

Airport 3D Visualization Project Prepared for: The City of New Braunfels Planning Department

The Geo Solutions Team

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Tory Carpenter GIS Analyst Cameron Frere GIS Analyst <u>Goal</u>: Create visual representations of airport zoning regulations so they can be understood by city staff, property owners, and the general public.

Objectives:

- Develop a 3-D model of restricted zones
- ✤ Import model into Google Earth for public access
- Create an interactive inquiry tool map displaying available building heights

Task 1 – 3D Model

- ✤ Completed
 - Terrain in ArcGlobe
 - Individual restricted zone polygons
- ✤ In-Process
 - Merging polygons to create minimum heights
- ✤ To Do
 - Import SketchUp file to ArcGlobe
 - Create fly-through animation
 - Integrate finished product to the City of New Braunfels website





Fly-Through Example





Google SketchUp

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Task 2 – Interactive Mapping Tool

- ✤ Completed
 - Identify and collect necessary data
 - Assigned z values (elevation)
- ✤ In Progress
 - Calculating slope for each zone
- ✤ To Do
 - Create TIN surface
 - Rasterize TIN
 - Use Raster Calculator to calculate maximum building heights
 - Configure restricted zones to show lowest value for overlapping zones
 - Compete graduated color map
 - Complete interactive mapping tool





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227456... 137915... 626.793

227583... 137919... 630.140

227687... 137924... 632.083

227856... 137936... 632.752

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Task 3 – Interactive 3D Map

✤ To Do

• Export SketchUp model as a Google Earth file









Google Earth

GeoSolutions

SIMPLY THE BEST

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HOME

DOCUMENTS ABOUT TEAM



Welcome!

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Palomer Skies - Palomer Observatory California

New Braunfels, Texas Home Page

Texas State Univeristy - San Marcos, TX

PowerPoint

Interactive Map



This is the official website for GeoSolutions, a group created to produce a 3-dimential model of airspace restriction zones for the New Braunfels, Texas Planning Department. Please feel free to explore our page for more detailed information and visual aids for our project.

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Implications

✤ Effective communication between the city and general public

- Airspace restriction zones difficult to understand
- Intimidating system
- 3D model is more approachable and will encourage community involvement
- ✤ Efficient decision making in-house
 - Comprehensive
 - Easy to query information
 - Assist property and applicants
 - Information available to general public

Timetable

February

S	М	T	W	TH	F	S
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5	6	7	8	9	10	11
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April

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S Μ Т W ΤH F S a Data Analysis

May

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13	14	15	16	17	18	19
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27	28	29	30	31		

March

Final Deliverables

Geo Solutions will present the following deliverables to the client:

- →Final Report with maps (hard copy)
- →Professional Poster Display (36"X48")
- → Project Dedicated Website
- → CD containing:
 - All data
 - Metadata
 - Report
 - PowerPoint Presentation
 - Instructions on how to use the CD
 - o Readme file

> Webpage testing will be conducted to ensure that all data is usable

Conclusion

- ✤ The project is on track for proposed finished date
- ✤ Minor setbacks have been remedied





Questions?



Photo by: Nate Stanley