Figure 8 - 28: Current View of the Alamo Cenotaph, West Elevation [Google Maps, 2016]

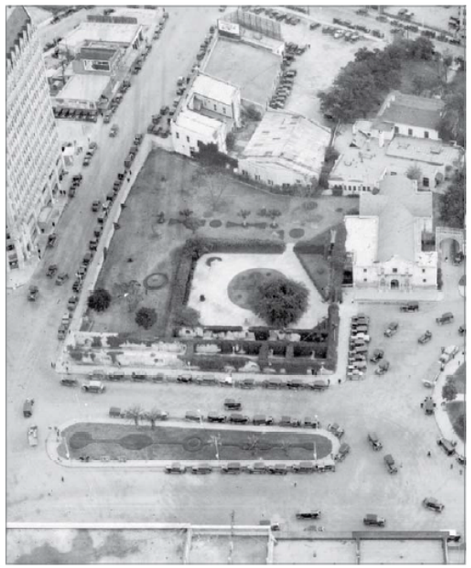

Figure 8 - 29: Aerial View of Alamo Plaza in 1931. Prior to the construction of the Cenotaph [UTSA Special Collections - Institute of Texan Cultures]

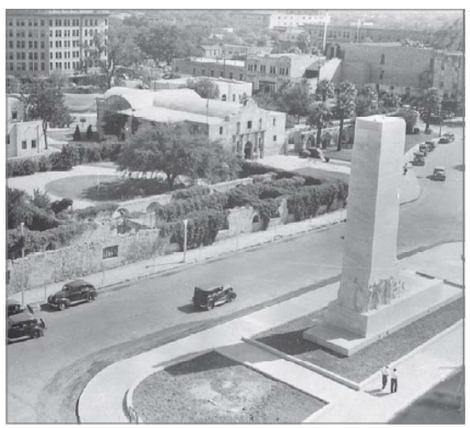

Figure 8 - 30: Birdseye view of Alamo Plaza in 1940, Looking Toward the Southeast. [UTSA Special Collections - Institute of Texan Cultures]

THE ALAMO CENOTAPH

A Visual assessment of the Cenotaph indicates that there are significant structural and material deterioration concerns. The condition of the joints and the displacement and cracking of the marble blocks are indications of concealed deterioration, such as deterioration of metal concrete reinforcement and stone anchors, that needs to be addressed [*Refer to Figures 8 - 34 through 8 - 39*]. In addition, if in fact it has been constructed as indicated in the drawings, the concrete structure may have carbonation, a "disease" of the concrete that may have compromised its structural integrity.

The Master Plan makes recommendations to address the current conditions to extend the Cenotaph's life expectancy by 30 to 50 years:

1. **Supplemental Research**

   The Cenotaph was constructed in 1937-1939. While there are available drawings of the proposed design *[Figure 8 - 32 and Figure 8 - 33]*, it is not known whether the structure was constructed as shown in the drawings.

   It appears that the records of several WPA projects are in Ft. Worth, TX. The Master Plan recommends the following:

   a. Visit the collection to confirm that all documents regarding any work by the WPA associated with the Alamo have been copied and are available for future researchers.

   b. Visit with any entities, such as contractors, installers, etc. who are still in business to determine as to whether there are any documents, photos, etc. taken during the construction of the Cenotaph.

   c. Reach out to the public to solicit any photographs taken during construction.

2. **Exterior**

   a. Commission a detailed laser scan and orthophotographic documentation of the exterior of the structure to:

      · record existing conditions,

      · determine displacement of marble blocks

      · delineate all areas of deterioration

   b. Undertake a detailed photographic campaign, from general perspective-corrected images to detail photographs of specific conditions.

   c. Supplement the documentation with a Non–Destructive Evaluation [NDE] program including infrared imaging, ground penetrating radar [GPR] and ultrasounds to "map" concealed conditions, such as moisture saturation, voids, cracks, etc. prior to undertaking any interventions.

   d. Record and delineate the drainage system and assess its condition through videoscopy, prior to any interventions.

   e. Perform a visual assessment of the exterior supplemented with a materials testing program.

   f. Disassemble the top of the monument in order to gain access to the interior.

3. **Interior**

   a. Commission a laser scan of the interior of the monument and tie it to the exterior laser scan to create a single point cloud and a 3-D model of sufficient detail to undertake the repair / restoration program.

   b. Undertake a careful structural assessment of the concrete structure, supplemented with a materials testing program.

For long-term treatment, the following recommendations are made:

- Carefully disassemble the monument
- Conserve, clean and prepare all individual marble blocks for reinstallation
- Provide a non-corrosive supporting structure for reassembly of the Cenotaph
- Use non-corrosive, non-ferrous anchors and connections to avoid future corrosion
- Establish a cyclical inspection and maintenance program
- Install sensors to monitor changing conditions and / or moisture infiltration

Historic research has not provided definitive information regarding:

A. Why the Cenotaph was placed in this location.

B. What the impacts were on the historic site during construction.

We can infer from the construction documentation that the disturbance was significant since the proposed bottom of the footing was placed at approximately 22 feet below grade *[Figure 8 - 31]*, which would result in total loss of any archaeological evidence. Furthermore, if there were any burial sites in this location, all evidence and remains would have been lost.

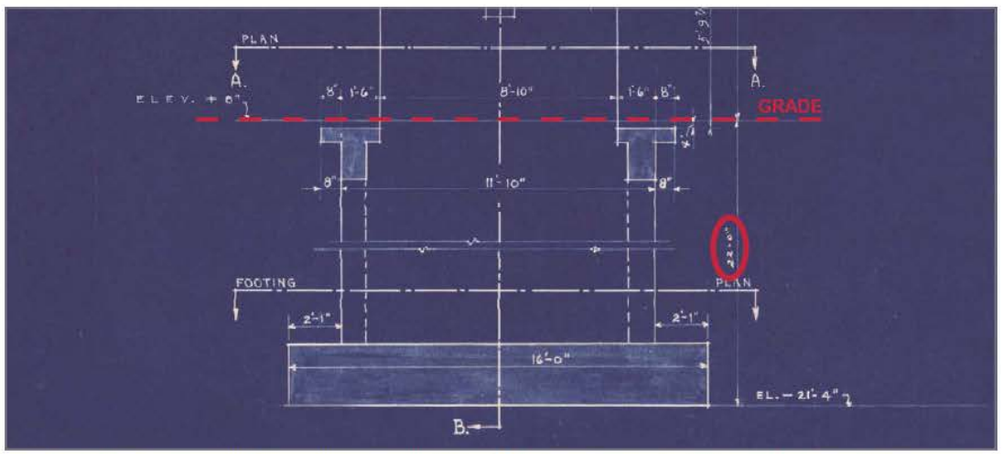

Figure 8 - 31: Detail of Cenotaph Section Drawing. The bottom of the footing is indicated as 22 feet below grade at Alamo Plaza. [Blueprints and Drawings Collection, Archives and Information Services Division, Texas State Library and Archives Commission]

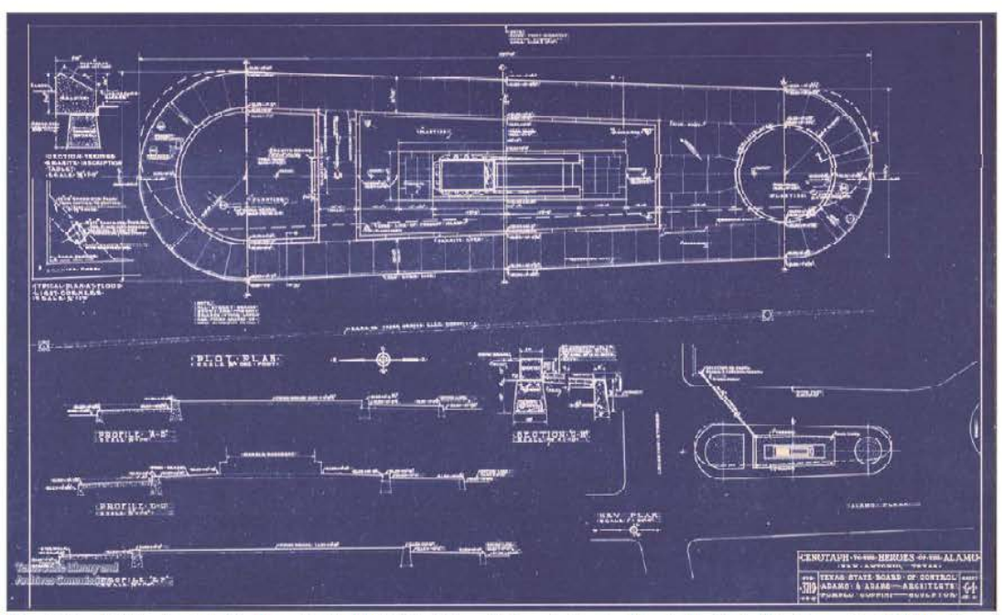

Figure 8 - 32: 1937 Plan Drawing of the Alamo Cenotaph by Architect Adams & Adams, Designed and Executed by the Sculptor Pompeo Coppini. [Blueprints and Drawings Collection, Archives and Information Services Division, Texas State Library and Archives Commission]

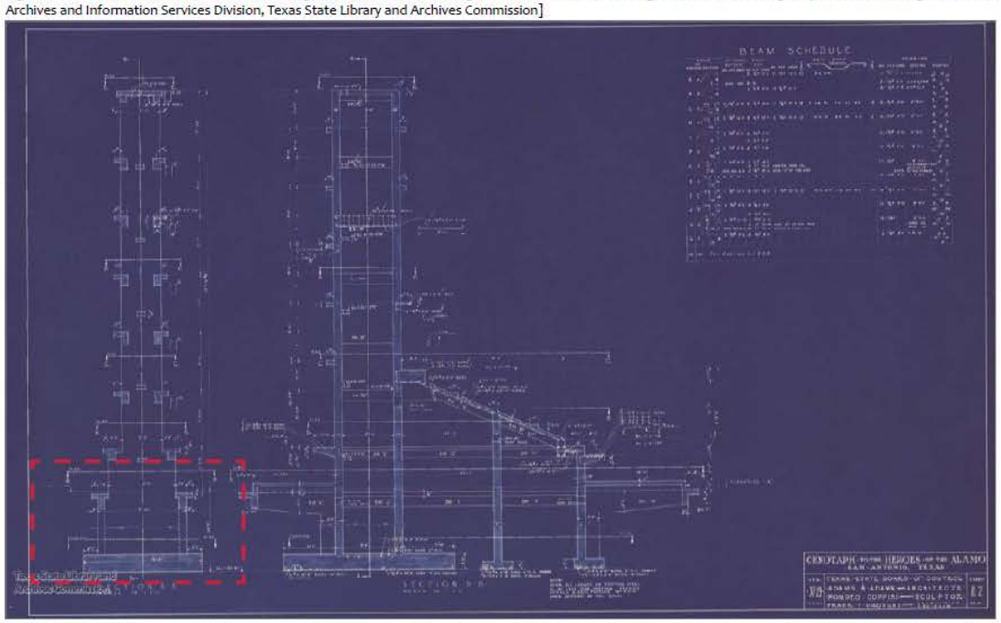

Figure 8 - 33: 1937 Section Drawing of the Alamo Cenotaph. The red box indicates the foundation detail in *Figure 8 - 31* [Blueprints and Drawings Collection, Archives and Information Services Division, Texas State Library and Archives Commission]

Figure 8 - 34: Condition at the Top of the Cenotaph. Joint failure is visible that is permitting water to infiltrate the interior of the structure. [Photograph from 2014 Alamo Cenotaph conditions assesment prepared by Jaster Quintanilla and Building Monument Conservation for the City of San Antonio]

Figure 8 - 35: Joint Sealant Failure and Shifted Stone at the Top Course of the Alamo Cenotaph. [Photograph from 2014 Alamo Cenotaph conditions assesment prepared by Jaster Quintanilla and Building Monument Conservation for the City of San Antonio]

Figure 8 - 36: Example of Significant Mortar / Joint Sealant Failure and Stone Movement on the Side of the Alamo Cenotaph. [Photograph from 2014 Alamo Cenotaph conditions assesment prepared by Jaster Quintanilla and Building Monument Conservation for the City of San Antonio]

Figure 8 - 37: An Example of Deteriorated Marble at One of the Cenotaph Sculptures. [Photograph from 2014 Alamo Cenotaph conditions assesment prepared by Jaster Quintanilla and Building Monument Conservation for the City of San Antonio]

Figure 8 - 38: An Example of Stone Cracking and Spalling, as well as Joint Sealant Deterioration. [Photograph from 2014 Alamo Cenotaph conditions assesment prepared by Jaster Quintanilla and Building Monument Conservation for the City of San Antonio]

Figure 8 - 39: Detail of Significant Stone Cracking. This is a result of water infiltration to the interior of the moument structure. [Photograph from 2014 Alamo Cenotaph conditions assesment prepared by Jaster Quintanilla and Building Monument Conservation for the City of San Antonio]