



**SOUTH CAROLINA
AERONAUTICS**



AIRPORT COMPATIBLE LAND USE EVALUATION (CLUE) TOOL USER GUIDE

For Trial Area

South Carolina Aeronautics Commission (SCAC) | Version 3

Table of Contents

Introduction ii

 History of Land Use Compatibility ii

 Provisions of Title 55 ii

 What does it mean for SCAC? iv

 What does it mean for the Local Community? iv

 Airport Compatible Land Use Evaluation (CLUE) Tool..... iv

 What are the Airport Safety and Land Use Zones? iv

 What is being evaluated in the Airport Safety and Land Use Zones? vi

 How the CLUE Tool Works..... vi

 Summary..... vi

CLUE Tool User Guide for Trial Area ii

 Step 1. Identify future development opportunity ii

 Step 2. Determine if Airport Safety and Land Use Zones apply 1

 Step 3. After the Property is Located 1

 Step 3a. Property outside the Airport Safety and Land Use Zones 5

 Step 3b. Property within the Airport Safety and Land Use Zones..... 5

 Step 4. Questionnaire Summary..... 1

CLUE Tool Glossary 1

Table of Figures

Figure 1 – Revised Title 55 of the South Carolina Code	iii
Figure 2 – Airport Land Use Evaluation.....	v
Figure 3 – CLUE Tool Process	ii
Figure 4 – CLUE Tool Welcome Screen	1
Figure 5 - User Agreement Screen	2
Figure 6 - Home Screen.....	3
Figure 7- Using the Suitability Tool	4
Figure 8 – Taking Measurements – Measure Lengths	5
Figure 9 – Taking Measurements – Measure Areas.....	6
Figure 10 – Coordinates	7
Figure 11 – Selecting the Map Layers	8
Figure 12 – Switching the Base Map.....	9
Figure 13 – Using the Address Tab to Locate Proposed Development Location	10
Figure 14 – Using the Coordinates Tab to Locate Proposed Development Location	11
Figure 15 – Working with Coordinates	12
Figure 16 – Input Coordinate	13
Figure 17 – Input Coordinate – Click on the map	14
Figure 18 – Coordinates Widget – Format Settings	15
Figure 19 – Coordinates Widget – Add or Remove Coordinate Conversion.....	16
Figure 20 – Using the Airport Tab to Locate Propose Development Location	17
Figure 21 – Downloading Airport-Specific Data.....	18
Figure 22 – Using the Draw a Point Feature	19
Figure 23 – Using Enter a Polygon Feature	20
Figure 24 – Using the Draw a Polygon Feature.....	21
Figure 25 – Analyzing the Development Location	1
Figure 26 – Checking Applicability of FAA Height Regulations	2
Figure 27 – Analyzing Location	3
Figure 28 – Initial Height Analysis Score	4
Figure 29 – Development outside Airport Safety and Land Use Zones do not Require Review.....	5

Figure 30 – Answering the Questionnaire 5

Figure 31 – Completing the Questionnaire..... 6

Figure 32 – Questionnaire Summary 1

INTRODUCTION

History of Land Use Compatibility

Aviation is a widely used form of transportation and comprises an industry that is responsible for over one trillion dollars in economic activity in the United States each year. Unfortunately, as this industry continues to grow, incompatible land uses are encroaching upon our nation's airports, threatening the safety of people in the air and on the ground.

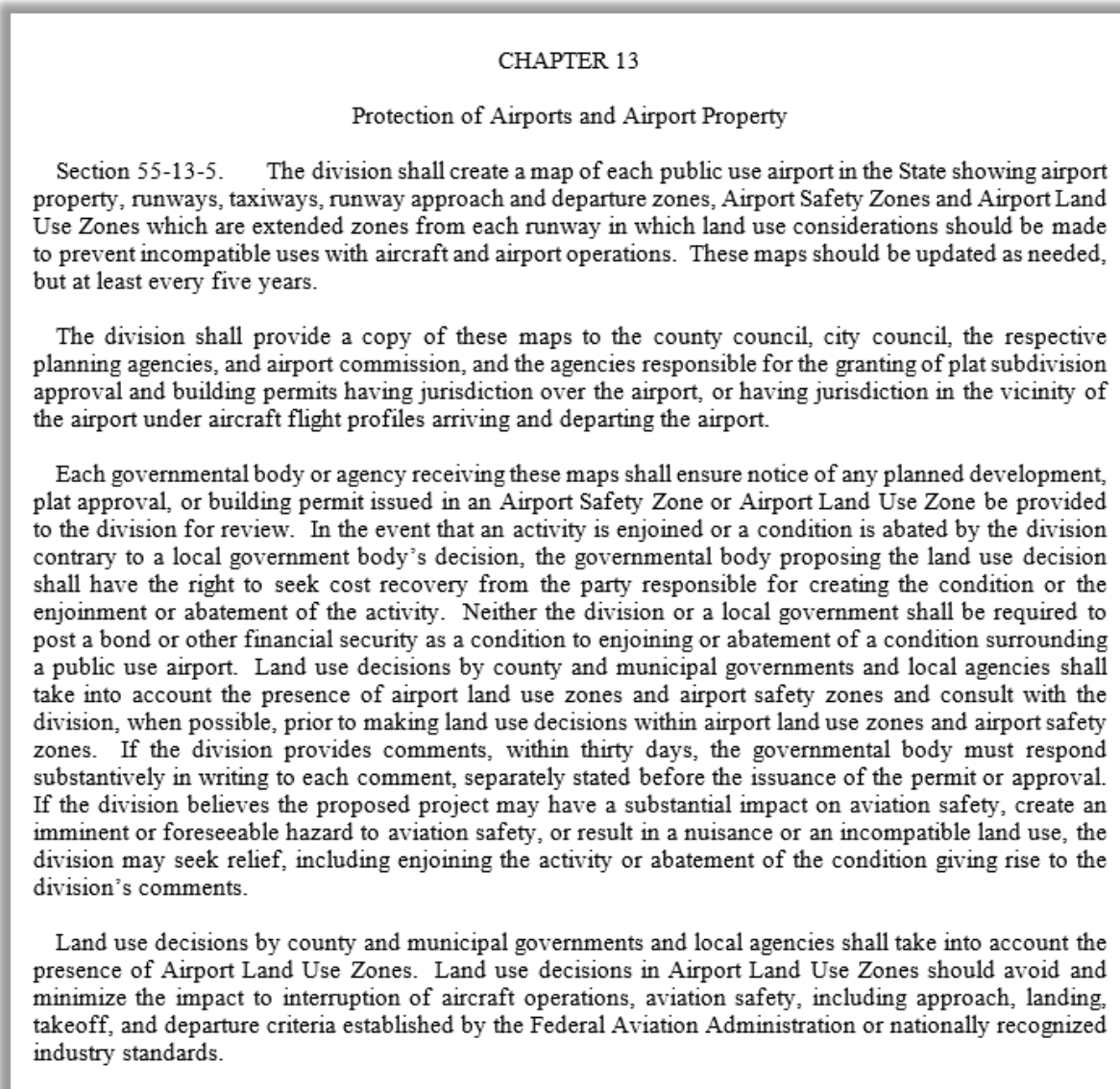
Historically, most airports were built in farm fields and other places well away from the nearest towns. As towns grew, they got closer to airports, and conflicts over noise, safety, and airspace protection arose. Often the result was closure of the airport and perhaps construction of its replacement farther from town. This option was workable when airports consisted of little more than dirt strips. Replacement is much less feasible today when airports represent investments of millions or even billions of dollars. Furthermore, as urban areas have expanded and the demand for buildable property has continued to escalate, sites on which new airports can be built have become increasingly difficult to find. Then, when a new site is found, communities tend to expand outward toward the airport and the whole cycle begins again. These conflicts play out across the nation daily - within large urban areas as well as the smaller rural towns - as communities and airports struggle to find a balance between airport operations and compatible land use.

This incompatibility between airports and land uses that surround them is not a new phenomenon. A landmark study completed in 1952—the Doolittle Report—addressed many of the same issues that remain today. A point emphasized in that report was that airports and metropolitan areas should be jointly planned so that they each develop to serve the other. This concept has frequently been neglected, and incompatible land uses have flourished in proximity to many of the nation's airports. More than ever, it is now imperative that a cooperative approach to airport land use compatibility planning be embraced—the preservation of airports from the encroachment of incompatible land uses must be a priority for the nation, as well as individual states, local governments, host communities, and airports themselves.

Provisions of Title 55

South Carolina has taken a proactive approach in planning for compatible uses near the State's airports. On July 1, 2012, revisions to Title 55 of the South Carolina Code were enacted that require the South Carolina Aeronautics Commission (SCAC) to develop and provide maps of airport-specific Safety Zones and Land Use Zones to local jurisdictions owning or located near publicly owned airports and require jurisdictions to notify SCAC of certain land use changes in these zones. The intent of these requirements is to enhance the level of land use compatibility near all public-use airports in the state.

The specific excerpt from the revised code is included in Figure 1.

Figure 1 – Revised Title 55 of the South Carolina Code

Source: Title 55 of the South Carolina Code

What does it mean for SCAC?

In order to comply with the airport land use notification, evaluation, and comment process outlined in Title 55, the SCAC began development of an interactive web-based tool that would meet the requirements of Title 55 and streamline the notification and evaluation process that is established by the revised code.

What does it mean for the Local Community?

Local communities must notify SCAC of developments proposed within their municipality if it is located within any of the Airport Safety or Land Use Zones established in Title 55. The municipal planning entity for the community (such as a city or county planner) is responsible for coordinating with SCAC. This person or group of people is herein referred to as the Local Permitting Official (LPO).

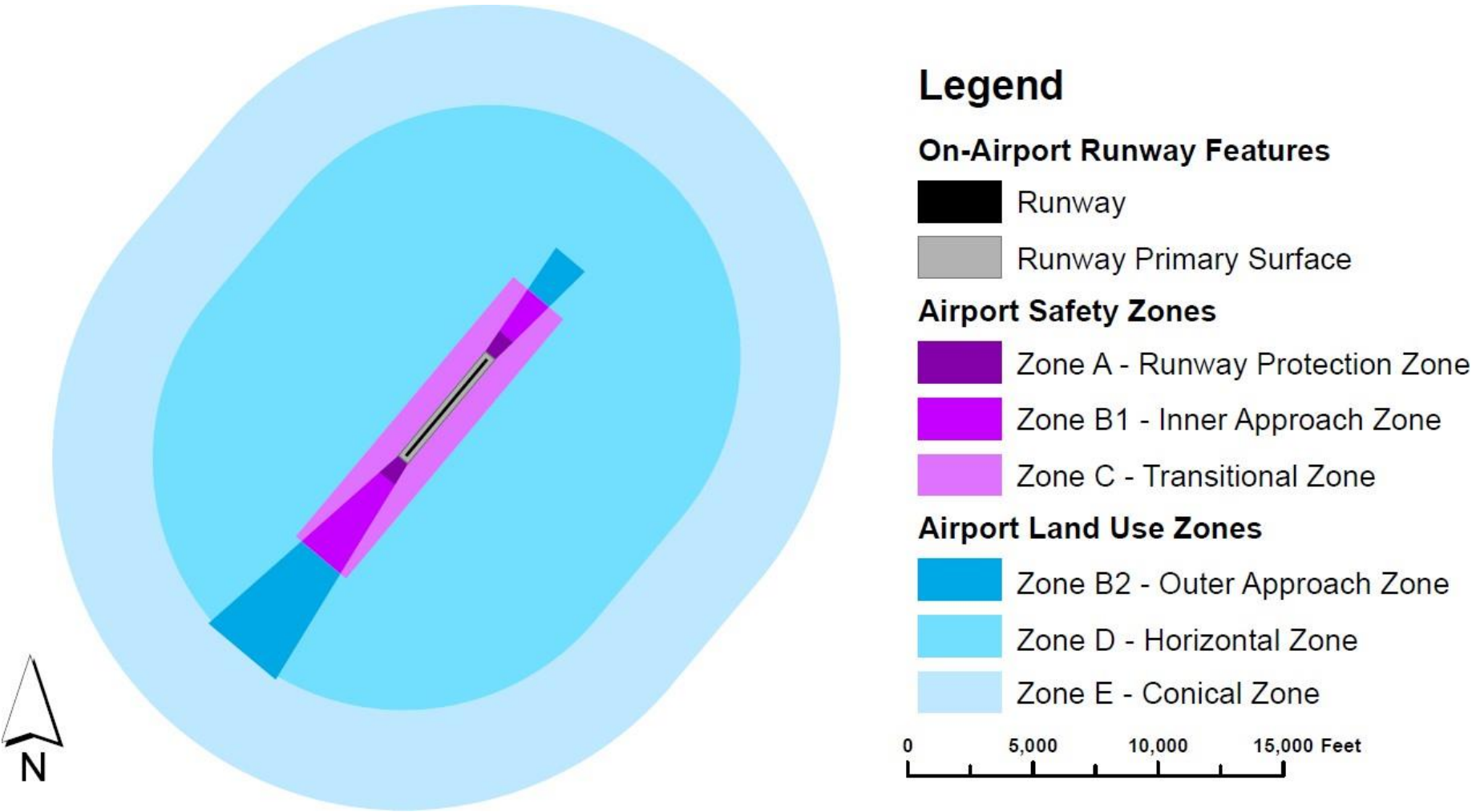
Airport Compatible Land Use Evaluation (CLUE) Tool

Meeting the provisions of Title 55 requires SCAC to coordinate with local municipalities and planning agencies that oversee development near each of South Carolina's public use airports. Due to the extensive number of agencies to coordinate with and the complexities of planning for airport compatible land uses, SCAC has developed the Compatible Land Use Evaluation Tool (herein referred to as the CLUE Tool) that streamlines the notification process between LPOs and SCAC. This tool allows for a more efficient exchange of development information, and the ability for the public and planning entities to "test" certain development scenarios (if located within an Airport Safety or Land Use Zone) for compatibility prior to submission to the SCAC for review. See the CLUE Tool Glossary on page 26 for definitions of various terminology used in the CLUE Tool and throughout this guide.

What are the Airport Safety and Land Use Zones?

SCAC has developed two sets of zones, per the requirements of Title 55. The first set – the Airport Safety Zones – are the zones closest to an airport's runway(s) and include the Runway Protection Zone, the Airport Inner Approach Zone, and the Transitional Zone. The second set – the Airport Land Use Zones – include the zones which surround the entire airport. Figure 2 illustrates the scope of these zones around what is a typical South Carolina general aviation (GA) airport. It is important to note that the size of the zones will change according to each airport's specific geometry and flight instrument procedures.

Figure 2 – Airport Land Use Evaluation



Source: South Carolina Aeronautics Commission

The areas shown in Figure 2 – Airport Land Use Evaluation are the areas in which the SCAC has the authority and responsibility to review any proposed development.

What is being evaluated in the Airport Safety and Land Use Zones?

There are several characteristics of land uses that impact the level of compatibility that a use has with airport operations. Many of these characteristics are based upon the type of land use that is proposed. For example, institutional use (educational facilities, places of worship, healthcare facilities) is generally not considered to be compatible with airport operations due to aircraft noise that can interrupt learning, worshiping, or healing). By comparison, industrial use (manufacturing, etc.) is not typically impacted by aircraft noise since industrial activities are inherently noisy. Land uses can be categorized into five main types:

- Residential
- Commercial
- Industrial
- Institutional
- Recreational

Besides the type of land use, the following characteristics that will be evaluated for each proposed use within the Airport Safety and Land Use Zones include:

- Height of use
- Change in zoning (if required)
- Storage/sale/distribution of fuel (if applicable)
- Wildlife attractants

How the CLUE Tool Works

The CLUE Tool has been built on a platform of several data layers that include the locations and dimensions of each public use airport's runways, the Airport Safety and Land Use Zones around each airport, and FAA regulated areas around each airport. This allows a user of the tool to select a location on a map and determine whether that property is within one of the Airport Safety or Land Use Zones and therefore requires review by the SCAC.

Summary

Planning for compatible land uses near airports helps protect their continued operation and the investment that has been made in these facilities, as well as the safety of people both in the air and on the ground in proximity to them. As such, it is critical to establish and maintain compatible land uses in the vicinity of airports. The State of South Carolina has made a commitment to promote airport compatible land uses near the public use airports in the state through the passage of Title 55. SCAC has developed the CLUE Tool in response to Title 55 which can be used by the public, LPOs, and SCAC staff. The CLUE Tool User Guide for Applicants begins on the next page.

CLUE TOOL USER GUIDE FOR TRIAL AREA

HOW CAN THE CLUE TOOL BE USED FOR PROPOSED DEVELOPMENT?

A special portal of the CLUE Tool has been developed for use by applicants (such as property owners and developers). This portal is called the “Trial Area” and can be accessed here:

www.scaeronautics.com/clue/trialarea. The Trial Area can be

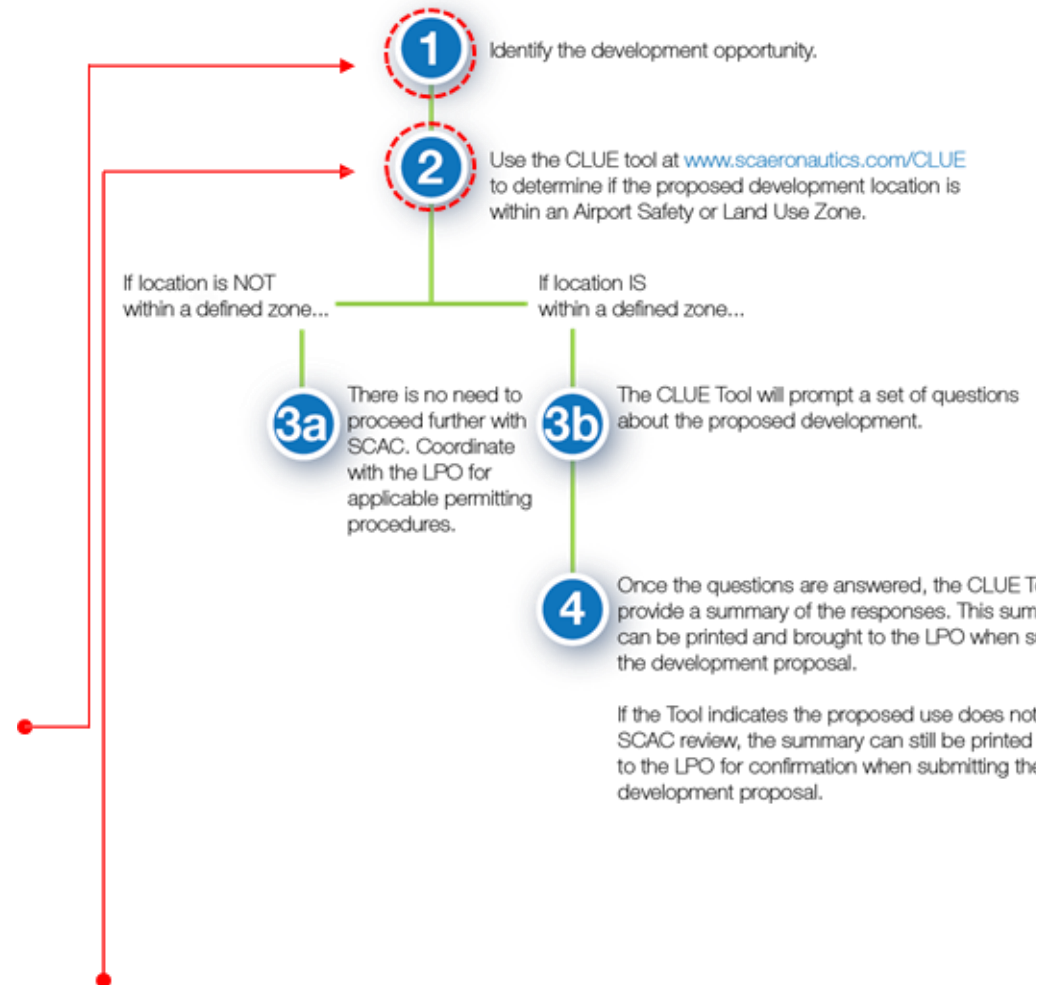
used to determine if a proposed use is located within any of the Airport Safety and Land Use Zones established by Title 55, and if the use requires review by SCAC.

Use of the CLUE Tool Trial Area by applicants is voluntary and is not required prior to visiting the Local Permitting Official (LPO). However, the CLUE Tool will be used by the LPO prior to issuing permits to the applicant, since any permit, subdivision, and/or rezoning application that triggers SCAC notification must be reported by the LPO to SCAC. As such, following the CLUE Tool process illustrated in **Figure 3** is optional (but recommended) for the applicant. Each step is discussed in greater detail in the following pages.

Step 1. Identify future development opportunity

Whether applicants (typically the property owner[s] or developer[s]) have been planning for years, or recently identified a development opportunity to pursue, they can determine if the Airport Safety and Land Use Zones established by the SCAC apply to their proposed development.

Figure 3 – CLUE Tool Process



Step 2. Determine if Airport Safety and Land Use Zones apply

A special portal of the CLUE Tool has been developed for use by applicants, which can be accessed here:

www.scaeronautics.com/clue/trialarea shown in **Figure 4 –** .

This “Trial Area” will help applicants determine if their proposed development property is within the Airport Safety and Land Use Zones. Applicants can access this tool from most internet-enabled devices, which allows them to quickly determine if their proposed development location is within one of the defined zones. It is recommended that a desktop or laptop computer be used for navigating the CLUE Tool.

Once an applicant launches their web browser and navigates to the tool, they will be prompted with two welcome screens shown in **Figure 4 –** and **Figure 5 - User Agreement Screen**. The first screen explains the purpose of the tool, Title 55, and what they will be prompted to do if their proposed use is within one of the Airport Safety or Land Use Zones. The second screen includes the user agreement terms that they will need to agree with to use the tool.

Figure 4 – CLUE Tool Welcome Screen

Welcome to the SC Aeronautics' Airport CLUE Tool Trial Area

The South Carolina Aeronautics Commission (SCAC) welcomes you to the Trial Area of the Airport Compatible Land Use Evaluation ("CLUE") Tool. Locate your proposed development on the map to find out if it is in an Airport Safety Zone or an Airport Land Use Zone.

[Title 55, Section 55-13-5 of the South Carolina State Code of Laws](#) requires that certain development applications in SCAC-specified **Airport Safety Zones and Airport Land Use Zones** be submitted by local government planning, zoning, and building permit officials to SCAC for review and comment. This interactive site is designed to assist the general public in understanding airspace and land use compatibility near airports by evaluating a "test case" development proposal against Federal Aviation Administration (FAA) and SCAC standards.

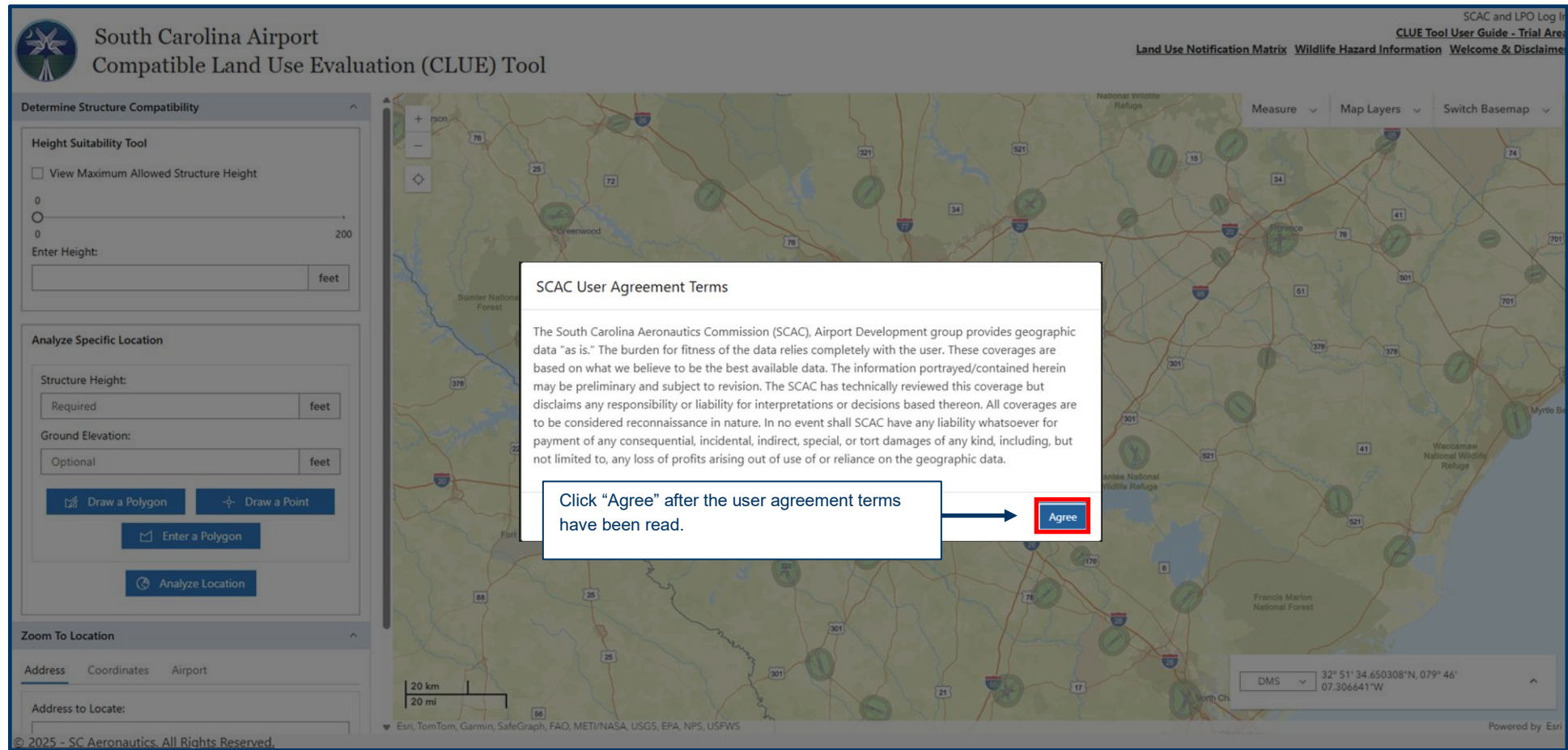
If your proposed location is in one of the above zones, you will be prompted to fill out a screening questionnaire. The questionnaire will provide information about the zone, help you understand triggers for SCAC review, and coordinate with your local permitting official.

As the Trial Area is for informational purposes only, your "test case" will not be submitted to or saved with SCAC. However, you will be able to create a PDF and print your test case, which may be shared with your local permitting official.

PLEASE NOTE: Regardless of the information about a proposed development you may enter, it may also need to be submitted to the Federal Aviation Administration (FAA) based on height notification criteria in [14 CFR Part 77, §77.9](#), using FAA Form 7460-1 "Notice of Proposed Construction or Alteration" online at <http://oeaaa.faa.gov>. The form, if required, must be submitted 30 days before a local permit application is submitted or before construction commences. Additionally, your proposed development may be subject to local land use ordinances separate from SC Aeronautics' policies.

Click "Enter" after the welcome message has been read → **Enter**

Figure 5 - User Agreement Screen



Once the applicant passes the two initial screens, they will be brought to the “home screen” shown in **Figure 6 - Home Screen**. The home screen has many options to explore to help applicants navigate and visualize their proposed development location. Instructions and illustrations are provided for each option in **Figures 7-15**.

Figure 6 - Home Screen

The screenshot displays the South Carolina Airport Compatible Land Use Evaluation (CLUE) Tool Home Screen. The interface includes a header with the South Carolina Airport logo and the title "South Carolina Airport Compatible Land Use Evaluation (CLUE) Tool". A navigation bar at the top right contains links: "SCAC and LBO Log In", "CLUE Tool User Guide - Trial Area", "and Use Notification Matrix", "Wildlife Hazard Information", and "Welcome & Disclaimers".

Key interactive elements and callouts include:

- Determine Structure Compatibility:** A section with a "Height Suitability Tool" containing a checkbox "View Maximum Allowed Structure Height", a height slider (0 to 200 feet), and an "Enter Height:" input field.
- Analyze Specific Location:** A section with "Structure Height:" and "Ground Elevation:" input fields (both 0 to 200 feet), "Draw a Polygon" and "Draw a Point" buttons, an "Enter a Polygon" button, and an "Analyze Location" button.
- Zoom To Location:** A section with tabs for "Address", "Coordinates", and "Airport". It includes an "Address to Locate:" input field, an "Enter an address or point of interest." button, and a "Results:" section.
- Map Interface:** A map of South Carolina with various callouts:
 - Top right: "Measure", "Map Layers", and "Switch Basemap" buttons.
 - Bottom right: A coordinate display showing "DMS" and "32° 51' 34.650308°N, 079° 46' 07.306641°W".
 - Bottom left: A scale bar showing "20 km" and "20 mi".

Callout boxes provide additional instructions:

- "View the Trial Area User Guide and reference the Wildlife Hazard Information prior to using the tool" (points to the top navigation bar).
- "Use the Height Suitability Tool to locate areas that would NOT be compatible for the height of the proposed development. See Figure 7." (points to the Height Suitability Tool).
- "Click one of these three options to find the proposed development location. See Figures 13-15." (points to the Zoom To Location section).
- "Click this button to measure distance and/or area and identify the latitude and longitude of a chosen point. See Figure 8-9." (points to the Measure button).
- "Click this button to change map layers. See Figure 11." (points to the Map Layers button).
- "Click this button to change basemap. See Figure 12." (points to the Switch Basemap button).
- "Click here to work with point coordinates. See Figure 10." (points to the coordinate display).

Footer text includes "© 2025 - SC Aeronautics. All Rights Reserved." and "Powered by Esri".

Optional: The Height Suitability Tool is an easy-to-use feature to visually identify areas where structures of a specified height can be built. Often one of the biggest issues with proposed development is the height of the proposed structure. This tool allows the user to enter a specific height (in feet) or use the slider bar to view areas (highlighted in red) that would NOT be height-compatible for that proposed development. The higher the height, the more areas will appear in red, and vice versa. This tool is to be used to determine the compatibility of a proposed structure for height only and help development proposers to more quickly identify compatible areas to build. A development proposer should still analyze the compatibility of their proposed development using the process outlined in this guide (starting on page 15) once a height-compatible location is identified.

Figure 7- Using the Suitability Tool

South Carolina Airport Compatible Land Use Evaluation (CLUE) Tool

SCAC and LPO Log In
CLUE Tool User Guide - Trial Area
Land Use Notification Matrix Wildlife Hazard Information Welcome & Disclaimer

Determine Structure Compatibility

Height Suitability Tool

☒ View Maximum Allowed Structure Height

0 168 200

Enter Height:
168 feet

Currently displaying areas with maximum structure height of 168 ft (non-masked areas).

Analyze Specific Location

Structure Height:
Required feet

Ground Elevation:
Optional feet

Zoom To Location

Address Coordinates Airport

© 2025 - SC Aeronautics. All Rights Reserved.

Height Suitability Tool

☒ View Maximum Allowed Structure Height

0 168 200

Enter Height:
168 feet

Currently displaying areas with maximum structure height of 168 ft (non-masked areas).

The areas that are masked after selecting a height are **NOT** compatible with that selected height.

Enter a specific height (in feet) in the window or use the slider bar to identify areas that would NOT be height-compatible for the proposed development.

Optional: The Measure feature of the program can be used to measure distance or area. This feature is provided to help users spatially reference their proposed development location by measuring distance (as the crow flies) from the proposed development to nearby locations (such as distance to the nearest airport), and measure areas (such as the area of the proposed development if unknown). These measurements can be helpful when using the CLUE Tool and when discussing the proposed development with the LPO and the SCAC.

Figure 8 – Taking Measurements – Measure Lengths

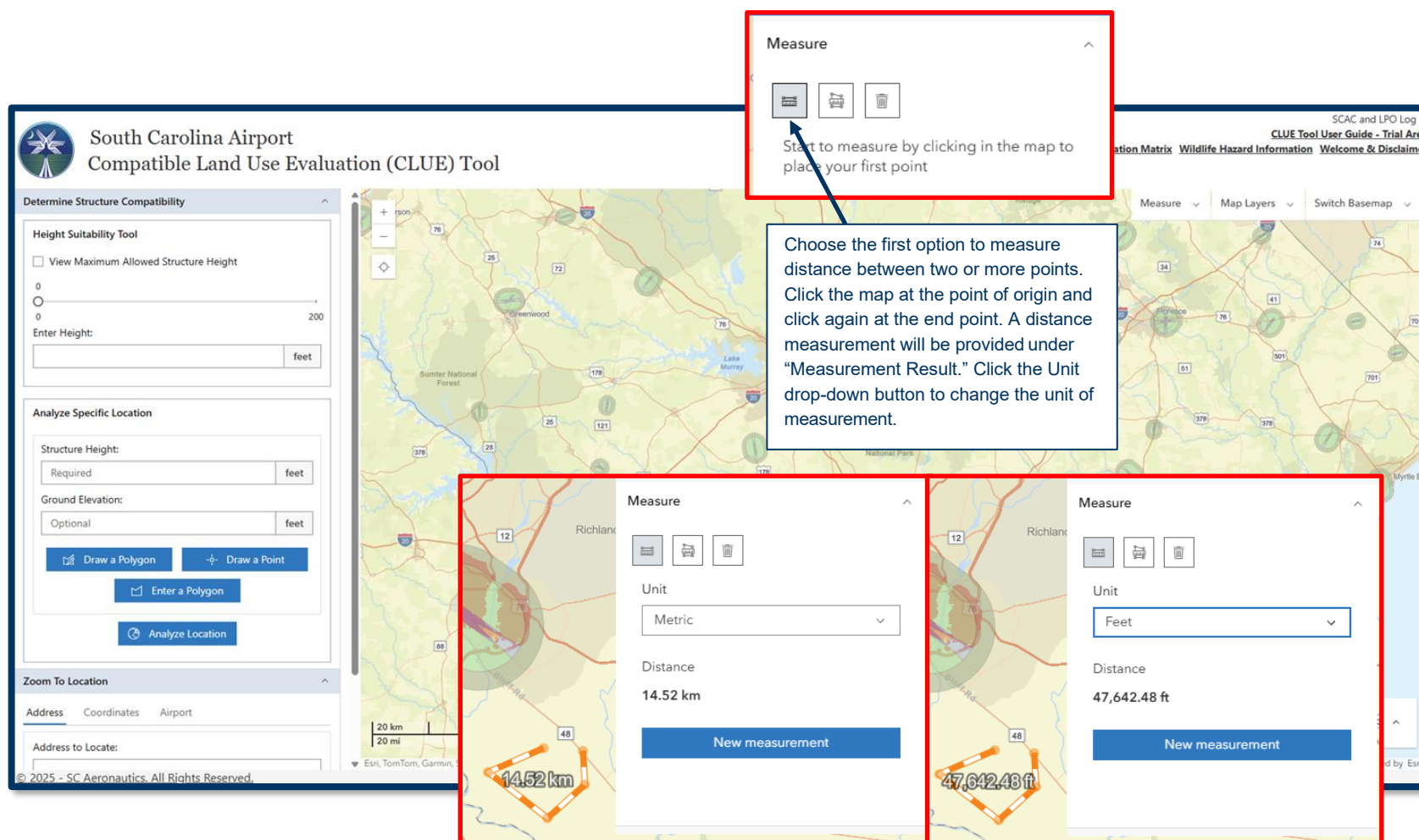


Figure 9 – Taking Measurements – Measure Areas

The screenshot displays the South Carolina Airport Compatible Land Use Evaluation (CLUE) Tool interface. The main map area shows a map of South Carolina with various geographical features and roads. A red box highlights the 'Measure' button in the top right corner of the map area. A blue arrow points from this button to a text box that reads: "Choose the second option to measure an area. Draw boundaries around an area and double click when finished. An area measurement will be provided under 'Measurement Result.' Click the Unit drop down button to change the unit of measurement".

Below the map, there are two panels showing the 'Measure' results. The left panel shows the 'Measure' button, a 'Unit' dropdown menu set to 'Metric', and the 'Area' measurement result: 33.51 km². The right panel shows the same 'Measure' button, 'Unit' dropdown menu set to 'Metric', and the 'Area' measurement result: 33.51 km². Both panels also display the 'Perimeter' measurement: 24.27 km. A 'New measurement' button is located at the bottom of each panel.

The interface includes a sidebar on the left with the following sections:

- Determine Structure Compatibility**
 - Height Suitability Tool
 - ☐ View Maximum Allowed Structure Height
 - 0 to 200 feet scale
 - Enter Height: [text input] feet
 - Analyze Specific Location
 - Structure Height: Required feet
 - Ground Elevation: Optional feet
 - Draw a Polygon button
 - Draw a Point button
 - Enter a Polygon button
 - Analyze Location button
 - Zoom To Location
 - Address, Coordinates, Airport tabs
 - Address to Locate: [text input]

The bottom of the interface shows the copyright notice: © 2025 - SC Aeronautics. All Rights Reserved.

Figure 10 – Coordinates

The screenshot displays the South Carolina Airport Compatible Land Use Evaluation (CLUE) Tool interface. The left sidebar contains three main sections: "Determine Structure Compatibility", "Analyze Specific Location", and "Zoom To Location". The "Determine Structure Compatibility" section includes a "Height Suitability Tool" with a checkbox for "View Maximum Allowed Structure Height" and a slider for "Enter Height" ranging from 0 to 200 feet. The "Analyze Specific Location" section includes input fields for "Structure Height" (Required) and "Ground Elevation" (Optional), both in feet, and buttons for "Draw a Polygon", "Draw a Point", "Enter a Polygon", and "Analyze Location". The "Zoom To Location" section has tabs for "Address", "Coordinates", and "Airport", with an "Address to Locate" input field.

The main map area shows a map of South Carolina with various locations marked. Three coordinate input fields are highlighted with red boxes and labeled with red text:

- Coordinates (bottom right):** A red box highlights the coordinate input field in the bottom right corner of the map area, showing the coordinates: 32° 51' 34.650308"N, 079° 46' 07.306641"W.
- Coordinates (top right):** A red box highlights the coordinate input field in the top right corner of the map area, showing the coordinates: 33° 37' 30.477642"N, 080° 35' 43.502930"W.
- Click the arrow beside the coordinate to expand:** A red box highlights the coordinate input field in the middle of the map area, showing the coordinates: 33° 37' 32.535953"N, 080° 32' 20.805176"W. A blue arrow points to the expand/collapse arrow next to the coordinates.

The map area also includes a scale bar (20 km, 20 mi) and a copyright notice: "© 2025 - SC Aeronautics. All Rights Reserved." The bottom right corner of the map area is labeled "Powered by Esri".

Figure 11 – Selecting the Map Layers

The screenshot displays the South Carolina Airport Compatible Land Use Evaluation (CLUE) Tool interface. The main map area shows a geographical view with various land use zones and airport boundaries. Two red boxes highlight the 'Map Layers' panel, which is used to select and adjust the visibility of different map layers. A text box explains the process: 'Click the "Map Layers" button and choose which layers to use. The tool will automatically default to showing all layers listed. Click the checkbox next to the layers you don't wish to view to "uncheck" those layers. Use the slider bars to change transparency of the layers as desired.'

Map Layers Panel (Top Right):

- Select layers to display in the map:
- ☒ Airport Boundaries
- ☒ Land Use Notification Zones
- ☒ Land Use Evaluation Zones
- ☐ Part 77 Airspace Surfaces (Existing)

Map Layers Panel (Bottom Center):

- Select layers to display in the map:
- ☒ Airport Boundaries
- ☒ Land Use Notification Zones
- ☒ Land Use Evaluation Zones
- ☐ Part 77 Airspace Surfaces (Existing)

Left Panel: Determine Structure Compatibility

Height Suitability Tool

- ☒ View Maximum Allowed Structure Height
- Slider: 0 to 200 (Current value: 157)
- Enter Height: 168 feet
- Currently displaying areas with maximum structure height of 157 ft (non-masked areas).

Analyze Specific Location

- Structure Height: Required feet
- Ground Elevation: Optional feet
- Buttons: Draw a Polygon, Draw a Point, Enter a Polygon, Analyze Location

Zoom To Location

- Address: Coordinates: Airport
- © 2025 - SC Aeronautics. All Rights Reserved.

Map Interface:

- Map showing various locations: Murray, Seven Oaks, Richland, Wedgefield, Waterlee, Fort Motte, Hammond Crossroads, Oak Grove, Calhoun, Columbia, and Pin.
- Map scale: 5 km, 5 mi.
- Map data: Esri, TomTom, G.
- Map layers: Airport Boundaries, Land Use Notification Zones, Land Use Evaluation Zones, Part 77 Airspace Surfaces (Existing).
- Map controls: Add conversion, DMS, 33° 43' 48.976734°N, 080° 57' 50.926025°W.

Figure 12 – Switching the Base Map

South Carolina Airport
Compatible Land Use Evaluation (CLUE) Tool

SCAC and LPO Log In
[CLUE Tool User Guide - Trial Area](#)
[Land Use Notification Matrix](#) [Wildlife Hazard Information](#) [Welcome & Disclaimer](#)

Determine Structure Compatibility

Height Suitability Tool

☒ View Maximum Allowed Structure Height

157

0 200

Enter Height:

168 feet

Currently displaying areas with maximum structure height of 157 ft (non-marked areas).

Analyze Specific Location

Structure Height:

Required feet

Ground Elevation:

Optional feet

Zoom To Location

Address Coordinates Airport

© 2025 - SC Aeronautics. All Rights Reserved.

Click the "Switch Basemap" button, choose which basemaps to use. The tool will automatically default to using the "Streets" basemap. Switching to the "Imagery" or "Imagery with Labels" basemap may help in navigating to proposed development locations.

Switch Basemap

Imagery Imagery Hybrid

Imagery Imagery Hybrid

33° 50' 29.597940"N, 080° 34' 54.064453"W

Powered by Esri

Once the applicant has picked the basemap and layers that they would like to use, they can find their proposed development location on the map by navigating to the left-hand side of the screen and choosing “Address,” “Coordinates,” or “Airport” based on the locational information available. **Figure 13** illustrates the use of the “Address” tab where a simple street address can be entered. **Figures 14-19** illustrate the use of the “Coordinates” tab using latitude and longitude coordinates (which could be used if the location does not have a street address). **Figures 20** illustrate the use of the “Airport” tab which will auto-fill with the name of a South Carolina airport as the applicant begins to type the name (this could be used if the applicant does not know the street address or coordinates of the proposed location but could identify the location within the area surrounding the nearby airport).

Figure 13 – Using the Address Tab to Locate Proposed Development Location

The screenshot displays the South Carolina Airport Compatible Land Use Evaluation (CLUE) Tool interface. The main map area shows a satellite view of a location with a red 'X' marking a point. A red box highlights the 'Zoom To Location' panel, which has three tabs: 'Address', 'Coordinates', and 'Airport'. The 'Address' tab is selected, and the 'Address to Locate' field contains '15 Clarendon Dr. Newberry'. Below this field are 'Search' and 'Clear' buttons. The 'Results' section shows a link: '15 Clarendon Dr. Newberry, South Carolina, 29108'. A blue arrow points from the 'Address' tab in the left sidebar to the 'Address' tab in the 'Zoom To Location' panel. A text box on the right explains: 'The “Address” tab is the default choice for finding a proposed development location. Enter the street address and click “Search.” A list of valid locations will appear under “Results.” Click on the correct address and the tool will zoom to that street address.'

South Carolina Airport
Compatible Land Use Evaluation (CLUE) Tool

168 feet

Currently displaying areas with maximum structure height of 157 ft (non-masked areas).

Analyze Specific Location

Structure Height:
Required feet

Ground Elevation:
Optional feet

Draw a Polygon Draw a Point

Enter a Polygon

Analyze Location

Zoom To Location

Address Coordinates Airport

Address to Locate:
15 Clarendon Dr. Newberry

Search Clear

Results:
[15 Clarendon Dr. Newberry, South Carolina, 29108](#)

20 m
100 ft

Esri Community Maps Contributors, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

© 2025 - SC Aeronautics. All Rights Reserved.

SCAC and LPO Log In
CLUE Tool User Guide - Trial Area
Land Use Notification Matrix Wildlife Hazard Information Welcome & Disclaimer

Measure Map Layers Switch Basemap

Add conversion
DMS 34° 18' 00.602091"N, 081° 38' 51.160516"W

Powered by Esri

Figure 14 – Using the Coordinates Tab to Locate Proposed Development Location

The screenshot displays the South Carolina Airport Compatible Land Use Evaluation (CLUE) tool interface. The main header includes the South Carolina Airport logo and the text "South Carolina Airport Compatible Land Use Evaluation (CLUE)". A blue button labeled "Analyze Location" is visible. Below the header, there are three tabs: "Address", "Coordinates", and "Airport". The "Coordinates" tab is selected and highlighted with a red box. A blue arrow points from the "Coordinates" tab to the "Zoom To Location" panel on the right. The "Zoom To Location" panel has three tabs: "Address", "Coordinates", and "Airport". The "Coordinates" tab is also selected. It contains two sections: "Degrees Minutes Seconds" and "Other Coordinate Systems". The "Degrees Minutes Seconds" section has input fields for "Latitude (Y):" and "Longitude (X):", and a "Locate" button. The "Other Coordinate Systems" section has input fields for "Latitude (Y):" (containing "33.25"), "Longitude (X):" (containing "-81.4"), and a "Spatial Reference:" dropdown menu (set to "Decimal Degree"). It also has "Reset" and "Locate" buttons. A text box on the right explains the "Coordinates" tab: "The 'Coordinates' tab is the second tab available. Enter the latitude and longitude coordinates of the proposed location and click 'Locate' when finished. The tool will zoom to that location. This tab provides options for several latitude and longitude formats, such as degrees minutes seconds, and decimal degrees. Select the correct format before entering coordinates." The background shows a map with a blue 'X' marking a location. A scale bar indicates 20 m and 100 ft. The footer includes copyright information: "© 2025 - SC Aeronautics. All Rights Reserved." and "Powered by Esri".

South Carolina Airport
Compatible Land Use Evaluation (CLUE)

Analyze Location

Zoom To Location

Address Coordinates Airport

Degrees Minutes Seconds

Latitude (Y):

Longitude (X):

Locate

Other Coordinate Systems

Latitude (Y):

33.25

Longitude (X):

-81.4

Spatial Reference:

Decimal Degree

Reset Locate

20 m
100 ft

Esri Community

SCAC and LPO Log In
CLUE Tool User Guide - Trial Area
Land Use Notification Matrix Wildlife Hazard Information Welcome & Disclaimer

ch Basemap

Joey Zorn Blvd

Joey Zorn Blvd

DMS 33° 14' 59.426665°N, 081° 24' 05.841851°W

SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

© 2025 - SC Aeronautics. All Rights Reserved. Powered by Esri

The "Coordinates" tab is the second tab available. Enter the latitude and longitude coordinates of the proposed location and click "Locate" when finished. The tool will zoom to that location. This tab provides options for several latitude and longitude formats, such as degrees minutes seconds, and decimal degrees. Select the correct format before entering coordinates.

In addition to the Zoom to Location using Coordinates, there is also the out of the box coordinates widget located at the bottom right of the map. **Figures 15-19** show the different options for the Coordinates Widget.

Figure 15 – Working with Coordinates

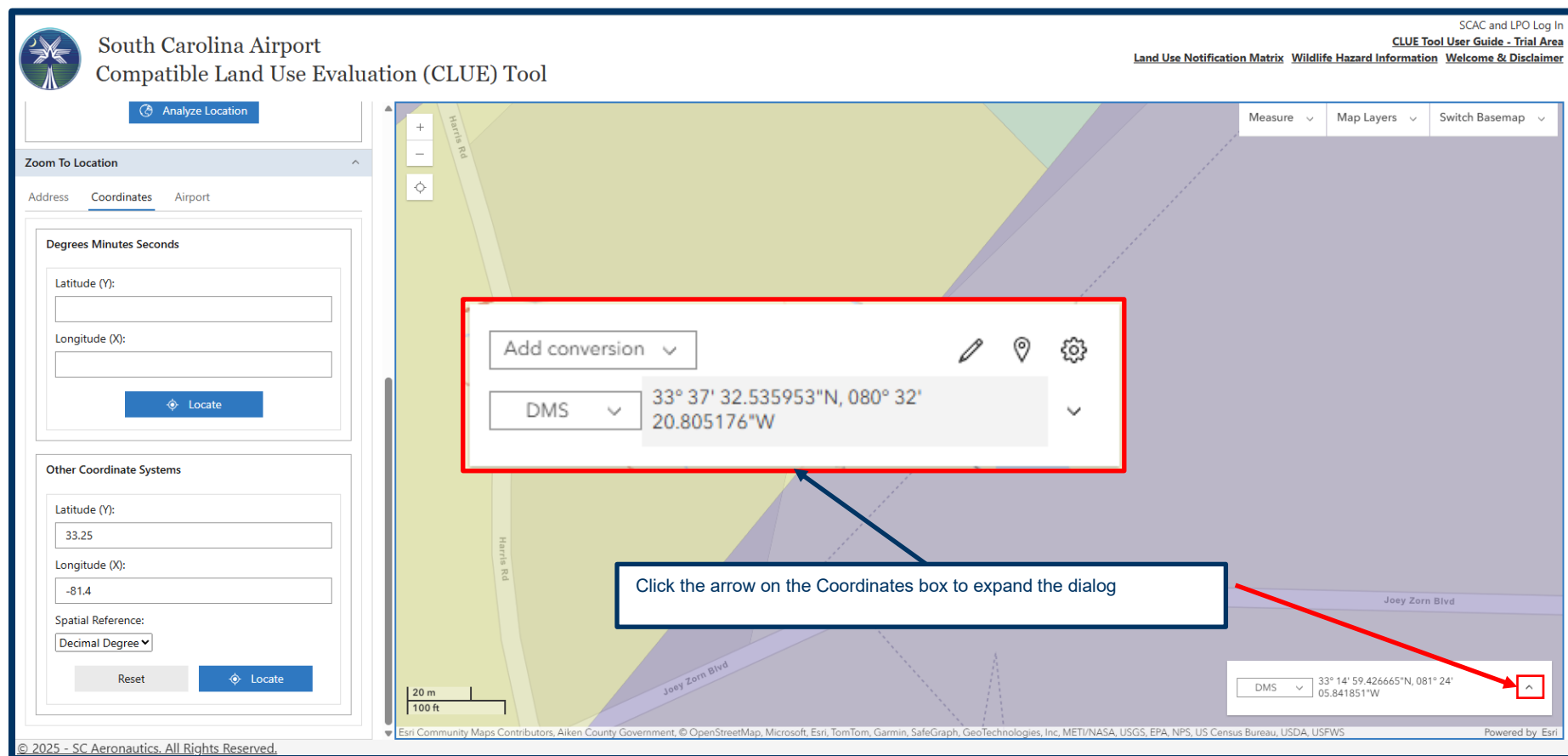


Figure 16 – Input Coordinate

The screenshot displays the South Carolina Airport Compatible Land Use Evaluation (CLUE) Tool interface. The main map area shows a geographical view with Harris Rd and Joey Zorn Blvd. The interface includes several panels and controls:

- Top Left:** South Carolina Airport logo and title "South Carolina Airport Compatible Land Use Evaluation (CLUE) Tool".
- Top Right:** "SCAC and LPO Log In" link, "CLUE Tool User Guide - Trial Area" link, "Wildlife Hazard Information" link, and "Welcome & Disclaimer" link.
- Left Panel:** "Zoom To Location" section with "Address" and "Coordinate" tabs. The "Coordinate" tab is active, showing "Degrees Minutes Seconds" input fields for Latitude (Y) and Longitude (X), and a "Locate" button. Below this is the "Other Coordinate Systems" section with input fields for Latitude (Y), Longitude (X), and Spatial Reference (set to "Decimal Degree"), along with "Reset" and "Locate" buttons.
- Right Panel:** "Input coordinate" section with a "DMS" dropdown, a coordinate input field showing "33° 10' 55.325979"N, 079° 45' 57....", a checked "Go to location" checkbox, and a "Convert" button.
- Map Area:** A map showing Harris Rd and Joey Zorn Blvd. A red box highlights the "Add conversion" dropdown and the "DMS" dropdown in the "Coordinate" tab. A red arrow points from the "Pencil" icon in the "Coordinate" tab to the "Input coordinate" section. Another red arrow points from the "Go to location" checkbox to the "Input coordinate" section.
- Bottom:** A scale bar (20 m, 100 ft) and a copyright notice: "© 2025 - SC Aeronautics. All Rights Reserved." and "Powered by Esri".

Figure 17 – Input Coordinate – Click on the map

The screenshot displays the South Carolina Airport Compatible Land Use Evaluation (CLUE) Tool interface. The top header includes the South Carolina Airport logo and the title "South Carolina Airport Compatible Land Use Evaluation (CLUE) Tool". A blue button labeled "Analyze Location" is visible. The interface is divided into a left sidebar and a main map area.

Left Sidebar:

- Zoom To Location:** Includes tabs for "Address" and "Coordinate".
- Coordinate Tab:** Features a dropdown menu for "Add conversion" (set to "DMS") and a text input field containing the coordinates "33° 37' 32.535953"N, 080° 32' 20.805176"W". Below this are input fields for "Latitude (Y):" and "Longitude (X):", and a "Locate" button.
- Other Coordinate Systems:** Includes input fields for "Latitude (Y):" (33.25) and "Longitude (X):" (-81.4), a "Spatial Reference:" dropdown (set to "Decimal Degree"), and "Reset" and "Locate" buttons.

Main Map Area:

- A map showing a landscape with roads (Harris Rd, Joey Zorn Blvd) and a highway (801). A red circle on the map indicates a location.
- A red box highlights the "Coordinate" input field in the sidebar, with a red arrow pointing to the "Pin" icon (a location pin) in the top right corner of the input field.
- A blue arrow points from the "Pin" icon to the red circle on the map.
- A second red box highlights the map area, showing the coordinates "33° 42' 53.465085"N, 080° 40' 59.909180"W" displayed on the map.

Top Right: Includes links for "SCAC and LPO Log In", "CLUE Tool User Guide - Trial Area", "Wildlife Hazard Information", and "Welcome & Disclaimer".

Bottom: A scale bar (20 m, 100 ft) and a footer with copyright information: "© 2025 - SC Aeronautics. All Rights Reserved." and "Powered by Esri".

Figure 18 – Coordinates Widget – Format Settings

The screenshot displays the South Carolina Airport Compatible Land Use Evaluation (CLUE) Tool interface. The main map area shows a satellite view of an airport with various colored overlays. A red box highlights the 'Coordinates' widget in the top-left corner, which contains a gear icon for settings. A blue arrow points from the gear icon to a 'Format settings' modal window that is open. The modal window has a title bar with a back arrow and the text 'Format settings'. Inside, there is a section titled 'Change coordinate display' with a dropdown menu set to 'DMS'. Below this is a text input field showing 'Y° A' B"N, X° C' D"E' with a refresh icon to its right. At the bottom of the modal is a 'Preview' section displaying the coordinates '33° 42' 53.465085"N, 080° 40' 59.909180"W'. The background interface includes a header with the SCAC and LPO Log In link, a 'CLUE Tool User Guide - Trial Area' link, and a 'Wildlife Hazard Information' link. A 'Zoom To Location' section on the left has fields for 'Address' and 'Coordinate', and a 'Locate' button. Below this is a section for 'Other Coordinate Systems' with fields for 'Latitude (Y):', 'Longitude (X):', and 'Spatial Reference:'. A 'Reset' button and another 'Locate' button are at the bottom of this section. The footer contains copyright information for 2025 - SC Aeronautics and a list of map data contributors.

South Carolina Airport
Compatible Land Use Evaluation (CLUE) Tool

Analyze Location

Zoom To Location

Address Coordinate

Add conversion

DMS

33° 37' 32.535953"N, 080° 32' 20.805176"W

Click the Gear to format the coordinate display setting

Format settings

Change coordinate display

DMS

Y° A' B"N, X° C' D"E

Preview

33° 42' 53.465085"N, 080° 40' 59.909180"W

© 2025 - SC Aeronautics. All Rights Reserved.

Esri Community Maps Contributors, Aiken County Government, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

Powered by Esri

Figure 19 – Coordinates Widget – Add or Remove Coordinate Conversion

The screenshot displays the CLUE Tool interface for the South Carolina Airport. The main map area shows a coastal region with labels for "Harris Rd" and "Joey Zorn Blvd". The interface includes several widgets and controls:

- Top Left:** "South Carolina Airport Compatible Land Use Evaluation (CLUE) Tool" header with a logo and an "Analyze Location" button.
- Left Panel:** "Zoom To Location" section with "Address" and "Coordinate" tabs. The "Coordinate" tab is active, showing input fields for "Degrees Minutes Seconds", "Latitude (Y):", and "Longitude (X):". Below these are "Other Coordinate Systems" (DD, DDM, DMS, XY, MGRS, USNG, UTM) and a "Spatial Reference" dropdown set to "Decimal Degree". A "Reset" button is at the bottom.
- Top Right:** "SCAC and LPO Log In" and "CLUE Tool User Guide - Trial Area" links, along with a "Home & Disclaimer" link.
- Map Controls:** "Measure", "Map Layers", and "Switch Basemap" buttons.
- Coordinate Widgets:** Three widgets are shown on the map, each with a red border and a callout box:
 - Top Widget:** Callout: "Click Add conversion to add a coordinate conversion to the display". The widget shows "Add conversion" and "DMS" dropdowns, and coordinates "33° 37' 32.535953"N, 080° 32' 20.805176"W".
 - Bottom Left Widget:** Callout: "Click X to remove a coordinate conversion from the display". The widget shows "Add conversion" and "BASEMAP" dropdowns, and coordinates "33° 04.159541'N, 078° 12.023877'W".
 - Bottom Right Widget:** Callout: "Click X to remove a coordinate conversion from the display". The widget shows "Add conversion", "BASEMAP", and "DDM" dropdowns, and coordinates "-8685660.600, 3949148.632" and "33° 24.283568'N, 078° 01.477002'W".

At the bottom left, a copyright notice reads: "© 2025 - SC Aeronautics. All Rights Reserved." At the bottom right, it says "Powered by Esri".

Figure 20 – Using the Airport Tab to Locate Proposed Development Location

South Carolina Airport
Compatible Land Use Evaluation (CLUE) Tool

SCAC and LPO Log In
[CLUE Tool User Guide - Trial Area](#)
[Land Use Notification Matrix](#) [Wildlife Hazard Information](#) [Welcome & Disclaimer](#)

☐ View Maximum Allowed Structure Height

0
0
200
Enter Height: feet

Analyze Specific Location

Structure Height:
Required feet

Ground Elevation:
Optional feet

[Draw a Polygon](#) [Draw a Point](#)
[Enter a Polygon](#)
[Analyze Location](#)

Zoom To Location

Address Coordinates **Airport**

Airport Name:
 [Locate](#)

The "Airport" tab is the third tab available. Enter the name of the airport nearby the proposed development location. The tool will auto-populate the field with the full airport name as it is entered. Click "Locate." The tool will zoom to that airport's location. Pan around using the mouse to find the development location.

2 km
5,000 ft

Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS

© 2025 - SC Aeronautics. All Rights Reserved.

Powered by Esri

*Optional: Once the applicant has navigated to the general location of their proposed development, they can click on the nearby airport boundary to explore and review airport-specific data, such as the Airport Layout Plan (ALP) (which depicts current, future, and ultimate airport development) and the boundaries of the Federal Aviation Regulation (FAR) Part 77 Surfaces at an airport. **Figure 21** includes a screen capture of the airport-specific data that is available for download after clicking on the airport boundary. Keyhole Markup Language (zipped) (KMZ) is a format for modeling and storing geographic features such as points, lines and polygons for display in Google Earth, Google Maps, and other applications. These files can be downloaded by the applicant and opened in Google Earth by clicking “File” then “Open” and selecting the KMZ file(s) that were downloaded from the CLUE Tool.*

Figure 21 – Downloading Airport-Specific Data

South Carolina Airport Compatible Land Use Evaluation (CLUE) Tool

SCAC and LPO Log In
CLUE Tool User Guide - Trial Area
Land Use Notification Matrix Wildlife Hazard Information Welcome & Disclaimer

☐ View Maximum Allowed Structure Height

0 200
Enter Height: feet

Analyze Specific Location

Structure Height: Required feet

Ground Elevation: Optional feet

Draw a Polygon Draw a Point

Enter a Polygon

Analyze Location

Zoom To Location

Address Coordinates Airport

Airport Name: Darlington County (UDG)

Locate

Darlington County (UDG)

Zoom to

Existing Data:

- Download ALP PDF
- Download Evaluation Zones KMZ
- Download Notification Zones KMZ
- Download Part 77 KMZ
- Download TSS KMZ

Future Data:

- Download Part 77 KMZ
- Download TSS KMZ

2 of 4

Click anywhere on an airport boundary, and a window will appear with the data available for download for that specific airport.

2 km 5,000 ft

Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS

© 2025 - SC Aeronautics. All Rights Reserved.

Powered by Esri

Once the applicant has navigated to their proposed development location, they will need to use the “Draw a Point”, “Enter Polygon”, or “Draw a Polygon” to create the exact location of the proposed development on the map. This allows the tool to evaluate the proposed development based on the location in which the applicant places the point or polygon. **Figure 22** illustrates the use of the “Draw a Point” feature. **Figure 23** and **Figure 24** illustrate the use of the “Enter Polygon” and “Draw a Polygon” feature respectively. Any of the three features can be used – the choice is up to the applicant. If they are proposing development that will have a significant footprint (or are unsure of the exact site for development), the polygon option would be better so the applicant can draw the general anticipated spot for construction. If they are proposing development with a more limited footprint, the point option is appropriate. In either case, the applicant should enter the height of the structure (required) and the ground elevation at the proposed development site (optional) as shown in **Figures 22-24**.

Figure 22 – Using the Draw a Point Feature

The screenshot displays the South Carolina Airport Compatible Land Use Evaluation (CLUE) tool interface. The main map area shows a geographical view with various roads and landmarks. A red box highlights the 'Analyze Specific Location' panel, which contains input fields for 'Structure Height' (set to 50 feet) and 'Ground Elevation' (set to 500 feet). Below these fields are buttons for 'Draw a Polygon', 'Draw a Point', 'Enter a Polygon', and 'Analyze Location'. A blue callout box points to the 'Draw a Point' button, stating: 'To place a point structure, enter the highest height of the proposed development, along with the ground elevation (optional) at the development site.' Another blue callout box points to the map area, stating: 'Then click “Draw a Point” and use the mouse to place the pin on the development location.' A red arrow points from the 'Draw a Point' button to a red pin on the map. The pin's location is confirmed by a tooltip showing coordinates: Longitude -79.929163° and Latitude 34.453013°. The interface also includes a 'Zoom To Location' section at the bottom left with a 'Locate' button. The top right corner shows links for 'Land Use Notification Matrix', 'Wildlife Hazard Information', and 'Welcome & Disclaimer'. The bottom of the screen displays copyright information: '© 2025 - SC Aeronautics. All Rights Reserved.' and 'Powered by Esri'.

Figure 23 – Using Enter a Polygon Feature

To place a polygon structure using coordinates enter the highest height of the proposed development, along with the ground elevation (optional) at the development site and click "Enter a Polygon".

Select a spatial reference from the "Spatial Reference" pick list.

Enter the polygon coordinates using the format [x,y]. Enter the first coordinate set at the end of the coordinate list to close the polygon. Click "Place Polygon" to complete. A red polygon will be displayed on the map.

Place Polygon By Coordinates

Please select the desired Spatial Reference and enter the polygon coordinates in the text area below using the [x,y] format shown.
Remember to enter the first coordinate set at the end to ensure a closed polygon.

Example:
[-81.14936874389645, 33.90722283335955]
[-81.14782379150388, 33.90626116231325]
[-81.1486391830444, 33.905655660162644]
[-81.14971206665035, 33.90661733803982]
[-81.14936874389645, 33.90722283335955]

Spatial Reference:
Decimal Degrees (WGS84)

Polygon Coordinates

[-81.14936874389645, 33.90722283335955]
[-81.14782379150388, 33.90626116231325]
[-81.1486391830444, 33.905655660162644]
[-81.14971206665035, 33.90661733803982]

Place Polygon

© 2025 - SC Aeronautics. All Rights Reserved.

Figure 24 – Using the Draw a Polygon Feature

South Carolina Airport

To place a polygon structure, enter the highest height of the proposed development, along with the ground elevation (optional) at the development site.

View Maximize

Enter Height: 0 200 feet

Analyze Specific Location

Structure Height: 50 feet

Ground Elevation: 500 feet

Draw a Polygon

Enter a Polygon

Analyze Location

Zoom To Location

Address Coordinates Airport

Airport Name: Darlington County (UDG)

Locate

When the boundary of the site is completed, double-click and the polygon will be closed, and the shape will turn red.

Then click "Draw a Polygon" and use the mouse click on the outer edge of the development location. A line will be drawn from that initial point to the next spot that is clicked on. Continue clicking around the development to draw the outer boundary of the site.

Deflection: -94.0°
Distance: 61.83 m
Area: 79,754.36 m²

Double-click on the map to complete.

200 m
500 ft

© 2025 - SC Aeronautics. All Rights Reserved.

Esri Community Maps Contributors, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

Powered by Esri

Step 3. After the Property is Located

Once the point or polygon has been placed, the tool needs to analyze the location that was identified with a point or polygon. This can be done by clicking the “Analyze Location” button, shown in **Figure 25**.

Figure 25 – Analyzing the Development Location

The screenshot displays the South Carolina Airport Compatible Land Use Evaluation (CLUE) Tool interface. The main map shows a location near Augusta, Georgia. On the left sidebar, under 'Analyze Specific Location', there are input fields for 'Structure Height' (Required) and 'Ground Elevation' (Optional), both in feet. Below these are buttons for 'Draw a Polygon', 'Draw a Point', 'Enter Polygon', and 'Analyze Location'. A red box highlights the 'Analyze Location' button, with a callout box stating: 'To analyze the location, click the “Analyze Location” button.' and 'Click to run analysis on the placed structure.' Another red box highlights the 'Analyze Location' button in the bottom left corner. On the right, a modal dialog titled 'Analyze Location' is open, containing the following text: 'Thank you for using the SC Airport CLUE Tool. Regardless of the information about the proposed development you entered, it may also need to be submitted to the FAA based on height notification criteria in 14 CFR Part 77, §77.9, using FAA Form 7460-1 “Notice of Proposed Construction or Alteration” online at <http://oeaaa.faa.gov>. The form, if required, must be submitted 30 days before a local permit application is submitted or before construction commences. Additionally, your proposed development may be subject to local land use ordinances separate from SC Aeronautics' policies. Please contact us if you have further questions.' Below the text is a 'Continue' button. The top right corner of the interface shows links for 'Land Use Notification Matrix', 'Wildlife Hazard Information', and 'Welcome & Disclaimer'. The bottom left corner has a copyright notice: '© 2025 - SC Aeronautics. All Rights Reserved.' and the bottom right corner says 'Powered by Esri'.

South Carolina Airport
Compatible Land Use Evaluation (CLUE) Tool

Determine Structure Compatibility

Height Suitability Tool

☐ View Maximum Allowed Structure Height

Click to run analysis on the placed structure.

Analyze Location

Analyze Specific Location

Structure Height:
Required feet

Ground Elevation:
Optional feet

Draw a Polygon Draw a Point

Enter Polygon

Analyze Location

Zoom To Location

Address Coordinates Airport

Address to Locate:

© 2025 - SC Aeronautics. All Rights Reserved.

SCAC and LPO Log In
CLUE Tool User Guide - Trial Area

Land Use Notification Matrix Wildlife Hazard Information Welcome & Disclaimer

emap

Analyze Location

Thank you for using the SC Airport CLUE Tool. Regardless of the information about the proposed development you entered, it may also need to be submitted to the FAA based on height notification criteria in 14 CFR Part 77, §77.9, using FAA Form 7460-1 “Notice of Proposed Construction or Alteration” online at <http://oeaaa.faa.gov>. The form, if required, must be submitted 30 days before a local permit application is submitted or before construction commences. Additionally, your proposed development may be subject to local land use ordinances separate from SC Aeronautics' policies. Please contact us if you have further questions.

Continue

DMS 32° 51' 34.650308"N, 079° 46' 07.306641"W

Powered by Esri

A prompt will appear with a window of information (**Figure 26**) notifying the applicant that regardless of the tool's analysis, their proposed development is still subject to Federal Aviation Administration (FAA) height regulations which may require them to submit an FAA Form 7460-1 "Notice of Proposed Construction or Alteration" to the FAA for federal review. To determine if an applicant's proposed development height falls under this FAA regulation, they should click on the <http://oeaaa.faa.gov> link. If it does – they will be required to complete and submit the FAA Form 7460-1 online at this website 30 days before they apply for local permits or start construction. If their proposed development does not require FAA review, then they are not required to submit a FAA Form 7460-1. In either case, they will click "Continue" after they have read and understand their responsibilities. After clicking "Continue", a dialog box will appear while the analysis is running.

Figure 26 – Checking Applicability of FAA Height Regulations

The screenshot displays the South Carolina Airport Compatible Land Use Evaluation (CLUE) Tool interface. The main window is titled "South Carolina Airport Compatible Land Use Evaluation (CLUE) Tool". On the left, there are two panels: "Determine Structure Compatibility" and "Analyze Specific Location". The "Analyze Specific Location" panel contains fields for "Structure Height" (Required) and "Ground Elevation" (Optional), both in feet. Below these fields are buttons for "Draw a Polygon", "Draw a Point", "Enter a Polygon", and "Analyze Location". The "Determine Structure Compatibility" panel has a "Height Suitability Tool" section with a checkbox for "View Maximum Allowed Structure Height" and a slider from 0 to 200 feet. The "Zoom To Location" panel at the bottom left has tabs for "Address", "Coordinates", and "Airport", with an "Address to Locate:" field. The main map area shows a map of South Carolina with various airports and landmarks. A large dialog box titled "Analyze Location" is overlaid on the map. The dialog box contains the following text: "Thank you for using the SC Airport CLUE Tool. Regardless of the information about the proposed development you entered, it may also need to be submitted to the FAA based on height notification criteria in 14 CFR Part 77, §77.9, using FAA Form 7460-1 'Notice of Proposed Construction or Alteration' online at <http://oeaaa.faa.gov>. The form, if required, must be submitted 30 days before a local permit application is submitted or before construction commences. Additionally, your proposed development may be subject to local land use ordinances separate from SC Aeronautics' policies. Please contact us if you have further questions." Below the text is a blue button labeled "Continue". A callout box points to the "Continue" button with the text: "Click 'Continue' after the disclaimer has been read and understood." The bottom of the interface shows a scale bar (20 km, 20 mi), a coordinate display (DMS, 32° 51' 34.650308"N, 079° 46' 07.306641"W), and a copyright notice: "© 2025 - SC Aeronautics. All Rights Reserved." The top right corner of the interface includes links for "SCAC and LPO Log In", "CLUE Tool User Guide - Trial Area", "Land Use Notification Matrix", "Wildlife Hazard Information", and "Welcome & Disclaimer".

Figure 27 – Analyzing Location

The screenshot displays the South Carolina Airport Compatible Land Use Evaluation (CLUE) Tool interface. The main map area shows a geographical view with various landmarks and roads. A red-bordered dialog box titled "Analyzing Location" is overlaid on the map, containing the text "Please wait while your location is being analyzed" and a circular progress indicator with the text "Running Location Analysis...". A blue callout box with a red arrow points to the dialog box, containing the text "A dialog box will be displayed while the analysis is running." The left sidebar contains several sections: "Determine Structure Compatibility" with a "Height Suitability Tool" and a "View Maximum Allowed Structure Height" checkbox; "Analyze Specific Location" with fields for "Structure Height" and "Ground Elevation", and buttons for "Draw a Polygon", "Draw a Point", "Enter a Polygon", and "Analyze Location"; and "Zoom To Location" with tabs for "Address", "Coordinates", and "Airport". The bottom of the interface shows a scale bar (20 km, 20 mi) and a copyright notice: "© 2025 - SC Aeronautics. All Rights Reserved." The top right corner includes links for "Land Use Notification Matrix", "Wildlife Hazard Information", and "Welcome & Disclaimer".

South Carolina Airport
Compatible Land Use Evaluation (CLUE) Tool

SCAC and LPO Log In
CLUE Tool User Guide - Trial Area
Land Use Notification Matrix Wildlife Hazard Information Welcome & Disclaimer

Determine Structure Compatibility

Height Suitability Tool

☐ View Maximum Allowed Structure Height

0
0 200

Enter Height: feet

Analyze Specific Location

Structure Height: Required feet

Ground Elevation: Optional feet

Zoom To Location

Address Coordinates Airport

Address to Locate:

20 km
20 mi

Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, USFWS

Powered by Esri

Analyzing Location

Please wait while your location is being analyzed

Running Location Analysis...

A dialog box will be displayed while the analysis is running.

DMS 32° 51' 34.650308"N, 079° 46' 07.306641"W

A second window (**Figure 28**) will appear with an initial analysis of the proposed structure height and ground elevation (using the measurements provided by the applicant in Step 2) as it relates to the FAR Part 77 Surfaces and the Threshold Siting Surfaces (TSS). This information is used to determine the initial height compatibility of the proposed use. In this example, the top elevation of the proposed structure is lower than the maximum allowed FAR Part 77 height and the allowed TSS height, making the use compatible as it relates to height only. The applicant should click “OK” after they’ve reviewed their initial height analysis score.

Figure 28 – Initial Height Analysis Score

The screenshot displays the South Carolina Airport Compatible Land Use Evaluation (CLUE) Tool interface. The main window is titled "South Carolina Airport Compatible Land Use Evaluation (CLUE) Tool". It features a sidebar on the left with navigation links: "Determine Structure Compatibility", "Analyze Specific Location", and "Zoom To Location". The "Determine Structure Compatibility" section includes a "Height Suitability Tool" with a slider and an "Enter Height:" field. The "Analyze Specific Location" section includes fields for "Structure Height:" (Required) and "Ground Elevation:" (Optional), along with buttons for "Draw a Polygon", "Draw a Point", "Enter a Polygon", and "Analyze Location". The "Zoom To Location" section includes an "Address" field and a "Coordinates" field. The main content area shows a map of the Charleston area with a red box highlighting the "Initial Height Analysis Score" window. This window displays the following information:

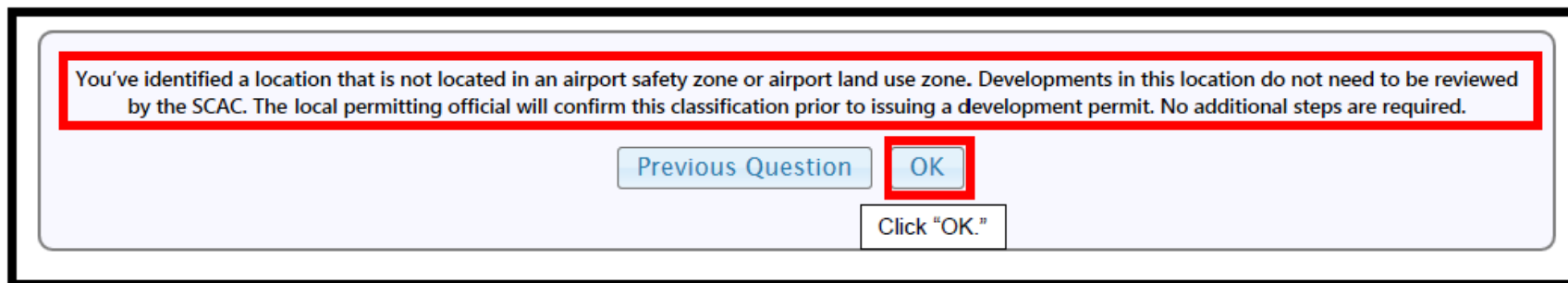
- Initial Height Analysis Score**
- Reference DEM Ground Elevation: 255.000'
- Structure Ground Elevation: 500.000'
- Structure Height: 50'
- Vertical Buffer: 20'
- Structure Top Elevation: 570.000'
- Maximum Allowed Existing Part 77 Height: 390'
- Maximum Allowed Existing TSS Height: N/A
- Maximum Allowed Future Part 77 Height: 386'
- Maximum Allowed Future TSS Height: 500'
- Structure within 3 Nautical Mile Buffer: true
- Structure within 6 Nautical Mile Buffer: true
- Initial Structure Elevation Score: Incompatible
- Continue** button

A callout box points to the "Continue" button with the text: "Click 'Continue' after the initial height analysis score has been reviewed." The bottom of the interface shows a copyright notice: "© 2025 - SC Aeronautics. All Rights Reserved." and a "Powered by Esri" logo.

Step 3a. Property outside the Airport Safety and Land Use Zones

If the applicant's proposed development is located outside of the Airport Safety and Land Use Zones, they are not required to proceed further with SCAC review and will receive the message shown in **Figure 29** indicating such.

Figure 29 – Development outside Airport Safety and Land Use Zones do not Require Review

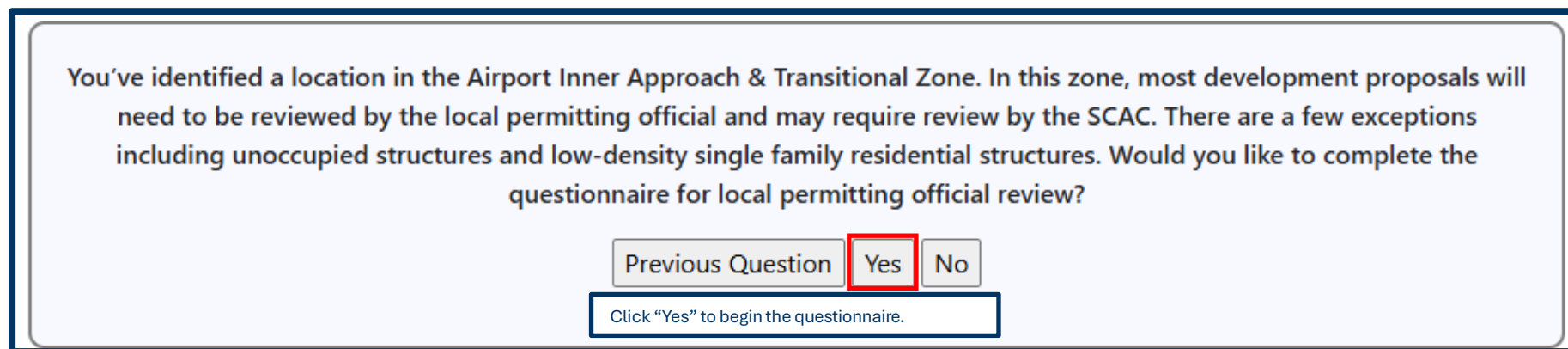


This screenshot shows a light blue message box with a black border. At the top, a red-bordered text area contains the message: "You've identified a location that is not located in an airport safety zone or airport land use zone. Developments in this location do not need to be reviewed by the SCAC. The local permitting official will confirm this classification prior to issuing a development permit. No additional steps are required." Below this text are two buttons: "Previous Question" and "OK". The "OK" button is highlighted with a red border. Below the "OK" button is a small text prompt: "Click 'OK.'"

Step 3b. Property within the Airport Safety and Land Use Zones

If the applicant's proposed development location lies within any of the Airport Safety and Land Use Zones, the tool will prompt the applicant to answer a short set of questions regarding the characteristics of their proposed development (see **Figure 30**). The applicant should answer these questions honestly and to the best of their ability. They may click "Previous Question" if they need to navigate back and modify any of their answers.

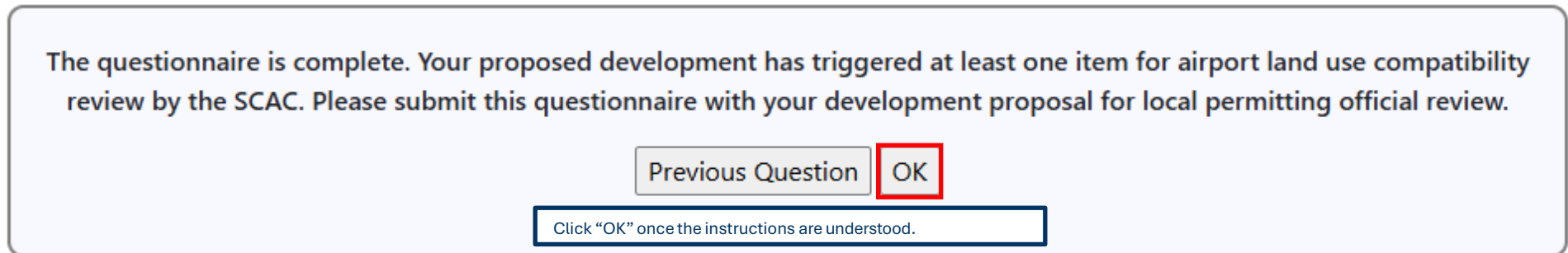
Figure 30 – Answering the Questionnaire



This screenshot shows a light blue message box with a dark blue border. The text inside reads: "You've identified a location in the Airport Inner Approach & Transitional Zone. In this zone, most development proposals will need to be reviewed by the local permitting official and may require review by the SCAC. There are a few exceptions including unoccupied structures and low-density single family residential structures. Would you like to complete the questionnaire for local permitting official review?" At the bottom, there are three buttons: "Previous Question", "Yes", and "No". The "Yes" button is highlighted with a red border. Below these buttons is a text prompt: "Click 'Yes' to begin the questionnaire."

Once all questions on the questionnaire have been answered, a prompt will appear with a window telling the applicant that their questionnaire is complete (see **Figure 31**). It will notify them whether their proposed use has triggered review by SCAC.

Figure 31 – Completing the Questionnaire



The questionnaire is complete. Your proposed development has triggered at least one item for airport land use compatibility review by the SCAC. Please submit this questionnaire with your development proposal for local permitting official review.

Previous Question OK

Click "OK" once the instructions are understood.

This figure shows a light blue rectangular window with rounded corners. Inside the window, there is a paragraph of text in a dark blue font. Below the text, there are two buttons: 'Previous Question' and 'OK'. The 'OK' button is highlighted with a red square border. Below the buttons, there is a smaller rectangular box with a dark blue border containing the instruction 'Click "OK" once the instructions are understood.'

Step 4. Questionnaire Summary

Once the applicant completes this questionnaire, the tool will provide a summary sheet of the applicant's answers (**Figure 32**) and note whether the proposed development triggered review by the SCAC.

Figure 32 – Questionnaire Summary

South Carolina Airport
Compatible Land Use Evaluation (CLUE)

Return To Trial Area

To print the questionnaire summary, click "Print Results".

Optional: To download a variety of KMZ surface/structure files, click "Downloads" and select the KMZ files you want to download. KMZ files can be opened in Google Earth by clicking "File" then "Open" and selecting the .kmz file(s) that were saved. Through the CLUE Tool.

SCAC and LPO Log In
CLUE Tool User Guide - Trial Area
Welcome & Disclaimer

Print Results Downloads

Print Results Downloads

Download KMZs

Case:

Structure Location
Center Latitude: 33.63127596501111
Center Longitude: -81.72141293130227

Height Analysis Values
Structure Height: 25'
Vertical Buffer: 20'
Structure Ground Elevation: 500' (Reference DEM Elevation: N/A)
Structure Top Elevation: 545'

Existing Maximum Allowed Part 77 Height: 631'
Existing Maximum Allowed TSS Height: 686'
Future Maximum Allowed Part 77 Height: 631'
Future Maximum Allowed TSS Height: 686'

Height Compatibility Score
Compatible: Your proposed structure would likely be considered compatible by a criteria in 14 CFR Part 77, §77.9, using FAA Form 7460-1 "Notice of Proposed Construction Commencement." The proposed structure(s) may also be subject to other local planning or building permit official, if you have further questions.

You've identified a location in the Airport Inner Approach & Transitional Zone. In this zone, unoccupied structures and low-density single family residential structures are prohibited. Would you like to proceed with this location?
Yes

© 2025 - SC Aeronautics. All Rights Reserved.

Case:

Structure Location
Center Latitude: 33.63127596501111
Center Longitude: -81.72141293130227

Height Analysis Values
Structure Height: 25'
Vertical Buffer: 20'
Structure Ground Elevation: 500' (Reference DEM Elevation: N/A)
Structure Top Elevation: 545'

Existing Maximum Allowed Part 77 Height: 631'
Existing Maximum Allowed TSS Height: 686'
Future Maximum Allowed Part 77 Height: 631'
Future Maximum Allowed TSS Height: 686'

Height Compatibility Score
Compatible: Your proposed structure would likely be considered compatible by a criteria in 14 CFR Part 77, §77.9, using FAA Form 7460-1 "Notice of Proposed Construction Commencement." The proposed structure(s) may also be subject to other local planning or building permit official, if you have further questions.

You've identified a location in the Airport Inner Approach & Transitional Zone. In this zone, unoccupied structures and low-density single family residential structures are prohibited. Would you like to proceed with this location?
Yes

SCAC Title 55 Land Use Zones
☒ Land Use Notification Zones KMZ
☒ Land Use Evaluation Zones KMZ

Existing Airspace Surfaces
☒ Part 77 Surface KMZ
☒ Threshold Siting Surface KMZ

Future Airspace Surfaces
☒ Part 77 Surface KMZ
☒ Threshold Siting Surface KMZ

Case Structure KMZ
☒ Case Structure

Download Close

structure, it may still need to be submitted to the FAA based on height notification requirements. The notification must be submitted 30 days before a local permit application is submitted or before construction commences. The proposed structure(s) may also be subject to other local planning or building permit official and may require review by the SCAC. There are a few exceptions including

Regardless of whether the tool indicates the applicant's use has triggered SCAC review, the applicant can print a copy of their questionnaire summary which they can share with their LPO when applying for development permits/approval. If the proposed development does not require SCAC review, the applicants' LPO will review their questionnaire summary prior to issuing any permits to begin construction. If the proposed development triggered SCAC review, the LPO will work with the applicant to submit their proposed development for review.

Note: If the applicant's proposed development requires submission of an FAA Form 7460-1, they will receive a letter of findings from the FAA once they've reviewed the applicant's use. FAA's review and response may take up to several weeks to a few months to complete, so the applicant should submit the Form 7460-1 as soon as possible. The applicant should bring the FAA findings letter along with their questionnaire summary to their LPO. The applicant's LPO will upload a copy of the FAA letter to SCAC for their review.

CLUE TOOL GLOSSARY

Applicant – Likely the property owner(s) or developer(s) that are responsible for applying for local permits.

Case – The establishment of an applicant’s proposed development circumstance within the LPO login area of the CLUE Tool. A case is given a reference number so it may be monitored, evaluated and closed out when appropriate. Cases are not created in the Trial Area of the CLUE Tool.

Flammable/Hazardous Materials – Large quantities of flammable or hazardous materials such as gas, propane, and chemicals. Small propane tanks and the like are not considered to be included in this grouping. Some facilities of concern include (but are not limited to) commercial fueling stations/truck stops and bulk fuel terminals.

Ground Elevation – The mean sea level (MSL) height of the ground on which the proposed development will be built.

Local Permitting Official (LPO) – Likely the local municipal planner(s) or building permit official responsible for permitting procedures.

Density –

Low Density – This is the lowest density level established for the tool. This level of density varies between land use types based upon characteristics of the land use type. The following outlines what is considered Low Density for each of the major land use types:

Residential

- Up to 1 dwelling unit per acre or not more than 5 persons per acre
- Examples: single family homes

Commercial & Industrial

- Facility size of 10,000 square feet or less
- Examples: specialty shops, printing & shipping shops, banks, laundromats, vehicle repair shops, bakeries, hardware shops, towing/vehicle storage, building supply yards, exterminators

Institutional

- Not more than 25 persons
- Examples: single doctor offices, specialist offices, dentist/orthodontist offices, medical laboratories, urgent care facilities

Recreation

- Not more than 50 persons
- Examples: small gyms, dance studios

Medium Density – This level of density varies between land use types based upon characteristics of the land use type. The following outlines what is considered Medium Density for each of the major land use types:

Residential

- 2-10 dwelling units/acre or not more than 25 persons/acre
- Examples: apartment complexes, duplexes, townhomes

Commercial & Industrial

- Facility size of more than 10,000 square feet up to 50,000 square feet
- Examples: fast food restaurants, small cafés, small restaurants/bars, small & medium size offices, machine shops, general manufacturing, recycling centers

Institutional

- 25-100 people
- Examples: small libraries, small museums, small religious assemblies

Recreation

- 50-200 people
- Examples: bowling alleys, skating rinks, tennis/swimming facilities, sports parks

High Density – This level of density varies between land use types based upon characteristics of the land use type. The following outlines what is considered High Density for each of the major land use types:

Residential

- More than 10 dwelling units/acre or more than 25 persons/acre
- Examples: large apartment complexes, mobile home parks, high rise condominiums

Commercial & Industrial

- Facility size of 50,000 square feet up to 100,000 square feet
- Examples: big-box stores, large offices, multi-floor complexes, restaurants, shopping malls, nightclubs, heavy manufacturing, mining/extraction, water treatment

Institutional

- More than 100 but less than 500 people Examples
- Examples: colleges, universities, hospitals, community centers, large religious assemblies, conventions or performing arts centers

Recreation

- More than 200 but less than 500 people
- Examples: indoor theaters, small amusement parks, stadiums, casinos, large amusement parks, racetracks

Ultra-High Density – The highest density category established for the tool. This level of density varies between land use types based upon characteristics of the land use type. The following outlines what is considered Ultra High Density for each of the major land use types:

Residential

- No density established for this land use type (see High Density instead).

Commercial & Industrial

- 500+people
- Examples: big-box stores, large offices, multi-floor complexes, restaurants, shopping malls, nightclubs, heavy manufacturing, mining/extraction, water treatment

Institutional

- 500+ people
- Examples: colleges, universities, hospitals, community centers, large religious assemblies, conventions or performing arts centers

Recreation

- 500+ people
- Examples: indoor theaters, small amusement parks, stadiums, casinos, large amusement parks, racetracks

Note: these “Ultra-High Density” uses are the same uses shown under “High Density”, but they have even higher density of 500+ people. For example, a local community college that has between 100 and 500 students and faculty would be considered “High Density” and a local university that has more 500+ students, and faculty would be considered “Ultra-High Density.”

Structure Height – The tallest point of the proposed development, including the height of church steeples, utility poles, cell towers, parking lot lights, etc.

Wildlife Attractants – Specific uses or characteristics of uses that are appealing to wildlife and draw them in. Examples of common wildlife attractants include landfills, wastewater treatment plants, open mining operations with water bodies, construction soil/debris piles, detention ponds, fountains, created wetlands, trash receptacles and certain types of crops.

Zoning Change – A change in zoning that requires a local zoning map amendment.

