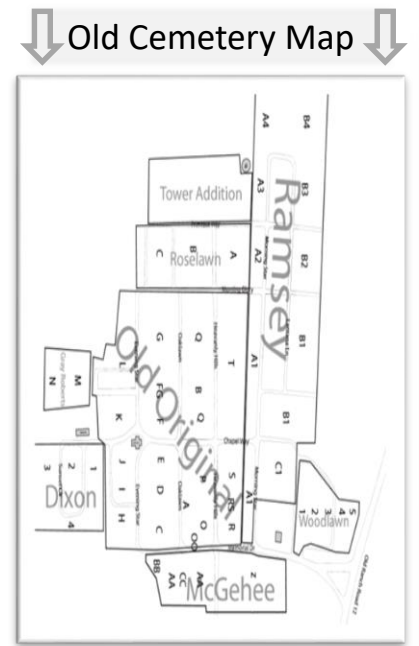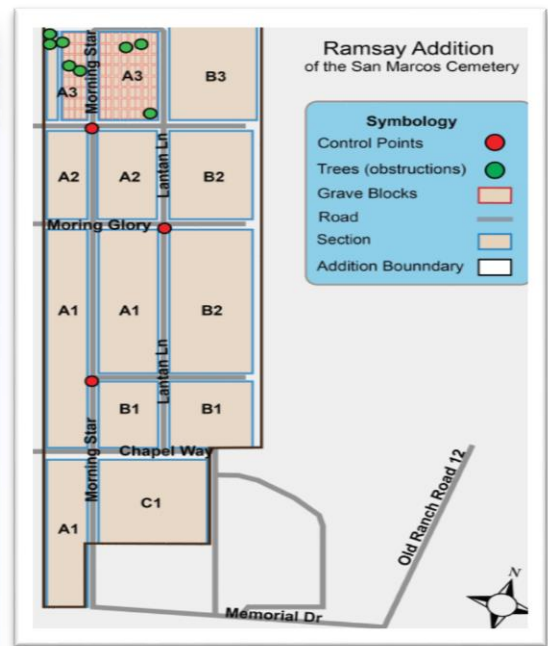## Background

The San Marcos Cemetery consists of a 45-acer plot located on 1001 Ranch Road 12. Founded in 1876 as an expansion of the town's original cemetery, The San Marcos City Cemetery has burials dating back to 1846 making this cemetery a historic site for the citizens of San Marcos. The property is owned by the city of San Marcos, and managed by the Texas Parks and Recreation Department. Sections of the Ramsay Addition will include section, block, and grave space.
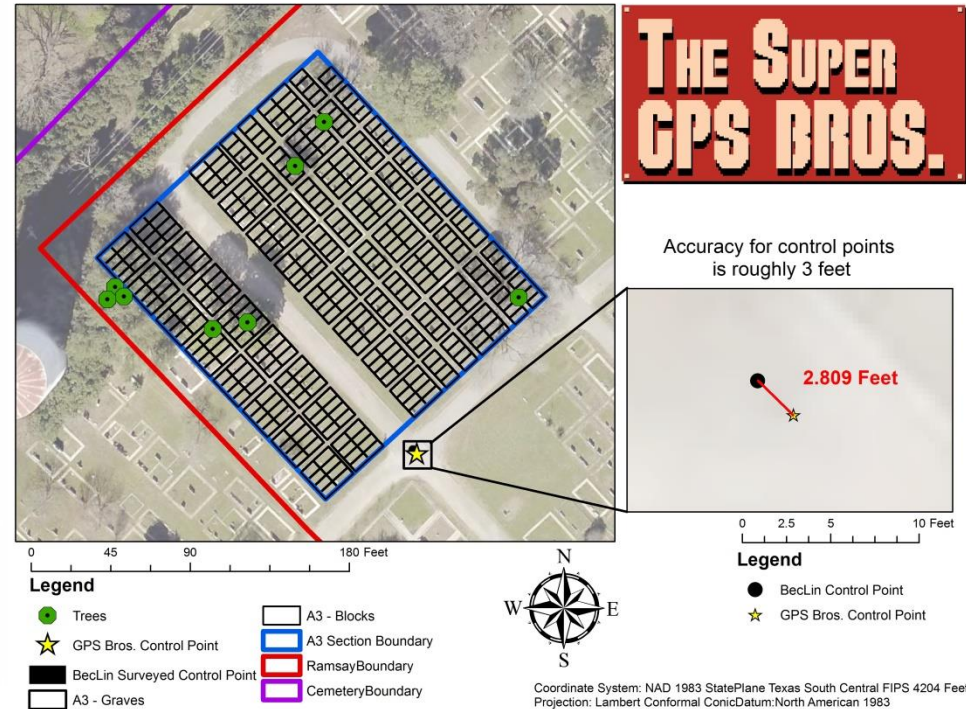
Purpose

The database will accompany Pontem Cemetery Software which will help the city better manage this site. The map, which will be titled San Marcos Cemetery: Ramsey Edison, will show cemetery outline, addition, block, individual grave space, and any large obstructions occupying grave space. The map will be used by the city to help with inventory, record keeping, maintenance, and future expansion projects.

Time Scale

The time for this project was estimated to take 2 months. 3 weeks for data collection and preprocessing, 4 weeks for data analysis, and 3 more for interpretation and conclusions. The project was completed on time but The GPS. Bros. unfortunately did not have enough extra data collection time in order to cover more sections of the cemetery.

Ramsay Addition of the San Marcos Cemetery

Symbology
- Control Points — red
- Trees (obstructions) — green
- Grave Blocks
- Road
- Section
- Addition Bounndary

Old Cemetery Map

Methodology

- GPS coordinates were acquired for all corners of the Ramsay addition.
- For obstructions, The GPS Bros. used offsets in order to obtain the most accurate data for the locations of these obstructions.
- One grave block of each size was digitized using GPS points to create a template and were used to streamline remaining blocks.
- Coordinates were collected in WGS84, default for the GeoXT Trimble unit, then reprojected in 4204 South Central State Plane, at request of the City of San Marcos

Pontem Software Integration

GPS Bros. output geodatabase will be combined with Pontem's Cemetery Management System is that it's fully-scalable and can be tailored to include features such as image/document management, web publishing, and their Online Burial Search available to the public.

Digitizing the San Marcos Cemetery

THE SUPER GPS BROS.

Accuracy for control points is roughly 3 feet

2.809 Feet

Legend
- BecLin Control Point
- GPS Bros. Control Point

Coordinate System: NAD 1983 StatePlane Texas South Central FIPS 4204 Feet
Projection: Lambert Conformal ConicDatum:North American 1983

Legend
- Trees
- GPS Bros. Control Point
- BecLin Surveyed Control Point
- A3 - Graves
- A3 - Blocks
- A3 Section Boundary
- RamsayBoundary
- CemeteryBoundary

Results

- Our result is The GPS Bros. map to the left.
- The A3 section of the Ramsay addition has been digitized down to the grave space and includes obstructions or landmarks that help in the locating of loved ones.
- Our data collected was very accurate, less than 1 meter of accuracy for all coordinates obtained during the coordinate collection process.