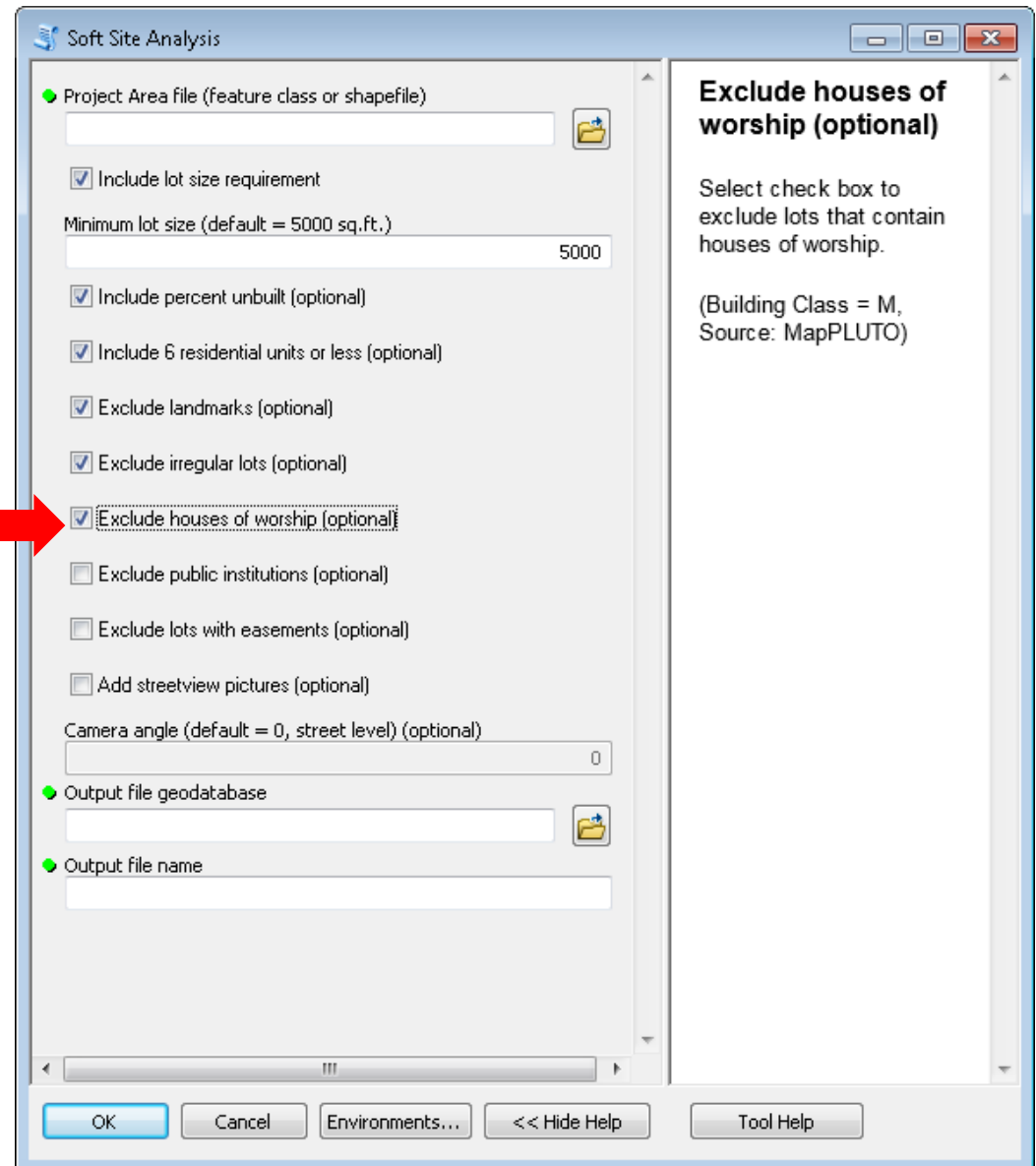
(Source: MapPLUTO)

OK Cancel Environments... << Hide Help Tool Help

Using the Soft Site Analysis Tool

Exclude Houses of Worship:

- **User:** Selects check box to exclude lots with houses of worship
- **Function:** Selects lots with building class field = M (houses of worship)
- **Results:** Lots with houses of worship will NOT be included as a **soft site**



Soft Site Analysis

Project Area file (feature class or shapefile)

☒ Include lot size requirement

Minimum lot size (default = 5000 sq.ft.) 5000

☒ Include percent unbuilt (optional)

☒ Include 6 residential units or less (optional)

☒ Exclude landmarks (optional)

☒ Exclude irregular lots (optional)

☒ **Exclude houses of worship (optional)**

☐ Exclude public institutions (optional)

☐ Exclude lots with easements (optional)

☐ Add streetview pictures (optional)

Camera angle (default = 0, street level) (optional) 0

☒ Output file geodatabase

☒ Output file name

Exclude houses of worship (optional)

Select check box to exclude lots that contain houses of worship.

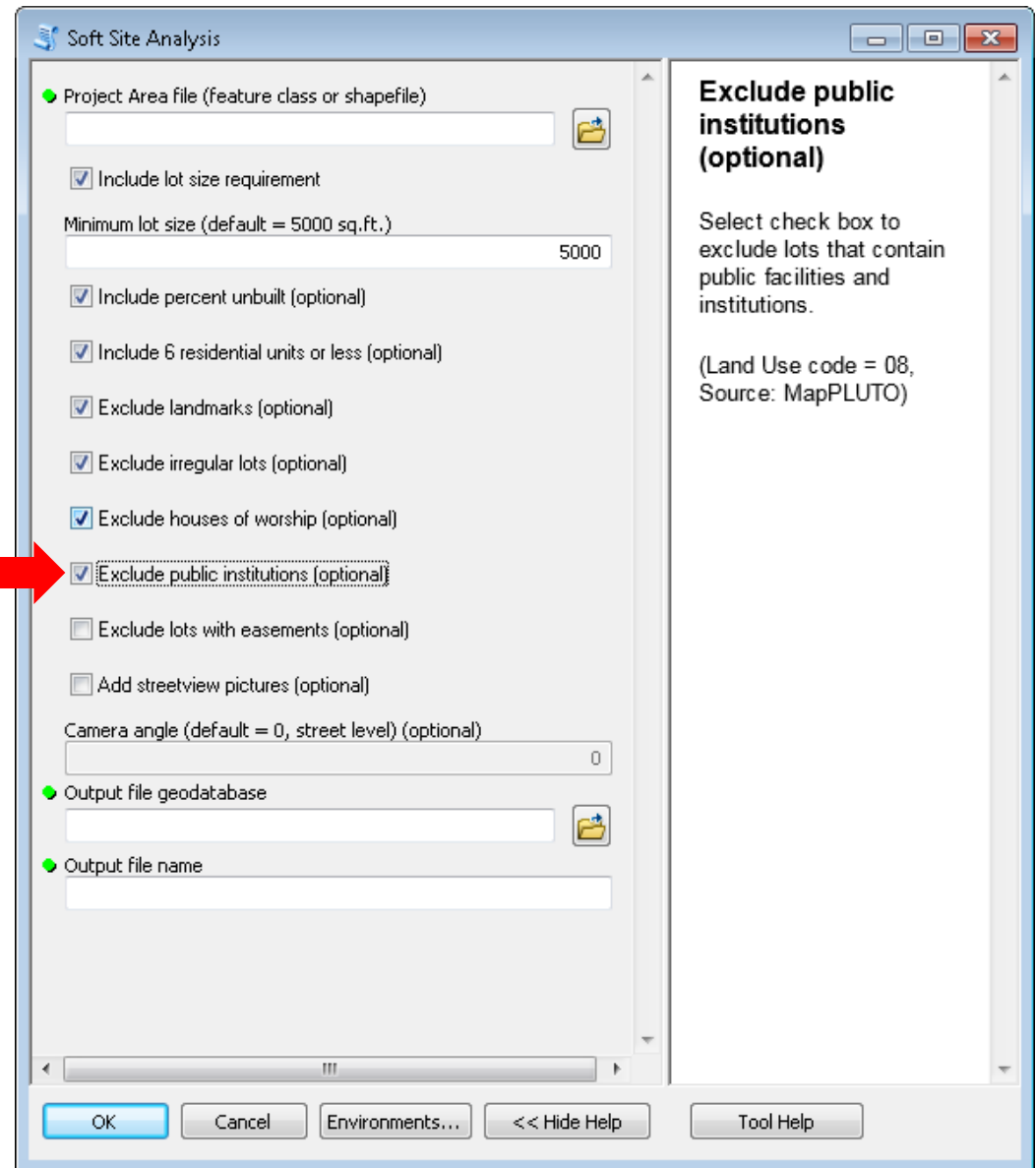
(Building Class = M, Source: MapPLUTO)

OK Cancel Environments... << Hide Help Tool Help

Using the Soft Site Analysis Tool

Exclude Public Institutions:

- **User:** Selects check box to exclude lots with public institutions
- **Function:** Selects lots with land use code = 08 (Public Facilities & Institutions)
- **Results:** Lots with public institutions will NOT be included as a **soft site**



Soft Site Analysis

Project Area file (feature class or shapefile)

☒ Include lot size requirement

Minimum lot size (default = 5000 sq.ft.) 5000

☒ Include percent unbuilt (optional)

☒ Include 6 residential units or less (optional)

☒ Exclude landmarks (optional)

☒ Exclude irregular lots (optional)

☒ Exclude houses of worship (optional)

☒ **Exclude public institutions (optional)**

☐ Exclude lots with easements (optional)

☐ Add streetview pictures (optional)

Camera angle (default = 0, street level) (optional) 0

☒ Output file geodatabase

☒ Output file name

Exclude public institutions (optional)

Select check box to exclude lots that contain public facilities and institutions.

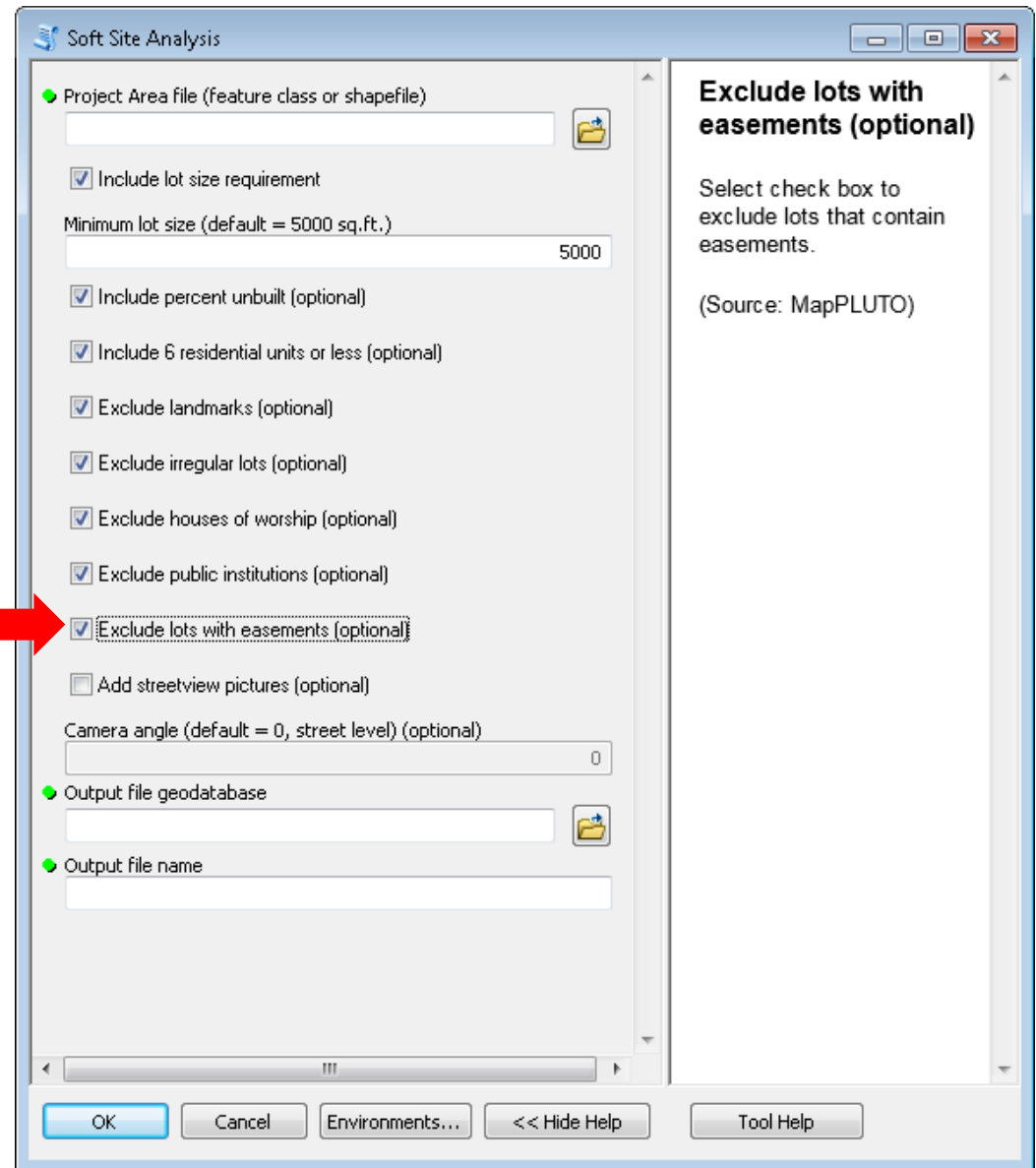
(Land Use code = 08, Source: MapPLUTO)

OK Cancel Environments... << Hide Help Tool Help

Using the Soft Site Analysis Tool

Exclude Easements:

- **User:** Selects check box to exclude lots with easements
- **Function:** Selects lots with easements
- **Results:** Lots with easements will NOT be included as a **soft site**



Soft Site Analysis

Project Area file (feature class or shapefile)

☒ Include lot size requirement

Minimum lot size (default = 5000 sq.ft.) 5000

☒ Include percent unbuilt (optional)

☒ Include 6 residential units or less (optional)

☒ Exclude landmarks (optional)

☒ Exclude irregular lots (optional)

☒ Exclude houses of worship (optional)

☒ Exclude public institutions (optional)

☒ **Exclude lots with easements (optional)**

☐ Add streetview pictures (optional)

Camera angle (default = 0, street level) (optional) 0

Output file geodatabase

Output file name

Exclude lots with easements (optional)

Select check box to exclude lots that contain easements.

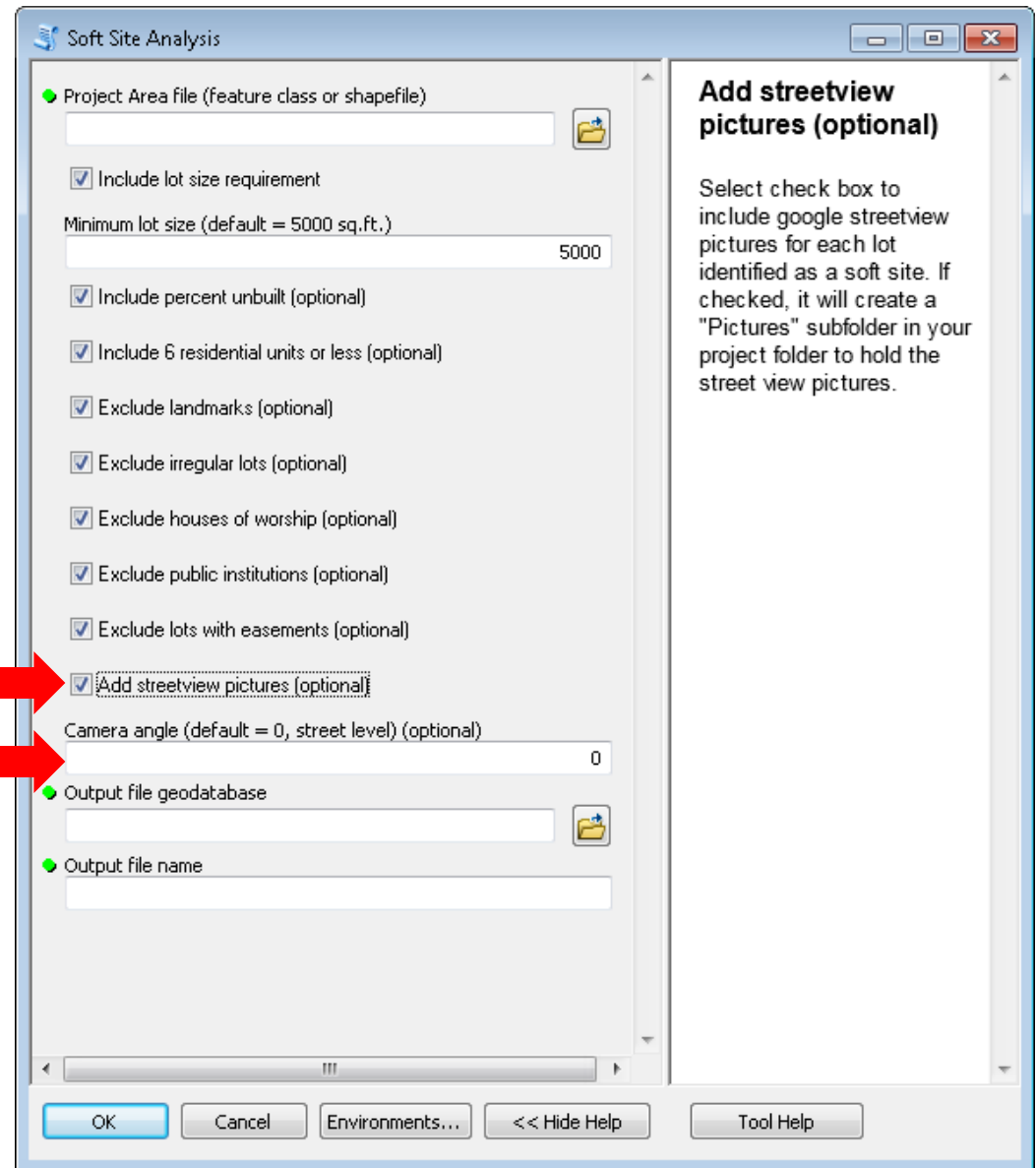
(Source: MapPLUTO)

OK Cancel Environments... << Hide Help Tool Help

Using the Soft Site Analysis Tool

Add Streetview Pictures:

- **User:**
 1. Selects check box to add streetview pictures
 2. Sets the camera angle between -90 and 90 degrees (*default = 0, street level*)
- **Function:** Uses address and zip code to look up google streetview pic for every **soft site**.
- **Results:** Creates a folder called 'Pictures' in your project folder and saves a .jpg for each soft site. Also adds a new column in output table with path to photo.



Soft Site Analysis

Project Area file (feature class or shapefile)

☒ Include lot size requirement

Minimum lot size (default = 5000 sq.ft.) 5000

☒ Include percent unbuilt (optional)

☒ Include 6 residential units or less (optional)

☒ Exclude landmarks (optional)

☒ Exclude irregular lots (optional)

☒ Exclude houses of worship (optional)

☒ Exclude public institutions (optional)

☒ Exclude lots with easements (optional)

☒ Add streetview pictures (optional)

Camera angle (default = 0, street level) (optional) 0

☒ Output file geodatabase

☒ Output file name

Add streetview pictures (optional)

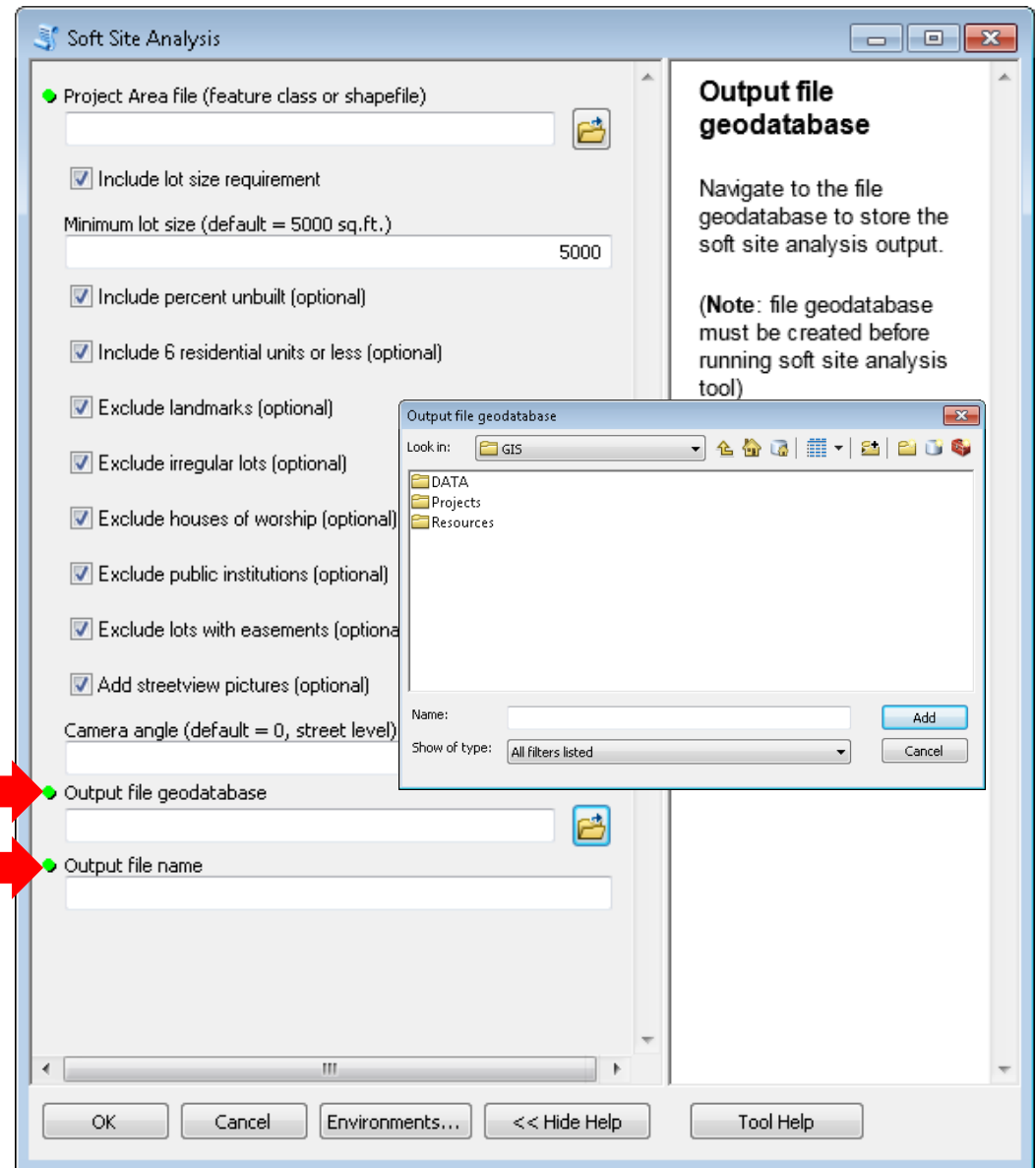
Select check box to include google streetview pictures for each lot identified as a soft site. If checked, it will create a "Pictures" subfolder in your project folder to hold the street view pictures.

OK Cancel Environments... << Hide Help Tool Help

Using the Soft Site Analysis Tool

Output File Geodatabase:

- **User:**
 1. Navigates to a saved file geodatabase to store the soft site output feature class *(need to create .gdb before running tool)*
 2. Names the feature class *(no spaces, no special characters)*
- **Function/Result:** saves the output to as a feature class in a file geodatabase





- **Live Demo of Soft Site Analysis Tool**