

**EDISON NATIONAL HISTORIC SITE
NEW MEDIA MAPPING SERVICES**

I. BACKGROUND

Imagine your day ending at sunset. Life without music, motion pictures, and radio. Life without light itself. Our modern lives began at the beginning of the twentieth century in West Orange, New Jersey, with the many inventions of Edison and his staff. Edison National Historic Site has two parts. The Laboratory complex of Thomas Edison, as if stopped in time, preserves the world's first industrial research laboratory in a downtown urban area. Less than a mile away is Edison's home, Glenmont, a leafy oasis in a gated community where the rich of New York City once built stately country homes. Glenmont provides a glimpse of the social life that Edison shared with his young second wife, Mina, and their three children.

II. PURPOSE

The purpose of this contract is to create two 3-Dimensional (3D) oblique maps of Edison National Historic Site, New Jersey, for a new park brochure.

III. SCOPE OF WORK

Independently, and not as an agent of the government, the contractor shall provide all labor, equipment, materials and services necessary to create two computer-generated, perspective 3D maps for a new brochure of Edison National Historic Site, New Jersey. One map shall show the laboratory complex and the other shall show Edison's home and grounds at Glenmont. The maps shall serve as reference and navigation devices for park visitors.

A. General Instructions

1. The government-furnished mockup files in Sketchup format shows the approximate 3D oblique views of the Laboratory complex and Glenmont. The contractor shall create final maps with nearly identical viewing parameters and area coverage as those found on the government-furnished property.
2. Any appropriate 3D software application shall be used for production.
3. The final maps shall be delivered as layered Adobe Photoshop files in RGB format at 300 DPI. Both maps shall measure 5" wide x 3.35" high.

4. The contractor shall obtain all digital data needed for producing the maps. An assortment of digital maps, aerial photographs, and annotated photographic references are contained on the government-furnished CD-ROM, Attachment A. If additional, reference resources are needed, the contractor shall contact the Contracting Officer's Representative (COR) to request these items.
5. Maps shall print at small size, therefore, the government requires that they shall have a clean, legible appearance without the hyperrealism and fine textures, such as brick walls and shingles on roofs, typical of many 3D renderings. Building colors shall closely approximate those found on the government-furnished reference photographs. The maps shall have a light, uncluttered appearance that can accommodate the placement of labels with minimal graphical noise.
6. Three-dimensional trees and other vegetation shall not appear on the maps.
7. The contractor shall construct the maps on a flat planar surface without using a Digital Elevation Model (DEM) to represent the terrain surface. The terrain surface on both maps shall have a very subtle bump map texture to give it an organic appearance.
8. Light cast shadows shall appear on the maps. Illumination shall emanate from either the lower left or lower right; whichever direction is chosen shall be consistent for both maps. A moderate amount of background haze shall be used to give the maps 3D depth.
9. The contractor shall add considerably more architectural detail to the buildings compared to the blocky, prismatic forms found on the government-furnished Sketchup files. It is key that the buildings shall have enough detail to make them recognizable to map readers, but not so much that legibility becomes a problem. Roofline detail, chimneys, windows, and doors shall appear on the rendered 3D buildings much like they do in reality. The one notable exception is the Edison home at Glenmont that shall require considerable generalization because of its extreme complexity and the need to depict it at thumbnail size. Window shutters, downspouts, utility lines, and the like shall not be depicted on any of the buildings.
10. Building heights shall not be architecturally accurate so long as they appear properly proportioned to one another on the maps.

11. Roads, sidewalks, parking areas, and footpaths shall appear on the maps with surface colors that appear realistic. Sidewalk curbs shall appear slightly elevated above adjacent paved surfaces. Lightly show traffic lines in the center of the roads and parking space lines in parking lots.
12. The contractor shall not place labels, north arrows, and scales on the maps.
13. To prevent buildings that tilt excessively towards the sides of the map away from the central viewing axis in the 3D scene, the contractor shall avoid very wide-angle lens settings.

B. Glenmont map instructions

1. A medium green color shall depict the NPS land surface at Glenmont. Non-NPS land shall appear as neutral beige.
2. The filled in pool and skating pond shall appear as outline shapes.
3. The glass roof of the Greenhouse shall be evident.
4. The contractor shall propose a method for depicting the graves of Thomas and Mina Edison.
5. The map shall contain all roads, parking areas, walkways, and buildings depicted on the government-furnished file entitled "Glenmont view.psd."

C. Lab map instructions

1. The map shall contain all roads, parking areas, walkways, and buildings depicted on the government-furnished file entitled "Lab view.psd" except for the NPS administration building.
2. The three Norway spruce trees near the Gatehouse shall be cutdown (they are not historical) and shall not be shown on the map.
3. The depiction of Vault 33 in "Lab view.psd" is too low. The government-furnished reference photographs of this building shows what it actually looks like.
4. The contractor shall show the chain link fence enclosing the perimeter of the laboratory complex with an open gate at the main entrance on Main Street.

5. The contractor shall use an "X-ray" view to look through the side of the main lab revealing that the building has three floors. The contractor shall not show machinery and other objects on the floors or use the X-ray view too close to the front of the Main Lab (near the Gatehouse) because Edison' office and library with a high atrium ceiling is there.
6. The arched entrance, next to the Gatehouse, leading from Main Street to the Courtyard inside the Lab Complex shall be visible. Removing the spruce trees shall help with this.
7. A new elevator shaft built on top of the Powerhouse at the far end of the Main Lab shall be shown. The contractor shall also depict the chimney on the Lakeside Avenue side of the Powerhouse. See government-furnished reference photographs for details.
8. The visitor parking lot on Main Street has a revised configuration from that shown on "Lab base.ai" and "Lab view.psd." The contractor shall refer to "Parking lot.jpg" in the Lab raster resources folder on the CD-ROM for the new configuration.

IV. **DELIVERABLES**

The Contractor shall submit the work in stages for the COR's review and approval before proceeding to the next phase. Those review stages are specific to presentation and content as follows:

- A. **Draft maps:** JPEG image delivered via ftp or on optical media.
- B. **Final maps:** Layered RGB Photoshop files delivered via ftp or on optical media.

V. **TIME FOR COMPLETION**

All work, including Review and Approval, shall be completed on or before September 12, 2007 in accordance with the following schedule:

NOT LATER THAN

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|-----------------------------|-----------------|
| A. Submission of Draft Maps | July 27, 2007 |
| B. Submission of Final Maps | August 31, 2007 |

VI. **REVIEW AND APPROVAL**

The COR will notify the contractor, in writing, of approval or rejection citing any additions, corrections, or suggestions to the work within 12 calendar days. Any additions or corrections shall be completed and returned to the government with 12 calendar days.

In the event that the government delays comments beyond the period specified, the contractor shall be entitled to a day-for-day extension in the final completion date.

VII. **CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE** for the purpose of this order is:

Tom Patterson
Cartographer
(304) 535-6020

VIII. **GOVERNMENT-FURNISHED PROPERTY**

The government will furnish the contractor with digital data on CD-ROM and a hard copy brochure and site bulletin. Upon completion and acceptance of all work, the contractor shall return all government-furnished materials to the COR.

IX. **ATTACHMENTS** – The following items are attached and incorporated into this order:

A. Hard copy:

1. NPS Edison National Historic Site brochure
2. Glenmont site bulletin

B. CD-ROM:

1. Glenmont base.ai
2. Glenmont 3D mockup.skp
3. Glenmont view.psd
4. Glenmont photos
5. Glenmont raster resources
6. Lab base.ai
7. Lab 3D mockup.skp
8. Lab view.psd
9. Lab photos
10. Lab raster resources