get water to flow around an impediment to get to the raceway. Rather, if the millrace was no longer needed, as was the case of the Alamo Mills raceway, the water flow would need to be stopped so the raceway could be filled in. Further discussion of the historic background of the Alamo Mills Dam is in the following chapter.

Feature 3

Feature 3 was located along the San Antonio River between the Camden Street Bridge and IH-35 (Figure 4-1). The feature consists of several railroad trusses in the east bank and the river channel. These would have been parts of a track that ran to the Pearl Brewery. Feature 3 was located during the initial reconnaissance of the Museum "Urban" Reach section of the San Antonio River Improvements Project (Antonia L. Figueroa et al. 2006). They were again noted during the monitoring of the construction of the Riverwalk expansion (Figure 4-11). Currently, no evidence of the trusses is visible in the river channel or along the bank. It appears the trusses were removed from the channel as to not be an impediment to the river barges. Landscaping of the east bank removed any signs of the wooden trusses.

The Lone Star Brewing Company

Several features were located along the west bank of the San Antonio River north of Jones Avenue (Figure 4-12). These features are all within the vicinity of the San Antonio Museum of Art (SAMA), previously known as the Lone Star Brewing Company. After reviewing the location of the features, their proximity to SAMA, and the nature of the artifacts associated with the features it was deemed that these should be combined into one. All the features appear to have connection to the use of the Lone Star Brewing Company. The Brewing Company was founded by John H. Kampmann in 1884. It should be noted that this Lone Star Brewing Company should not be confused with the Lone Star Brewery, which produced Lone Star Beer, located near Mission Concepción. The company was in operation until 1892. Kampmann sold the business to Adolphus Busch and the complex was used to produce beer until 1918 when prohibition laws went into effect. Business continued, though the company produced soft drinks rather than beer. Busch promoted a soft drink called "Tango" that was supposed to make "palate dance with joy" during the Prohibition period (Jennings 1998). After production of the soft drink ceased, the complex was used for milling cotton (Jennings 1998). In 1925, the buildings were occupied by

Figure 4-11. *Railroad trusses located near Camden Avenue and Newell Street.*

Figure 4-12. *Aerial view of the features located adjacent to the Lone Star Brewing Company. Feature locations not shown.*

the Lone Star Ice and Food Company prior to their closure that year. The complex was preserved by the San Antonio Conservation Society and converted into the San Antonio Museum of Art which opened in 1981 (Cox et al. 2002a).

The property underwent expansion over the years as was noted when reviewing the Sanborn's Fire Insurance maps. In the early years of the brewery, the complex was centered around a main building that consisted of the brewing area, and several working areas. Additions initially centered around expanding the main structure, but also noted several new workshops by 1888. A few years later, by 1892, the Lone Star Brewing Company expanded dramatically with the addition of railroad track leading to loading docks, storage facilities, and several new structures closer to the San Antonio River. The complex was fronted by Jones Avenue (Grand Avenue), and contained the property from the Jones Avenue Bridge

west to the bend in the River. Again, the complex expanded by 1904. Located closest to the Jones Avenue Bridge on the property was a Beer Garden.

Below is a discussion of each of the features noted.

Feature 4

Feature 4 was recorded just north of the Jones Street Bridge along the west bank (Figure 4-12). Down cutting of the bank uncovered a midden of glass bottles that had previously been covered by a concrete slab. The deposit of bottle was approximately 4 meters wide and two meters thick. The bottles noted in the deposit varied in colors, though the most common were aqua and olive (Figure 4-13). Makers marks noted on the bottles in the deposits included "Risches" and a triangle with an "R" inside. Many of the bottles retained their loop-wire closures. Within the glass deposit were metal straps that appear to have been from wooden kegs/casks. Fragments of cut bone and stoneware were also noted in the deposit. Just below the glass deposit appears a burned red matrix that was 25 cm thick and extended 4.5 meters. The matrix is reminiscent of brick material. It did not appear to have any burned glass in this level.

The Rische Brothers Bottling Company, located at 1117 Avenue B, at the intersection with 12th Street, appears to have been in operation beginning sometime after 1892, when the property was sold to Rische Brothers, a partnership of Charles A. and Edward Rische, Jr. by G. A. Maverick (BCDR 91: 354). The Rische Brothers Bottling works was located directly across the river from the Lone Star Brewing Works, very near the Ochs and Ashbacher Weiss ("white", that is, wheat) Beer Brewery, and just a few blocks south of the Pearl Brewery (Figure 4-14). In 1907, the Rische Brothers Bottling Works was put up for auction, by court order (San Antonio *Light*, August 7, 1907, page 8). Deed records show that the works was purchased by Ulrich Rische, another of the sons of Edward Rische, at that time. He paid $1503 dollars, with a further $3000 in two notes due in one and two years, respectively (BCDR 269: 256). The next year, after Ulrich had paid off both notes, he received a release from Charles (BCDR 284: 348-349) and a quit-claim release from Edward (BCDR 284: 350).

Figure 4-13. *Glass bottles and fragments noted in Feature 3 (see Figures 4-1 and 4-12).*

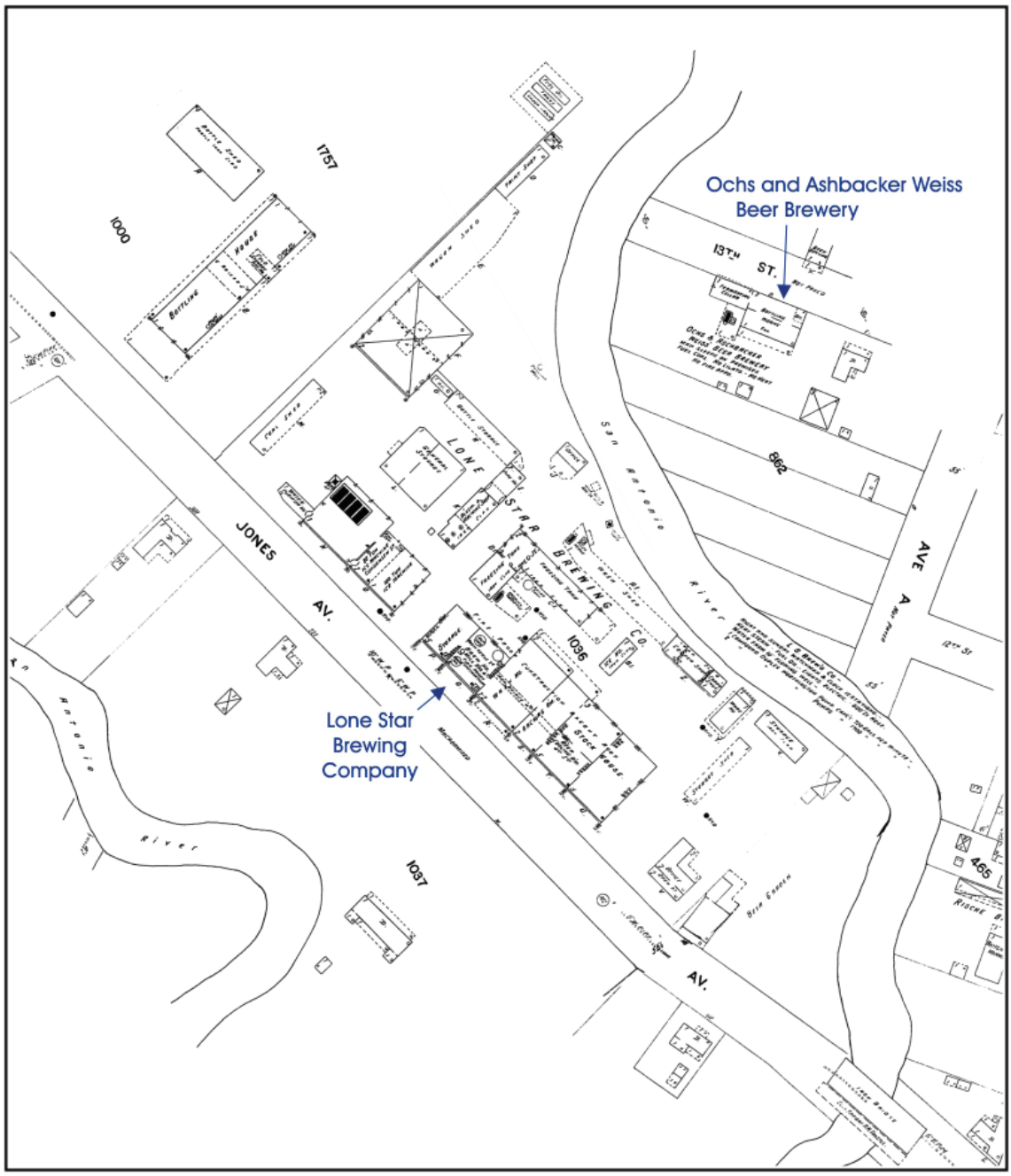

Figure 4-14. *Sanborn's Fire Insurance Map from 1904, showing Lone Star Brewing Company and Ochs and Ashbacker Weiss Beer Brewery. Feature locations not shown.*

Ulrich Rische is listed in the 1914 edition of Johnson's (1914) *The History of Texas and Texans*. This work mentions that he was appointed alderman for the 5th Ward in 1912 and was later reelected to that post. At that time, he remained the sole proprietor of the Rische Bottling Works, bottling soda water and other soft drinks (Johnson et al. 1914: 2006).

The five Rische's bottles recovered during the project represent transitions seen in the technology associated with soda water bottles in the late nineteenth and early twentieth centuries. One (Figure 4-15a) is a round-bottomed bottle that had to be stored on its side. These bottles were designed not to be stood on the base so that the cork would not dry out and let the carbon dioxide gas out of the bottle (Lindsey 2009a). This bottle was made with an applied "blob" top, intended for a wired cork closure. It has the single word "Rische's embossed lengthwise on the body. There is no bottle maker's mark.

Figure 4-15. *Rische bottles: a) early Rische bottle with round bottom; b) Blob-top Rische bottle made for a Hutchinson stopper (still in place); c) Rische bottle made in a post mold, showing maker's mark on base; d) same Rische bottle, showing plate embossing; e) base of Rische bottle made in a cup mold showing maker's mark.*

Another "blob" top Rische's bottle was designed for a Hutchinson stopper and, indeed, that stopper is still in place (Figure 4-15b). The Hutchinson stopper, first patented in 1879, was such an improvement over previous closure types that it quickly became the standard for soda and beer bottle (Lindsey 2009c). The "blob" top is tooled suggesting a date after 1885 for the manufacture of the bottle. The bottle maker's mark, an R in a triangle, appears three times, on the bottom and twice on the shoulder. This mark is that of the Reed Glass Company (Lockhart 2001), which operated between 1889 and 1927 (Mechow 2008). The bottle is also embossed "Risches Bottling Works/San Antonio/Texas".

The other three bottles all have tooled crown cap closures (Figure 4-15 c and d). This type of closure, a variety of which is still used today on some soda and beer bottles, was patented in 1892 and became fairly common by the turn of the century (Lindsey 2009c). All three bottles were blown into molds and the crown finish tooled. Thus all probably date before 1910-1915, by which time almost all utility bottles were made on Owens machines. All three bottles have the same embossing: "Rische's/Bottling Works/San Antonio/Tx.". Unlike the embossing on the bottles shown in Figure 4-15 a and b, the embossing on these bottles was done with a plate, though each plate was slightly different. This was a brass or iron metal plate that could be interchanged easily, allowing custom embossing of bottles in the same mold (Lindsey 2009b). Two of the bottles were blown in post-molds (see Figure 4-15 c and d), and have the Reed Glass Company's R in a triangle mark on their bases. The bottle in Figure 4-15e was blown in a cup mold (see Lindsey 2009a), and has an R in a diamond maker's mark that has not been identified (Figure 4-15d). It is tempting to assume this is another Reed mark, however, the R is not in the same font or style as those seen in the R in a triangle marks. Lindsey (2009a) has noted that most cup-mold soda and beer bottles probably date after 1900, and are more likely to be seen with crown cap finishes.

It is likely that most the Rische bottles discussed above were from Ulrich's tenure as the owner. The possible exception is the round-bottomed bottle, since it is designed for a wired cork closure that had become more or less obsolete by the time Ulrich purchased the bottling works.

The end date of the Rische Bottling Works has not been determined, however, no Rische bottle has been found that was machine-made, making it possible that the company went out of business before the machine-made bottles took over the bottle-making industry. The business appears in the 1891 San Antonio City Directory. Rische sold the property in 1928, but the deed does not mention the bottling works, or any other buildings or other improvements on the property and it is likely that the buildings had been torn down by that time (BDCR 1057: 451).

The majority of the feature was removed during the construction phase of the expansion. A small portion of the deposit may remain buried under the current landscaping.

Feature 5

Northwest of Feature 4 is a brick wall located on the west bank of the San Antonio River (Figure 4-12). The wall is composed of bricks and cinderblocks (Figure 4-16). The Upper portion of the wall is approximately 6 meter wide and contained Portland cement within the seams of the blocks. The cement served as a veneer to the stacked cinderblocks and bricks. Around the wall were historic trash deposits. Aqua and amber glass bottles and fragments were noted in the deposit. Other artifacts noted include horseshoes, undecorated white earthenware fragments, and a metal spike. The feature was located near the building labeled on the 1904 Sanborn's Fire Insurance Map as the Wash Shed and Cooper/ Carpenter Shop (Figure 4-14).

A portion of this feature may remain in the banks of the river, though the majority was removed to make way for the retaining wall and landscaping of the Riverwalk expansion.

Feature 6

Feature 6 is a yellow brick "wall" that is located along the west bank of the San Antonio River just south of the IH-35 overpass (Figure 4-12 and Figure 4-17). The wall may be the outside of a cistern, though not round in form. The feature consisted of yellow bricks 21-x-10-x-6 cm in dimension laid to form a wall approximately 185 cm wide and 210 cm tall. Some fragments of bone and glass were found adjacent to the brick wall. The base of the feature exhibits stepped bricks, in which each course of brick is laid approximately 3 cm off center from the previous course (Figure 4-18). This occurs

Figure 4-16. *Feature 5, brick wall (see Figures 4-1 and 4-12).*

Figure 4-17. *Feature 6, yellow brick wall (see Figures 4-1 and 4-12).*

Figure 4-18. *Base of Feature 6 noting the stepped bricks.*

for at least six courses of brick. The feature may remain in the bank of the San Antonio River, covered with a concrete retaining wall and landscaping. A structure was not noted in the vicinity of the feature on the 1904 Sanborn's Fire Insurance Map, but a storage area was noted in that location on the 1924 map.

Feature 7

Feature 7 is a lens of glass located along the west bank of the San Antonio north of Feature 5 (Figure 4-12). The feature was noted in the bank below one of the SAMA buildings located closest to the river. The feature consists of a fairly think layer of broken aqua, clear, brown bottles (Figure 4-19). Several intact bottles appeared to have been present, though backhoe trenching broke most of the bottles. The concentration of bottles was approximately 70 cm thick, and spanned approximately 4 meters. A portion of the bottle concentration may remain in the river bank, though most was removed by the backhoe and grader. Currently, this area has been landscaped and appears to have a stairway leading to the new entrance of SAMA. The 1904 Sanborn's Fire Insurance Map notes that a well is located in the vicinity of Feature 7 (Figure 4-14). Further inland from the river bank in the vicinity of Feature 7 was also a Bottle Storage facility in 1904 (Figure 4-14). It is possible that unused bottles, or bottles needed to be disposed of during Prohibition, were discarded behind the facility, along the river bank.

Feature 8

Feature 8 is another bottle dump located along the west bank of the San Antonio River. The feature is located south of Feature 6 and north of Feature 7 (Figure 4-12). The bottle dump appears to be approximately 1 meter thick and spans approximately 5 meters (Figure 4-20). Clear, brown/amber, and aqua bottles were deposited in this dump. Much of the dump consists of broken fragments of the bottles, though there were quite a few intact bottles. Unique specimen bottles of this dump were returned to the CAR laboratory to be added to the type collection. Many of the intact bottles are molded, with applied lips. The feature lay directly beneath the road base and asphalt that was used in the construction of the parking lot that was along the west bank of the river. According to the 1904 Sannborn's Fire Insurance Map, the feature is located within the vicinity of underground fuel and oil tanks (Figure 4-14). Also, it is located a few short distance to the south of the storage

Figure 4-19. *Feature 7, bottle dump (see Figures 4-1 and 4-12).*

area that appears on the 1924 map. It is possible that the bottle are related to the later storage facility, and were discarded along the bank of the river.

A portion of the feature was removed during the Riverwalk expansion, though it appears that some remained under the parking lot. Currently, a concrete retaining wall was constructed and the upper portion has been landscaped. The parking lot remains adjacent to the river.

These features all appear to have connections to the use of the Lone Star Brewing Company. The bottles encountered in the deposits are consistent with the use of the complex during the years that the brewery was functioning. One bottle collected was curated at the Center for Archaeological Research laboratory. When encountered, the bottle retained its sealed stopper and contents (Figure 4-21). The bottle was brought to the lab, and the contents were removed prior to curation.

Figure 4-20. *Feature 8, glass bottle deposit (see Figures 4-1 and 4-12).*

Figure 4-21. *Esser bottle recovered from behind the Lone Star Brewing Company complex on the west bank of the San Antonio River.*

The bottle was about 4/5ths full of yellow liquid. A small amount of dark brown sediment was at the bottom of the bottle. When opened, there was a distinct smell of yeast and vinegar. The ph level of the liquid was recorded as 4. The UTSA Safety Office tested for bacteriological and organics and found that the liquid was not hazardous. Three samples were saved by CAR for further testing opportunities, including the sediment. The bottle had the name William Esser embossed on its surface. William Esser was a brewer and had purchased the property today known as the San Antonio Museum of Art. He owned and operated the brewery from 1875 until it was purchased by Adolphus Busch in 1884 (Hennech and Etienne-Gray Tx Handbook online). Esser remained as the proprietor of the Lone Star Brewing Company until 1891. The type of closure on the bottle used is the Hutchinson Spring Stopper (Figure 4-21). The stopper was patented in 1879 and was very quickly adopted as the preferred method of closing soda and beer bottles. Due to the time period that Esser owned the brewery, and the type of stopper used, the beer and bottle were likely manufactured between 1879 and 1884.

Feature 9

Feature 9 is a yellow brick wall similar to Feature 6 that has a lens of glass at its base (Figure 4-22). The Feature was noted in the east bank of the San Antonio River, approximately 200 feet north of the Brooklyn Street Bridge. The top of the feature was noted approximately 50 cm below the surface of the bank. The yellow brick wall was approximately 90 cm in height, and 80 cm in width. Just below the brick wall was

Figure 4-22. *Feature 9, a brick wall with glass at the base (see Figure 4-1).*

a layer of aqua glass fragments and partially intact bottles. The glass appeared to have been dumped into wet cement at the time of construction. No intact bottles were able to be removed due to the fact that they were encased in the cement. The layer of cement and aqua glass was approximately 30 cm in thickness below the wall.

It is unknown if a portion of the feature is present in the current bank of the river. The location of the feature is now where the lock-dam system has been constructed for the river barges. The feature was documented, most likely removed due to the extensive nature of the amount of soil removed in the immediate area.

Feature 10

Feature 10 a stone wall that was uncovered adjacent to the VFW Post #76, just south of the Alamo Mills Dam. This feature was located on the east bank of the San Antonio River. The stone wall was constructed of cut limestone and mortar (Figure 4-23). The stone wall was approximately 15 meters in length, and 50cm thick. Backhoe excavations

Figure 4-23. *Feature 10, the stone wall located near the VFW Post #76 (see Figure 4-1).*

around the wall revealed one stone in the wall that exhibited the initials "P.F." and a date of 1909 (Figure 4-24). Several openings were noted that at one time allowed drainage pipes to empty into the river, though the amount of sediment that had accumulated prevented that in recent years. The stone wall could not be incorporated into the architecture of the Riverwalk like the Alamo Mills Dam. And due to the more recent age of the wall, it did not meet the qualifications of further investigations or preservation. The stone wall was documented and removed to allow for the construction along the Riverwalk to occur.

Figure 4-24. *Cement in Feature 10 with notation "P.F. 1909".*

Feature 11/Site 41BX1818

Feature 11 is the Lexington Avenue Dam. This feature was constructed according to the Robert H. H. Hugman architectural master plan of the Riverwalk (Figure 4-25). The dam was built along sometime between 1939 and 1941. The dam was constructed to maintain the water level in the unimproved part of the river. Original plans drawn up by Hugman in 1939 reveal that the dam was to keep the water at 632.6 feet, which was approximately 0.6 feet above the improved channel portion of the river. The San Antonio *Express* reported that the dam had been constructed by March of 1941 (Cox et al. 2002a). It marked the location of the end of the Riverwalk as designed in 1938.

The concept of the Riverwalk originated from the need of the city to deal with the troublesome flood issues that threatened to wash away downtown during heavy rain episodes. Engineering firms recommended that the San Antonio River be straightened, bypassing the Great Bend. The idea was that the Great Bend could then be filled in and be sold as prime, downtown real estate properties. City preservationists protested and started a movement to save the Great Bend. In 1924, the San Antonio Conservation Society was able to stall Mayor Tobin's decision to fill in the river channel of the Great Bend. It wasn't until five years later that the next mayor, Mayor C.M. Chambers, took into consideration plans to beautify the section of the San Antonio River. Mayor Chambers met with up-and-coming architect H.H. Hugman who presented a plan that would create an area reminiscent of old Spain. He entitled the plan "The Shops of Aragón and Romula" and hoped to keep the balance between public park, living areas, and commercial business. Work commenced on the Riverwalk, which is also referred to as Paseo del Rio, at the height of the Depression in 1939. Funding for the project was received through public bonds as well as the Works Progress Administration (WPA) (Jennings 1998).

For several decades the Lexington Avenue Dam was obscured by silt from flooding episodes and brush overgrowth. During the construction of the new section of the Riverwalk, the dam was uncovered to reveal that planters had been built into the top of the structure. This dam is just one of the many architectural features Hugman had designed for the Riverwalk. He envisioned an urban park reminiscent of old Spain and Venice. His plan would allow for commercial businesses and restaurants to front the