SALT LAKE CITY HISTORIC LANDSCAPES REPORT
Executive Summary

Miller Park
(Lee Charles Miller Bird Refuge and Nature Park)

SLCHLR NO. 34

Miller Park is a significant open space located in the Yalecrest National Historic District. The nearly nine-acre park fronts on 900 South, extending southwesterly between 900 South and 1500 East at 1708 East, and is recognized for the integrity of its WPA (Works Progress Administration) masonry walls, foot bridge and stairways constructed during the Great Depression. It is located within a well-established residential neighborhood characterized by single-family homes, a large majority of which are historic residences.

Red Butte Creek is the central feature of this naturalistic park, which consists in large part of trails that traverse the route of the creek. In recent years a number of modifications have been made to the park, including the straightening of a distinguished natural oxbow in 1985, safety improvements in 1987, general improvements in 1992 and a series of major renovations to mitigate the impacts of a crude-oil spill several miles upstream began in 2014. These latest efforts included the removal of invasive tree and plant species, the introduction of native plants, streambed restoration and water velocity reduction, streambank restoration and improvements.

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Location: Miller Park is located in the Yalecrest National Historic District, Salt Lake City, Salt Lake County, Utah. It fronts on 900 South, extending southwesterly between 900 South and 1500 East at 1708 East 900 South (see fig. 1).

Latitude: 40° 44' 59.05" N, 111° 50' 29.20" W (northeast corner of the park, Google Earth)

Significance: Miller Park is a significant open space due to its existence as a bird refuge and nature park since 1935, and for the historic integrity of its WPA (Works Progress Administration) masonry walls, foot bridge and stairways constructed at the site during the Great Depression.

Description: In 1935 Miller Park was established as a bird refuge and nature park. The 8.75-acre park is located within a well-established residential neighborhood characterized by single-family homes, a large majority of which are historic residences. North of 900 South is Sunnyside Avenue where Sunnyside Park, the Carmen B. Pingree Autism Center, and East High School's athletic fields are located on the north side of the street. Southwest near 1500 East is Bonneview Drive, a church and private park - Bonneville Glen[1] - which is owned by The Church of Jesus Christ of Latter-day Saints (see fig. 2) (Lechert).

Main access to and from the park is from 900 South. Two secondary entrances are located along Bonneview Drive and accessed through Bonneville Glen. One is an on-street access from Bonneview Drive and the other from a church-owned parking lot on the southeast corner of the 1500 East and Bonneview Drive intersection. On-street parallel parking is available on 900 South and neighboring streets; however, the park is intended largely for foot traffic visitors.

The surrounding area is relatively flat and residential in nature. However, it is part of a significant east-to-west downward grade from the Wasatch Mountain slopes to the valley bottom. Miller Park proper is situated in a wooded ravine associated with the Red Butte Creek corridor (see figs. 3-13).

The main entrance to Miller Park is defined by a tall decorative black wrought iron fence with a gate opening into the park (see figs. 14 – 16). Left of the opening is a sign which reads as follows (see fig. 17):

> "Salt Lake City Parks & Public Lands. Lee Charles Miller Bird Refuge and Nature Park. Park hours: 5:00 am – 9:00 pm. Enjoy and protect your open space. The park is open to wildlife viewing, foot travel, and dogs on a leash. Please bag and discard droppings. Not allowed in this open-space area: smoking, alcohol,

[1] Bonneville Glen originally was part of the 1935 Miller Park boundaries. In 1945 the City exchanged the southern portion of the park to The Church of Jesus Christ of Latter-day Saints in return for park property on 1800 East between Laird and Princeton which later became Laird Park.

littering, damaging or removing property, or posting advertising material. These rules are not just good citizenship; they are the law. For more information on city park ordinances, visit www.slcgov.com/open-space." (Lee plaque)

Mounted on the furthest east section of the fence is an additional sign which reads as follows (see fig. 18):

> "Miller Bird Refuge and Nature Park. This facility is dedicated to the citizens of Salt Lake for the enjoyment of the natural environment. Please help preserve this unique facility and its tranquil setting by observing the following: No harras[s]ment of birds. No pets off leash. Clean up after your pets. No bicycle riding. No alcoholic beverages. No use of firearms, B-B guns & Pellet guns. Hours are 5 a.m. – 9 p.m." (Miller Bird plaque)

Directly behind the fence is a sandstone wall and a curved, descending staircase. The staircase to the west connects to a trail below and a series of terraced stone retaining walls used to contain the slope to the west (see figs. 19-22). A retaining wall gradually rises along the eastern edge of the trail for a short length and then terminates at a junction in the trail and a switch back to the east then connects to the eastern trail or continues to follow the designated trail south along the western perimeter of the park (see figs. 23-24).

Approximately a quarter of the way along the switch back trail toward the eastern perimeter, a flight of wood-terraced descending stairs meet a platform landing which overlooks Red Butte Creek to the south. Terraced wood retaining walls are built into the slope on the north, east and west. To the south is a sandstone platform wall with a wood railing mounted for safety purposes. In the center along the sandstone platform wall is a marker dedicated by the Daughters of the American Revolution, recounting the history of Miller Park and Red Butte Creek which reads as follows (see figs. 25-37) (Lechert, 5-6):

> "Miller Park. In 1935, Minnie Miller, who served as State Regent of the Utah State Society, DAR, 1915 – 1920, donated part of the land from Miller Park in memory of her husband, Lee Charles Miller. This land, along with other city land, was for a nature park to be enjoyed by the children of the area. Red Butte Creek reaches this park after following a southwesterly course from the Wasatch Range. Above Fort Douglas (now known as the Stephen A. Douglas Armed Forces Reserve Center), reservoirs collected potable water from the creek for local use. An invasion of grasshoppers threatened the crops of the Salt Lake region in the summer of 1868. Red Butte Creek was one of the streams used in the destruction of these voracious insects. Armed with sacks and willow branches, local residents forced the grasshoppers into the creek's current, which carried the pests to sieves that trapped them and enabled people to destroy them. Utah State Society. Daughters of the American Revolution. Centennial Year 1897 – 1997. Marker placed 1998." (Miller plaque)

The landing is built atop a corrugated metal culvert outlined with a sandstone masonry arch, all of which are built into the sandstone wall. A crib-wall with reinforced concrete, boulders and timber walls are set in place along the eastern edge of the creek to absorb and redirect the flow of the water upon passing through the culvert (see figs. 38-43).

The staircase to the east from the 900 South entrance similarly connects to a trail below which follows the eastern perimeter of the park. Immediately to the southeast along the

trail, a wood-terraced ascending stairs provide access to a small built-in stone seated area, which is part of a larger retaining wall used to contain the slope to the east (see figs. 44-49).

The east and west perimeter trails follow the length of the Red Butte Creek as it meanders in a southwesterly direction. A variety of trees, shrubs and groundcover are planted throughout the site including, but not limited to Boxelder Maple (*Acer negundo*), Maple (*Acer sp.*), Gambel Oak (*Quercus gambelii*), Elm (*Ulmus sp.*), Hawthorne (*Crataegus*), Utah Juniper (*Juniperus osteosperma*) trees[2]; Wood's Rose (*Rosa woodsii*), Three-leaf Sumac (*rhus trilobata*), and Currant (*Ribes*) shrubs; and Ivy (*Hedera helix*) groundcover.

A stone retaining wall follows the majority of the west perimeter trail with intermittent wood railings along the creek-side of the trail, and occasional gated stair accesses to private residential backyard properties built into the stone retaining wall (see figs. 50-56).

Approximately halfway through the park, arched sandstone masonry walls support a foot bridge which crosses Red Butte Creek and provides access to the east perimeter trail (see figs. 57-62).

Continuing southbound along the western trail and past the foot bridge there are similar trail features mentioned earlier including a stone retaining wall with intermittent wood railings along the creek-side of the trail and gated stair accesses to private residential backyard properties (see figs. 63-66).

Approaching the southern boundary of the park is a cobblestone flight of stairs with curved seating built into the stone retaining wall on each side of the staircase. A gated chain link fence restricts further access to Diestel Road from the Miller Park trail (see figs. 67 –68).

At the southern boundary of the park a metal and wood pedestrian bridge crosses Red Butte Creek providing access to the east perimeter trail. A concrete flight of stairs with a metal railing lead to a landing prior to crossing the bridge to the eastside perimeter trail. Another landing with a concrete bench and flight of ascending concrete stairs with a metal railing completes the user's connection to the eastside trail. A small metal manufacturing plaque is mounted on the northeast and southwest corners of the bridge's railing (see figs. 69-75). It reads as follows:

> "Town & Country Bridge. Max. Load 5000 LBS. DeBourgh Mfg. MPLS. MN. 55431. 888126." (Town plaque)

The northern quarter of the east perimeter trail near the 900 South entrance has a similar stone retaining wall with the addition of a lower terraced timber retaining wall (see figs. 76-79). A descending, wood-terraced trail staircase followed by intermittent timber retaining walls continue along the trail until arriving to the stone foot bridge crossing (see figs. 80-85). Further southwest bound, the trail inclines and veers to the south away from

[2] Remnants of Black Locust (*Robinia pseudoacacia*) tree stumps are found throughout the site. These were recently removed as part of a 2013 restoration plan to mitigate the results of a gas spill that contaminated the park grounds. The project was led by Biohabitats (Biohabitats) a consulting firm hired by Salt Lake City. The Black Locust tree was originally introduced by the pioneers of The Church of Jesus Christ of Latter-day Saints, who brought Black Locust seeds with them across the plains and planted them throughout the valley (Smith; Webster, Personal).

the creek for a short distance where it descends and ultimately connects to the metal bridge and west perimeter trail near the southwestern park boundary (see figs. 86-90). Gated accesses to private residential backyard properties, inconvenient and less-manicured in appearance, are also noted along the east hillside (see figs. 91-92).

A chain-link fence delineates the southwestern boundaries of Miller Park from Bonneville Glen[3], a private park owned by The Church of Jesus Christ of Latter-day Saints. A trailhead connection is provided through the northern entrance of Bonneville Glen from Bonneview Drive. Signage is posted near the boundary of the two parks which reads as follows (see figs. 93-97):

> "Salt Lake City Parks and Public Lands. Welcome to Lee Charles Miller Bird Refuge and Nature Park.
>
> This forested oasis along Red Butte Creek became a preserve in 1935, when Minnie Miller donated the land to Salt Lake City in honor of her husband, Lee Charles Miller. She envisioned this land as a sanctuary for both wildlife and children. Though just nine acres, this park is an important habitat corridor for hundreds of species of birds and other wildlife. Red Butte Creek is home to Bonneville cutthroat trout and June sucker, two native fish.
>
> Ribbon of Life. Why are so many birds drawn to Miller Park? Water. Red Butte Creek makes this preserve lush and green. And that verdant streamside vegetation – from ground covers like creeping Oregon grape to canopy trees like box elder and cottonwood – provides food, nest sites, and cover from predators. Because they have evolved together for thousands of years, native plants offer the best habitat for bird species. That is why management encourages the growth of diverse, native-streamside forest species. For birds, the forest around you is a well-stocked pantry – insects, berries, nuts, seeds, nectar, and small animals. Every bird species has its favorite foods, and the complex plant community here has plenty to offer.
>
> Did you Know? Riparian (streamside) habitat covers only 0.4% of Utah's total land area and just 1.2% of Salt Lake City. Yet, over 75% of all Utah's bird species depend on this habitat for food or nesting sites.
>
> Salt Lake City's Open Space Network. Miller Park is a designated natural land site. Our city's natural lands conserve biodiversity and beauty, support healthy air and water quality, and safeguard critical parts of our cultural and natural heritage. They are part of a network of open-space areas stretching from our foothills to the Great Salt Lake. This network includes more than 150 developed parks and the city cemetery, all managed by the Salt Lake City Parks and Public Lands Program. The native vegetation in Miller Park supports a host of native birds, including black-chinned hummingbird (top), downy wood pecker (right), and ruby-crowned kinglet (lower left). River hawthorn (upper left) is one of the many fruit-filled native plants growing here.

[3] Highlights from Bonneville Glen includes a crescent-shaped stone retaining wall with originally three built-in fireplaces (two have been sealed), a wooden bridge, a weir and freestanding wall along the creek and trailhead access from a parking lot owned by the Church near the 1500 East Bonneview Drive intersection located at the southwest extent of Bonneville Glen (see figs. 98-109).

Take Part! Backyards for the Birds. Miller Park provides important wildlife habitat in our city. You can help create more habitat by planting with native plants in your yard. Many local sites, like Hidden Hollow Preserve, showcase native plantings. Learn more at slcparks.com, (801) 972-7800." (Welcome plaque)

Note: Refer to the attached report by Stephanie Lechert of SWCA titled "Reconnaissance-Level Cultural Resources Inventory of the Miller Park Restoration Project, Salt Lake City, Salt Lake County, Utah" for in-depth detail and descriptions of Miller Park's features, pages 5 – 7.

History: Miller Park is located on the east bench of Salt Lake City, south of Sunnyside Avenue and east of Foothill Drive. The park is located in the northeastern quarter-section of the Yalecrest Neighborhood[4], and is typified by a mix of residential single-family neighborhoods, many after the manner of the 1920 – 1930 period revival-style cottages in English Tudor and English Cottage styles. Limited institutional, public lands and open space uses are located to the north along Sunnyside Avenue and commercial use located to the south at the intersection of 1700 East and 1300 South (About; Salt Lake City Zoning).

Unlike the original ten-acre, 660' x 660' (435,600 square foot) block grid pattern found elsewhere in the city where the "Plat of the City of Zion" dominates, the block, layout and street naming structure of the Yalecrest Neighborhood is demarked by a range of irregularly aligned and subdivided blocks and streets. Established in 1911, the Yalecrest Neighborhood was originally intended by authorities from The Church of Jesus Christ of Latter-day Saints to be used for farmland. Silk worm crops, mulberry orchards, a dairy farm and alfalfa fields were some of the early uses included in the area. Subdividing and developing the land was highly discouraged (see figs. 110-111) (About).

The early years of the twentieth century brought change to the area, particularly with the influx of population to Salt Lake City and homeowners attracted to development where there was potential to escape the air pollution settling in the base of the valley from industrial businesses and coal-burning furnaces. Transportation was made convenient with the introduction of streetcar lines between the new suburbs and downtown. The area became built-out by 1938, a large majority of the homes constructed after the English Tudor and English Cottage period revival-styles. The Yalecrest neighborhood is recognized nationally for the high percentage of these homes contributing to area's historic integrity and intact architectural homogeneity (About).

Miller Park was implemented in 1935, and is considered a historic site. Mrs. Walter C. Hurd, Chairman of the Better Parks Committee of the Salt Lake Council of Women[5] grounded the idea for Miller Park of building the park, and the first step toward implementation was led by Minnie Viele Miller[6], a resident of the area who lived at 1607

[4] The boundaries for the Yalecrest Neighborhood are 800 South (south side) to 1300 South (north side) and 1300 East (east side) to 1900 East (west side) (About).
[5] Other noted advocates included the PTA and parents in the surrounding neighborhood desiring a nature park nearby for their children (History, 6).
[6] Minnie Miller was a successful businesswoman who presided over Miller and Viele, a realty and livestock firm, after the passing of her husband and father. She also owned Thousand Springs farm located in Hagerman Valley,

Yalecrest Avenue, and donated two-acres of her ground in memory of her husband, Lee Charles Miller who passed away in 1930 (Lechert). By April 1935, her donation along with City-owned property and the acquisition of property from Herrick Construction Company increased the total acreage of the park to 9-acres. The original park boundaries extended from 900 South southwesterly to 1500 East through a ravine etched out by Red Butte Creek[7]. Construction documents noted in a Salt Lake Tribune article dated April 10, 1935 indicate plans by P. H. Goggin, Commissioner of Parks and Public Property for "the construction of trails and fireplaces and for the installation of playground equipment[8]" (Miller Park Gift). The park was named after Minnie's late husband, Lee Charles Miller who was a prominent leader of Utah and Idaho livestock industries (see figs. 112-113) (About; Miller Park Gift).

On March 29, 1936, a bronze marker was dedicated in memory of Minnie Miller by the Salt Lake City Parks Department and the Salt Lake Council of Women, located along the southwestern entrance into the park at 1500 East Bonneview Drive. A pair of sandstone walls with built-in benches flanked the entrance. A plaque was mounted on the northern[9] sandstone column and read as follows (see figs. 114-117):

> "Presented in honor of Mrs. Lee Charles Miller by Salt Lake City Park Department and the Salt Lake Council of Women, March 29, 1936." (1500)

Between 1935 and 1946, the Works Progress Administration (WPA) and Civilian Conservation Corps (CCC) programs were established to provide work to the unemployed during the Great Depression. Projects ranged from constructing a system of aqueducts to designing and building parks, playgrounds, swimming pools, storm sewers, walls, roads, airport runways and buildings.

One project Salt Lake City benefited from as handiwork of the WPA is the masonry work noted in Miller Park. These include the following: a stone double staircase located at the entrance on 900 South between Diestel Road and Military Drive; a stone platform wall and culvert just south of the staircase; a stone bench and raised platform immediately southeast of the staircase; a stone bridge crossing Red Butte Creek approximately half-way through the park; stone stairs and two stone benches built into a retaining wall west of the bridge[10]; and stone retaining walls[11] located throughout extents of the park on the east and west sides of the ravine near rear neighboring properties (see figs. 118-130 for a

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Idaho. Minnie also served as State Regent of the Utah State Society Daughters of the American Revolution from 1915 - 1920 (Brosnan; Miller Park; Miller Park Gift).

[7] Red Butte Creek offered significant use to the pioneers providing culinary water to Fort Douglas, secondary crop irrigation, ice for the Salt Lake Brewing Company, and in 1866, it facilitated capturing a destructive infestation of grasshoppers. The creek originates from Red Butte Canyon which is one of the few remaining undisturbed watersheds in the Great Basin (History 7 - 8).

[8] See figure 119 of a WPA master plan drafted for Miller Park including proposed areas for trails, fireplaces and a playground (Neff).

[9] As of April 2016 the plaque is missing from the northern sandstone column. An identical plaque is noted on the southern sandstone column.

[10] It is questioned whether these are WPA handiwork due to differing materials used (cobblestone instead of buff sandstone and quartzite) and craftsmanship (Lechert, 6; Webster, A History 1).

[11] Note that at various points along the west stone walls built-in mini staircases provide access to neighboring properties along Diestel Road (Webster, A History 1).

collection of proposed WPA[12] plans for Miller Park. Note that all of the plans were not realized) (Lechert, 3-7).

Note: Refer to Stephanie Lechert's SWCA's "Reconnaissance-Level Cultural Resources Inventory of the Miller Park Restoration Project, Salt Lake City, Salt Lake County, Utah" report attached for in-depth detail and descriptions regarding each of these mentioned features[13], pages 5 – 7.

In 1945 the City exchanged the southern portion of the park south of Bonneview Drive[14] to The Church of Jesus Christ of Latter-day Saints in return for park property on 1800 East between Laird and Princeton which later became Laird Park. The Church completed construction of a new meetinghouse, the Bonneville Ward Chapel and Stake, in 1950 (About). A Sanborn map from 1950 illustrates the location of the park and recently completed church located along Bonneview Drive (see figs. 131-132) (Sanborn).

In 1977 a schematic clean-up plan was designed for Miller Park. Notes included light trimming and removal of trees and shrubs as deemed necessary to provide sight lines and visibility of the pathway and creek (see fig. 133) (JS).

In 1985 alterations to Red Butte Creek were noted throughout Miller Park, including a distinguished natural oxbow curve that was straightened by Salt Lake County Flood Control, designed by Charlie King, PE. This was in response to flooding that had occurred four years previously throughout the valley (Webster, Personal).

In 1987 safety improvements were designed by Mitchell Nelson Group Landscape Architects and Planners and Palmer/Wilding Civil Engineering. Improvements included crib-lock walls, gabion infill, regrading pathways, timber walls, benches, rip-rap, railings, slope and stonework restoration, and a new bridge near the southern City boundary/Church northern boundary of the park (see fig. 134) (Mitchell).

In 1992 additional park improvements included timber crib walls and retaining walls, terraces, steps, curbs and handrails; rip rap along the stream bank and path edge; a path extension into the existing Church property; missing or damaged stone replacements; and new trees, shrubs, perennials and wildflower/bunchgrass seed planting in various locations (see fig. 135). Compare sheet 4 of the 1992 plans with the 1977 schematic plan to note the changes made to the existing bench area near the 900 South entrance including flagstone pavers, timber steps and terraces, and realignment of a path (PPD).

[12] A CWA (Civil Works Administration) plan was also located dating from 1934 indicating the area as a contemplated park area. It is undetermined how this coordinated with Mrs. Walter C. Hurd, Chairman of the Better Parks Committee of the Salt Lake Council of Women and Minnie Viele Miller efforts to establish the park (Miller Park CWA).

[13] Note that Lechert's report does not include the portion of Miller Park that was exchanged to the Church in 1945. In this former portion of Miller Park, presently known as Bonneville Glen, is located a stately crescent-shaped stone retaining wall with three built-in fireplaces just east of the 1500 East Bonneview Drive Church parking lot; and a notable weir near the northern section of the Bonneville Glen property line, near a wooden bridge crossing. It is mentioned that the fireplace was built by the City and weir constructed by the Federal Government for stream monitoring purposes at a later time. It is undetermined when the weir was constructed (Webster, A History 1).

[14] Bonneview Drive was originally a private road belonging to the Church to access their property. It later became a public street (About).

On June 13, 1998, a marker was dedicated in memory of the history of Miller Park and the significance of Red Butte Creek by the Utah State Society Daughters of the American Revolution (History). It was mounted near the 900 South entrance into the park centered along the sandstone platform wall and culvert (see fig. 136; refer back to figs. 35-37).

On June 11, 2010, a crude-oil spill occurred several miles upstream from the park into Red Butte Cree, contaminating the riparian corridor. Chevron Pipe Line Company was deemed responsible for the spill and paid over $4.5 million in penalties and mitigation efforts to rectify water quality and wetland restoration. $767,612 of the funds were used to restore damages to Miller Park where 33,600 gallons of crude oil were reported to have traveled through the creek corridor, releasing toxic fumes and bringing residue that damaged birds and other wildlife habitat (Frazier).

In 2013 restoration plans for Miller Park were finalized in response to the Chevron spill that contaminated the park grounds. The project was headed by Biohabitats, a consulting firm hired by Salt Lake City. Restoration plans included the removal of invasive species[15] and the introduction of native plants[16]; streambed restoration and water velocity reduction (cobble riffle and weir installation); streambank restoration (widening of the creek); and trail realignment (particularly the east perimeter trail, near the 900 South entrance into the park) and signage improvements. Restoration began in July 2014 and was completed six months later in December (see figs. 137-138) (Biohabitats; Frazier; Miller Bird Refuge and Nature Park; Miller Bird Refuge and Nature Preserve; Miller Park Bird).

See figure 139 for the 2016 existing conditions map of Miller Park.

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[15] The following species were recommended for removal based on a Botanical Evaluation/Assessment conducted by Canyon Environmental: Siberian Elm (Ulmus pumila), Tree-of-Heaven (Ailanthus altissima), and Black Locust (Robinia pseudoacacia) (Biohabitats).

[16] The following species were introduced into the park: Big Tooth Maple (Acer grandidentatum), Boxelder (Acer negundo), Alder (Alnus incana), River Birch (Betula occidentalis), Scrub Oak (Quercus gambelii) trees and a variety of shrubs including Serviceberry (Amelanchier alnifolia), Chokecherry (Prunus virginiana), Golden Current (Ribes aureum), Woods Rose (Rosa woodsii), Elderberry (Sambucus caerulea), Snowberry (Symphoricarpos occidentalis), Redtwig Dogwood (Cornus sericea) and Sandbar Willow (Salix exigua);

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Welcome to Lee Charles Miller Bird Refuge and Nature Park. Miller Park, Salt Lake City, Utah. April 11, 2016. Plaque.

Historian: JoEllen Grandy
Landmark Design
850 South 400 West, Studio 104
Salt Lake City, Utah 84101
801-474-3300
Prepared on June 22, 2016

SALT LAKE CITY
NATIONAL HISTORIC DISTRICTS

Fig 1. National Register Historic Districts Map. Note the star indicating the location of Miller Park (Historic Preservation – National).

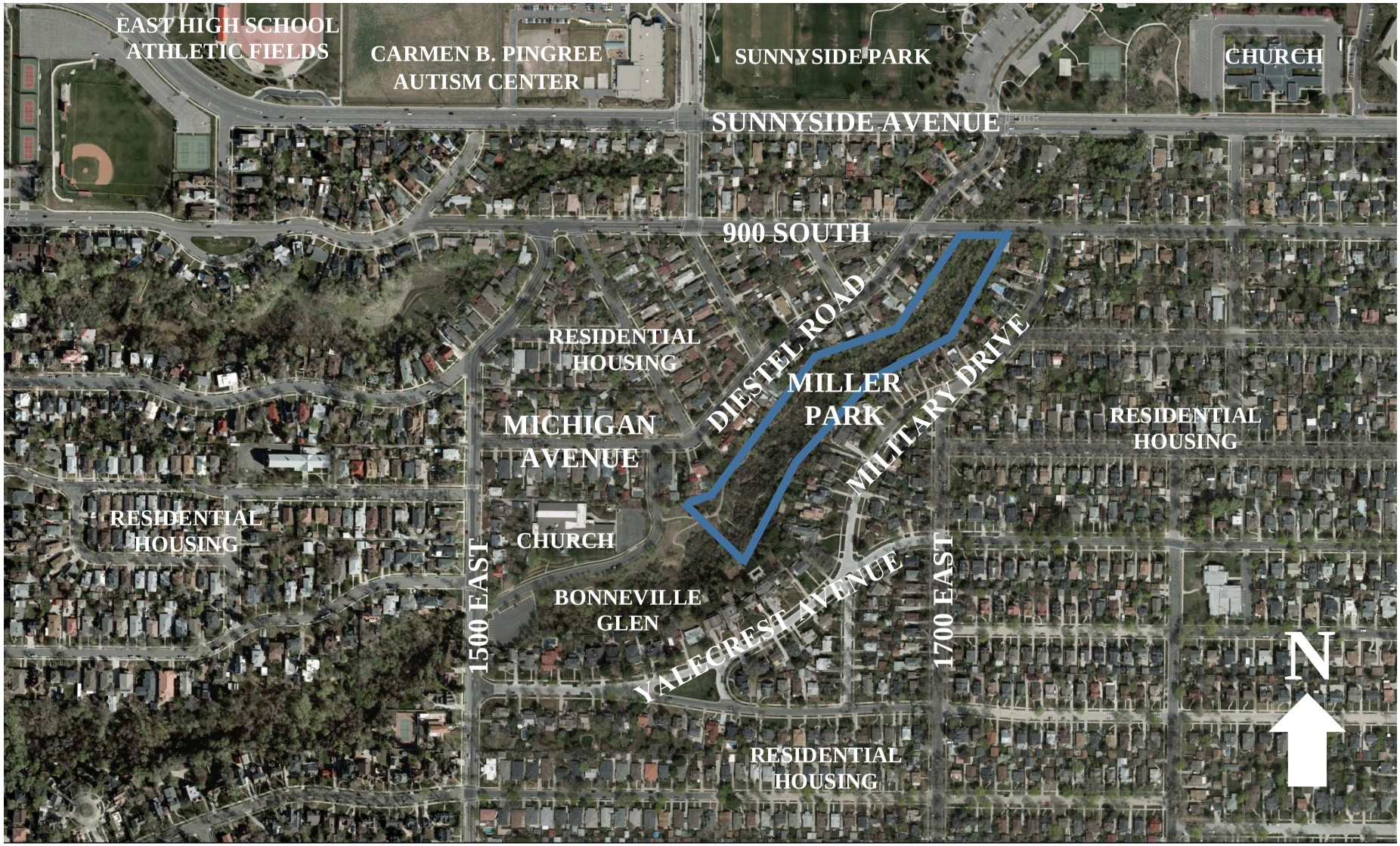


Fig. 2. Context Map (2012).

Fig. 3. Approaching view to the east of the main entrance into the park from 900 South (JoEllen Grandy, 4/11/16).

Fig. 4. View to the east standing near the northwest corner's main entrance into the park on 900 South (JoEllen Grandy, 4/11/16).

Fig. 5. Approaching view to the west of the main entrance into the park from 900 South (JoEllen Grandy, 4/11/16).

Fig. 6. View to the west standing near the northeast corner's main entrance into the park on 900 South (JoEllen Grandy, 4/11/16).

Fig. 7. Approaching street view to the north of secondary entrance into the park accessed through Bonneville Glen along Bonneview Drive, northeast of the 1500 East intersection (JoEllen Grandy, 4/11/16).

Fig. 8. Approaching street view to the south of secondary entrance into the park accessed through Bonneville Glen along Bonneview Drive, northeast of the 1500 East intersection (JoEllen Grandy, 4/11/16).

Fig. 9. View to the east of secondary entrance into the park accessed through Bonneville Glen along Bonneview Drive, northeast of the 1500 East intersection (JoEllen Grandy, 4/11/16).

Fig. 10. Typical Bonneville Glen rules and regulations located at each access into the park (JoEllen Grandy, 4/11/16).

Fig. 11. Approaching view to the southeast of secondary entrance into the park accessed through Bonneville Glen from the Church-owned parking lot located along Bonneview Drive, near the 1500 East intersection (JoEllen Grandy, 4/11/16).

Fig. 12. View to the east of secondary entrance into the park accessed through Bonneville Glen from the Church-owned parking lot located along Bonneview Drive, near the 1500 East intersection (JoEllen Grandy, 4/11/16).

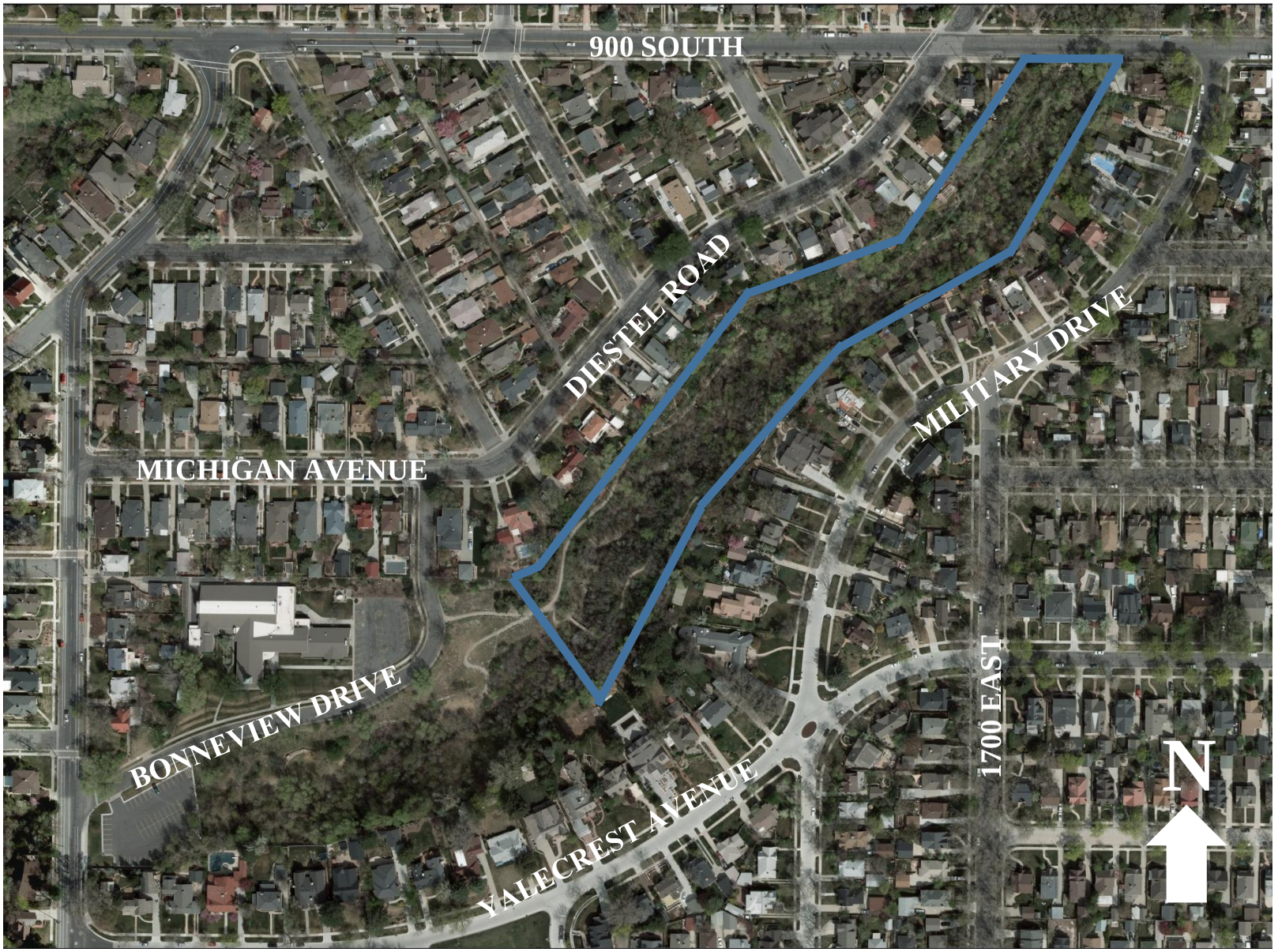


Fig. 13. Miller Park (2012).

Fig. 14. Undated view to the southwest of the main entrance into the park. Note the decorative black wrought iron fence and gate opening (Parks).


Fig. 15. View to the southwest of the main entrance into the park in 2016. Note the doggie deposit waste bag dispenser and dog regulation signage has been removed from the left panel (JoEllen Grandy, 4/11/16).

Fig. 16. View to the south of the main entrance into the park. Note the park sign rules and regulations mounted on the right panel (JoEllen Grandy, 4/11/16).

Fig. 17. Lee Charles Miller Bird Refuge and Nature Park rules and regulations modern signage (JoEllen Grandy, 4/11/16).

Fig. 18. Miller Bird Refuge and Nature Park rules and regulations previous signage (JoEllen Grandy, 4/11/16).


Fig. 19. View to the west of the sandstone wall and curving staircase to the west standing near the 900 South gated entrance (JoEllen Grandy, 4/11/16).

Fig. 20. View to the southwest of the curving staircase to the west standing near the top of the staircase at the 900 South gated entrance. Note the west perimeter trail below (JoEllen Grandy, 4/11/16).

Fig. 21. View to the southwest of the curving staircase to the west standing near the bottom of the staircase from the 900 South gated entrance. Note the continuation of the retaining wall along the west perimeter trail (JoEllen Grandy, 4/11/16).

Fig. 22. View to the northeast of the west staircase looking back toward the 900 South gated entrance (JoEllen Grandy, 4/11/16).

Fig. 23. View to the southwest of the west perimeter trail standing near the bottom of the staircase from the 900 South gated entrance. Note the continuation of the retaining wall along the west edge of the trail to the right and the gradual rise of a retaining wall along the east edge of the trail to the left (JoEllen Grandy, 4/11/16).

Fig. 24. View to the northeast of the west perimeter trail standing near a junction in the trail where the option to switch back toward the east to connect to the eastern trail perimeter or to continue to follow the designated trail south along the western perimeter of the park is made available (JoEllen Grandy, 4/11/16).

Fig. 25. Undated view to the southwest of the switch back trail connection to the eastern perimeter trail. Note the flight of wood-terraced stairs to the rear that connect to a platform landing which overlooks the Red Butte Creek (Parks).

Fig. 26. View to the southwest of the switch back trail connection to the eastern perimeter in 2016. Note the relocated doggie deposit waste bag dispenser and dog regulation signage (refer to figures 14 and 15) (JoEllen Grandy, 4/11/16).

Fig. 33. View to the west of the flight of wood-terraced stairs and platform landing which overlooks Red Butte Creek. Note the marker along the wooden railing dedicated by the Daughters of the American Revolution to the left and terraced wood shorings to the right (JoEllen Grandy, 4/11/16).

Fig. 34. View to the southwest of the flight of wood-terraced stairs and platform landing which overlooks Red Butte Creek (JoEllen Grandy, 4/11/16).

Fig. 35. Undated close-up view to the southwest of the sandstone platform wall, wooden railing and Daughters of the American Revolution marker overlooking Red Butte Creek. Note the location of the eastern perimeter trail in relation to the creek, and retaining wall in the top left hand corner to the rear (Parks).

Fig. 36. Close-up view to the southwest of the sandstone platform wall, wooden railing and Daughters of the American Revolution marker overlooking Red Butte Creek in 2016. Note the relocation of the eastern perimeter trail following the perimeter of the retaining wall in the top left hand corner and additional timber retaining walls and separation from the creek below to the rear (JoEllen Grandy, 4/11/16).

Fig. 37. Marker dedicated by the Daughters of the American Revolution recounting the history of Miller Park and Red Butte Creek (JoEllen Grandy, 4/11/16).

Fig. 38. Undated view to the south of a portion of the crib and reinforced concrete wall located along the eastern edge of the creek near the culvert. Note the location of the eastern perimeter trail in relation to the creek, and retaining wall in the top left corner (Parks).

Fig. 39. View to the south of a portion of the crib and reinforced concrete wall located along the eastern edge of the creek near the culvert in 2016. Note the relocation of the eastern perimeter trail following the perimeter of the retaining wall in the top left corner and additional timber retaining walls and the removal of the chain link fencing and separation from the creek below (JoEllen Grandy, 4/11/16).

Fig. 40. View to the north of the sandstone platform wall and culvert. Note the keystone in the masonry arch outlining the culvert (JoEllen Grandy, 4/11/16).

Fig. 41. View to the northeast of the crib walls and reinforced concrete, boulder and timber walls located along the eastern edge of the creek near the culvert (JoEllen Grandy, 4/11/16).

Fig. 42. Close-up view to the northeast of the sandstone platform wall, culvert and creek (JoEllen Grandy, 4/11/16).

Fig. 43. Distant view to the northeast of the sandstone platform wall, culvert and creek looking toward 900 South (JoEllen Grandy, 4/11/16).

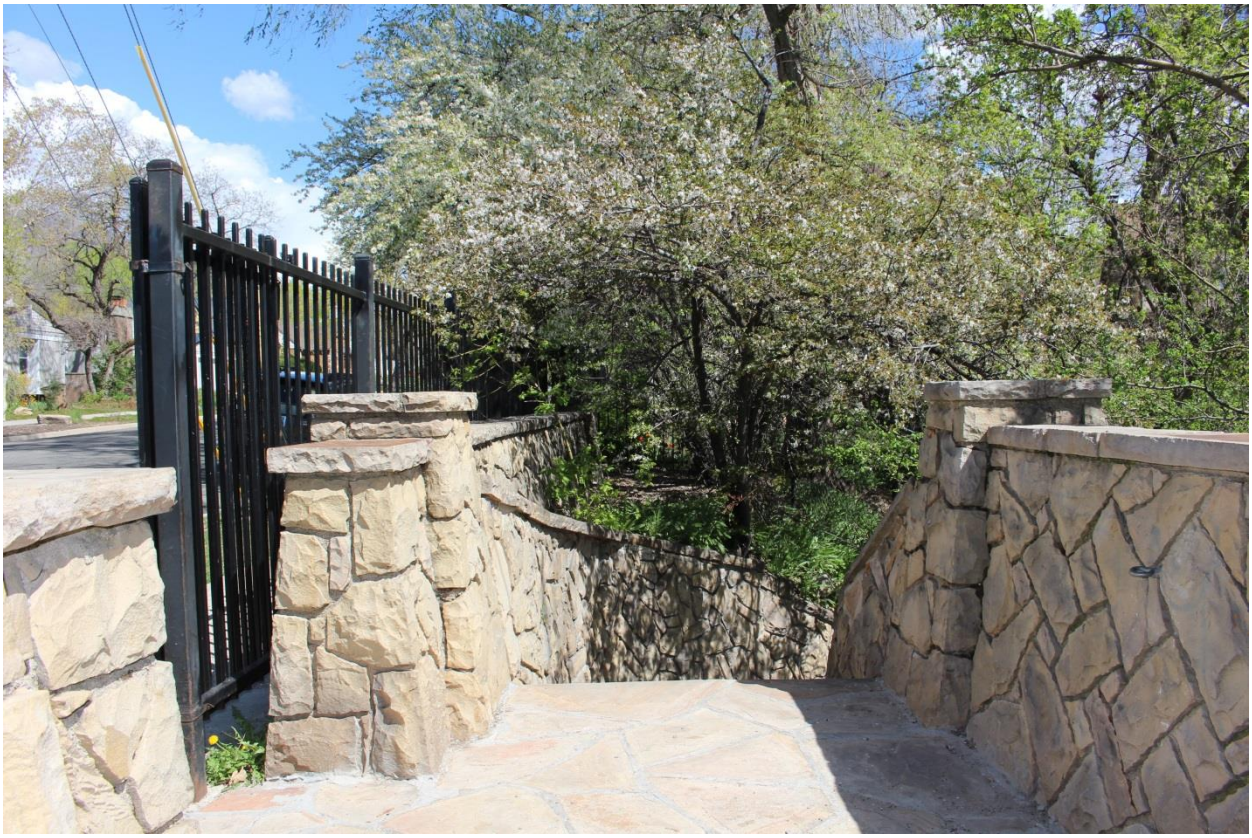


Fig. 44. View to the east of the sandstone wall and curving staircase to the east standing near the 900 South gated entrance (JoEllen Grandy, 4/11/16).

Fig. 45. View to the southeast of the curving staircase to the east standing near the top of the staircase at the 900 South gated entrance. Note the east perimeter trail and wood-terraced ascending stairs below (JoEllen Grandy, 4/11/16).

Fig. 46. Undated view to the southeast of the curving staircase to the east standing near the bottom of the staircase from the 900 South gated entrance. Note the location of the trail in relation to the retaining wall to the rear beyond the wood-terraced stairs (Parks).

Fig. 47. View to the southeast of the curving staircase to the east standing near the bottom of the staircase from the 900 South gated entrance in 2016. Note the relocation of the trail aligned next to the retaining wall to the rear beyond the wood-terraced stairs (JoEllen Grandy, 4/11/16).

Fig. 48. View to the north of the east staircase looking back toward the 900 South gated entrance (JoEllen Grandy, 4/11/16).

Fig. 49. View to the east of the wood-terraced ascending stairs, the built-in stone seated area and retaining wall (JoEllen Grandy, 4/11/16).

Fig. 50. Southwest bound view of the west perimeter trail. Note the stone retaining wall to the right (JoEllen Grandy, 4/11/16).

Fig. 51. Southwest bound view of the intermittent wood railings located along the west perimeter trail (JoEllen Grandy, 4/11/16).

Fig. 52. Northeast bound view of the intermittent wood railings located along the west perimeter trail (JoEllen Grandy, 4/11/16).

Fig. 53. Northeast bound view of the west perimeter trail. Note the stone retaining wall to the left and east perimeter trail and timber retaining wall to the right across from Red Butte Creek (JoEllen Grandy, 4/11/16).

Fig. 54. Intermittent gated-stair access to a private residential backyard property (JoEllen Grandy, 4/11/16).

Fig. 55. Intermittent gated-stair access to a private residential backyard property (JoEllen Grandy, 4/11/16).

Fig. 56. Intermittent gated-stair access to a private residential backyard property. Note the patched stonework suggesting a later installment (JoEllen Grandy, 4/11/16).

Fig. 57. Southwest bound approaching view of the sandstone masonry foot bridge (JoEllen Grandy, 4/11/16).

Fig. 58. View to the southeast standing on the west perimeter trial side of the sandstone masonry foot bridge connecting to the east perimeter trail side (JoEllen Grandy, 4/11/16).

Fig. 59. Undated view to the southwest standing on the east perimeter trail side of the sandstone masonry foot bridge looking across to the west perimeter trail on the other side (Parks).

Fig. 60. View to the southwest standing on the east perimeter trail side of the sandstone masonry foot bridge looking across to the west perimeter trail on the other side in 2016 (JoEllen Grandy, 4/11/16).

Fig. 61. Northeast bound approaching view of the sandstone masonry foot bridge. Note the west perimeter trail to the left (JoEllen Grandy, 4/11/16).

Fig. 62. Close-up northeast bound view of the sandstone masonry foot bridge (JoEllen Grandy, 4/11/16).

Fig. 63. A continuation of the southwest bound view of the west perimeter trail. Note the continuation of the stone retaining wall to the right (JoEllen Grandy, 4/11/16).

Fig. 64. Southwest bound view of the west perimeter trail approaching the southern extent of the park (JoEllen Grandy, 4/11/16).

Fig. 65. Additional example of an intermittent gated-stair access to a private residential backyard property (JoEllen Grandy, 4/11/16).

Fig. 66. Additional example of an intermittent gated-stair access to a private residential backyard property that was filled in (JoEllen Grandy, 4/11/16).

Fig. 67. Northeast bound view of the cobblestone flight of staircase to Diestel Road. Note the built-in cobblestone seating into the retaining wall either side of the stairs (JoEllen Grandy, 4/11/16).

Fig. 68. Northwest view of the cobblestone flight of staircase to Diestel Road (JoEllen Grandy, 4/11/16).

Fig. 69. Southwest bound approaching view of the metal pedestrian bridge located along the southern boundary of the park (JoEllen Grandy, 4/11/16).

Fig. 70. View to the southeast of the metal pedestrian bridge located along the southern boundary of the park. Note the concrete descending stairs and landing prior to crossing the bridge(JoEllen Grandy, 4/11/16).

Fig. 71. View to the northeast looking back toward the concrete staircase connecting access to the west perimeter trail. Note the timber retaining walls each side of the stairs (JoEllen Grandy, 4/11/16).

Fig. 72. View to the east standing on the west perimeter trail side of the metal pedestrian bridge connecting to the east perimeter trail side (JoEllen Grandy, 4/11/16).

Fig. 73. View to the west standing on the east perimeter trail side of the metal pedestrian bridge looking across to the west perimeter trail on the other side. Note on the right railing of the bridge a small metal manufacturing plaque (JoEllen Grandy, 4/11/16).

Fig. 74. Town & Country Bridge metal manufacturing plaque (JoEllen Grandy, 4/11/16).

Fig. 75. View to the southwest of the metal pedestrian bridge located along the southern boundary of the park. Note the concrete descending stairs and landing with a concrete bench to the right prior to crossing the bridge (JoEllen Grandy, 4/11/16).

Fig. 76. Southwest bound view of the east perimeter trail near the 900 South entrance. Note the stone retaining wall to the left and wood railing to the right (JoEllen Grandy, 4/11/16).

Fig. 77. View to the north of the east perimeter trail looking toward the 900 South entrance (JoEllen Grandy, 4/11/16).

Fig. 78. View to the north of the east perimeter trail further southwest of the 900 South entrance (JoEllen Grandy, 4/11/16).

Fig. 79. View of the east perimeter trail standing from the west perimeter trailside looking toward the east. Note the stone retaining wall and lower terraced timber retaining wall nearby the creek (JoEllen Grandy, 4/11/16).

Fig. 80. Southwest bound view of the descending wood-terraced trail staircase noted along the east perimeter trail. Note the wood railing (JoEllen Grandy, 4/11/16).

Fig. 81. Northeast bound view of the wood-terraced trail staircase noted along the east perimeter trail (JoEllen Grandy, 4/11/16).

Fig. 82. Northeast bound distant view of the wood-terraced trail staircase noted along the east perimeter trail (JoEllen Grandy, 4/11/16).

Fig. 83. Southwest bound view of the east perimeter trail. Note the timber retaining wall to the left (JoEllen Grandy, 4/11/16).

Fig. 84. Southwest bound view of the east perimeter trail (JoEllen Grandy, 4/11/16).

Fig. 85. Northeast bound view of the east perimeter trail. Note the grade change of the west perimeter trail to the left (JoEllen Grandy, 4/11/16).

Fig. 86. Southwest bound view of the east perimeter trail near the stone pedestrian bridge. Note the trail veers to the south at a steep incline and a three terraced timber retaining wall to the left (JoEllen Grandy, 4/11/16).

Fig. 87. View of a three terraced timber retaining wall located directly southeast of the bridge to help slow potential erosion (JoEllen Grandy, 4/11/16).

Fig. 88. View of the east perimeter trail as it veers to the south at a steep incline away from the creek (JoEllen Grandy, 4/11/16).

Fig. 89. Southwest bound view of the east perimeter trail near the metal bridge pedestrian crossing (JoEllen Grandy, 4/11/16).

Fig. 90. Southwest bound view of the descending east perimeter trail as it shortly approaches the metal bridge pedestrian crossing (JoEllen Grandy, 4/11/16).

Fig. 91. Gated access to a private residential backyard property from the east perimeter trail (JoEllen Grandy, 4/11/16).

Fig. 92. Gated access to a private residential backyard property from the east perimeter trail (JoEllen Grandy, 4/11/16).

Fig. 93. View to the south of the metal pedestrian bridge located along the southern boundary of the park from the west perimeter trail. Note the trailhead signage to the right (JoEllen Grandy, 4/11/16).

Fig. 94. Park signage posted near the southwest Miller park boundary trailhead entrance accessed through the northern entrance of Bonneville Glen from Bonneview Drive (JoEllen Grandy, 4/11/16).

Fig. 95. View to the west of the trailhead entrance accessed through the northern entrance of Bonneville Glen from Bonneview Drive. Note the chain link fence delineating the boundaries of Miller Park from Bonneville Glen (JoEllen Grandy, 4/11/16).

Fig. 96. View to the south of the chain link fence delineating the boundaries of Miller Park from Bonneville Glen (JoEllen Grandy, 4/11/16).

Fig. 97. View to the west of the trailhead entrance accessed through the northern entrance of Bonneville Glen from Bonneview Drive. Note the west perimeter trail continues through Bonneville Glen (JoEllen Grandy, 4/11/16).

Fig. 98. Southwest bound view of the west perimeter trail as it continues through Bonneville Glen (JoEllen Grandy, 4/11/16).

Fig. 99. Southwest bound view of the west perimeter trail as it continues through Bonneville Glen. This opening is staged during the Christmas season as a live-nativity scene (Webster, Personal) (JoEllen Grandy, 4/11/16).

Fig. 100. View to the northwest of the crescent-shaped stone retaining wall with originally three fireplaces. Note two of the three have been sealed (JoEllen Grandy, 4/11/16).

Fig. 101. View to the north of the functioning fireplace (JoEllen Grandy, 4/11/16).

Fig. 102. View to the northeast of the sealed fireplace, right of the functioning fireplace (JoEllen Grandy, 4/11/16).

Fig. 103. View to the northwest of the sealed fireplace, left of the functioning fireplace (JoEllen Grandy, 4/11/16).

Fig. 104. View to the west of the trailhead entrance accessed from the parking lot owned by the Church near the 1500 East Bonneview Drive intersection (JoEllen Grandy, 4/11/16).

Fig. 105. View to the west of the trail circling Red Butte Creek in Bonneville Glen (JoEllen Grandy, 4/11/16).

Fig. 106. Northwest view of a free-standing wall located along Red Butte Creek. It is undetermined what it was meant to accomplish (JoEllen Grandy, 4/11/16).

Fig. 107. Southwest view of a free-standing wall located along Red Butte Creek (JoEllen Grandy, 4/11/16).

Fig. 108. Southwest view of a wooden bridge constructed to connect the trail from the east to the west (JoEllen Grandy, 4/11/16).

Fig. 109. View to the east of a stone weir built across Red Butte Creek (JoEllen Grandy, 4/11/16).

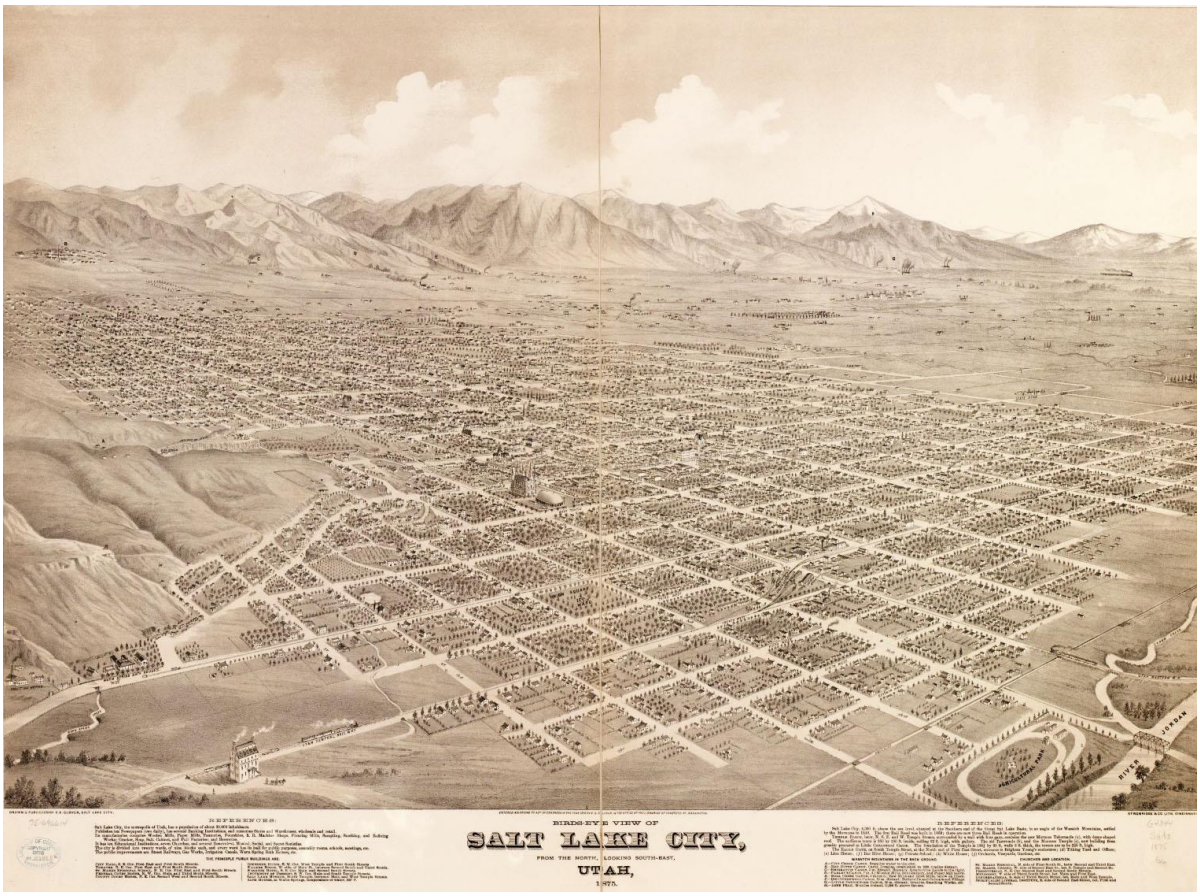


Fig. 110. An 1875 southeastern bird's eye view of Salt Lake City. Map courtesy of Library of Congress, Geography and Map Division (Glover).

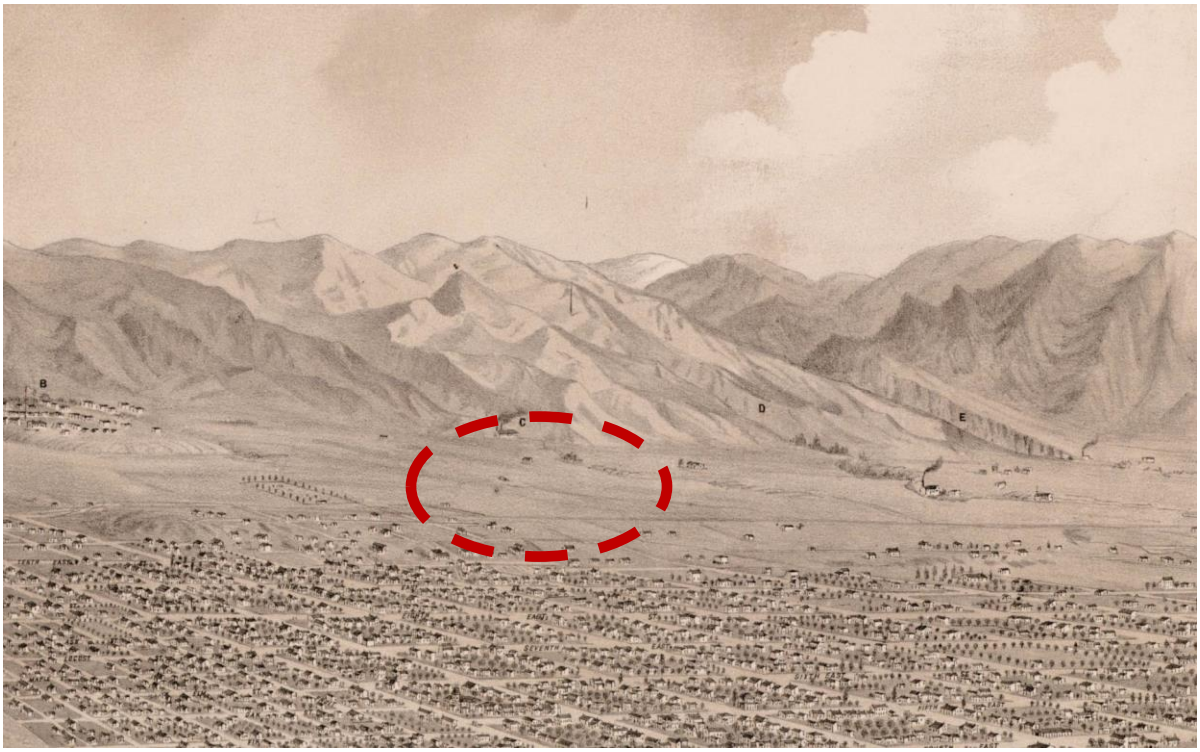


Fig. 111. An 1875 southeastern close-up bird's eye view of the approximate area where Miller Park would eventually be established. Map courtesy of Library of Congress, Geography and Map Division (Glover).

Fig. 112. Photograph of Minnie Viele Miller who donated two-acres of land for the establishment of Miller Park (Brosnan).

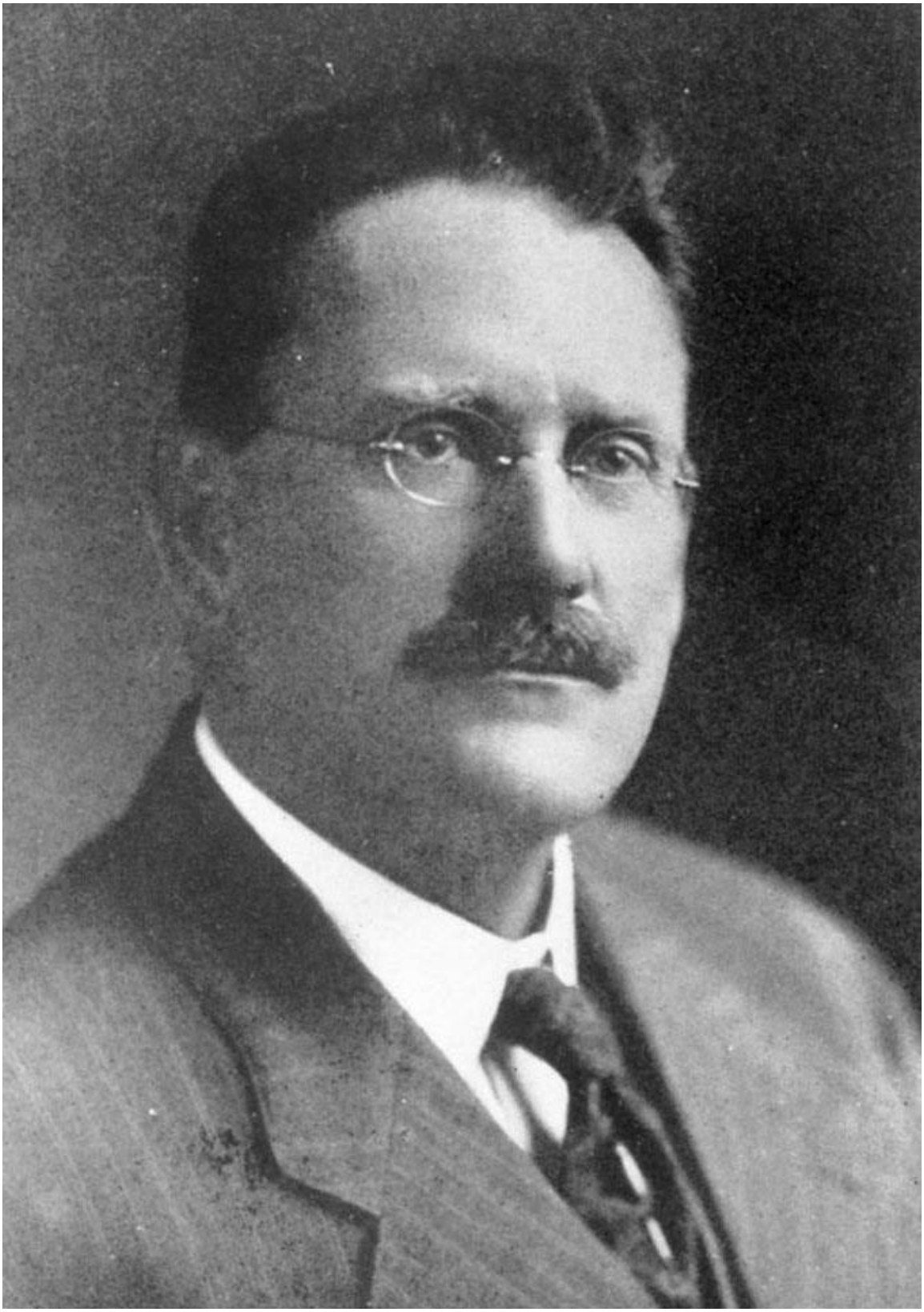


Fig. 113. Photograph of Lee Charles Miller, husband of Minnie Viele Miller and namesake of Miller Park. Photo courtesy of the Utah State Historical Society (Utah, 30386).

Fig. 114. Views to the southeast of the 1500 East Bonneview entrance into Miller Park taken in 1986 standing near the northeast corner at the intersection of 1500 East and Bonneview Drive (1500).

Fig. 115. View to the southeast of the 1500 East Bonneview entrance into Miller Park taken in 2016 standing near the northeast corner at the intersection of 1500 East and Bonneview Drive. Note a plaque is missing on the sandstone column to the left (JoEllen Grandy, 4/22/16).

Fig. 116. Close-up view of the sandstone wall with a built-in bench located near the northeast corner at the intersection of 1500 East and Bonneview Drive (JoEllen Grandy, 4/22/16).

Fig. 117. Plaque mounted on the southern, west-facing sandstone column standing near the northeast corner at the intersection of 1500 East and Bonneview Drive (JoEllen Grandy, 4/22/16).

Fig. 118. See the attached 1934 CWA plans demarcating the area as a contemplated park area (Miller Park CWA).

Fig. 119. See the attached 1936 WPA master plan for Miller Park. Note plans include a circle fireplace area, two tennis courts, a wading pool and shelter area with a playground nearby, horseshoe pits, a restroom facility (comfort station), an amphitheater, and pavilion (shelter) (Neff).

Fig. 120. See the attached 1936 WPA plans for a flagstone platform and stairway entrance to be located from 900 South. Note that this design was eventually built circa 1940 (see fig. 127) (Flagstone).

Fig. 121. See the attached undated plans illustrating similar plans for a flagstone platform and stairway entrance to be located from 900 South (Miller Park Detail).

Fig. 122. See the attached 1936 WPA plans for a fountain and park seating to be located immediately east from the entrance on 900 South. Note that this design was built; however, not exactly as the plans illustrated. The drinking fountain with seating were not included (Details).

Fig. 123. See the attached 1936 WPA plans for the stone foot bridge. Note that this design was built (Foot).

Fig. 124. See the attached 1936 WPA plans for an amphitheater to be built. Note the plans included space for an upper and lower stage, a tunnel, an orchestra pit, and a dressing room building. This design was not built (Proposed).

Fig. 125. See the attached 1936 WPA plans for a circle fireplace area referred to as the Scout Council Fire Arena. Note that this design was built[1]; however, not exactly as the plans illustrated. Only three of the five fireplaces were constructed. The vases were also not included (Holdaway).

Fig. 126. See the attached 1936 WPA plans for a trash rack. Note that this design was not built (Trash).

Fig. 127. See the attached 1940 plans for a flagstone platform and stairway entrance to be located from 900 South. Note the plans follow closely the 1936 WPA plans earlier mentioned (Main).

Fig. 128. See the attached 1940 plans for a comfort station to built at Miller Park. Note that this design was not built (Comfort).

Fig. 129. See the attached 1940 plans for a rubble masonry stairway entrance to be built near the intersection of Diestel Road and Michigan Avenue. Note that this design was built (Miller Park Rubble).

Fig. 130. See the attached 1943 plans for a sprinkling system to be installed at Miller Park. It is undetermined whether the system was actually installed at this time. Note that the Scout Council Fire Arena area is noted on the plans with a fountain to be installed in the center. It is undetermined if this was built (Plan).

[1] The Scout Council Fire Arena is located in Bonneville Glen.

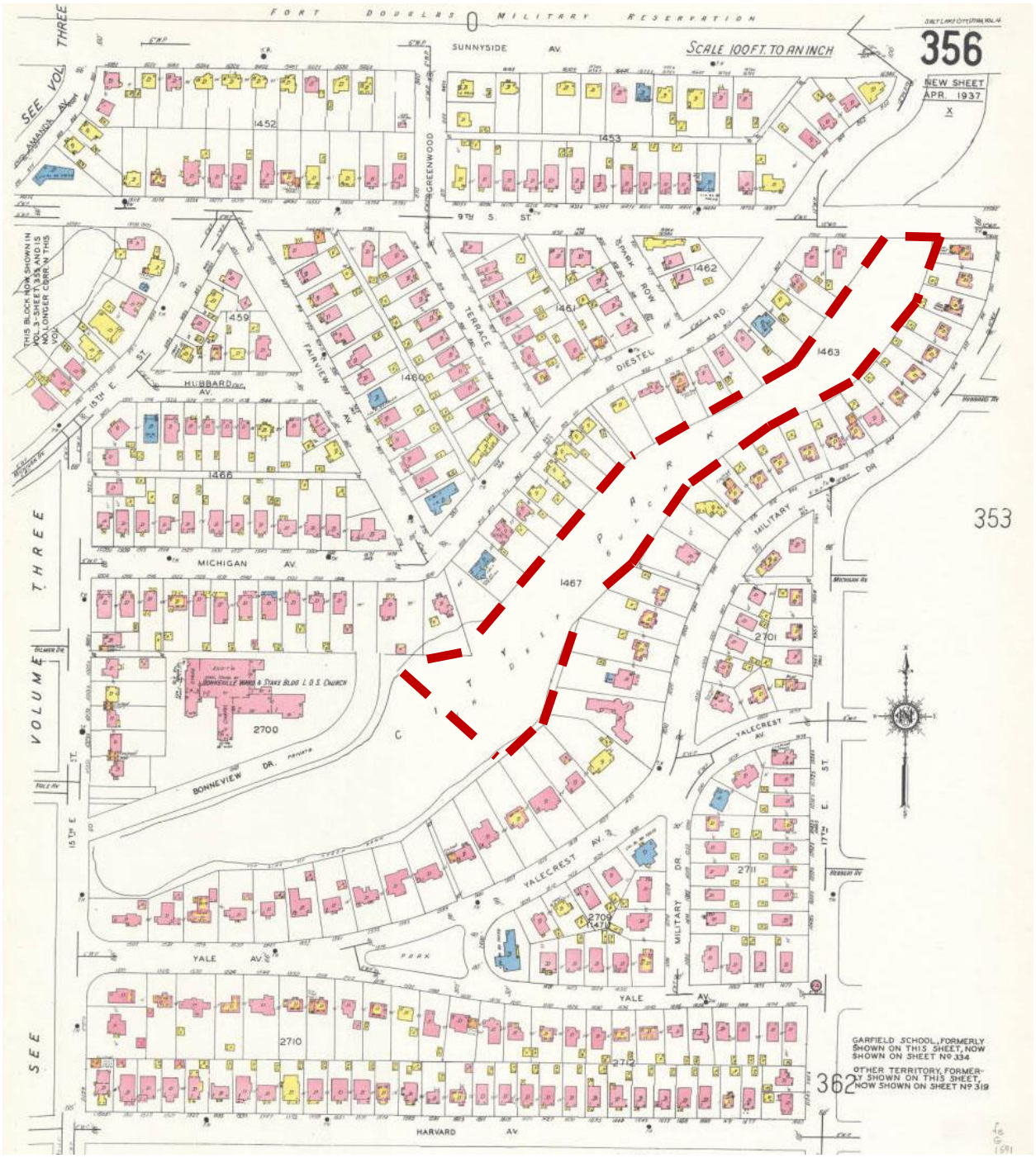


Fig. 131. 1950 Sanborn map illustrates the location of Miller Park. Note the variety of single family housing around the perimeter of the gully and a church belonging to The Church of Jesus Christ of Latter-day Saints near the southwest corner of the park (Sanborn).

Fig. 132. View to the northeast of the Bonneview Ward Chapel and Stake standing on Bonneview Drive (JoEllen Grandy, 4/11/16).

Fig. 133. See attached map of the 1977 clean-up schematic plans for Miller Park (JS).

Fig. 134. See attached map of the 1987 safety improvement plans for Miller Park (Mitchell).

Fig. 135. See attached map of the 1992 park improvement plans for Miller Park (PPD).

Fig. 136. Photograph of members of the Daughters of the American Revolution at the Miller Park marker dedication held on Flag Day, June 13, 1998. Individuals from left to right are as follows: VPG Mrs. Richard Wilson, Historian Mrs. Ray H. Severson, State Regent Mrs. L. Glade Anderson, VPG Mrs. E. Harrison Powley III, Utah DAR Centennial Chairman Mrs. Leon McCold, and Dr. Leonard J. Arrington (History, 3).

Fig. 137. See attached map of the 2013 restoration plans for Miller Park (Biohabitats).

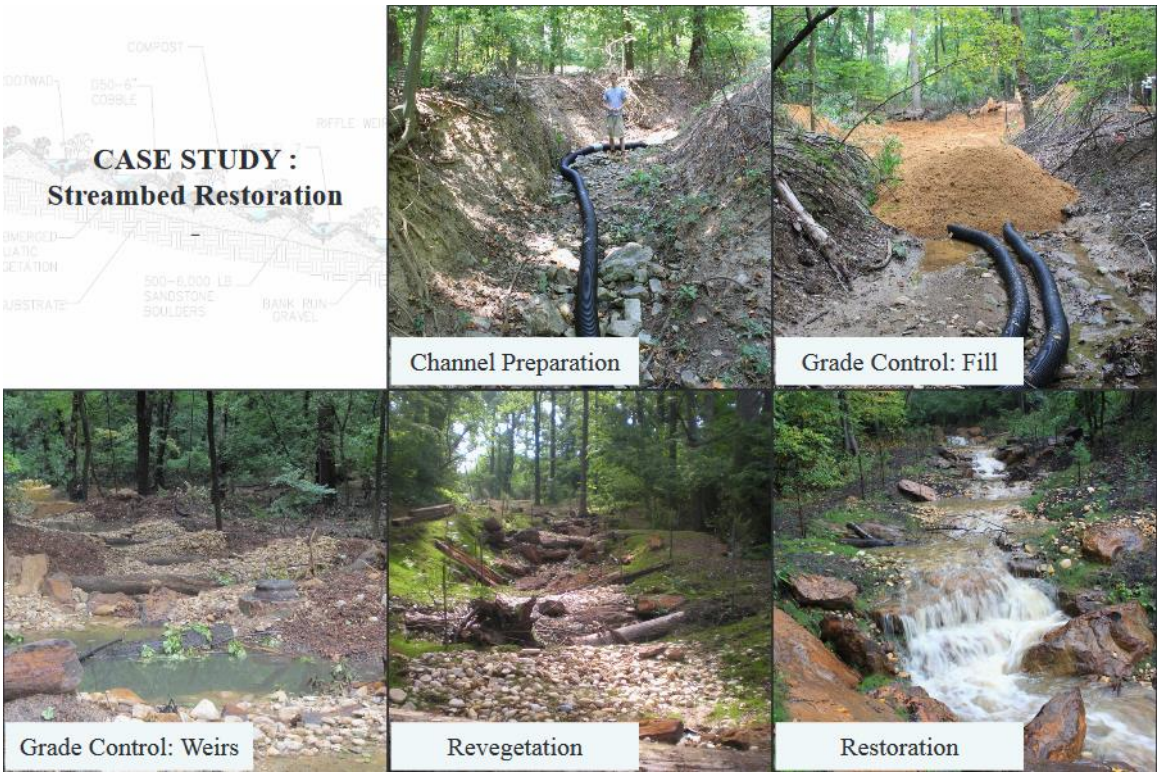
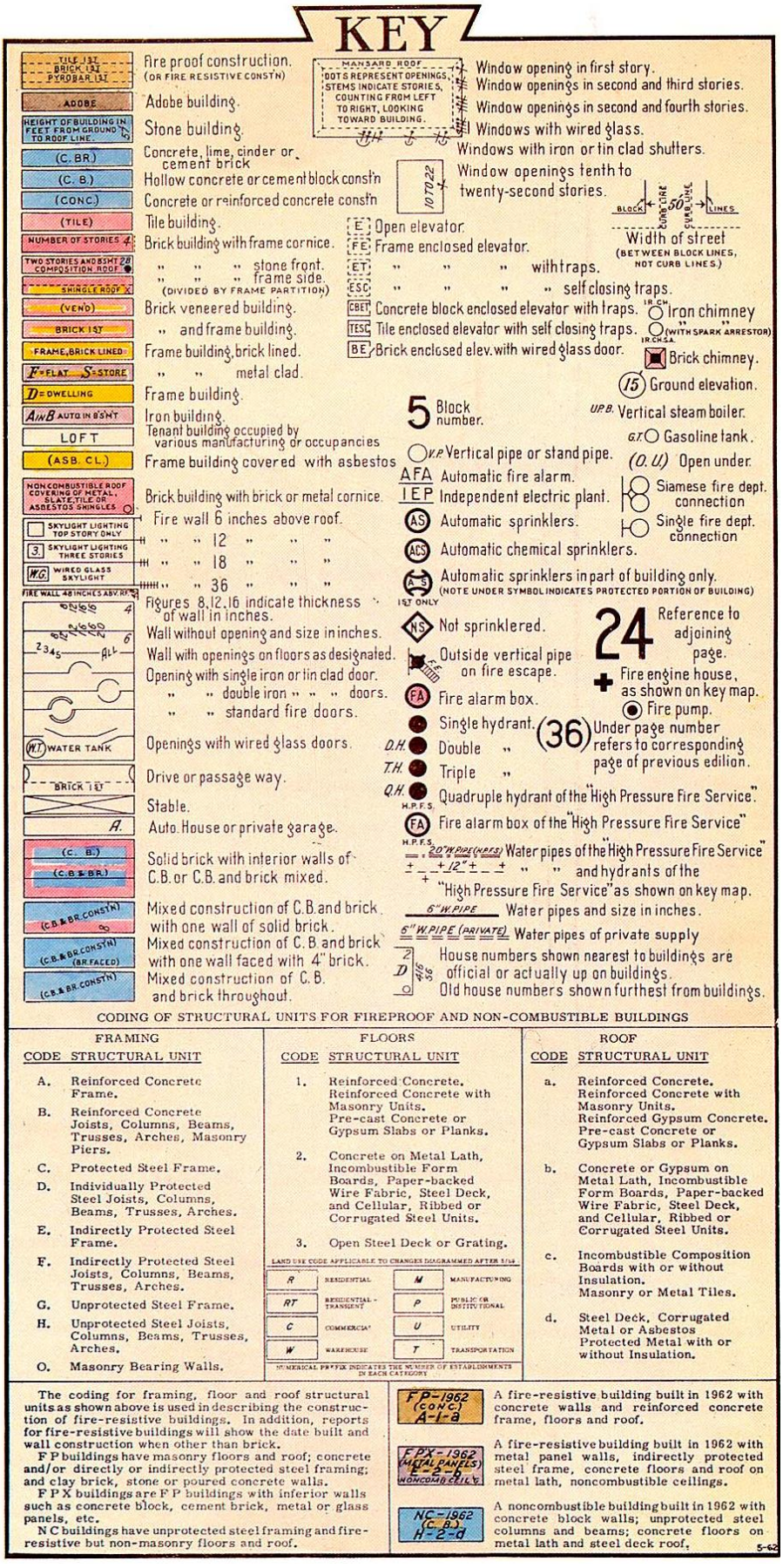


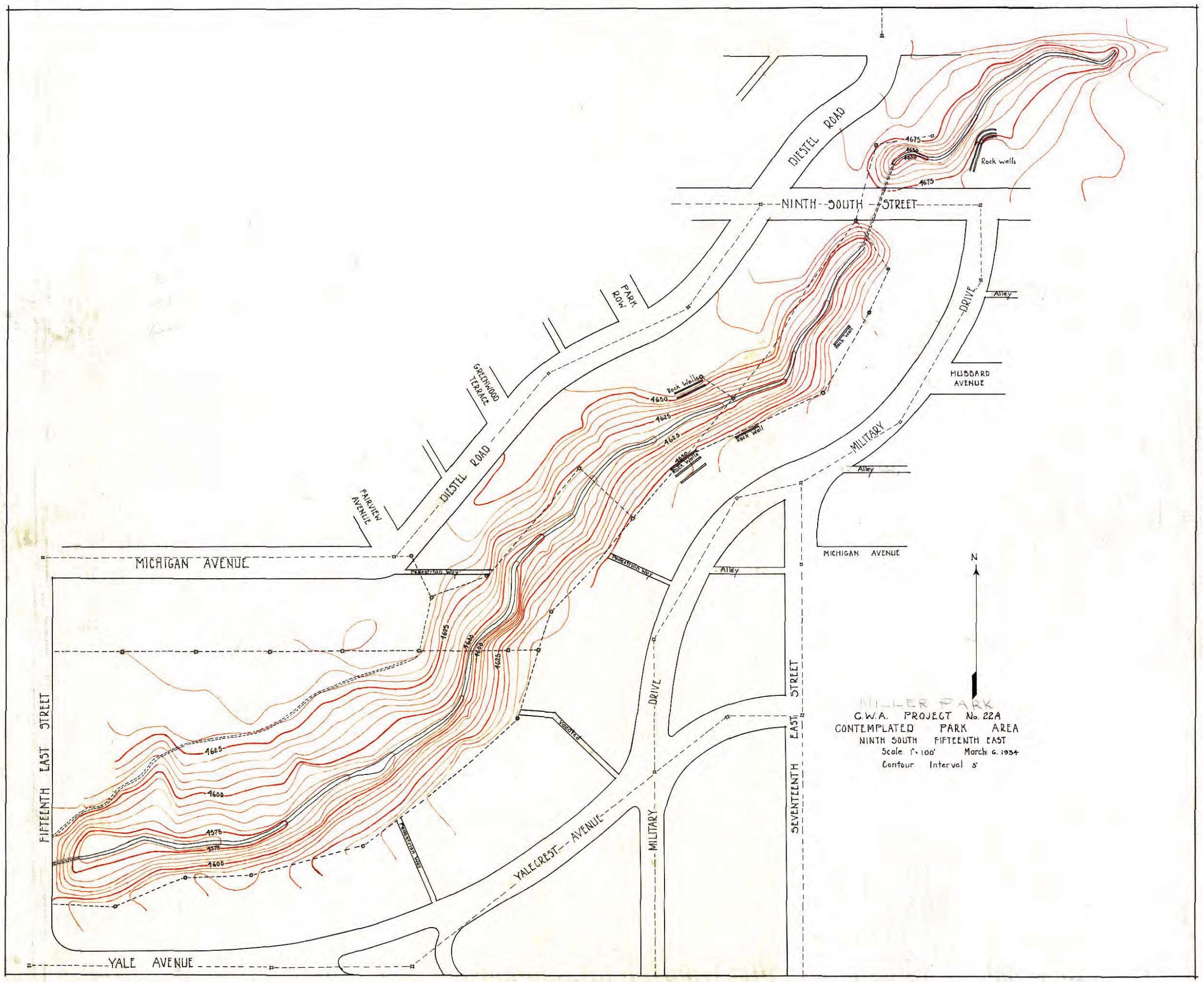
Fig. 138. Restoration plans for Miller Park in response to the 2010 Chevron gas spill (Miller Bird Refuge and Nature Preserve).

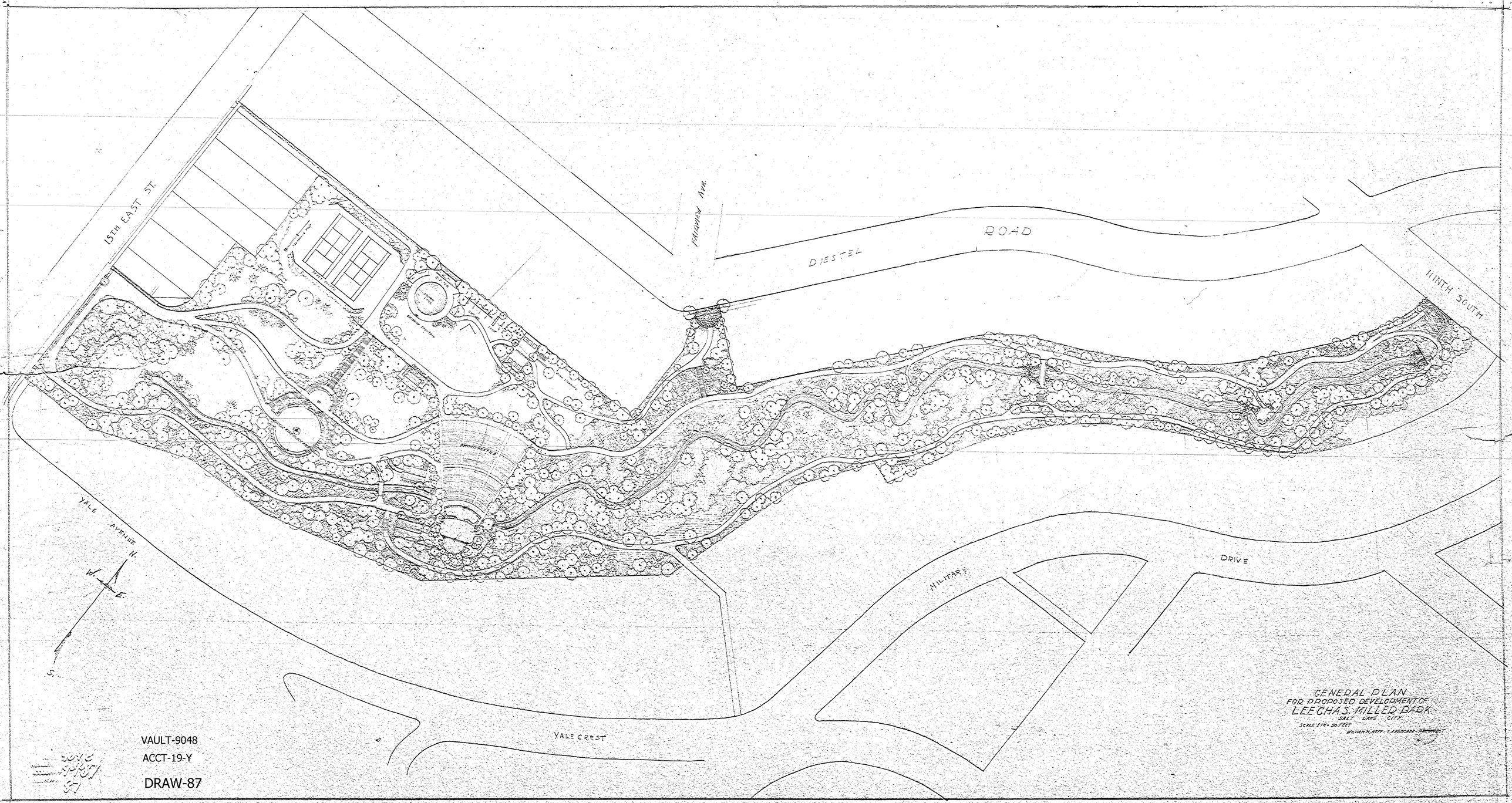
Fig. 139. See attached map of 2016 existing conditions of Miller Park.

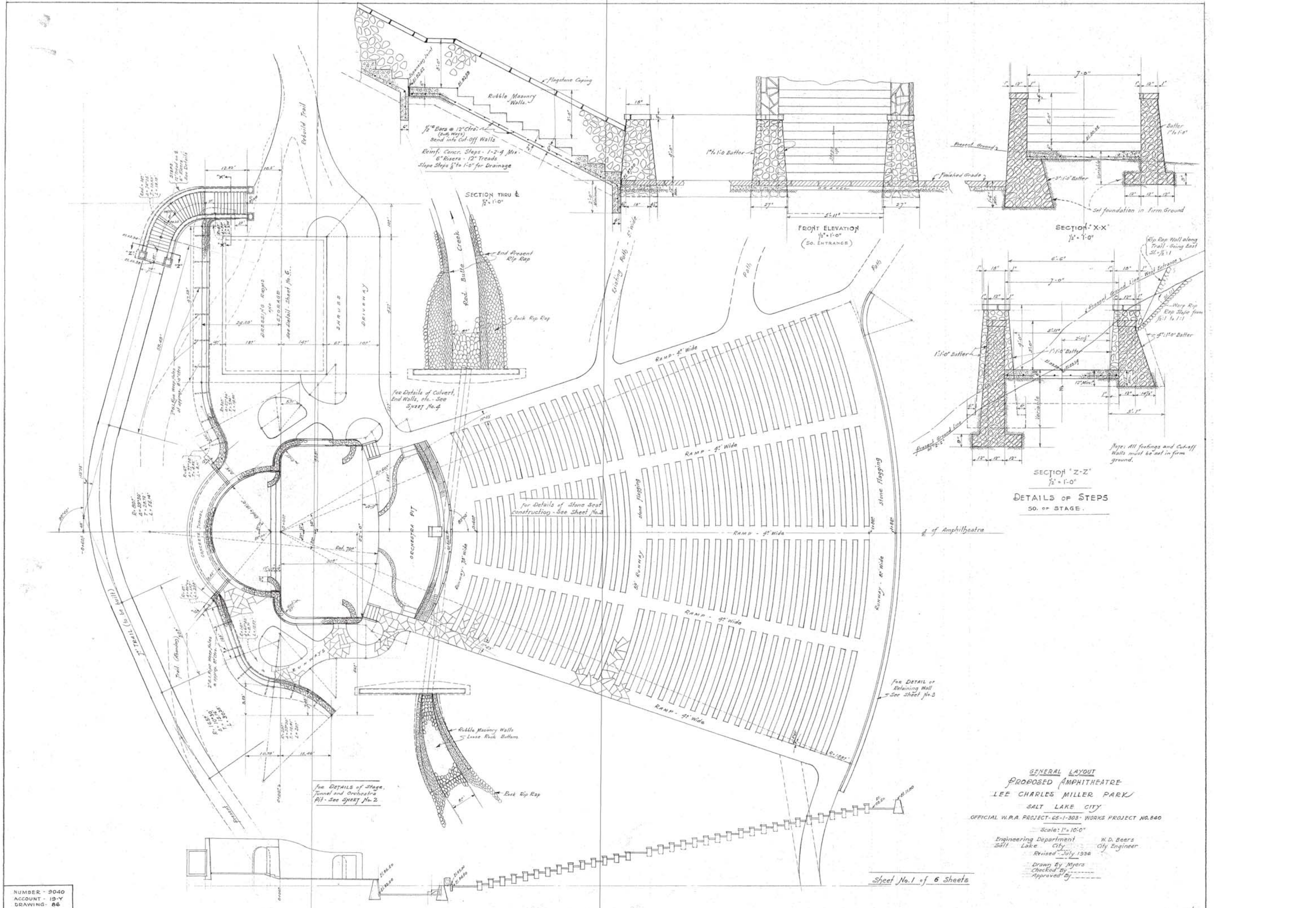


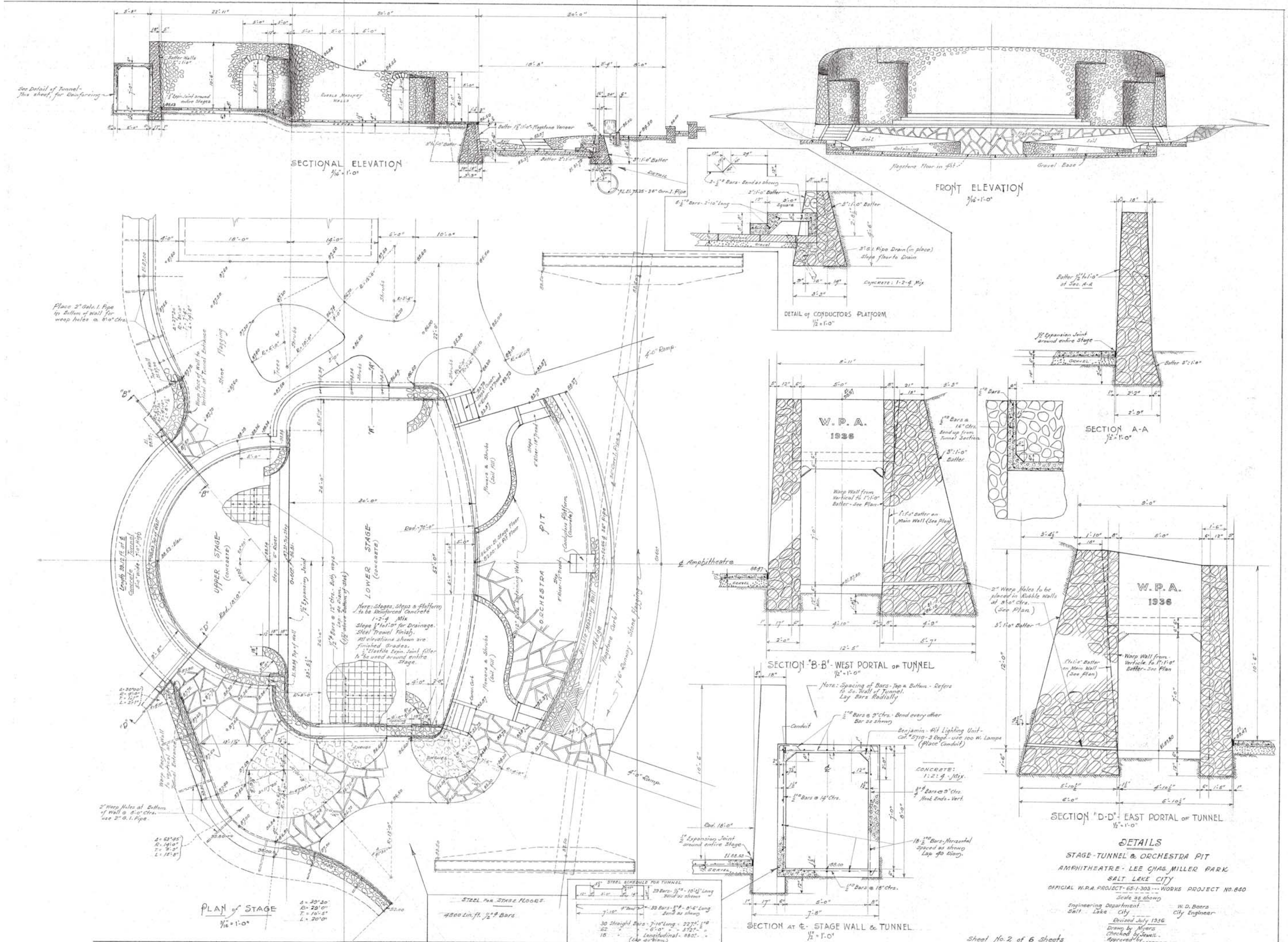
Color key to Sanborn maps (Color)

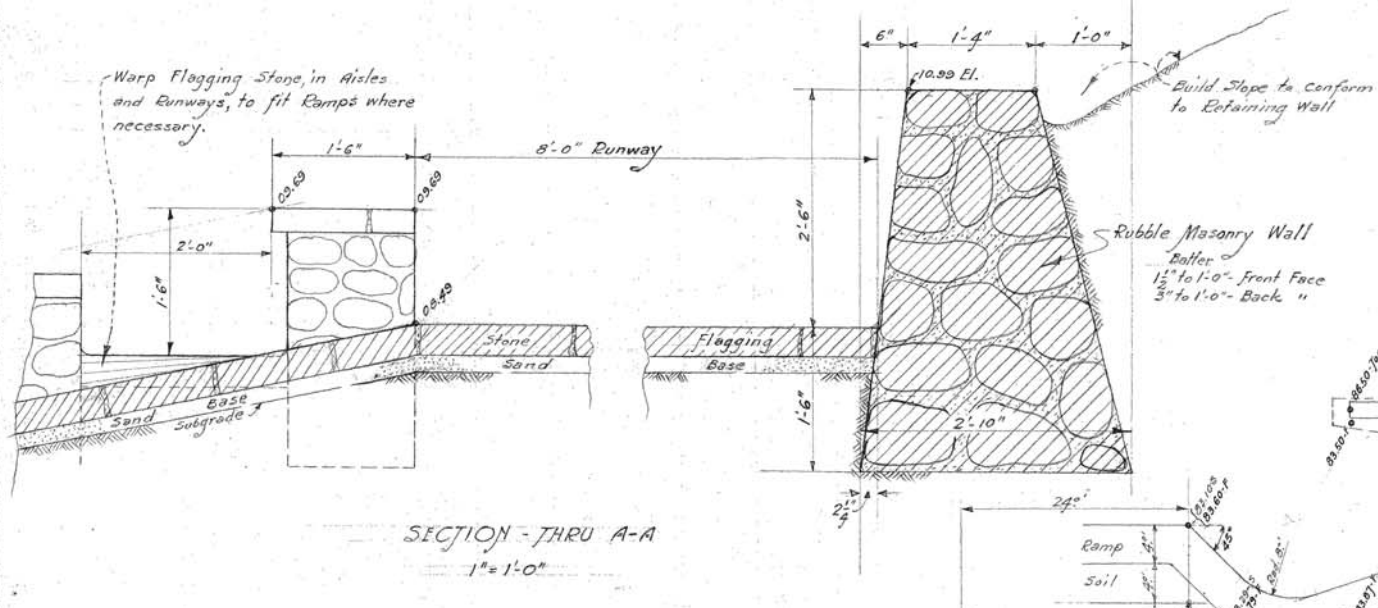
Photo Key (2012)






GENERAL LAYOUT
PROPOSED AMPHITHEATRE
LEE CHARLES MILLER PARK
SALT LAKE CITY
OFFICIAL W.P.A. PROJECT-65-1-303- WORKS PROJECT NO.840
Scale: 1"= 10'-0"
Engineering Department Salt Lake City
W. D. Beers City Engineer
Revised July 1936
Drawn By Myers
Checked By
Approved By
Sheet No.1 of 6 Sheets
NUMBER - 9040
ACCOUNT - 19-Y
DRAWING - 86
DETAILS OF STEPS
SO. OF STAGE.
SECTION "X-X"
½" = 1'-0"
SECTION "Z-Z"
½" = 1'-0"
FRONT ELEVATION
½" = 1'-0"
(SO. ENTRANCE)
SECTION THRU ℄
½" = 1'-0"
Note: All footings and Cut-off Walls must be set in firm ground.
Set foundation in Firm Ground
Present Ground
Finished Grade
Flagstone Coping
Rubble Masonry Walls.
½" ø Bars @ 12" Ctrs. (Both Ways) Bend into Cut-Off Walls
Reinf. Concr. Steps - 1-2-4 Mix. 6" Risers - 12" Treads
Slope Steps ⅛" to 1'-0" for Drainage
Rip Rap Wall along Trail - Going East
Warp Rip Rap Slope from ½:1 to 1:1
Present Ground Line
For Details of Culvert, End Walls, etc. - See Sheet No.4
For Details of Stone Seat Construction - See Sheet No.3
For Details of Stage, Tunnel and Orchestra Pit - See Sheet No.2
For Detail of Retaining Wall - See Sheet No.3
Red Butte Creek
End Present Rip Rap
Rock Rip Rap
Rubble Masonry Walls
Loose Rock Bottom
Existing Path - 5' Wide
Path
Rebuild Trail
DRESSING ROOMS AND STORAGE
See Detail - Sheet No.6
SHRUBS
DRIVEWAY
ORCHESTRA PIT
CONCRETE TUNNEL
RUNWAYS
RAMP - 4' Wide
RAMP - 9' Wide
Runway - 8' Wide
Runway - 7.5' Wide
5.0' Runway
Stone Flagging
℄ of Amphitheatre
7' TRAIL (to be built)
Trail (Abandon)
2" G.I. Pipe Weep Holes @ approx. 8'-0" ctrs.
Present


SECTIONAL ELEVATION
3/16" = 1'-0"
FRONT ELEVATION
3/16" = 1'-0"
DETAIL of CONDUCTORS PLATFORM
1/2" = 1'-0"
CONCRETE: 1-2-4 Mix
SECTION A-A
1/2" = 1'-0"
W. P. A.
1936
SECTION "B-B" WEST PORTAL of TUNNEL
1/2" = 1'-0"
SECTION "D-D" EAST PORTAL of TUNNEL
1/2" = 1'-0"
SECTION AT ℄ STAGE WALL & TUNNEL
1/2" = 1'-0"
PLAN of STAGE
3/16" = 1'-0"
UPPER STAGE
(CONCRETE)
LOWER STAGE
(CONCRETE)
ORCHESTRA PIT
℄ Amphitheatre
4'-0" Ramp
STEEL FOR STAGE FLOORS
4800 Lin. ft. 1/2" ø Bars
STEEL SCHEDULE FOR TUNNEL
DETAILS
STAGE-TUNNEL & ORCHESTRA PIT
AMPHITHEATRE - LEE CHAS. MILLER PARK
SALT LAKE CITY
OFFICIAL W.P.A. PROJECT - 65-1-303 --- WORKS PROJECT NO. 860
Scale as shown
Engineering Department
Salt Lake City
W. D. Beers
City Engineer
Revised July 1936
Drawn by Myers
Checked by Jewell
Approved by
Sheet No. 2 of 6 Sheets



SECTION - THRU A-A
1" = 1'-0"

NOTE: For Stage & Orchestra Pit Grades and Details - See sheet No. 2

NOTE:
Letter "S" after elevations indicate Subgrade
Letter "F" " " " Finished Grade

DETAIL OF SEAT CONSTRUCTION
1½" = 1'-0"

NOTE: THIS SECTION THRU ℄ - FRONT SEATS

NUMBER - 9040
ACCOUNT - 19-Y
DRAWING - 86

GRADE SHEET

SEATING AREA

AMPHITHEATRE - LEE CHAS. MILLER PARK

S. L. C., UT.

OFFICIAL W.P.A. PROJECT - 65-1-303 --- WORKS PROJECT 840

Scale: 1" = 10'-0"

Engineering Department
Salt Lake City

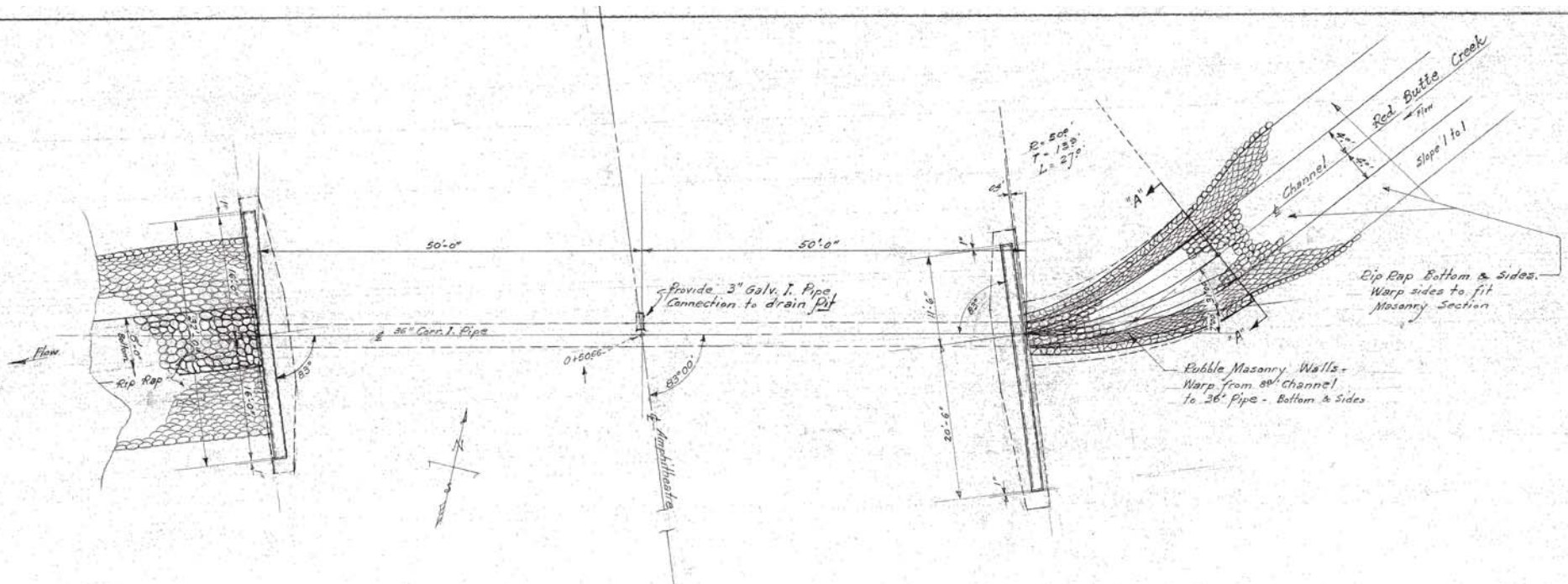
W. D. Beers
City Engineer

May - 1936

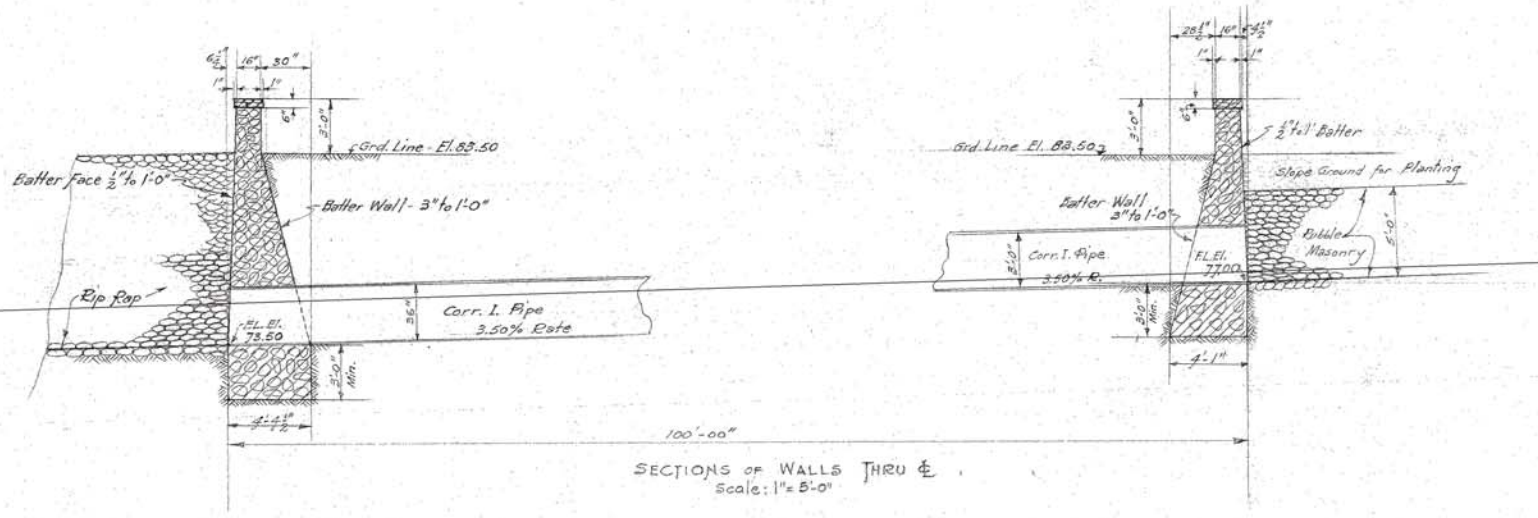
Drawn by Myers
Checked by Forsyth
Approved by _____

5-28-36

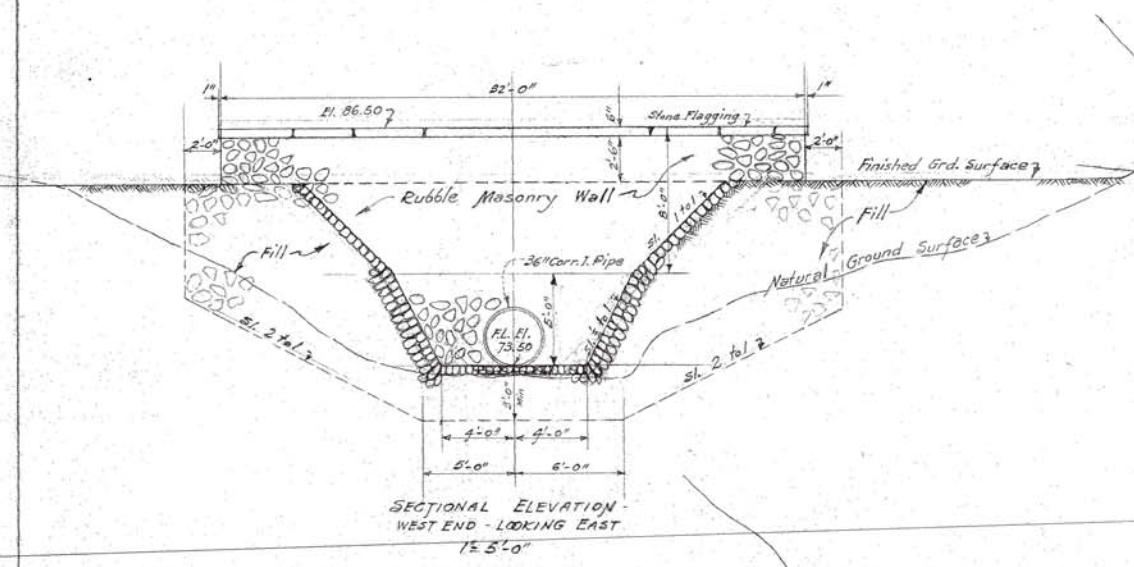
Sheet No. 3 of 6 Sheets.



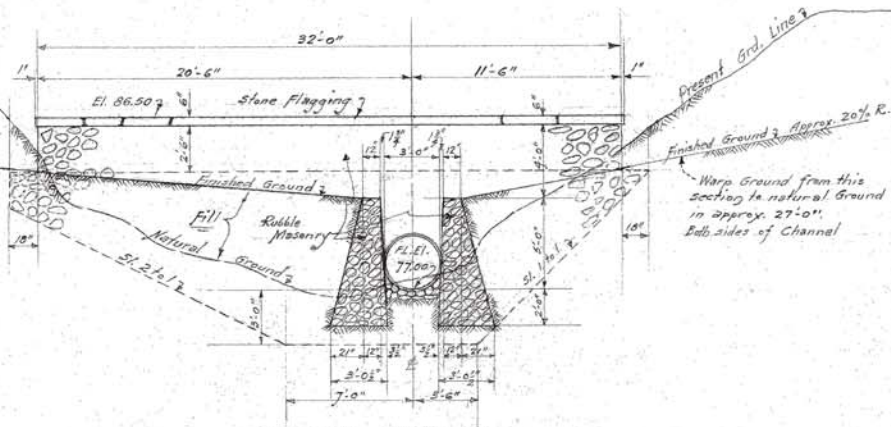
PLAN OF CULVERT & ENDWALLS
PIPE UNDER AMPHITHEATRE
Scale: 1"=10'-0"



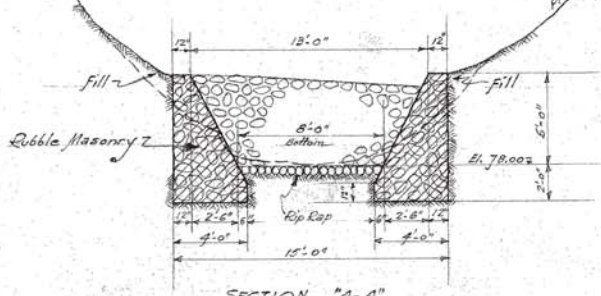
SECTIONS OF WALLS THRU ℄
Scale: 1"= 5'-0"



SECTIONAL ELEVATION -
WEST END - LOOKING EAST
1"= 5'-0"



SECTIONAL ELEVATION
EAST END - LOOKING WEST
1" = 5'-0"



SECTION - "A-A"
1" = 5'-0"

DETAILS OF CULVERT & END WALLS
UNDER AMPHITHEATRE
LEE CHARLES MILLER PARK - S.L.C., UT.

OFFICIAL W.P.A. PROJECT - 65-1-303 -- WORKS PROJECT 840

Scale as shown

Engineering Dept.
Salt Lake City

W. D. Beers
City Engineer

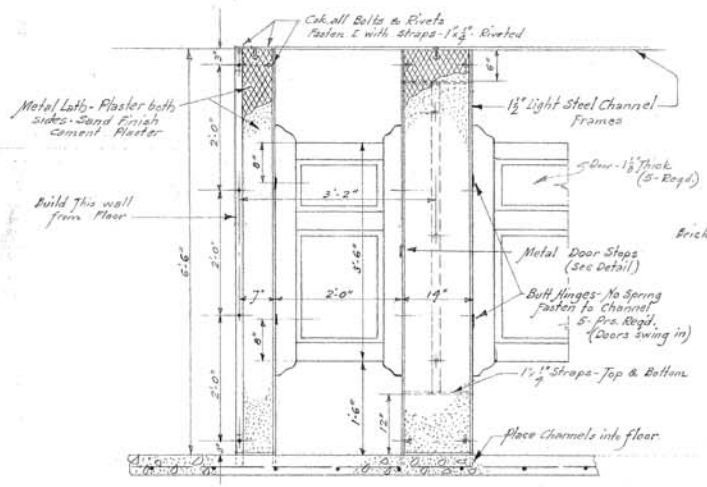
May 1936

Drawn By Myers
Checked By Sorrell
Approved By

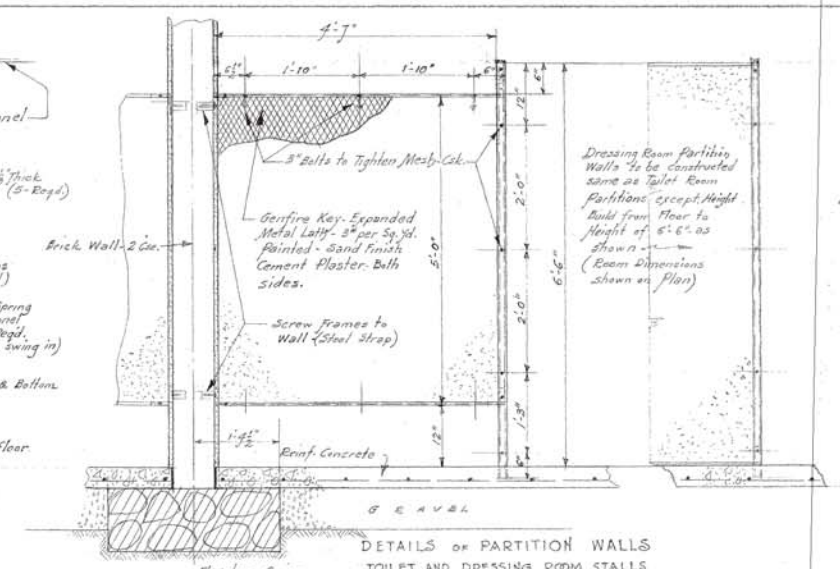
NUMBER - 3040
ACCOUNT - 19-Y
DRAWING - 86

Revised - 6-23-36

5-13-1936

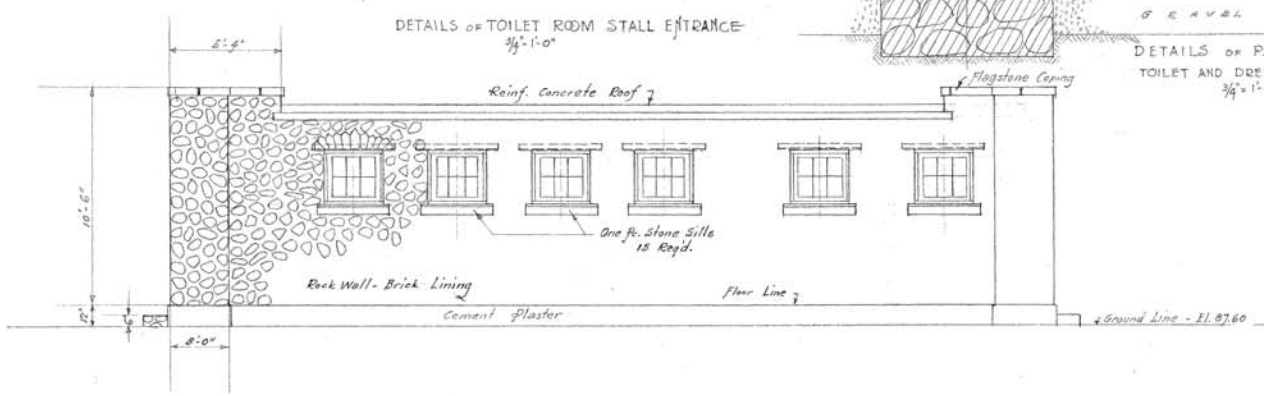


DETAILS OF TOILET ROOM STALL ENTRANCE
3/8" = 1'-0"

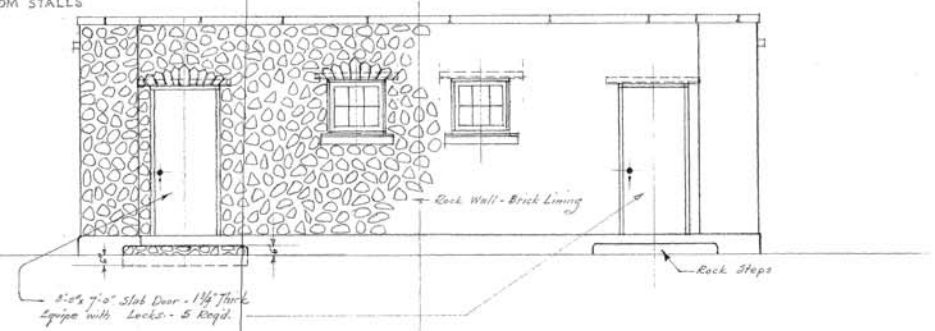


DETAILS OF PARTITION WALLS
TOILET AND DRESSING ROOM STALLS
3/8" = 1'-0"

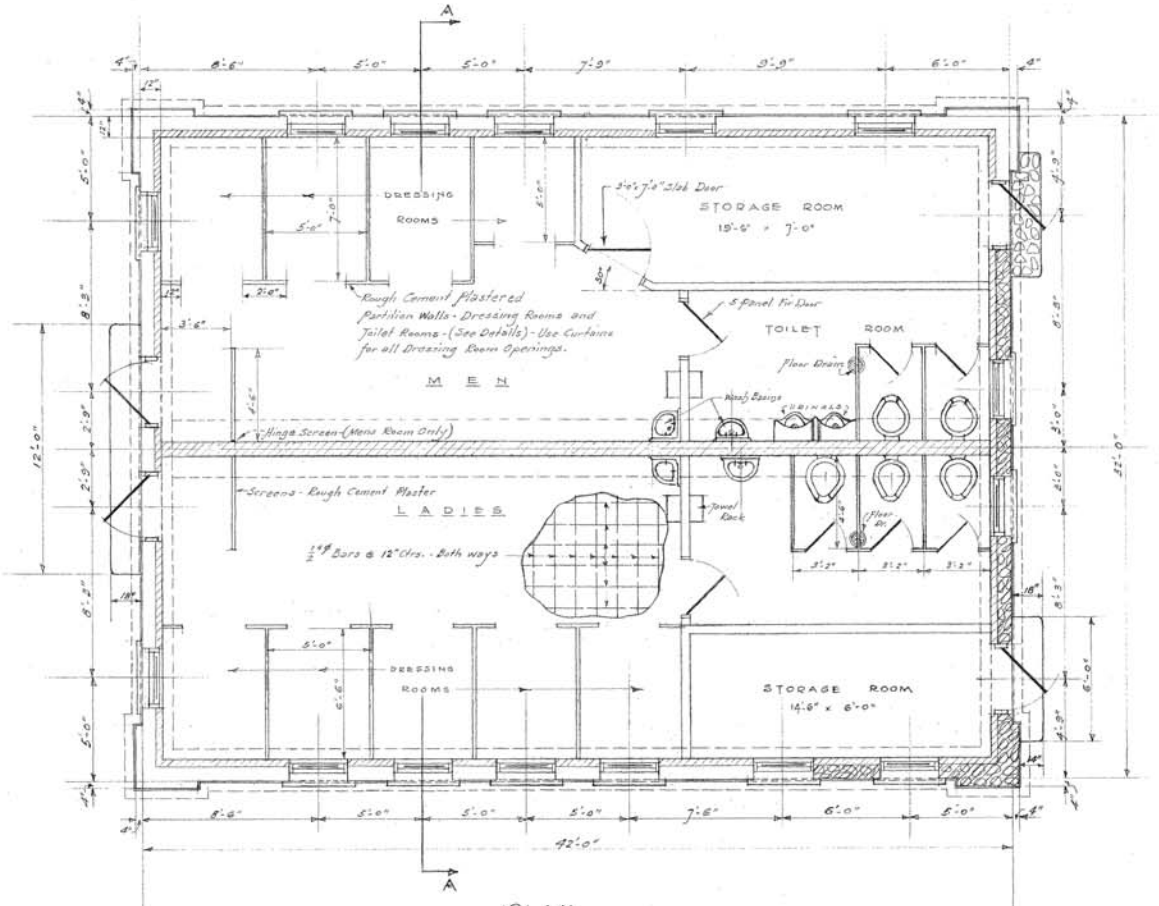
NOTE:
Screens near doors to be constructed same as toilet stall partitions, one foot from floor - Panel 4'-6" x 5'-0" - 1½" Light Channel to be used in all screen & stall partitions - Upright channel of screen to extend from ceiling to floor - Door screen in mens room to be hinged as shown - Sand Finish Cement Plaster thruout. All Bolts and Rivets to be countersunk. CONCRETE for floor & Roof to be 1:2:4 Mix



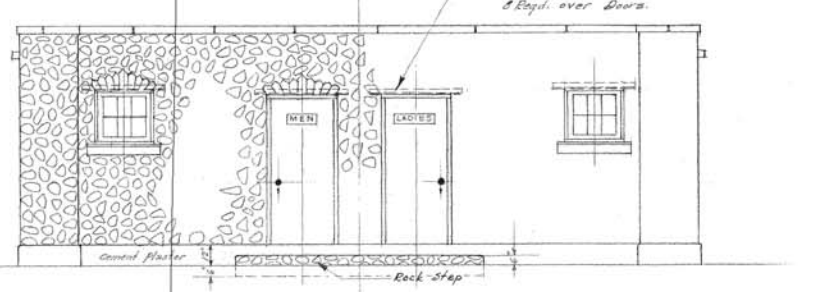
NORTH SIDE ELEVATION
1/4" = 1'-0"



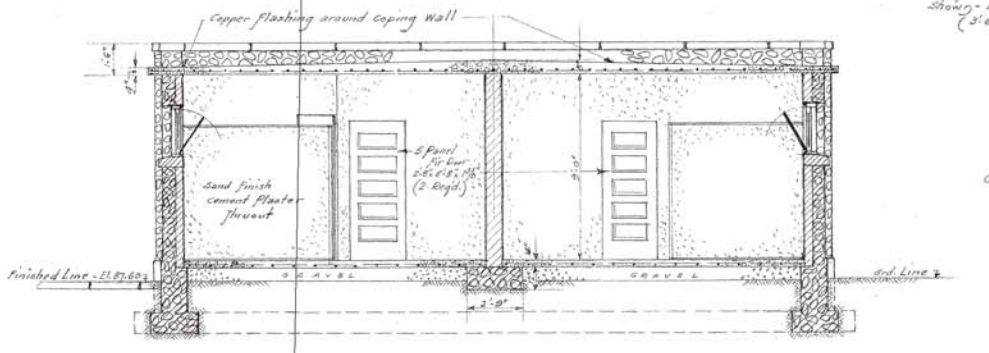
WEST END ELEVATION
1/4" = 1'-0"



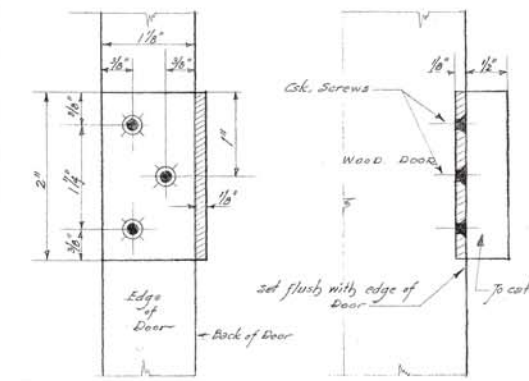
PLAN
Scale: 1/4" = 1'-0"



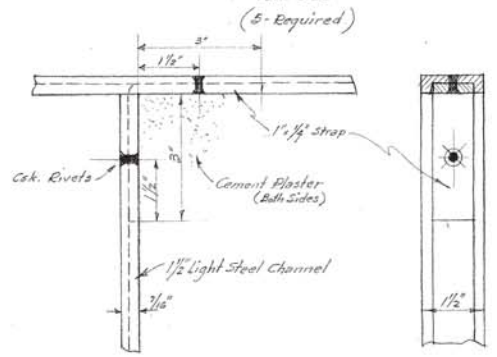
EAST END ELEVATION
1/4" = 1'-0"



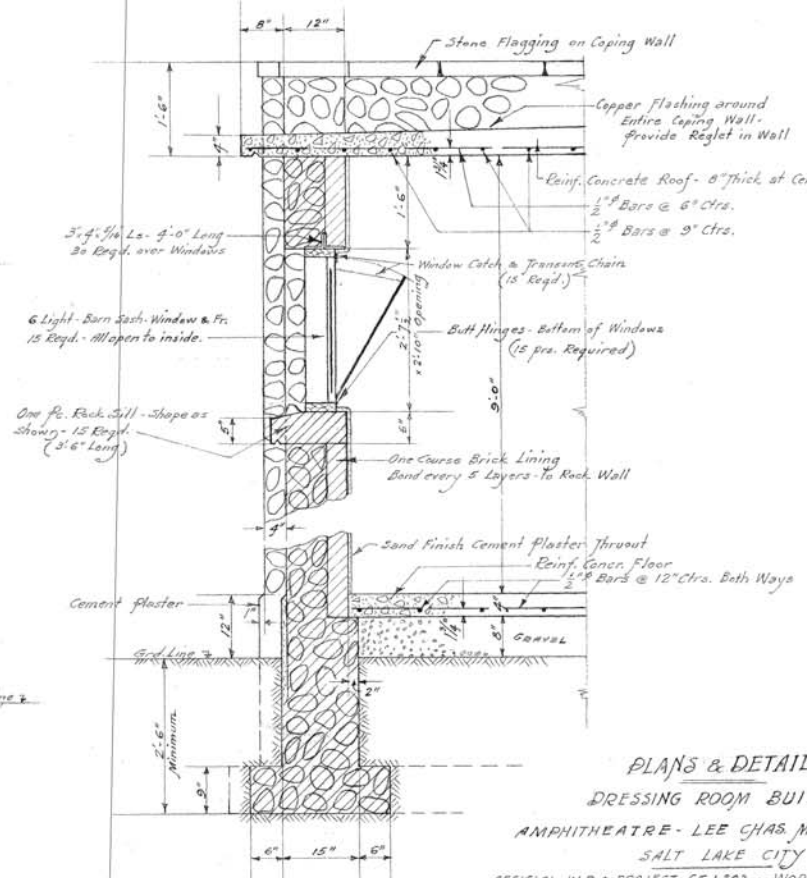
SECTION THRU A-A
1/4" = 1'-0"



DETAIL OF DOOR STOP
FULL SIZE
(5 Required)



DETAIL OF PANEL CORNER CONNECTION
HALF SIZE



DETAILS OF WALL CONSTRUCTION
3/4" = 1'-0"

PLANS & DETAILS
DRESSING ROOM BUILDING
AMPHITHEATRE - LEE CHAS. MILLER PARK
SALT LAKE CITY

OFFICIAL W.P.A. PROJECT - 66-1-303 --- WORKS PROJECT No. 840

Scale as shown

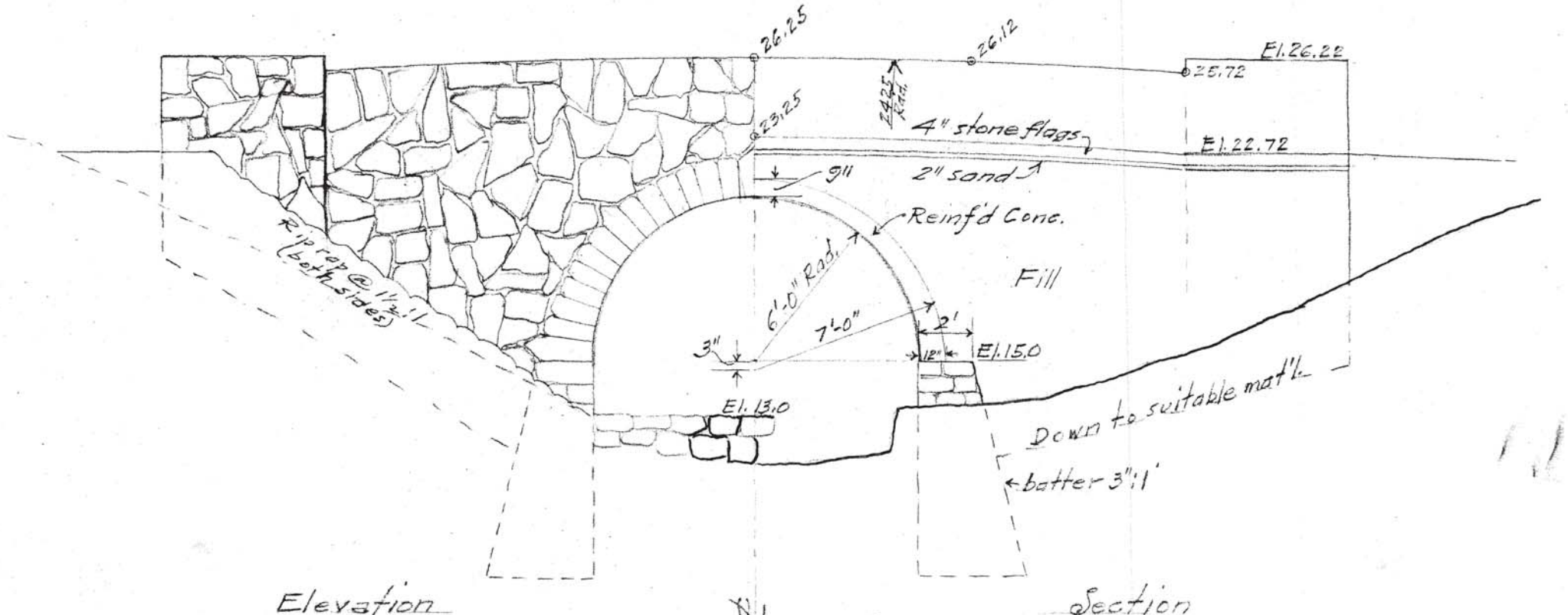
Engineering Department
Salt Lake City

W.D. Beers
City Engineer

August 1936

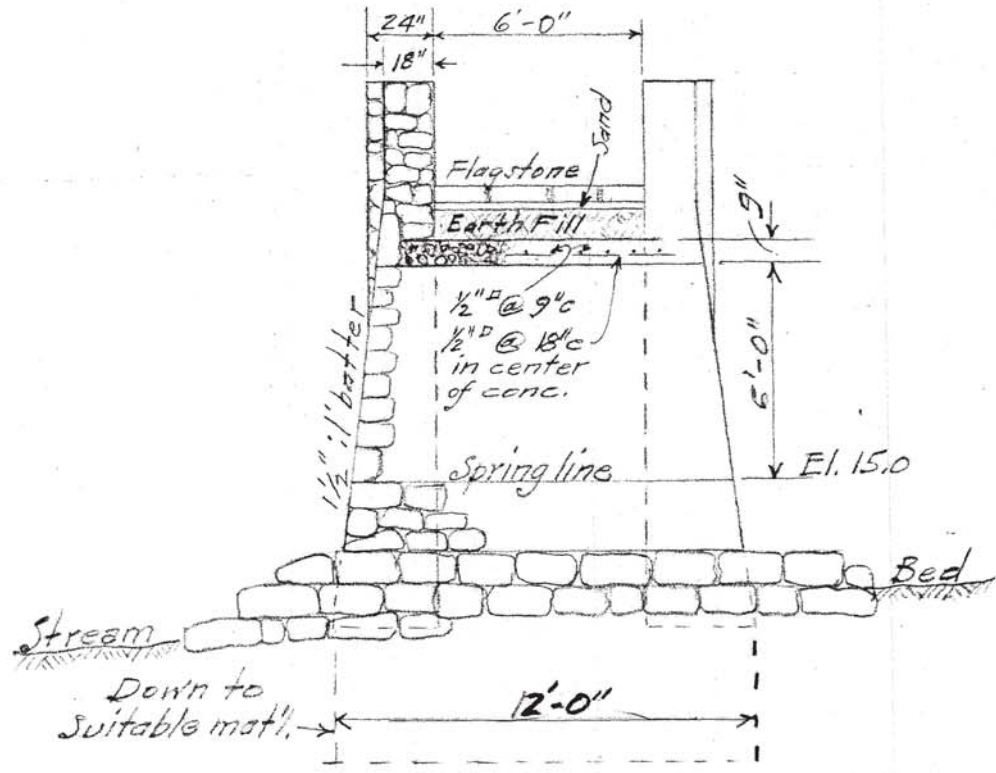
Drawn by - Myers
Checked by -----
Approved by -----

NUMBER - 8040
ACCOUNT - 19-Y
DRAWING - 86



Elevation

Section



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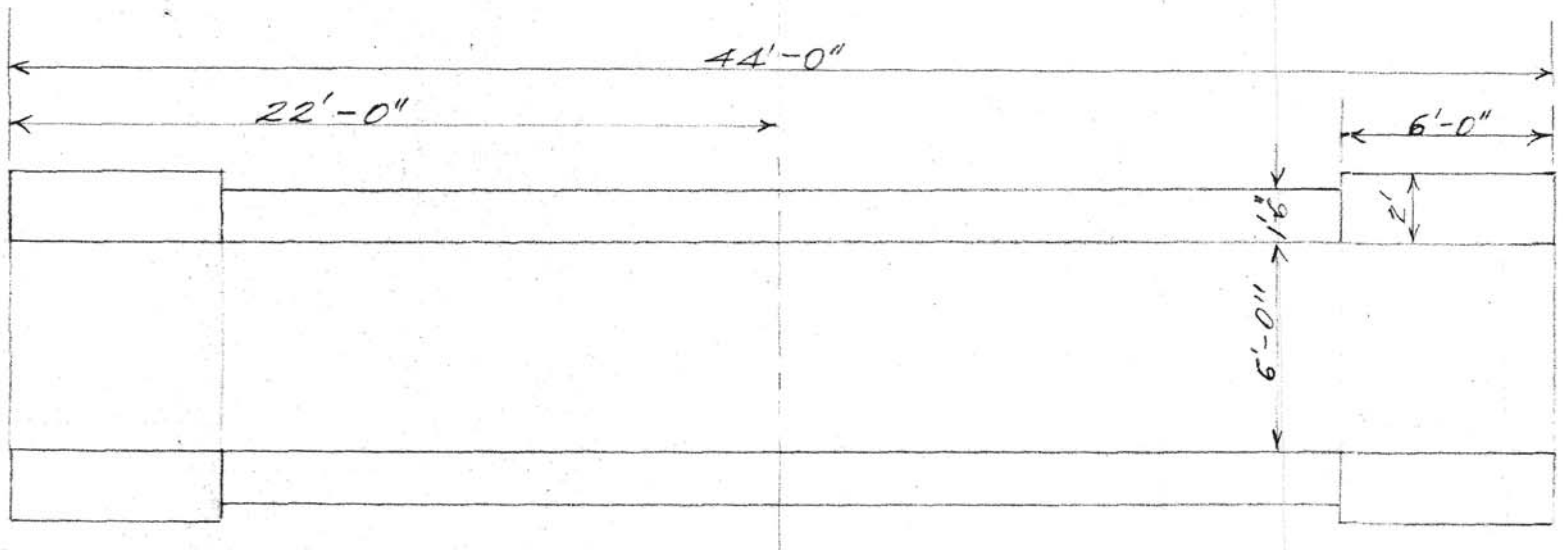


Plan

Vouch. 9121.
Acct. 19-8.
Doc. 92.

FOOT BRIDGE
for
Lee Charles Miller Park

Scale-¼"=1'

Engineering Dept.
Salt Lake City

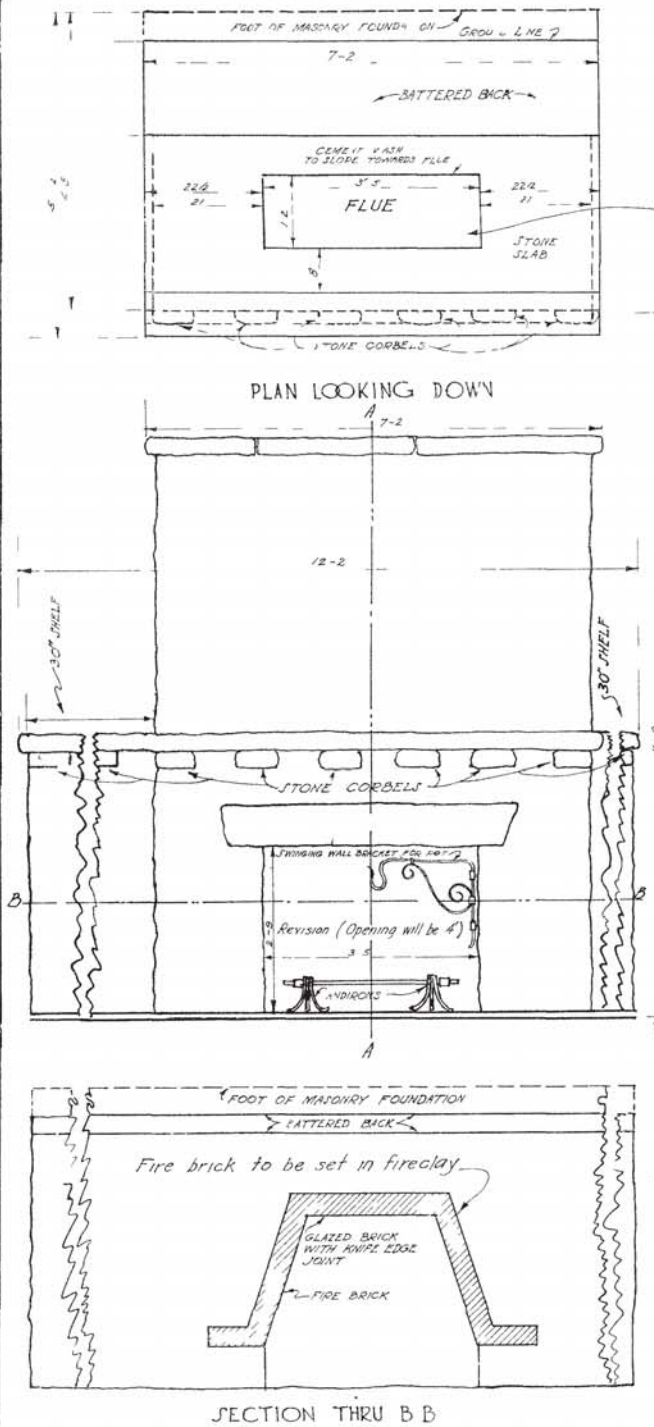
W. D. Beers
City Engineer.

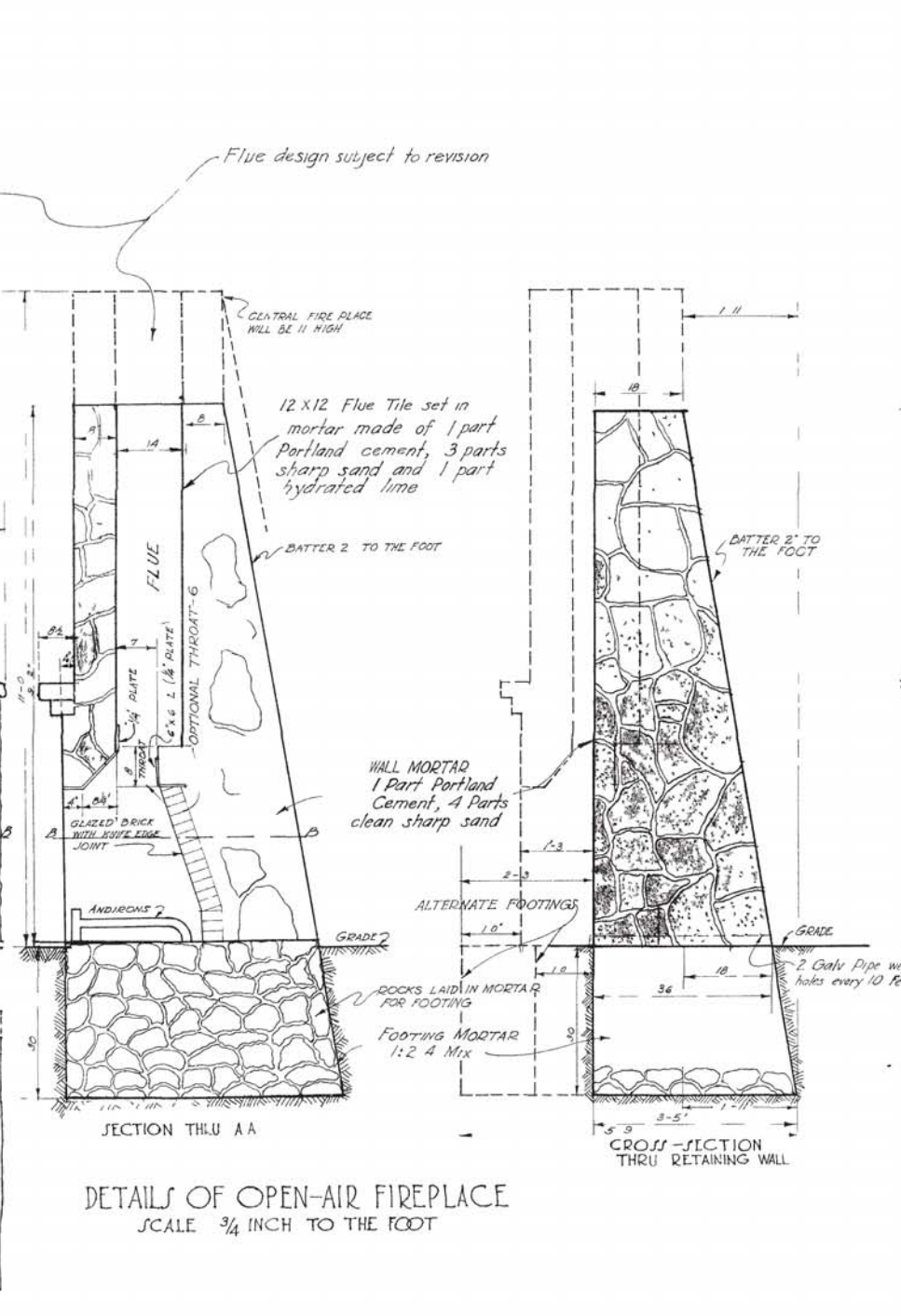
May, 1936.

Drawn by Sewell

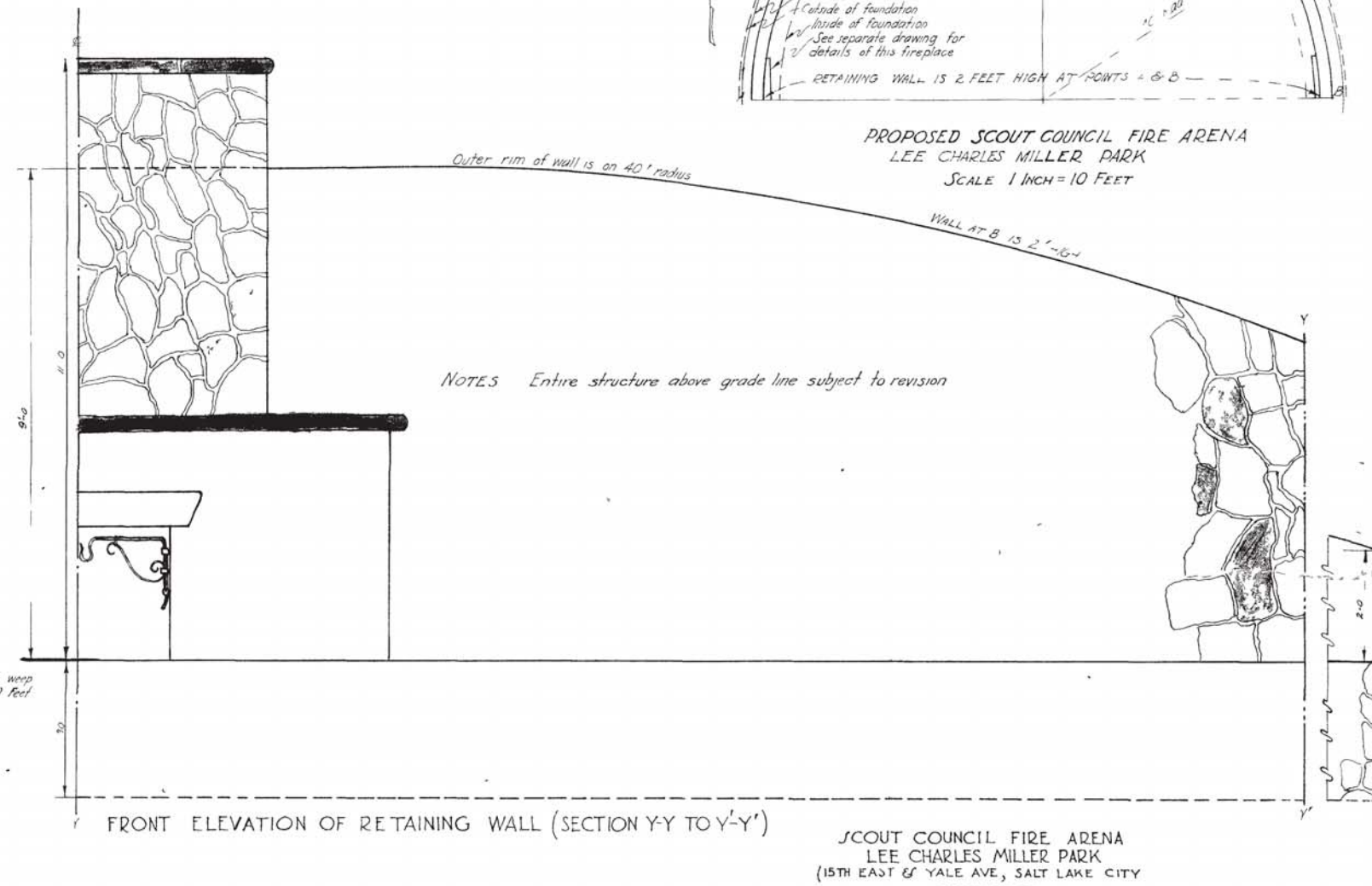
Checked by

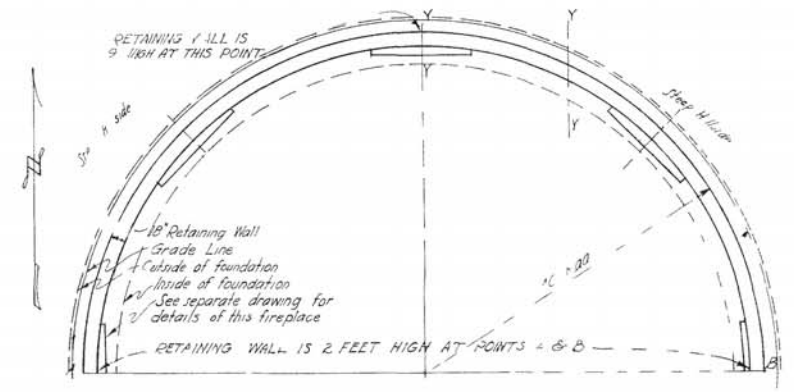
Approved





DETAILS OF OPEN-AIR FIREPLACE
SCALE ¾ INCH TO THE FOOT



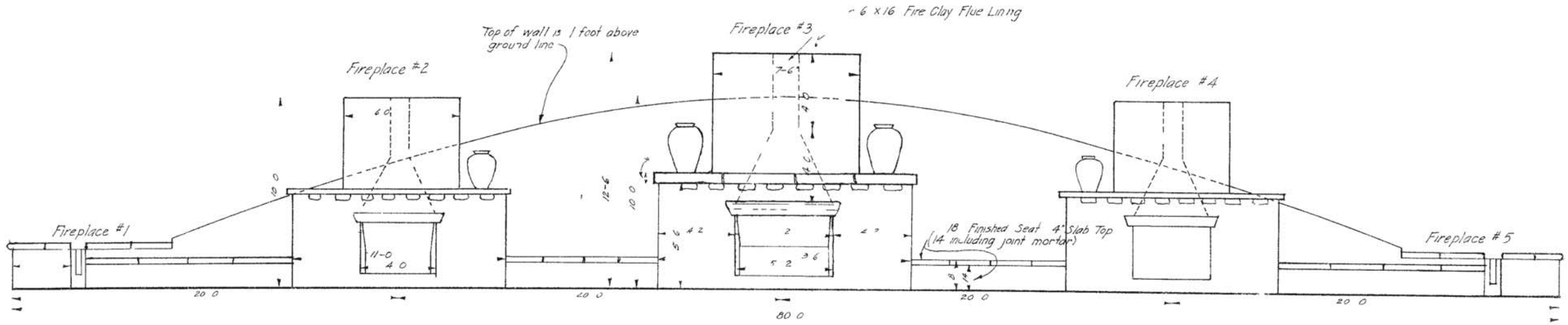


PROPOSED SCOUT COUNCIL FIRE ARENA
LEE CHARLES MILLER PARK
SCALE 1 INCH = 10 FEET

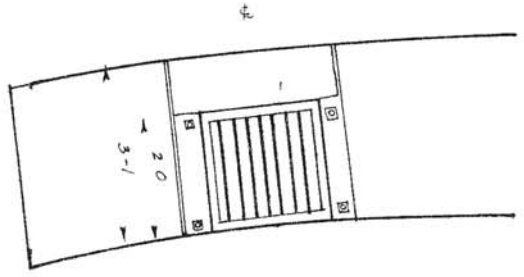
SCOUT COUNCIL FIRE ARENA
LEE CHARLES MILLER PARK
(15TH EAST & YALE AVE, SALT LAKE CITY
- PREPARED BY -
DIVISION OF OPERATIONS, WPA. DISTRICT NO. 2

DESIGNED BY- HUGH HOLDAWAY
DELINEATOR - FRANKLIN C NIELSEN
APPROVED DATE
APPROVED DATE
APPROVED DATE

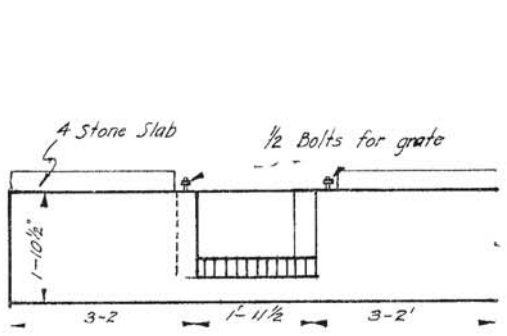
SHEET 1 OF 2



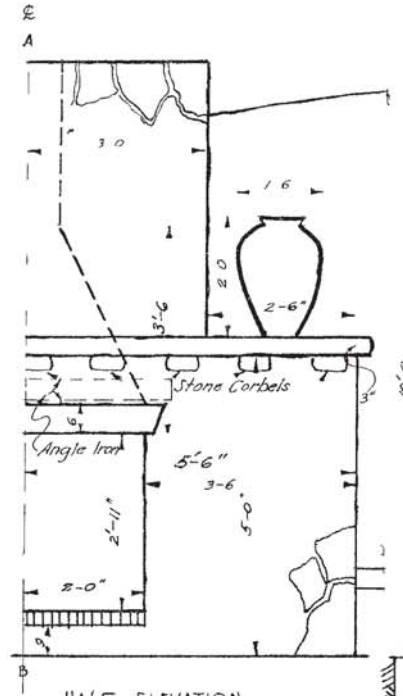
ELEVATION
SCALE 1 INCH = 4 FEET



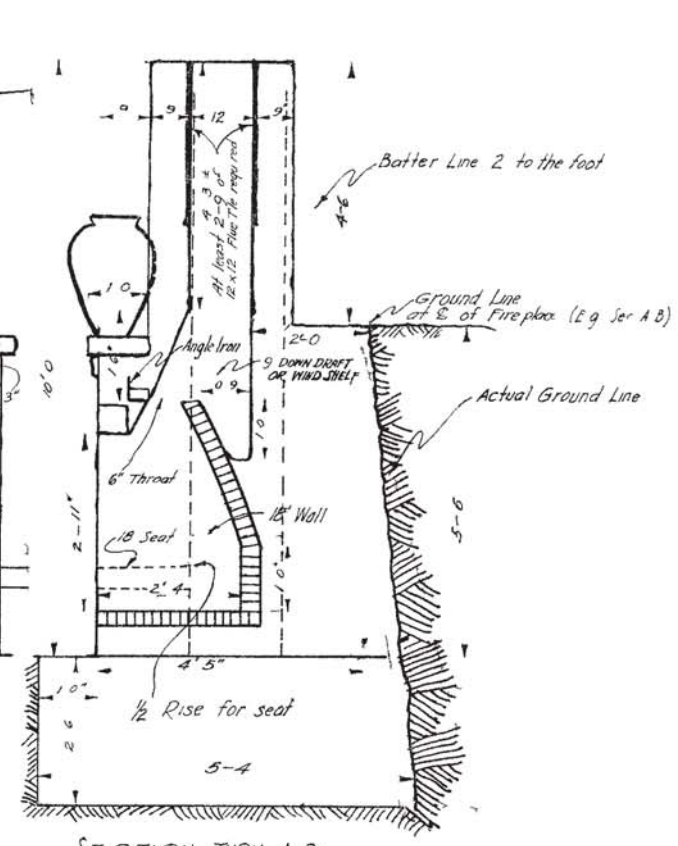
PLAN.



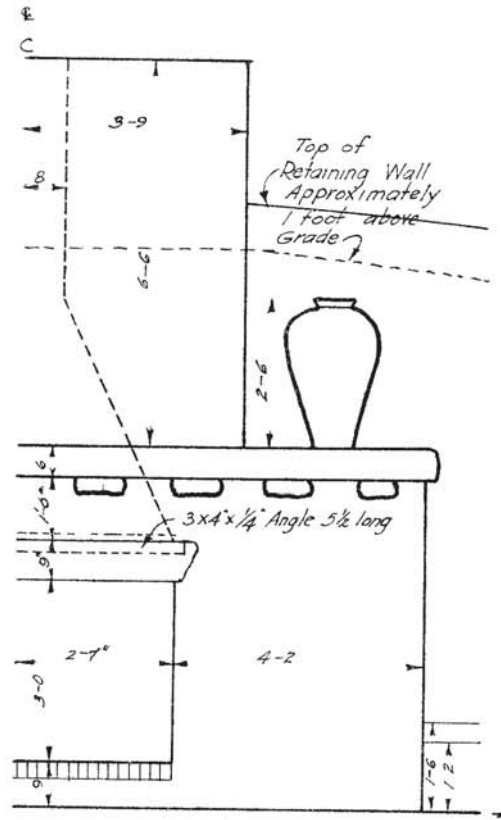
ELEVATION OF
FIREPLACES #1 & #5
SCALE 1 INCH = 2 FEET



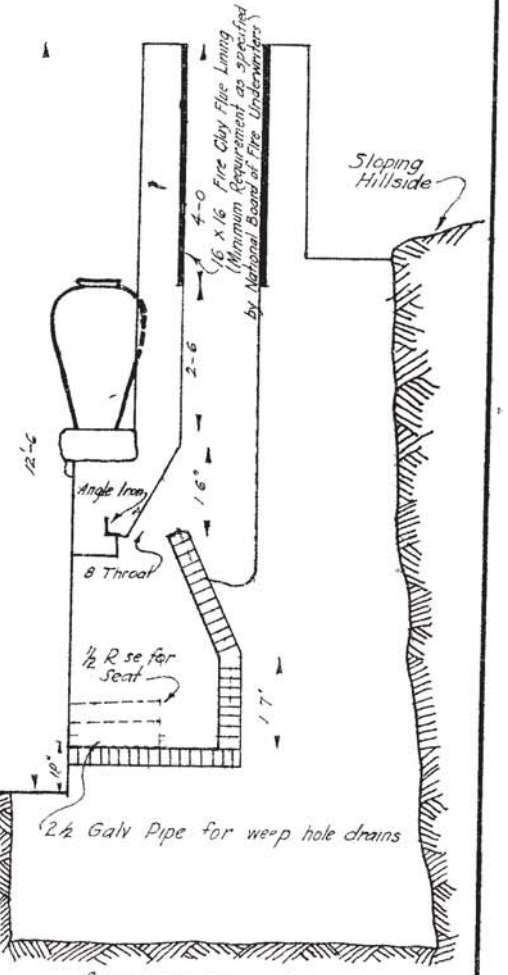
HALF ELEVATION
FIREPLACES #2 & #4
SCALE 1 INCH 2 FEET



SECTION THRU A B



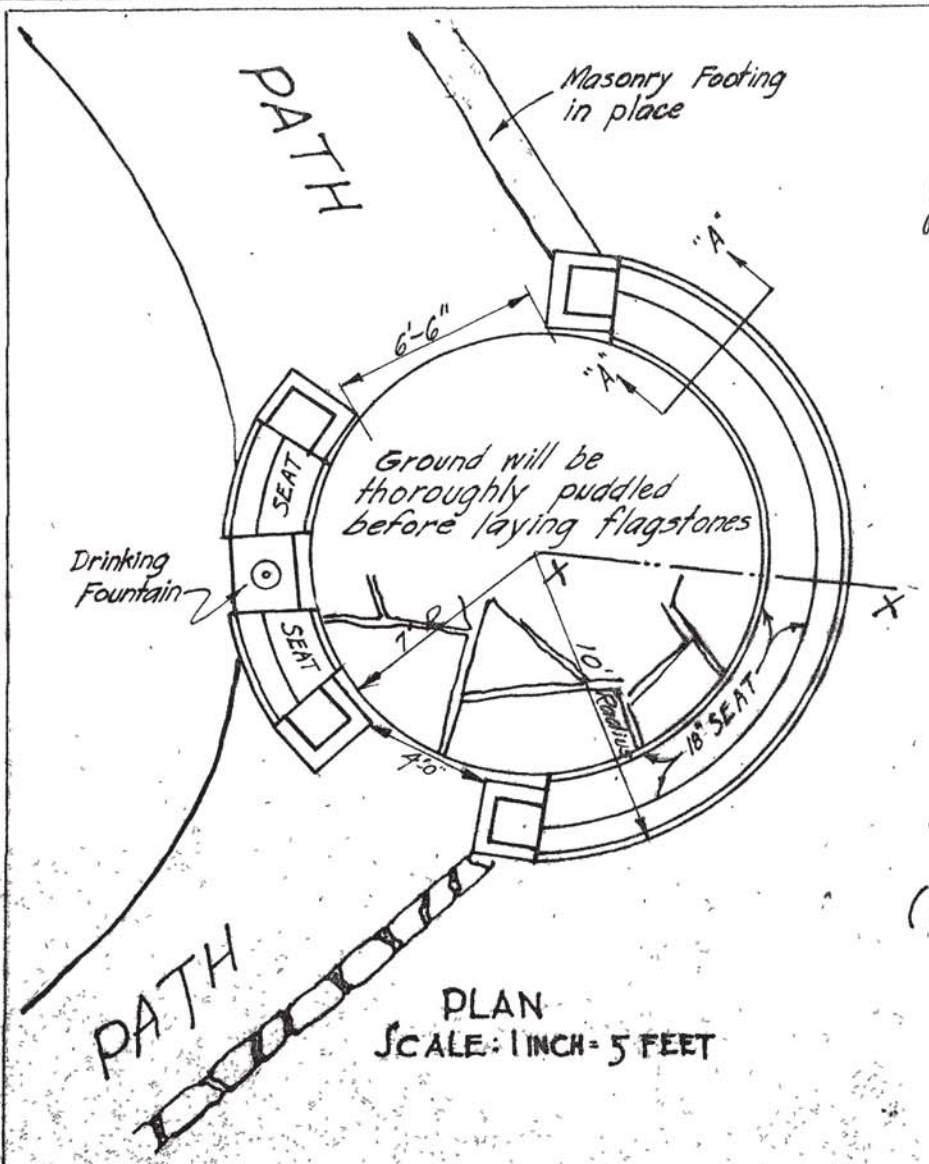
HALF ELEVATION
FIREPLACE #3
SCALE: 1 INCH = 2 FEET



SECTION THRU C D

SCOUT COUNCIL FIRE ARENA

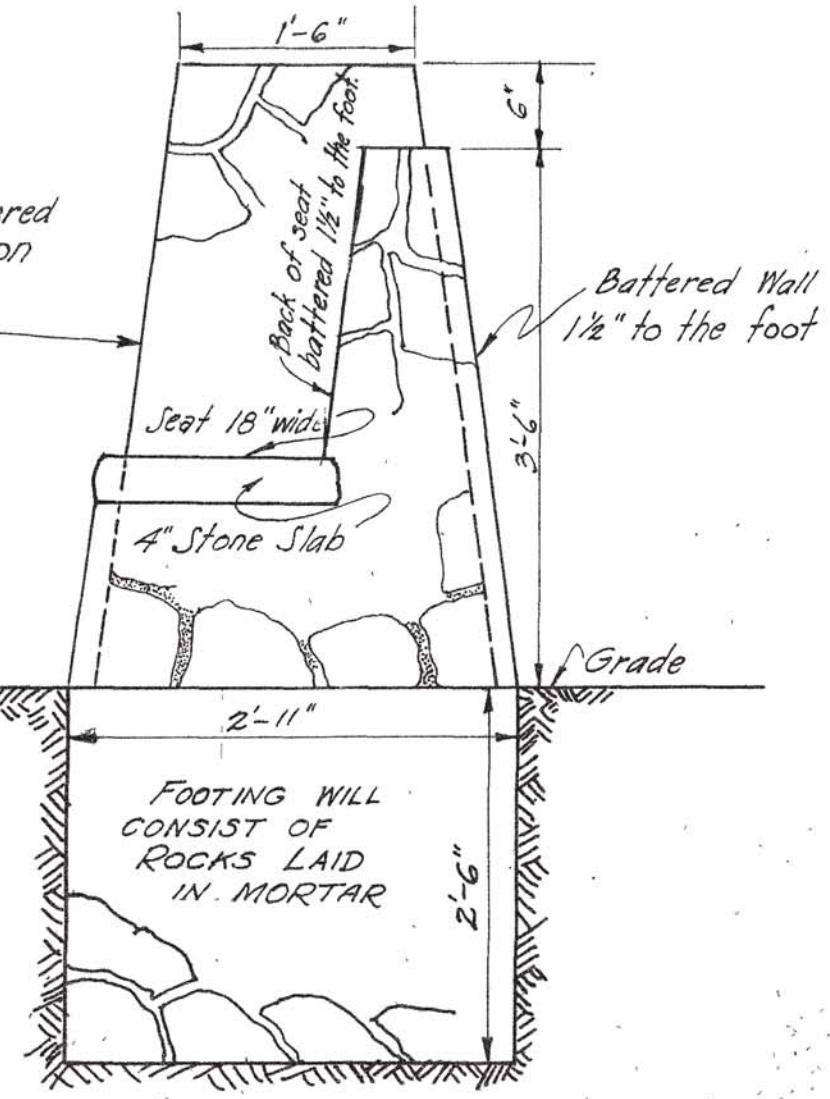
LEE CHARLES MILLER PARK
15Th East & Yale Avenue
Prepared by Division of Operations WPA Dist #2
Official Project No 65-1-302, Works Project No 257
Designed by Hugh Holdaway Drawn by Franklin C Nielsen
Date March 24 1936 Sheet 2 of 2
SCALE AS SHOWN



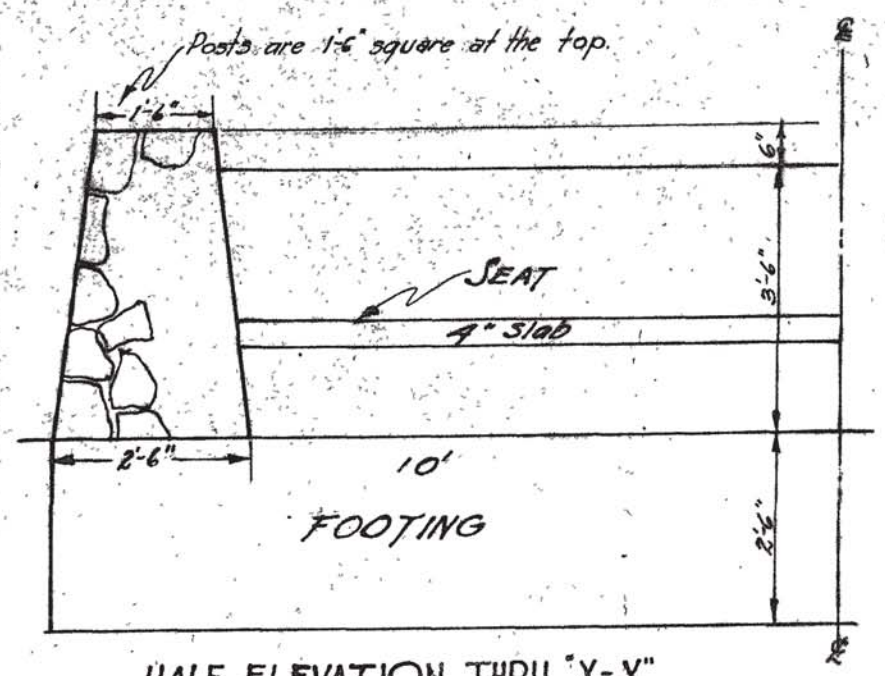
PLAN
SCALE: 1 INCH = 5 FEET

Posts will be battered 1½" to the foot, on all sides

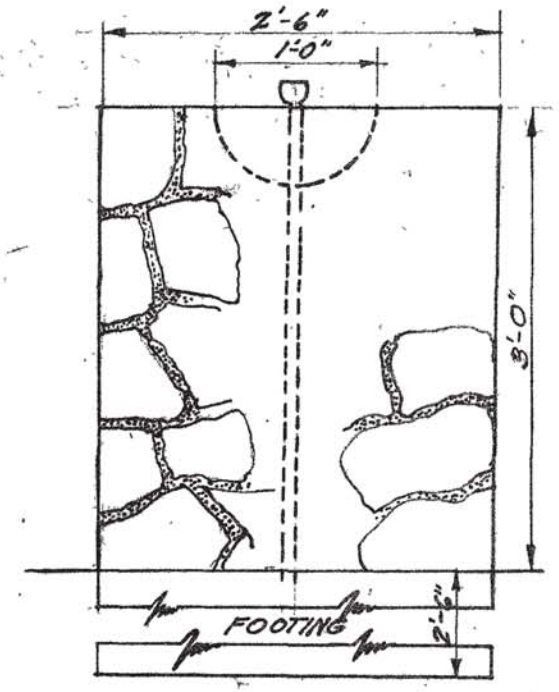
GENERAL NOTES:- One cubic yd of mortar is to be made in the following proportions for rockwork:- 2 sacks Portland Cement, 2 sacks hydrated lime, 8 cu. ft. of sand. Fountain bowl to be precast with smooth surface. Concrete for bowl to be in proportions of 1-2-6. Pipe fittings shown in concrete are to be cast in block and made to fit connections perfectly. Pipes to be well reamed. (See separate drawing for details of fountain bowl and drain)



SECTION THRU "A-A"
SCALE: 1 INCH = 1 FOOT

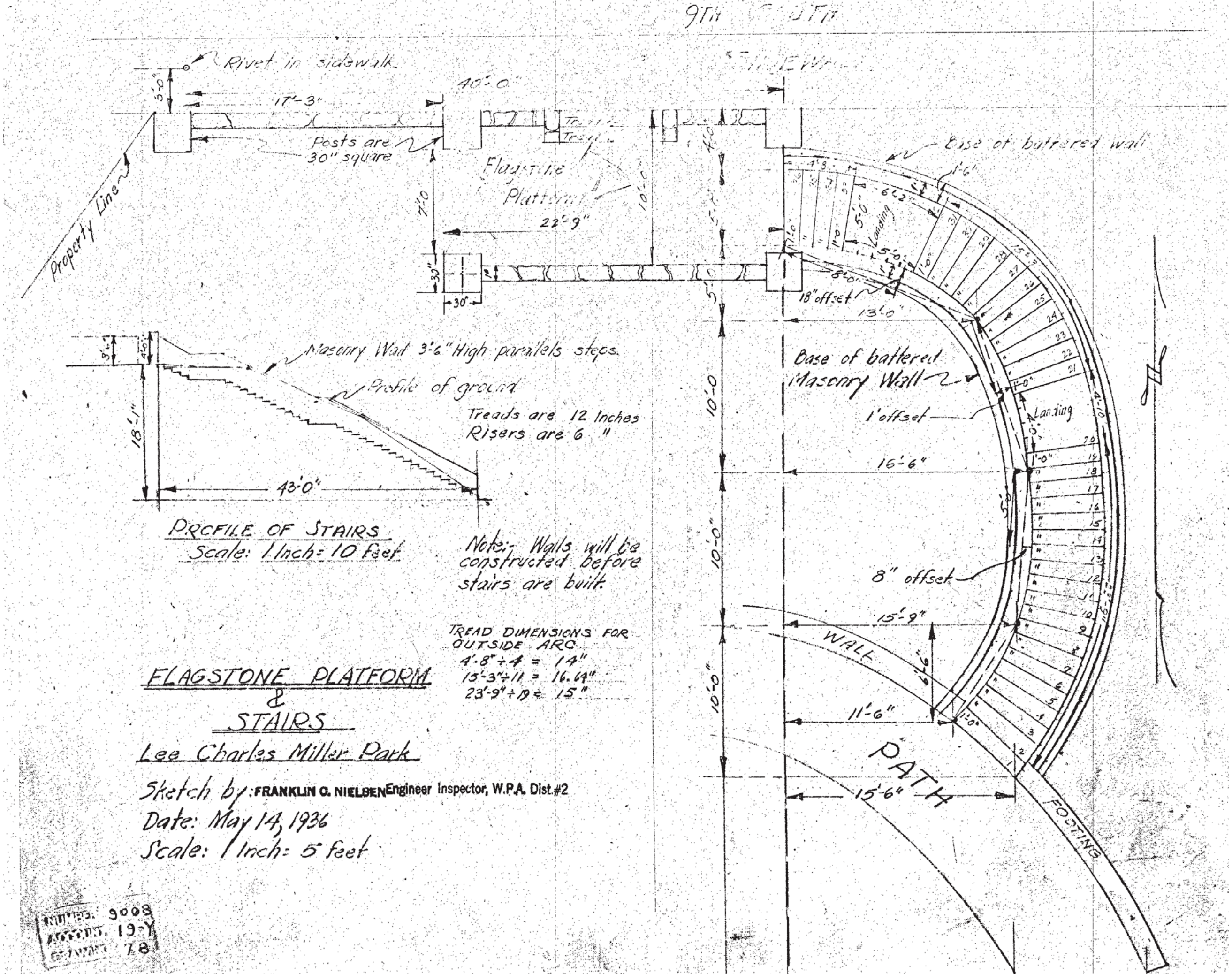


HALF ELEVATION THRU "X-X"
SCALE: 1 INCH = 2 FEET



FRONT ELEVATION
OF
DRINKING FOUNTAIN
SCALE: 1 INCH = 1 FOOT

DETAILS OF FOUNTAIN & PARK SEAT
NEAR 9TH SOUTH ENTRANCE TO
LEE CHARLES MILLER PARK
Official Project No 65-1-302 W.P. 257
Drawn by: FRANKLIN G. NIELSEN Engineer Inspector, W.P.A. Dist.#2
May 8, 1936 Scale: As shown



PROFILE OF STAIRS
Scale: 1 Inch = 10 feet

Note: Walls will be constructed before stairs are built.

TREAD DIMENSIONS FOR OUTSIDE ARC
4'-8" ÷ 4 = 14"
15'-3" ÷ 11 = 16.64"
23'-9" ÷ 19 = 15"

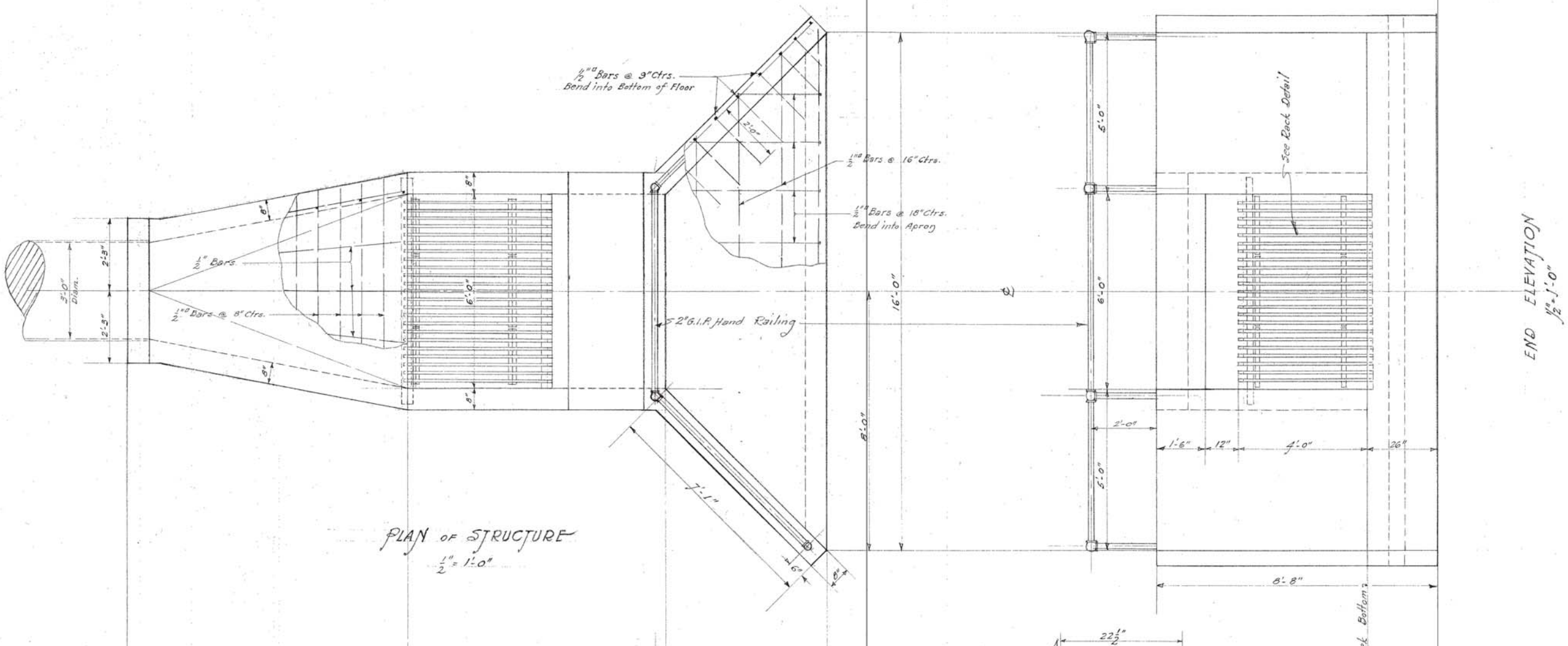
FLAGSTONE PLATFORM & STAIRS

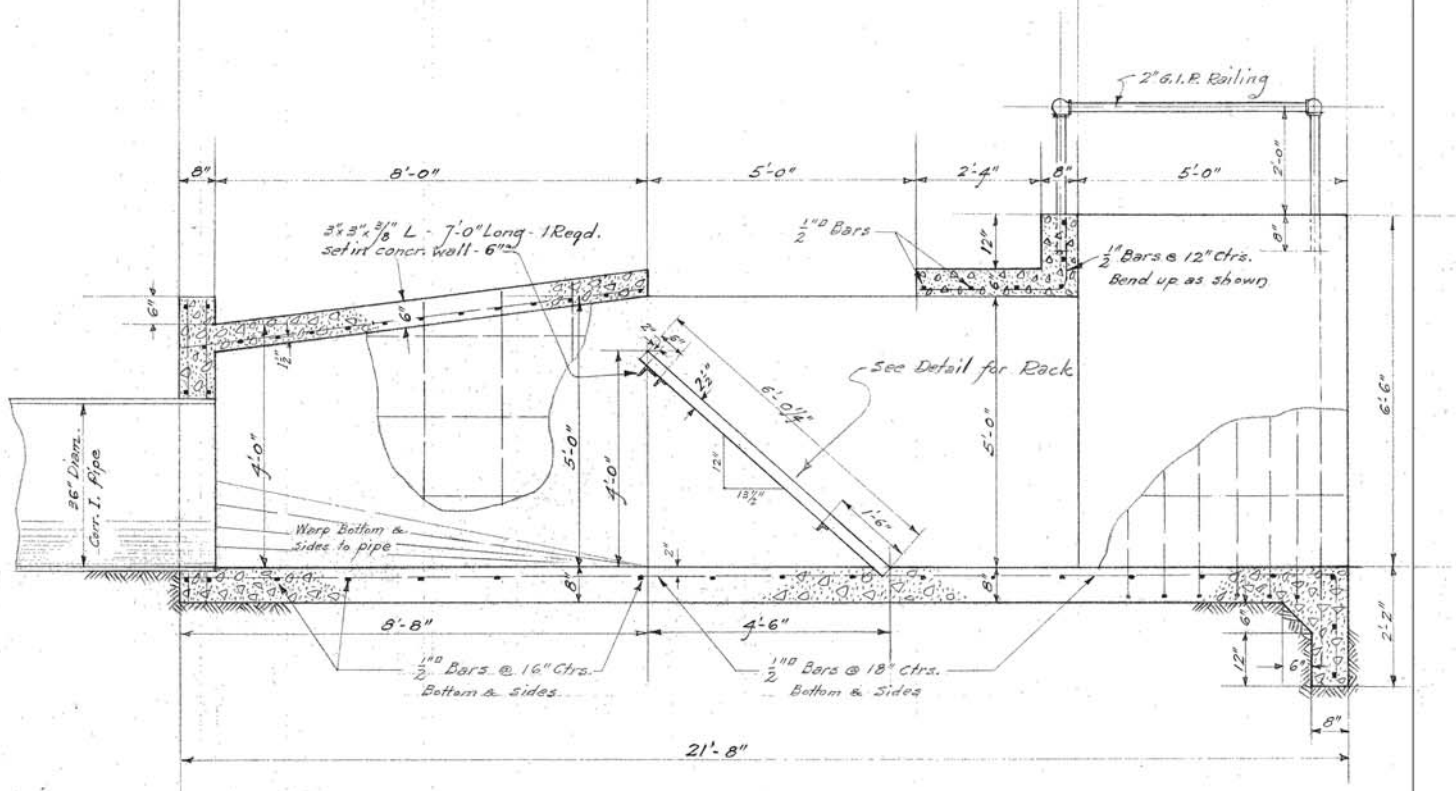
Lee Charles Miller Park

Sketch by: FRANKLIN O. NIELSEN Engineer Inspector, W.P.A. Dist. #2

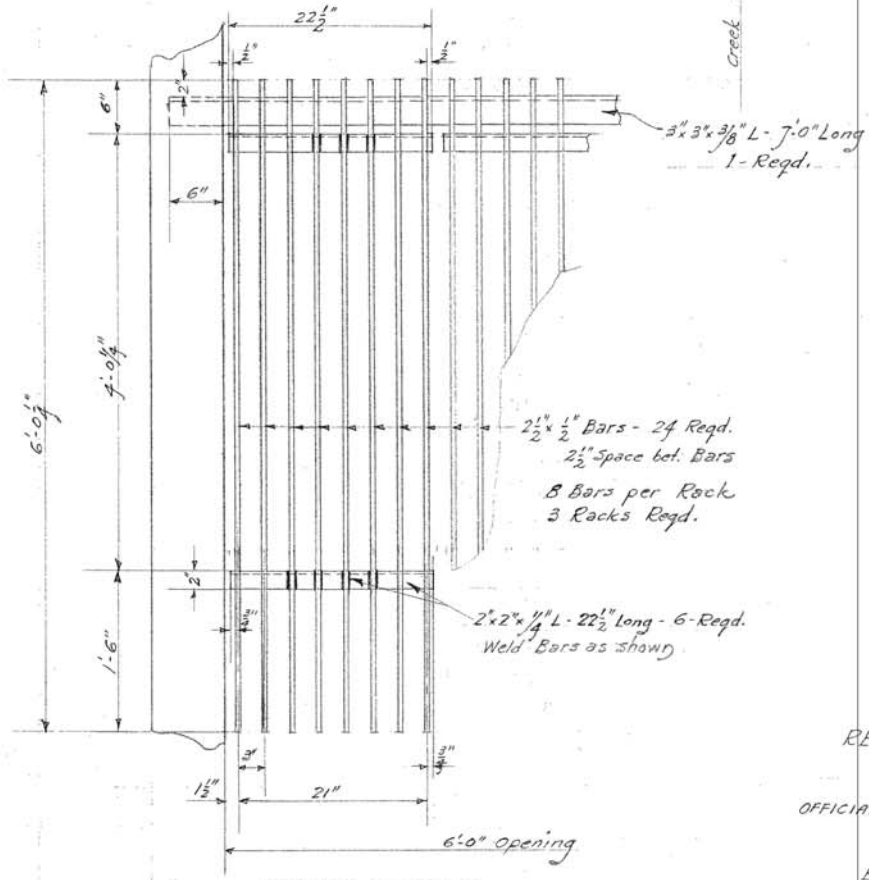
Date: May 14, 1936

Scale: 1 Inch = 5 feet





SECTION THRU ℄
½" = 1'-0"



DETAIL OF RACK
1" = 1'-0"

TRASH RACK

RED BUTTE CR. - EAST OF FIFTEENTH EAST
MILLER PARK - SALT LAKE CITY

OFFICIAL W.P.A. PROJECT - 65-1-303 -- WORKS PROJECT No. 840

Scale as shown

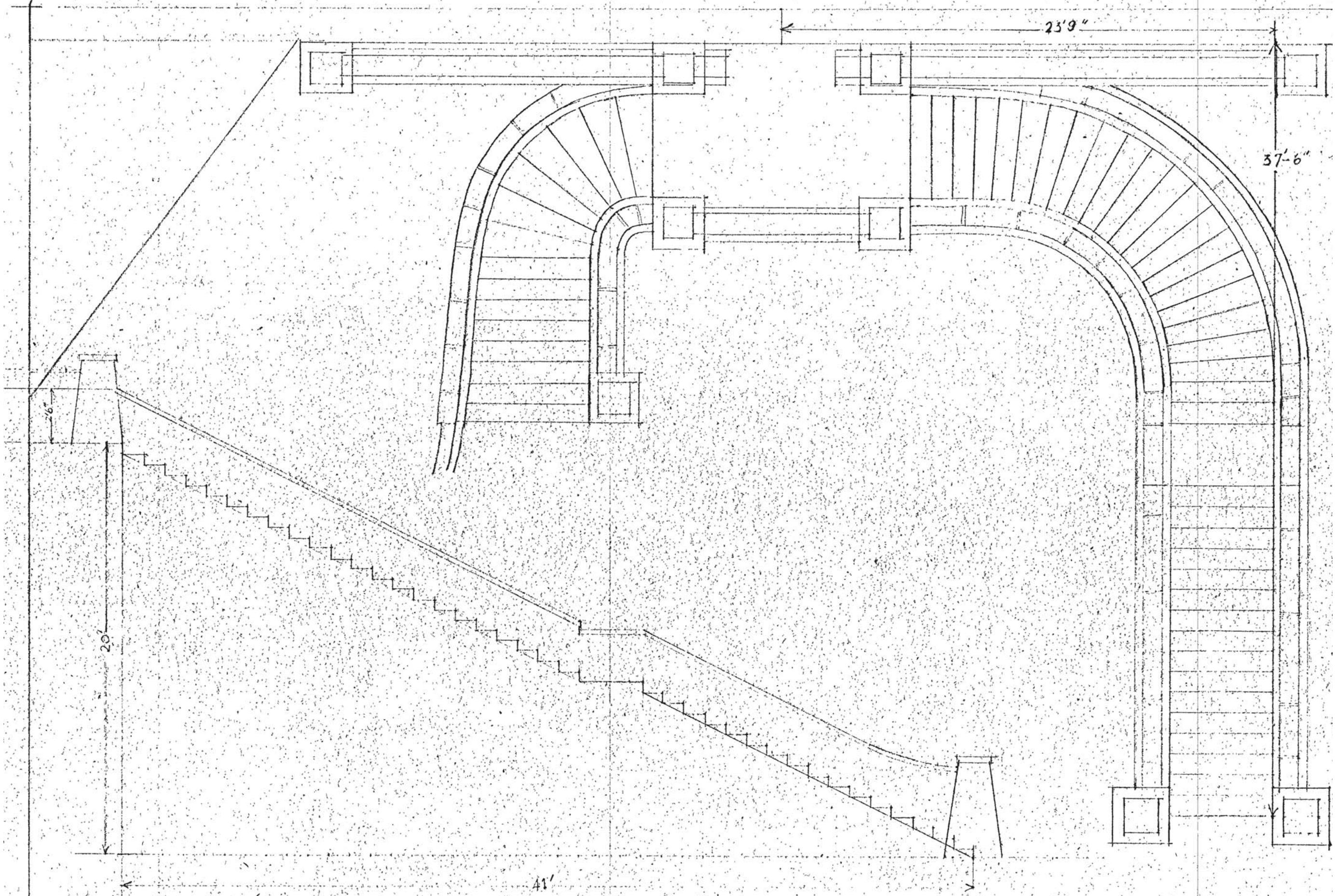
Engineering Department
Salt Lake City

W.D. Beers
City Engineer

May 1936
Drawn by Myers
Checked by Sewell
Approved by _____

5-28-36

NUMBER - 8040
ACCOUNT - 19-Y
DRAWING - 86

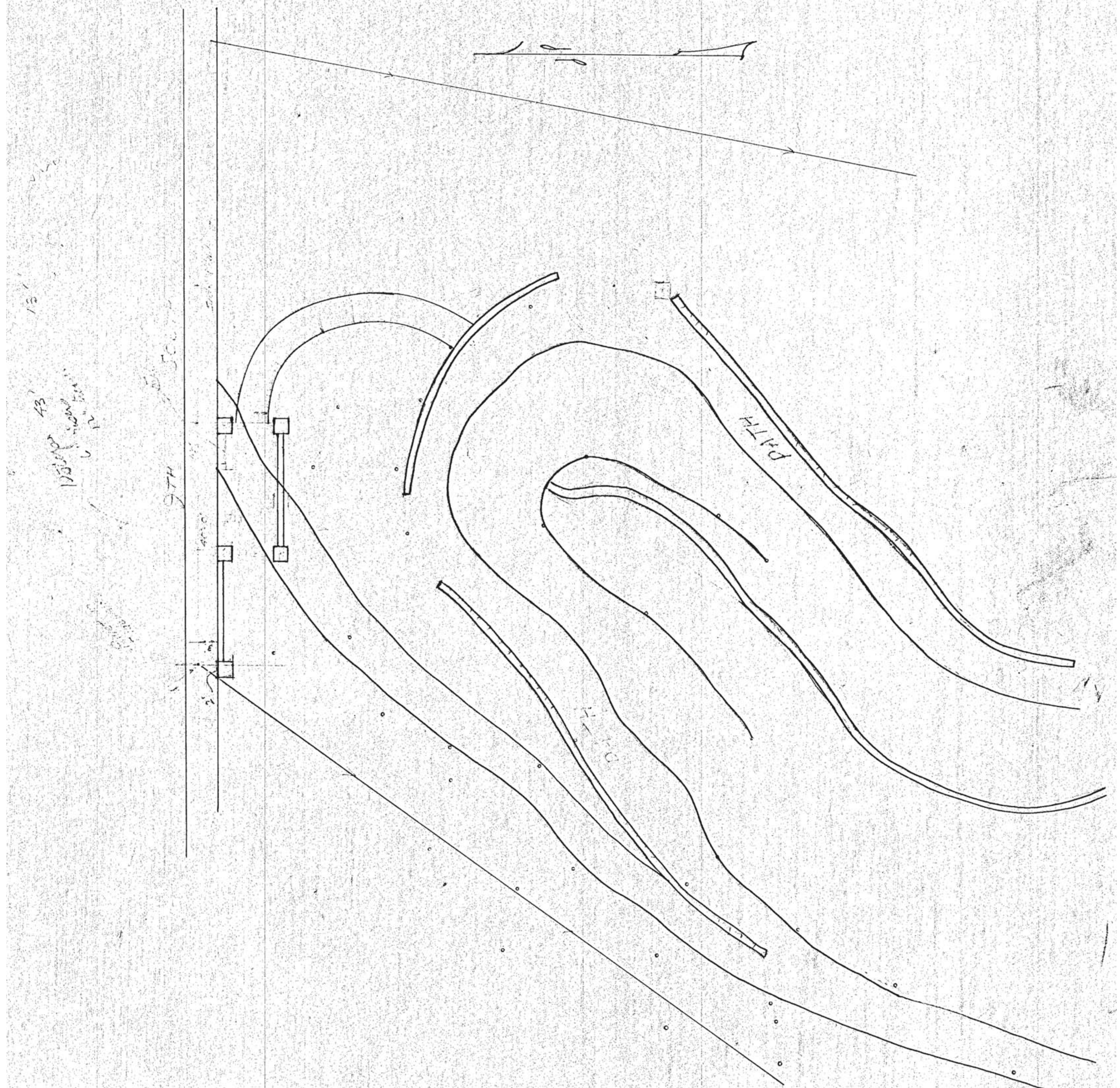


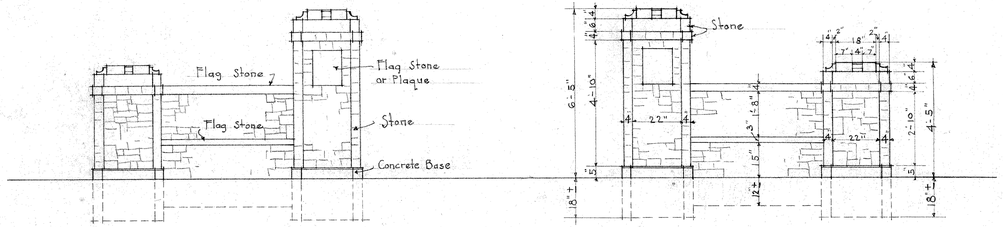
VAULT-9030

ACCT 19-Y

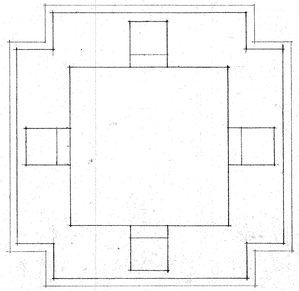
DRAW-84

MILLER PARK
DETAIL 9TH SOUTH ENTRANCE
¼" = 1'-0"

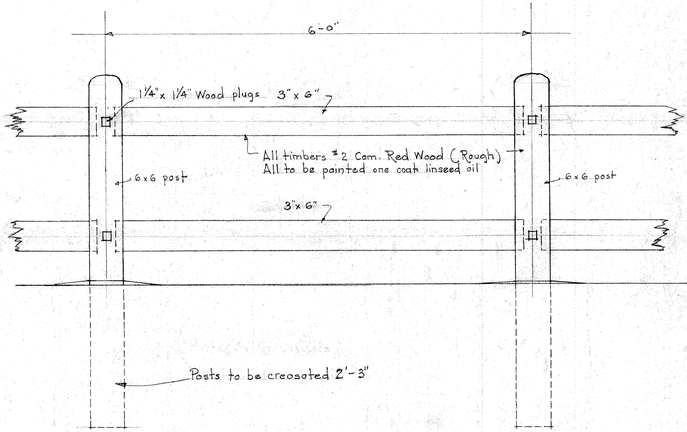

PATH



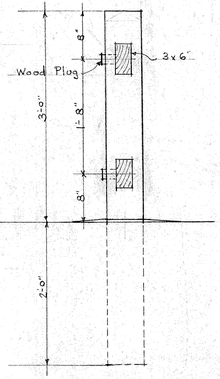
ELEVATION
Scale 3/8" = 1'-0"



TOP OF POST
Scale 1½" = 1'-0"

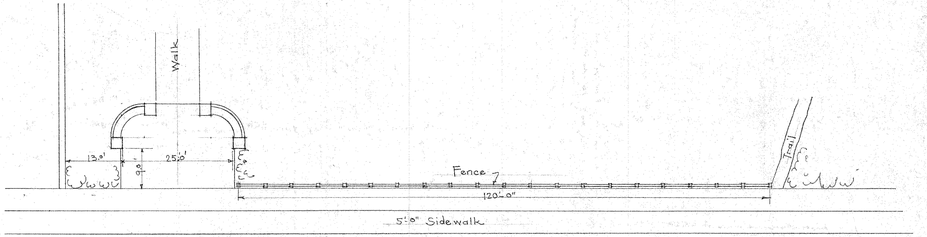


ELEVATION

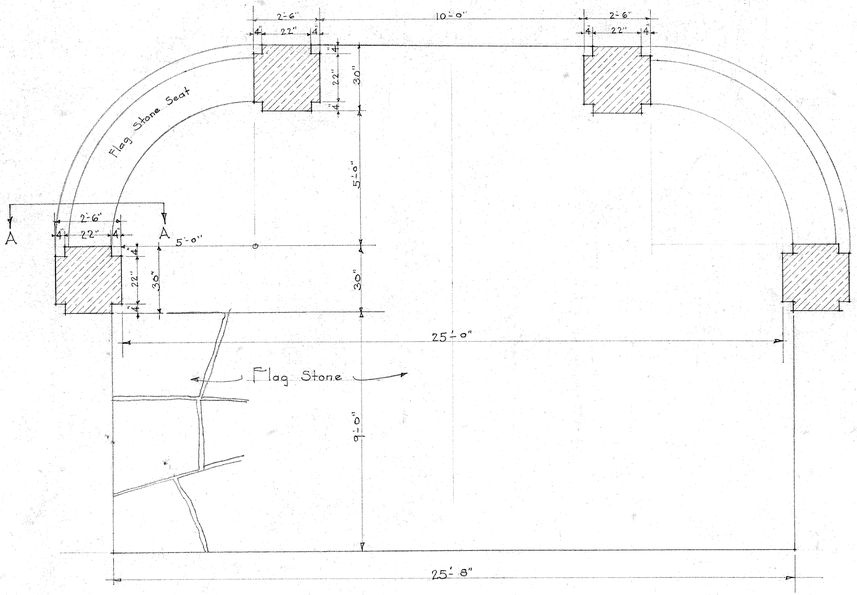


SECTION

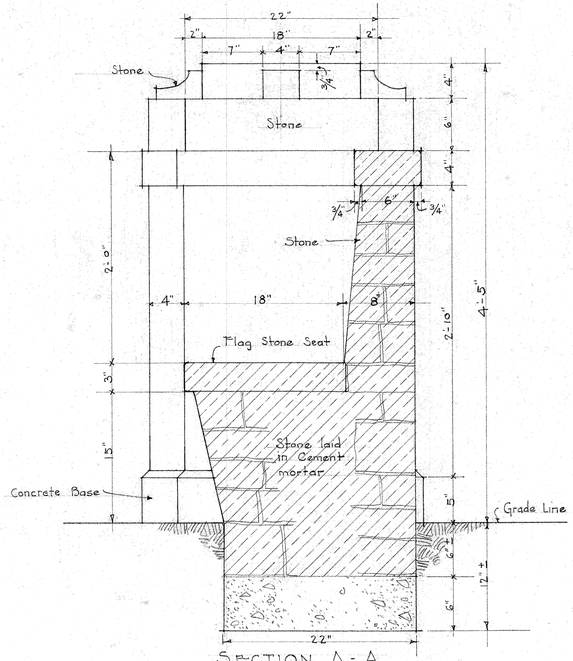
DETAIL OF FENCE
Scale 1"=1'-0"



PLAN
Scale 1/16" = 1'-0"



PLAN
Scale 3/8" = 1'-0"



SECTION A-A
Scale 1½" = 1'-0"

MAIN ENTRANCE
MILLER PARK

Scale as Shown

Engineering Dept. W. D. Beers
Salt Lake City City Engineer
April-1940

Drawn by JAN
Checked by S.
Approved by

NUMBER 3572
ACCOUNT 12-Y
DRAWING 123

Number 9603
Account 19-Y
Drawing 125

Miller Park
Rubble Masonry Entrance Steps at Diesel Road and Michigan Avenue Entrance

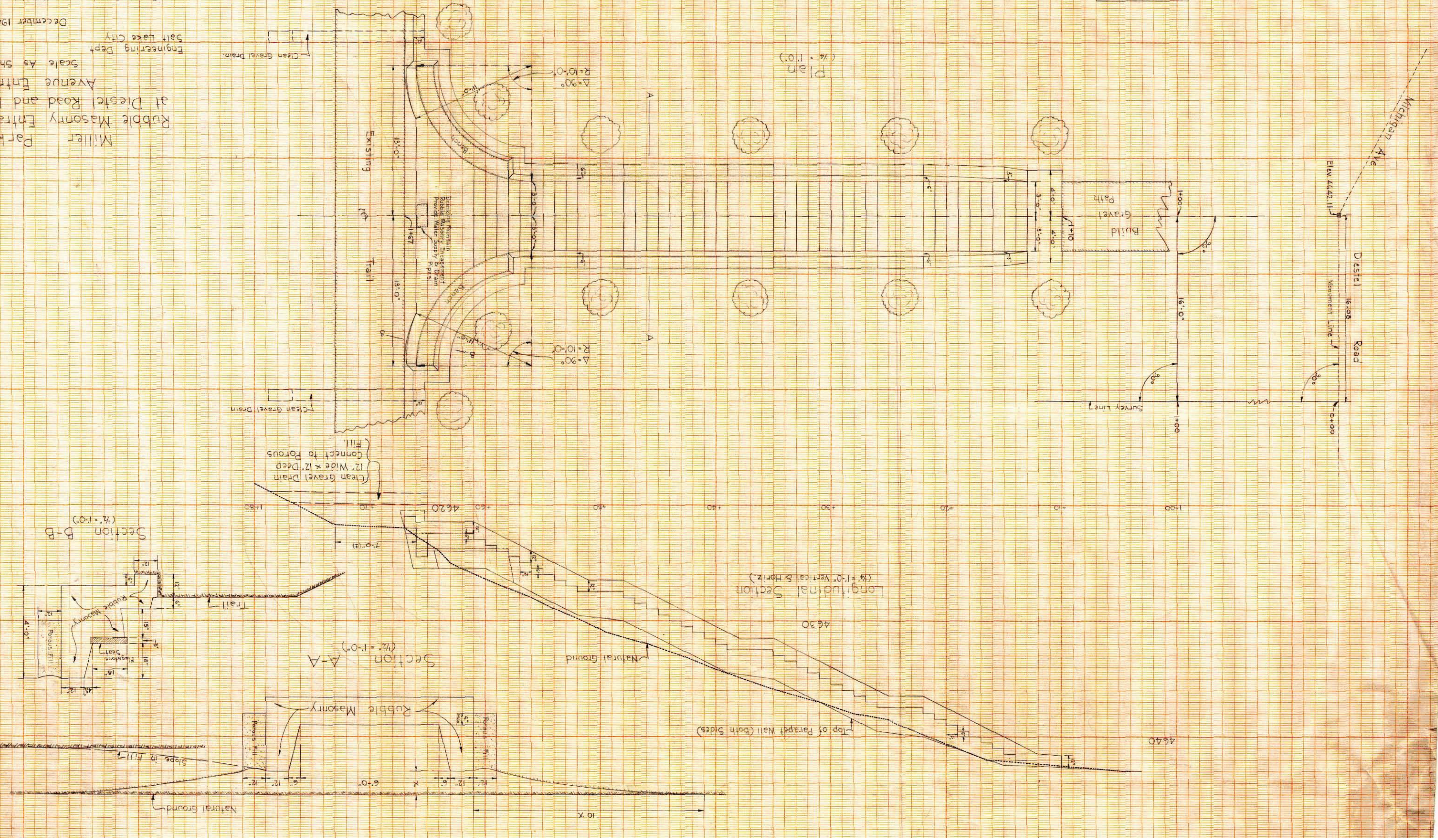
Scale As Shown

Engineering Dept
Salt Lake City

W. D. Betts
City Engineer

December 1940

Drawn by Barnett Checked by Approved by



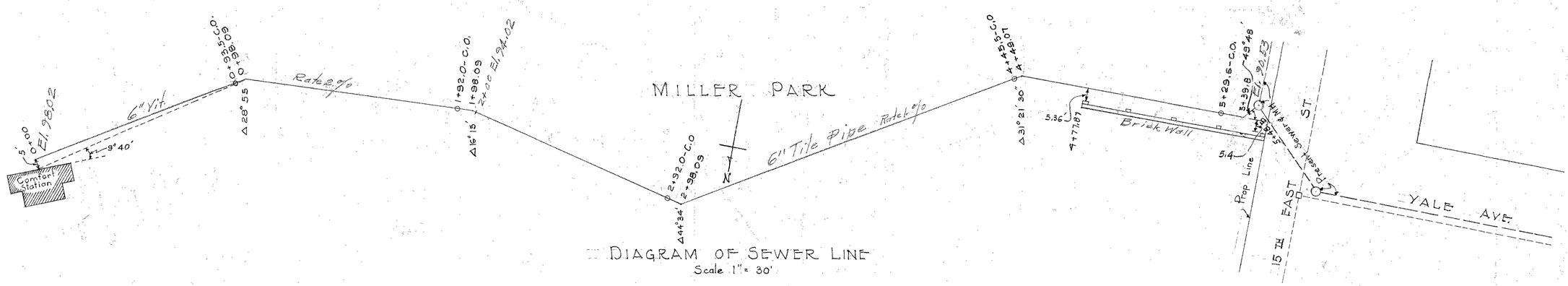
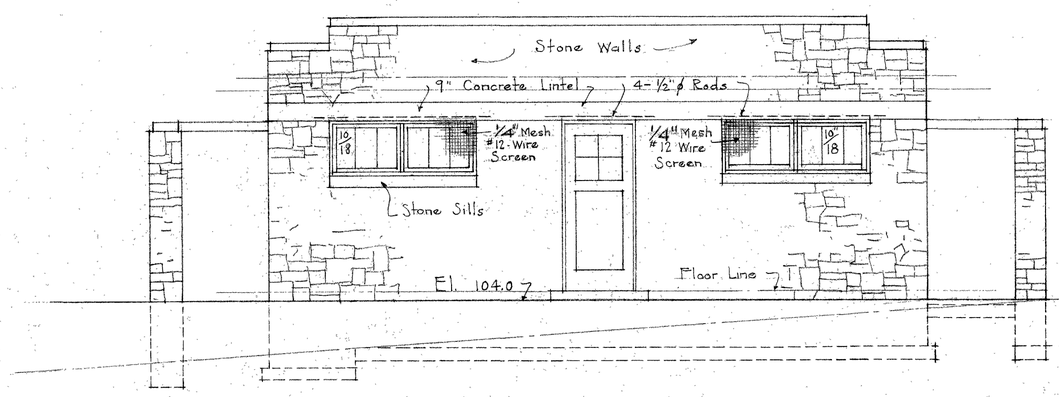
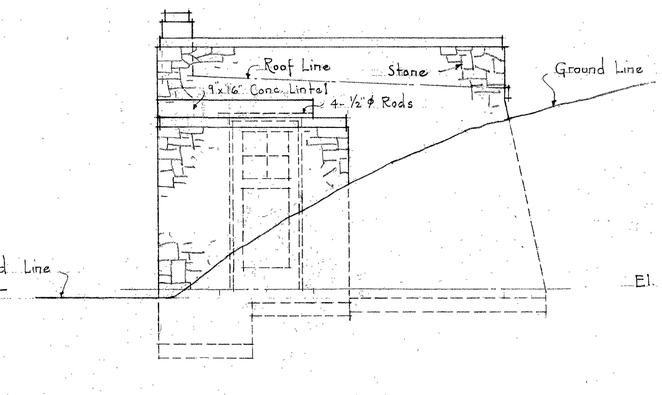


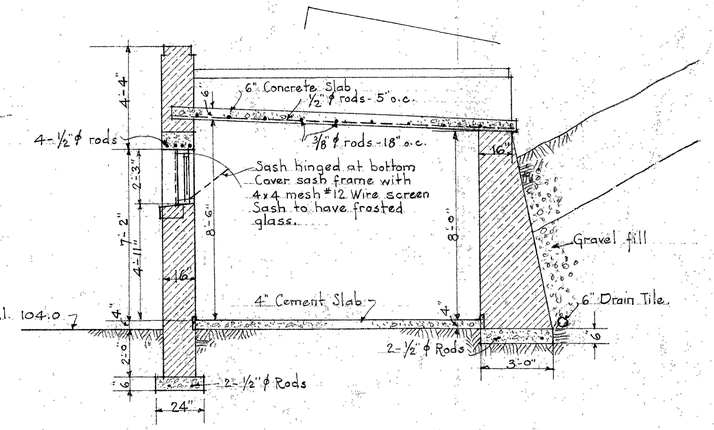
DIAGRAM OF SEWER LINE
Scale 1" = 30'



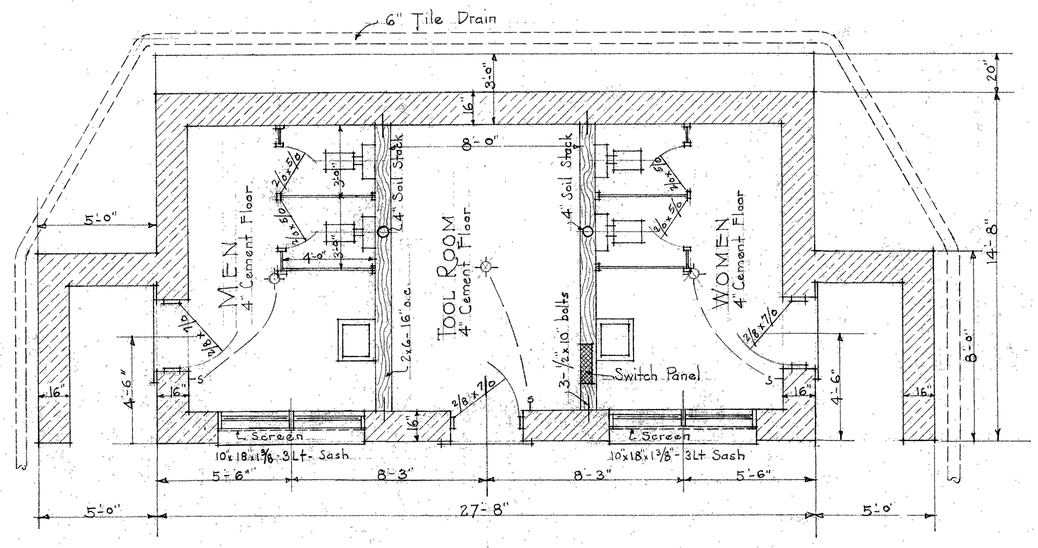
SOUTH (FRONT) ELEVATION
Scale ¼" = 1'-0"



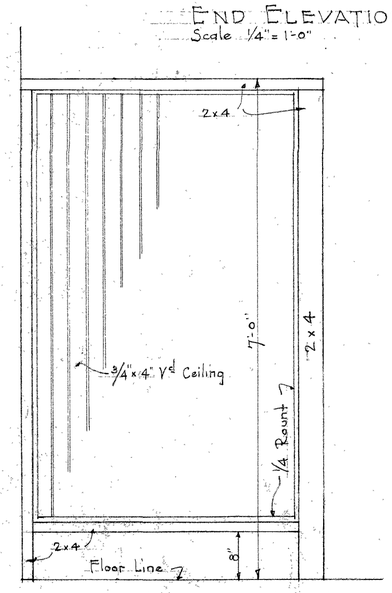
END ELEVATION
Scale ¼" = 1'-0"



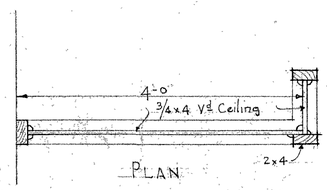
CROSS SECTION
Scale ¼" = 1'-0"



FLOOR PLAN
Scale ¼" = 1'-0"



ELEVATION



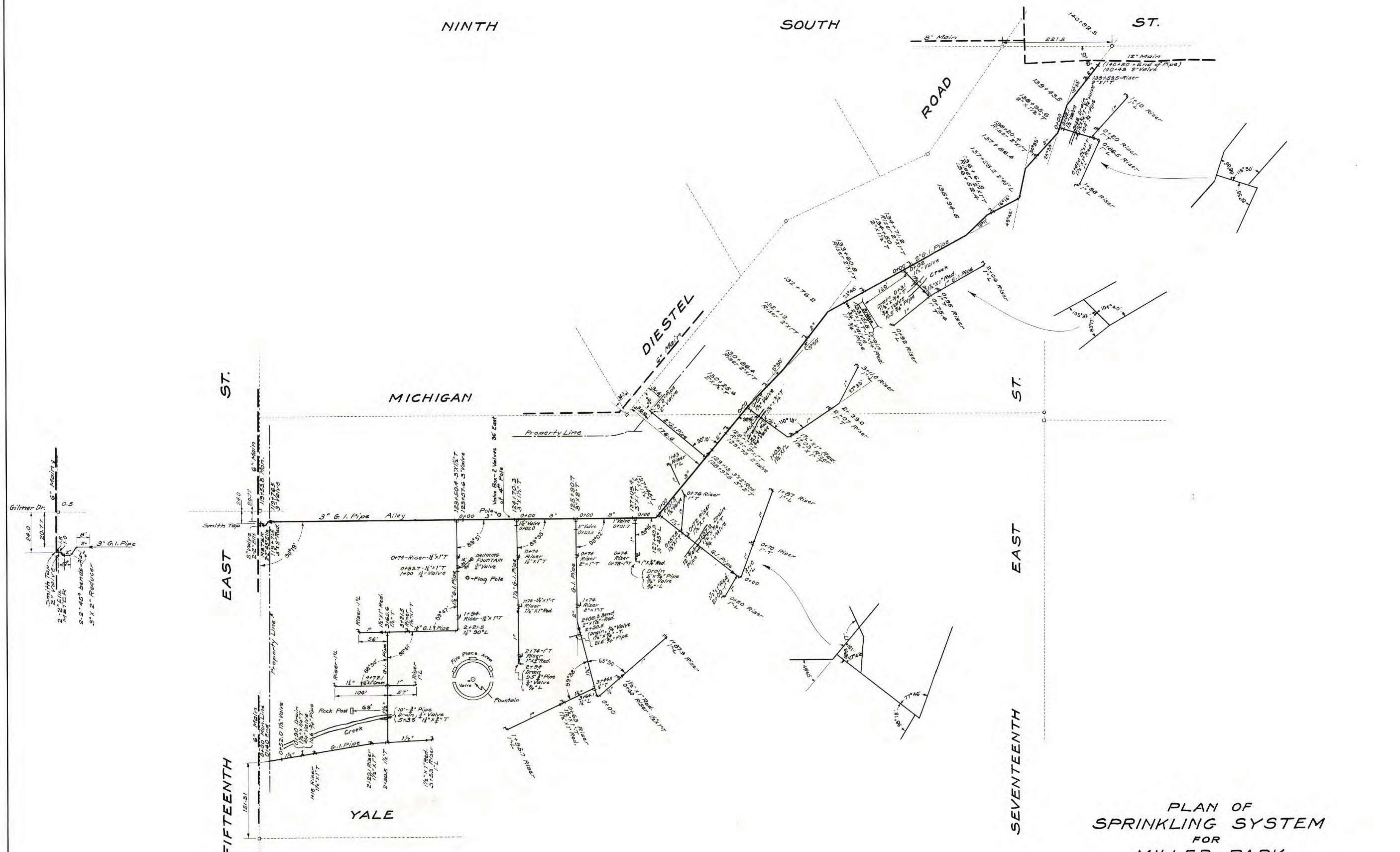
PLAN

DETAIL OF TOILET STALL
Scale ¾" = 1'-0"

COMFORT STATION FOR MILLER PARK

Scale as shown
Engineering Dept. W. D. Beers
Salt Lake City City Engineer
October 1940
Drawn by JAN
Checked by
Approved by

NUMBER 9592
ACCOUNT 19-Y
DRAWING 124



PLAN OF SPRINKLING SYSTEM FOR MILLER PARK

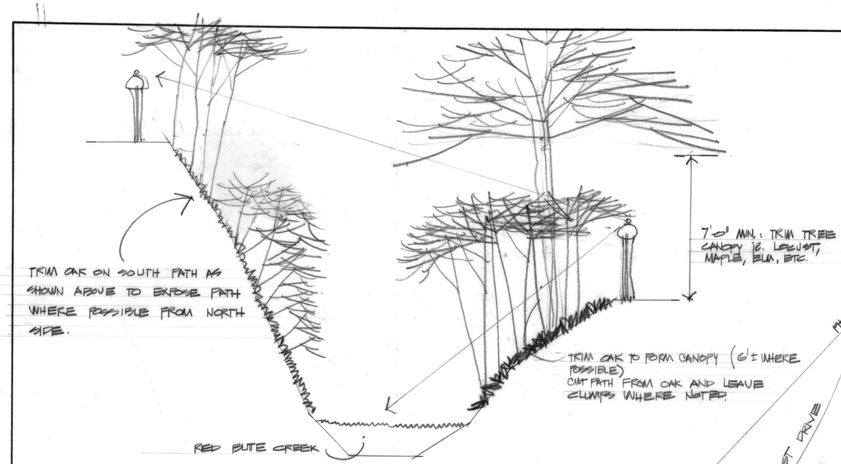
SCALE-1"=100'

ENGINEERING DEP'T
SALT LAKE CITY

W. D. BEERS
CITY ENGINEER

Drawn By: Tipton Checked By: Sewell App'd By:
Retraced By: Allenbach Sept. 1943

NUMBER 8950
ACCOUNT 19-Y
DRAWING 67



TYPICAL SECTION. NO SCALE

SPECIFICATIONS

SCOPE OF WORK: TRIM OR REMOVE TREES AND/OR SHRUBS CONSISTING OF BUT NOT LIMITED TO THOSE MARKED IN THE FOLLOWING MANNER:

ORANGE PAINT: TREES TO BE REMOVED AND RESULTANT STUMPS TO BE TREATED WITH POISON:
2 QTS. WEED-ONE TO 5 GAL. KEROSENE.

RED PAINT: TRIM UP ALL DEAD GROWTH FROM EXIST TREES AND SHRUBS AND TRIM LOWER BRANCHES TO 7'0" HEIGHT WHERE POSSIBLE / SEE DETAIL.

TRIM OAK BRUSH AS SHOWN:

1- EXPOSE CREEK AND ADJACENT 'FLATS' FROM NORTH PATH

2- TO EXPOSE SOUTH PATH FROM NORTH PATH WHERE POSSIBLE.

3- EXCEPT WHERE NOTED TO RETAIN 'THICKET'

FIELD VERIFY EXTENT OF THICKET.

NOTE: TREES PAINTED RED MERELY SET A STANDARD AND DO NOT INDICATE ALL TREES TO BE TRIMMED. PLANT MATERIALS IN A DEAD OR OVERGROWN CONDITION SHALL BE REMOVED AT THE DIRECTION OF THE SALT LAKE CITY PARKS AND RECREATION DEPT.

NOTE:
LOCATIONS ARE ALL SCHEMATIC, ACTUAL LOCATIONS TAKE PRECEDENCE.

= REMOVAL OF TRIMMED MATERIAL: ALL MATERIAL MUST BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.

= AVOID DAMAGING EXISTING GROUND COVERS, AND PLANT MATERIALS NOT DESIGNATED TO BE TRIMMED OR REMOVED.

= ANY STUMP EXPOSED AS A RESULT OF TRIMMING OR REMOVAL SHALL BE CUT CLOSE ENOUGH TO THE FINNISH GRADE SO AS NOT TO BECOME A HAZARD.

= CONTRACTOR SHALL RESTRICT PEDESTRIAN TRAFFIC THROUGH PARK WHILE WORKING USING APPROPRIATE BARICADES.

= CONTRACTOR SHALL MAKE HIMSELF AWARE OF EXIST. UTILITIES OVERHEAD AND EXIST. STRUCTURES AND SHALL PRESERVE AND PROTECT THESE ITEMS.

SCHEMATIC PLAN

0 20 40 60 120

NUMBER 20598
ACCT. 19-Y-49
SHEET 1
OF ____ SHEETS

MILLER PARK CLEAN UP PROJECT 1728 EAST 900 SOUTH
SALT LAKE CITY PARKS AND RECREATION DEPT.
SALT LAKE CITY, UTAH

APPROVALS

DATE	DATE	DATE	DATE	DATE
WATER DEPT.	PLANNING & ZONING	SEWER DEPT.	TRAFFIC ENGINEER	CITY ENGINEER

PRESENTED TO THE BOARD OF SALT LAKE CITY COMMISSIONERS AND APPROVED
THIS ____ DAY OF ____ 19____
CITY RECORDER

REVISIONS

NO.	DATE	By

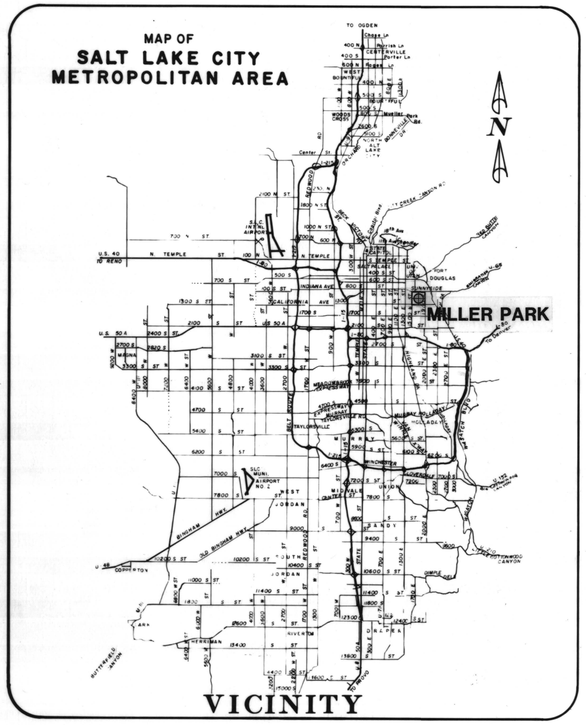
DESIGN BY J.S.
DRAWN BY J.S.
CHECKED BY
SCALE AS NOTED
DATE 6-21-77

SALT LAKE CITY CORPORATION
ENGINEERING DEPARTMENT
CITY & COUNTY BUILDING
SALT LAKE CITY, UTAH

PLAN, SECTION, SPECIFICATIONS

NUMBER 20598
ACCT. 19-Y-49
SHEET 1
OF 1 SHEETS

SALT LAKE CITY CORPORATION



VICINITY

CONSTRUCTION PLANS FOR:

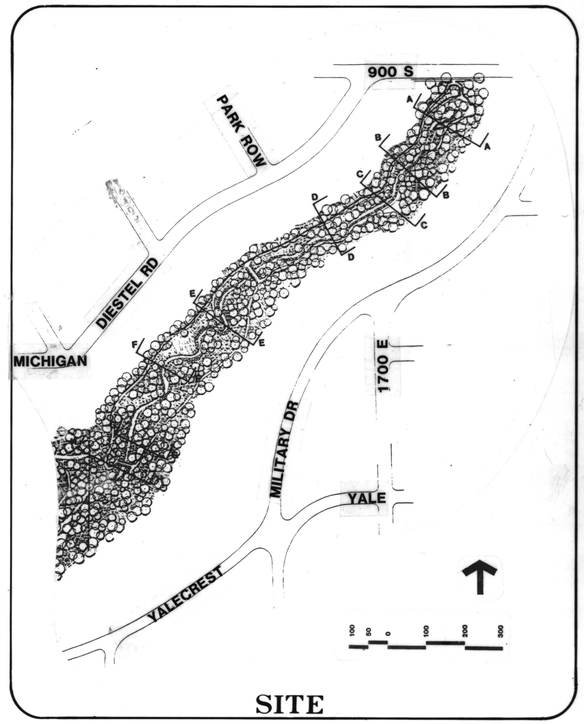
MILLER PARK

1700 East 900 South

SAFETY IMPROVEMENTS DESIGN

PROJECT NO. 19-Y-96

LIST OF DRAWINGS



SITE

MAYOR		PALMER A. DePAULIS
CITY COUNCIL	DIST. 1	FLORENCE BITTNER
	DIST. 2	GRANT MABEY
	DIST. 3	SIDNEY FONNESBECK
	DIST. 4	EARL HARDWICK
	DIST. 5	THOMAS M. GODFREY
	DIST. 6	ROSELYN N. KIRK
	DIST. 7	W.M. STOLER

THIS PROJECT DESIGNED BY:

The Mitchell Nelson Group
Landscape Architecture
19 Exchange Place
Salt Lake City,Utah 84111

Palmer/Wilding Civil Engineering
405 S 100 West Bountiful, Utah 84010

NUMBER 0328-88
ACCT. 19-Y-96
SHEET NO. 1
OF 14 SHEETS

PROJECT MANAGER	PLAN REVIEW	DEPT. OF PUBLIC UTILITIES	PLANNING & ZONING	DIV. OF TRANSPORTATION	CITY ENGINEER	DIRECTOR OF PUBLIC WORKS	DIRECTOR OF PARKS
Richard W. Young 10 SEP 87		N/A		N/A	9/14/87	9/13/87	
RICHARD W. YOUNG DATE	MEL FRANCISCO P.E. DATE	LEROY HOOTEN, JR. DATE	VERNON JORGENSEN DATE		MAX G. PETERSON, P.E. DATE	JOSEPH ANDERSON DATE	JOHN GUST DATE

NUMBER
ACCT.
SHEET NO. L-1
OF 12 SHEETS

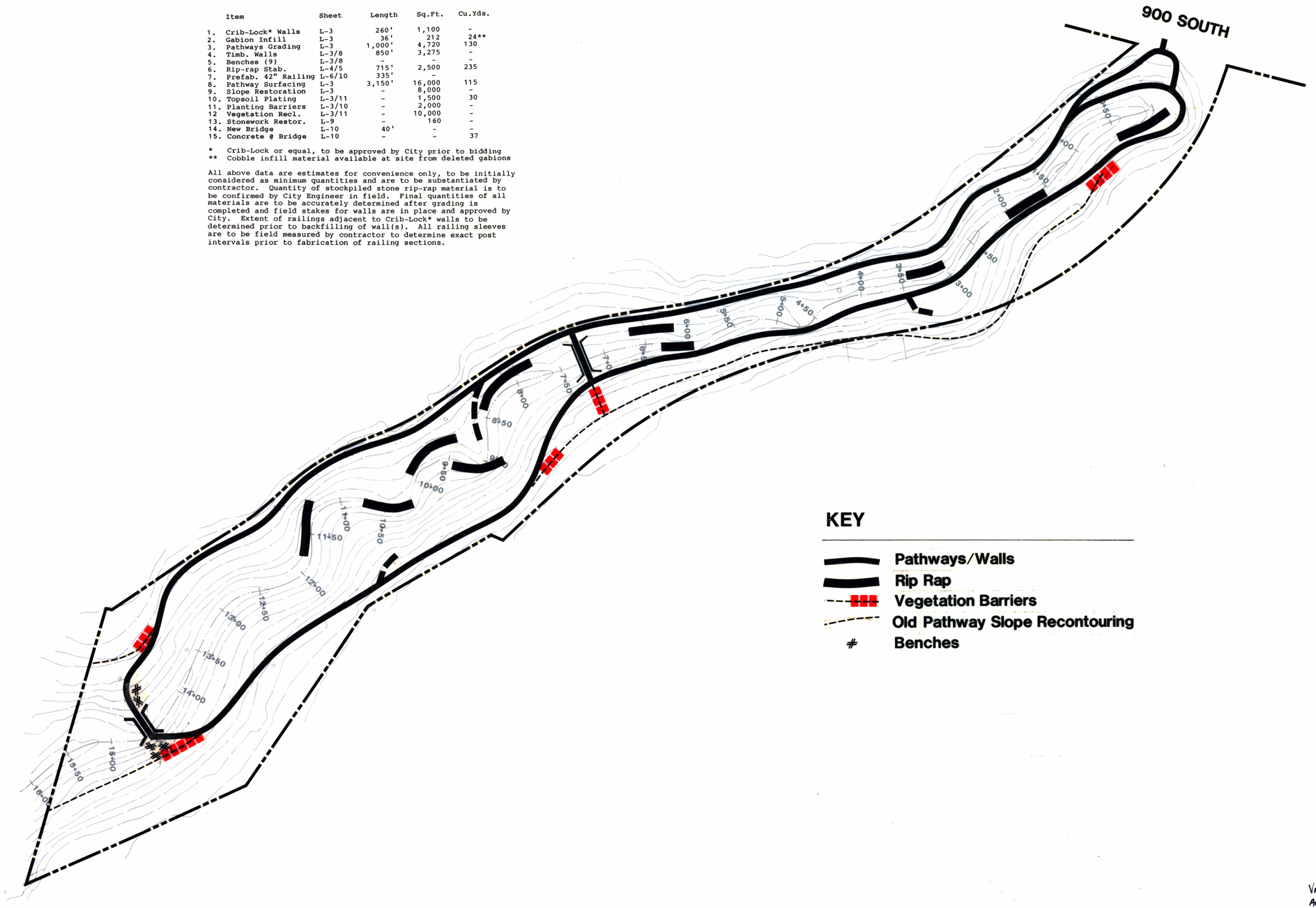
VALLEY # - 0328-88
ACCT: 19-Y-96
SHEET 1 OF 14

IMPROVEMENTS DATA:

	Item	Sheet	Length	Sq.Ft.	Cu.Yds.
1.	Crib-Lock* Walls	L-3	260'	1,100	-
2.	Gabion Infill	L-3	36'	212	24**
3.	Pathways Grading	L-3	1,000'	4,720	130
4.	Timb. Walls	L-3/8	850'	3,275	-
5.	Benches (9)	L-3/8	-	-	-
6.	Rip-rap Stab.	L-4/5	715'	2,500	235
7.	Prefab. 42" Railing	L-6/10	335'	-	-
8.	Pathway Surfacing	L-3	3,150'	16,000	115
9.	Slope Restoration	L-3	-	8,000	-
10.	Topsoil Plating	L-3/11	-	1,500	30
11.	Planting Barriers	L-3/10	-	2,000	-
12	Vegetation Recl.	L-3/11	-	10,000	-
13.	Stonework Restor.	L-9	-	160	-
14.	New Bridge	L-10	40'	-	-
15.	Concrete @ Bridge	L-10	-	-	37

* Crib-Lock or equal, to be approved by City prior to bidding
** Cobble infill material available at site from deleted gabions

All above data are estimates for convenience only, to be initially considered as minimum quantities and are to be substantiated by contractor. Quantity of stockpiled stone rip-rap material is to be confirmed by City Engineer in field. Final quantities of all materials are to be accurately determined after grading is completed and field stakes for walls are in place and approved by City. Extent of railings adjacent to Crib-Lock* walls to be determined prior to backfilling of wall(s). All railing sleeves are to be field measured by contractor to determine exact post intervals prior to fabrication of railing sections.



KEY

- Pathways/Walls
- Rip Rap
- Vegetation Barriers
- Old Pathway Slope Recontouring
- # Benches

VAULT #0329-80
ACCT # 19-4-96
SHEET # 2 OF 14

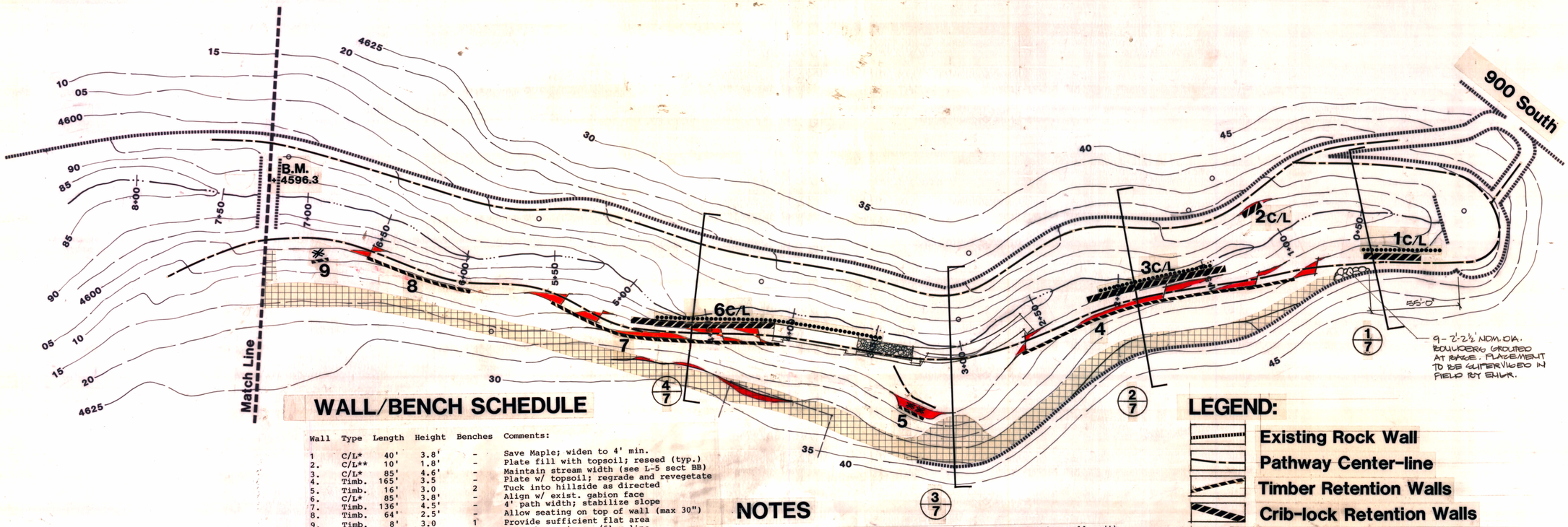
IMPROVEMENTS KEY

1"=50'

The Mitchell Nelson Group
Landscape Architects and Planners
19 Exchange Place Salt Lake City, Utah 84111
Palmer-Wilding
Consulting Engineers
405 S. 100 West Bountiful, Utah 84010

Safety Improvements for
Miller Park
Salt Lake City Corp./ Parks and Recreation Department

Sheet
L-2
Date:
Revisions:



WALL/BENCH SCHEDULE

Wall	Type	Length	Height	Benches	Comments:
1	C/L*	40'	3.8'	-	Save Maple; widen to 4' min.
2.	C/L**	10'	1.8'	-	Plate fill with topsoil; reseed (typ.)
3.	C/L*	85'	4.6'	-	Maintain stream width (see L-5 sect BB)
4.	Timb.	165'	3.5	-	Plate w/ topsoil; regrade and revegetate
5.	Timb.	16'	3.0	2	Tuck into hillside as directed
6.	C/L*	85'	3.8'	-	Align w/ exist. gabion face
7.	Timb.	136'	4.5'	-	4' path width; stabilize slope
8.	Timb.	64'	2.5'	-	Allow seating on top of wall (max 30")
9.	Timb.	8'	3.0	1	Provide sufficient flat area
10.	Timb.	24'	3.5	-	Keep above rip-rap/flow line
11.	Timb.	8'	3.0	1	Tuck into hillside as directed
12.	C/L**	25'	1.8'	-	Plate fill with topsoil; reseed (typ.)
13.	C/L**	16'	1.5'	-	" " " " "
14.	Timb.	58'	3.0	-	Tie to power pole
15.	Timb.	144'	5.0'	3	Maintain exist. vegetation
16.	Timb.	32'	3.5'	2	For Alt. A, const. w/ concrete (L-10)

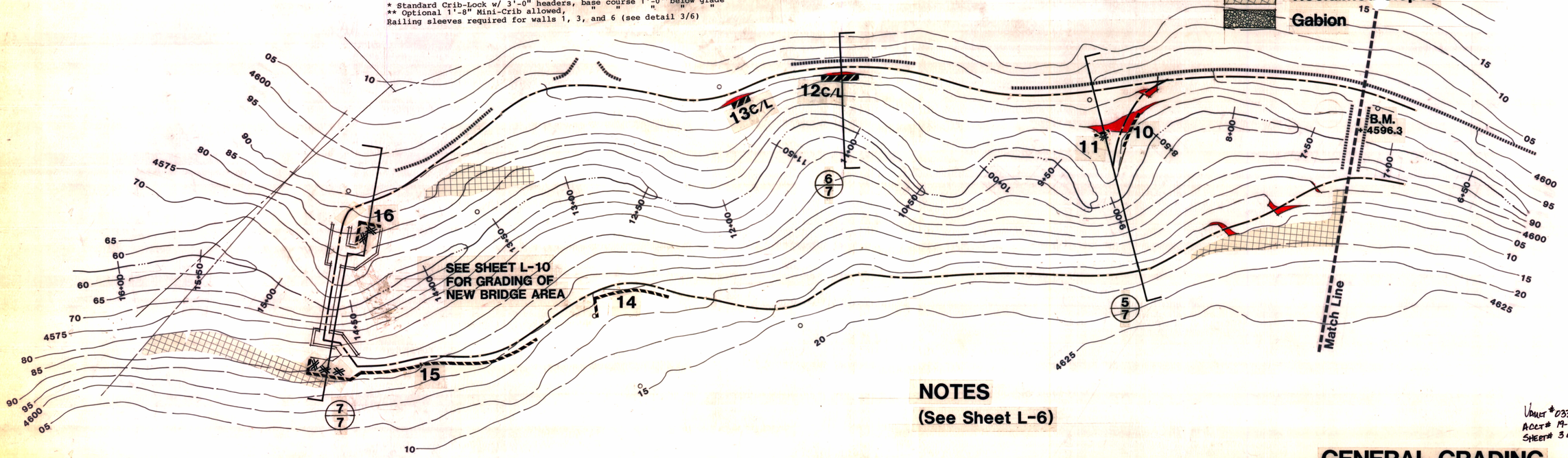
* Standard Crib-Lock w/ 3'-0" headers, base course 1'-0' below grade
** Optional 1'-8" Mini-Crib allowed, " " " " "
Railing sleeves required for walls 1, 3, and 6 (see detail 3/6)

NOTES

1. Bid alternative A allows for construction of all retention walls with standard Crib-Lock and Mini-Crib (with 1'-8" deep headers), except for wall 16. If such alternative is bid, wall 16 shall be constructed of concrete, as are other walls at bridge abutment area (see typ. section B/10, sheet L-10). The nine timber benches in all instances are to be replaced with 8'-0" free-standing Canturbury International "Bowery" benches (see specs.) to be supplied and installed by contractor.

LEGEND:

- Existing Rock Wall
- Pathway Center-line
- Timber Retention Walls
- Crib-lock Retention Walls
- Hand Railing (See note7/L-6)
- Walls with Benches
- Reclaimed Slopes
- Gabion



NOTES

(See Sheet L-6)

GENERAL GRADING PATHWAYS/SLOPE RECLAMATION

1"=30'

The Mitchell Nelson Group
Landscape Architects and Planners
19 Exchange Place Salt Lake City, Utah 84111
Palmer-Wilding
Consulting Engineers
405 S. 100 West Bountiful, Utah 84010

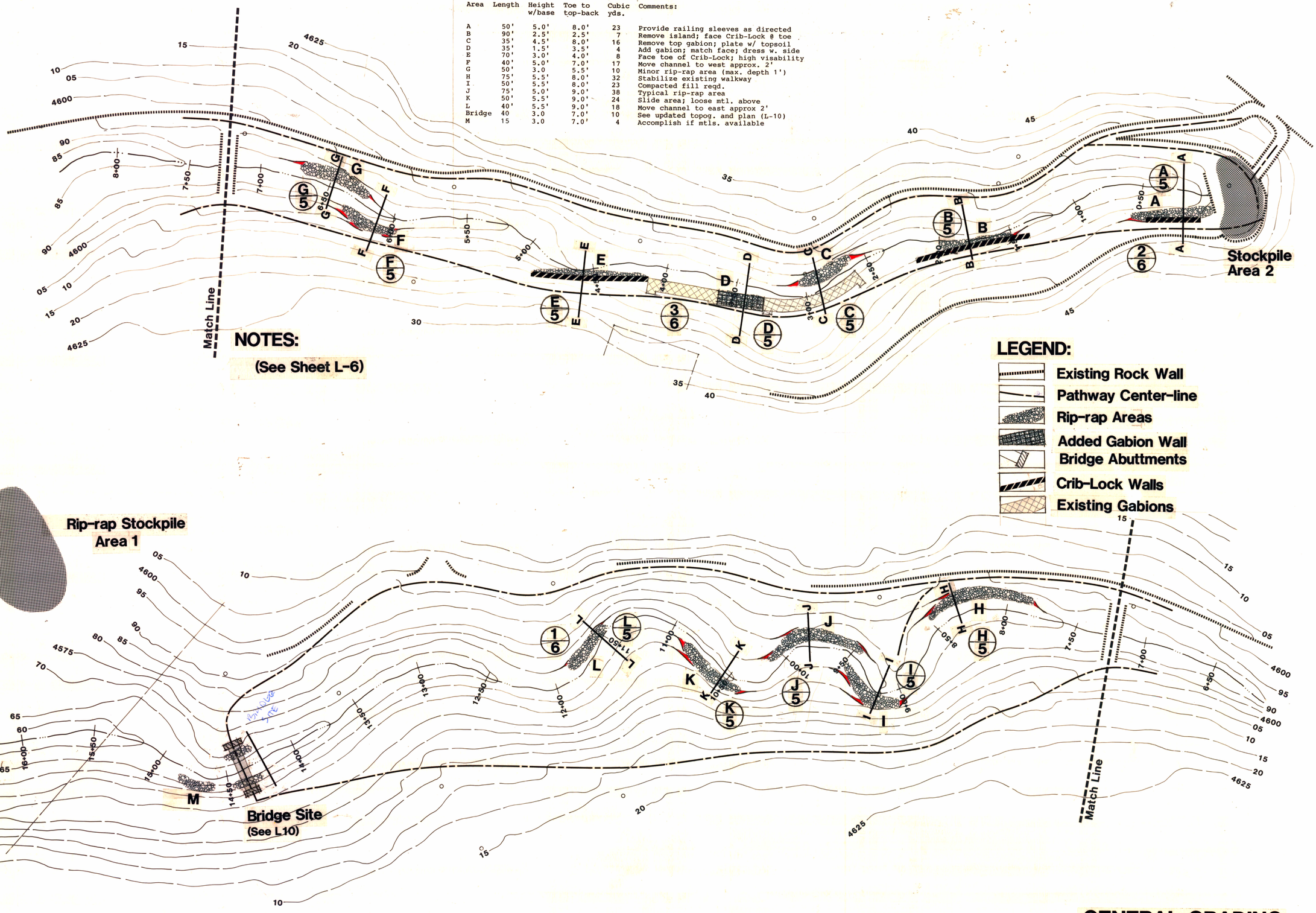
Safety Improvements for
Miller Park
Salt Lake City Corp. / Parks and Recreation Department

Voucher #0330-88
Acct# 19-4-96
Sheet# 3 of 14

Sheet
L-3
Date:
Revisions:

RIP-RAP AREAS:

Area	Length	Height w/base	Toe to top-back	Cubic yds.	Comments:
A	50'	5.0'	8.0'	23	Provide railing sleeves as directed
B	90'	2.5'	2.5'	7	Remove island; face Crib-Lock @ toe
C	35'	4.5'	8.0'	16	Remove top gabion; plate w/ topsoil
D	35'	1.5'	3.5'	4	Add gabion; match face; dress w. side
E	70'	3.0'	4.0'	8	Face toe of Crib-Lock; high visability
F	40'	5.0'	7.0'	17	Move channel to west approx. 2'
G	50'	3.0	5.5'	10	Minor rip-rap area (max. depth 1')
H	75'	5.5'	8.0'	32	Stabilize existing walkway
I	50'	5.5'	8.0'	23	Compacted fill reqd.
J	75'	5.0'	9.0'	38	Typical rip-rap area
K	50'	5.5'	9.0'	24	Slide area; loose mtl. above
L	40'	5.5'	9.0'	18	Move channel to east approx 2'
Bridge	40	3.0	7.0'	10	See updated topog. and plan (L-10)
M	15	3.0	7.0'	4	Accomplish if mtls. available



NOTES:

(See Sheet L-6)

LEGEND:

- Existing Rock Wall
- Pathway Center-line
- Rip-rap Areas
- Added Gabion Wall
- Bridge Abuttments
- Crib-Lock Walls
- Existing Gabions

1"=30'

The Mitchell Nelson Group
Landscape Architects and Planners
19 Exchange Place Salt Lake City, Utah 84111
Palmer-Wilding
Consulting Engineers
405 S. 100 West Bountiful, Utah 84010

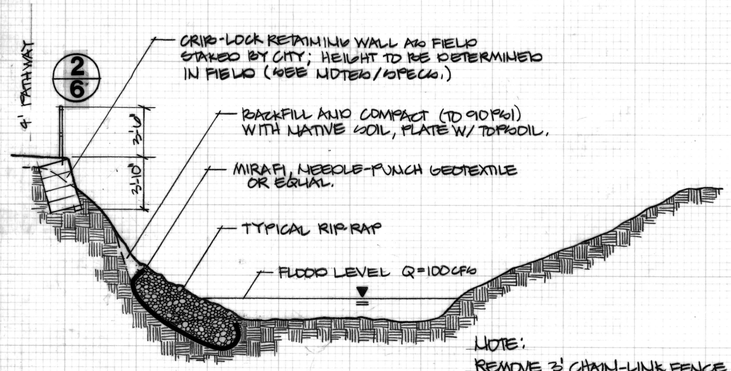
Safety Improvements for
Miller Park
Salt Lake City Corp. / Parks and Recreation Department

VAULT No: 0331-88
AGST No: 19-4-96
SHEET No: 4 OF 14

Sheet
L-4

Date:
Revisions:

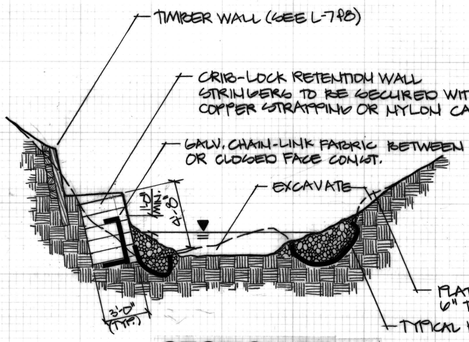
GENERAL GRADING STREAMBANK PROTECTION



NOTE:
REMOVE 3' CHAIN-LINK FENCE, SALVAGE FABRIC FOR CRIB-LOCK WALLS @ SECTION B&D & EE.

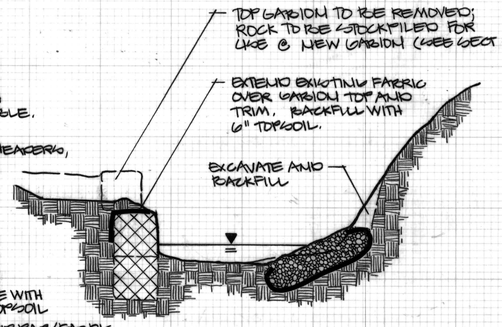
A/4 SECTION AA 0+20

RIP-RAP: 60'x8'
CRIB-LOCK: 90'x 3'-10" (WALL 1)



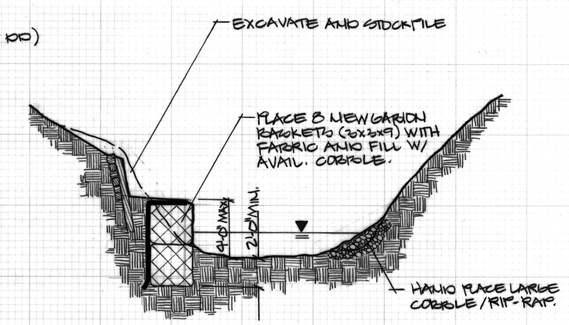
B/4 SECTION BB 1+80

RIP-RAP: 60'x 2'-6" EAST SIDE
50'x 2'-6" WEST SIDE
CRIBLOCK: 85'x 4'-8" (WALL 3)



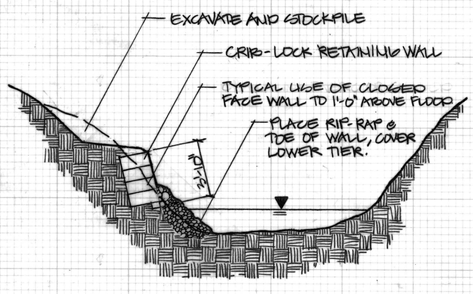
C/4 SECTION CC 2+90

RIP-RAP 40x5'



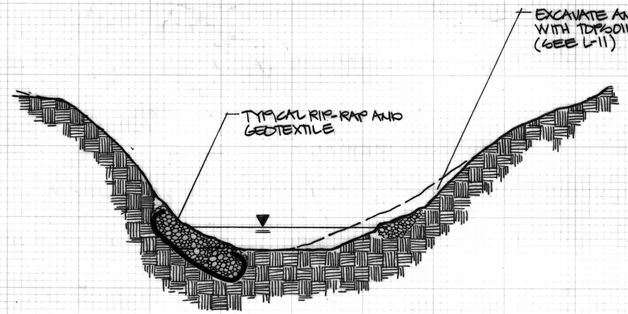
D/4 SECTION DD 3+40

DRESS GABION W/ RIP-RAP @ WEST SIDE ± 40' AS DIRECTED IN FIELD.
GABION: 36'x 6' (8'-9' SECTIONS)



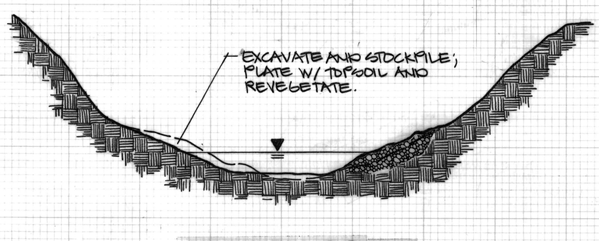
E/4 SECTION EE 4+60

CRIBLOCK: 85'x 3'-10" (WALL 6)

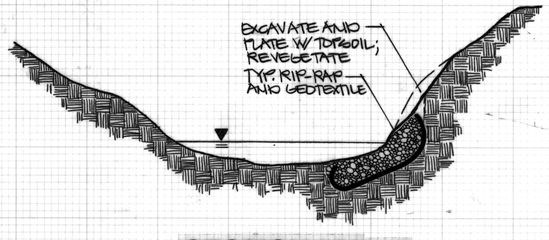


F/4 SECTION FF 6+10

RIP-RAP: 40'x 7'

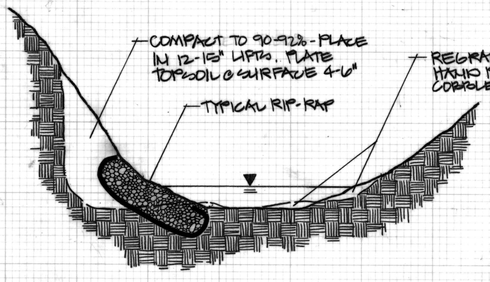


G/4 SECTION GG 6+45



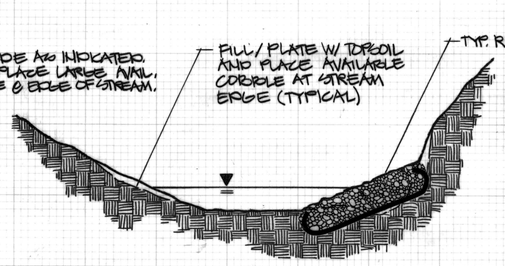
H/4 SECTION HH 8+35

RIP-RAP: 80'x 8'



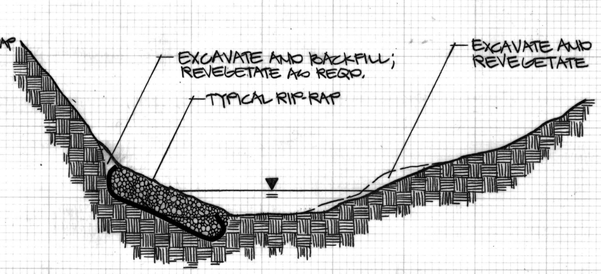
I/4 SECTION II 9+15

RIP-RAP: 50'x 8'



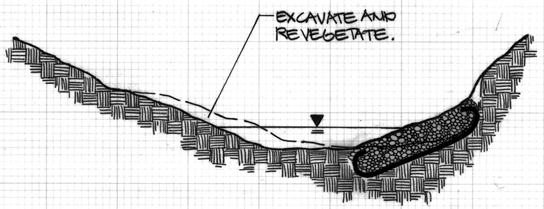
J/4 SECTION JJ 9+80

RIP-RAP: 75'x 9'



K/4 SECTION KK 10+55

RIP-RAP: 50'x 9'



L/4 SECTION LL 11+50

RIP-RAP: 90'x 9'

NOTES:

1. Cross-sections taken looking downstream.
2. See Sheets L-3 & 4 for plan of rip-rap, Crib-Lock walls (or equal), and section details.
3. Typical Rip-rap indicated is not to scale.
4. All excavated material to be stockpiled away from stream and/or protected from erosion by stream with appropriate diversion or other means. Contractor is responsible to protect creek from sedimentation and related impact due to construction.
5. All available loose cobble to be hand placed in streambed or removed from site.
6. Care shall be taken to protect all vegetation within park from damage due to operation of equipment and transport/placement of rip-rap materials.
7. All flood levels indicated are according to the analysis and calculations provided by the Salt Lake City Engineer.
8. All rip-rap freeboard areas are to be a minimum of 2'-0" above the calculated 200-year flood levels as indicated.
9. Rip-rap material shall have a specific gravity of 2.4 or greater and conform to the following with respect to size:

D-15	1'-4"	mean	spherical	diameter
D-50	1'-7"	"	"	"
D-85	1'-11"	"	"	"

STREAMBED SECTIONS

1"=5'-0"

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Safety Improvements for
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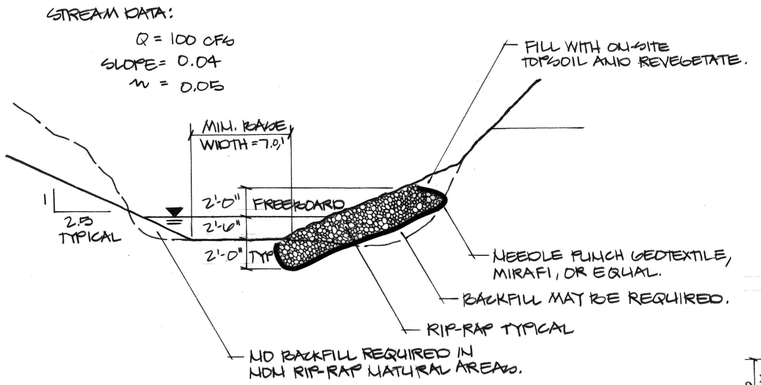
Salt Lake City Corp. / Parks and Recreation Department

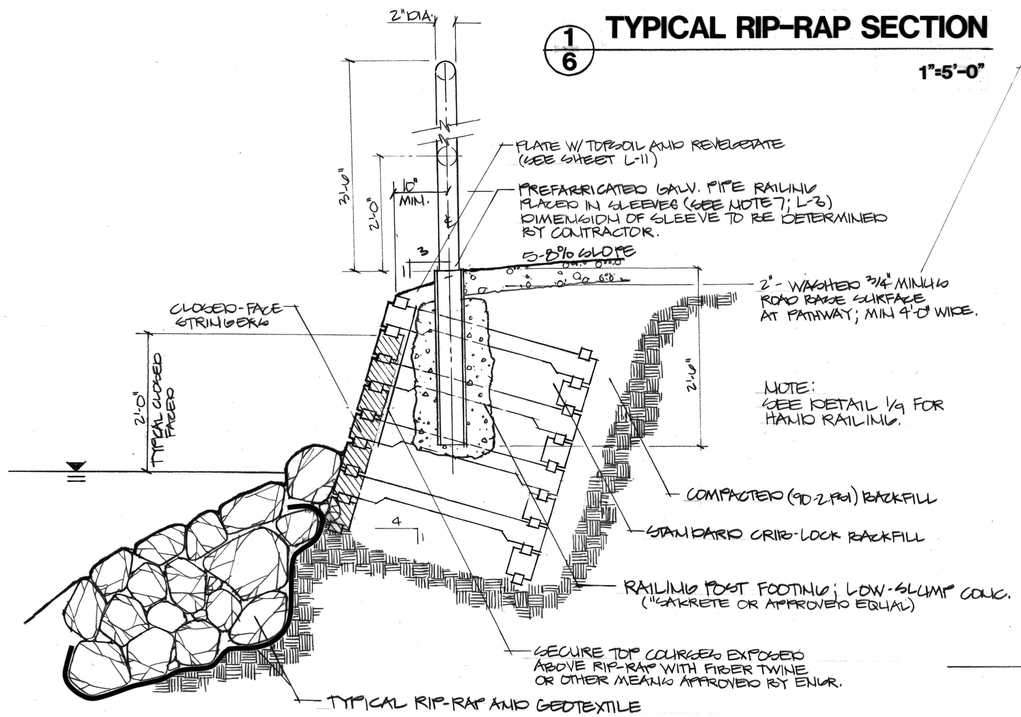
VAULT NO: 0332-88
ACCT NO: 19-4-96
SHEET 5 OF 14

Sheet
L-5
Date: '89
Revisions:



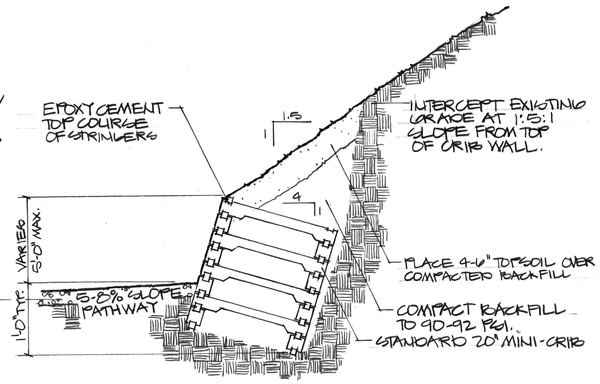
1/6 TYPICAL RIP-RAP SECTION

1"=5'-0"



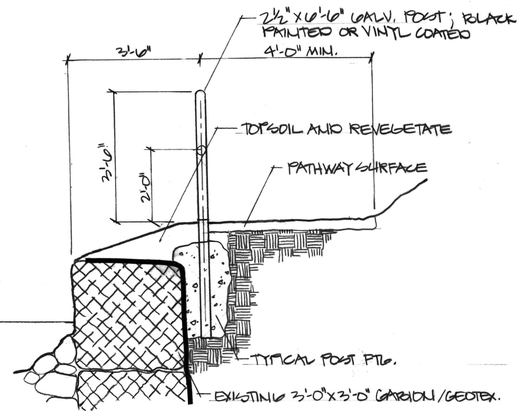
3/6 CRIB-LOCK WALL & RAIL POST SECTION

1"=1'-0"



2/6 MINI-CRIB SECTION

1"=1'-0"



4/6 RAIL POST AT GABION SECTION

1"=2'-0"

NOTES (L-3)

1. All site grading is to be accomplished according to field staking and as supervised by Landscape Architect and/or City Engineer. Pathway center-line stakes provided by City shall indicate location and general extent of site grading. Intent is to achieve balance of cut and fill. Excavated materials may be stockpiled only during periods when water can be diverted away from such. Removal of such stockpiles shall be expedited. Siltation of creek and loss of material in stream shall be the responsibility of the contractor. Excess cut material shall be utilized for recontouring of abandoned pathways or removed from park site.

2. Cut slopes for timber retention walls are to be excavated as close to vertical as is safe and is otherwise considered to be practical to reduce impact upon existing vegetation and to enable installation of retention wall deadmen by impact hammer and/or drilling (see L-8). Care shall be taken in installation of mini-crib walls to protect root systems of existing vegetation.

3. Construction of Crib-Lock* retention walls (1, 3 & 6) requires timely completion of rip-rap to protect such walls (see L-4&5). All walls are to be inspected by City prior to backfilling and compaction. Final placement of rip-rap at face of Crib-Lock* walls to be completed by contractor.

4. Extent of Crib-Lock* walls below pathways is schematic on this plan and Sheet L-4. Actual extent of construction is dictated by minimum quantity requirement (210 lin.ft.). Timber walls above and below pathways are 706 lin.ft. in length and are also indicated by a schematic symbol. Walls are indicated in section (Sheets L-5 & 6) for height and relationship to pathways. Field changes may be necessary due to soil conditions or slope conditions not anticipated by topographic mapping. Extent of all walls will be confirmed in face sq.ft. by City. It is estimated that the total surface square footage of timber walls will be 2,950. Nine benches are located, including benches at the new bridge site.

5. Alternate A enables substitution of mini-crib walls for all timber walls except number 16 (which shall be constructed of cast-in-place concrete). With the required and additional one-foot of wall below grade, this total of mini-crib is approximately 3,545 sq.ft.

6. Reclaimed slopes (abandoned alignments of old pathways, etc.) are to be recontoured in conformance with adjacent topographic conditions. Such areas are to be plated with a minimum topsoil layer of 4" and stabilized according to accepted practice (see specifications).

7. Standard 42" railings shall be installed at gabions, Crib-Lock* walls adjacent to pathways and new bridge area (see L-10) whenever vertical distance between pathway surface and creekbed flowline or other surface exceeds 4'. Determination of railing locations will be made by city prior to backfilling/compaction for walls. Railings at walls and gabions (see L-6) are to be installed prior to completion of backfilling and final grading of pathways. Determination of exact location of all sleeves is the responsibility of the contractor.

8. Topsoil plating and slope stabilization for future planting shall be accomplished according to plans (L-3&11) and specifications, and as directed by City in the field.

NOTES (L-4)

1. See General Grading (Sheet L-4) and cross-sections (L-5) for location of rip-rap areas, interface with Crib-Lock* walls and/or gabions, proximity to pathways, sections, and related notes.

2. Review all specifications related to site preparation, protection of existing vegetation, and construction proceedures.

3. All locations indicated are schematic. Actual field locations are staked in field by City (see re-bar stakes at each end of rip-rap areas).

4. All rip-rap material to be provided to general site area by Salt Lake County. Contractor is responsible for transport and placement of rip-rap from available stockpiles.

5. Quantity of material to be utilized by contractor may vary from area to area. Material is to be placed at typical thickness of 2.0' and provide freeboard of 2.0' above flood level. (235 cu.yds. to be confirmed by contractor and City).

6. Mirafi, needle-punch geotextile or equal to be used at interface between rip-rap and native materials, unless otherwise noted and approved by City Engineer.

7. Existing top course of gabion at area "C" is to be removed (see L-5&6) and existing fabric pulled over 2nd course and backfilled. Should any additional fabric be required, contractor shall advise City and make an appropriate "extra services" arrangement for additional materials.

8. At area "D", 8 additional wire gabion baskets are to be installed between existing gabions (approx 36 lin.ft.). Area is to be excavated to enable both horizontal and vertical alignment of base course with adjoining gabion walls. Rock fill material is to be salvaged and stockpiled from top course of existing gabions to be removed (see Detail C/4). Appropriate geotextile and related proceedures of installing gabions are to be followed, including wire ties and rip-rap at toe as required.

9. Care shall be taken to preserve all native vegetation, except materials painted orange and/or as directed in field by City. Removal of such materials shall include root systems and related debris (see specs.).

*Crib-Lock or equal

STREAMBANK PROTECTION DETAILS & GRADING NOTES

Scale as noted

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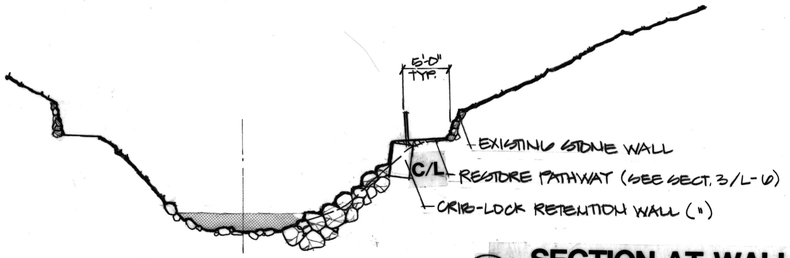
Safety Improvements for **Miller Park**
Salt Lake City Corp. / Parks and Recreation Department

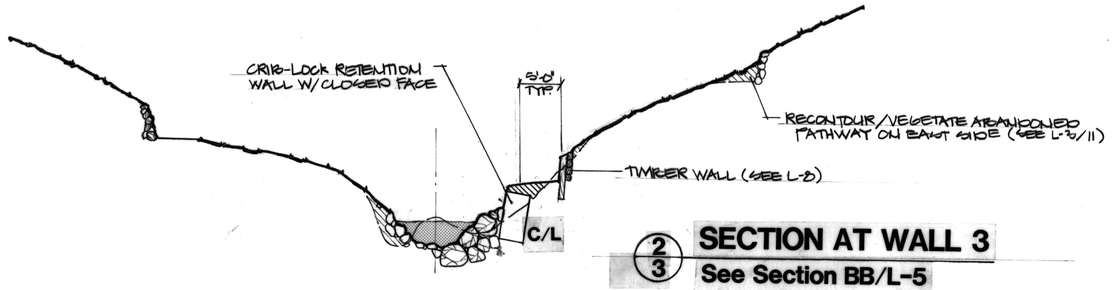
VAULT NO: 0333-88
ACCT NO: 19-Y-96
SHEET NO: 6 OF 14

Sheet **L-6**

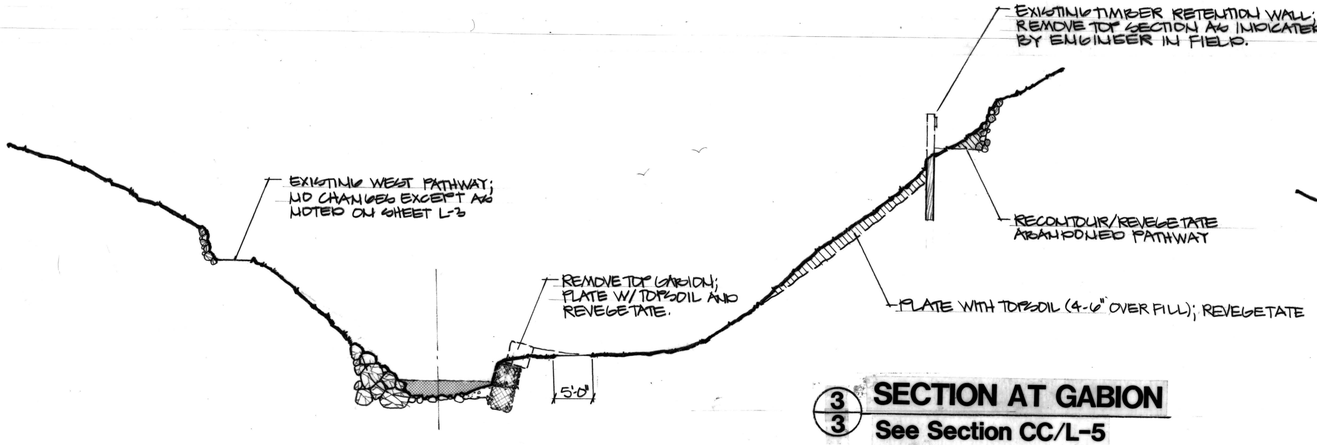
Date:
Revisions:



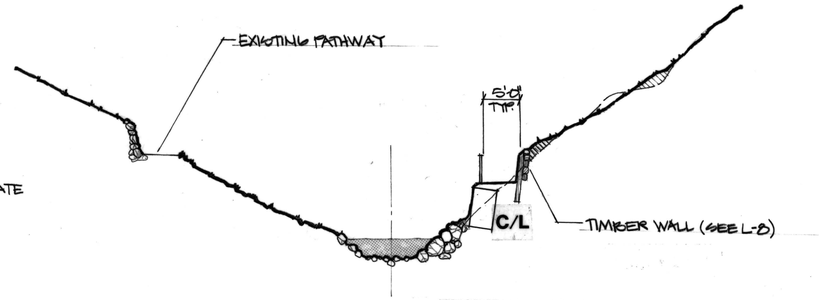
1/3 SECTION AT WALL 1
See Section AA/L-5



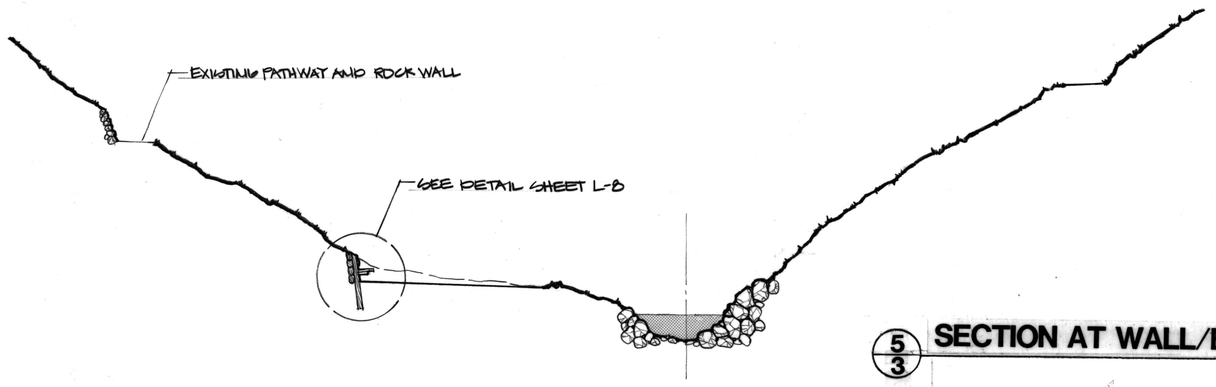
2/3 SECTION AT WALL 3
See Section BB/L-5



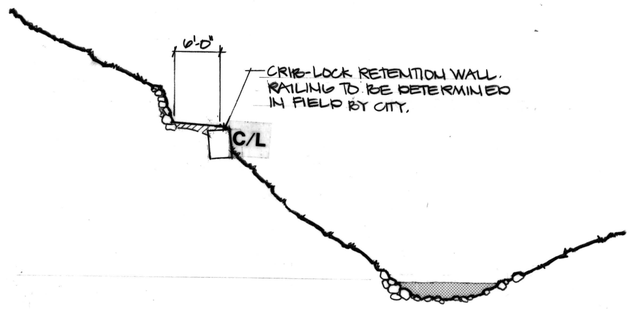
3/3 SECTION AT GABION
See Section CC/L-5



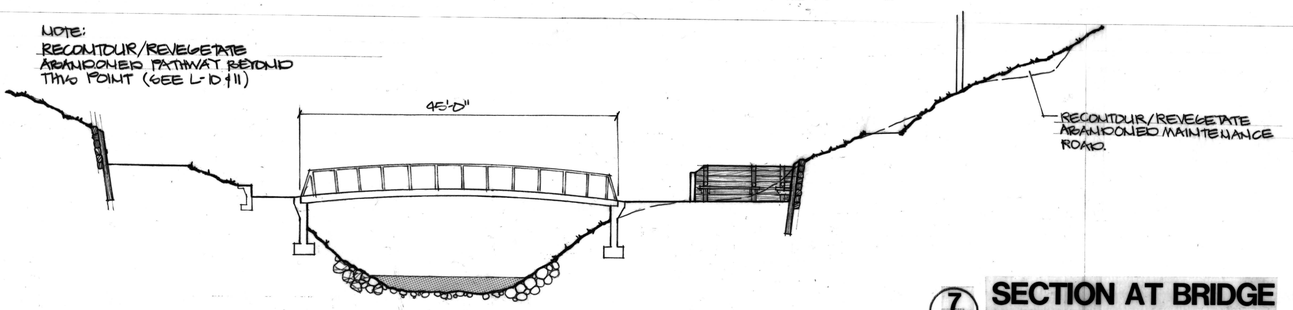
4/3 SECTION AT WALLS 6 & 7
See Section EE/L-5



5/3 SECTION AT WALL/BENCH 11



6/3 SECTION AT WALL 12



7/3 SECTION AT BRIDGE
See Sheet L-10

NOTES

1. Sections 1-6 taken looking upstream; section 7 looking downstream.

2. Refer to sheet L-5 and L-6 for streambank protection sections and details.

3. Pathway on west side of creek to remain unchanged, with exception of added walls 2, 12 & 13 (see L-3).

4. Except as noted or designated in field by City Engineer or Landscape Architect, minimum dimension for pathways on east side is 4'-0" in areas where retention walls are required. All other walkways are to be 5'-0".

5. Alternate "A" of Bid schedule allows substitution of mini-crib wall for timber. Excavation for all walls to be minimized insofar as is possible to mitagate possible damage to adjacent vegetation, and all walls are to be backfilled upon inspection and approval by City as soon after excavation as is practicable.

TYPICAL PATHWAY SECTIONS

1"=10'

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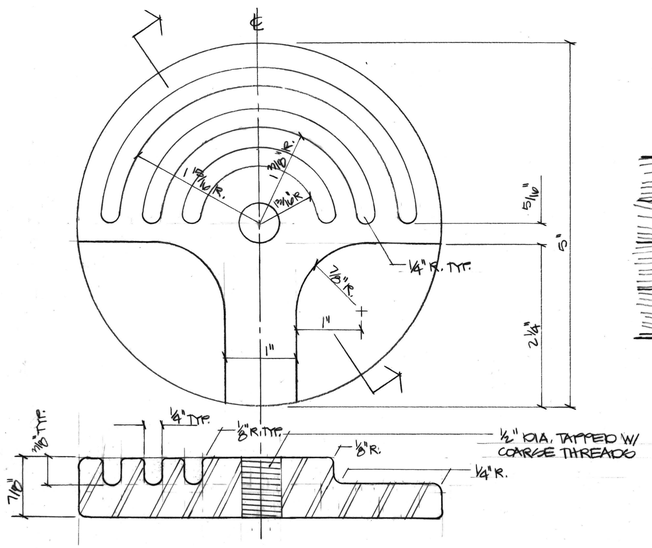
Safety Improvements for
Miller Park
Salt Lake City Corp. / Parks and Recreation Department

VAULT NO: 0334-88
ACCT NO: 19-4-96
SHEET NO: 7 OF 14

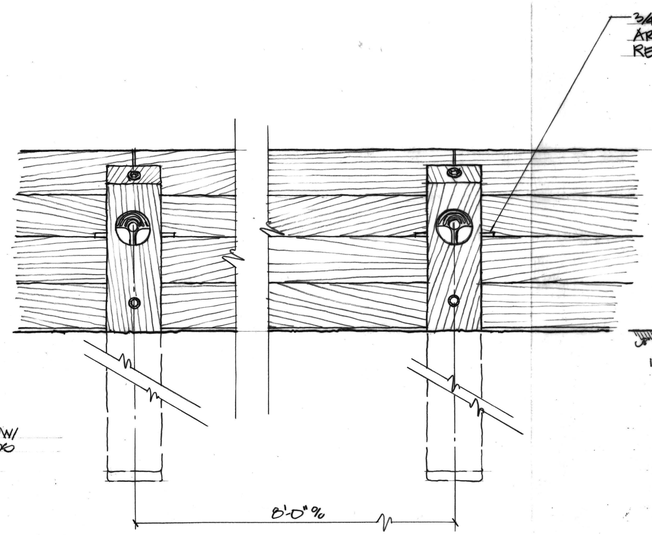
Sheet
L-7

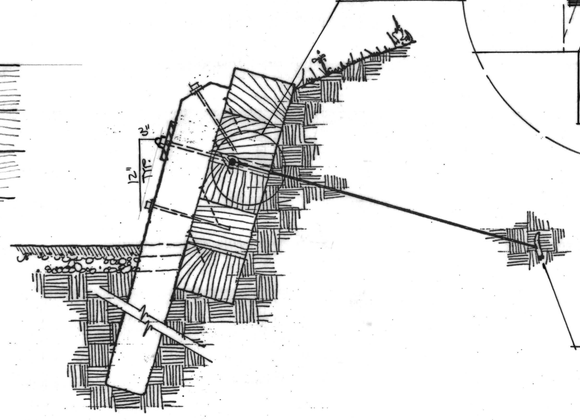
Date:
Revisions:

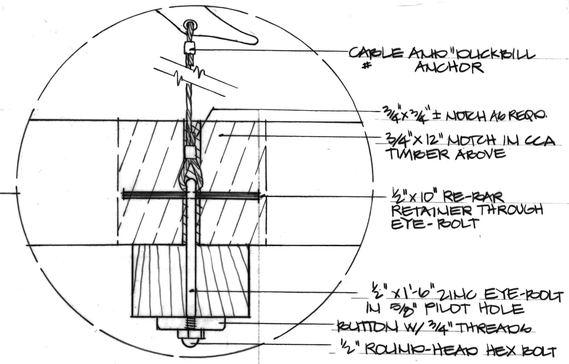


1/8 BUTTON DETAIL

SCALE: 1"=1"





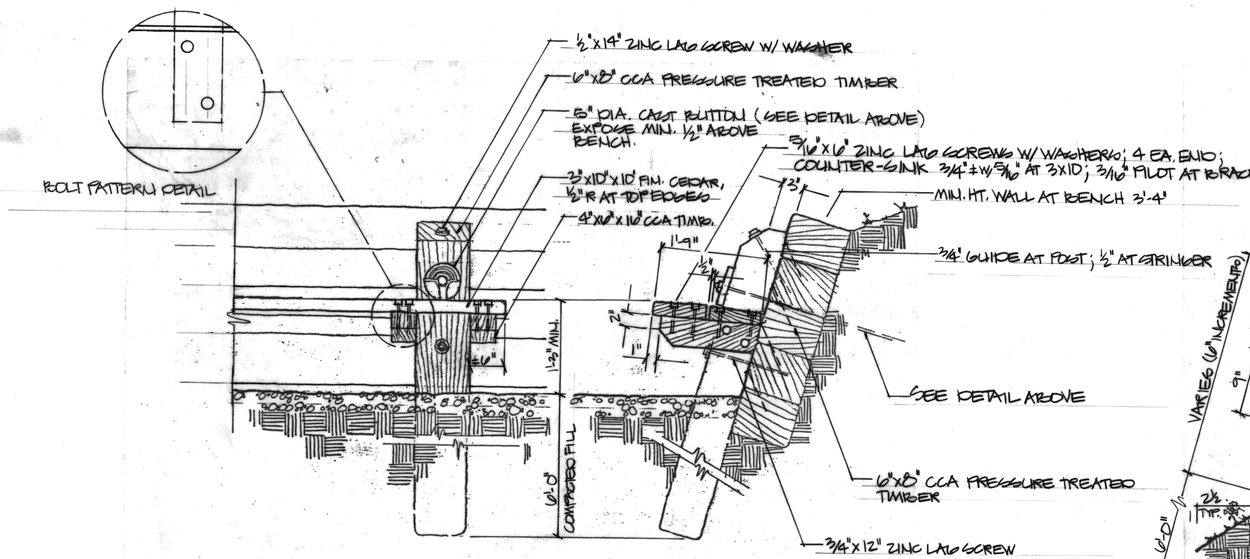


DETAIL PLAN VIEW EYE-BOLT RETAINER

SCALE: 1"=6"

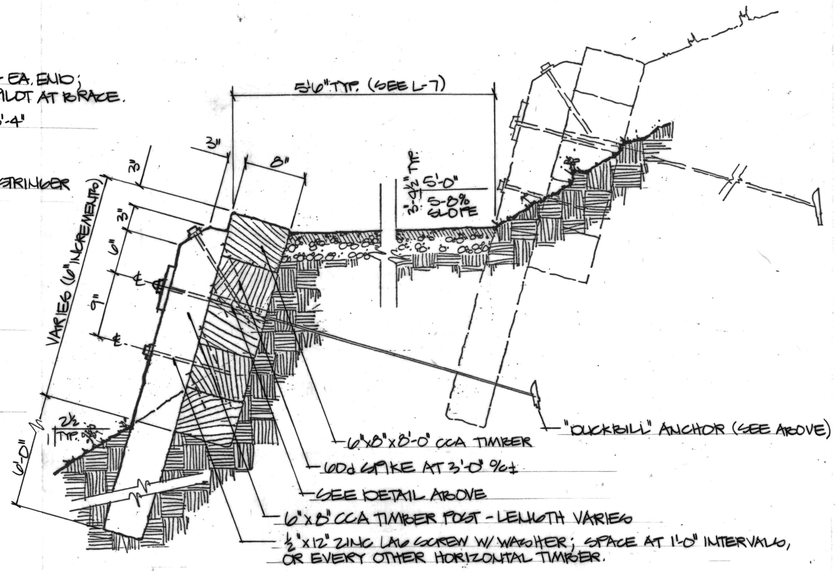
2/8 TIMBER WALL ELEVATION AND ANCHOR DETAIL

SCALE: 1"=1'-0"



3/8 TIMBER BENCH AT WALL

SCALE: 1"=1'-0"



4/8 TIMBER WALL SECTION

SCALE: 1"=1'-0"

TIMBER WALLS DETAILS

Scale as noted

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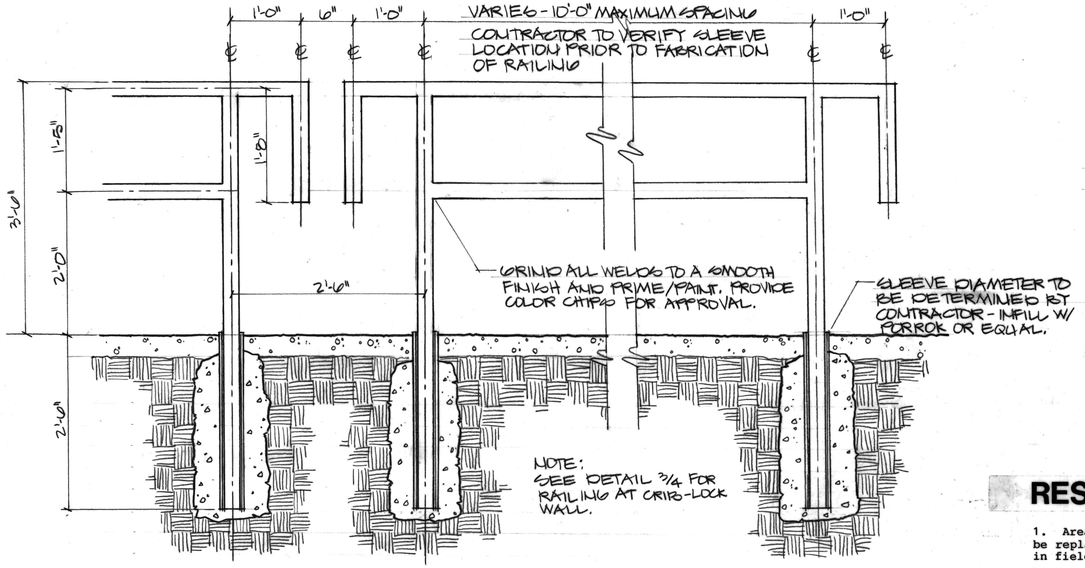
Safety Improvements for **Miller Park**
Salt Lake City Corp. / Parks and Recreation Department

VAULT NO: 0335-88
ACCT NO: 19-4-96
SHEET NO: 8 OF 14

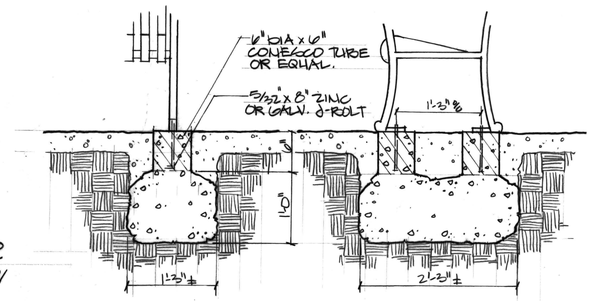
Sheet **L-8**

Date:
Revisions:



1/9 HAND RAILING DETAIL

1"=1'-0"



2/9 BOWERY BENCH FOOTING

(FOR ALTERNATE A)

1"=1'-0"

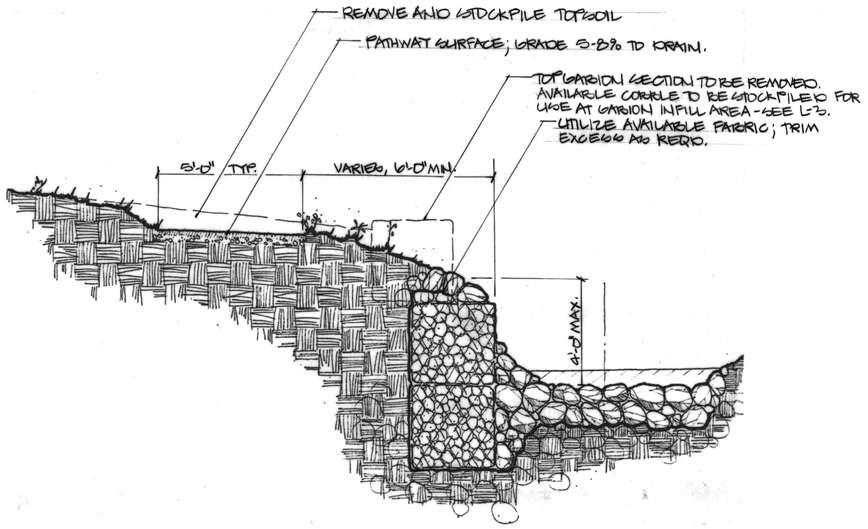
RESTORATION NOTES

1. Areas indicated by cross-hatching indicate approximate extent of rock to be replaced. Actual extent is to be determined by contractor and confirmed in field by City or landscape Architect.

2. Area to be repaired also includes capstone to match existing; extent to be determined by contractor.

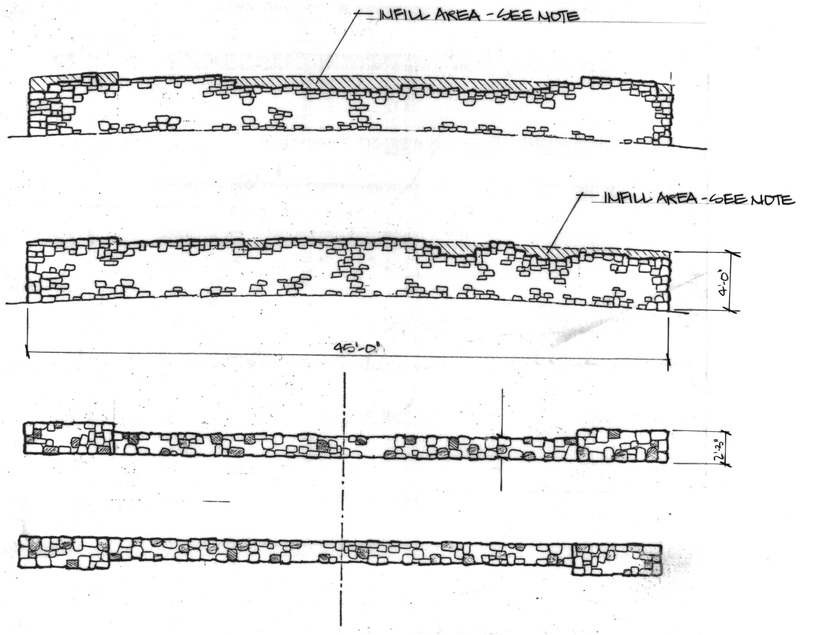
3. All stone used for repair to match existing bridge stonework with respect to color, size, and texture. Workmanship is to also be coincident in width of mortar seams, composition of rock, and overhang of capstones.

4. All stone, existing and restored areas, are to be lightly sandblasted upon completion of stonework and once mortar has hardened. All surface areas of bridge are to be cleaned to remove grafitti and provide a uniform appearance.



3/9 SECTION OF EXISTING GABION AT PATHWAY

1"=3'-0"±



PLAN AND ELEVATION OF STONE BRIDGE

1"=5'-0"

RETENTION DETAILS
STONE RESTORATION

Scale as noted

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Safety Improvements for
Miller Park
Salt Lake City Corp. / Parks and Recreation Department

VAULT NO: 0336-88
ACCT NO: 19-Y-96
SHEET NO: 9 OF 14

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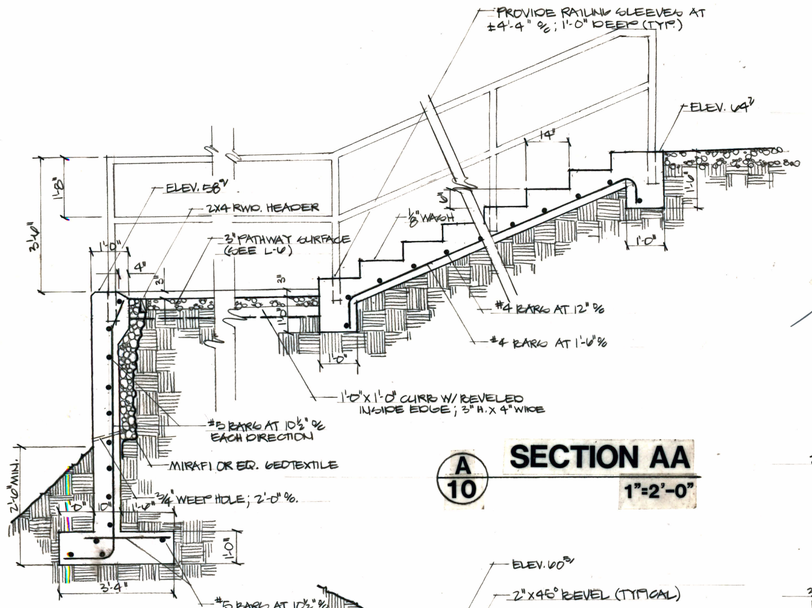
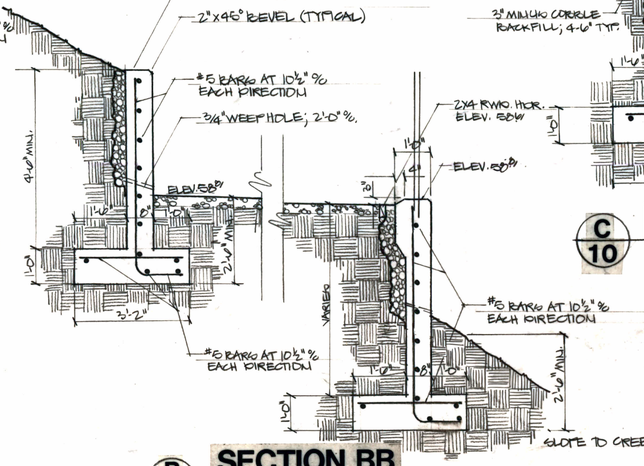
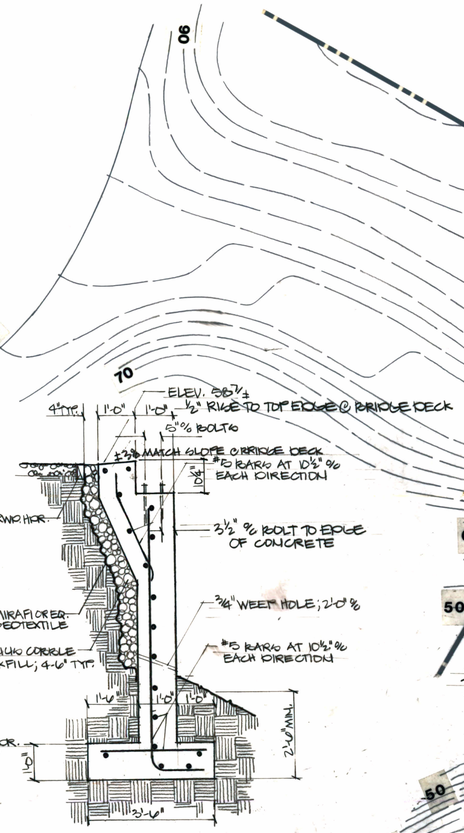
Date:
Revisions:



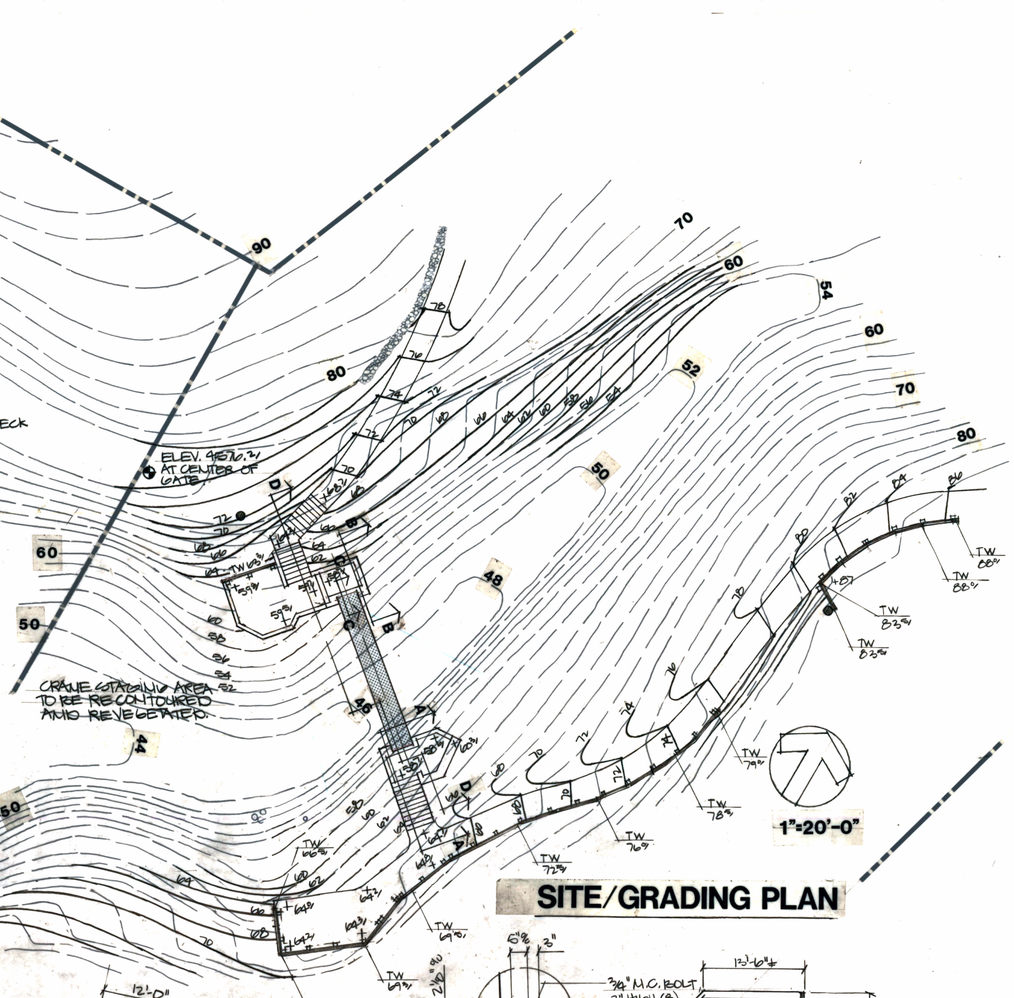
A/10 **SECTION AA** 1"=2'-0"



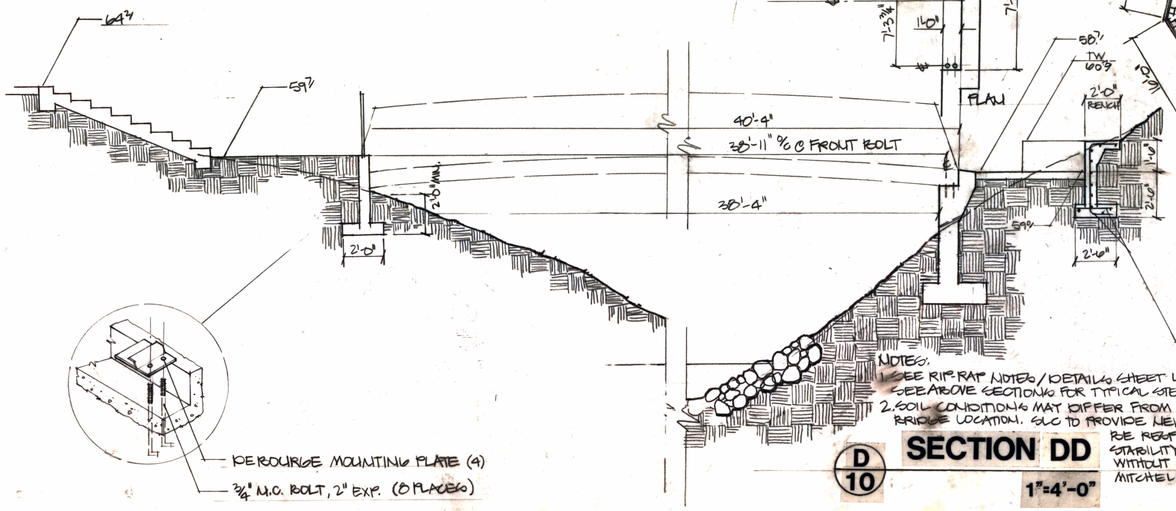
B/10 **SECTION BB** 1"=2'-0"



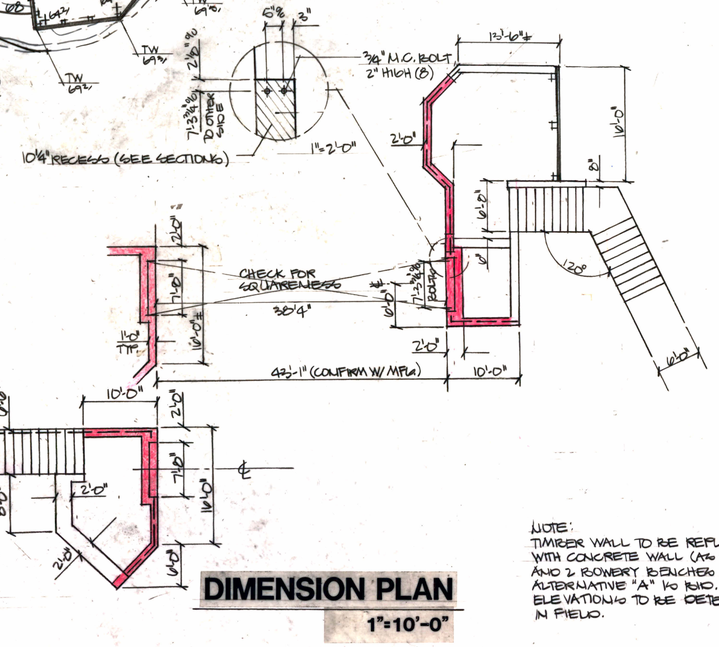
C/10 **SECTION CC** 1"=2'-0"



SITE/GRADING PLAN



D/10 **SECTION DD** 1"=4'-0"



DIMENSION PLAN

1"=10'-0"

NOTE:
TIMBER WALL TO BE REPLACED WITH CONCRETE WALL (AS SECT. BB) AND 2 ROWERY BENCHES IF ALTERNATIVE "A" IS HELD. ELEVATIONS TO BE DETERMINED IN FIELD.

NOTES

1. All footings can be stepped in accordance with natural grade or indicated revised grade conditions. Contractor to provide a minimum of 2'-6" cover from base of footing to finish grade.

2. Excavated trenches for bridge abustments and walls are to be inspected by City Engineer prior to construction of formwork to ensure proper depth and soils composition at base of footing.

3. As directed by Engineer, granular material may be required at base of footings.

NEW BRIDGE AREA PLAN & DETAILS

Scale as noted

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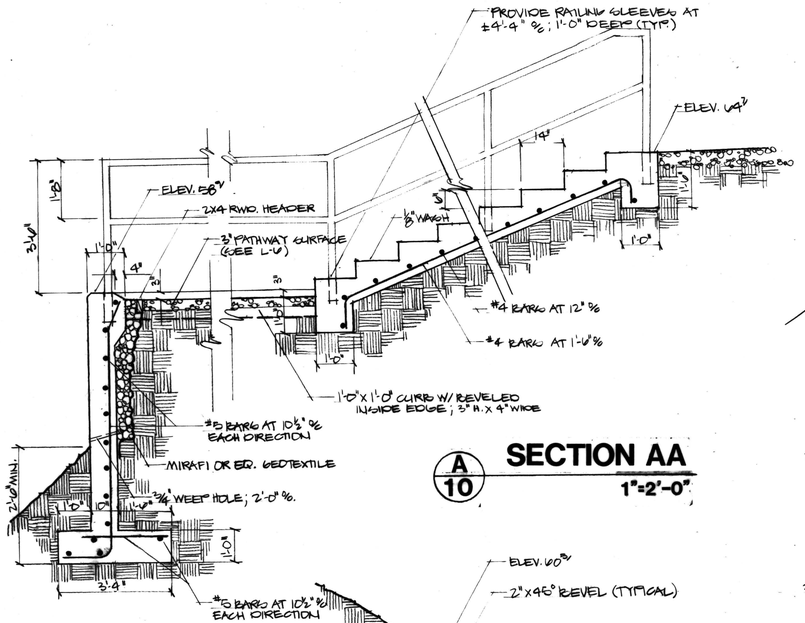
Safety Improvements for **Miller Park**
Salt Lake City Corp. / Parks and Recreation Department

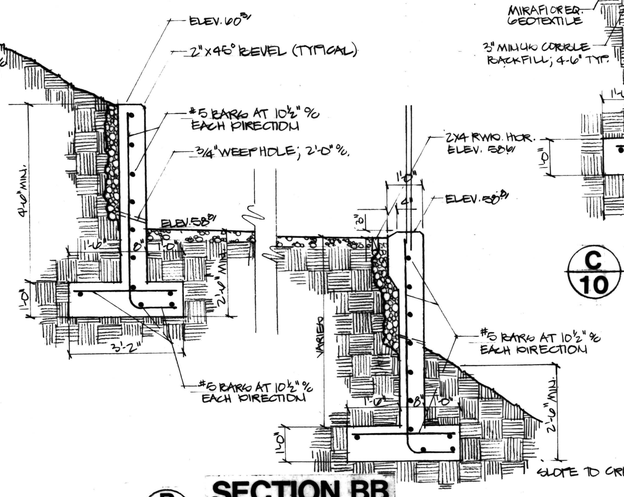
VAULT NO: 0337-88
ACCT NO: 19-4-96
SHEET NO: 10 OF 14

Sheet **L-10**

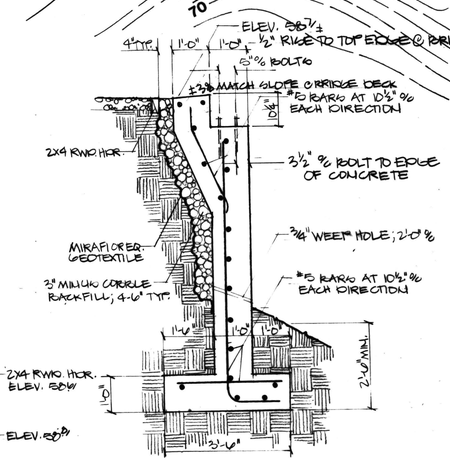
Date:
Revisions: 12-11-87
4-08-88



A/10 SECTION AA
1"=2'-0"

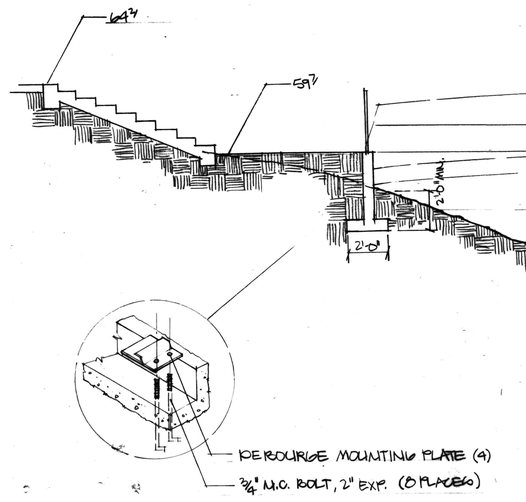


B/10 SECTION BB
1"=2'-0"

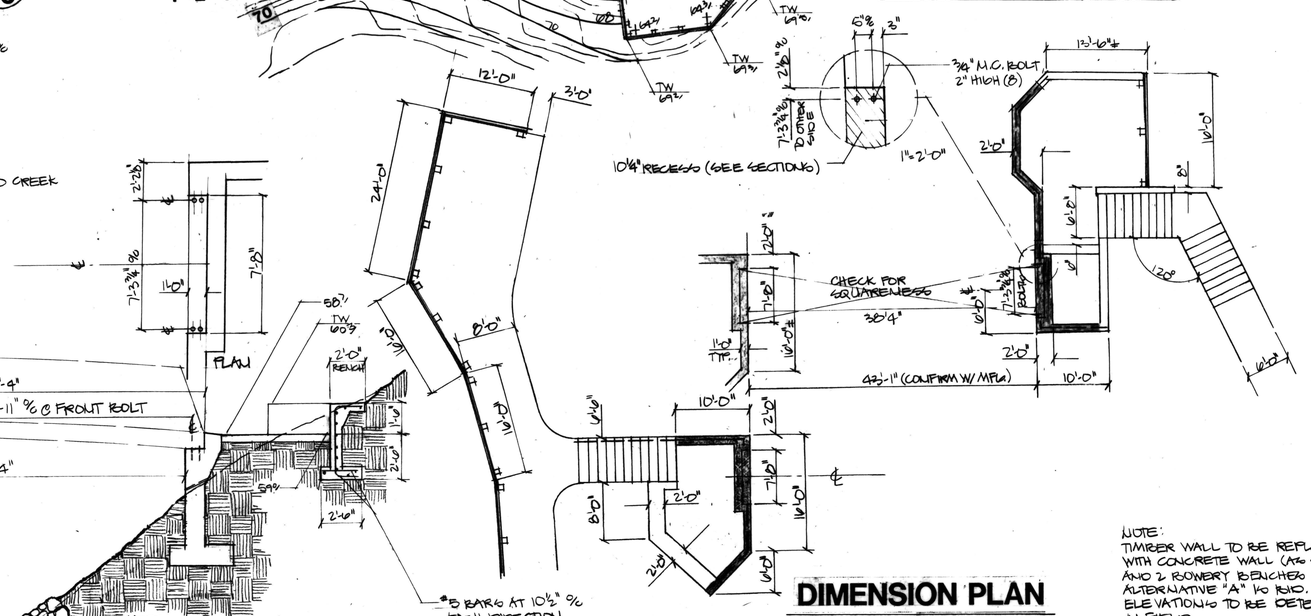


C/10 SECTION CC
1"=2'-0"

SITE/GRADING PLAN



D/10 SECTION DD
1"=4'-0"



DIMENSION PLAN
1"=10'-0"

NOTES

1. All footings can be stepped in accordance with natural grade or indicated revised grade conditions. Contractor to provide a minimum of 2'-6" cover from base of footing to finish grade.

2. Excavated trenches for bridge abustments and walls are to be inspected by City Engineer prior to construction of formwork to ensure proper depth and soils composition at base of footing.

3. As directed by Engineer, granular material may be required at base of footings.

NEW BRIDGE AREA PLAN & DETAILS

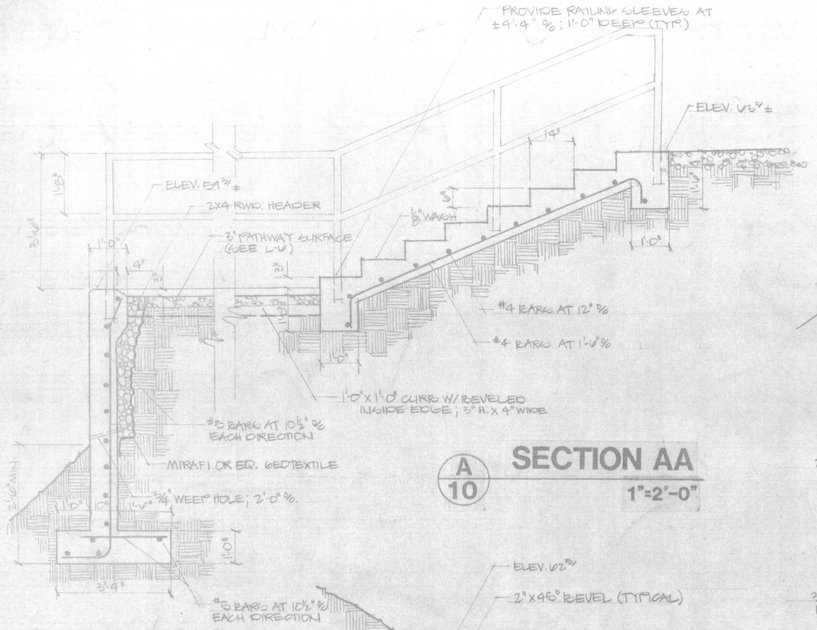
Scale as noted

The Mitchell Nelson Group
Landscape Architects and Planners
19 Exchange Place Salt Lake City, Utah 84111
Palmer-Wilding
Consulting Engineers
405 S. 100 West Bountiful, Utah 84010

Safety Improvements for
Miller Park
Salt Lake City Corp. / Parks and Recreation Department

VAULT No: 0338-88
ACCT No: 19-4-96
SHEET No: 11 OF 14

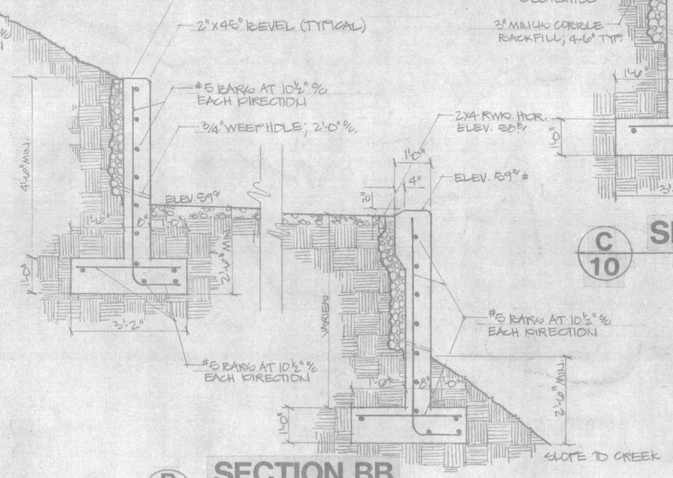
Sheet
L-10
Date:
Revisions: 12-11-87



SECTION AA

A/10

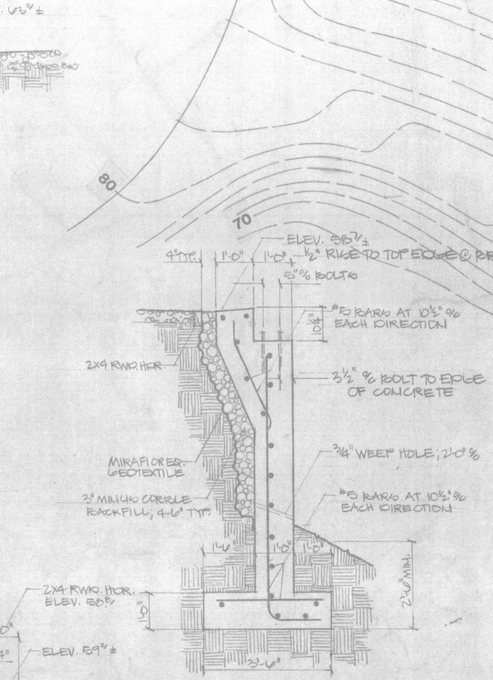
1"=2'-0"



SECTION BB

B/10

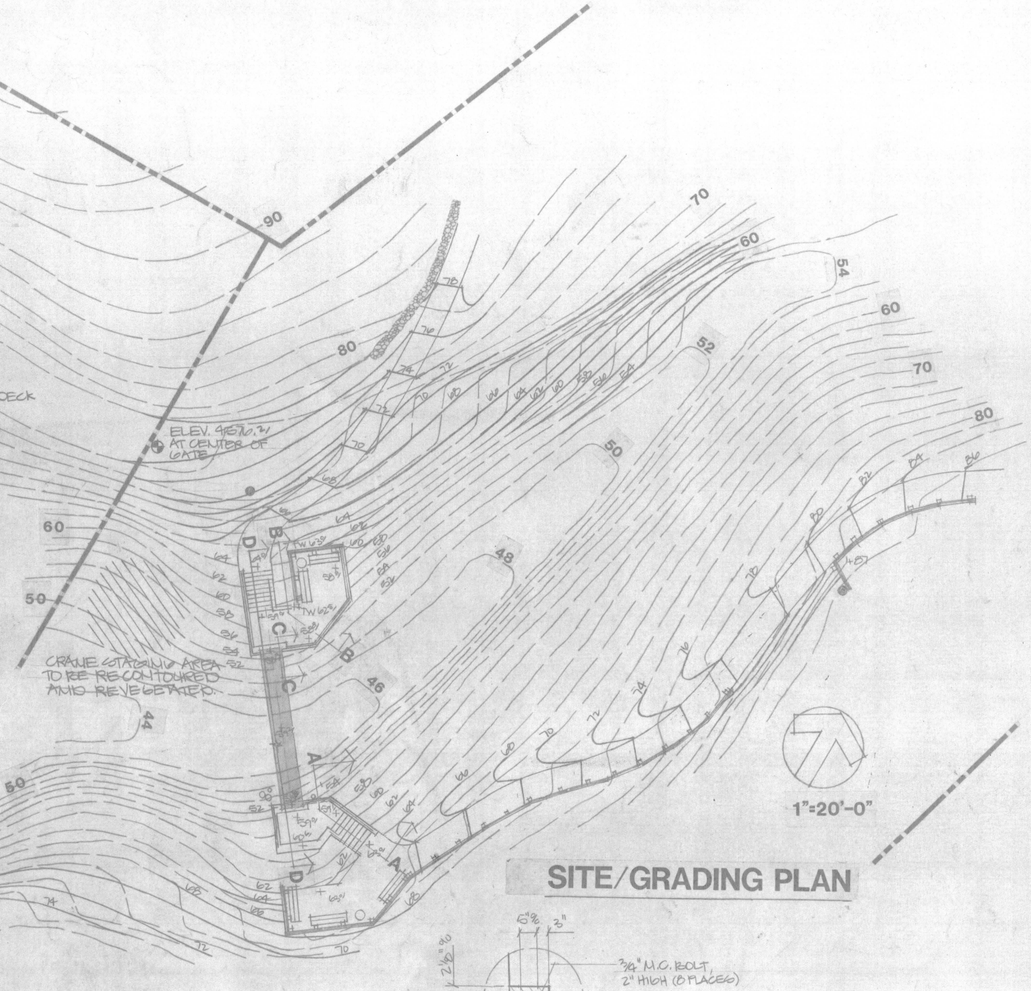
1"=2'-0"



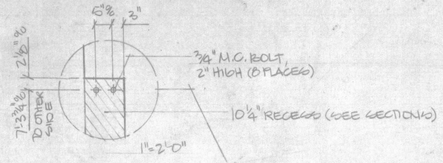
SECTION CC

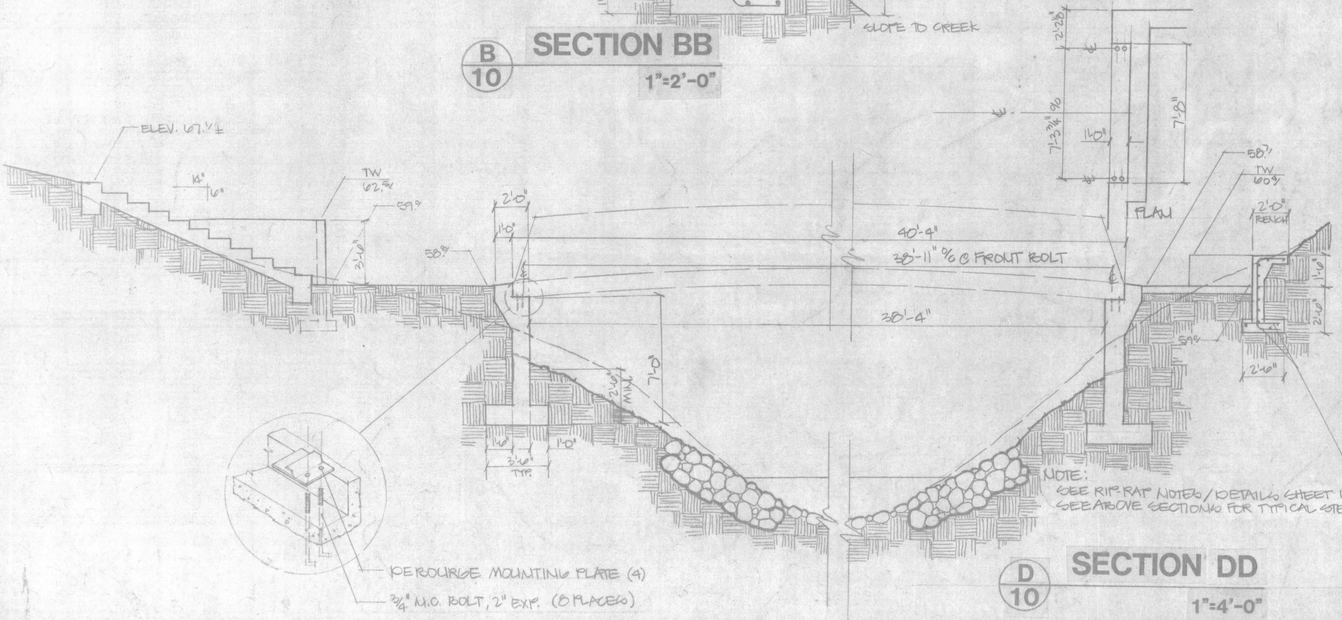
C/10

1"=2'-0"



SITE/GRADING PLAN

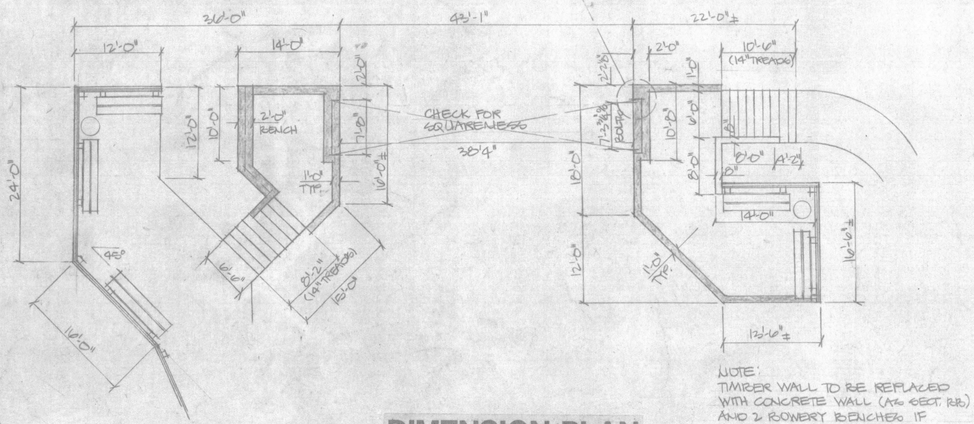




SECTION DD

D/10

1"=4'-0"



DIMENSION PLAN

1"=10'-0"

NOTE:
TIMBER WALL TO BE REPLACED WITH CONCRETE WALL (AS SECT. R/D) AND 2 ROWERY BENCHES IF ALTERNATIVE "A" IS RQD. ELEVATIONS TO BE DETERMINED IN FIELD.

NOTES

1. All footings can be stepped in accordance with natural grade or indicated revised grade conditions. Contractor to provide a minimum of 2'-6" cover from base of footing to finish grade.

2. Excavated trenches for bridge abustments and walls are to be inspected by City Engineer prior to construction of formwork to ensure proper depth and soils composition at base of footing.

3. As directed by Engineer, granular material may be required at base of footings.

NEW BRIDGE AREA PLAN & DETAILS

Scale as noted

The Mitchell Nelson Group
Landscape Architects and Planners
19 Exchange Place Salt Lake City, Utah 84111
Palmer-Wilding
Consulting Engineers
405 S. 100 West Bountiful, Utah 84010

Safety Improvements for
Miller Park
Salt Lake City Corp. / Parks and Recreation Department

VAULT No: 0339-88
ACCT No: 19-Y-96
SHEET No: 12 OF 14

Sheet
L-10

Date: 8-31-87
Revisions:

PLANT LIST

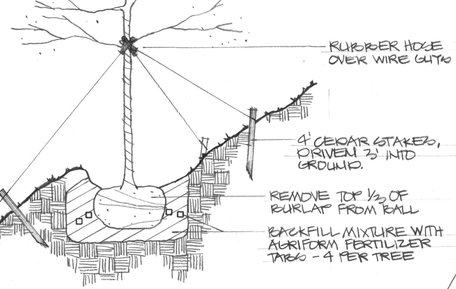
Quan.	Scientific Name	Common Name	Size	Comments
10	Acer Glabrum	Rocky Mountain Maple	1-1/2" cal.	#7 container; stake, wrap and protect from traffic
3	Elaeagnus angustifolia	Russian olive	6-8'	#5 container; clump
3	Pinus sylvestris	Scotch pine	4-6'	#5 Container, staked
38	Pyracantha 'Lalandei Monrovia'	Firethorn	2-3' ht.	# 5 container; see planting detail
139	Rosa rugosa var./ Rosa Foetida var.	Wild rose	1-2' ht.	#2 container; combine or alternate type

NOTES

1. All areas indicated by cross-hatching are to be hydroseeded with seed mix approved by the landscape architect, including 15% wildflower seed.

2. All locations of plants are schematic. Contractor shall place plant materials with respect to adjacent existing vegetation and accomodate existing slope, soil, and solar exposure conditions to enable plant growth.

3. Irrigation heads are to be staked in field prior to installation of system for approval by landscape architect and engineer. New plants are to be located away from heads, and existing plant materials pruned and/or removed to allow for adequate irrigation coverage.



1/11 TREE STAKING

2/11 PLANTING ON SLOPES

PLANTING PLAN

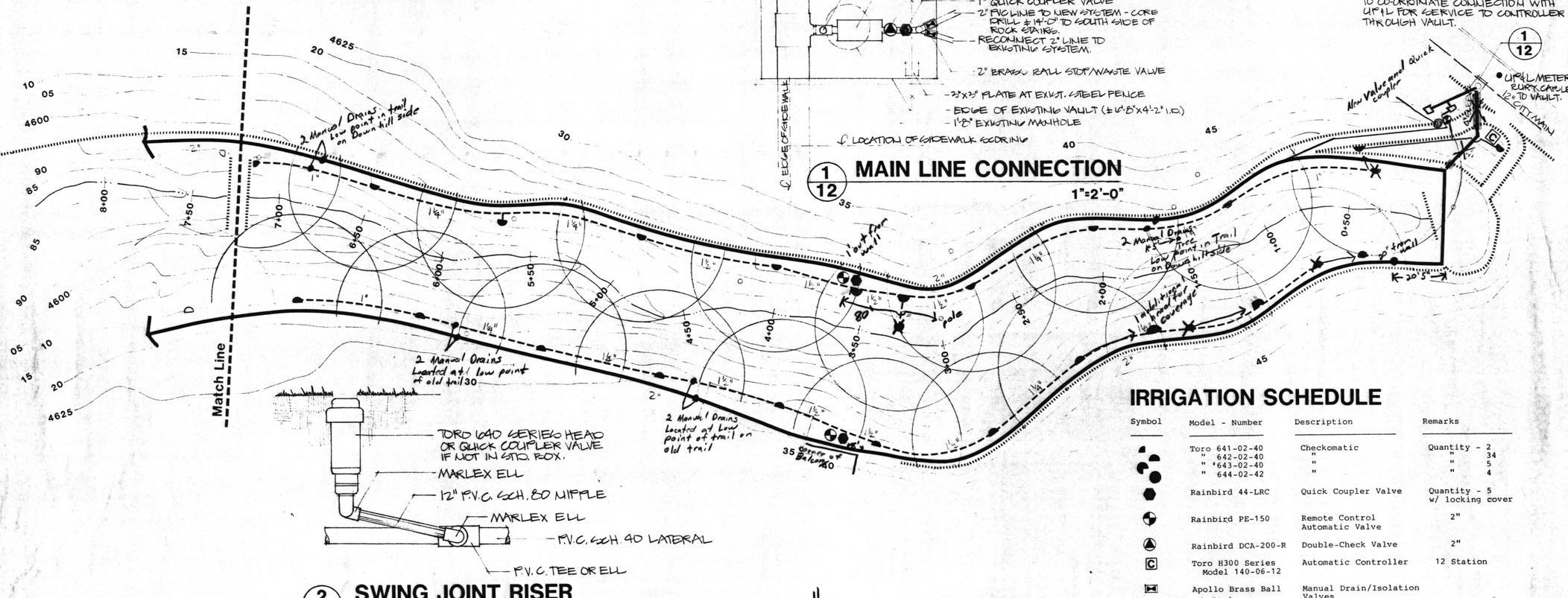
1"=30'

The Mitchell Nelson Group
Landscape Architects and Planners
19 Exchange Place Salt Lake City, Utah 84111
Palmer-Wilding
Consulting Engineers
405 S. 100 West Bountiful, Utah 84010

Safety Improvements for
Miller Park
Salt Lake City Corp. / Parks and Recreation Department

VAULT No: 0340-88
ACCT No: 19-4-96
SHEET No: 13 of 14

Sheet
L-11
Date:
Revisions:



1/12 MAIN LINE CONNECTION

1"=2'-0"

2/12 SWING JOINT RISER

NTS

110 VOLT ELECTRICAL POWER AVAILABLE AT METER. CONTRACTOR TO CO-ORDINATE CONNECTION WITH U.P.&L. FOR SERVICE TO CONTROLLER THROUGH VAULT.

1/12

U.P.&L. METER 4 WIRE CABLE 12" TO VAULT.

New Valve and Quick Coupler

12" CITY MAIN

IRRIGATION SCHEDULE

Symbol	Model - Number	Description	Remarks
	Toro 641-02-40	Checkomatic	Quantity - 2
	" 642-02-40	"	" 34
	" 643-02-40	"	" 5
	" 644-02-42	"	" 4
	Rainbird 44-LRC	Quick Coupler Valve	Quantity - 5 w/ locking cover
	Rainbird PE-150	Remote Control Automatic Valve	2"
	Rainbird DCA-200-R	Double-Check Valve	2"
C	Toro H300 Series Model 140-06-12	Automatic Controller	12 Station
	Apollo Brass Ball	Manual Drain/Isolation Valves	
	Manual Drains		

NOTES

1. All 2" diameter main service lines and control wire to be located within pathway alignments for the entire length of pathway on Diestel Road side of park; and within pathway below existing rock bridge on the Military Drive side.

2. 2" main line from 900 South to rock bridge on Military Drive side is to be located against wall and/or within pathway to be abandoned and recontoured. Minimal excavation is anticipated as backfill materials are available from adjoining grading.

3. Contractor shall communicate with Salt Lake Department of Public Utilities prior to initiating the work and shall obtain appropriate permits.

4. Access to existing vault and boring under stairs may necessitate the removal and replacement of a 10' section of sidewalk. Contractor may, at its option, leave existing sidewalk intact if authorized by City Engineer and Department of Public Utilities. In either case, existing 5' sidewalk and manhole cover are to be as currently configured.

5. Existing Rockwell meter and valve are to be retained.

6. Sleeves to controller area and park strip are to be installed with minimal impact on existing vegetation and terrain. All turf areas disturbed by addition of new value, valve box, and access to controller are to be re-sodded upon completion of the work.

7. Connect two (2) stop/waste drain valves to 1" PVC drain line through 4" sleeve to daylight south of rock steps from main vault.

8. All circuit valves shall have wire run along the main service line from the controller. All wire shall be UF-UL approved 14 gauge direct burial. Multiple wires shall be bound at regular intervals.

"RECORDS DOCUMENT"

IRRIGATION PLAN

1"=30'

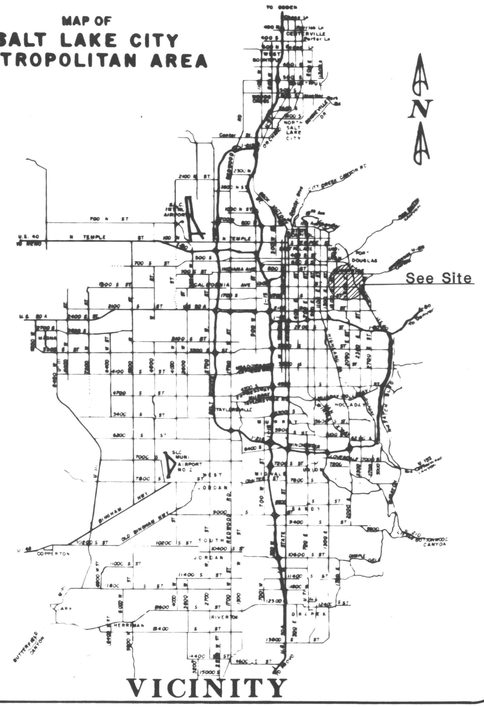
The Mitchell Nelson Group
Landscape Architects and Planners
19 Exchange Place Salt Lake City, Utah 84111
Palmer-Wilding
Consulting Engineers
405 S. 100 West Bountiful, Utah 84010

Safety Improvements for
Miller Park
Salt Lake City Corp. / Parks and Recreation Department

VAULT No: 0841-86
ACCT No: 19-Y-96
SHEET No: 14 of 14

Sheet
L-12
Date:
Revisions:

SALT LAKE CITY CORPORATION



VICINITY

SALT LAKE CITY, UTAH
PUBLIC WORKS

CONSTRUCTION PLANS FOR:

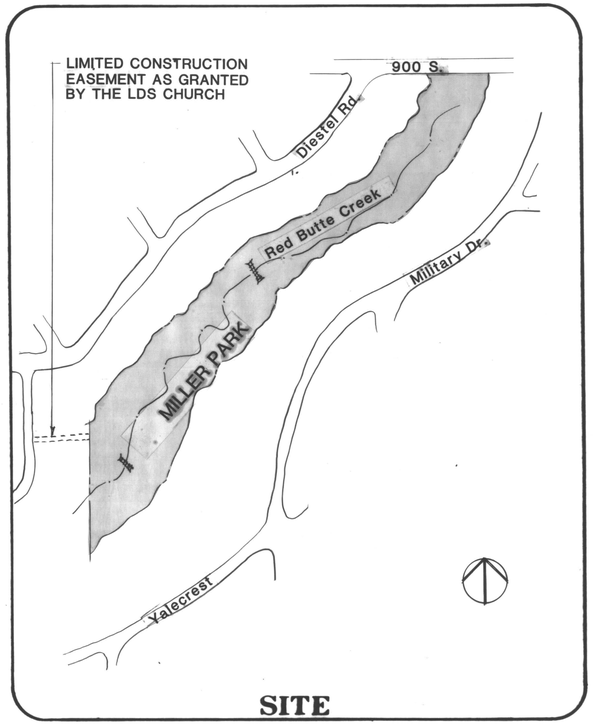
MILLER PARK IMPROVEMENTS

1700 E.900 S.

Proj. No. 19-Y-96-1

RECORD DOCUMENT

JBF NOV '93 AUTH. DCN



SITE

MAYOR		DEEDEE CORRADINI
CITY COUNCIL	DIST. 1	RONALD WHITEHEAD
	DIST. 2	PAUL HUTCHISON
	DIST. 3	NANCY PACE
	DIST. 4	ALAN HARDMAN
	DIST. 5	THOMAS M. GODFREY
	DIST. 6	ROSELYN N. KIRK
	DIST. 7	DON C. HALE

ACTING DIRECTOR OF PARKS

RICK GRAHAM — DATE 5/6/93

THIS PROJECT DESIGNED BY:

Salt Lake City
Parks And Recreation
Planning And Development

LANDSCAPE ARCHITECT — ROBERT SWAN — State of Utah

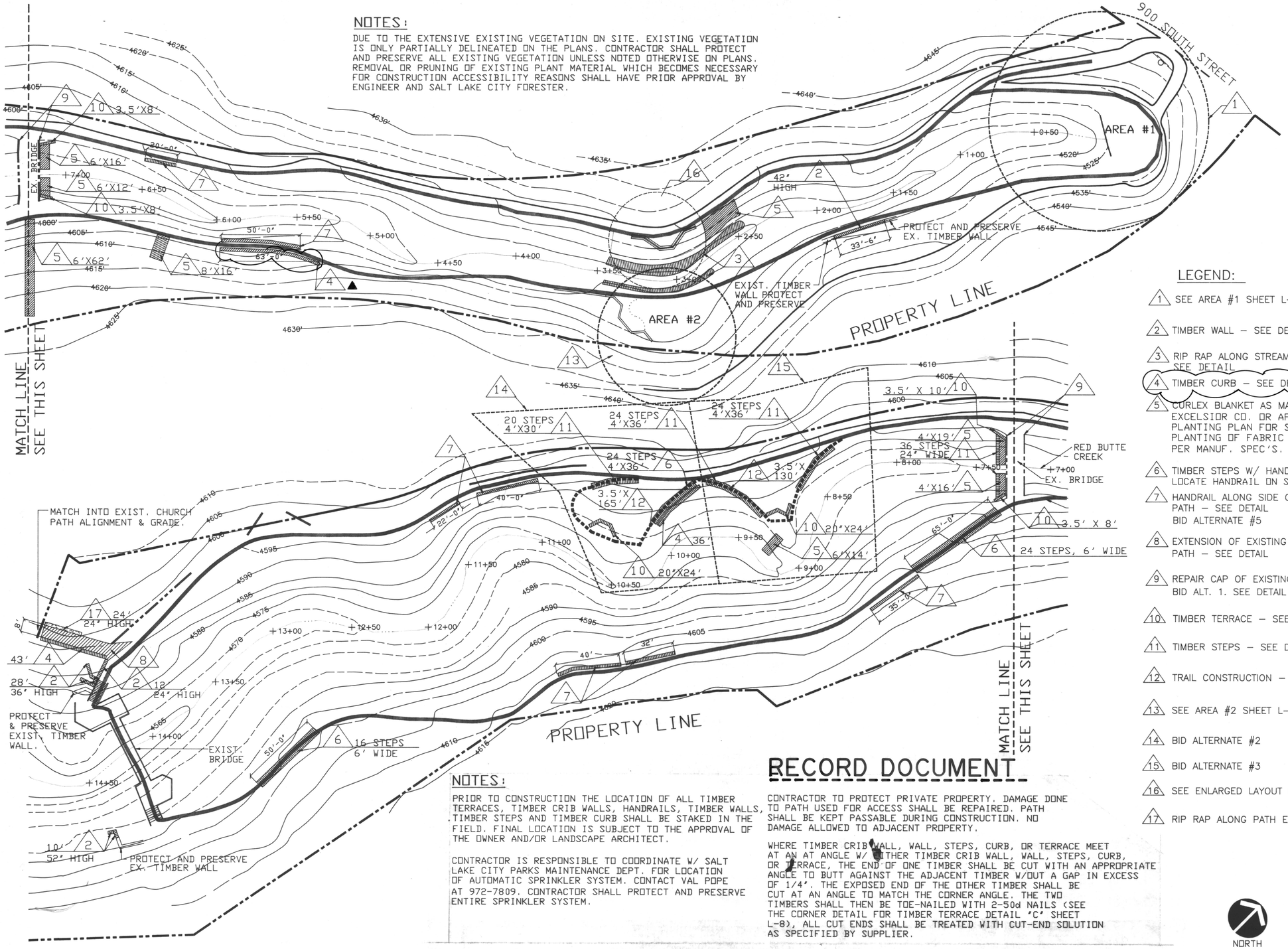
NUMBER 92-0422
ACCT. 19-Y-96-1
SHEET NO. 1
OF 10 SHEETS

PROJECT MANAGER	PLAN REVIEW	DEPT. OF PUBLIC UTILITIES	PLANNING & ZONING	DIV. OF TRANSPORTATION	CITY ENGINEER	ACTING DIRECTOR OF PUBLIC WORKS	BUILDING & HOUSING
Daniel C. Noziska 8 JUL 93	N/A	N/A	William T. Wright 8/JUL/93	N/A		7-8-93	N/A
DANIEL C. NOZISKA, P.E. DATE		LEROY HOOTON JR. DATE	BILL WRIGHT DATE	TIMOTHY P. HARPST DATE	MAX G. PETERSON, P.E. DATE	TIMOTHY P. HARPST DATE	DATE

NUMBER 92-0422
ACCT. 19-Y-96-1
SHEET NO. 1
OF 10 SHEETS

NOTES:

DUE TO THE EXTENSIVE EXISTING VEGETATION ON SITE, EXISTING VEGETATION IS ONLY PARTIALLY DELINEATED ON THE PLANS. CONTRACTOR SHALL PROTECT AND PRESERVE ALL EXISTING VEGETATION UNLESS NOTED OTHERWISE ON PLANS. REMOVAL OR PRUNING OF EXISTING PLANT MATERIAL WHICH BECOMES NECESSARY FOR CONSTRUCTION ACCESSIBILITY REASONS SHALL HAVE PRIOR APPROVAL BY ENGINEER AND SALT LAKE CITY FORESTER.



LEGEND:

1. SEE AREA #1 SHEET L-4
2. TIMBER WALL – SEE DETAIL (B / L-9)
3. RIP RAP ALONG STREAM BANK SEE DETAIL (D / L-10)
4. TIMBER CURB – SEE DETAIL (F / L-8) NOT INSTALLED
5. CURLEX BLANKET AS MANUF'D. BY AMERICAN EXCELSIOR CO. OR APP'D. EQUAL. SEE PLANTING PLAN FOR SEEDING AND PLANTING OF FABRIC AREA. INSTALL AS PER MANUF. SPEC'S.
6. TIMBER STEPS W/ HANDRAIL – SEE DETAILS (A / L-9) (E / L-8) LOCATE HANDRAIL ON STREAM SIDE OF STEPS
7. HANDRAIL ALONG SIDE OF PATH – SEE DETAIL (A / L-9) BID ALTERNATE #5
8. EXTENSION OF EXISTING PATH – SEE DETAIL (C / L-10)
9. REPAIR CAP OF EXISTING BRIDGE (D / L-8) BID ALT. 1. SEE DETAIL
10. TIMBER TERRACE – SEE DETAIL (C / L-8)
11. TIMBER STEPS – SEE DETAIL (E / L-8)
12. TRAIL CONSTRUCTION – SEE DETAIL (B / L-10)
13. SEE AREA #2 SHEET L-5
14. BID ALTERNATE #2
15. BID ALTERNATE #3
16. SEE ENLARGED LAYOUT PLAN, SHEET L-5
17. RIP RAP ALONG PATH EDGE SEE DETAIL (C / L-9)

RECORD DOCUMENT

NOTES:

PRIOR TO CONSTRUCTION THE LOCATION OF ALL TIMBER TERRACES, TIMBER CRIB WALLS, HANDRAILS, TIMBER WALLS, TIMBER STEPS AND TIMBER CURB SHALL BE STAKED IN THE FIELD. FINAL LOCATION IS SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LANDSCAPE ARCHITECT.

CONTRACTOR IS RESPONSIBLE TO COORDINATE W/ SALT LAKE CITY PARKS MAINTENANCE DEPT. FOR LOCATION OF AUTOMATIC SPRINKLER SYSTEM. CONTACT VAL POPE AT 972-7809. CONTRACTOR SHALL PROTECT AND PRESERVE ENTIRE SPRINKLER SYSTEM.

CONTRACTOR TO PROTECT PRIVATE PROPERTY. DAMAGE DONE TO PATH USED FOR ACCESS SHALL BE REPAIRED. PATH SHALL BE KEPT PASSABLE DURING CONSTRUCTION. NO DAMAGE ALLOWED TO ADJACENT PROPERTY.

WHERE TIMBER CRIB WALL, WALL, STEPS, CURB, OR TERRACE MEET AT AN AT ANGLE W/ ANOTHER TIMBER CRIB WALL, WALL, STEPS, CURB, OR TERRACE, THE END OF ONE TIMBER SHALL BE CUT WITH AN APPROPRIATE ANGLE TO BUTT AGAINST THE ADJACENT TIMBER W/OUT A GAP IN EXCESS OF 1/4". THE EXPOSED END OF THE OTHER TIMBER SHALL BE CUT AT AN ANGLE TO MATCH THE CORNER ANGLE. THE TWO TIMBERS SHALL THEN BE TOE-NAILED WITH 2-50d NAILS (SEE THE CORNER DETAIL FOR TIMBER TERRACE DETAIL 'C' SHEET L-8), ALL CUT ENDS SHALL BE TREATED WITH CUT-END SOLUTION AS SPECIFIED BY SUPPLIER.

NORTH

0 30 60 90
SCALE IN FEET

LANDSCAPE ARCHITECT No. 77 JOHN T. SWAIN State of Utah

FILE: MILLPARK.DWG

VAULT #92-0423
ACCT # 19-Y-96-1
DRAW # L-2
SHEET 2 of 10

MILLER PARK
SITE IMPROVEMENTS

NO	AUTHORIZED BY	REVISIONS	MADE BY	DATE
▲	DCN	RECORD DOC.	JBF	11/93

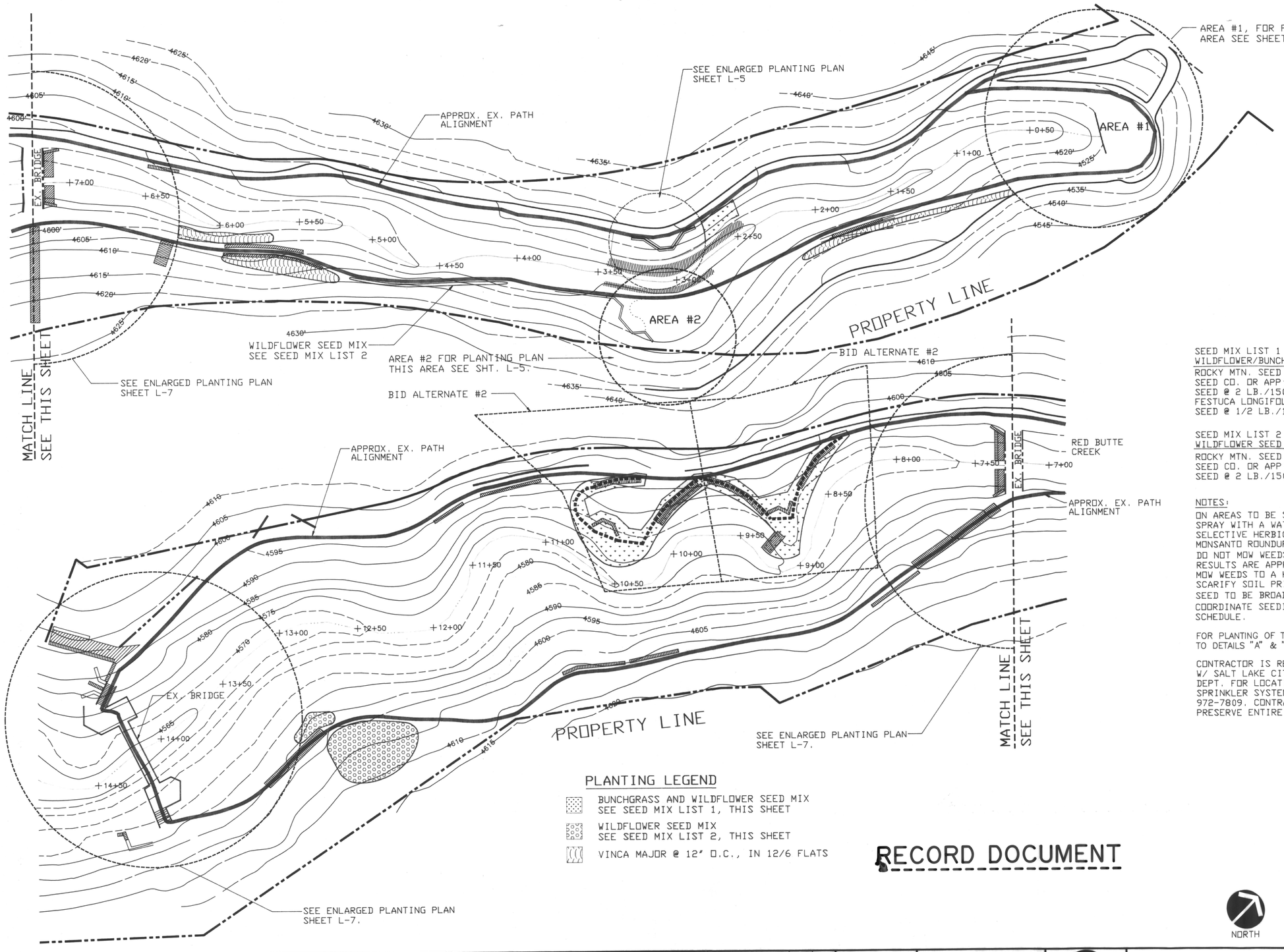
DESIGN BY PPD
DRAWN BY BB
CHECKED BY PPD
SCALE HORIZ 1"=30'
VERT
DATE JAN 1992

SALT LAKE CITY CORPORATION

Your Salt Lake City Parks & Recreation

LAYOUT PLAN

NUMBER 92-0423
ACCOUNT # 19-Y-96-1
SHEET L-2
OF 10 SHEETS



SEED MIX LIST 1
WILDFLOWER/BUNCHGRASS SEED MIX
ROCKY MTN. SEED MIX AS PER GRANITE SEED CO. OR APP'D. EQUAL
SEED @ 2 LB./1500 SF.
FESTUCA LONGIFOLIA 'DURAR'
SEED @ 1/2 LB./1500 SF.

SEED MIX LIST 2
WILDFLOWER SEED MIX
ROCKY MTN. SEED MIX AS PER GRANITE SEED CO. OR APP'D. EQUAL
SEED @ 2 LB./1500 SF.

NOTES:
ON AREAS TO BE SEEDED OR PLANTED, SPRAY WITH A WATER SOLUBLE NON-SELECTIVE HERBICIDE. SUCH AS MONSANTO ROUNDUP OR APPROVED EQUAL.
DO NOT MOW WEEDS UNTIL SPRAYING RESULTS ARE APPROVED BY ENGINEER.
MOW WEEDS TO A HEIGHT OF 3'.
SCARIFY SOIL PRIOR TO SEEDING.
SEED TO BE BROADCAST & RAKED INTO SOIL.
COORDINATE SEEDING W/ PARK WATERING SCHEDULE.

FOR PLANTING OF TREES AND SHRUBS, REFER TO DETAILS "A" & "B", SHT. L-8.

CONTRACTOR IS RESPONSIBLE TO COORDINATE W/ SALT LAKE CITY PARKS MAINTENANCE DEPT. FOR LOCATION OF AUTOMATIC SPRINKLER SYSTEM. CONTACT VAL POPE AT 972-7809. CONTRACTOR SHALL PROTECT & PRESERVE ENTIRE SPRINKLER SYSTEM.

PLANTING LEGEND

- BUNCHGRASS AND WILDFLOWER SEED MIX SEE SEED MIX LIST 1, THIS SHEET
- WILDFLOWER SEED MIX SEE SEED MIX LIST 2, THIS SHEET
- VINCA MAJOR @ 12" O.C., IN 12/6 FLATS

RECORD DOCUMENT

LANDSCAPE ARCHITECT No. 77 JOHN T. SWAIN State of Utah

NORTH

0 30 60 90
SCALE IN FEET

FILE: MILLPARK.DWG
VAULT #92-0424
ACCT# 19-Y-96-1
DRAW# L-3
SHEET 3 of 10

MILLER PARK
SITE IMPROVEMENTS

NO	AUTHORIZED BY	REVISIONS	MADE BY	DATE

DESIGN BY PPD
DRAWN BY BB
CHECKED BY PPD
SCALE HORIZ 1"=30'
VERT
DATE JAN 1992

SALT LAKE CITY CORPORATION

Your Salt Lake City Parks & Recreation

PLANTING PLAN

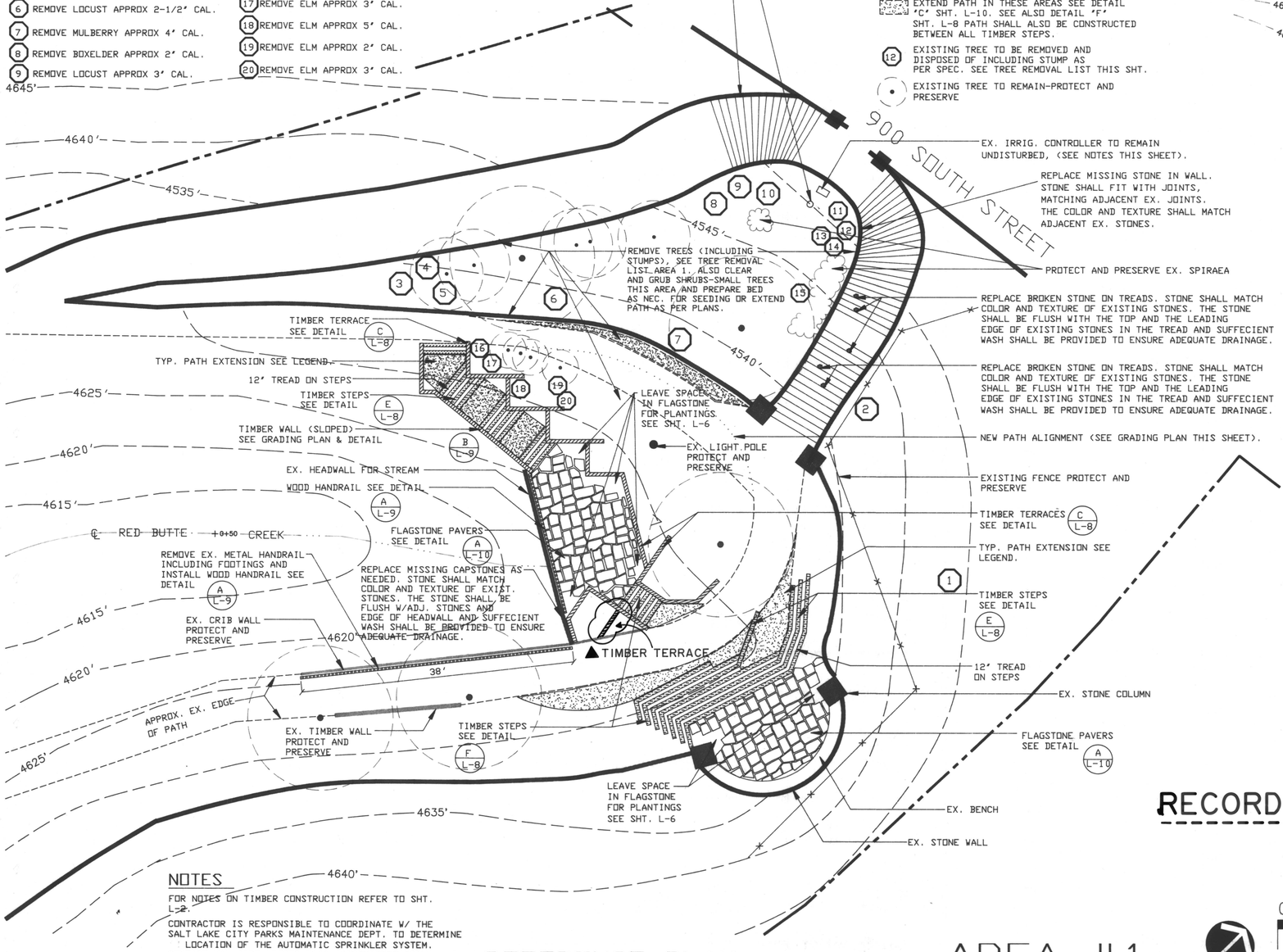
NUMBER 92-0424
ACCOUNT # 19-Y-96-1
SHEET L-3
OF 10 SHEETS

TREE REMOVAL LIST

1. REMOVE MULBERRY APPROX 11' CAL. (BLOWN ONTO IT'S SIDE ACROSS FENCE)
2. REMOVE POPLAR APPROX 24' CAL. (DEAD)
3. REMOVE MULBERRY APPROX 9' CAL. (WINDBLOWN INTO TREES ACROSS PATH)
4. REMOVE LOCUST APPROX 3-1/2' CAL.
5. REMOVE LOCUST APPROX 3' CAL.
6. REMOVE LOCUST APPROX 2-1/2' CAL.
7. REMOVE MULBERRY APPROX 4' CAL.
8. REMOVE BOXELDER APPROX 2' CAL.
9. REMOVE LOCUST APPROX 3' CAL.
10. REMOVE LOCUST APPROX 2' CAL.
11. REMOVE ELM APPROX 2-1/2' CAL.
12. REMOVE ELM APPROX 3' CAL.
13. REMOVE ELM APPROX 2-1/2' CAL.
14. REMOVE ELM APPROX 2-1/2' CAL.
15. REMOVE LOCUST APPROX 2-1/2' CAL.
16. REMOVE ELM APPROX 2-1/2' CAL.
17. REMOVE ELM APPROX 3' CAL.
18. REMOVE ELM APPROX 5' CAL.
19. REMOVE ELM APPROX 2' CAL.
20. REMOVE ELM APPROX 3' CAL.

LEGEND

- TS TOP OF STEP
- TW TOP OF WALL
- TF TOP OF FLAGSTONE
- BS BOTTOM OF STEP
- SPOT ELEV.
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED CONTOUR TIE INTO EXISTING CONTOUR
- PATH EDGE
- EXTEND PATH IN THESE AREAS SEE DETAIL 'C' SHT. L-10. SEE ALSO DETAIL 'F' SHT. L-8 PATH SHALL ALSO BE CONSTRUCTED BETWEEN ALL TIMBER STEPS.
- (12) EXISTING TREE TO BE REMOVED AND DISPOSED OF INCLUDING STUMP AS PER SPEC. SEE TREE REMOVAL LIST THIS SHT.
- EXISTING TREE TO REMAIN-PROTECT AND PRESERVE

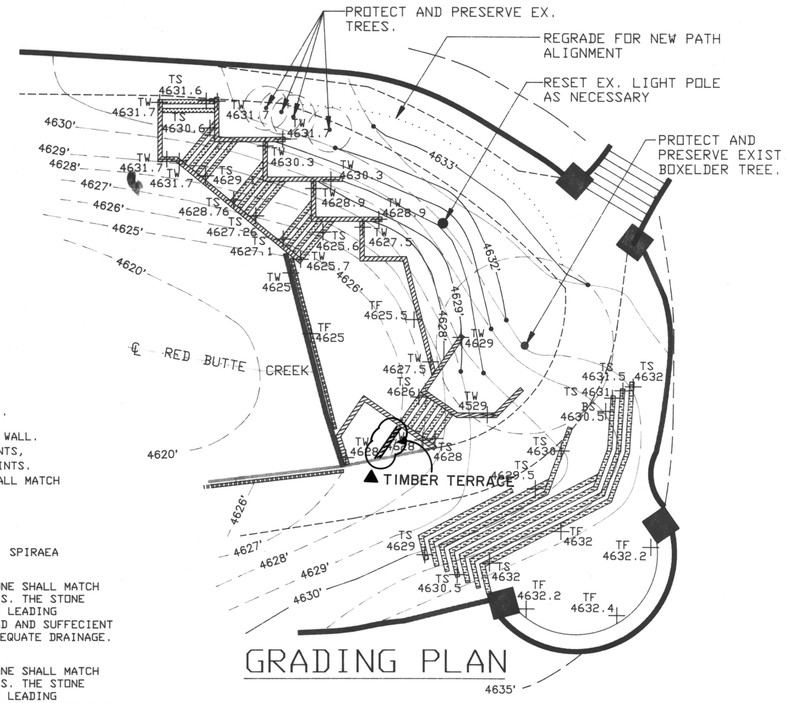


NOTES

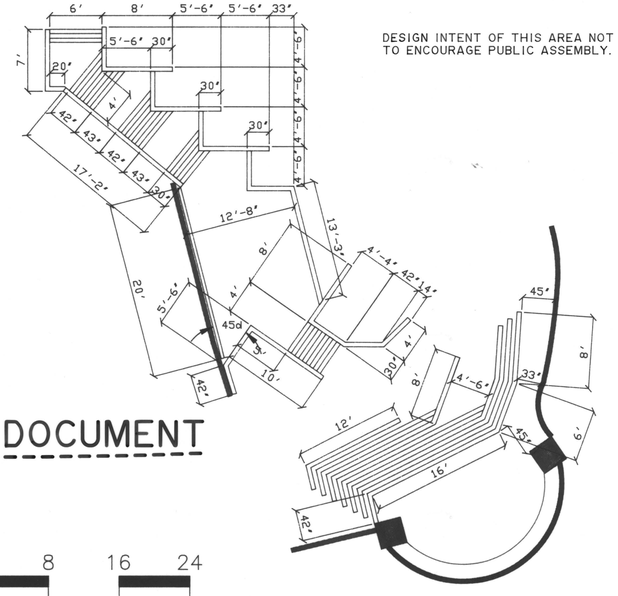
FOR NOTES ON TIMBER CONSTRUCTION REFER TO SHT. L-2.

CONTRACTOR IS RESPONSIBLE TO COORDINATE W/ THE SALT LAKE CITY PARKS MAINTENANCE DEPT. TO DETERMINE LOCATION OF THE AUTOMATIC SPRINKLER SYSTEM. CONTACT VAL POPE AT 972-7809. CONTRACTOR SHALL PROTECT & PRESERVE ALL COMPONENTS OF THE EXIST. SPRINKLER SYSTEM.

REFERENCE PLAN



GRADING PLAN



DESIGN INTENT OF THIS AREA NOT TO ENCOURAGE PUBLIC ASSEMBLY.

RECORD DOCUMENT

AREA #1

NORTH

0 8 16 24

SCALE IN FEET

LAYOUT PLAN

LANDSCAPE ARCHITECT No. 77 JOHN T. SWAIN State of Utah

FILE: MILLSLO.DWG

VAULT #92-0425
ACCT #19-4-96-1
DRAW# L-4
SHEET 4 of 10

MILLER PARK
SITE IMPROVEMENTS

NO	AUTHORIZED BY	REVISIONS	MADE BY	DATE
▲	DCN	RECORD DOC.	JBF	11/93

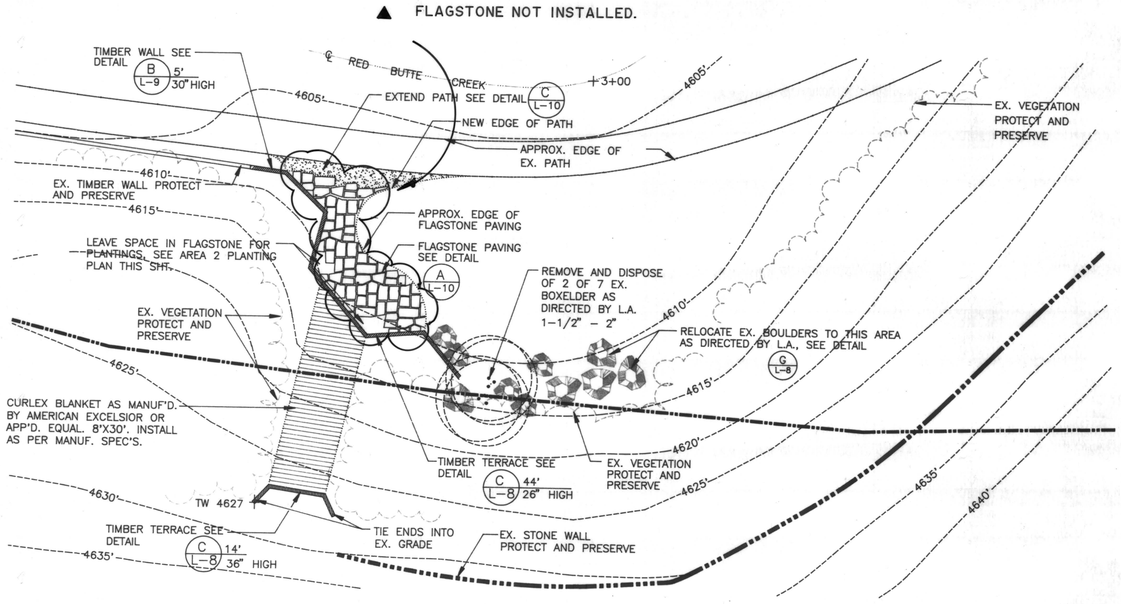
DESIGN BY PPD
DRAWN BY BB
CHECKED BY PPD
SCALE HORIZ 1"=8' VERT
DATE JAN 1992

SALT LAKE CITY CORPORATION

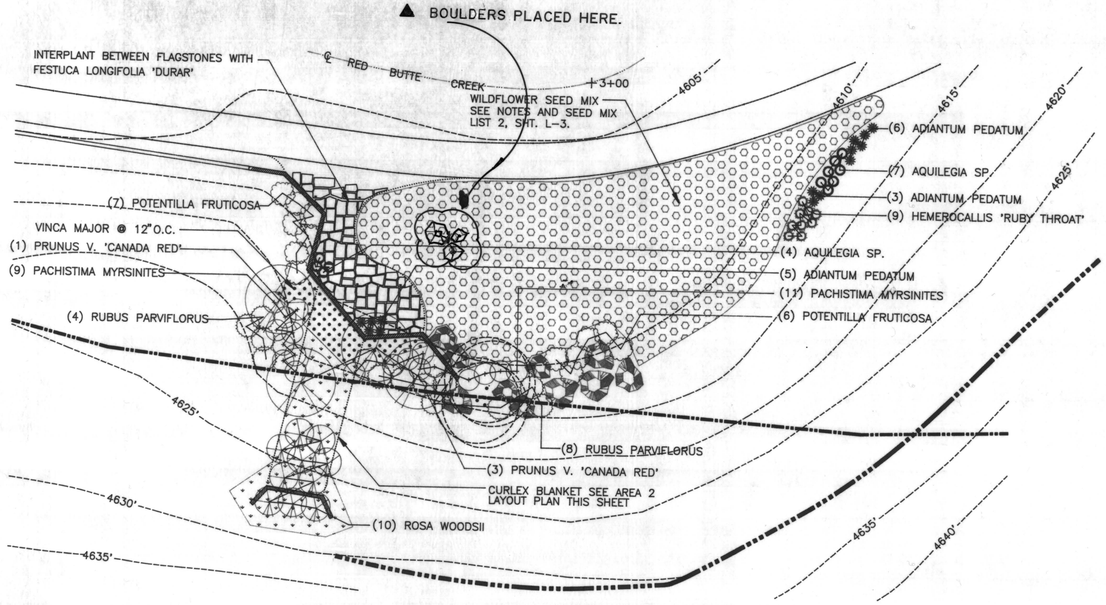
Your Salt Lake City Parks & Recreation

LAYOUT AND GRADING PLAN

NUMBER 92-0425
ACCOUNT #19-Y-96-1
SHEET L-4
OF 10 SHEETS



LAYOUT PLAN
AREA #2



PLANTING PLAN
AREA #2

PLANT SCHEDULE (AREA 2)				
QUANITY	BOTANICAL NAME	COMMON NAME	SIZE AND COND.	COMMENTS
TREES				
4	PRUNUS VIRGINIANA 'CANADA RED'	CHOKECHERRY	15 GAL.	TREE-FORM
SHRUBS, PERENNIALS AND GROUNDCOVERS				
14	ADIANTUM PEDATUM	MAIDENHAIR FERN	1 GAL.	
11	AQUILEGIA SP.	COLUMBINE	TUBEPAK	MIXED COLORS
9	HEMEROCALLIS 'RUBY THROAT'	RUBY THROAT DAYLILY	1 GAL.	
24	PACHISTIMA MYRSINITES	MOUNTAIN LOVER	1 GAL.	
20	POTENTILLA FRUTICOSA 'GOLD DROP'	CINQUEFOIL	1 GAL.	
10	ROSA WOODSII	WOOD'S ROSE	TUBEPAK	
19	RUBUS PARVIFLORUS	THIMBLEBERRY	TUBEPAK	
504	VINCA MAJOR	PERIWINKLE	FLATS OF 72	PLANT @ 12"O.C.

PLANT SCHEDULE (ENLARGED PLANTING PLAN)				
QUANITY	BOTANICAL NAME	COMMON NAME	SIZE AND COND.	COMMENTS
SHRUBS, PERENNIALS AND GROUNDCOVERS				
70	LONICERA JAPONICA 'HALLIANA'	HALL'S HONEYSUCKLE	1 GAL.	PLANT @ 3'O.C.
13	ROSA WOODSII	WOOD'S ROSE	TUBEPAK	

NOTES:

PRIOR TO CONSTRUCTION THE LOCATION OF ALL TIMBER TERRACES, TIMBER WALLS, HANDRAILS, TIMBER STEPS, EDGE OF FLAGSTONE AND TIMBER CURB SHALL BE STAKED IN THE FIELD. FINAL LOCATION IS SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LANDSCAPE ARCHITECT.

CONTRACTOR IS RESPONSIBLE TO COORDINTATE W/ SALT LAKE CITY PARKS MAINTENANCE DEPT. FOR THE LOCATION OF THE AUTOMATIC SPRINKLER SYSTEM ON SITE. CONTACT VAL POPE AT 972-7809.

CONTRACTOR SHALL PROTECT AND PRESERVE AUTOMATIC SPRINKLER SYSTEM

FOR CONSTRUCTION NOTES ON TIMBER SEE SHT. L-2.

PLANTING LEGEND

VINCA MAJOR @ 12" O.C.

WILDFLOWER/BUNCHGRASS SEED MIX, SEE SEED MIX LIST 1. SHT. L-3

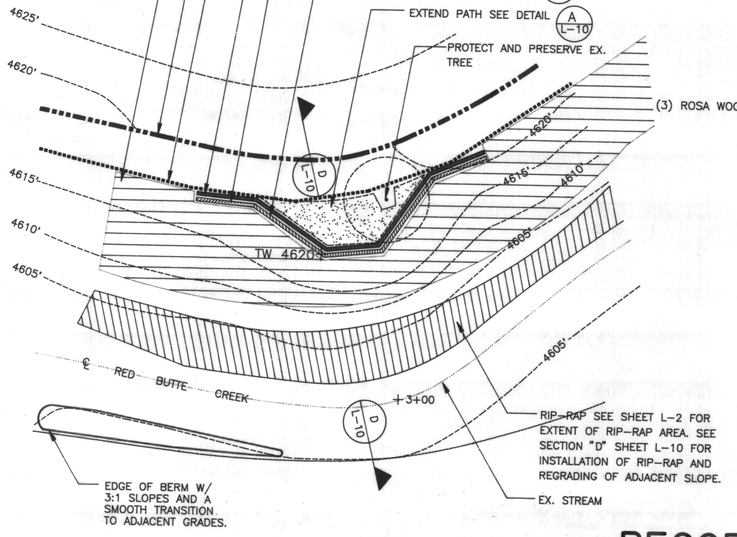
WILDFLOWER SEED MIX, SEE SEED MIX LIST 2, SHT. L-3

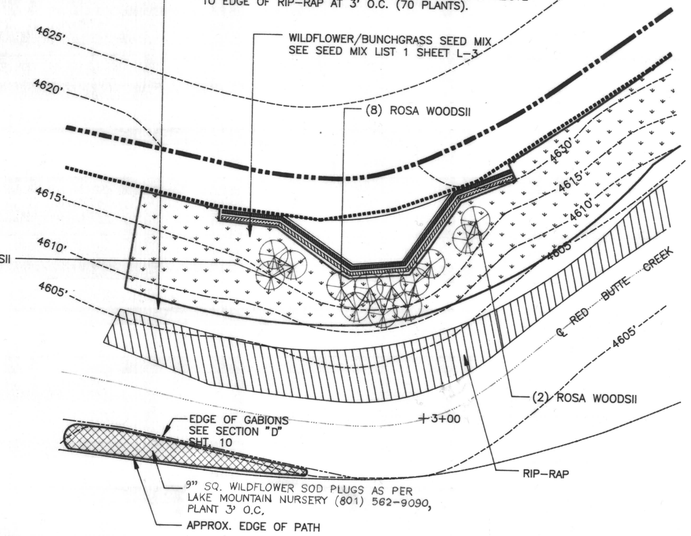
PLANTING NOTES:

FOR NOTES ON SEEDING SEE SHT. L-3.

COORDINATE SEEDING W/ PARK WATERING SCHEDULE.

FOR PLANTING OF TREES AND SHRUBS REFER TO DETAILS "A" & "B" SHT. L-8.





ENLARGED LAYOUT PLAN

ENLARGED PLANTING PLAN

RECORD DOCUMENT

NORTH

0 10 20 30

SCALE IN FEET

LANDSCAPE ARCHITECT No. 77 JOHN T. SWAIN State of Utah

VAULT#92-0426
ACCT # 19-Y-96-1
DRAW# L-5
SHEET 5 of 10

FILE: MILLBU2.DWG

MILLER PARK
SITE IMPROVEMENTS

NO	AUTHORIZED BY	REVISIONS	MADE BY	DATE
▲	DCN	RECORD DOC.	JBF	11/93

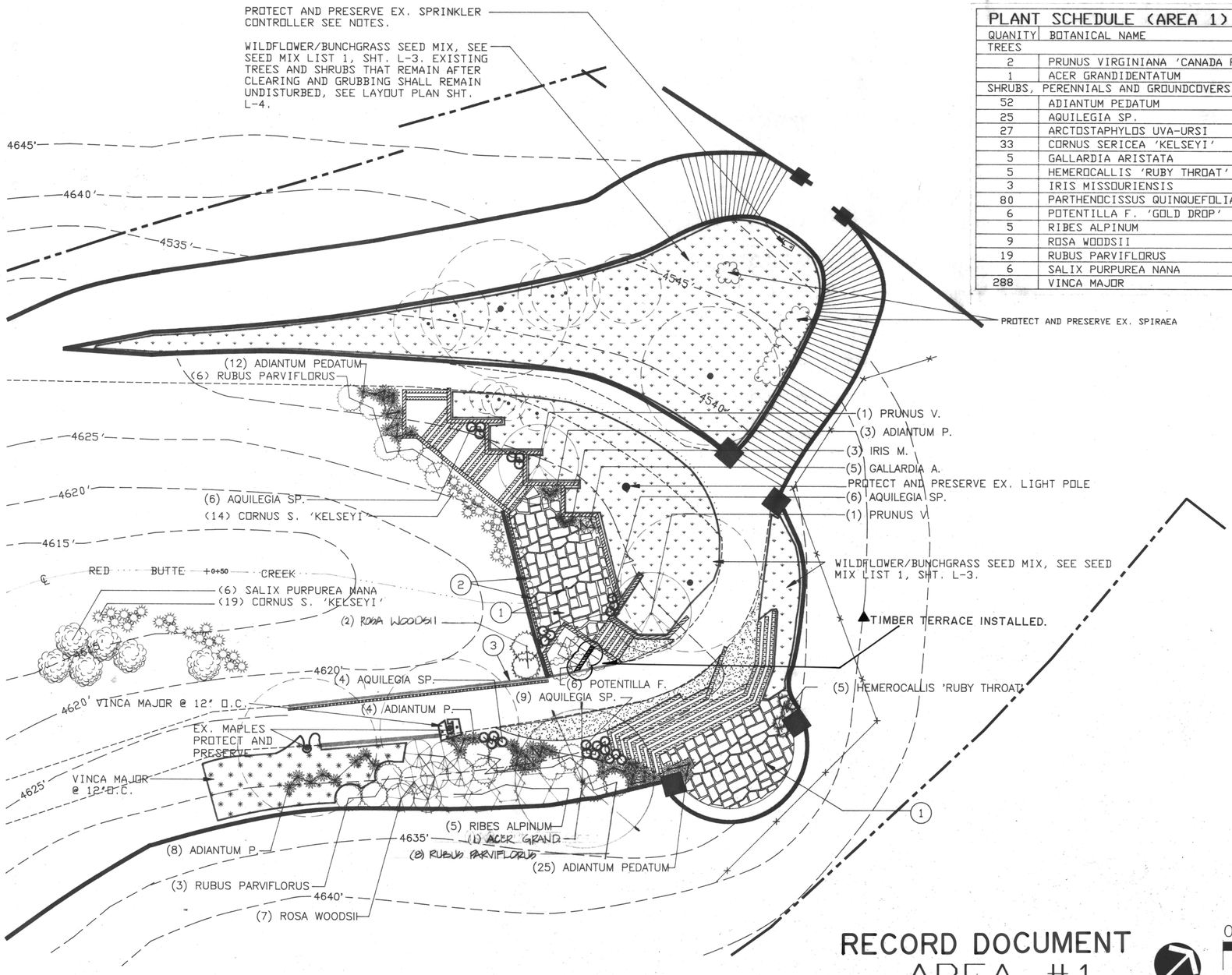
DESIGN BY PPD
DRAWN BY BB
CHECKED BY PPD
SCALE HORIZ 1"=10'
VERT
DATE JAN 1992

SALT LAKE CITY CORPORATION

Your Salt Lake City Parks & Recreation

LAYOUT AND PLANTING PLAN

NUMBER 92-0426
ACCOUNT # 19-Y-96-1
SHEET L-5
OF 10 SHEETS



PLANT SCHEDULE (AREA 1)

QUANITY	BOTANICAL NAME	COMMON NAME	SIZE AND COND.	COMMENTS
TREES				
2	PRUNUS VIRGINIANA 'CANADA RED'	CHOKECHERRY	15 GAL.	TREE-FORM
1	ACER GRANDIDENTATUM	BIGTOOTH MAPLE	15 GAL.	CLUMP
SHRUBS, PERENNIALS AND GROUNDCOVERS				
52	ADIANTUM PEDATUM	MAIDENHAIR FERN	1 GAL.	
25	AQUILEGIA SP.	COLUMBINE	TUBEPAK	PLANT @ 8' O.C.
27	ARCTOSTAPHYLOS UVA-URSI	KINNICKINNIK	TUBEPAK	PLANT @ 12' O.C.
33	CORNUS SERICEA 'KELSEYI'	KELSEY DWARF DOGWOOD	1 GAL.	
5	GALLARDIA ARISTATA	BLANKET FLOWER	TUBEPAK	
5	HEMEROCALLIS 'RUBY THROAT'	RUBY THROAT DAYLILY	1 GAL.	
3	IRIS MISSOURIENSIS	WESTERN BLUE FLAG	TUBEPAK	
80	PARTHENOCISSUS QUINQUEFOLIA	VIRGINIA CREEPER	1 GAL.	
6	POTENTILLA F. 'GOLD DROP'	CINQUEFOIL	1 GAL.	
5	RIBES ALPINUM	ALPINE CURRANT	TUBEPAK	
9	ROSA WOODSII	WOOD'S ROSE	TUBEPAK	
19	RUBUS PARVIFLORUS	THIMBLEBERRY	TUBEPAK	
6	SALIX PURPUREA NANA	BLUE ARCTIC WILLOW	1 GAL.	
288	VINCA MAJOR	BIG PERIWINKLE	FLATS	PLANT @ 12' O.C.

LEGEND

1. SEED BETWEEN FLAGSTONES WITH FESTUCA RUBRA COMMUTATA.
2. PLANT ARCTOSTAPHYLOS UVA-URSI 12' O.C. BETWEEN FLAGSTONES THIS AREA.
3. PLANT PARTHENOCISSUS QUINQUEFOLIA IN OPEN FACE CRIB WALL (3 OPEN TIERS) AT 18'O.C.

WILDFLOWER/BUNCHGRASS SEED MIX, SEE SEED MIX LIST 1, SHT. L-3.

VINCA MAJOR @ 12' O.C.

EXISTING TREE TO REMAIN (PROTECT AND PRESERVE)

NOTES

FOR PLANTING OF TREES AND SHRUBS REFER TO DETAILS "A" & "B" SHT. L-8.

CONTRACTOR IS RESPONSIBLE TO COORDINTATE W/ SALT LAKE CITY PARKS MAINTENANCE DEPT. FOR THE LOCATION OF THE AUTOMATIC SPRINKLER SYSTEM ON SITE. CONTRACTOR SHALL PROTECT AND PRESERVE AUTOMATIC SPRINKLER SYSTEM.

FINAL LOCATION OF PLANT MATERIAL IS SUBJECT TO APPROVAL BY OWNER.

FOR NOTES ON SEEDING SEE SHT. L-3.

COORDINATE SEEDING W/ PARK WATERING SCHEDULE.

RECORD DOCUMENT

AREA #1

NORTH

0 8 16 24

SCALE IN FEET

LANDSCAPE ARCHITECT No. 77 JOHN T. SWAIN State of Utah

FILE: MILLBU.DWG

VAULT #92-0427
ACCT # 19-Y-96-1
DRAW # L-6
SHEET 6 of 10

MILLER PARK
SITE IMPROVEMENTS

NO	AUTHORIZED BY	REVISIONS	MADE BY	DATE
▲	DCN	RECORD DOC.	JBF	11/93

DESIGN BY PPD
DRAWN BY BB
CHECKED BY PPD
SCALE HORIZ 1"=8'
VERT
DATE JAN 1992

SALT LAKE CITY CORPORATION

Your Salt Lake City Parks & Recreation

PLANTING PLAN

NUMBER 92-0427
ACCOUNT # 19-Y-96-1
SHEET L-6
OF 10 SHEETS

PLANT SCHEDULE

QUANITY	BOTANICAL NAME	COMMON NAME	SIZE AND COND.	COMMENTS
SHRUBS, PERENNIALS AND GROUNDCOVERS				
14	AQUILEGIA SP.	COLUMBINE	TUBEPAK	
34	CARYOPTERIS CLANDONENSIS	BLUE MIST SPIREA	1 GAL.	
20	CORNUS SERICEA 'KELSEYI'	KELSEY DWARF DOGWOOD	1 GAL.	
14	PYRACANTHA COCCINEA 'LALANDEI'	LALANDEI PYRACANTHA	5 GAL.	
23	RIBES ALPINUM	ALPINE CURRANT	TUBEPAK	
34	ROSA FOETIDA BICOLOR	AUSTRIAN COPPER ROSE	5 GAL.	
114	ROSA WOODSII	WOOD'S ROSE	TUBEPAK	
10	RUBUS PARVIFLORUS	THIMBLEBERRY	TUBEPAK	
6	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	5 GAL.	
AS REQ'D.	VINCA MAJOR	BIG PERIWINKLE	12/6 FLATS	PLANT @ 12" O.C.

NOTES:

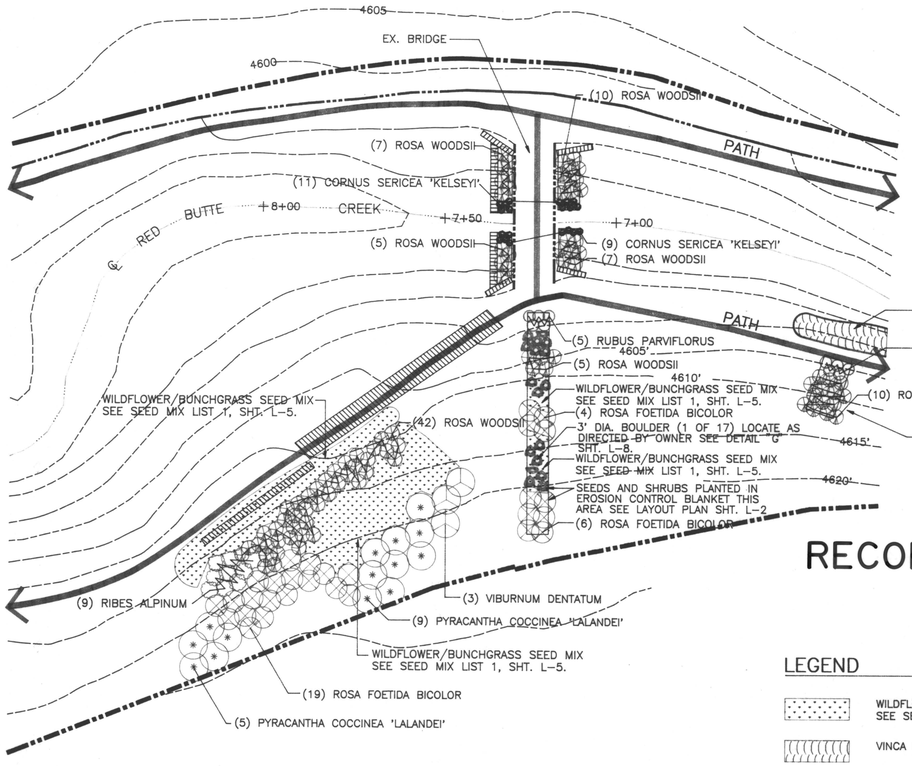
CONTRACTOR IS RESPONSIBLE TO COORDINTATE W/ SALT LAKE CITY PARKS MAINTENANCE DEPT. FOR THE LOCATION OF THE AUTOMATIC SPRINKLER SYSTEM ON SITE. CONTRACTOR SHALL PROTECT AND PRESERVE AUTOMATIC SPRINKLER SYSTEM.

PLANTING NOTES:

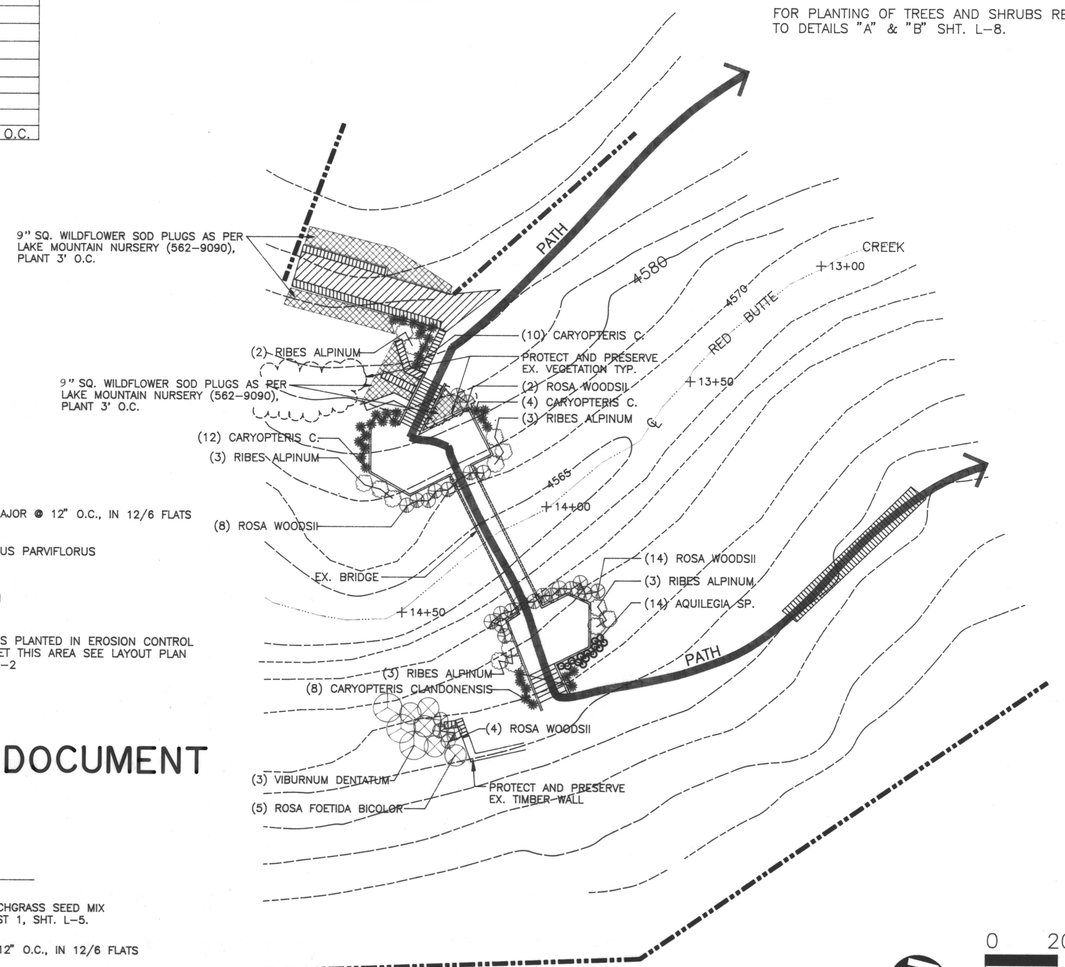
FOR NOTES ON SEEDING SEE SHT. L-3.

COORDINATE SEEDING W/ PARK WATERING SCHEDULE.

FOR PLANTING OF TREES AND SHRUBS REFER TO DETAILS "A" & "B" SHT. L-8.



ENLARGED PLANTING PLAN



ENLARGED PLANTING PLAN

RECORD DOCUMENT

LEGEND

- WILDFLOWER/BUNCHGRASS SEED MIX SEE SEED MIX LIST 1, SHT. L-5.
- VINCA MAJOR @ 12" O.C., IN 12/6 FLATS
- 9" SQ. WILDFLOWER SOD PLUGS AS PER LAKE MOUNTAIN NURSERY (801) 562-9090, PLANT 3' O.C.

NORTH

0 20 40 60

SCALE IN FEET

LANDSCAPE ARCHITECT No. 77 JOHN T. SWAIN State of Utah

FILE: MILLBU3.DWG

VAULT#92-0428
ACCT# 19-Y-96-1
DRAW# L-7
SHEET 7 of 10

MILLER PARK
SITE IMPROVEMENTS

NO	AUTHORIZED BY	REVISIONS	MADE BY	DATE

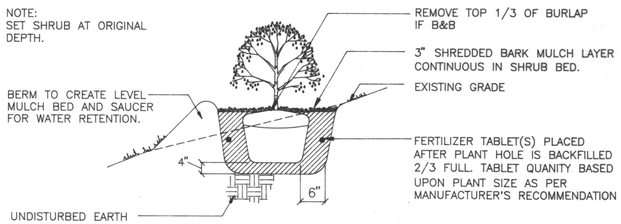
DESIGN BY JPD
DRAWN BY BB
CHECKED BY PPD
SCALE HORIZ 1"=20'
VERT
DATE JAN 1992

SALT LAKE CITY CORPORATION

Your Salt Lake City Parks & Recreation

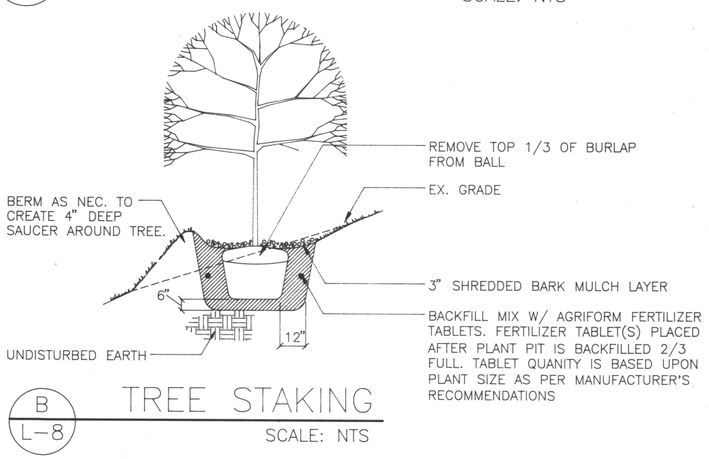
PLANTING PLAN

NUMBER 92-0428
ACCOUNT # 19-Y-96-1
SHEET L-7
OF 10 SHEETS



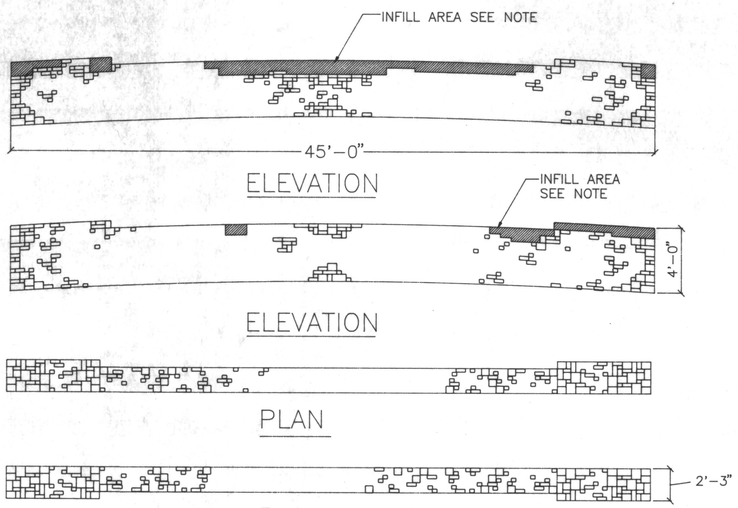
A L-8 PLANTING ON SLOPES

SCALE: NTS



B L-8 TREE STAKING

SCALE: NTS

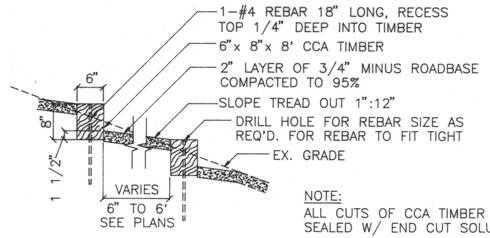


D L-8 STONE BRIDGE RESTORATION DETAIL

SCALE: 1"=5'

RESTORATION NOTES

1. AREAS INDICATED BY CROSS-HATCHING INDICATE APPROXIMATE EXTENT OF ROCK TO BE REPLACED. ACTUAL EXTENT IS TO BE DETERMINED BY CONTRACTOR AND SUBMITTED TO PROJECT ENGINEER PRIOR TO CONSTRUCTION.
2. AREA TO BE REPAIRED ALSO INCLUDES CAPSTONE TO MATCH EXISTING; EXTENT IS TO BE DETERMINED BY CONTRACTOR AND CONFIRMED IN FIELD BY CITY OR LANDSCAPE ARCHITECT.
3. ALL STONE USED FOR REPAIR TO MATCH EXISTING BRIDGE STONEWORK WITH RESPECT TO COLOR, SIZE, AND TEXTURE. WORKMANSHIP IS TO ALSO BE COINCIDENT IN WIDTH OF MORTAR SEAMS, COMPOSITION OF ROCK, AND OVERHANG OF CAPSTONES.
4. ALL STONE, EXISTING AND RESTORED AREAS, ARE TO BE LIGHTLY SANDBLASTED UPON COMPLETION OF STONEWORK AND MORTAR HAS HARDENED. ALL SURFACE AREAS OF BRIDGE ARE TO BE CLEANED TO REMOVE GRAFITTI AND PROVIDE A UNIFORM APPEARANCE.
5. LATEX MODIFIED MORTAR, PATCHCRETE OR APP'D. EQUAL SHALL BE USED FOR ALL STONE RESTORATION WORK.

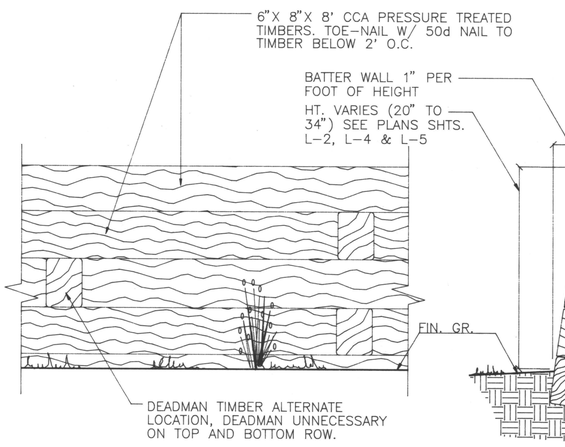


NOTE:
ALL CUTS OF CCA TIMBER SHALL BE SEALED W/ END CUT SOLUTION.

RESTORE ANY PATH DAMAGED DUE TO INSTALLATION OF TIMBER STEPS AS PER DETAIL "C" SHT. L-10.

E L-8 TIMBER STEP DETAIL

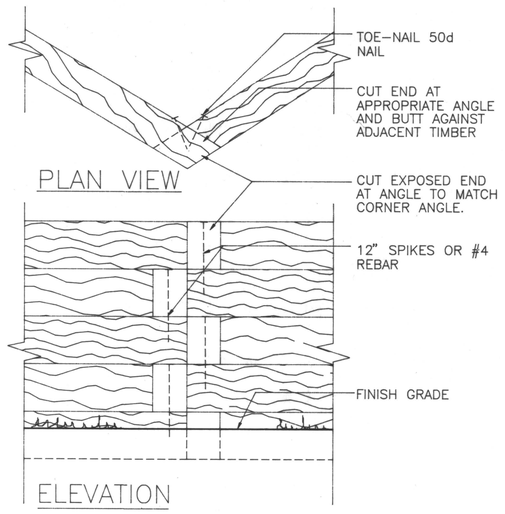
SCALE: 3/4"=1'



C L-8 TIMBER TERRACE DETAIL

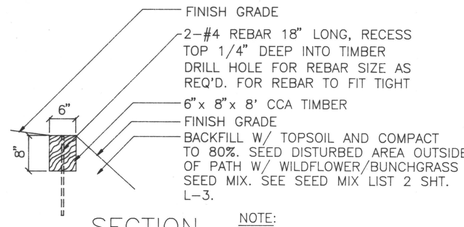
SCALE 1"=1'

NOTE:
FOR RETAINING WALL DRAINAGE BID ALTERNATE SEE DETAIL "E" SHEET L-10.



CORNER DETAIL

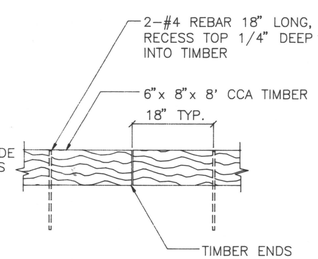
NOTE:
ALL CUTS OF CCA TIMBER SHALL BE SEALED W/ END CUT SOLUTION.



SECTION

NOTE:
ALL CUTS OF CCA TIMBER SHALL BE SEALED W/ END CUT SOLUTION

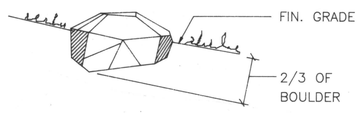
RESTORE ANY PATH DAMAGED DUE TO INSTALLATION OF TIMBER CURB AS PER DETAIL "C" SHT. L-10.



ELEVATION

F L-8 TIMBER CURB DETAIL

SCALE 1"=1'



G L-8 BOULDER DETAIL

NTS

RECORD DOCUMENT

LANDSCAPE ARCHITECT No. 77 JOHN T. SWAIN State of Utah

FILE: MDETAIL1.DWG

VAULT #93-0429
ACCT# 19-Y-96-1
DRAW# L-8
SHEET 8 of 10

MILLER PARK
SITE IMPROVEMENTS

NO	AUTHORIZED BY	REVISIONS	MADE BY	DATE

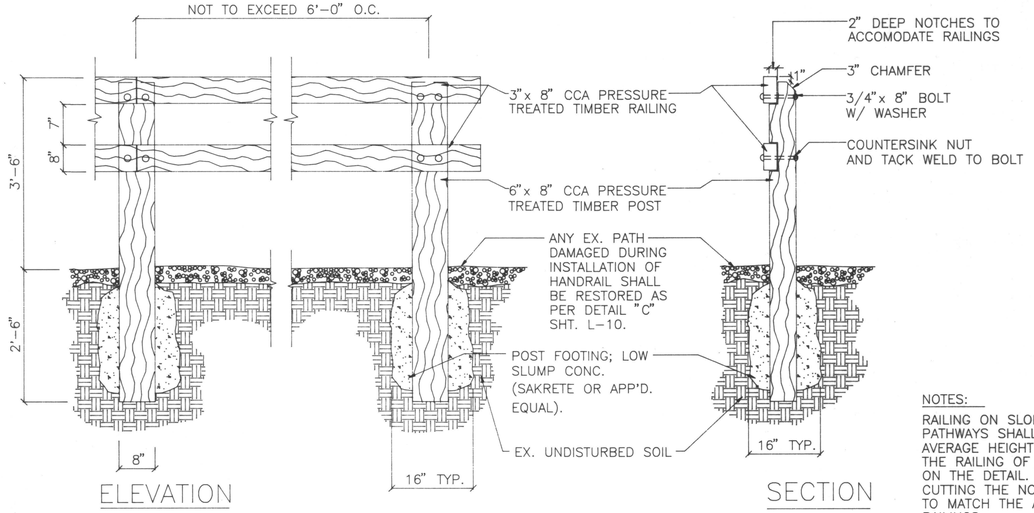
DESIGN BY PPD
DRAWN BY BB
CHECKED BY PPD
SCALE HORIZ AS NOTED
VERT
DATE JAN 1992

SALT LAKE CITY CORPORATION

Your Salt Lake City Parks & Recreation

DETAILS

NUMBER 93-0429
ACCOUNT # 19-Y-96-1
SHEET L-8
OF 10 SHEETS



A L-9 TIMBER HAND RAILING DETAIL

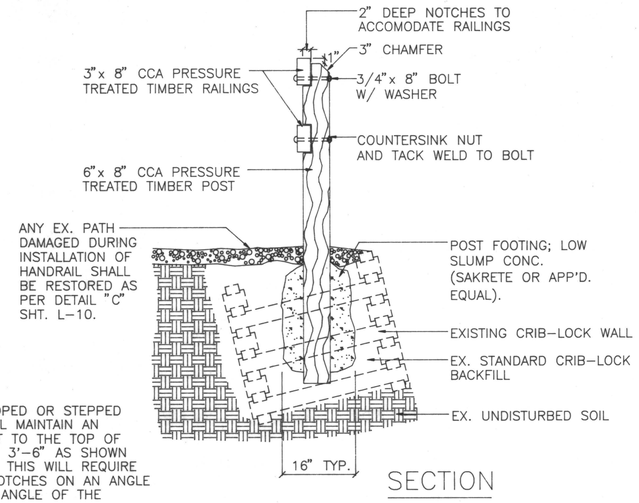
SCALE: 3/4"=1'-0"

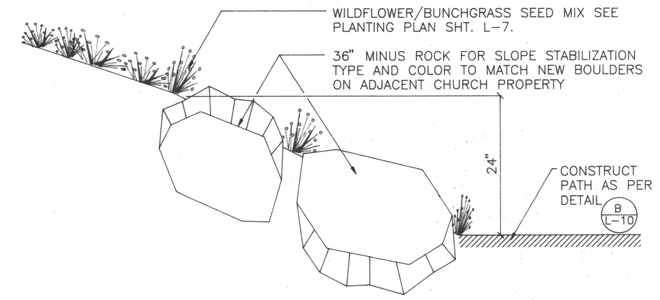
NOTES:

RAILING ON SLOPED OR STEPPED PATHWAYS SHALL MAINTAIN AN AVERAGE HEIGHT TO THE TOP OF THE RAILING OF 3'-6" AS SHOWN ON THE DETAIL. THIS WILL REQUIRE CUTTING THE NOTCHES ON AN ANGLE TO MATCH THE ANGLE OF THE RAILINGS.

EXACT LOCATION OF RAILINGS SHALL BE DETERMINED IN THE FIELD BY THE LANDSCAPE ARCHITECT.

ALL THROUGH BOLTS TO BE GALVANIZED.

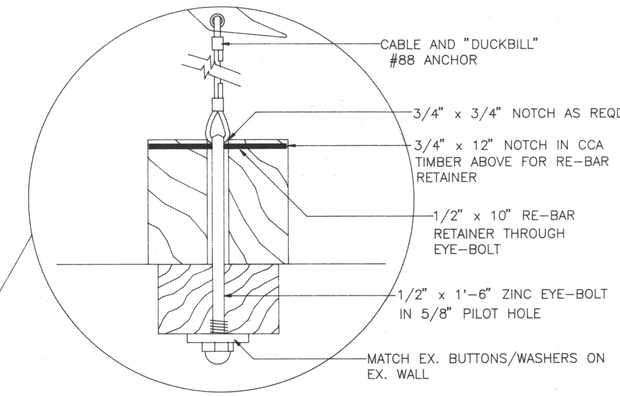




C L-9 RIP-RAP AT PATH EDGE DETAIL

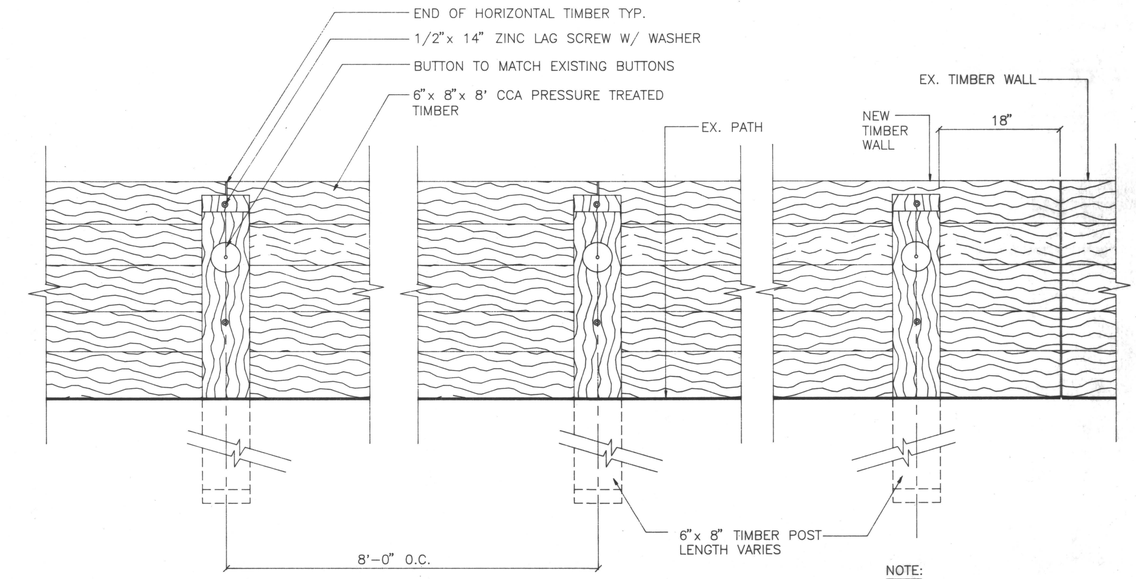
N.T.S.

RECORD DOCUMENT



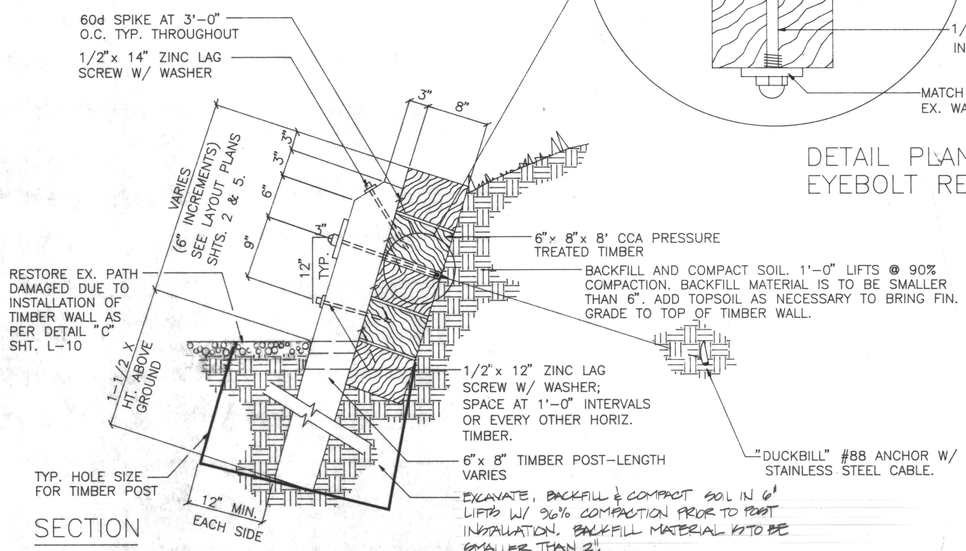
DETAIL PLAN VIEW
EYEBOLT RETAINER

SCALE: NTS



NOTE:

FOR RETAINING WALL DRAINAGE BID ALTERNATE SEE DETAIL "E" SHEET L-10.



B L-9 TIMBER WALL DETAIL

SCALE: 1"=1'-0"

NOTE:

ALL LAG SCREWS TO BE ZINC COATED.

LANDSCAPE ARCHITECT No. 77 JOHN T. SWAIN State of Utah

FILE: MDETAIL2.DWG

VAULT #92-0430
ACCT #19-Y-96-1
DRAW# L-9
SHEET 9 of 10

MILLER PARK
SITE IMPROVEMENTS

NO	AUTHORIZED BY	REVISIONS	MADE BY	DATE

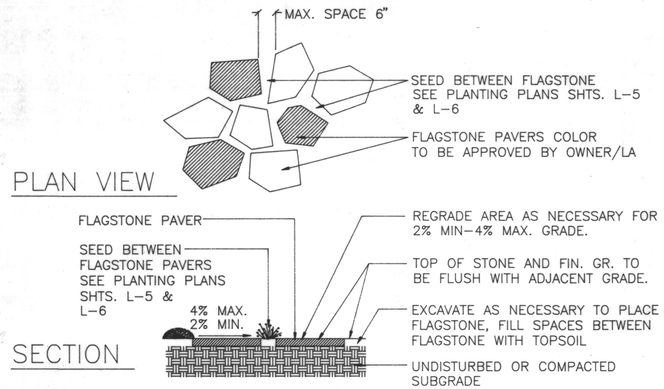
DESIGN BY PPD
DRAWN BY BB
CHECKED BY PPD
SCALE HORIZ AS NOTED VERT
DATE JAN 1992

SALT LAKE CITY CORPORATION

Your Salt Lake City Parks & Recreation

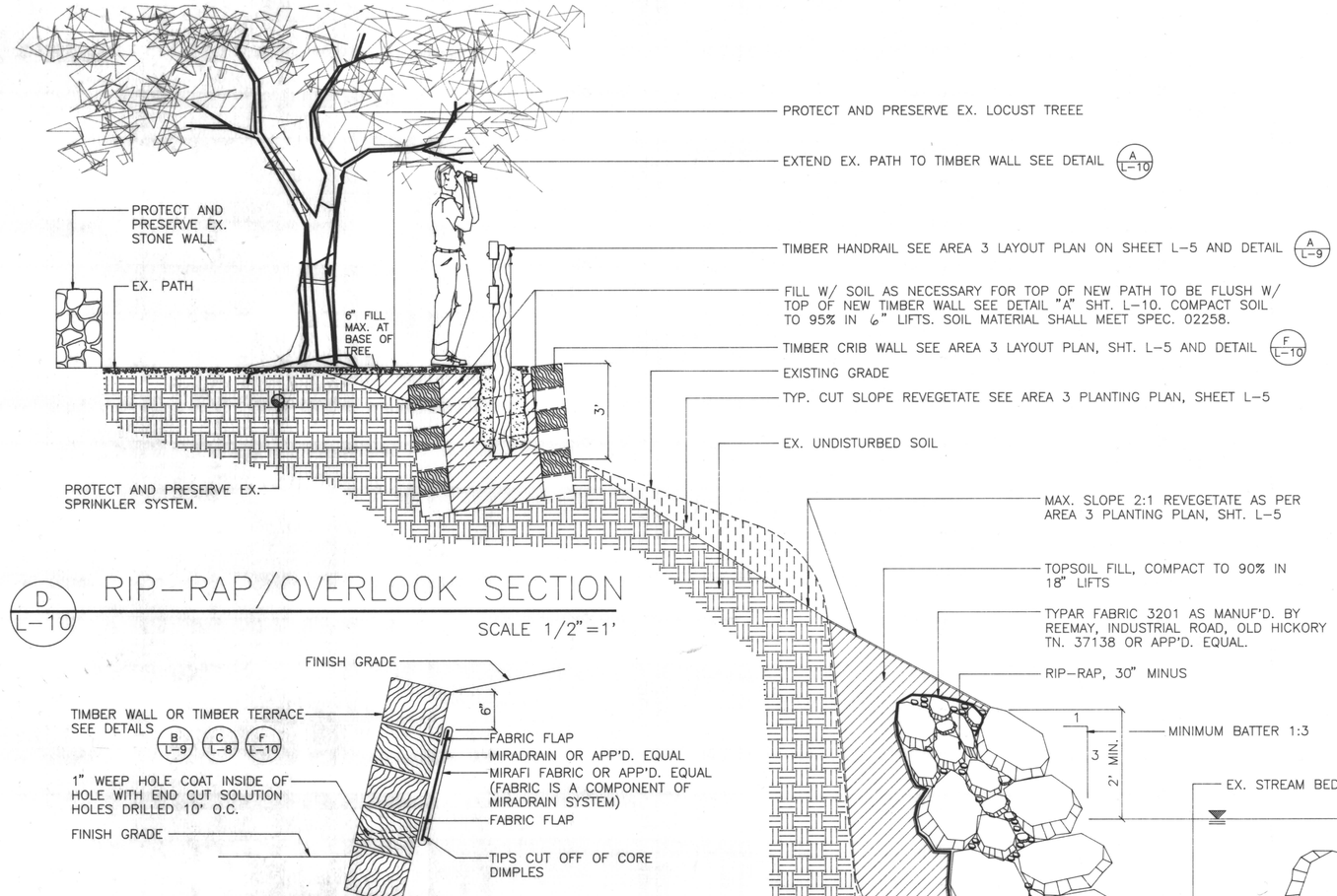
DETAILS

NUMBER 92-0430
ACCOUNT # 19-Y-96-1
SHEET L-9
OF 10 SHEETS



A L-10 FLAGSTONE PAVING DETAIL

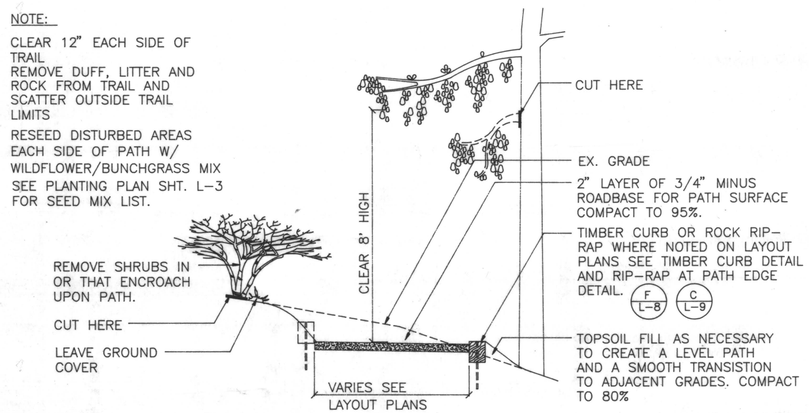
NTS



D L-10 RIP-RAP/OVERLOOK SECTION

SCALE 1/2"=1'

NOTE:
CLEAR 12" EACH SIDE OF TRAIL
REMOVE DUFF, LITTER AND ROCK FROM TRAIL AND SCATTER OUTSIDE TRAIL LIMITS
RESEED DISTURBED AREAS EACH SIDE OF PATH W/ WILDFLOWER/BUNCHGRASS MIX SEE PLANTING PLAN SHT. L-3 FOR SEED MIX LIST.

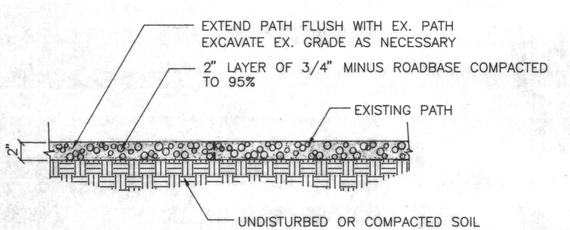


B L-10 TRAIL CONSTRUCTION

NTS

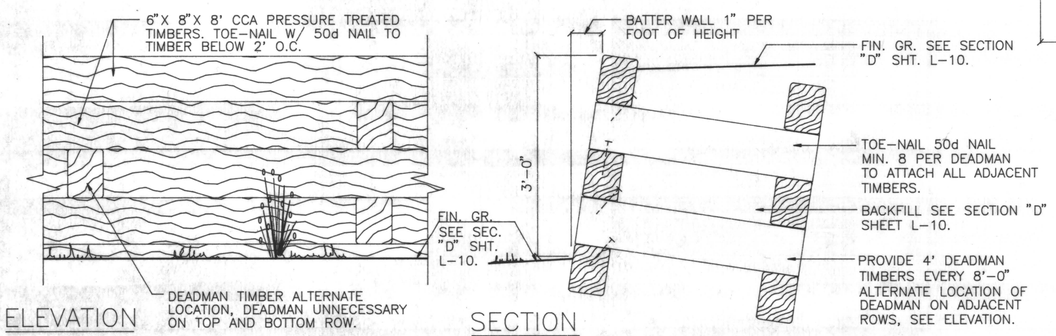
E L-10 RETAINING WALL DRAINAGE

(BID ALTERNATE #4) SCALE 1"=1'



C L-10 EXTENDED PATH SECTION

NTS



F L-10 TIMBER CRIB WALL DETAIL

SCALE 1"=1'

NOTE:
FOR RETAINING WALL DRAINAGE BID ALTERNATE SEE DETAIL "E" SHEET L-10.

RECORD DOCUMENT

LANDSCAPE ARCHITECT No. 77 JOHN T. SWAIN State of Utah

FILE: MDETAILS.DWG
VAULT#92-0431
ACCT# 19-Y-96-1
DRAW# L-10
SHEET 10 of 10

MILLER PARK
SITE IMPROVEMENTS

NO	AUTHORIZED BY	REVISIONS	MADE BY	DATE

DESIGN BY PPD
DRAWN BY BB
CHECKED BY PPD
SCALE HORIZ AS NOTED
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SALT LAKE CITY CORPORATION

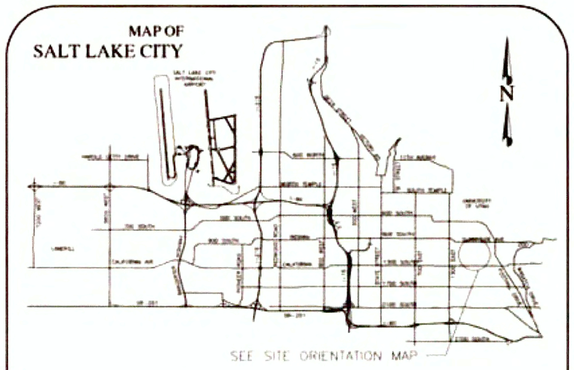
Your Salt Lake City Parks & Recreation

DETAILS

NUMBER 92-0431
ACCOUNT # 19-Y-96-1
SHEET L-10
OF 10 SHEETS

SALT LAKE CITY CORPORATION

MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION
(RED BUTTE CREEK)
JOB NO. 810802

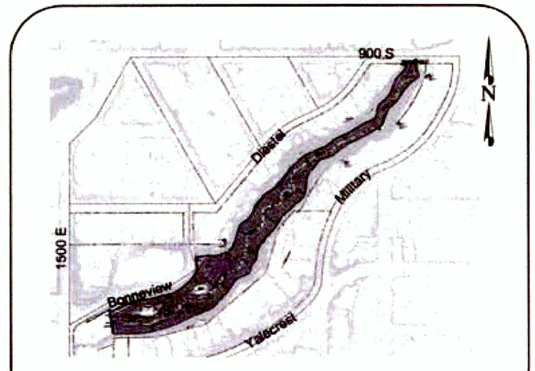


VICINITY MAP

SHEET SET ASSEMBLY ORDER

SHEET NUMBER	SHEET TITLE
L0.01	GENERAL INFO. SITE ORIENTATION
L0.02	GENERAL INFO. LEGENDS & NOTES
L0.03	GENERAL INFO. CONSTRUCTION ACCESS
L0.04	GENERAL INFO. STAGING AREA
L1.01	DEMOLITION PLAN
L1.02	DEMOLITION PLAN
L1.03	DEMOLITION PLAN
L1.04	DEMOLITION PLAN
L2.01	MATERIALS PLAN
L2.02	MATERIALS PLAN
L2.03	MATERIALS PLAN
L2.04	MATERIALS PLAN
L3.01	LAYOUT PLAN
L3.02	LAYOUT PLAN
L3.03	LAYOUT PLAN
L3.04	LAYOUT PLAN
L3.05	LAYOUT PLAN
L3.06	LAYOUT PLAN
L3.07	LAYOUT PLAN
L3.08	LAYOUT PLAN
L4.01	GRADING PLAN
L4.02	GRADING PLAN
L4.03	GRADING PLAN
L4.04	GRADING PLAN
L5.01	PLANTING PLAN
L5.02	PLANTING PLAN
L5.03	PLANTING PLAN
L5.04	PLANTING PLAN
L6.01	IRRIGATION PLAN
L6.02	IRRIGATION PLAN
L6.03	IRRIGATION PLAN
L6.04	IRRIGATION PLAN
L7.01	SITE DETAILS
L7.02	SITE DETAILS
L7.03	SITE DETAILS
L7.04	SITE DETAILS
L7.05	SITE DETAILS
L7.06	SITE DETAILS
L7.07	SITE DETAILS
L7.08	SITE DETAILS
L7.09	SITE DETAILS
L7.10	SITE DETAILS
L7.11	SITE DETAILS
L7.12	SITE DETAILS

L8.01 to L8.07 REFARATION



SITE ORIENTATION MAP

CITY OFFICIALS

	MAYOR	RALPH BECKER
CITY COUNCIL	DIST. 1	CARLTON J CHRISTENSEN
	DIST. 2	KYLE LaMALFA
	DIST. 3	STAN PENFOLD
	DIST. 4	LUKE GARROTT
	DIST. 5	JILL REMINGTON LOVE
	DIST. 6	CHARLIE LUKE
	DIST. 7	SOREN D. SIMONSEN
PUBLIC SERVICES DIRECTOR		RICK GRAHAM
CITY ENGINEER		JEFF SNELLING, S.E.

RECORD DOCUMENT

DESIGNER

Biohabitats
SOUTHERN ROCKY MOUNTAIN BIOREGION
1732 Wazee Street Suite 209
Denver, CO 80202 / ph: 303.477.0660
fx: 303.477.4648 / www.biohabitats.com
Restore the Earth & Inspire Ecological Stewardship

DESIGNWORKSHOP
Landscape Architecture • Land Planning
Urban Design • Strategic Services
Aspen • Austin • Denver • Salt Lake City • Lake Tahoe
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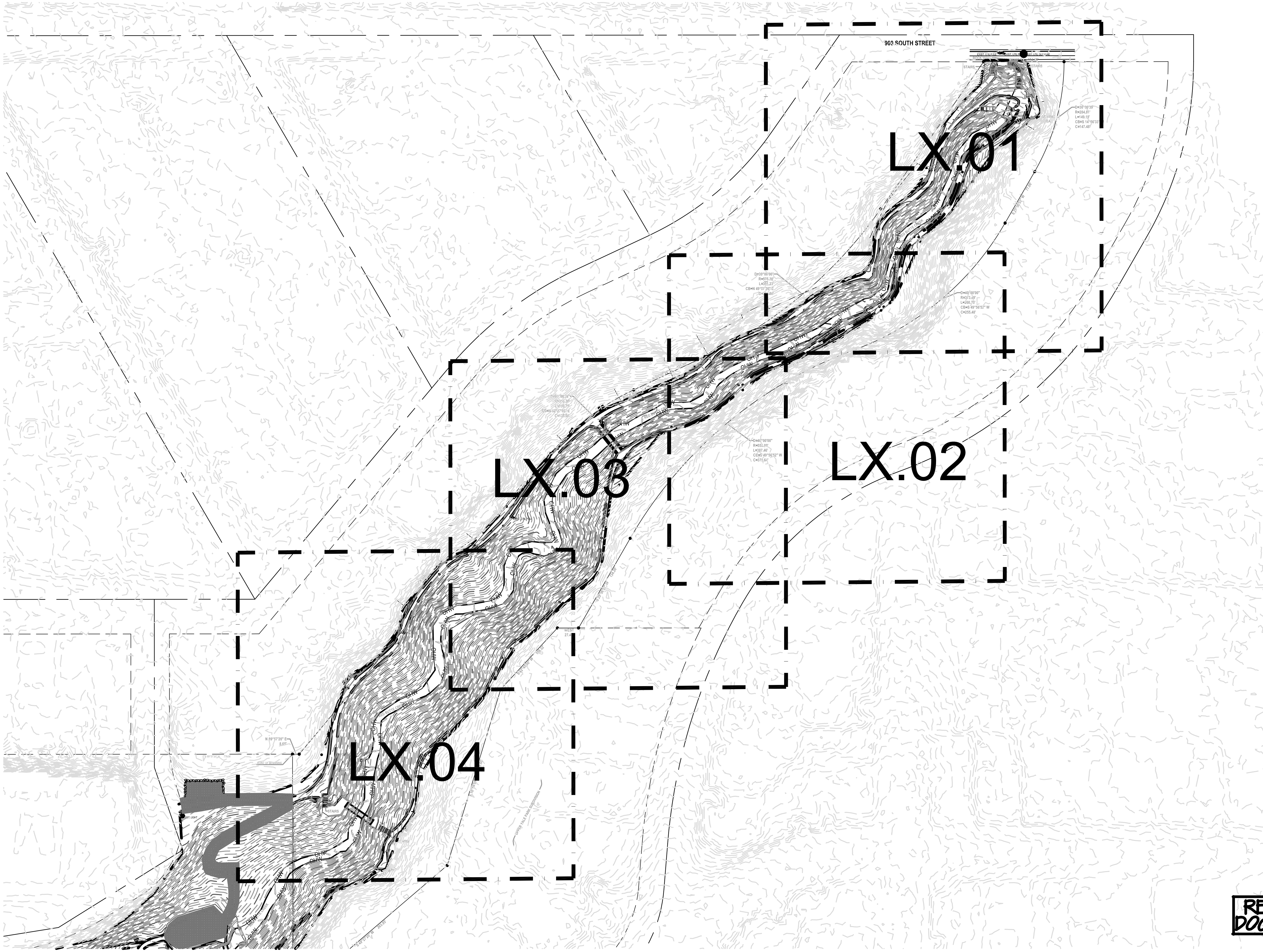
Salt Lake City, UT 84101-1801
(801) 359-4771
Facsimile (801) 359-4411

CITY ENGINEER	CITY PROJECT MANAGER	PARKS & PUBLIC LANDS DIRECTOR	PROJECT DESIGNER	CITY OFFICIAL 5
JEFF SNELLING, S.E. — DATE 12-19-13	RON SALISBURY, PLA, ASLA — DATE 12/18/2013	TODD REESE, CPRP, RLA — DATE 12/18/13	TERRALL BUDGE, ~~PRINCIPAL~~ — DATE 12/20/13	APPROVED BY — DATE

MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)
JOB NO. 810802

SHEET 1 of 52



PREPARER:
SALT LAKE CITY CORPORATION
349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:
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PROFESSIONAL SEAL:
STATE OF UTAH
Terrell V. Budge
LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810802
FILE #:
DRAWING FILE:
DRAWN BY:
CHECKED BY:
COPYRIGHT:

SHEET TITLE:
General Information
Site Orientation

SHEET IDENTIFIER:
L0.01

BINDING ORDER

GENERAL NOTES

1. Source of base sheets information is Salt Lake City Corporation. Any discrepancy in the accuracy of the survey shall be brought to the attention of the Owner and Landscape Architect immediately for instructions prior to commencing work.

2. Verify locations of pertinent site improvements installed under other sections. If any part of this plan cannot be followed due to site conditions, contact Landscape Architect for instructions prior to commencing work.

3. Contact Bluestakes underground utility service for utility location and identification 48 hours prior to any excavation. If actual site conditions vary from what is shown on the plans, contact the Landscape Architect for direction as to how to proceed.

4. Perform excavation in the vicinity of underground utilities with care and if necessary, by hand. The Contractor bears full responsibility for this work and disruption or damage to utilities shall be repaired immediately at no expense to the Owner.

5. Request inspection as required 48 hours in advance of performing any work unless otherwise noted on this sheet or per city requirements.

6. Debris created by removal operations become the property of the Contractor and is to be legally disposed of away from the job site.

LAYOUT NOTES

1. Layout and verify dimensions prior to construction. Bring discrepancies to the attention of the Landscape Architect.

2. Written dimensions take precedence over scale. Do not scale drawings.

3. Where dimensions are called as "equal," space referenced items equally, measured to their center lines.

4. Measurements are to face of building, wall or the fixed site improvement. Dimension to center lines as indicated.

5. Install intersecting elements at 90 degree angles to each other unless otherwise noted.

6. Provide expansion joints where concrete flat work meets vertical structures such as walls, curbs, steps and building elements.

7. Expansion joints in walkways shall be located as indicated in the drawings.

LANDSCAPE PLANTING NOTES

1. Exact locations of plant materials to be approved by the Landscape Architect in the field prior to installation. Landscape Architect reserves the right to adjust plants to exact location in field.

2. Verify plant counts and square footages: Quantities are provided as Owner information only. If quantities on plant list differ from graphic indications, then graphics shall prevail.

3. Trees shall bear same relation to finished grade as it bore to existing condition prior to being field dug.

4. Trees to be planted a minimum of 4 feet from face of building, or pavement, except as approved by Landscape Architect.

5. Provide matching forms and sizes for plant materials within each species and size designated on the drawings.

6. Prune newly planted trees only as directed by Landscape Architect.

7. Align and equally space in all directions shrubs as designated per these notes and drawings.

8. Provide specified edging as divider between planting/mulch beds, turf areas and stone mulch beds.

IRRIGATION NOTES

1. Exact locations of major irrigation components to be approved by the landscape architect in the field prior to installation.

2. Irrigation main line and/or other components are shown schematically in hardscapes for graphic clarity only. All irrigation components shall be located in landscaped areas.

3. Place remote control valves in logical groupings as field conditions permit. All remote control valves and quick coupler valves shall be isolated from the main line via an isolation valve as shown in details.

4. Quick coupler valves in landscaped areas shall be installed as close as possible to plan locations. Quick coupler valve spacing shall not exceed 200 feet apart to allow for hand watering of plant material.

5. Spray sprinklers are designed for 30 psi at the head. Rotor sprinklers are designed for 45 psi at the head.

6. The contractor shall be responsible for the complete drainage of all sprinkler lines to an adequate sized gravel sump and drain valve. The sump shall be large enough to hold three (3) times the capacity of all lines draining into it and shall be a minimum of three (3) cubic feet volume.

7. All pvc mainlines shall be a minimum of 18" below the finished grade and backfilled with sand or other non-lumpy and rocky soil types as per the manufacturer's specifications.

8. All pvc lateral lines shall be a minimum of 12" below the finished grade and backfilled as per item #8 above.

9. The contractor shall, at final inspection, supply the owner or owner's agent with one 33DLRC quick coupler valve key complete with $\frac{3}{4}$" hose bib connection, which will plug into quick couplers as located on the plan.

10. The contractor shall supply the owner or owner's agent, prior to final inspection, with complete as-built drawings including written start-up and shut-down procedures, a complete materials supply list with all materials used and accompanying parts breakdown, as well as names, addresses, and phone numbers of the contractors and the local distributors of the various materials used.

11. The contractor shall be responsible for the installation of all mainlines, conduit and sleeves under paved areas as indicated on the plans. All piping under pavement shall be placed a minimum of 18" below the finished grade and extended a minimum of 12" beyond the back of curb or edge of paved surface.

12. All sleeving shall extend a minimum of 1'-6" beyond edge of pathway on both sides and shall be 1'-6" deep at both ends.

13. All sprinkler pipe shall be placed on uniformly solid trench material without any humps or depressions. Unsuitable trench bottoms shall have uniformly placed and compacted sand bedding material prior to placement of pipe. All pipe backfill material shall be clean excavated (or imported if req'd) material with no rocks larger than 1" circumference. Place backfill material in 6" lifts compacting each layer.

TABLE OF ABBREVIATIONS

APPROX	APPROXIMATE	MH	MANHOLE
ARCH	ARCHITECT	MIN	MINIMUM
AVG	AVERAGE	MISC	MISCELLANEOUS
B&B	BALLED AND BURLAPPED	MTD	MOUNTED
BC	BOTTOM OF CURB	MTL	METAL
BF	BOTTOM OF FOOTING	N	NORTH
BLDG	BUILDING	NIC	NOT IN CONTRACT
BM	BENCHMARK	NO	NUMBER
BOC	BACK OF CURB	NOM	NOMINAL
BR	BOTTOM OF RAMP	NTS	NOT TO SCALE
BRG	BEARING	OC	ON CENTER
BS	BOTTOM OF STEP	OD	OUTSIDE DIAMETER
BW	BOTTOM OF WALL	OPP	OPPOSITE
CAL	CALIPER	PAR	PARALLEL
CAP	CAPACITY	PC	POINT OF CURVATURE
CF	CUBIC FEET	PE	POLYURETHANE
CHAM	CHAMFER	PERF	PERFORATED
CIP	CAST IN PLACE	PED	PEDESTRIAN
CJ	CONTROL JOINT	PI	POINT OF INTERSECTION
CL	CENTER LINE	PL	PROPERTY LINE
CLR	CLEARANCE	PT	POINT, POINT OF TANGENCY
CM	CENTIMETER	PVC	POLYVINYL CHLORIDE
CO	CLEAN OUT	PVMT	PAVEMENT
COMP	COMPACTED	PVR	PAVER
CONC	CONCRETE	QTY	QUANTITY
CONST	CONSTRUCTION	R	RADIUS
CONT	CONTINUOUS	RECEP	RECEPTACLE
CONTR	CONTRACTOR	REF	REFERENCE
CU	CUBIC	REINF	REINFORCE(D)
CY	CUBIC YARD	REM	REMOVE
DBL	DOUBLE	REQ'D	REQUIRED
DF	DIRECTION OF FLOW	REV	REVISION, REVISED
DEG	DEGREE	ROW	RIGHT OF WAY
DEMO	DEMOLISH, DEMOLITION	RT	RIGHT
DIA	DIAMETER	S	SOUTH
DIM	DIMENSION	SAN	SANITARY
DTL	DETAIL	SCH	SCHEDULE
DWG	DRAWING	SD	STORM DRAIN
E	EAST	SEC	SECTION
EA	EACH	SF	SQUARE FOOT (FEET)
EJ	EXPANSION JOINT	SHT	SHEET
EL	ELEVATION	SI	STORM INLET
ELEC	ELECTRICAL	SIM	SIMILAR
ENG	ENGINEER	SNT	SEALANT
EQ	EQUAL	SPECS	SPECIFICATIONS
EQUIP	EQUIPMENT	SQ	SQUARE
EST	ESTIMATE	ST	STORM SEWER
E.W.	EACH WAY	SY	SQUARE YARD
EXIST	EXISTING	STA	STATION
EXP	EXPANSION, EXPOSED	STD	STANDARD
FF	FINISHED FLOOR ELEVATION	STL	STEEL
FG	FINISHED GRADE	STRL	STRUCTURAL
FIN	FINISH	SYM	SYMMETRICAL
FL	FLOW LINE	T&B	TOP AND BOTTOM
FOC	FACE OF CURB	TBC	TOP OF BACK CURB
FT	FOOT (FEET)	TC	TOP OF CURB
FTG	FOOTING	TF	TOP OF FOOTING
GA	GAUGE	THK	THICK
GAL	GALVANIZED	TOC	TOP OF CONCRETE
GC	GENERAL CONTRACT(OR)	TOPO	TOPOGRAPHY
GEN	GENERAL	TSL	TOP OF SLAB
HORIZ	HORIZONTAL	TRAS	TRANSFORMER
HP	HIGH POINT	TR	TOP OF RAMP
HT	HEIGHT	TS	TOP OF STEP
ID	INSIDE DIAMETER	TW	TOP OF WALL
INV	INVERT ELEVATION	TYP	TYPICAL
IN	INCH(ES)	VAR	VARIES
INCL	INCLUDE(D)	VERT	VERTICAL
INL	INLET	VEH	VEHICLE
IRR	IRRIGATION	VOL	VOLUME
JT	JOINT	W/	WITH
LIN	LINEAR	W/O	WITHOUT
LF	LINEAR FEET	WT	WEIGHT
LP	LOW POINT	WL	WEIR LEVEL
LT	LIGHT	WWF	WELDED WIRE FABRIC
MATL	MATERIAL	YD	YARD
MAX	MAXIMUM	@	AT
ME	MATCH EXISTING		
MEMB	MEMBRANE		

LANDSCAPE DEMOLITION

1. Items (site structures) shall remain unless designated for removal. Remove designated items shown on the plan to the full depth of their construction unless otherwise noted.
2. Verify the location of items (site structures) to remain (to be removed) prior to commencement of the work.
3. Items (site structures) encountered below grade and not shown on the drawings shall be brought to the attention of the Landscape Architect.
4. Remove demolished materials from site. Disposal by burning and/or burying is prohibited.
5. Contact the local underground service update for utility location and identification prior to demolition.
6. The location of existing utilities as shown on the plans may vary in relation to actual existing conditions; additional utilities not shown on the drawings may exist. Verify in the field the data shown, and call any discrepancies to the attention of the Landscape Architect or Site Representative before starting work.
7. Perform excavation in the vicinity of existing utilities by hand where applicable. The Contractor is responsible for damage to existing utilities caused by any person, vehicle, equipment or tool related to the execution of the Contract.

GRADING AND DRAINAGE

1. Existing underground utilities are shown per available records. Verify the actual location and elevation in the field prior to beginning construction of the new facilities. Protect existing utilities and be responsible for damage to utilities encountered during construction.

2. No grading shall take place within the drip-line of existing trees unless directed by Owner's Representative.

3. All walks shall have a 2% cross-slope in the direction of natural drainage unless otherwise noted.

LINE SYMBOL LEGEND

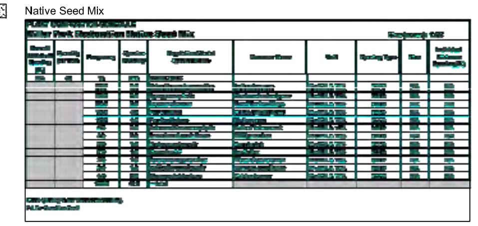
PROPOSED		EXISTING
4790 / 4789	Contours	4790 / 4789
	Curb and Gutter	
	Utility Lines	G / W / OH / SS
	Limit of Survey	

SYMBOL LEGEND

Existing Water Valve	Spot Grade
Existing Storm Drain Inlet	Existing Vehicular Pole Light
Fire Hydrant	Existing Sewer Cleanout
Sanitary Sewer Manhole	Existing Utility (Various)
Existing Sign	

Plant List

ABBR.	BOTANICAL NAME	COMMON NAME.	QTY.	SIZE
TREES				
AG	Acer grandidentatum	Big Tooth Maple	28	#15
AN	Acer negundo	Boxelder	32	#15
Ai	Alnus incana	Alder	31	#20
BO	Betula occidentalis	River Birch	9	#20
QG	Quercus gambelii	Scrub Oak	21	#15
SHRUBS				
AA	Amelanchier alnifolia	Serviceberry	23	3 GAL
CN	Chrysothamnus nauseosus	Rubber Rabbitbrush	137	3 GAL
PV	Prunus virginiana	Chokecherry	33	3 GAL
RA	Ribes aureum	Golden Current	123	3 GAL
RW	Rosa woodsii	Woods Rose	107	3 GAL
SC	Sambucus caerulea	Elderberry	104	3 GAL
SA	Symphoricarpos occidentalis	Snowberry	44	3 GAL
RIPARIAN				
	Cornus sericea	Redtwig Dogwood	1,200	1 GAL
	Salix exigua	Sandbar Willow	1,500	1 GAL
SEED				
	Native Seed Mix			



NOTE: Space plants as noted on drawings and details and as directed by Owner's Representative and Landscape Architect.

SITE KEYNOTES:

		DETAIL / SHEET	SPEC. SECTION
1.0	**PAVEMENTS, RAMPS, CURBS**		
1.1	Text description	0 / L0-01	000000

KEYNOTE HEADING (PROPOSED IMPROVEMENT SYSTEM)

KEYNOTE CALL-OUT

KEYNOTE (SYSTEM) ITEM AND BRIEF DESCRIPTION

DETAIL REFERENCE (NUMBER AND SHEET) NOTE: MULTIPLE DETAILS MAY BE REFERENCED

SPECIFICATION REFERENCE (CSI SECTION NUMBER MASTER FORMAT 2004) NOTE: MULTIPLE SPECIFICATIONS MAY BE REFERENCED

SITE DETAIL KEY NOTES:

		DETAIL/SHEET
0.0	**EXISTING CONDITIONS/ WORK BY OTHERS**	
0.1	Existing Curb and Gutter	
0.2	Existing Sidewalk	
0.3	Existing Stone Wall	
0.4	Existing Stone Stair	
0.5	Existing Timber Stair	
0.6	Existing Timber Wall	
0.7	Existing Wood Bridge	
0.8	Existing Steel Bridge	
0.9	Existing Concrete Wall	
0.10	Existing Concrete Stair	
1.0	**PAVEMENTS, RAMPS, CURBS**	
1.1	Trail	1 & 2/L7.07
2.0	**SITE WALLS/EMBANKMENTS**	
2.1	Dry Stacked Stone Wall A	1/L7.06
2.2	Dry Stacked Stone Wall B	3/L7.06
2.3	Dry Stacked Stone Wall C	2/L7.06
3.0	**PLANTING AND LANDSCAPE**	
	See Planting Plans	
4.0	**MISCELLANEOUS ELEMENTS**	
4.1	Creek Improvements	L7.01 - L7.05
4.2	Entry Sign and Gate	4/L7.07
4.3	Erosion Control Mat	4-7/L7.09
4.4	Kiosk	1-6/L7.08

(SUBGROUP TITLE)

1 Text description

2 Text description

SUPPLEMENTAL NOTE (SUPPLEMENTAL INFORMATION TO KEYNOTES. TYPICALLY DESCRIBES ITEMS TO BE CONSIDERED DURING CONSTRUCTION. MAY BE REFERENCED TO A DETAIL AND/OR SPECIFICATION.

NOTE CALL-OUT

PLANT KEYNOTES:

SDA (3) 9.3

PLANT SPECIES

QUANTITY

SITE DETAIL KEY

RECORD DOCUMENT

PREPARER:

SALT LAKE CITY CORPORATION

349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:

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SOUTHERN ROCKY MOUNTAIN BIOREGION
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Denver, CO 80202 / ph: 303.477.0660
fx: 303.477.4648 / www.biohabitats.com
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Facsimile (801) 359-4411
WWW.DESIGNWORKSHOP.COM

PROFESSIONAL SEAL:

STATE OF UTAH
Terrall V. Budge
188545-5301
LICENSED LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:

MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810802
FILE #:
DRAWING FILE:
DRAWN BY:
CHECKED BY:
COPYRIGHT:

SHEET TITLE:

General Information

Legends and Notes

SHEET IDENTIFIER:

L0.02

BINDING ORDER

REFERENCE NOTES

1 Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.

CONSTRUCTION ACCESS - GRAVEL

NORTH 0 10 20 40
1"=20'-0"

RECORD DOCUMENT

PREPARER:
SALT LAKE CITY CORPORATION
349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:
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PROFESSIONAL SEAL:
STATE OF UTAH
Terrell V. Budge
168549-5501
LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810802
FILE #:
DRAWING FILE:
DRAWN BY:
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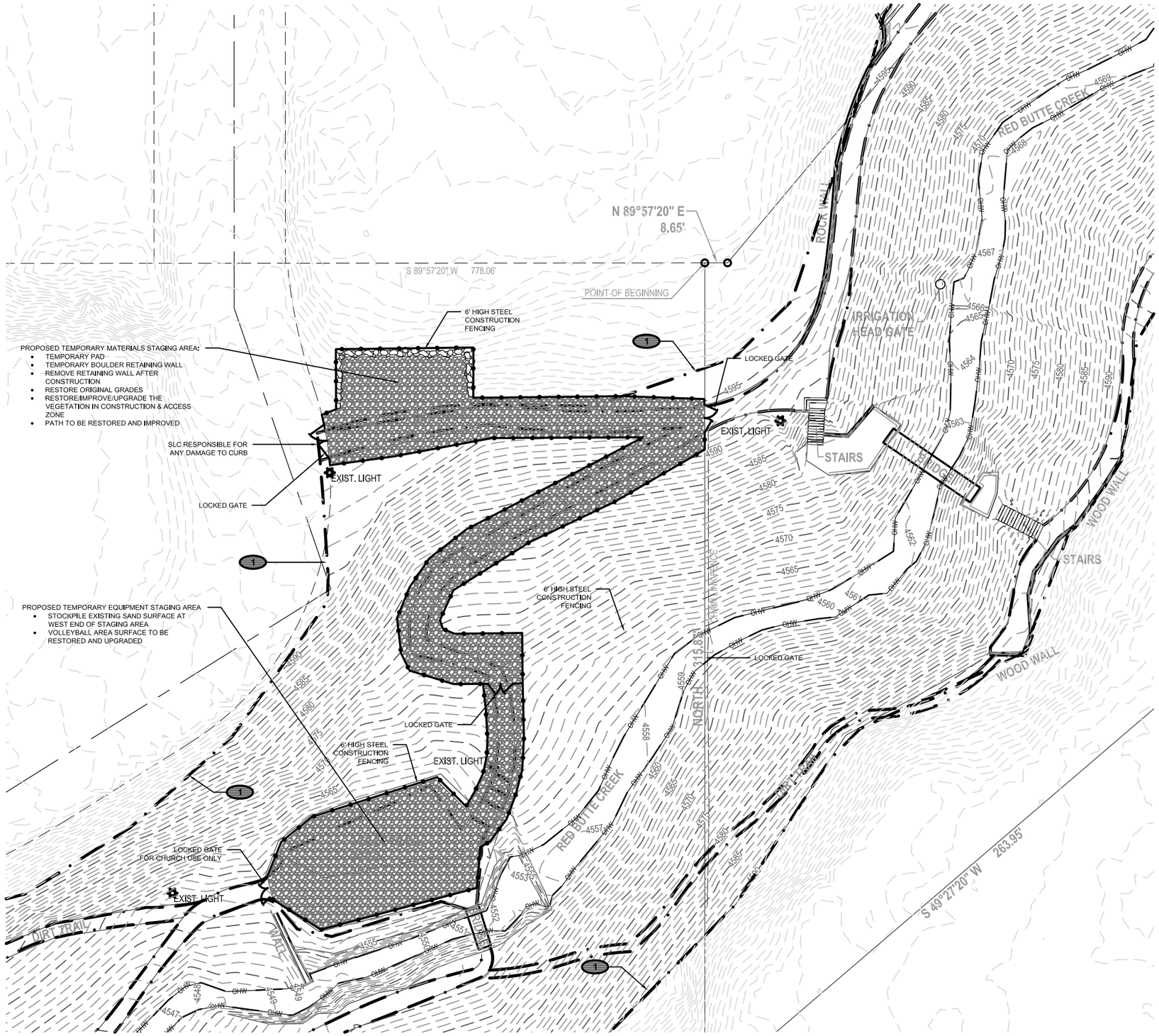
SHEET TITLE:
General Information
Construction Access

SHEET IDENTIFIER:
L0.03
BINDING ORDER



REFERENCE NOTES

1 Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.

PREPARER:
SALT LAKE CITY CORPORATION
349 SOUTH 200 EAST SUITE 100
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PROFESSIONAL SEAL:
STATE OF UTAH
Terrell V. Budge
LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

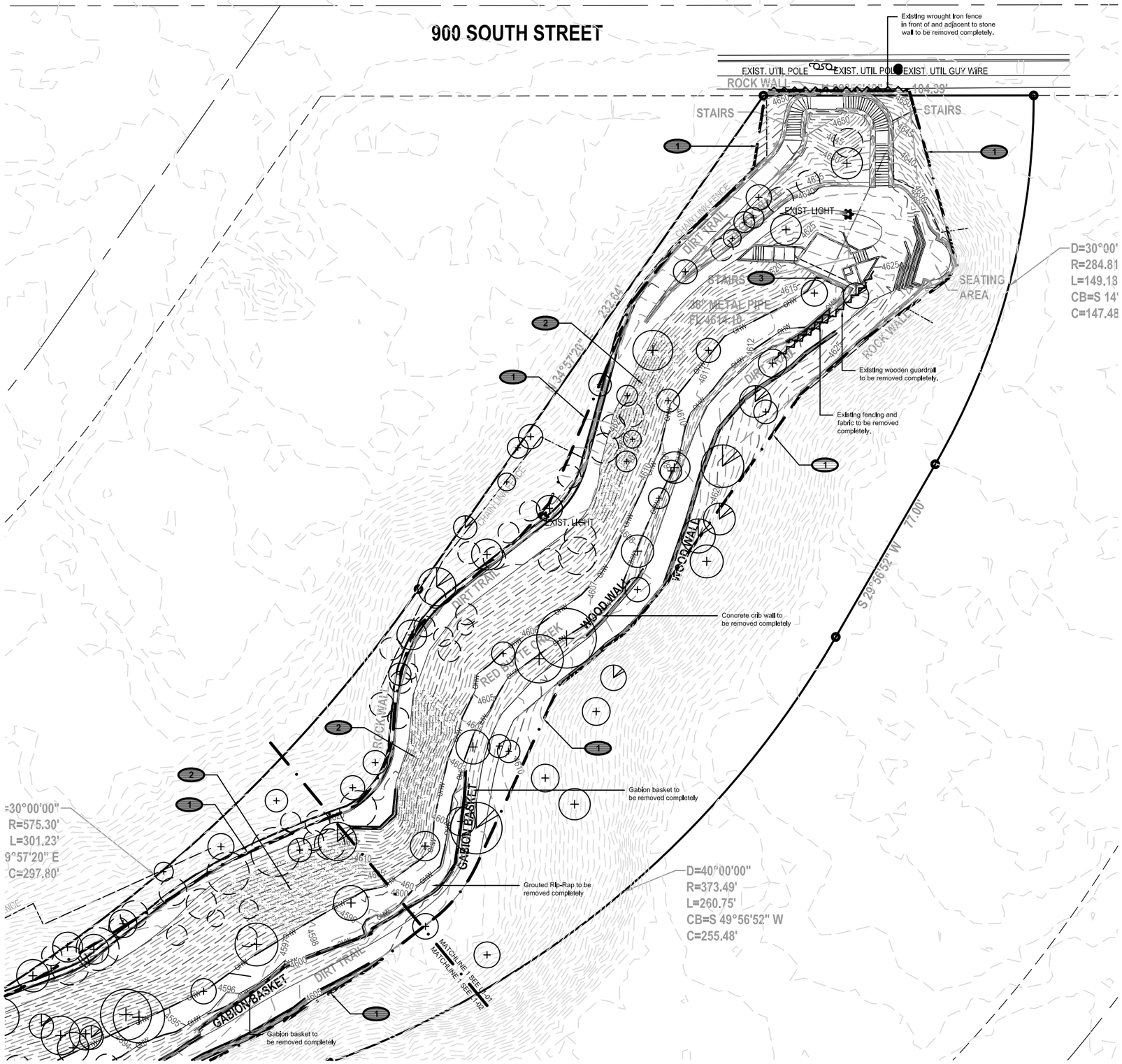
MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 610802
FILE #:
DRAWING FILE:
DRAWN BY:
CHECKED BY:
COPYRIGHT:

SHEET TITLE:
General Information

Designated Staging Areas

SHEET IDENTIFIER:
L0.04
BINDING ORDER



LANDSCAPE DEMOLITION LEGEND

Represents Siberian Elms to be removed. Each Symbol represents a cluster of trees that are to be removed completely. Coordinate with Owner's Representative.

Represents Tree-of-Heaven's to be removed. Each Symbol represents a cluster of trees that are to be removed completely. Coordinate with Owner's Representative.

Represents Black Locust's to be removed. Each Symbol represents a cluster of trees that are to be removed completely. Coordinate with Owner's Representative.

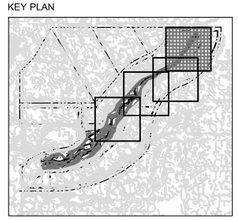
Note:
Tree removal is based on recommendations from Botanical Evaluation/Assesment conducted by Canyon Environmental. The majority of trees identified for removal are 2" caliper and under, and the Botanical Evaluation/Assesment describes trees sizes by species. See owner's representative for a copy and further information. Record Document note: Field changes were made to remove only 5" and larger caliper trees except where a new trail was constructed.

Existing fence to be removed. Coordinate with Owner's Representative.

REFERENCE NOTES

1. Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.
2. Hatched area represents required clearing and removal of existing ground plane plants as directed by Owner's Representative and Landscape Architect.
3. Contractor shall exercise extreme caution in vicinity of existing stone structure. Contractor shall have a spotter in place to ensure safe clearance whenever equipment is near existing structure.

KEY PLAN



RECORD DOCUMENT

NORTH

0 10 20 40
1"=20'-0"

PREPARER:
SALT LAKE CITY CORPORATION
349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:

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Denver, CO 80202 / ph: 303.477.0660
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WWW.DESIGNWORKSHOP.COM

PROFESSIONAL SEAL:

STATE OF UTAH
Terrell V. Budge
168549 - 5501
LICENSED LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

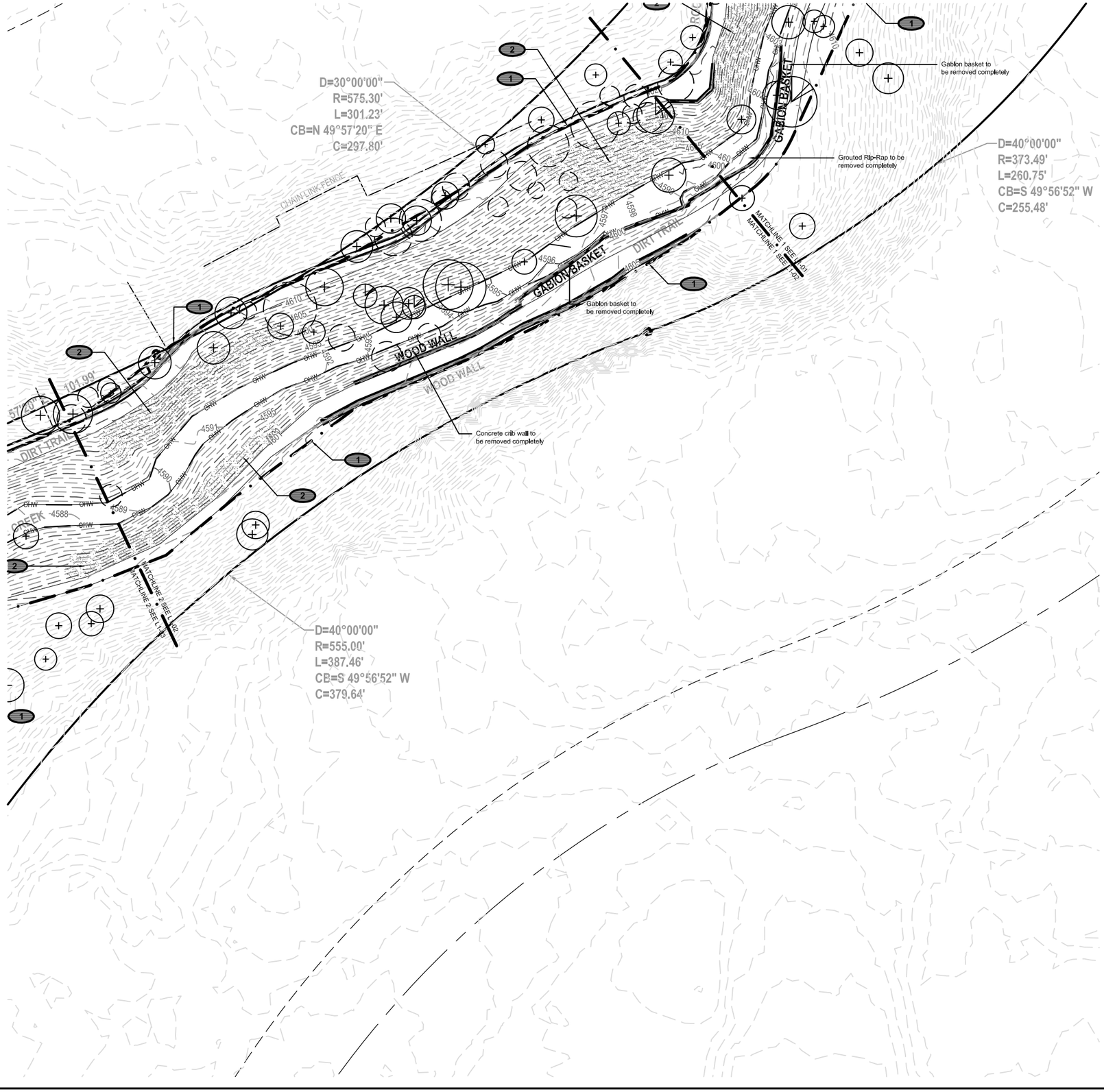
PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810902
FILE #:
DRAWING FILE:
DRAWN BY:
CHECKED BY:
COPYRIGHT:

SHEET TITLE:
DEMOLITION PLAN

SHEET IDENTIFIER:
L1.01
BINDING ORDER



LANDSCAPE DEMOLITION LEGEND

Represents Siberian Elms to be removed.
Each Symbol represents a cluster of trees that are to be removed completely.
Coordinate with Owner's Representative.

Represents Tree-of-Heaven's to be removed.
Each Symbol represents a cluster of trees that are to be removed completely.
Coordinate with Owner's Representative.

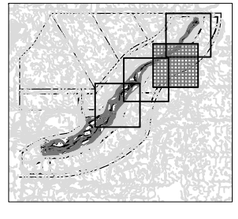
Represents Black Locust's to be removed.
Each Symbol represents a cluster of trees that are to be removed completely.
Coordinate with Owner's Representative.

Note:
Tree removal is based on recommendations from Botanical Evaluation/Assesment conducted by Canyon Environmental. The majority of trees identified for removal are 2" caliper and under, and the Botanical Evaluation/Assesment describes trees sizes by species. See owner's representative for a copy and further information. Record Document note: Field changes were made to remove only 5" and larger caliper trees except where a new trail was constructed.

REFERENCE NOTES

1. Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.
2. Hatched area represents required clearing and removal of existing ground plane plants as directed by Owner's Representative and Landscape Architect.

KEY PLAN



RECORD DOCUMENT

NORTH 0 10 20 40
1"=20'-0"

PREPARER:
SALT LAKE CITY CORPORATION
349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

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PROFESSIONAL SEAL:
STATE OF UTAH
Terrell V. Budge
168549 - 5501
LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810802
FILE #:
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DRAWN BY:
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SHEET TITLE:
DEMOLITION PLAN

SHEET IDENTIFIER:
L1.02
BINDING ORDER

LANDSCAPE DEMOLITION LEGEND

Represents Siberian Elms to be removed. Each Symbol represents a cluster of trees that are to be removed completely. Coordinate with Owner's Representative.

Represents Tree-of-Heaven's to be removed. Each Symbol represents a cluster of trees that are to be removed completely. Coordinate with Owner's Representative.

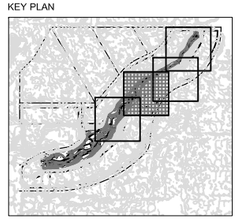
Represents Black Locust's to be removed. Each Symbol represents a cluster of trees that are to be removed completely. Coordinate with Owner's Representative.

Note:
Tree removal is based on recommendations from Botanical Evaluation/Assesment conducted by Canyon Environmental. The majority of trees identified for removal are 2" caliper and under, and the Botanical Evaluation/Assesment describes trees sizes by species. See owner's representative for a copy and further information. Record Document note: Field changes were made to remove only 5" and larger caliper trees except where a new trail was constructed.

REFERENCE NOTES

1. Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.
2. Hatched area represents required clearing and removal of existing ground plane plants as directed by Owner's Representative and Landscape Architect.
3. Contractor shall exercise extreme caution in vicinity of existing stone structure. Contractor shall have a spotter in place to ensure safe clearance whenever equipment is near existing structure.

KEY PLAN



RECORD DOCUMENT

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SALT LAKE CITY, UTAH 84111

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PROFESSIONAL SEAL:
STATE OF UTAH
Terrell V. Budge
LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

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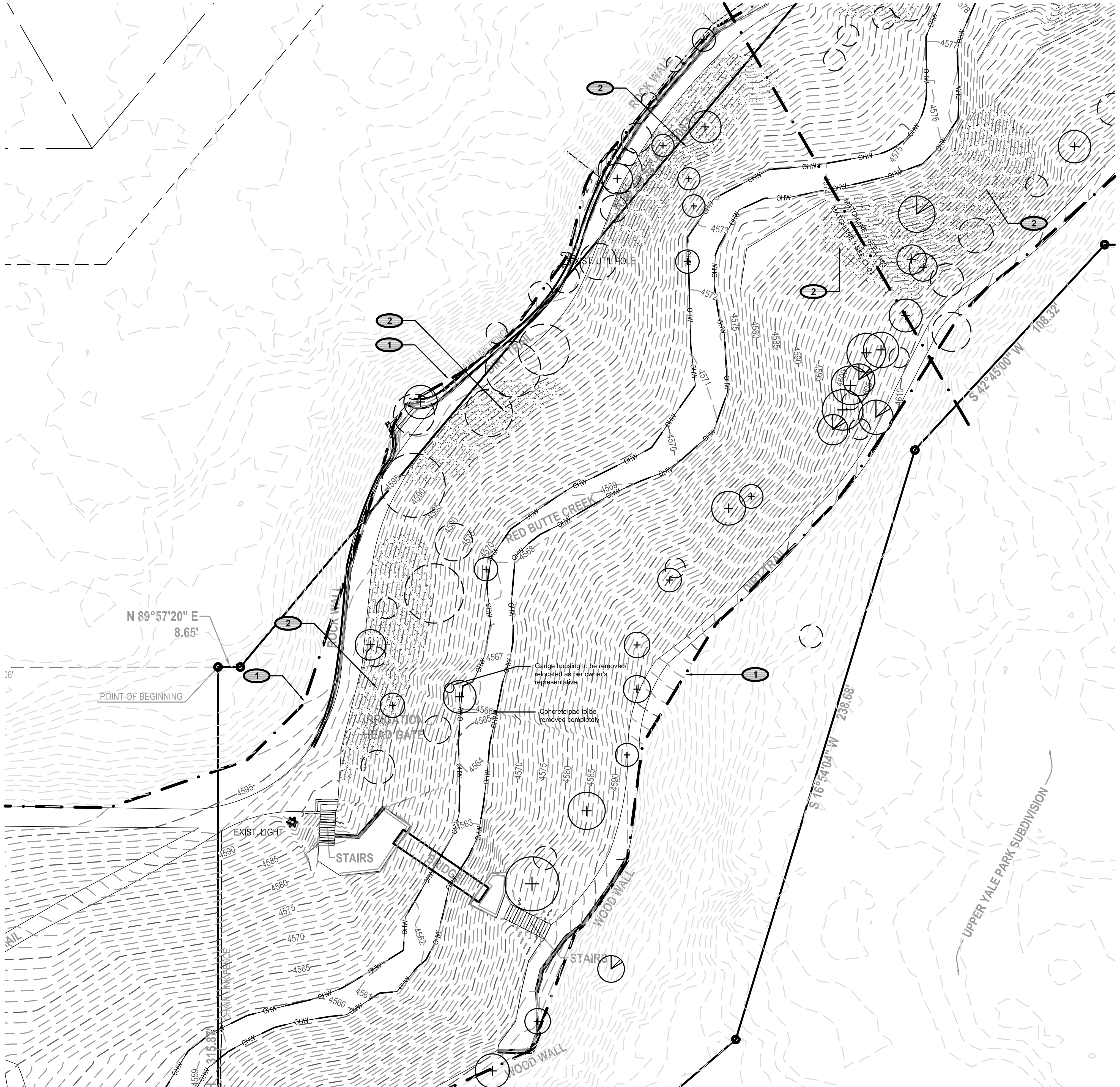
SHEET TITLE:
DEMOLITION PLAN

SHEET IDENTIFIER:
L1.03
BINDING ORDER



LANDSCAPE DEMOLITION LEGEND

Represents Siberian Elms to be removed. Each Symbol represents a cluster of trees that are to be removed completely. Coordinate with Owner's Representative.

Represents Tree-of-Heaven's to be removed. Each Symbol represents a cluster of trees that are to be removed completely. Coordinate with Owner's Representative.

Represents Black Locust's to be removed. Each Symbol represents a cluster of trees that are to be removed completely. Coordinate with Owner's Representative.

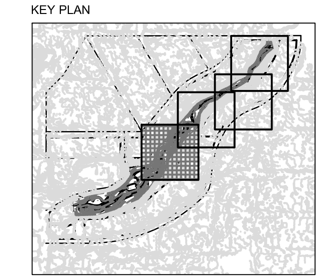
Note:
Tree removal is based on recommendations from Botanical Evaluation/Assesment conducted by Canyon Environmental. The majority of trees identified for removal are 2" caliper and under, and the Botanical Evaluation/Assesment describes trees sizes by species. See owner's representative for a copy and further information. Record Document note: Field changes were made to remove only 5" and larger caliper trees except where a new trail was constructed.

Existing fence to be removed. Coordinate with Owner's Representative.

REFERENCE NOTES

1. Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.
2. Hatched area represents required clearing and removal of existing ground plane plants as directed by Owner's Representative and Landscape Architect.

KEY PLAN



RECORD DOCUMENT

NORTH 0 10 20 40
1"=20'-0"

PREPARER:
SALT LAKE CITY CORPORATION
349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:
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PROFESSIONAL SEAL:
STATE OF UTAH
Terrall V. Budge
LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810802
FILE #:
DRAWING FILE:
DRAWN BY:
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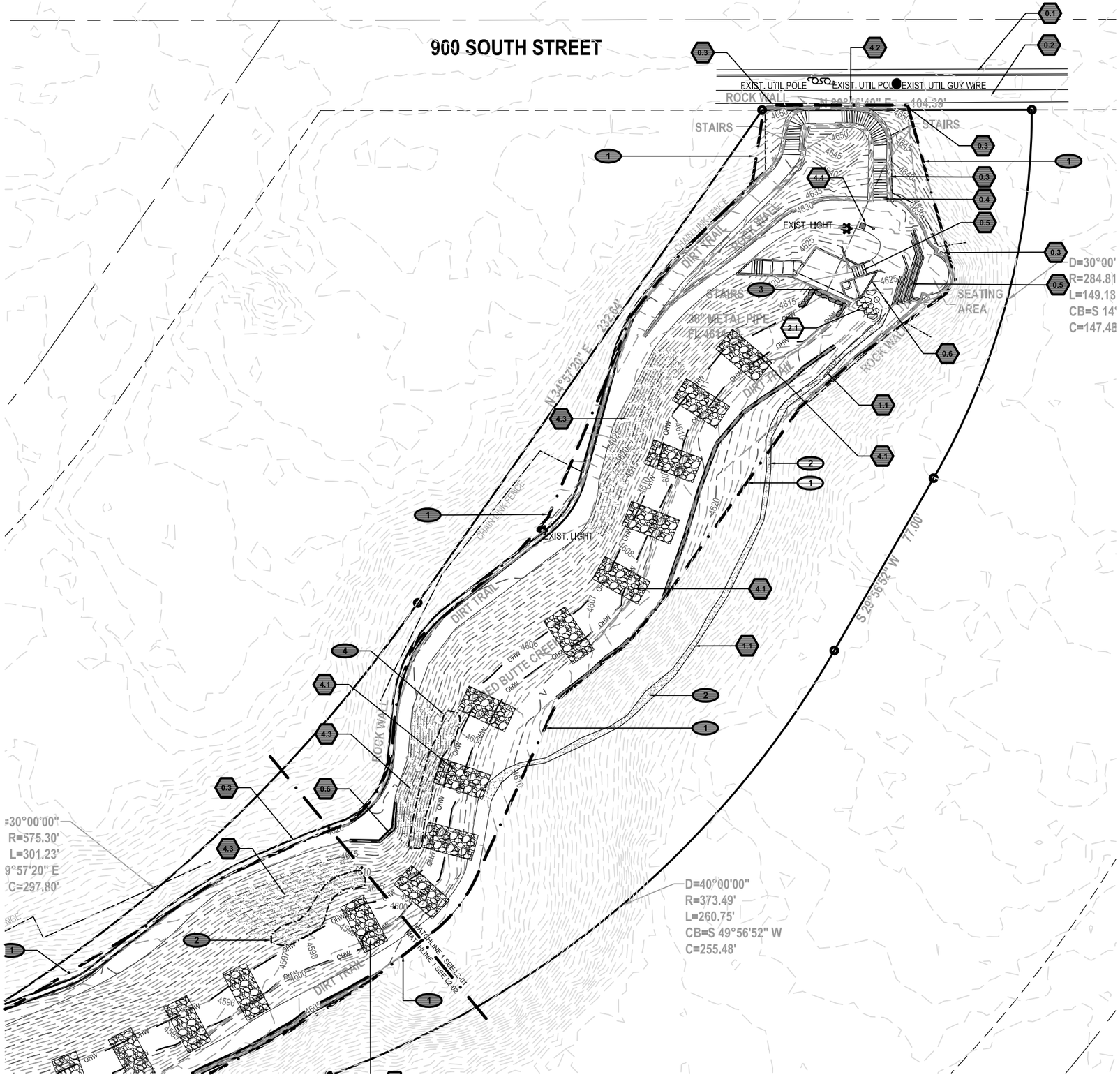
SHEET TITLE:
DEMOLITION PLAN

SHEET IDENTIFIER:
L1.04

BINDING ORDER



SITE DETAIL KEY NOTES:

DETAIL/SHEET

0.0 EXISTING CONDITIONS/ WORK BY OTHERS

0.1	Existing Curb and Gutter	
0.2	Existing Sidewalk	
0.3	Existing Stone Wall	
0.4	Existing Stone Stair	
0.5	Existing Timber Stair	
0.6	Existing Timber Wall	
0.7	Existing Wood Bridge	
0.8	Existing Steel Bridge	
0.9	Existing Concrete Wall	
0.10	Existing Concrete Stair	

1.0 PAVEMENTS, RAMPS, CURBS

1.1	Trail	1 & 2/L7.07

2.0 SITE WALLS/EMBANKMENTS

2.1	Dry Stacked Stone Wall A	1/L7.06
2.2	Dry Stacked Stone Wall B	3/L7.06
2.3	Dry Stacked Stone Wall C	2/L7.06

3.0 PLANTING AND LANDSCAPE

See Planting Plans

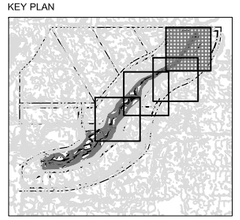
4.0 MISCELLANEOUS ELEMENTS

4.1	Creek Improvements	L7.01 - L7.05
4.2	Entry Sign and Gate	4/L7.07
4.3	Erosion Control Mat	4-7/L7.09
4.4	Kiosk	1-6/L7.08

REFERENCE NOTES

1. Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.
2. New pathway per pathway details and as directed on site by Owner's Representative and Landscape Architect.
3. Contractor shall exercise extreme caution in vicinity of existing stone structure. Contractor shall have a spotter in place to ensure safe clearance whenever equipment is near existing structure.
4. Area to recieve topsoil fill as directed by Owner's Representative.

KEY PLAN



RECORD DOCUMENT

NORTH 0 10 20 40
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PREPARER:

SALT LAKE CITY CORPORATION

349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:

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PROFESSIONAL SEAL:

STATE OF UTAH
Terrell V. Budge
168549 - 2001
LICENSED LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:

MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810802
FILE #:
DRAWING FILE:
DRAWN BY:
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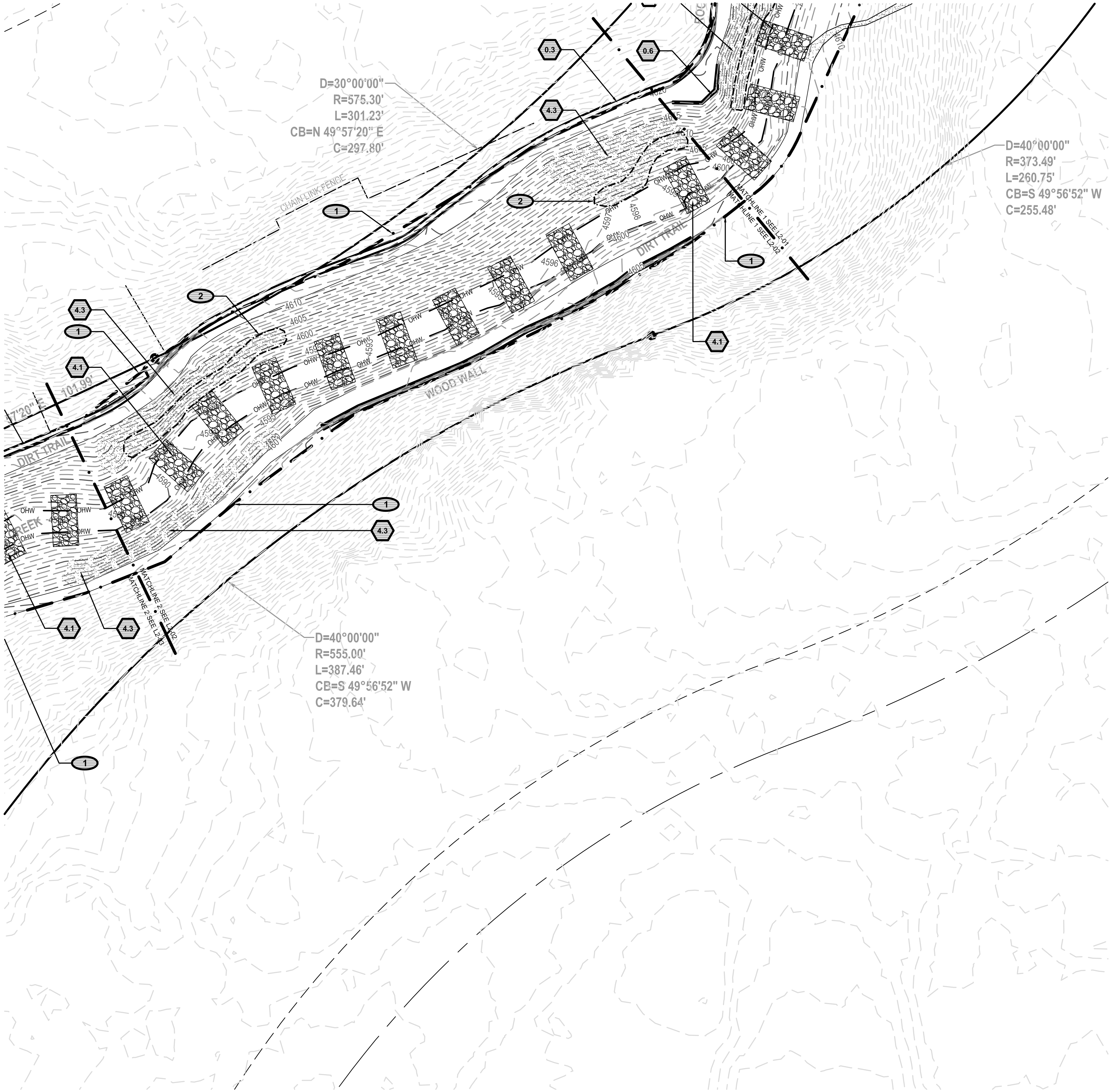
SHEET TITLE:

MATERIALS PLAN

SHEET IDENTIFIER:

L2.01

BINDING ORDER



SITE DETAIL KEY NOTES:

DETAIL/SHEET

0.0 EXISTING CONDITIONS/ WORK BY OTHERS

0.1	Existing Curb and Gutter	
0.2	Existing Sidewalk	
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0.6	Existing Timber Wall	
0.7	Existing Wood Bridge	
0.8	Existing Steel Bridge	
0.9	Existing Concrete Wall	
0.10	Existing Concrete Stair	

1.0 PAVEMENTS, RAMPS, CURBS

1.1	Trail	1 & 2/L7.07

2.0 SITE WALLS/EMBANKMENTS

2.1	Dry Stacked Stone Wall A	1/L7.06
2.2	Dry Stacked Stone Wall B	3/L7.06
2.3	Dry Stacked Stone Wall C	2/L7.06

3.0 PLANTING AND LANDSCAPE

See Planting Plans

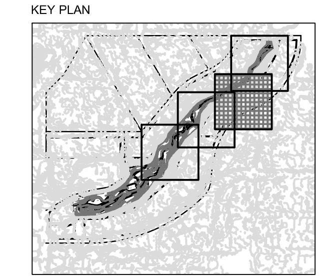
4.0 MISCELLANEOUS ELEMENTS

4.1	Creek Improvements	L7.01 - L7.05
4.2	Entry Sign and Gate	4/L7.07
4.3	Erosion Control Mat	4-7/L7.09
4.4	Kiosk	1-6/L7.08

REFERENCE NOTES

1. Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.
2. Area to recieve topsoil fill as directed by Owner's Representative.

KEY PLAN



RECORD DOCUMENT

NORTH 0 10 20 40 1"=20'-0"

PREPARER:
SALT LAKE CITY CORPORATION
349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:
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PROFESSIONAL SEAL:
STATE OF UTAH
Terrell V. Budge
LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:

MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 510802
FILE #:
DRAWING FILE:
DRAWN BY:
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SHEET TITLE:

MATERIALS PLAN

SHEET IDENTIFIER:

L2.02

BINDING ORDER

SITE DETAIL KEY NOTES:

DETAIL/SHEET

0.0 EXISTING CONDITIONS/ WORK BY OTHERS

0.1	Existing Curb and Gutter	
0.2	Existing Sidewalk	
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1.0 PAVEMENTS, RAMPS, CURBS

1.1	Trail	1 & 2/L7.07

2.0 SITE WALLS/EMBANKMENTS

2.1	Dry Stacked Stone Wall A	1/L7.06
2.2	Dry Stacked Stone Wall B	3/L7.06
2.3	Dry Stacked Stone Wall C	2/L7.06

3.0 PLANTING AND LANDSCAPE

See Planting Plans

4.0 MISCELLANEOUS ELEMENTS

4.1	Creek Improvements	L7.01 - L7.05
4.2	Entry Sign and Gate	4/L7.07
4.3	Erosion Control Mat	4-7/L7.09
4.4	Kiosk	1-6/L7.08

REFERENCE NOTES

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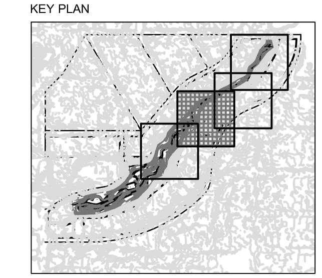
2. Contractor shall exercise extreme caution in vicinity of existing stone structure. Contractor shall have a spotter in place to ensure safe clearance whenever equipment is near existing structure.
3. Area to recieve topsoil fill as directed by Owner's Representative.

KEY PLAN



RECORD DOCUMENT

NORTH

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Terrell V. Budge
LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:
SALT LAKE CITY

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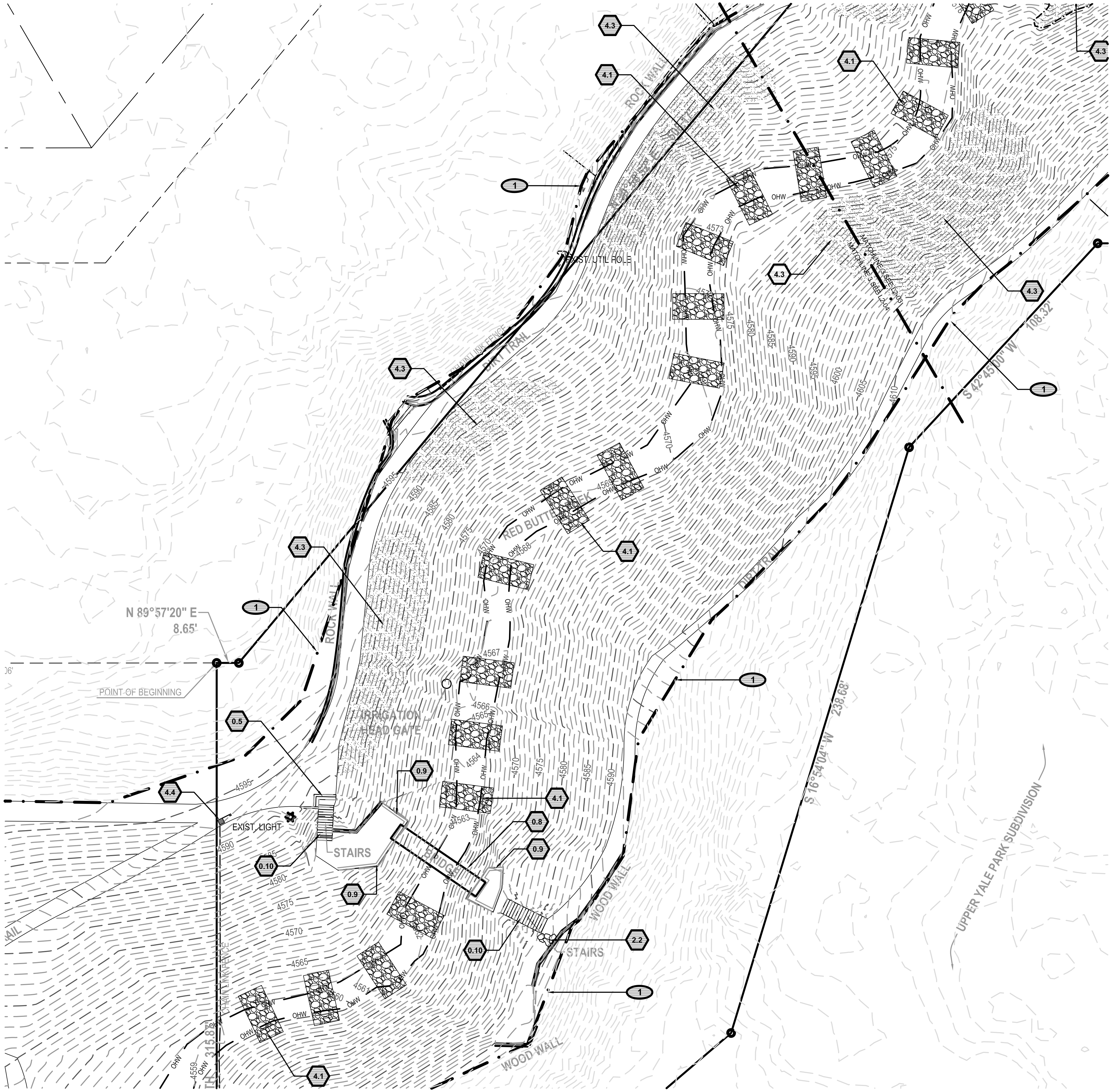
SHEET TITLE:
MATERIALS PLAN

SHEET IDENTIFIER:
L2.03

BINDING ORDER



SITE DETAIL KEY NOTES:

DETAIL/SHEET

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1.0 PAVEMENTS, RAMPS, CURBS

1.1	Trail	1 & 2/L7.07

2.0 SITE WALLS/EMBANKMENTS

2.1	Dry Stacked Stone Wall A	1/L7.06
2.2	Dry Stacked Stone Wall B	3/L7.06
2.3	Dry Stacked Stone Wall C	2/L7.06

3.0 PLANTING AND LANDSCAPE

See Planting Plans

4.0 MISCELLANEOUS ELEMENTS

4.1	Creek Improvements	L7.01 - L7.05
4.2	Entry Sign and Gate	4/L7.07
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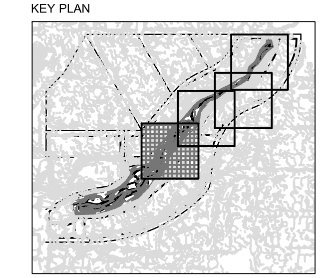
KEY PLAN



RECORD DOCUMENT

NORTH

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PREPARER:

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108545-5301
LICENSED LANDSCAPE ARCHITECT

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SALT LAKE CITY

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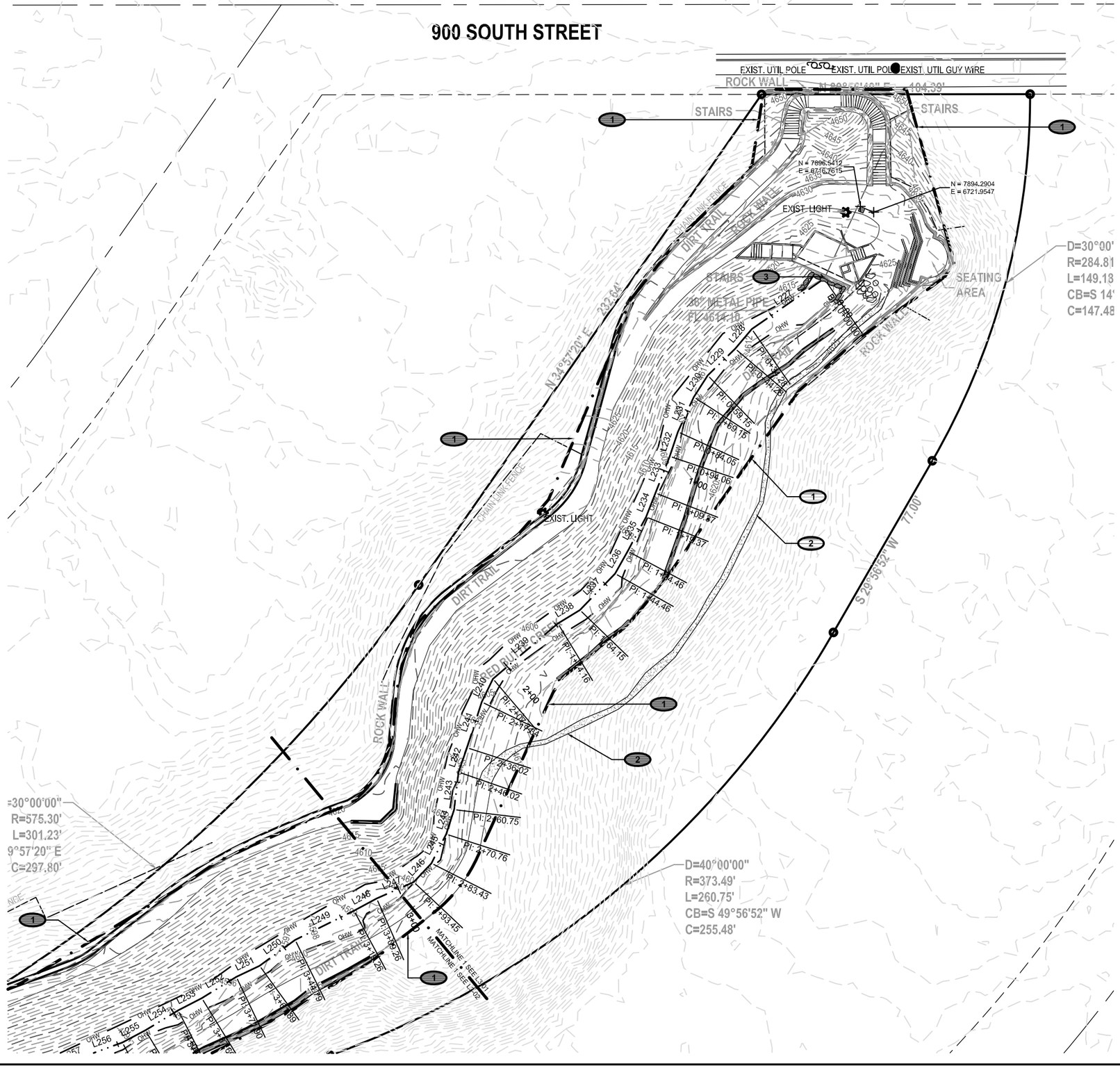
SHEET TITLE:

MATERIALS PLAN

SHEET IDENTIFIER:

L2.04

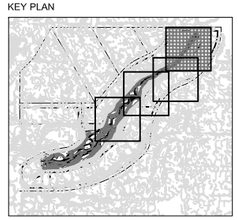
BINDING ORDER



REFERENCE NOTES

1. Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.
2. Layout of new pathway to avoid/preserve to the extent possible all existing trees and follow the route of the existing trail at the edge of the rock wall/fence line as directed on site by Owner's Representative and Landscape Architect.
3. Contractor shall exercise extreme caution in vicinity of existing stone structure. Contractor shall have a spotter in place to ensure safe clearance whenever equipment is near existing structure.

KEY PLAN



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DRAWN BY:
CHECKED BY:
COPYRIGHT:

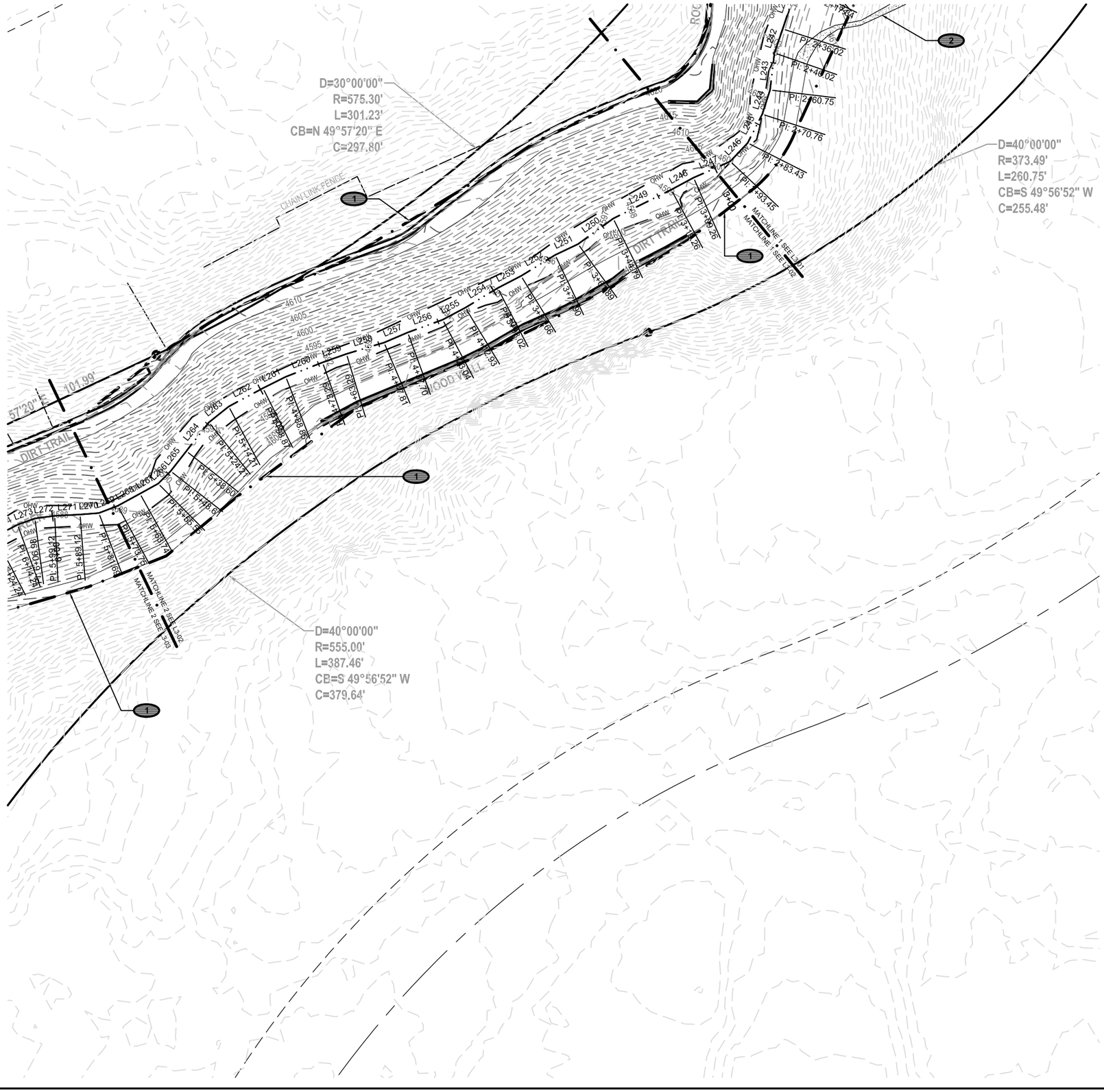
SHEET TITLE:

LAYOUT PLAN

SHEET IDENTIFIER:

L3.01

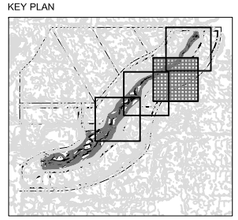
BINDING ORDER



REFERENCE NOTES

1. Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.
2. Layout of new pathway to avoid/preserve to the extent possible all existing trees and follow the route of the existing trail at the edge of the rock wall/fence line as directed on site by Owner's Representative and Landscape Architect.

KEY PLAN



RECORD DOCUMENT

NORTH 0 10 20 40
1"=20'-0"

PREPARER:

SALT LAKE CITY CORPORATION

349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:

Biohabitats
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PROFESSIONAL SEAL:

STATE OF UTAH
Terrell V. Budge
168549-2201
LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:

MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810802
FILE #:
DRAWING FILE:
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SHEET TITLE:

LAYOUT PLAN

SHEET IDENTIFIER:

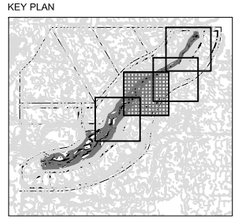
L3.02

BINDING ORDER

REFERENCE NOTES

1. Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.
2. Contractor shall exercise extreme caution in vicinity of existing stone structure. Contractor shall have a spotter in place to ensure safe clearance whenever equipment is near existing structure.

KEY PLAN



RECORD DOCUMENT

NORTH

0 10 20 40
1"=20'-0"

PREPARER:

SALT LAKE CITY CORPORATION

349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:

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Terrell V. Budge
168549-2001
LICENSED LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:

MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810802
FILE #:
DRAWING FILE:
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SHEET TITLE:

LAYOUT PLAN

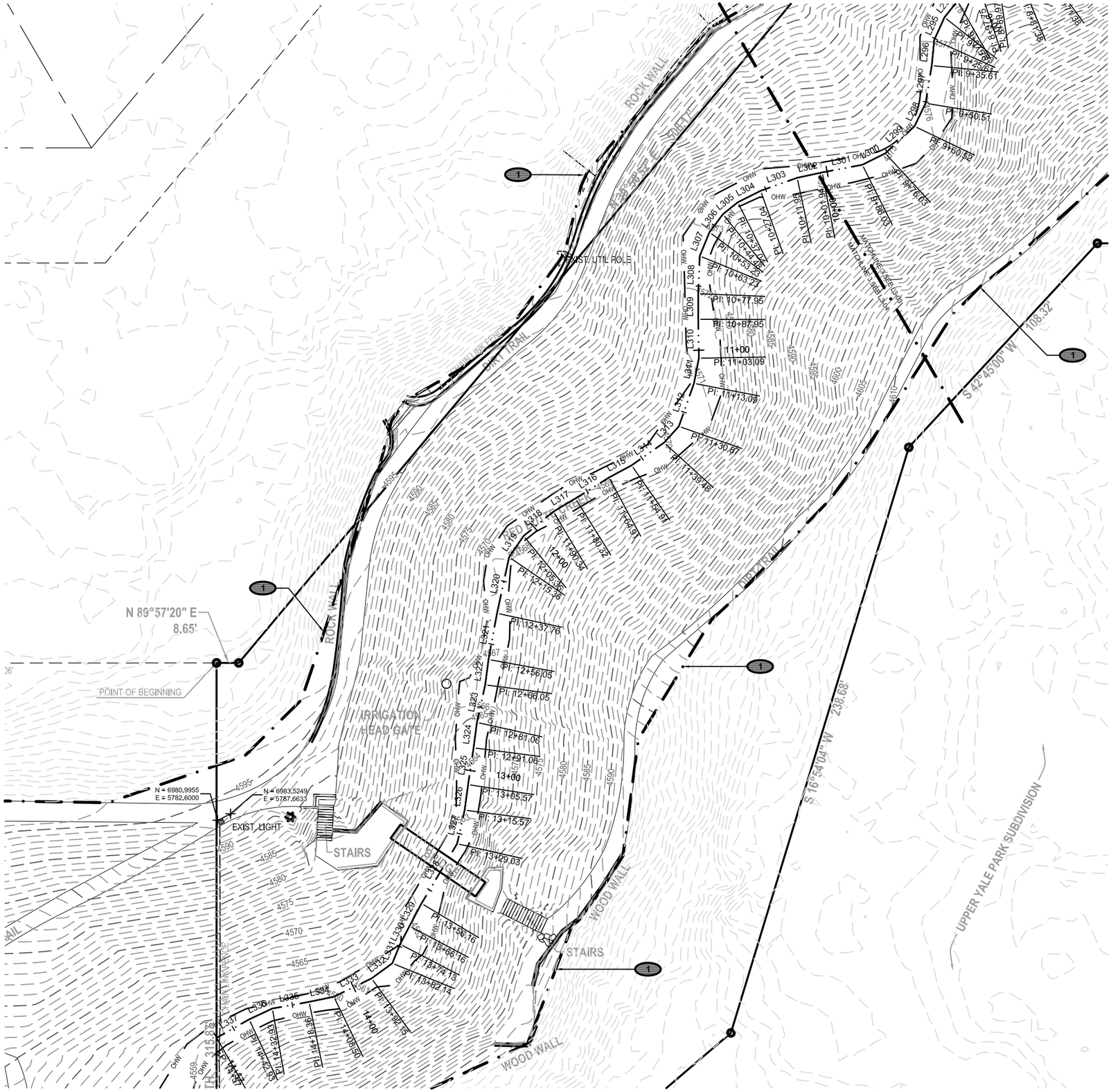
SHEET IDENTIFIER:

L3.03

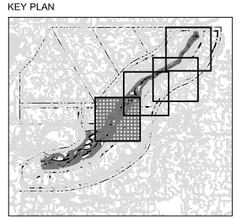
BINDING ORDER

REFERENCE NOTES

1 Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.



KEY PLAN



RECORD DOCUMENT

NORTH 0 10 20 40
1"=20'-0"

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LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:

MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810802
FILE #:
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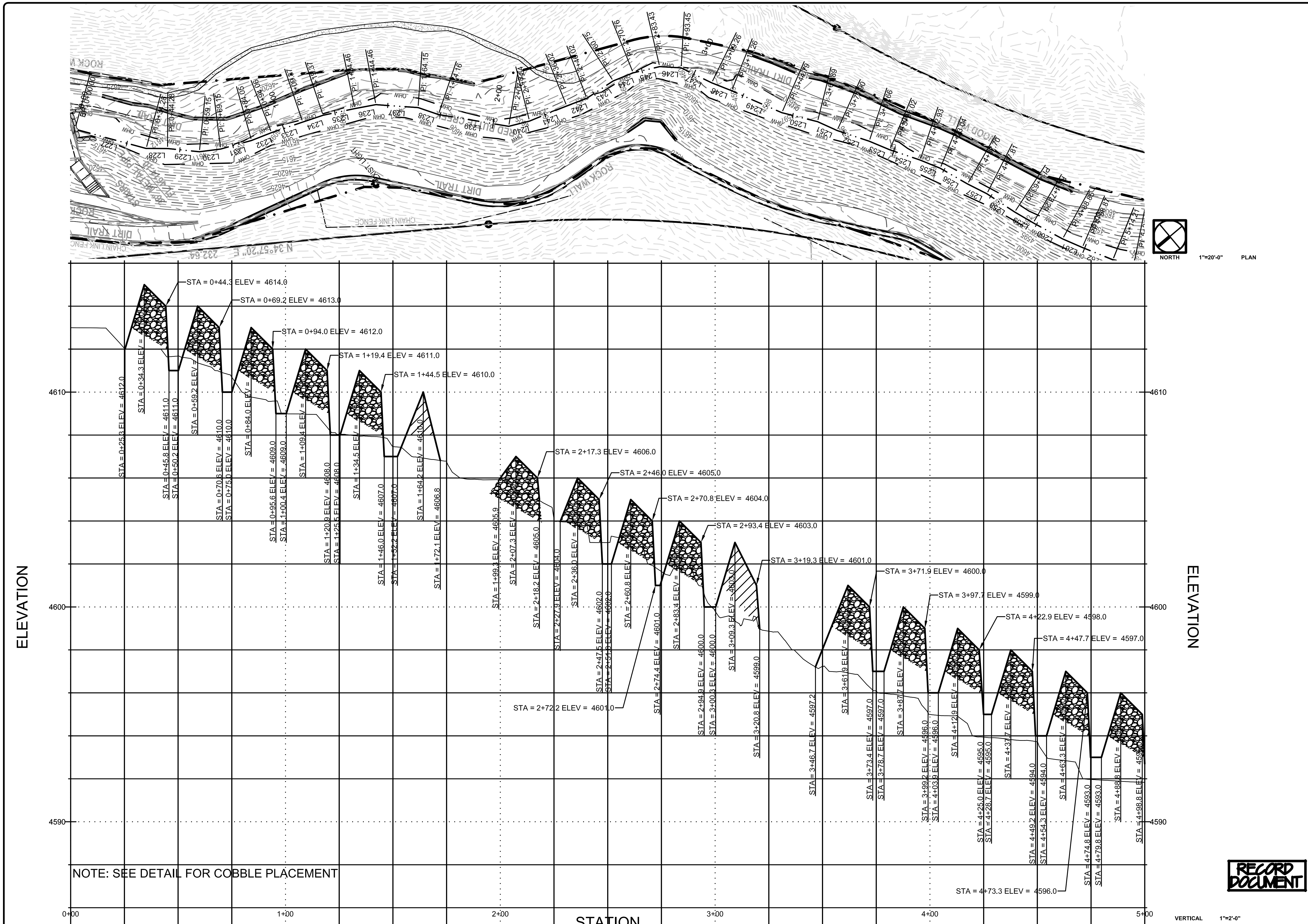
LAYOUT PLAN

SHEET IDENTIFIER:

L3.04

BINDING ORDER



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SALT LAKE CITY, UTAH 84111

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LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:

MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

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CONTRACT #:
PROJECT #: 510602
FILE #:
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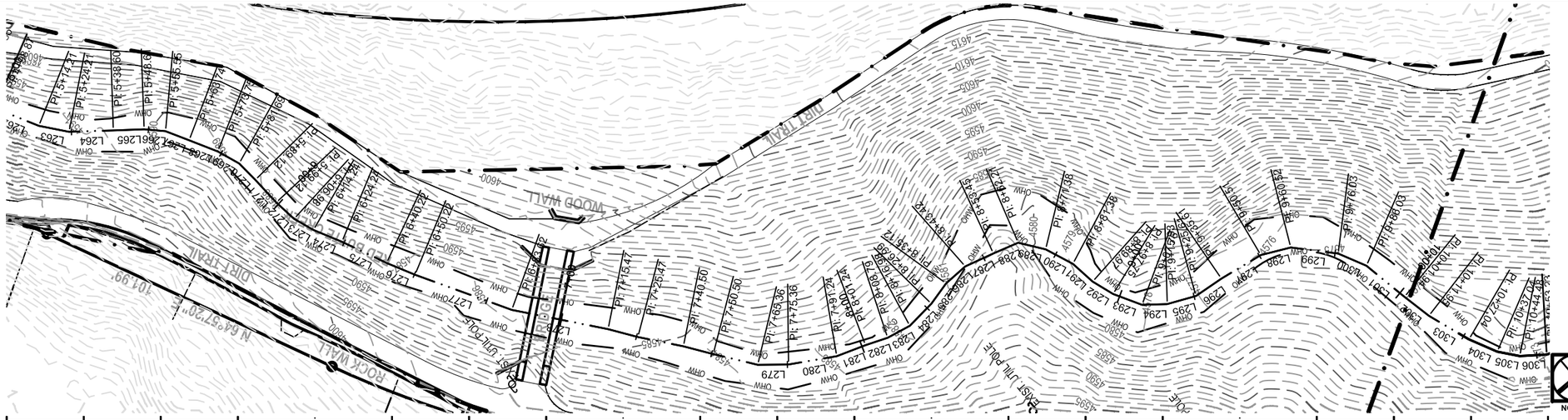
LAYOUT PLAN

PROFILE VIEW OF PV -(1)

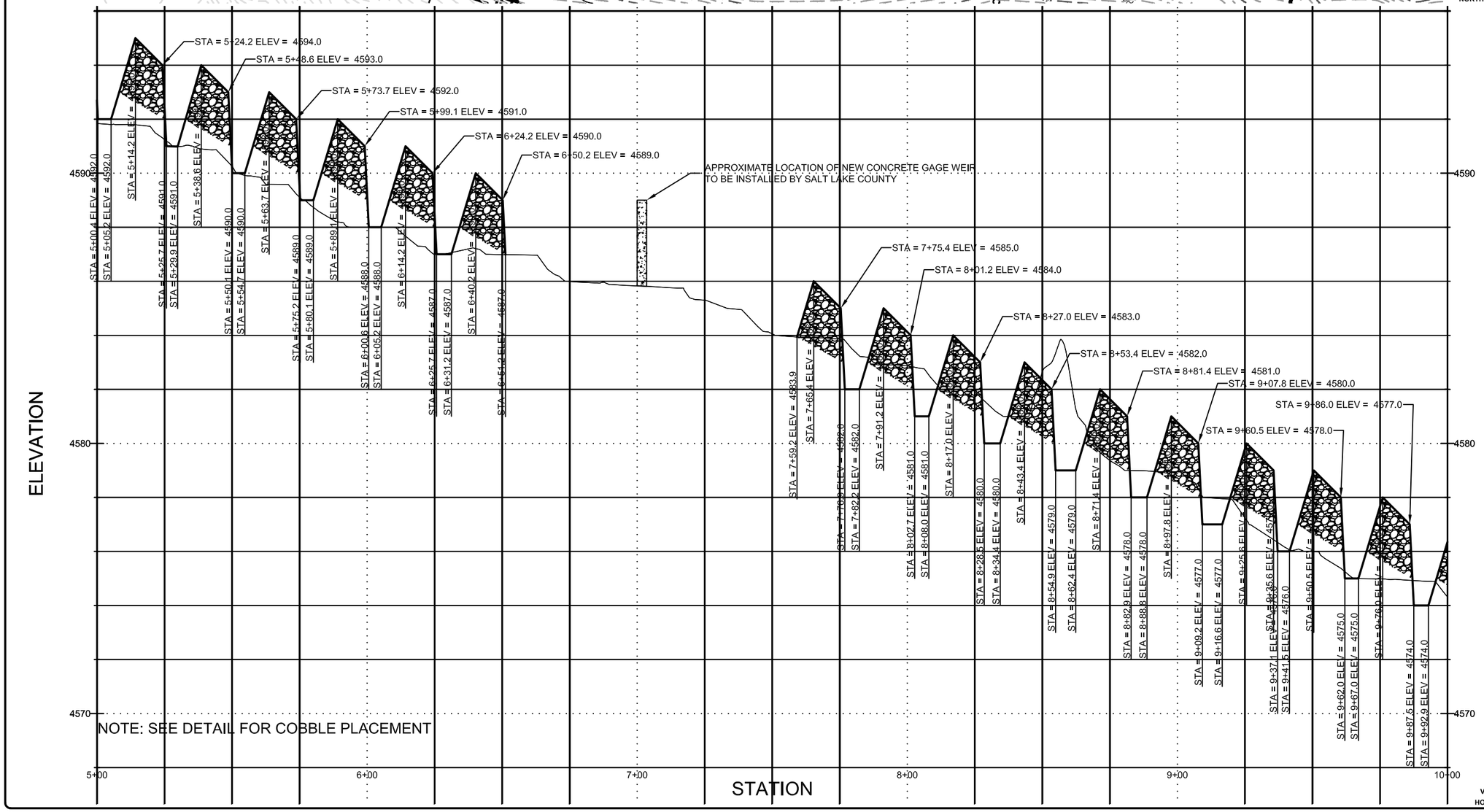
SHEET IDENTIFIER:

L3.05

BINDING ORDER



NORTH 1"=20'-0" PLAN



NOTE: SEE DETAIL FOR COBBLE PLACEMENT

VERTICAL 1"=2'-0"
HORIZONTAL 1"=20'-0" PROFILE

RECORD DOCUMENT

PREPARER:
SALT LAKE CITY CORPORATION
349 SOUTH 200 EAST SUITE 100
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10054B-2001
LICENSED LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810802
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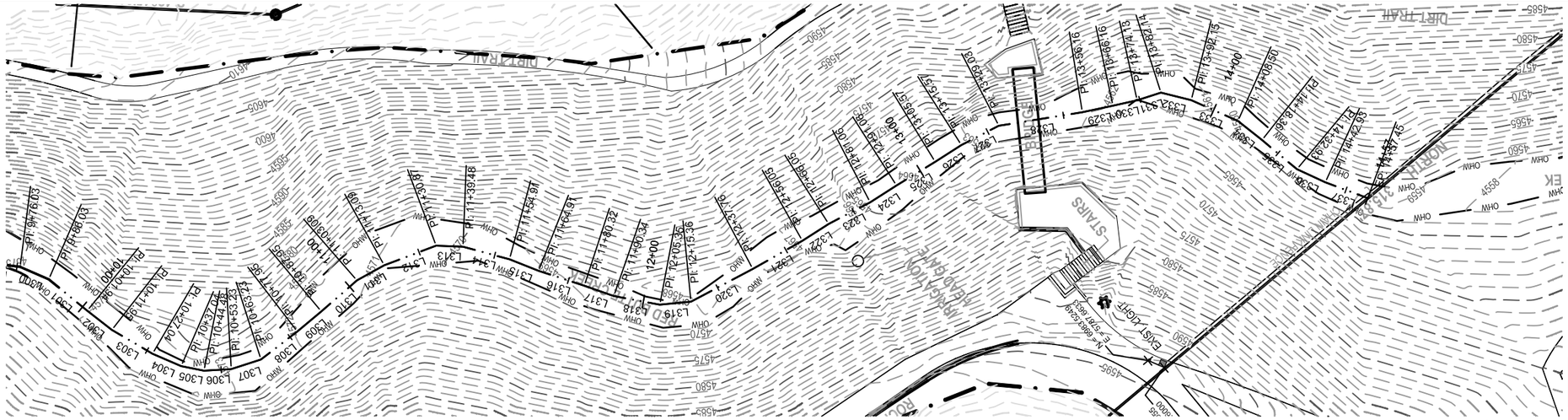
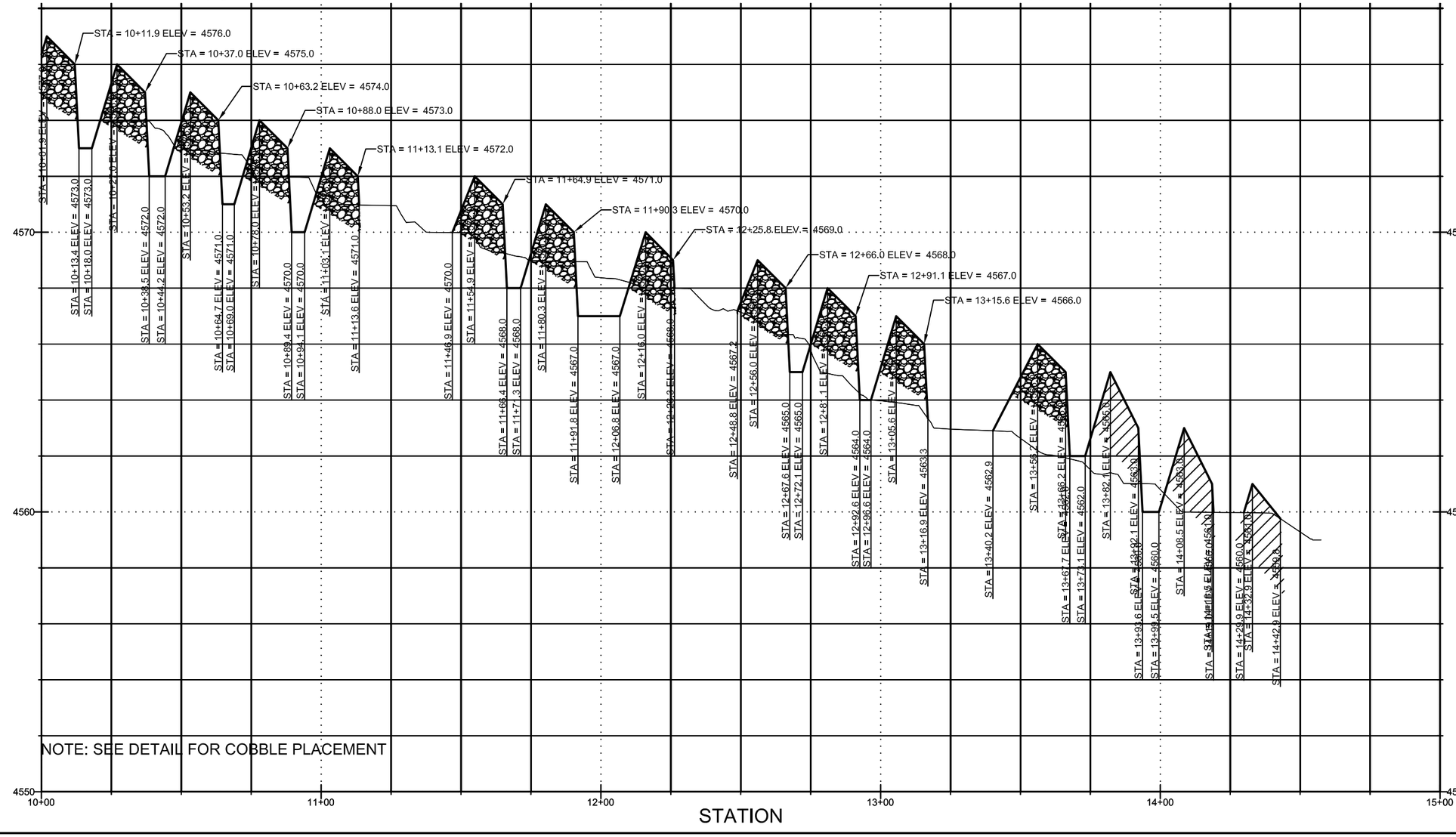
SHEET TITLE:
LAYOUT PLAN
PROFILE VIEW OF PV -(2)

SHEET IDENTIFIER:
L3.06

BINDING ORDER



NORTH 1"=20'-0" PLAN



NOTE: SEE DETAIL FOR COBBLE PLACEMENT

VERTICAL 1"=2'-0"
HORIZONTAL 1"=20'-0" PROFILE

RECORD DOCUMENT

PREPARER:

SALT LAKE CITY CORPORATION

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STATE OF UTAH
Terrell V. Budge
168549 - 5501
LICENSED LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:

MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810902
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SHEET TITLE:

LAYOUT PLAN

PROFILE VIEW OF PV -(3)

SHEET IDENTIFIER:

L3.07

BINDING ORDER

Line #	Length	Direction
L1	34.3	S55° 07' 33"W
L2	10.0	S40° 10' 40"W
L3	14.9	S45° 50' 18"W
L4	10.0	S32° 47' 43"W
L5	14.9	S24° 27' 04"W
L6	10.0	S18° 33' 35"W
L7	15.3	S21° 16' 03"W
L8	10.0	S21° 29' 37"W
L9	15.1	S28° 11' 30"W
L10	10.0	S29° 24' 12"W
L11	19.7	S43° 59' 37"W
L12	10.0	S58° 42' 01"W
L13	33.2	S49° 31' 52"W
L14	10.0	S25° 46' 17"W
L15	18.7	S17° 54' 57"W
L16	10.0	S19° 07' 35"W
L17	14.7	S06° 44' 15"W
L18	10.0	S17° 54' 55"W
L19	12.7	S26° 52' 45"W
L20	10.0	S43° 14' 39"W
L21	15.8	S66° 07' 45"W
L22	10.0	S61° 37' 09"W
L23	25.5	S63° 37' 08"W
L24	17.1	S53° 59' 48"W
L25	10.0	S64° 28' 54"W
L26	15.8	S58° 21' 38"W
L27	10.4	S62° 40' 28"W
L28	14.9	S58° 41' 19"W
L29	10.1	S62° 07' 03"W
L30	14.7	S69° 53' 31"W
L31	10.1	S66° 54' 50"W
L32	15.5	S73° 13' 28"W
L33	10.0	S70° 20' 06"W
L34	15.6	S68° 41' 31"W
L35	10.0	S63° 26' 43"W
L36	15.3	S61° 50' 58"W
L37	10.0	S51° 14' 36"W
L38	14.4	S38° 10' 36"W
L39	10.0	S37° 56' 47"W
L40	6.9	S45° 09' 29"W
L41	8.2	S60° 56' 22"W
L42	10.0	S61° 21' 55"W
L43	7.9	S69° 11' 05"W
L44	7.4	S85° 30' 16"W
L45	10.0	S87° 05' 44"W
L46	7.9	S82° 29' 15"W
L47	7.3	S69° 55' 26"W
L48	10.0	S62° 34' 42"W
L49	16.0	S65° 15' 36"W
L50	10.0	S62° 34' 42"W
L51	33.4	S59° 56' 25"W
L52	31.9	S51° 17' 59"W
L57	10.0	S39° 25' 21"W
L58	15.9	S30° 13' 34"W
L59	10.0	S19° 07' 48"W
L60	7.6	S21° 38' 11"W
L61	8.2	S11° 38' 35"W
L62	10.0	S05° 46' 07"E
L63	8.1	S14° 05' 35"E
L64	8.3	S01° 22' 46"E
L65	10.0	S15° 15' 13"W
L66	8.8	S16° 38' 13"W
L67	9.2	S53° 38' 47"W
L68	10.0	S67° 55' 39"W
L69	8.6	S81° 49' 07"W
L70	7.8	S71° 23' 34"W
L71	10.0	S60° 22' 20"W
L72	8.2	S38° 23' 42"W
L73	9.7	S24° 21' 23"W
L74	10.0	S05° 33' 51"W
L75	14.9	S09° 17' 09"W
L76	10.0	S25° 38' 48"W
L77	15.5	S47° 19' 54"W
L78	10.0	S63° 25' 56"W
L79	15.9	S79° 13' 31"W
L80	10.0	S77° 50' 57"W
L81	15.1	S70° 22' 10"W
L82	10.0	S63° 24' 57"W
L83	7.4	S51° 09' 29"W
L84	8.7	S36° 41' 20"W
L85	10.0	S22° 14' 17"W
L86	14.7	S02° 21' 15"W
L87	10.0	S00° 08' 03"W
L88	15.1	S01° 01' 15"E
L89	10.0	S10° 54' 55"W
L90	17.8	S19° 23' 30"W
L91	8.6	S42° 17' 42"W
L92	15.4	S55° 03' 23"W
L93	10.0	S61° 37' 13"W
L94	15.4	S58° 01' 42"W
L95	10.0	S59° 15' 37"W
L96	15.0	S50° 41' 51"W
L97	10.0	S34° 24' 47"W
L98	22.4	S12° 09' 15"W
L99	18.3	S10° 24' 18"W
L100	10.0	S07° 27' 17"W
L101	15.0	S12° 27' 27"W
L102	10.0	S07° 27' 17"W
L103	14.5	S08° 33' 54"W
L104	10.0	S07° 27' 17"W
L105	13.5	S12° 43' 34"W
L106	27.1	S30° 47' 12"W
L107	10.0	S27° 54' 49"W
L108	8.0	S27° 24' 17"W
L109	8.0	S22° 11' 11"W
L110	10.0	S53° 59' 41"W
L111	16.3	S64° 04' 53"W
L112	9.9	S78° 17' 10"W
L113	14.6	S79° 47' 37"W
L114	10.0	S64° 50' 41"W
L115	14.5	S60° 25' 48"W

RECORD DOCUMENT

PREPARER:
SALT LAKE CITY CORPORATION
349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:
Biohabitats
DESIGNWORKSHOP
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Salt Lake City, UT 84101-1801
(801) 359-4771
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WWW.DESIGNWORKSHOP.COM

PROFESSIONAL SEAL:
STATE OF UTAH
Terrell V. Budge
LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 610802
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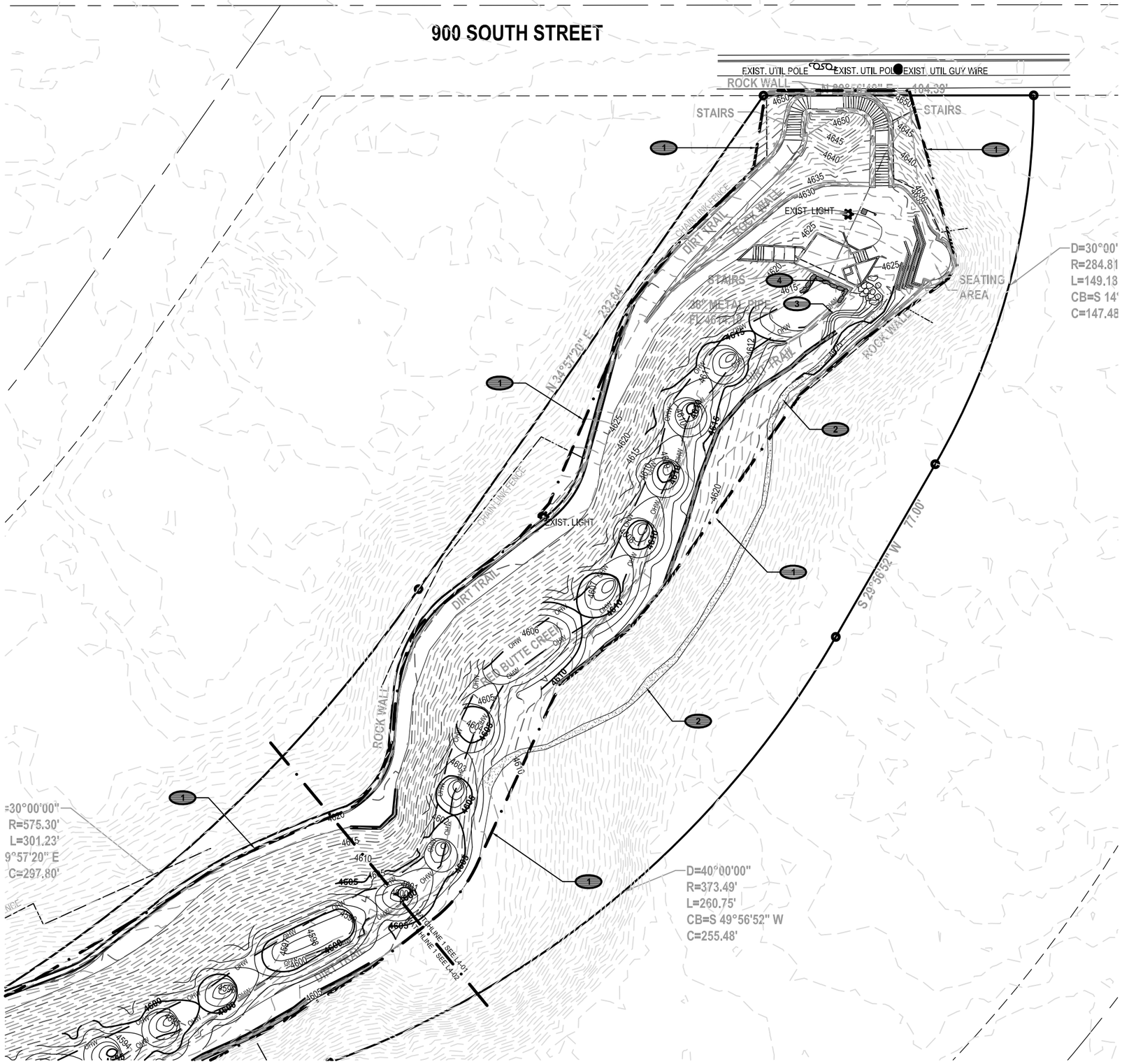
SHEET TITLE:
LAYOUT PLAN
CREEK ALIGNMENT DATA

SHEET IDENTIFIER:
L3.08

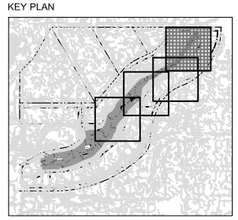
BINDING ORDER



REFERENCE NOTES

1. Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.
2. Grading and drainage of new pathway per pathway details and as directed on site by Owner's Representative and Landscape Architect.
3. Grading in this location intended to prevent existing trail from being used. Grading to be as directed by Owner's Representative and Landscape Architect.
4. Contractor shall exercise extreme caution in vicinity of existing stone structure. Contractor shall have a spotter in place to ensure safe clearance whenever equipment is near existing structure.

KEY PLAN



RECORD DOCUMENT

NORTH 0 10 20 40
1"=20'-0"

PREPARER:

SALT LAKE CITY CORPORATION

349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:

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LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:

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PROJECT OWNER:

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CONTRACT #:
PROJECT #: 810902
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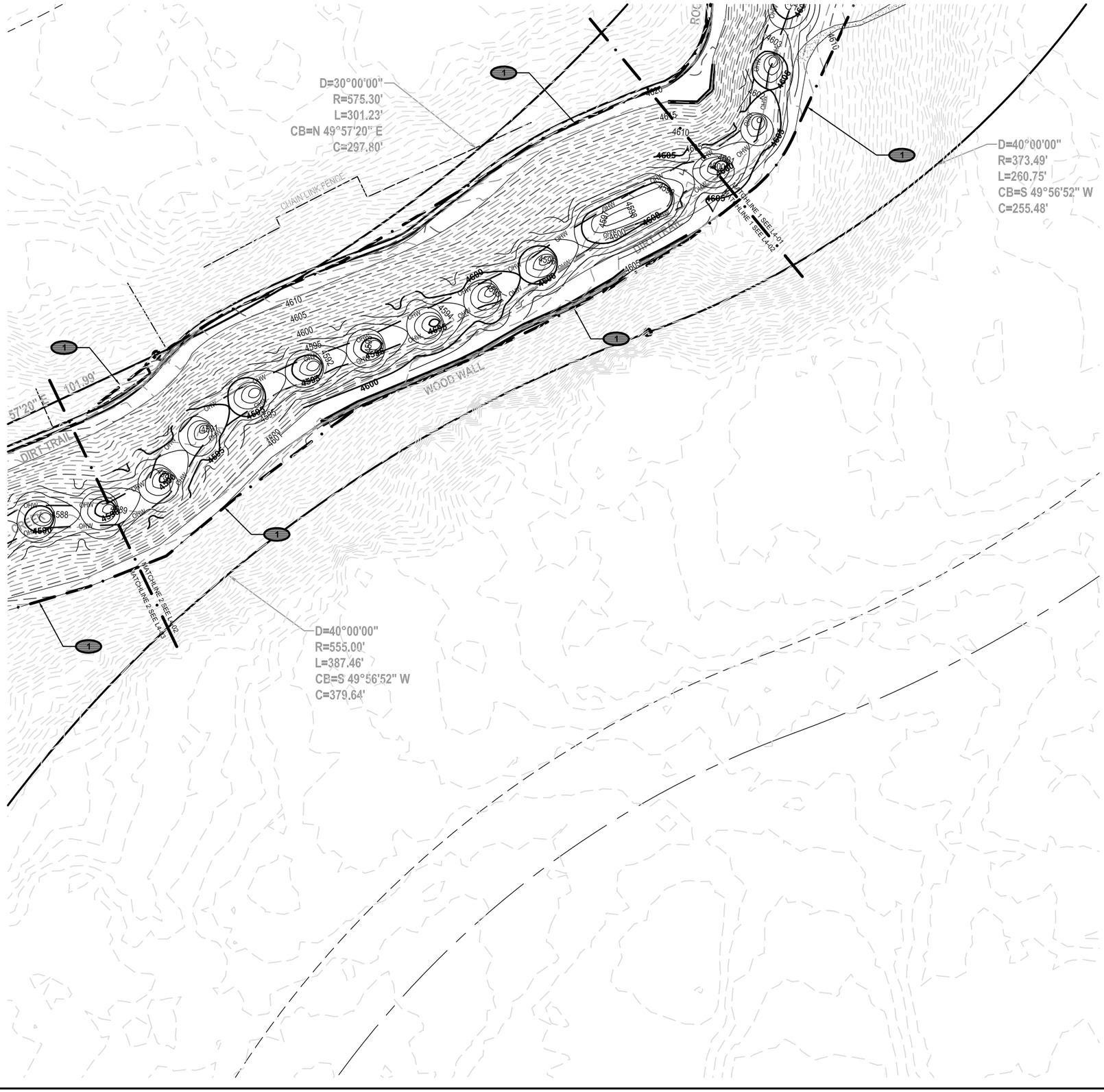
SHEET TITLE:

GRADING PLAN

SHEET IDENTIFIER:

L4.01

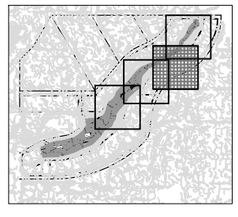
BINDING ORDER



REFERENCE NOTES

1 Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.

KEY PLAN



RECORD DOCUMENT

NORTH 0 10 20 40
1"=20'-0"

PREPARER:

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349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

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LANDSCAPE ARCHITECT

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PROJECT OWNER:

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PREPARER #:
CONTRACT #:
PROJECT #: 610802
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SHEET TITLE:

GRADING PLAN

SHEET IDENTIFIER:

L4.02

BINDING ORDER

REFERENCE NOTES

1. Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.
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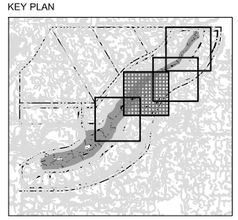
KEY PLAN



RECORD DOCUMENT

NORTH 0 10 20 40
1"=20'-0"

PREPARER:

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224 South 200 West, Suite 150
Salt Lake City, UT 84101-1601
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Facsimile (801) 359-4411
WWW.DESIGNWORKSHOP.COM

PROFESSIONAL SEAL:

STATE OF UTAH
Terrell V. Budge
10054B-2201
LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:

MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810902
FILE #:
DRAWING FILE:
DRAWN BY:
CHECKED BY:
COPYRIGHT:

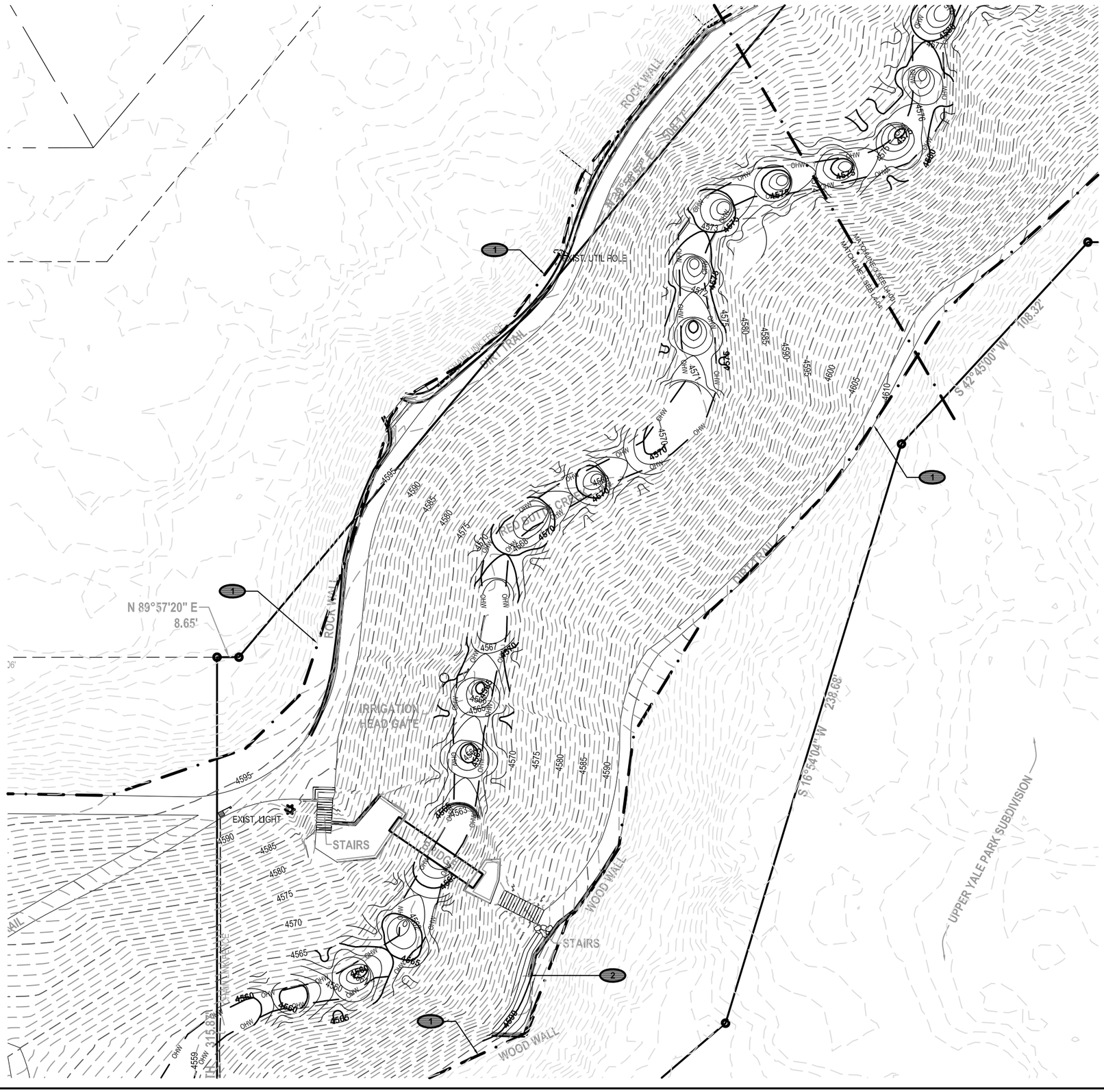
SHEET TITLE:

GRADING PLAN

SHEET IDENTIFIER:

L4.03

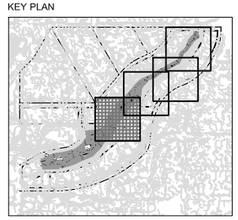
BINDING ORDER



REFERENCE NOTES

1. Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.
2. Grading in this location intended to prevent existing trail from being used and cover existing timber retaining wall. Grading to be as directed by Owner's Representative and Landscape Architect.

KEY PLAN



RECORD DOCUMENT

NORTH 0 10 20 40
1"=20'-0"

PREPARER:

SALT LAKE CITY CORPORATION

349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:

Biohabitats
1730 Wazee Street Suite 209
Denver, CO 80202 / ph: 303.477.0660
fx: 303.477.4648 / www.biohabitats.com
Restore the Earth & Inspire Ecological Stewardship

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PROFESSIONAL SEAL:

STATE OF UTAH
Terrell V. Budge
168549-5501
LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:

MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

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DRAWING FILE:
DRAWN BY:
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SHEET TITLE:

GRADING PLAN

SHEET IDENTIFIER:

L4.04

BINDING ORDER

Plant List

ABBR.	BOTANICAL NAME	COMMON NAME.	QTY.	SIZE
TREES				
AG	Acer grandidentatum	Big Tooth Maple	28	#15
AN	Acer negundo	Boxelder	32	#15
Ai	Alnus incana	Alder	31	#20
BO	Betula occidentalis	River Birch	9	#20
QG	Quercus gambelii	Scrub Oak	21	#15
SHRUBS				
AA	Amelanchier alnifolia	Serviceberry	23	3 GAL
CN	Chrysothamnus nauseosus	Rubber Rabbitbrush	137	3 GAL
PV	Prunus virginiana	Chokecherry	33	3 GAL
RA	Ribes aureum	Golden Current	123	3 GAL
RW	Rosa woodsii	Woods Rose	107	3 GAL
SC	Sambucus caerulea	Elderberry	104	3 GAL
SA	Symphoricarpos occidentalis	Snowberry	44	3 GAL
RIPARIAN				
	Cornus sericea	Redtwig Dogwood	1,200	1 GAL
	Salix exigua	Sandbar Willow	1,500	1 GAL
SEED				
	Native Seed Mix			

PLANT COMPOSITION SCHEDULE

Miller Park Restoration Native Seed Mix — Size (acres): 1.00

Overall Minimum Spacing (ft.)	Quantity per acre	Frequency	Species Quantity	Vegetation Strata/ Species Name	Common Name	Unit	Spacing Type	Size	Individual Minimum Spacing (ft.)
N/A	40	%	LBS.	NATIVE SEED					
		20.0	8.0	*Achnatherum hymenoides*	Indian ricegrass	LB of P.L.S. 70%	SEED	N/A	N/A
		20.0	8.0	*Agropyron spicata*	Bluebunch wheatgrass	LB of P.L.S. 70%	SEED	N/A	N/A
		20.0	8.0	*Leymus cinereus*	Great Basin wild rye	LB of P.L.S. 70%	SEED	N/A	N/A
		10.0	4.0	*Poa secunda*	Sandberg bluegrass	LB of P.L.S. 70%	SEED	N/A	N/A
		10.0	4.0	*Poa fendleriana*	Muttongrass	LB of P.L.S. 70%	SEED	N/A	N/A
		4.0	2.0	*Balsamorhiza macrophylla*	Cutleaf balsamroot	LB of P.L.S. 70%	SEED	N/A	N/A
		4.0	2.0	*Geranium viscosissimum*	Wild geranium	LB of P.L.S. 70%	SEED	N/A	N/A
		2.0	1.0	*Hedysarum boreale*	Sweetvetch	LB of P.L.S. 70%	SEED	N/A	N/A
		2.0	1.0	*Linum lewisii*	Lewis flax	LB of P.L.S. 70%	SEED	N/A	N/A
		2.0	1.0	*Penstemon cyananthus*	Wasatch penstemon	LB of P.L.S. 70%	SEED	N/A	N/A
		2.0	1.0	*Rudbeckia occidentalis*	Western coneflower	LB of P.L.S. 70%	SEED	N/A	N/A
		4.0	2.0	*Thermopsis Montana*	Golden banner	LB of P.L.S. 70%	SEED	N/A	N/A
		100.0	42.0	= total					

Seed quantity is for broadcast seeding.
P.L.S.= Pure Live Seed

NOTE: Space plants as noted on drawings and details and as directed by Owner's Representative and Landscape Architect.

PLANT DETAIL KEY NOTES:

		DETAIL/SHEET
4.0	**PLANTING AND LANDSCAPE**	
4.1	Deciduous Tree	1 & 2/L7.09
4.2	Deciduous Shrub	3/L7.09

REFERENCE NOTES

1. Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.
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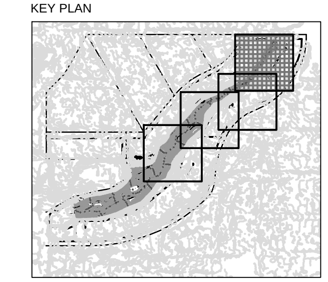
KEY PLAN



RECORD DOCUMENT

NORTH

0 10 20 40
1"=20'-0"

PREPARER:
SALT LAKE CITY CORPORATION
349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:
Biohabitats
DESIGNWORKSHOP
Landscape Architecture • Land Planning
Urban Design • Strategic Services
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WWW.DESIGNWORKSHOP.COM

PROFESSIONAL SEAL:
STATE OF UTAH
Terrall V. Budge
LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

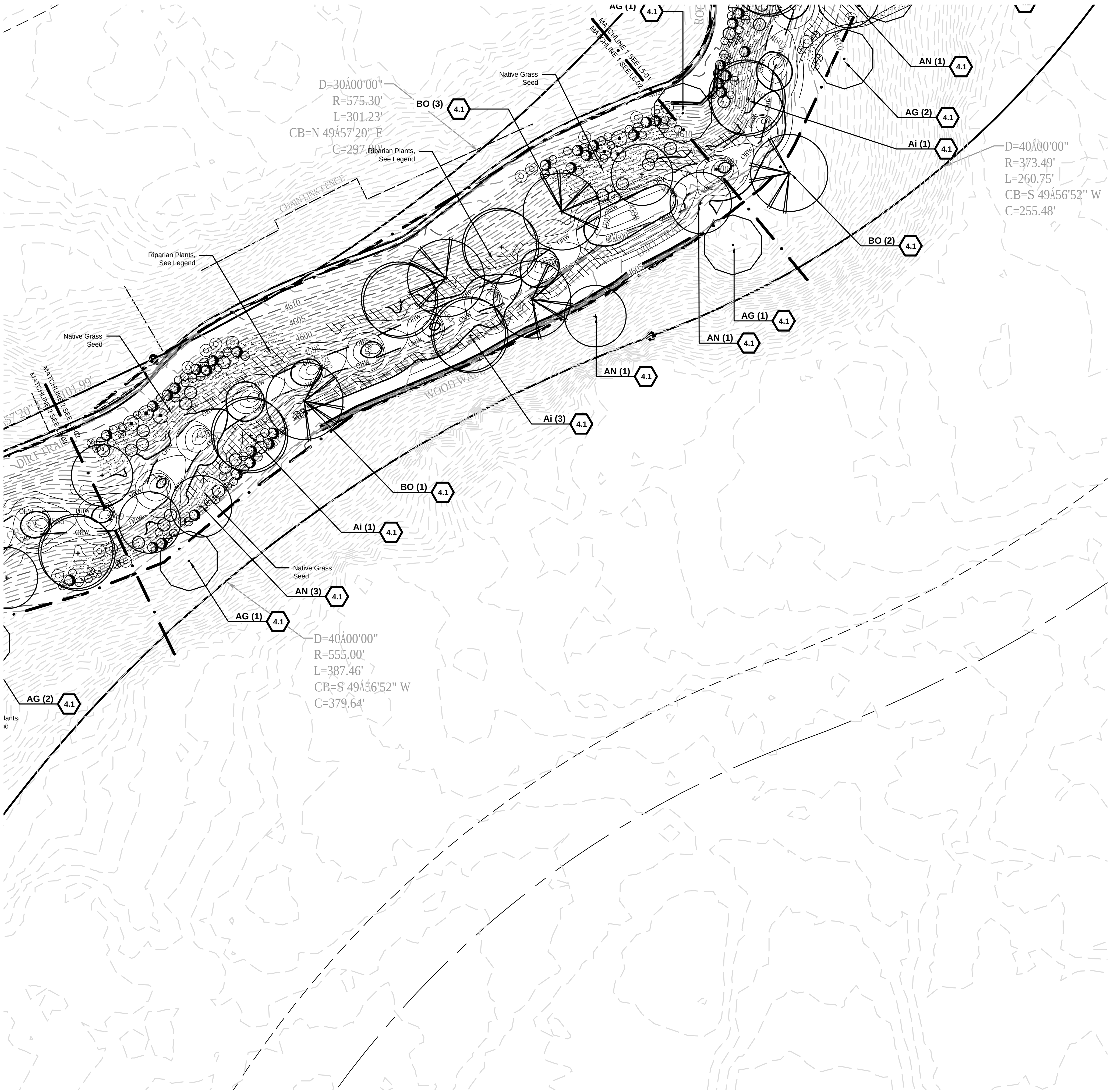
MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810802
FILE #:
DRAWING FILE:
DRAWN BY:
CHECKED BY:
COPYRIGHT:

SHEET TITLE:
PLANTING PLAN

SHEET IDENTIFIER:
L5.01

BINDING ORDER



Plant List

ABBR.		BOTANICAL NAME	COMMON NAME.	QTY.	SIZE
TREES					
AG		Acer grandidentatum	Big Tooth Maple	28	#15
AN		Acer negundo	Boxelder	32	#15
Ai		Alnus incana	Alder	31	#20
BO		Betula occidentalis	River Birch	9	#20
QG		Quercus gambelii	Scrub Oak	21	#15
SHRUBS					
AA		Amelanchier alnifolia	Serviceberry	23	3 GAL
CN		Chrysothamnus nauseosus	Rubber Rabbitbrush	137	3 GAL
PV		Prunus virginiana	Chokecherry	33	3 GAL
RA		Ribes aureum	Golden Current	123	3 GAL
RW		Rosa woodsii	Woods Rose	107	3 GAL
SC		Sambucus caerulea	Elderberry	104	3 GAL
SA		Symphoricarpos occidentalis	Snowberry	44	3 GAL
RIPARIAN					
		Cornus sericea	Redtwig Dogwood	1,200	1 GAL
		Salix exigua	Sandbar Willow	1,500	1 GAL
SEED					
		Native Seed Mix			

PLANT COMPOSITION SCHEDULE

Miller Park Restoration Native Seed Mix Size (acres): 1.00

Overall Minimum Spacing (ft.)	Quantity per acre	Frequency	Species Quantity	Vegetation Strata/ Species Name	Common Name	Unit	Spacing Type	Size	Individual Minimum Spacing (ft.)
N/A	40	%	LBS.	NATIVE SEED					
		20.0	8.0	*Achnatherum hymenoides*	Indian ricegrass	LB of P.L.S. 75%	SEED	N/A	N/A
		20.0	8.0	*Agropyron spicata*	Bluebunch wheatgrass	LB of P.L.S. 75%	SEED	N/A	N/A
		20.0	8.0	*Leymus cinereus*	Great Basin wild rye	LB of P.L.S. 75%	SEED	N/A	N/A
		10.0	4.0	*Poa secunda*	Sandberg bluegrass	LB of P.L.S. 75%	SEED	N/A	N/A
		10.0	4.0	*Poa fendleriana*	Muttongrass	LB of P.L.S. 75%	SEED	N/A	N/A
		4.0	2.0	*Balsamorhiza macrophylla*	Cutleaf balsamroot	LB of P.L.S. 75%	SEED	N/A	N/A
		4.0	2.0	*Geranium viscosissimum*	Wild geranium	LB of P.L.S. 75%	SEED	N/A	N/A
		2.0	1.0	*Hedysarum boreale*	Sweetvetch	LB of P.L.S. 75%	SEED	N/A	N/A
		2.0	1.0	*Linum lewisii*	Lewis flax	LB of P.L.S. 75%	SEED	N/A	N/A
		2.0	1.0	*Penstemon cyananthus*	Wasatch penstemon	LB of P.L.S. 75%	SEED	N/A	N/A
		2.0	1.0	*Rudbeckia occidentalis*	Western coneflower	LB of P.L.S. 75%	SEED	N/A	N/A
		4.0	2.0	*Thermopsis Montana*	Golden banner	LB of P.L.S. 75%	SEED	N/A	N/A
		100.0	42.0	= total					

Seed quantity is for broadcast seeding.
P.L.S.= Pure Live Seed

NOTE: Space plants as noted on drawings and details and as directed by Owner's Representative and Landscape Architect.

PLANT DETAIL KEY NOTES: DETAIL/SHEET

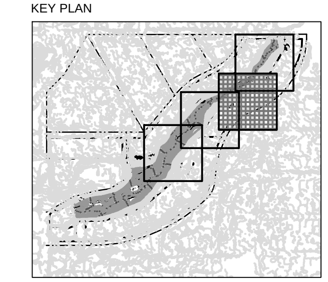
4.0 PLANTING AND LANDSCAPE

4.1	Deciduous Tree	1 & 2/L7.09
4.2	Deciduous Shrub	3/L7.09

REFERENCE NOTES

1 Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.

KEY PLAN



RECORD DOCUMENT

NORTH

0 10 20 40
1"=20'-0"

PREPARER:
SALT LAKE CITY CORPORATION
349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:
Biohabitats

DESIGNWORKSHOP
Landscape Architecture • Land Planning
Urban Design • Strategic Services
224 South 200 West, Suite 150
Salt Lake City, UT 84101-1801
(801) 359-4771
Facsimile (801) 359-4411
WWW.DESIGNWORKSHOP.COM

PROFESSIONAL SEAL:
State of Utah
Terrell V. Budge

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810802
FILE #:
DRAWING FILE:
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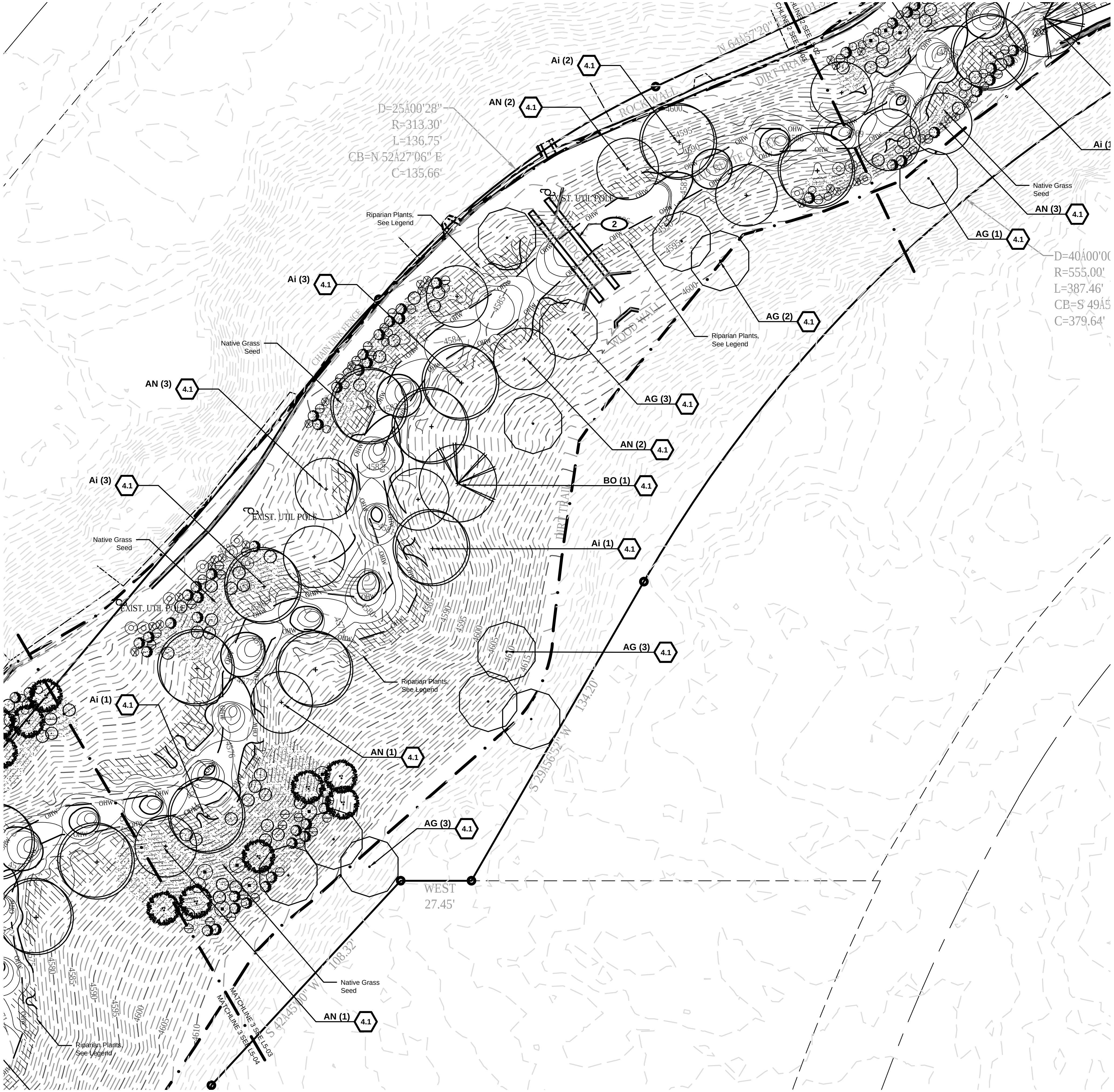
SHEET TITLE:
PLANTING PLAN

SHEET IDENTIFIER:
L5.02

BINDING ORDER



Plant List

ABBR.	BOTANICAL NAME	COMMON NAME.	QTY.	SIZE
TREES				
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QG	Quercus gambelii	Scrub Oak	21	#15
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AA	Amelanchier alnifolia	Serviceberry	23	3 GAL
CN	Chrysothamnus nauseosus	Rubber Rabbitbrush	137	3 GAL
PV	Prunus virginiana	Chokecherry	33	3 GAL
RA	Ribes aureum	Golden Current	123	3 GAL
RW	Rosa woodsii	Woods Rose	107	3 GAL
SC	Sambucus caerulea	Elderberry	104	3 GAL
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RIPARIAN				
	Cornus sericea	Redtwig Dogwood	1,200	1 GAL
	Salix exigua	Sandbar Willow	1,500	1 GAL
SEED				
	Native Seed Mix			

PLANT COMPOSITION SCHEDULE

Miller Park Restoration Native Seed Mix Size (acres): 1.00

Overall Minimum Spacing (ft.)	Quantity per acre	Frequency	Species Quantity	Vegetation Strata/ Species Name	Common Name	Unit	Spacing Type	Size	Individual Minimum Spacing (ft.)
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		2.0	1.0	*Penstemon cyananthus*	Wasatch penstemon	LB of P.L.S. 70%	SEED	N/A	N/A
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		4.0	2.0	*Thermopsis Montana*	Golden banner	LB of P.L.S. 70%	SEED	N/A	N/A
		100.0	42.0	= total					

Seed quantity is for broadcast seeding.
P.L.S.= Pure Live Seed

NOTE: Space plants as noted on drawings and details and as directed by Owner's Representative and Landscape Architect.

PLANT DETAIL KEY NOTES:

DETAIL/SHEET

4.0 PLANTING AND LANDSCAPE

4.1	Deciduous Tree	1 & 2/L7.09
4.2	Deciduous Shrub	3/L7.09

REFERENCE NOTES

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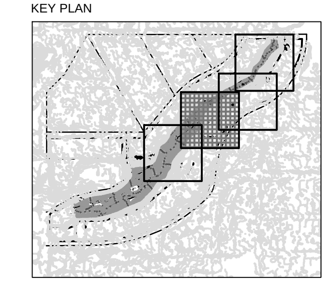

RECORD DOCUMENT

NORTH

0 10 20 40
1"=20'-0"

PREPARER:
SALT LAKE CITY CORPORATION
349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:
Biohabitats

DESIGNWORKSHOP
Landscape Architecture • Land Planning
Urban Design • Strategic Services
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WWW.DESIGNWORKSHOP.COM

PROFESSIONAL SEAL:
STATE OF UTAH
Terrell V. Budge
LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

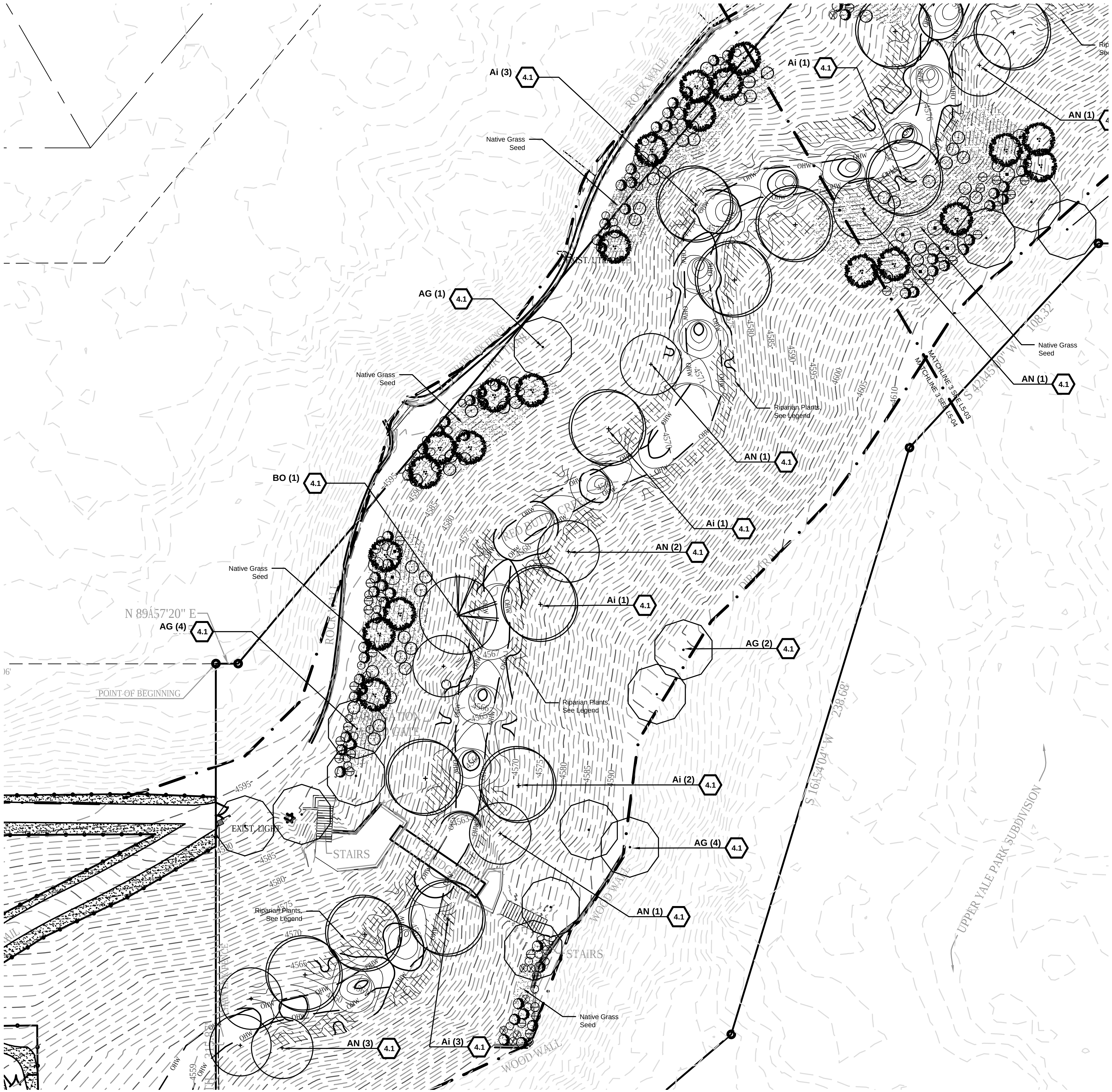
MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810802
FILE #:
DRAWING FILE:
DRAWN BY:
CHECKED BY:
COPYRIGHT:

SHEET TITLE:
PLANTING PLAN

SHEET IDENTIFIER:
L5.03

BINDING ORDER



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PLANT COMPOSITION SCHEDULE

Miller Park Restoration Native Seed Mix — Size (acres): 1.00

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PLANT DETAIL KEY NOTES: DETAIL/SHEET

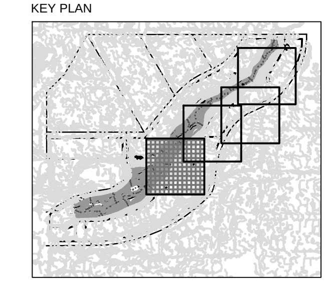
4.0 PLANTING AND LANDSCAPE

4.1	Deciduous Tree	1 & 2/L7.09
4.2	Deciduous Shrub	3/L7.09

REFERENCE NOTES

1. Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.

KEY PLAN



RECORD DOCUMENT

NORTH

0 10 20 40
1"=20'-0"

PREPARER:
SALT LAKE CITY CORPORATION
349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:
Biohabitats
SOUTHERN ROCKY MOUNTAIN BIOREGION
1732 Wazee Street Suite 209
Denver, CO 80202 / ph: 303.477.0660
fx: 303.477.4648 / www.biohabitats.com
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PROFESSIONAL SEAL:
STATE OF UTAH
Terrell V. Budge
LICENSED LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

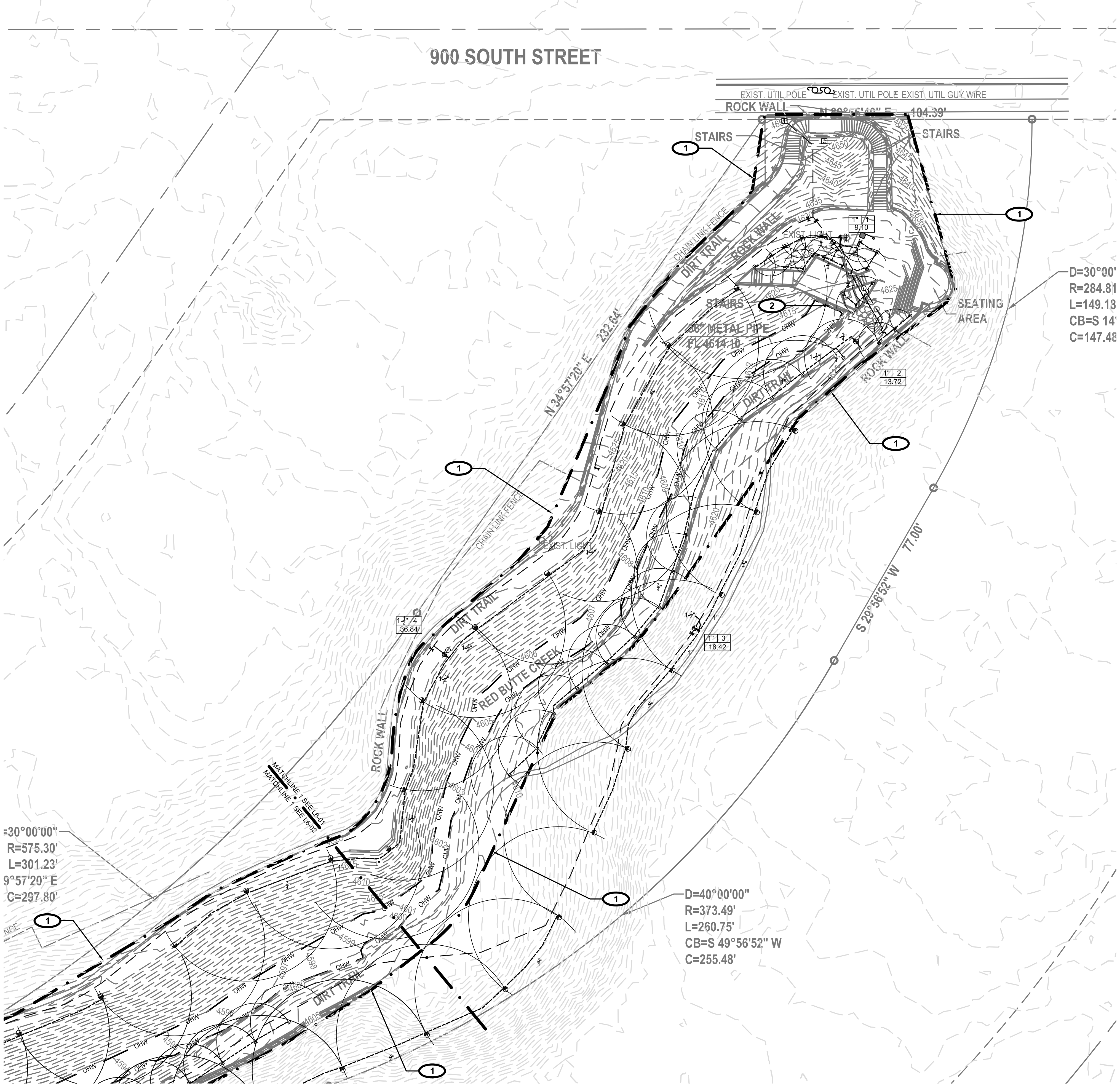
MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810602
FILE #:
DRAWING FILE:
DRAWN BY:
CHECKED BY:
COPYRIGHT:

SHEET TITLE:
PLANTING PLAN

SHEET IDENTIFIER:
L5.04

BINDING ORDER



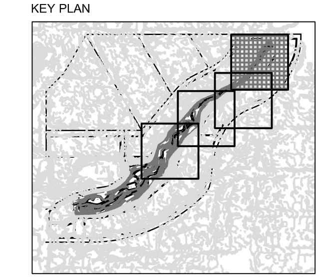
IRRIGATION SCHEDULE

- ⊞ Point of Connection. See diagram and details on sheet L7.10
- Rain Bird ESP12LXMEF pedestal mounted controller, with Rain Bird LXMMPED metal pedestal. See detail 1 & 2 on sheet L7.11
- 2" Apollo 70B-140 series brass ball valve. See detail 5 on sheet L7.10
- Rain Bird 33DLRC quick coupling valve. See detail 1 on sheet L7.12
- Rain Bird PESB-PRS-D remote control valve complete per detail 5 on sheet L7.11. Size as per plan.
- Rain Bird 1806-SAM-PRS series pop-up spray heads with 8q and 8h nozzles. See detail 4 on sheet L7.12
- Rain Bird 1812-SAM-P45 series pop-up spray heads with R13-18h nozzles. See detail 3 on sheet L7.12
- Rain Bird 5012PC-SAM-PRS series pop-up rotor heads with 3.0 LA nozzles. See detail 2 on sheet L7.12
- New 2" Schedule 40 PVC mainline piping. See detail 3 & 4 on sheet L7.11
- New Schedule 40 PVC lateral piping. Sizes per plan. See detail 3 on sheet L7.11
- size # / gpm — Valve designator

REFERENCE NOTES

1. Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.
2. Contractor shall exercise extreme caution in vicinity of existing stone structure. Contractor shall have a spotter in place to ensure safe clearance whenever equipment is near existing structure.

KEY PLAN



RECORD DOCUMENT

NORTH 0 10 20 40
1"=20'-0"

PREPARER:
SALT LAKE CITY CORPORATION
349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:
Biohabitats
DESIGNWORKSHOP
Landscape Architecture • Land Planning
Urban Design • Strategic Services
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224 South 200 West, Suite 150
Salt Lake City, UT 84101-1801
(801) 359-4771
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WWW.DESIGNWORKSHOP.COM

PROFESSIONAL SEAL:
STATE OF UTAH
Terrell V. Budge
LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810802
FILE #:
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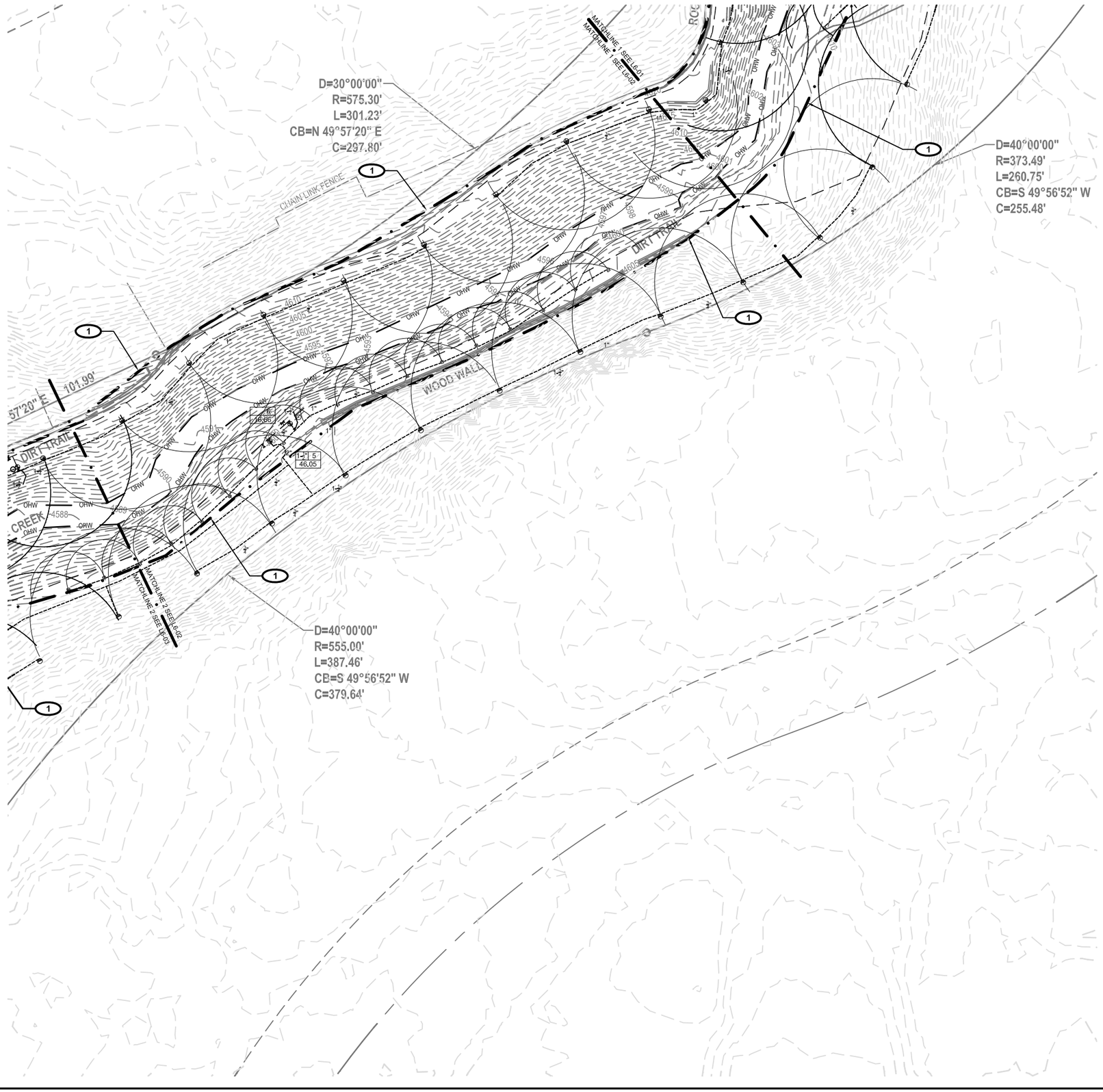
SHEET TITLE:
IRRIGATION PLAN

SHEET IDENTIFIER:
L6.01

BINDING ORDER



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size | #
gpm — Valve designator

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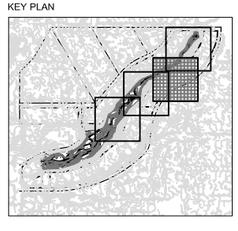

RECORD DOCUMENT

NORTH 0 10 20 40
1"=20'-0"

PREPARER:
SALT LAKE CITY CORPORATION
349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:
Biohabitats
1730 Wazee Street Suite 209
Denver, CO 80202 / ph: 303.477.6660
fx: 303.477.6688 / www.biohabitats.com
Bureau des Esprit de Aspen Ecological Stewardship

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Salt Lake City, UT 84101-1601
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PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

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CONTRACT #:
PROJECT #: 510802
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SHEET IDENTIFIER:
L6.02
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IRRIGATION SCHEDULE

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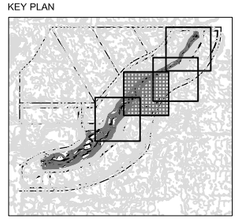

RECORD DOCUMENT

NORTH 0 10 20 40
1"=20'-0"

PREPARER:

SALT LAKE CITY CORPORATION

349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

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Bureau des Experts en Ingénie Ecologique Sustainable

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PROFESSIONAL SEAL:

STATE OF UTAH
Terrell V. Budge
108545-2201
LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:

MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

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PREPARER #:
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IRRIGATION PLAN

SHEET IDENTIFIER:

L6.03

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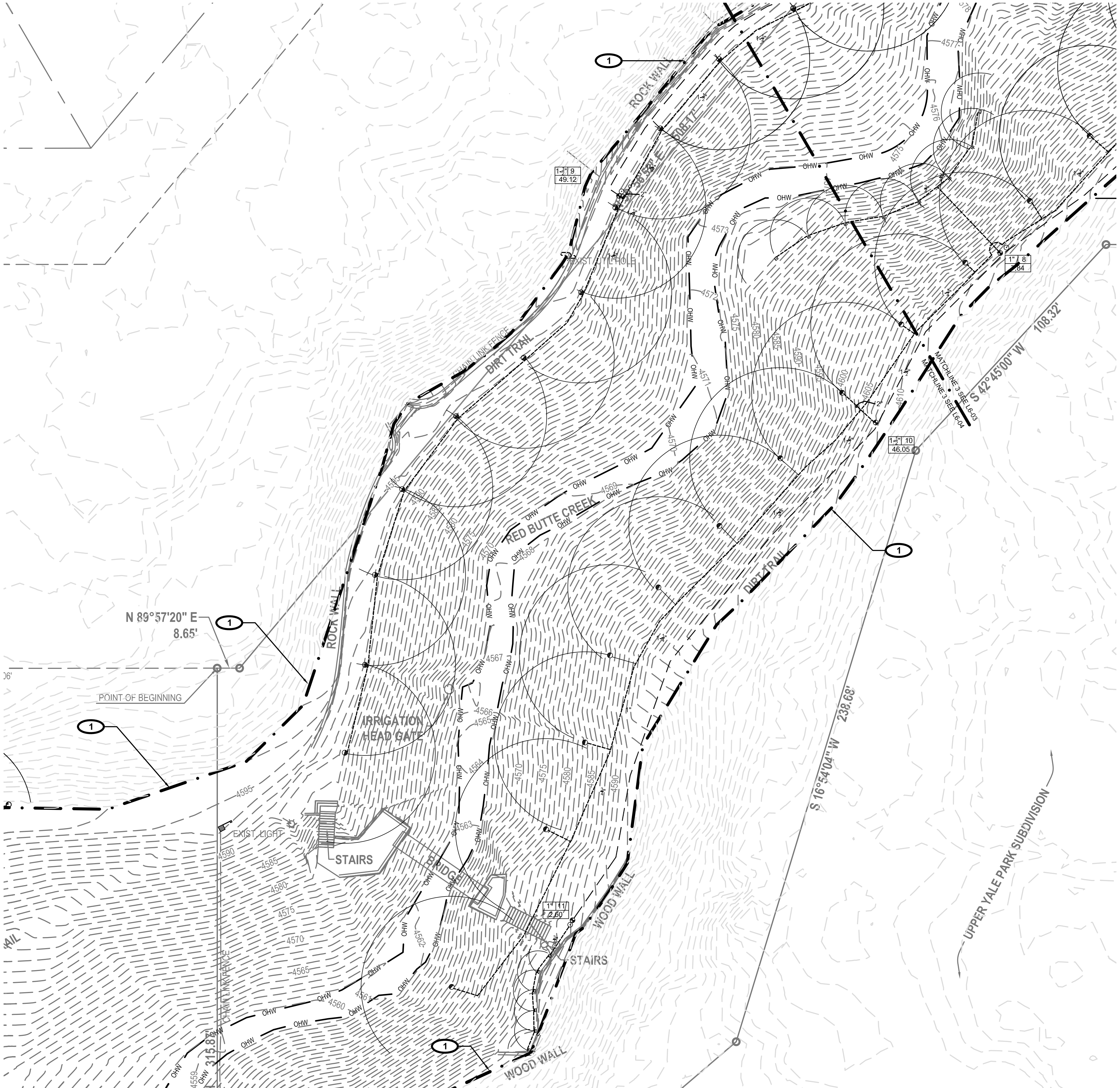

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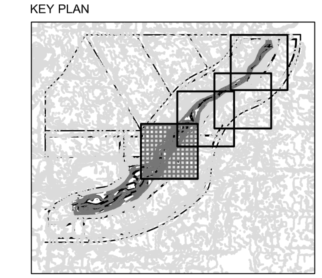

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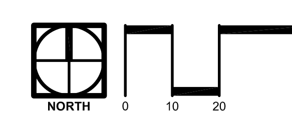

PREPARER:

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Biohabitats

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PROFESSIONAL SEAL:

STATE OF UTAH
Terrell V. Budge
LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:

MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

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PROJECT #: 810602
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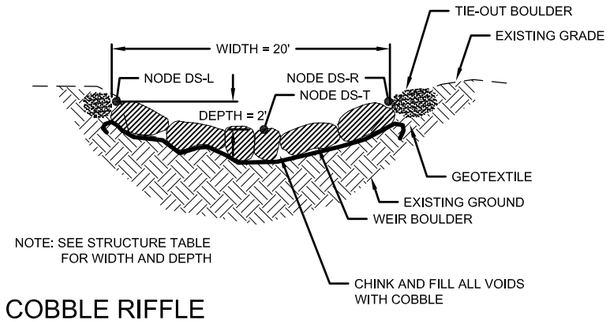
IRRIGATION PLAN

SHEET IDENTIFIER:

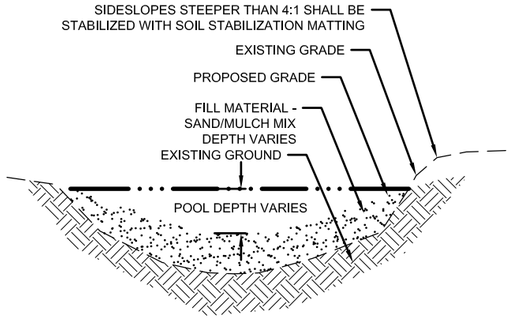
L6.04

BINDING ORDER



COBBLE RIFFLE
BOULDER CROSS SECTION

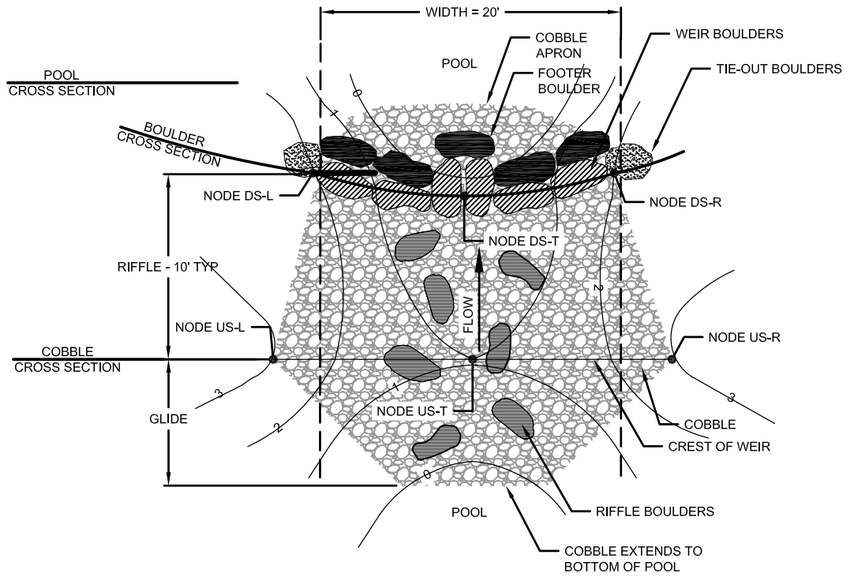
NOT TO SCALE



COBBLE RIFFLE
POOL CROSS SECTION

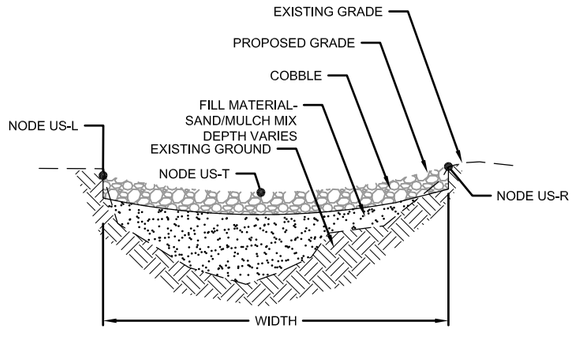
NOT TO SCALE

NOTE: SEE SHEET L7.05 FOR STRUCTURE NODE COORDINATES AND ELEVATIONS



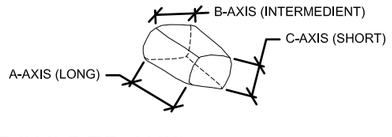
COBBLE RIFFLE
PLAN VIEW

NOT TO SCALE



COBBLE RIFFLE
COBBLE CROSS SECTION

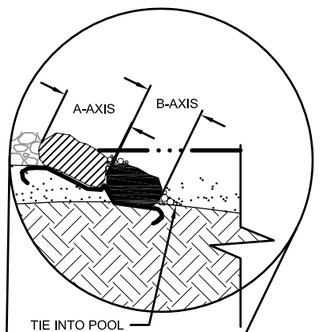
NOT TO SCALE



BOULDER AXIS

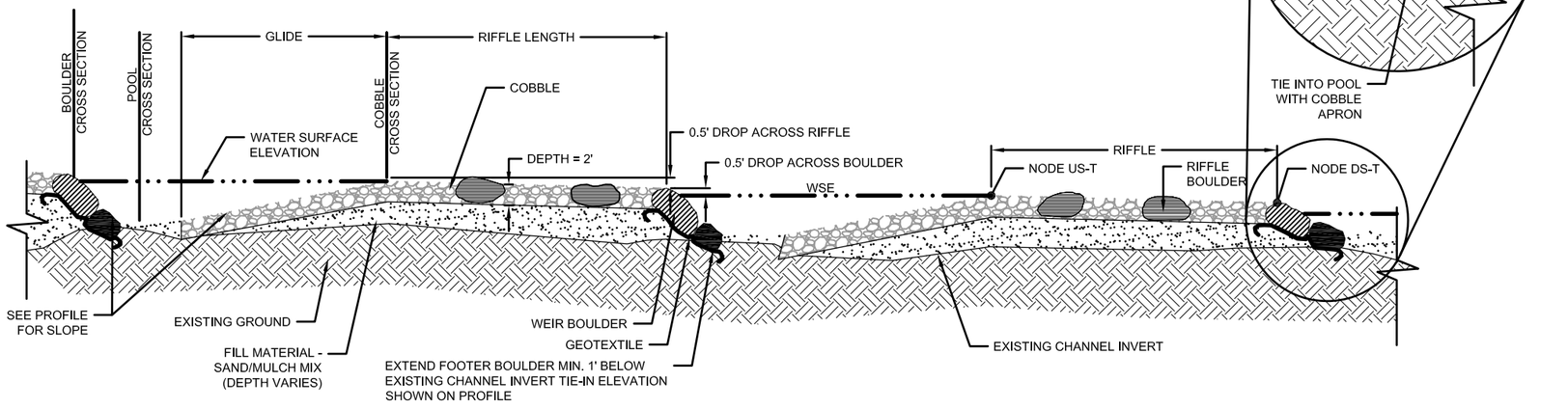
NOT TO SCALE

BOULDER DIMENSIONS			
	A-AXIS	B-AXIS	C-AXIS
WEIR	4 ft.	3 ft.	2 ft.
FOOTER	4 ft.	3 ft.	2 ft.
TIE-OUT	4 ft.	3 ft.	2 ft.



COBBLE GRADATION TABLE	GRAVEL
CUMULATIVE % FINER	SIZE (IN)	SIZE (IN)
0	3.0	3/8
16	4.0	1/4
35	6.0	1/2
50	8.0	1
84	11.0	2
100	14.0	3

NOTE: IF GRAVEL IS NOT PRE-MIXED WITH COBBLE GRAVEL SHALL BE WASHED INTO COBBLE IN 6" LIFTS AT AN APPROXIMATE RATIO OF 75% COBBLE TO 25% GRAVEL.



COBBLE RIFFLE
PROFILE INDEX

NOT TO SCALE

COBBLE WEIR NOTES:

1. TIE-OUT BOULDER SHALL EXTEND PAST THE CORNER NODES A MIN. OF ONE BOULDER LENGTH INTO EXISTING BANK. WHERE THIS CONFLICTS WITH EXISTING TREE ROOTS OR BEDROCK, TIE-OUT BOULDER MAY BE ELIMINATED OR ADJUSTED AT DIRECTION OF ENGINEER.
2. REFER TO SPECIFICATIONS FOR SIZE AND DEPTH OF COBBLE
3. RIFFLE BOULDERS SHALL BE INCORPORATED IN A RANDOM PLACEMENT WITHIN MIDDLE THIRD OF SECTIONS TO COVER APPROXIMATELY 25% OF THE RIFFLE SURFACE AREA FOR 1' DROP RIFFLES, AND 40% OF THE RIFFLE SURFACE AREA FOR 2' DROP RIFFLES. TOP OF RIFFLE BOULDERS SHALL EXTEND A MAXIMUM OF 2" ABOVE COBBLE SURFACE.

RECORD DOCUMENT

PREPARER:
SALT LAKE CITY CORPORATION
349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:
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PROFESSIONAL SEAL:

STATE OF UTAH
Terrell V. Budge
10054B-2201
LICENSED LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 610802
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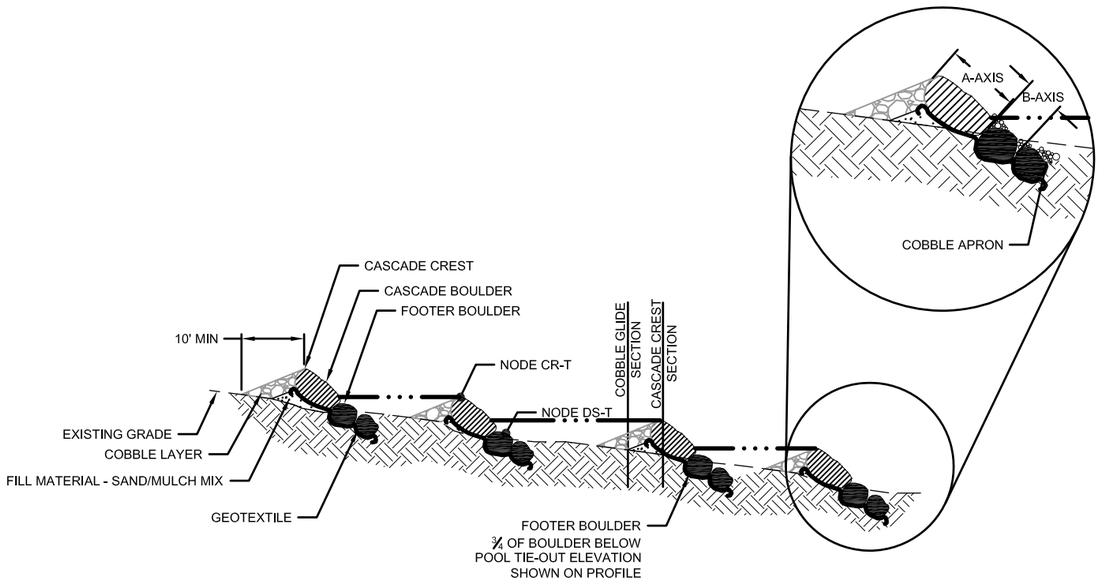
Construction Details

SHEET IDENTIFIER:
L7.01

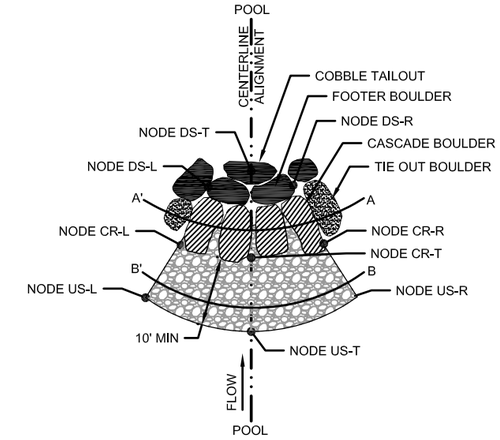
BINDING ORDER

NOTE: SEE SHEET L7.05 FOR STRUCTURE NODE COORDINATES AND ELEVATIONS



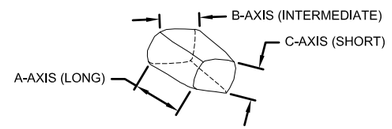
CASCADE
CENTERLINE PROFILE

NOT TO SCALE



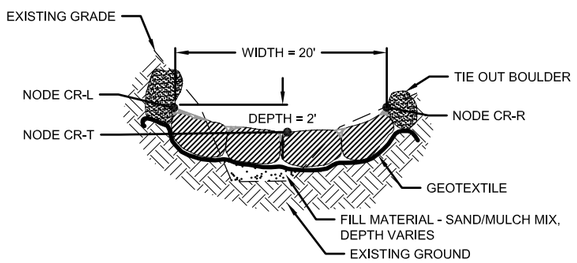
CASCADE
PLAN VIEW

NOT TO SCALE



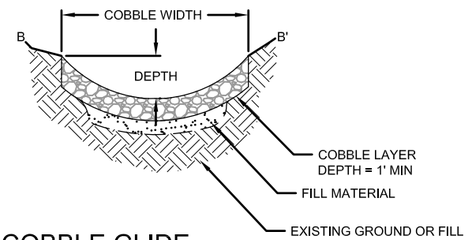
BOULDER AXIS

NOT TO SCALE



CASCADE CREST
SECTION A-A'

NOT TO SCALE



COBBLE GLIDE
SECTION B-B'

NOT TO SCALE

BOULDER DIMENSIONS			
	A-AXIS	B-AXIS	C-AXIS
CASCADE	4 ft.	3 ft.	2 ft.
FOOTER	4 ft.	3 ft.	2 ft.
TIE-OUT	4 ft.	3 ft.	2 ft.

NOTES

1. GAPS BETWEEN BOULDERS SHALL BE CHINKED WITH COBBLE
2. TYPICALLY, CASCADE BOULDER A-AXIS WILL BE ORIENTED IN DIRECTION OF FLOW FOOTER BOULDERS A-AXIS WILL BE ORIENTED PERPENDICULAR TO FLOW.
3. SEE SPECIFICATIONS FOR COBBLE SIZE AND DEPTH

RECORD DOCUMENT

PREPARER:
SALT LAKE CITY CORPORATION
349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

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PROFESSIONAL SEAL:

STATE OF UTAH
Terrell V. Budge
168549 - 5601
LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810902
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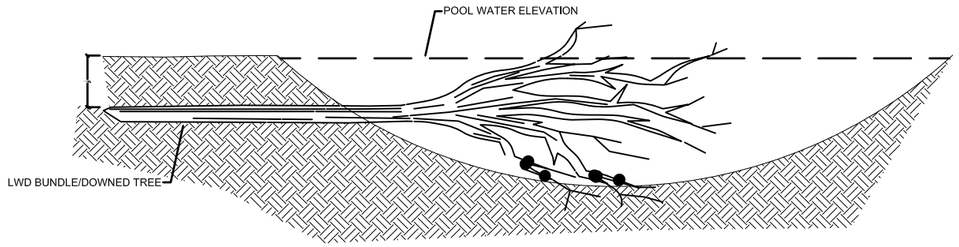
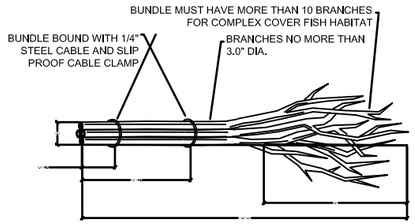


INSTREAM LARGE WOODY DEBRIS (LWD)
CROSS SECTION

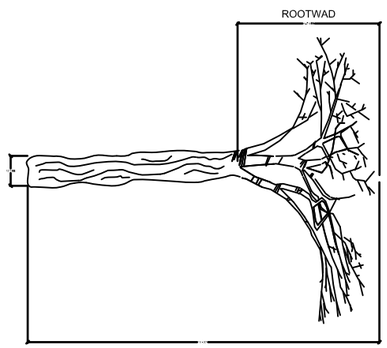
NOT TO SCALE

NOTE:
1) INSTALL IN-STREAM LARGE WOODY DEBRIS, ONE PER POOL AT LOCATIONS DETERMINED BY ENGINEER
2) PARTIALLY BURY ONSITE LWD INTO THE STREAM BANK APPROX. $\frac{2}{3}$ OF TOTAL LENGTH TO SECURE IN PLACE AS DIRECTED BY THE ENGINEER
3) IF DOWNED LOG IS BEING USED INSTEAD OF LWD, THE ROOTWAD SHALL BE PLACED WHERE BRANCHES ARE INDICATED ON THIS SHEET.



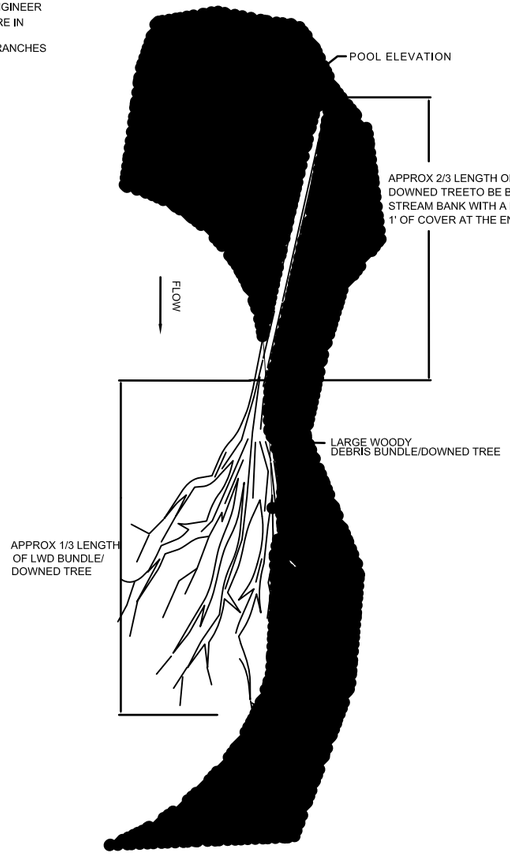
INSTREAM LARGE WOODY DEBRIS (LWD)
LARGE WOODY DEBRIS BUNDLE

NOT TO SCALE



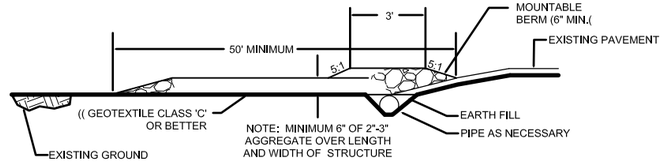
INSTREAM LARGE WOODY DEBRIS (LWD)
DOWNED LOG

NOT TO SCALE

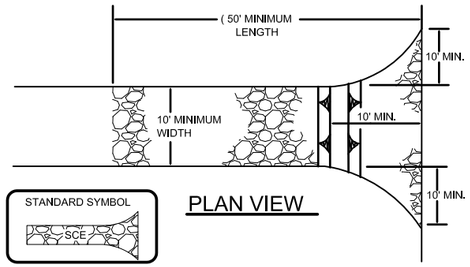


INSTREAM LARGE WOODY DEBRIS (LWD)
PLAN VIEW- TYPICAL

NOT TO SCALE



PROFILE



PLAN VIEW

CONSTRUCTION SPECIFICATION

1. LENGTH - MINIMUM OF 50' (*30' FOR SINGLE RESIDENCE LOT).

2. WIDTH - 10' MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.

3. GEOTEXTILE FABRIC (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE. **THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCES TO USE GEOTEXTILE.

4. STONE - CRUSHED AGGREGATE (2" TO 3") OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT SHALL BE PLACED AT LEAST 6" DEEP OVER THE LENGTH AND WIDTH OF THE ENTRANCE.

5. SURFACE WATER - ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PIPE INSTALLED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 6" OF STONE OVER THE PIPE. PIPE HAS TO BE SIZED ACCORDING TO THE DRAINAGE. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY A PIPE WILL NOT BE NECESSARY. PIPE SHOULD BE SIZED ACCORDING TO THE AMOUNT OF RUNOFF TO BE CONVEYED. A 6" MINIMUM WILL BE REQUIRED.

6. LOCATION - A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

RECORD DOCUMENT

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PREPARER CONSULTANTS:
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Restore the Earth & Inspire Ecological Stewardship

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PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810802
FILE #:
DRAWING FILE:
DRAWN BY:
CHECKED BY:
COPYRIGHT:

SHEET TITLE:
Construction Details

SHEET IDENTIFIER:
L7.03

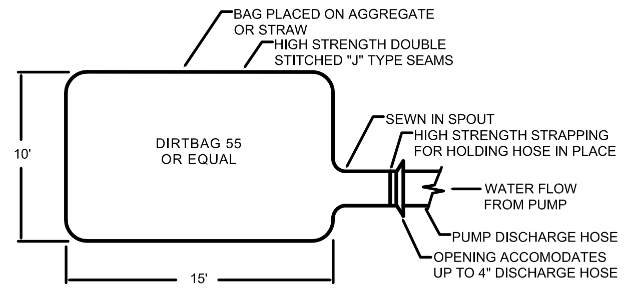
BINDING ORDER

THE DEWATERING BAG SHALL BE MADE OF NON-WOVEN GEOTEXTILE WITH A MIN. SURFACE AREA OF 225 SQUARE FEET PER SIDE. ALL STRUCTURAL SEAMS SHALL BE SEWN WITH A DOUBLE STITCH USING A DOUBLE NEEDLE MACHINE WITH HIGH STRENGTH THREAD. THE SEAM STRENGTH SHALL WITHSTAND 100 lb/in. USING ASTM D-4884 TEST METHOD. THE DEWATERING BAG SHALL HAVE A NOZZLE LARGE ENOUGH TO ACCOMODATE A FOUR INCH DISCHARGE HOSE. THE NOZZLE SHALL BE SEALED TIGHTLY AROUND THE DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE TO PREVENT UNTREATED WATER FROM ESCAPING. THE GEOTEXTILE FABRIC SHALL BE A NON-WOVEN FABRIC WITH THE FOLLOWING PROPERTIES:
NOTE:
DIRTBAG 55 TEST METHOD:ASTM D-4884
TEST RESULT:100LB/IN

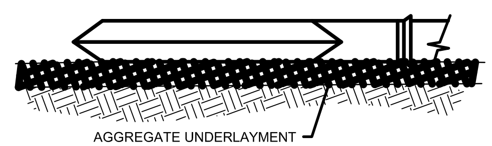
GEOTEXTILE FABRID FOR DIRTBAG			
PROPERTIES	TEST METHOD	UNITS	NONWOVEN 55
WEIGHT	ASTM D-3776	OZ/YD	10
GRAB TENSILE	ASTM D-4632	LBS.	270
PUNCTURE	ASTM D-4833	LBS.	150
FLOW RATE	ASTM D-4491	GAL/MIN/FT2	70
PERMITIVITY	ASTM D-4491	SEC-1	1.3
MULLEN BURST	ASTM D-3786	LBS.IN2	550
UV RESISTANT	ASTM D-4355	%	70
AOS % RETAINED	ASTM D-4751	%	100

NOTE:
ALL PROPERTIES ARE MINIMUM AVERAGE ROLL VALUE EXCEPT THE WEIGHT OF THE FABRIC WHICH IS GIVEN FOR INFORMATION ONLY.

CONSTRUCTION: THE DEWATERING BAG SHALL BE INSTALLED OVER A 3 INCH GRAVEL BASE OR IF STRAW BALES THE "STRINGS" SHALL NOT BE IN CONTACT WITH THE GROUND TO PROMOTE INFILTRATION AND DEWATERING OF THE BAG.



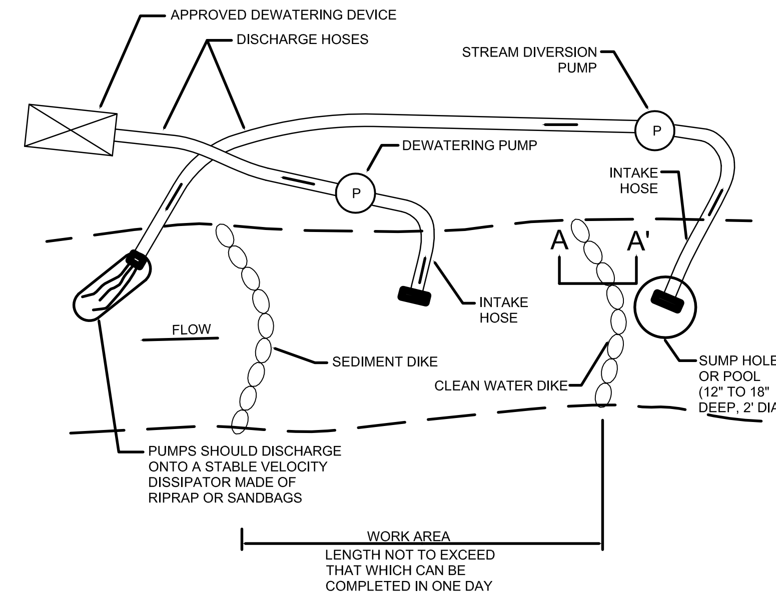
TOP VIEW

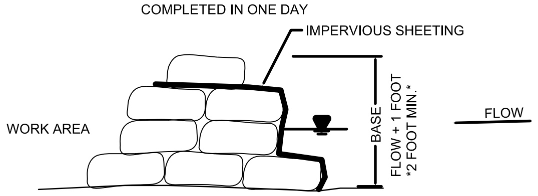


SIDE VIEW

DEWATERING BAG DETAIL FOR CONTROL OF SEDIMENT IN PUMPED WATER

NOT TO SCALE

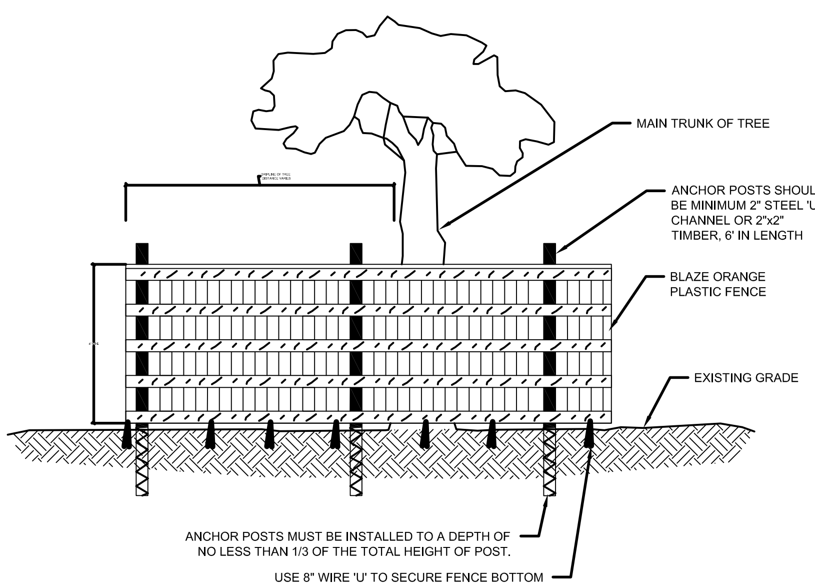




SECTION A-A'

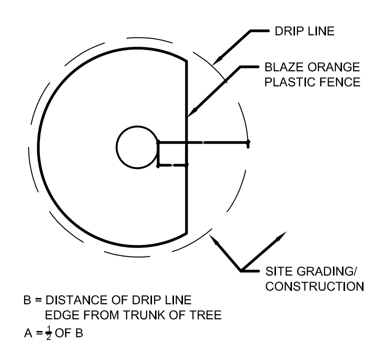
PUMP AROUND

NOT TO SCALE



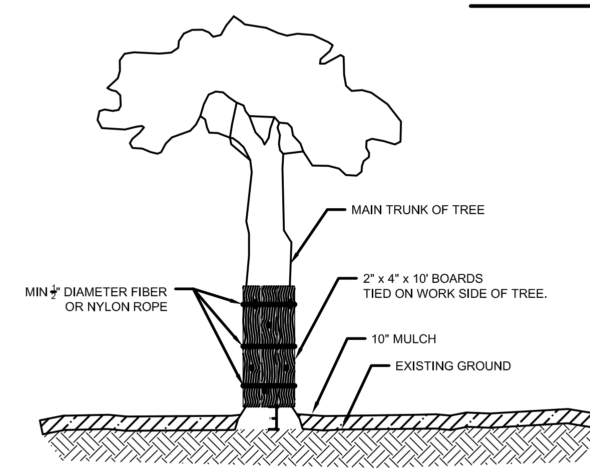
TREE PROTECTION FENCE

N.T.S.



TREE PROTECTION FENCE PLAN

N.T.S.



TREE PROTECTION PLANKING

N.T.S.

BEFORE CONSTRUCTION

1. OBTAIN PROPER PERMITS
2. FILE A SPECIAL STREET TREE PERMIT FOR ANY TREE (PUBLIC OR PRIVATE) TO BE REMOVED WITH A CIRCUMFERENCE GREATER THAN 55 "
3. REVIEW ANY ON-SITE TREE ISSUE WITH THE UFA ARBORIST. TREE PROTECTION METHOD SHALL BE AT THE DISCRETION OF DC URBAN FORESTRY ADMINISTRATION (UFA) ARBORIST.

DURING CONSTRUCTION

TREE PROTECTION FENCE
1. ERECT 4' TALL MESH OR WOODEN SLOTTED SNOW FENCING AT A MINIMUM TO THE DRIP LINE OF THE TREE WHICH PROTECTS THE TREE AND ROOT SYSTEM BY EXCLUDING ALL DETRIMENTAL CONSTRUCTION ACTIVITY WITHIN THE CRITICAL ROOT ZONE (CRZ) RULE OF THUMB 1.5 FT OF DISTANCE FROM TRUNK PER INCH OF DIAMETER AS A GUIDE TO ESTABLISH A PERIMETER AROUND A TREES ROOT ZONE.

OR

TREE PROTECTION
1. TREE PROTECTION IS CONSTRUCTED OF 2"x4"x8' BOARDS TIED TO WORKING SIDE OF TREE.
2. ALL OTHER UNPAVED AREAS WITHIN THE CRZ MUST BE COVERED WITH A 10" PROTECTIVE LAYER OF WOOD CHIPS TOPPED WITH HEAVY, NON-SKID, SURFACE PLYWOOD OR CHAIN LINK FENCING PANELS.

REQUIREMENTS WITHIN THE CRITICAL ROOT ZONE

1. NO ALTERATION OR DISTURBANCE TO EXISTING GRADE OF ANY KIND; BY ADDING FILL, EXCAVATING OR SCRAPING
2. NO STORAGE OF CONSTRUCTION MATERIALS, EQUIPMENT, SOIL, OR DEBRIS
3. NO DISPOSAL OF ANY LIQUIDS E.G. CONCRETE SLEUTH, GAS, OIL, PAINT; AND BLACKTOP
4. NO TRENCHING WITHIN THE CRITICAL ROOT ZONE. ALL WORK CONDUCTED IN THE GROUND WITHIN THE ROOT PROTECTION ZONE OF ANY PROTECTED TREE SHOULD BE ACCOMPLISHED WITH HAND TOOLS, BORING, OR AN AIR SPADE.
5. NO SOIL IS TO BE IN CONTACT WITH THE TRUNK OF THE TREE ABOVE THE BASAL FLAIR AT ANY TIME
6. TREES LOCATED ADJACENT TO CONSTRUCTION WORK SHALL BE WATERED AT TEN (10) DAY INTERVALS THROUGHOUT THE GROWING SEASON.

NOTES

1. PROTECTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
2. PROTECTION FENCE MUST BE INSTALLED ACCORDING TO DDOT STANDARDS PRIOR TO CONSTRUCTION WORK BEGINNING AND CANNOT BE REMOVED WITHOUT AUTHORIZATION FROM DDOT-UFA AND DDOE.
3. BOUNDARIES OF PROTECTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICES.
4. TIE SUFFICIENT 2"x4"x8' OR 2"x10"x10' BOARDS AROUND MAIN TRUNK OF TREE WITH ½" DIAMETER ROPE (FIBER OR NYLON) TO PROTECT ALL AREAS EXPOSED TO CONSTRUCTION.
5. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.
6. GROUP OF TREES MAY BE GROUPED AS ONE.
7. FOR TREE REMOVAL, DDOE AND UFA REQUIRES THAT AN ISA CERTIFIED ARBORIST (CERTIFIED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE) IS CONTRACTED FOR TREE REMOVAL.
8. CONTRACTOR SHALL FOLLOW DDOT BLUEBOOK FOR TREE PROTECTION.

TREE PROTECTION

NOT TO SCALE

RECORD DOCUMENT

PREPARER:
SALT LAKE CITY CORPORATION
349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

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PROFESSIONAL SEAL:
STATE OF UTAH
Terrall V. Budge
LICENSED LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810602
FILE #:
DRAWING FILE:
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SHEET TITLE:
Construction Details

SHEET IDENTIFIER:
L7.04

BINDING ORDER

RED BUTTE CREEK STRUCTURE TABLE

COBBLE RIFFLES

STATION	NODE	NORTHING	EASTING	ELEVATION
0+34.28	US-R	7855.3	6666.9	4617.0
	US-T	7848.8	6674.6	4615.0
	US-L	7842.4	6682.2	4617.0
	DS-L	7834.7	6675.7	4616.0
	DS-T	7841.2	6668.1	4614.0
	DS-R	7847.6	6660.5	4616.0
0+59.15	US-R	7836.2	6649.0	4616.0
	US-T	7830.8	6657.4	4614.0
	US-L	7825.4	6665.8	4616.0
	DS-L	7817.0	6660.4	4615.0
	DS-T	7822.4	6652.0	4613.0
	DS-R	7827.8	6643.6	4615.0
0+84.05	US-R	7812.5	6636.5	4615.0
	US-T	7808.9	6645.8	4613.0
	US-L	7805.2	6655.2	4615.0
	DS-L	7795.9	6651.5	4614.0
	DS-T	7799.4	6642.7	4612.0
	DS-R	7803.2	6632.9	4614.0
1+09.37	US-R	7788.8	6627.8	4614.0
	US-T	7785.1	6637.1	4612.0
	US-L	7781.4	6646.4	4614.0
	DS-L	7772.1	6642.7	4613.0
	DS-T	7775.8	6633.4	4611.0
	DS-R	7779.5	6624.1	4613.0
1+34.46	US-R	7767.4	6617.6	4613.0
	US-T	7762.5	6626.3	4611.0
	US-L	7757.6	6635.0	4613.0
	DS-L	7748.9	6630.1	4612.0
	DS-T	7753.8	6621.4	4610.0
	DS-R	7758.7	6612.7	4612.0
2+07.34	US-R	7717.2	6564.9	4609.0
	US-T	7712.9	6573.9	4607.0
	US-L	7708.5	6582.9	4609.0
	DS-L	7699.5	6578.6	4608.0
	DS-T	7703.9	6569.6	4606.0
	DS-R	7708.2	6560.6	4608.0
2+36.02	US-R	7689.4	6554.4	4608.0
	US-T	7686.1	6563.8	4606.0
	US-L	7682.8	6573.3	4608.0
	DS-L	7673.4	6570.0	4607.0
	DS-T	7676.7	6560.6	4605.0
	DS-R	7679.9	6551.1	4607.0
2+60.75	US-R	7664.6	6549.2	4607.0
	US-T	7662.0	6558.8	4605.0
	US-L	7659.4	6568.5	4607.0
	DS-L	7649.8	6565.9	4606.0
	DS-T	7652.5	6555.7	4604.0
	DS-R	7655.0	6546.6	4606.0
2+83.43	US-R	7647.9	6542.6	4606.0
	US-T	7641.2	6550.0	4604.0
	US-L	7634.5	6557.4	4606.0
	DS-L	7627.1	6550.7	4605.0
	DS-T	7633.9	6543.2	4603.0
	DS-R	7640.5	6535.9	4605.0

RED BUTTE CREEK STRUCTURE TABLE

COBBLE RIFFLES

STATION	NODE	NORTHING	EASTING	ELEVATION
3+61.88	US-R	7610.2	6478.4	4603.0
	US-T	7601.4	6483.2	4601.0
	US-L	7592.6	6488.0	4603.0
	DS-L	7587.8	6479.2	4602.0
	DS-T	7597.1	6474.2	4600.0
	DS-R	7605.4	6469.6	4602.0
3+88.01	US-R	7597.6	6455.6	4602.0
	US-T	7588.8	6460.3	4600.0
	US-L	7580.0	6465.1	4602.0
	DS-L	7575.2	6456.3	4601.0
	DS-T	7584.0	6451.5	4599.0
	DS-R	7592.8	6446.8	4601.0
4+12.93	US-R	7585.1	6434.1	4601.0
	US-T	7576.3	6438.8	4599.0
	US-L	7567.5	6443.6	4601.0
	DS-L	7562.7	6434.8	4600.0
	DS-T	7571.6	6430.0	4598.0
	DS-R	7580.3	6425.3	4600.0
4+37.70	US-R	7575.9	6412.8	4600.0
	US-T	7566.5	6416.1	4598.0
	US-L	7557.1	6419.4	4600.0
	DS-L	7553.8	6410.0	4599.0
	DS-T	7562.6	6406.9	4597.0
	DS-R	7572.6	6403.3	4599.0
4+63.29	US-R	7567.5	6388.6	4599.0
	US-T	7558.1	6392.0	4597.0
	US-L	7548.7	6395.3	4599.0
	DS-L	7545.3	6385.9	4598.0
	DS-T	7554.7	6382.6	4596.0
	DS-R	7564.1	6379.2	4598.0
4+88.85	US-R	7558.2	6364.0	4598.0
	US-T	7549.1	6368.1	4596.0
	US-L	7539.9	6372.1	4598.0
	DS-L	7535.9	6362.9	4597.0
	DS-T	7544.6	6359.1	4595.0
	DS-R	7554.2	6354.9	4597.0
5+14.21	US-R	7545.1	6339.3	4597.0
	US-T	7537.3	6345.6	4595.0
	US-L	7529.5	6351.8	4597.0
	DS-L	7523.3	6344.0	4596.0
	DS-T	7531.1	6337.8	4594.0
	DS-R	7538.9	6331.5	4596.0
5+38.60	US-R	7526.3	6321.3	4596.0
	US-T	7519.8	6328.9	4594.0
	US-L	7513.2	6336.5	4596.0
	DS-L	7505.7	6329.9	4595.0
	DS-T	7511.9	6322.7	4593.0
	DS-R	7518.8	6314.8	4595.0
5+63.68	US-R	7512.0	6306.3	4595.0
	US-T	7503.0	6310.7	4593.0
	US-L	7494.0	6315.0	4595.0
	DS-L	7489.7	6306.0	4594.0
	DS-T	7498.3	6301.8	4592.0
	DS-R	7507.7	6297.3	4594.0

RED BUTTE CREEK STRUCTURE TABLE

COBBLE RIFFLES

STATION	NODE	NORTHING	EASTING	ELEVATION
5+89.12	US-R	7504.8	6286.5	4594.0
	US-T	7494.8	6287.0	4592.0
	US-L	7484.8	6287.5	4594.0
	DS-L	7484.3	6277.6	4593.0
	DS-T	7494.3	6277.0	4591.0
	DS-R	7504.2	6276.5	4593.0
6+14.32	US-R	7499.6	6257.9	4593.0
	US-T	7490.7	6262.5	4591.0
	US-L	7481.9	6267.0	4593.0
	DS-L	7477.3	6258.2	4592.0
	DS-T	7486.2	6253.6	4590.0
	DS-R	7495.1	6249.0	4592.0
6+40.22	US-R	7488.4	6234.4	4592.0
	US-T	7479.4	6239.1	4590.0
	US-L	7470.6	6243.7	4592.0
	DS-L	7466.0	6234.7	4591.0
	DS-T	7474.9	6230.2	4589.0
	DS-R	7483.8	6225.6	4591.0
7+40.50	US-R	7431.3	6150.7	4589.0
	US-T	7423.1	6156.5	4587.0
	US-L	7414.9	6162.3	4589.0
	DS-L	7409.2	6154.1	4588.0
	DS-T	7417.3	6148.3	4586.0
	DS-R	7425.5	6142.5	4588.0
7+65.36	US-R	7414.8	6128.7	4588.0
	US-T	7408.5	6136.4	4586.0
	US-L	7402.2	6144.0	4588.0
	DS-L	7394.5	6137.7	4587.0
	DS-T	7400.8	6130.0	4585.0
	DS-R	7407.1	6122.3	4587.0
7+91.24	US-R	7390.3	6112.6	4587.0
	US-T	7387.0	6122.0	4585.0
	US-L	7383.8	6131.5	4587.0
	DS-L	7374.3	6128.2	4586.0
	DS-T	7377.6	6118.8	4584.0
	DS-R	7380.9	6109.3	4586.0
8+16.98	US-R	7362.1	6104.3	4586.0
	US-T	7362.6	6114.3	4584.0
	US-L	7363.1	6124.3	4586.0
	DS-L	7353.1	6124.8	4585.0
	DS-T	7352.6	6115.3	4583.0
	DS-R	7352.1	6104.8	4585.0
8+43.42	US-R	7338.8	6107.8	4585.0
	US-T	7336.4	6117.5	4583.0
	US-L	7334.0	6127.2	4585.0
	DS-L	7324.3	6124.8	4584.0
	DS-T	7326.8	6114.9	4582.0
	DS-R	7329.1	6105.4	4584.0
8+71.38	US-R	7322.2	6101.2	4584.0
	US-T	7312.9	6105.0	4582.0
	US-L	7303.6	6108.7	4584.0
	DS-L	7299.9	6099.5	4583.0
	DS-T	7309.1	6095.7	4581.0
	DS-R	7318.4	6091.9	4583.0

RED BUTTE CREEK STRUCTURE TABLE

COBBLE RIFFLES

STATION	NODE	NORTHING	EASTING	ELEVATION
8+97.75	US-R	7313.9	6074.5	4583.0
	US-T	7305.5	6079.9	4581.0
	US-L	7297.0	6085.2	4583.0
	DS-L	7291.7	6076.7	4582.0
	DS-T	7300.4	6071.2	4580.0
	DS-R	7308.5	6066.0	4582.0
9+25.61	US-R	7286.2	6052.1	4582.0
	US-T	7285.3	6062.1	4580.0
	US-L	7284.3	6072.0	4582.0
	DS-L	7274.4	6071.0	4581.0
	DS-T	7275.3	6061.1	4579.0
	DS-R	7276.3	6051.1	4581.0
9+50.51	US-R	7265.4	6049.9	4581.0
	US-T	7260.7	6058.7	4579.0
	US-L	7255.8	6067.5	4581.0
	DS-L	7247.1	6062.7	4580.0
	DS-T	7251.6	6054.3	4578.0
	DS-R	7256.6	6045.1	4580.0
9+76.03	US-R	7250.0	6038.5	4580.0
	US-T	7241.1	6043.0	4578.0
	US-L	7232.1	6047.4	4580.0
	DS-L	7227.7	6038.4	4579.0
	DS-T	7236.5	6034.0	4577.0
	DS-R	7245.5	6029.5	4579.0
10+01.94	US-R	7243.5	6016.8	4579.0
	US-T	7233.6	6018.4	4577.0
	US-L	7223.8	6020.0	4579.0
	DS-L	7222.1	6010.1	4578.0
	DS-T	7231.5	6008.6	4576.0
	DS-R	7241.9	6006.9	4578.0
10+27.04	US-R	7235.4	5989.9	4578.0
	US-T	7226.5	5994.4	4576.0
	US-L	7217.5	5998.9	4578.0
	DS-L	7213.0	5989.9	4577.0
	DS-T	7222.0	5985.4	4575.0
	DS-R	7230.9	5981.0	4577.0
10+53.23	US-R	7214.1	5965.2	4577.0
	US-T	7210.3	5974.4	4575.0
	US-L	7206.5	5983.7	4577.0
	DS-L	7197.3	5979.8	4576.0
	DS-T	7201.0	5970.6	4574.0
	DS-R	7204.8	5961.4	4576.0
10+77.95	US-R	7186.4	5960.0	4576.0
	US-T	7186.3	5970.0	4574.0
	US-L	7186.3	5980.0	4576.0
	DS-L	7176.3	5980.0	4575.0
	DS-T	7176.3	5970.0	4573.0
	DS-R	7176.4	5960.1	4575.0
11+03.09	US-R	7163.1	5960.5	4575.0
	US-T	7161.2	5970.3	4573.0
	US-L	7159.3	5980.1	4575.0
	DS-L	7149.5	5978.2	4574.0
	DS-T	7151.4	5968.4	4572.0
	DS-R	7153.3	5958.6	4574.0

RED BUTTE CREEK STRUCTURE TABLE

COBBLE RIFFLES

STATION	NODE	NORTHING	EASTING	ELEVATION
11+54.91	US-R	7128.2	5939.3	4574.0
	US-T	7119.6	5944.0	4572.0
	US-L	7110.6	5948.8	4574.0
	DS-L	7105.8	5940.0	4573.0
	DS-T	7114.6	5935.2	4571.0
	DS-R	7123.4	5930.5	4573.0
11+80.32	US-R	7114.9	5916.8	4573.0
	US-T	7106.5	5922.2	4571.0
	US-L	7098.1	5927.6	4573.0
	DS-L	7092.7	5919.1	4572.0
	DS-T	7101.4	5913.6	4570.0
	DS-R	7109.5	5908.3	4572.0
12+15.94	US-R	7085.4	5886.4	4572.0
	US-T	7083.0	5896.1	4570.0
	US-L	7080.7	5905.8	4572.0
	DS-L	7071.0	5903.4	4571.0
	DS-T	7073.3	5894.0	4569.0
	DS-R	7075.7	5884.0	4571.0
12+56.05	US-R	7045.0	5878.3	4571.0
	US-T	7043.7	5888.3	4569.0
	US-L	7042.4	5898.1	4571.0
	DS-L	7032.5	5896.9	4570.0
	DS-T	7033.8	5887.0	4568.0
	DS-R	7035.1	5877.0	4570.0
12+81.06	US-R	7020.4	5873.8	4570.0
	US-T	7019.2	5883.8	4568.0
	US-L	7017.9	5893.6	4570.0
	DS-L	7007.9	5892.3	4569.0
	DS-T	7009.2	5882.4	4567.0
	DS-R	7010.5	5872.5	4569.0
13+05.57	US-R	6996.2	5870.4	4569.0
	US-T	6994.9	5880.3	4567.0
	US-L	6993.6	5890.2	4569.0
	DS-L	6983.7	5888.9	4568.0
	DS-T	6985.0	5879.0	4566.0
	DS-R	6986.3	5869.1	4568.0
13+56.16	US-R	6953.2	5853.3	4568.0
	US-T	6948.6	5862.1	4566.0
	US-L	6943.9	5871.0	4568.0
	DS-L	6935.0	5866.2	4567.0
	DS-T	6939.7	5857.4	4565.0
	DS-R	6944.4	5848.6	4567.0

RED BUTTE CREEK STRUCTURE TABLE

CASCADES

STATION	NODE	NORTHING	EASTING	ELEVATION
1+64.11	US-R	7747.9	6602.1	4612.0
	US-T	7739.6	6607.7	4610.0
	US-L	7731.4	6613.3	4612.0
	CR-R	7745.1	6598.0	4611.0
	CR-T	7737.0	6603.5	4609.0
	CR-L	7728.5	6609.2	4611.0
	DS-L	7725.7	6605.1	4609.0
	DS-T	7734.4	6599.2	4607.0
	DS-R	7742.3	6593.8	4609.0
3+09.26	US-R	7636.3	6524.0	4605.0
	US-T	7627.5	6528.7	4603.0
	US-L	7618.7	6533.5	4605.0
	CR-R	7633.9	6519.6	4604.0
	CR-T	7625.1	6524.3	4602.0
	CR-L	7616.3	6529.1	4604.0
	DS-L	7614.0	6524.7	4603.0
	DS-T	7622.8	6519.9	4601.0
	DS-R	7631.6	6515.2	4603.0
7+15.48	US-R	7446.4	6170.6	4591.0
	US-T	7438.2	6176.4	4589.0
	US-L	7430.1	6182.2	4591.0
	CR-R	7443.5	6166.5	4590.0
	CR-T	7435.3	6172.3	4588.0
	CR-L	7427.2	6178.1	4590.0
	DS-L	7424.3	6174.0	4589.0
	DS-T	7432.5	6168.2	4587.0
	DS-R	7440.6	6162.5	4589.0
13+82.14	US-R	6933.6	5845.3	4567.0
	US-T	6925.2	5850.7	4565.0
	US-L	6916.8	5856.2	4567.0
	CR-R	6930.8	5841.1	4566.0
	CR-T	6922.3	5846.7	4564.0
	CR-L	6914.1	5852.0	4566.0
	DS-L	6911.3	5847.8	4565.0
	DS-T	6919.3	5842.6	4563.0
	DS-R	6928.1	5836.9	4565.0
14+08.37	US-R	6922.6	5825.8	4565.0
	US-T	6912.8	5827.9	4563.0
	US-L	6903.1	5830.1	4565.0
	CR-R	6921.5	5820.9	4564.0
	CR-T	6911.2	5823.2	4562.0
	CR-L	6902.0	5825.2	4564.0
	DS-L	6900.9	5820.4	4563.0
	DS-T	6910.2	5818.3	4561.0
	DS-R	6920.4	5816.0	4563.0
14+32.89	US-R	6916.6	5799.7	4563.0
	US-T	6907.6	5803.9	4561.0
	US-L	6898.5	5808.2	4563.0
	CR-R	6914.5	5795.2	4562.0
	CR-T	6905.4	5799.4	4560.0
	CR-L	6896.4	5803.7	4562.0
	DS-L	6894.3	5799.1	4562.0
	DS-R	6912.4	5790.6	4562.0

RECORD DOCUMENT

PREPARER:

SALT LAKE CITY CORPORATION

349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:

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PROFESSIONAL SEAL:

STATE OF UTAH
Terrell V. Budge
168549 - 5501
LICENSED LANDSCAPE ARCHITECT

MARK	DATE	DESCRIPTION

PROJECT IDENTIFICATION:

MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

PREPARER #:
CONTRACT #:
PROJECT #: 610802
FILE #:
DRAWING FILE:
DRAWN BY:
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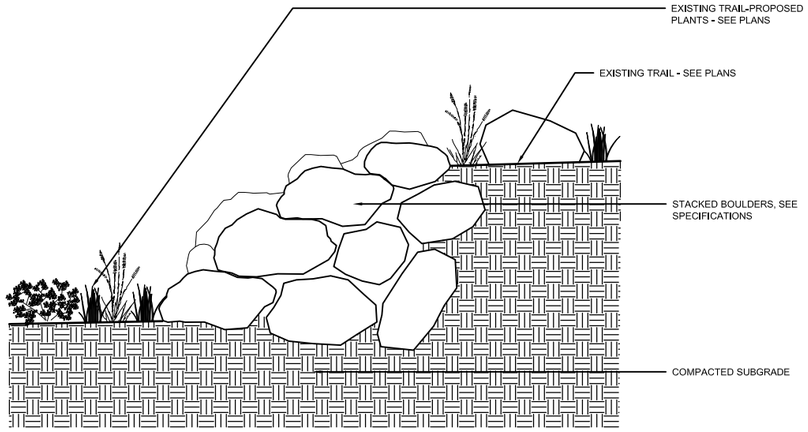
SHEET TITLE:

Construction Details

SHEET IDENTIFIER:

L7.05

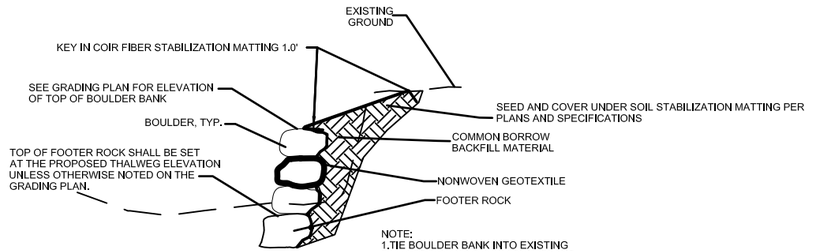
BINDING ORDER



1 DRY STACKED STONE WALL A

2.1

1/2"=1'



NOTE:
1.TIE BOULDER BANK INTO EXISTING BANK AS SHOWN ON GRADING PLANS.

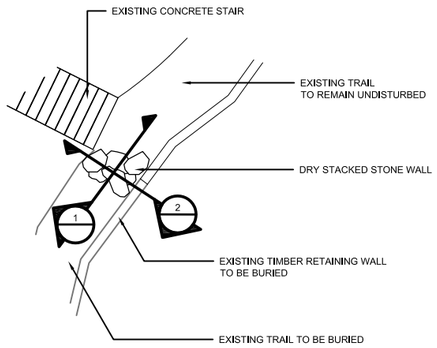
2. AT BOTH ENDS OF STRUCTURE, BOULDER FACE SHALL NOT EXTEND INTO STREAM CHANNEL PAST THAT OF THE ADJACENT EXISTING STREAM BANK.

3.IF BEDROCK IS PRESENT, FOOTER ROCK MAY NOT BE REQUIRED, PER THE ENGINEER'S DIRECTION.

2 DRY STACKED STONE WALL C

2.3

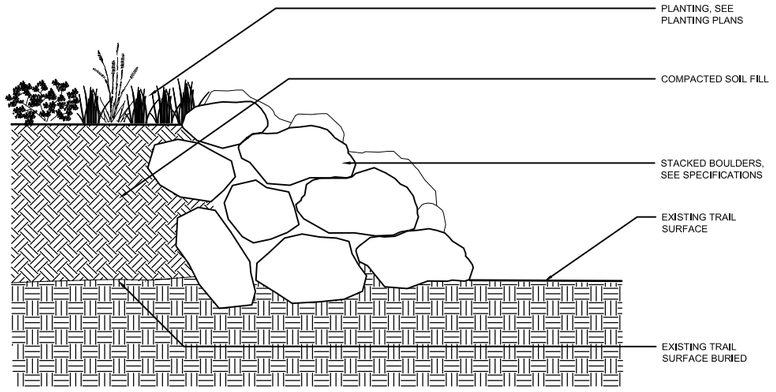
NTS



3 DRY STACKED STONE WALL B

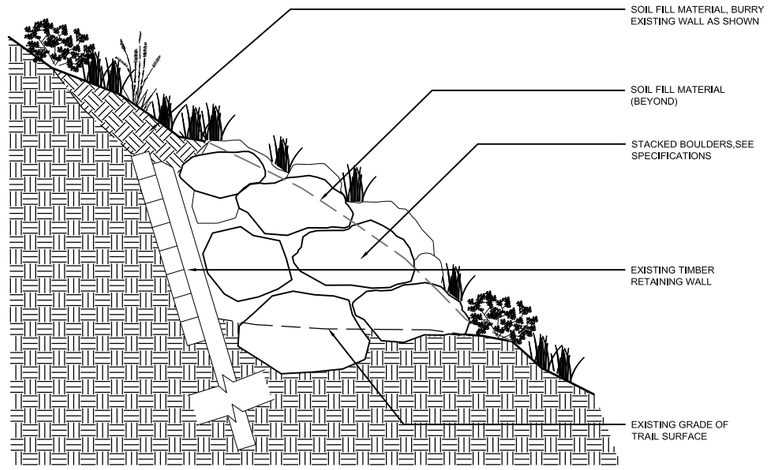
2.2

1/8"=1'



4 DRY STACKED STONE WALL B - Section 1

1/2"=1'



5 DRY STACKED STONE WALL B - Section 2

1/2"=1'

RECORD DOCUMENT

PREPARER:
SALT LAKE CITY CORPORATION
349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:
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WWW.DESIGNWORKSHOP.COM

PROFESSIONAL SEAL:

STATE OF UTAH
Terrell V. Budge
168549 - 5501
LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810902
FILE #:
DRAWING FILE:
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Construction Details

SHEET IDENTIFIER:
L7.06

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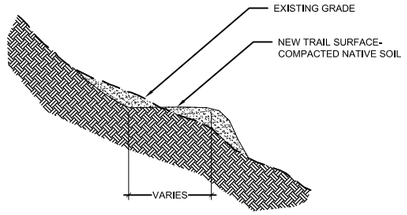


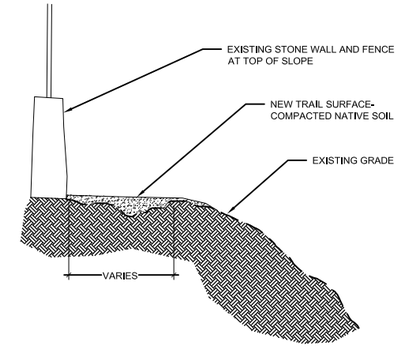
TRAIL ALIGNMENT TO BE STAKED ON SITE BY OWNER'S REP. CONTRACTOR TO COORDINATE STAKING AND OBTAIN FINAL APPROVAL PRIOR TO STARTING ANY TRAIL CONSTRUCTION.

EXISTING VEGETATION TO BE REMOVED ONLY AS DIRECTED BY OWNER'S REP. PRUNE EXISTING VEGETATION AS DIRECTED BY OWNER'S REP.

1 New Trail

3/8"=1'-0"

1.1

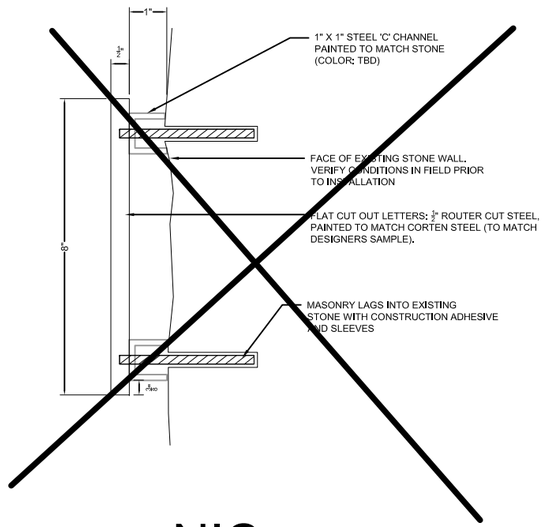


TRAIL ALIGNMENT TO BE STAKED ON SITE BY OWNER'S REP. CONTRACTOR TO COORDINATE STAKING AND OBTAIN FINAL APPROVAL PRIOR TO STARTING ANY TRAIL CONSTRUCTION.

EXISTING VEGETATION TO BE REMOVED ONLY AS DIRECTED BY OWNER'S REP. PRUNE EXISTING VEGETATION AS DIRECTED BY OWNER'S REP.

2 New Trail at Existing Wall

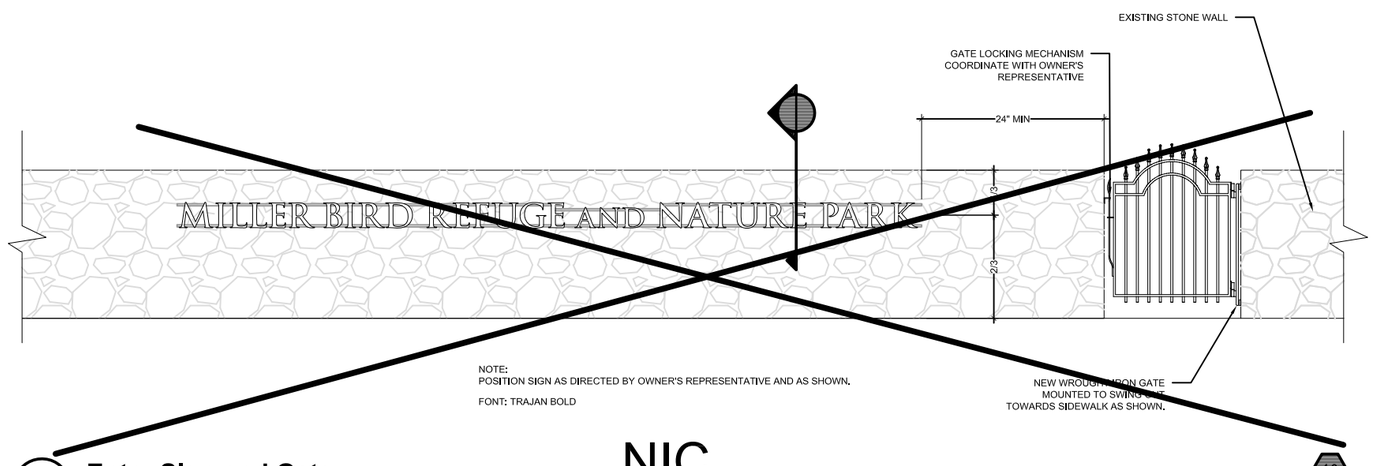
3/8"=1'-0"



NIC

3 SECTION: Entry Sign

NTS



NIC

4 Entry Sign and Gate

NTS

4.2

RECORD DOCUMENT

PREPARER:

SALT LAKE CITY CORPORATION

349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:

Biohabitats

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PROFESSIONAL SEAL:

STATE OF UTAH
Terrell V. Budge
168548-5501
LICENSED LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:

MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810802
FILE #:
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SHEET IDENTIFIER:

L7.07

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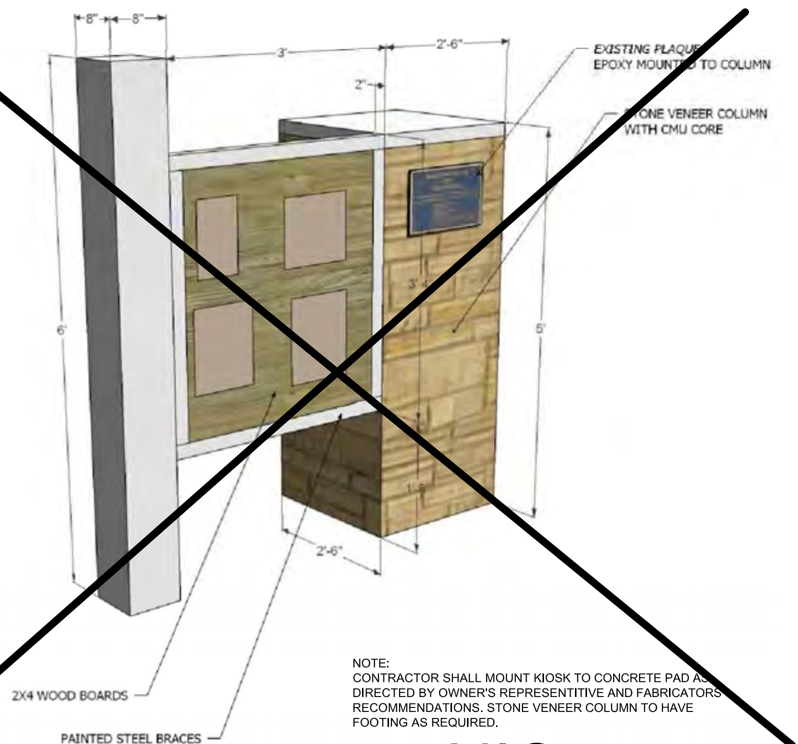
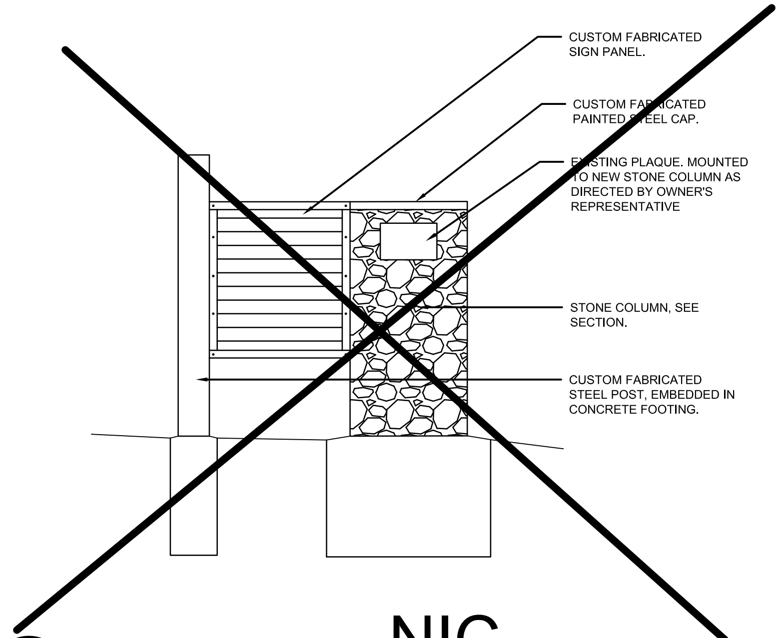
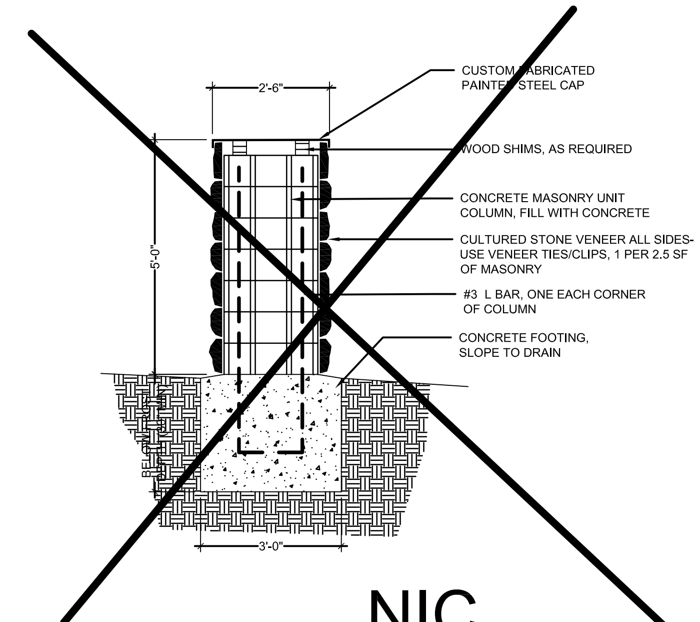


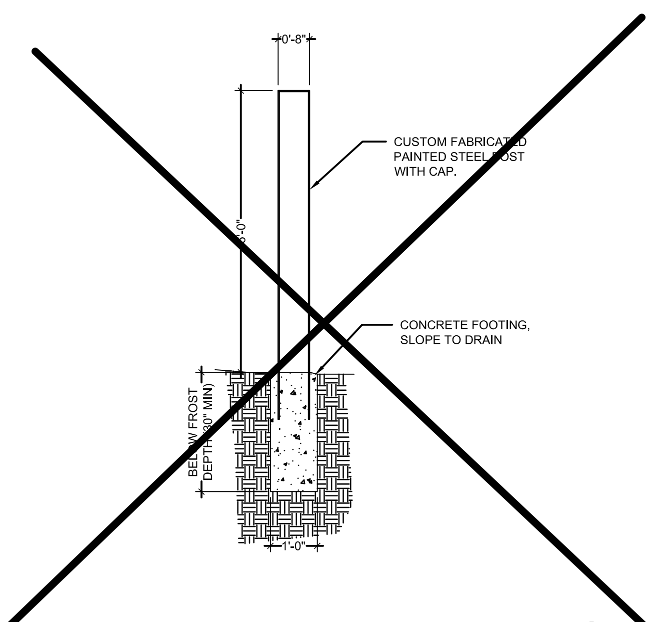
1 Kiosk: Perspective
NTS



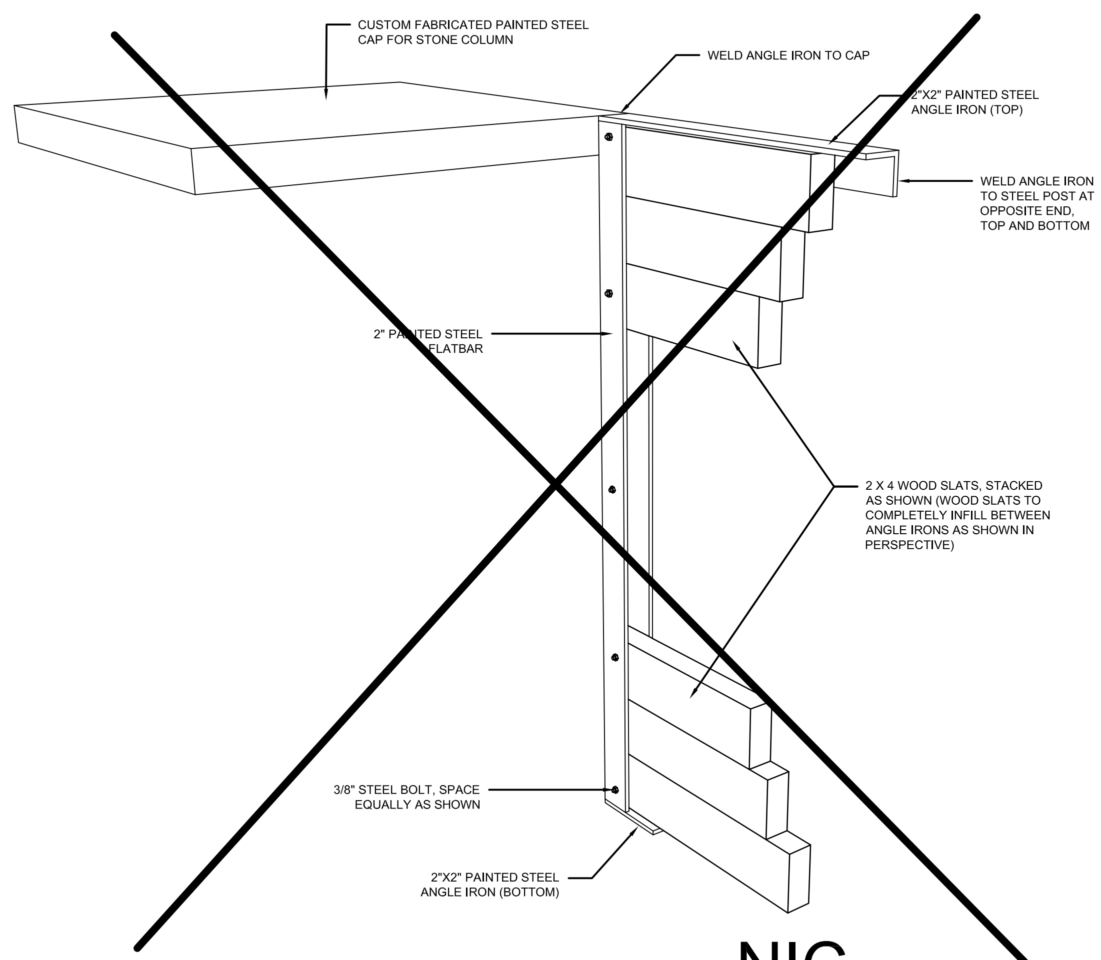
2 Kiosk: Elevation
1/2"=1'-0"



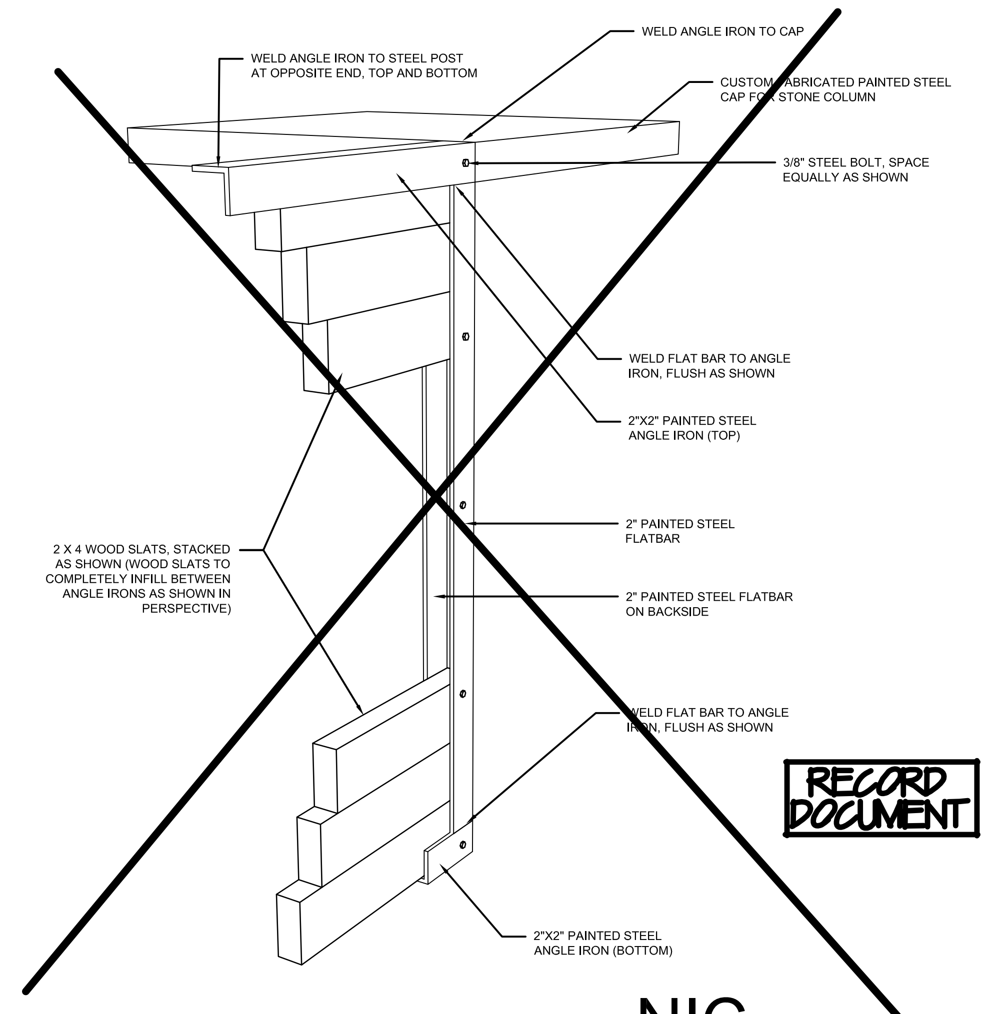
3 Kiosk: Stone Column Section
1/2"=1'-0"



4 Kiosk: Steel Post Section
1/2"=1'-0"



5 Kiosk: Sign Panel Detail - Back
1"=1'-0"



6 Kiosk: Sign Panel Detail - Front
1"=1'-0"

RECORD DOCUMENT

PREPARER:
SALT LAKE CITY CORPORATION
349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:
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PROFESSIONAL SEAL:
STATE OF UTAH
Terrall V. Budge
166545-5301
LICENSED LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:
SALT LAKE CITY

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810602
FILE #:
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Construction Details

SHEET IDENTIFIER:
L7.08

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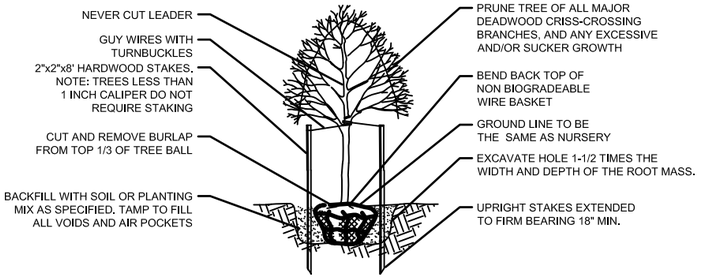
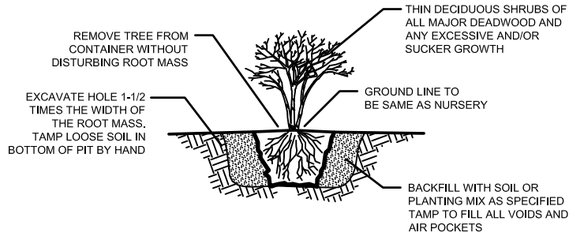


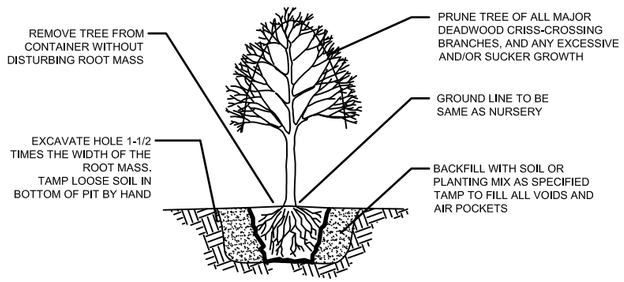
1 SECTION: BALL AND BURLAP TREE PLANTING

Not to Scale



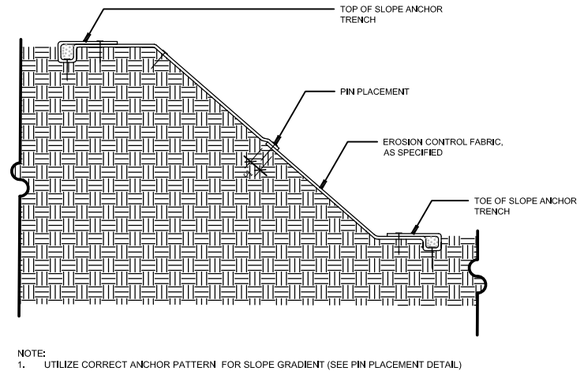
2 SECTION: CONTAINER GROWN SHRUB PLANTING

Not to Scale



3 SECTION: CONTAINER GROWN TREE PLANTING

Not to Scale

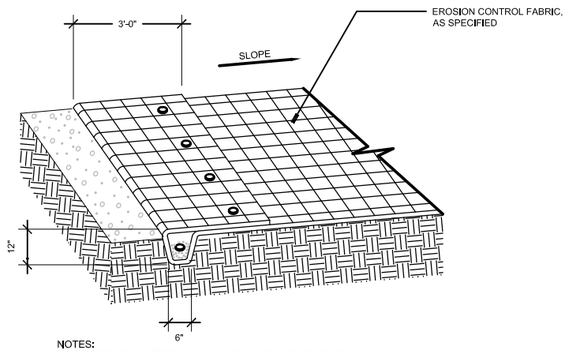


NOTE:
1. UTILIZE CORRECT ANCHOR PATTERN FOR SLOPE GRADIENT (SEE PIN PLACEMENT DETAIL)

4 Erosion Control Fabric

4.3

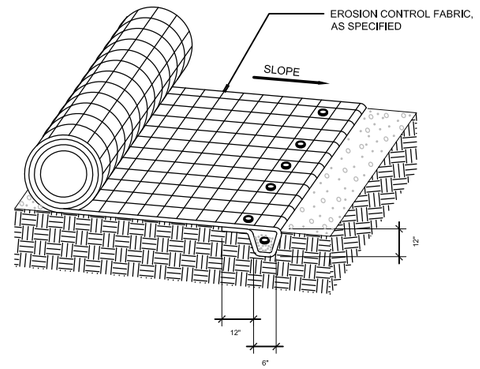
NTS



NOTES:
1. SECURE AT 1 ft INTERVALS, BACKFILL AND COMPACT SOIL

5 Toe of Slope Anchor Trench

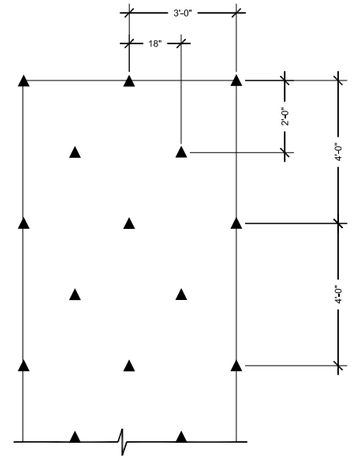
NTS



NOTES:
1. SECURE AT 1 ft INTERVALS, BACKFILL AND COMPACT SOIL

6 Toe of Slope Anchor Trench

NTS



NOTES:
1. ANCHOR PATTERN 2.5 ANCHORS / m² (2 ANCHORS / Yd²) FOR : 2:1-1:1 SLOPES.
2. USE 8" U - SHAPED WIRE STAPLES TO ANCHOR EROSION CONTROL FABRIC TO THE GROUND SURFACE.

7 Erosion Control Pin Placement

NTS

RECORD DOCUMENT

PREPARER:

SALT LAKE CITY CORPORATION

349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:

Biohabitats
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PROFESSIONAL SEAL:

STATE OF UTAH
Terrell V. Budge
10054B-2001
LICENSED LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:

MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 610902
FILE #:
DRAWING FILE:
DRAWN BY:
CHECKED BY:
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SHEET TITLE:

Construction Details

SHEET IDENTIFIER:

L7.09

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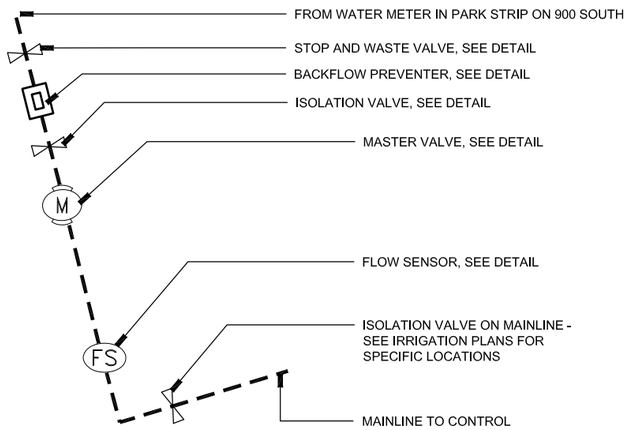
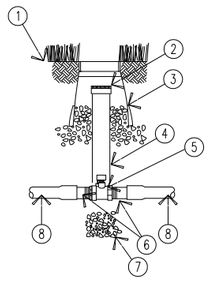


1 Point of Connection Diagram

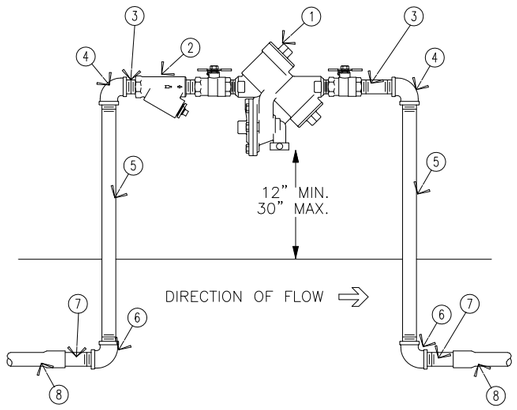
NOT TO SCALE



1. FINISH GRADE
2. IRRICAP
3. CARSON BROOKS 10" ROUND BOX WITH LOCKING COVER
4. 2" SCH 40 PIPE, LENGTH AS REQ'D
5. 2" STOP & WASTE VALVE MUELLER ORISEAL OR CAMBRIDGE
6. 2" TXS SCH 80 NIPPLE
7. 1 CU/FT 3/4" GRAVEL
8. 2" SCH 40 PVC MAINLINE PIPING

2 Stop & Waster Valve

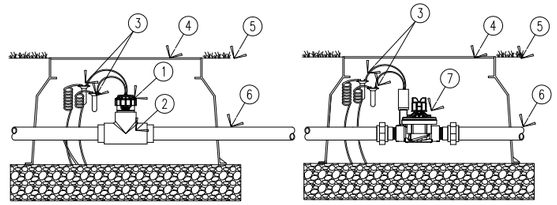
NOT TO SCALE



1. ZURN WILKINS MODEL 975XL REDUCED PRESSURE BACKFLOW PREVENTOR
2. ZURN WILKINS WYE FILTER
3. 2" GALV NIPPLE
4. 2" GALV 90° EL
5. 2" GALV NIPPLE, LENGTH AS REQ'D
6. 2" GALV 90° EL
7. 2" TXS SCH 80 NIPPLE
8. 2" SCH 40 MAINLINE PIPING

3 Backflow Preventor

NOT TO SCALE

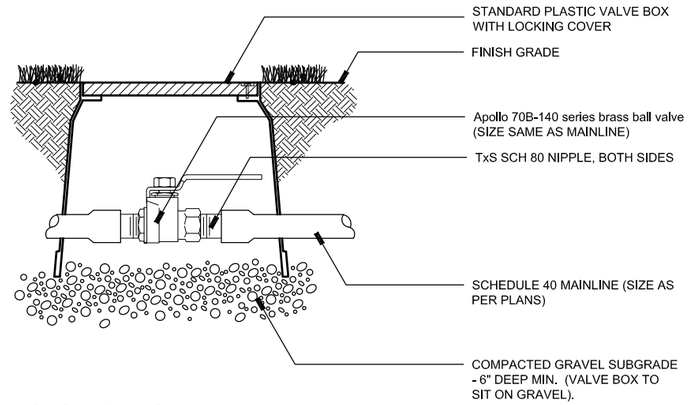


NOTE INLET PIPE LENGTH OF SENSOR MUST BE MIN. 10X PIPE DIA. STRAIGHT, CLEAN RUN OF PIPE, NO FITTINGS OR TURNS. OUTLET PIPE LENGTH OF SENSOR MUST BE MIN. 5X PIPE DIA. OF STRAIGHT CLEAN RUN OF PIPE, NO FITTINGS OR TURNS.

1. FLOW SENSOR MODULE
2. S/80 SLIP TEE
3. COMMUNICATION WIRE AS REQUIRED FROM MASTER VALVE AND FLOW SENSOR BACK TO CONTROLLER
4. STANDARD VALVE BOX WITH LOCKING COVER
5. FINISH GRADE
6. MAIN LINE PIPE
7. MASTER VALVE, SIMILAR TO RCV DETAIL

4 Master Valve - Flow Sensor

NOT TO SCALE



5 Isolation Vavle

NOT TO SCALE

RECORD DOCUMENT

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349 SOUTH 200 EAST SUITE 100
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Terrell V. Budge
168549 - 5501
LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:
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PROJECT OWNER:

MARK	DATE	DESCRIPTION

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PROJECT #: 610802
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L7.10
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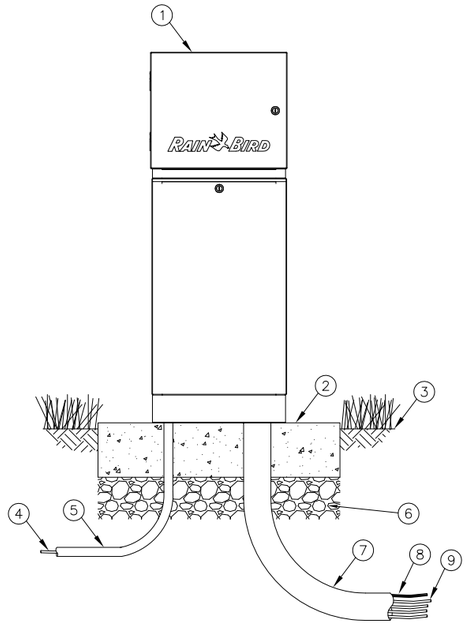
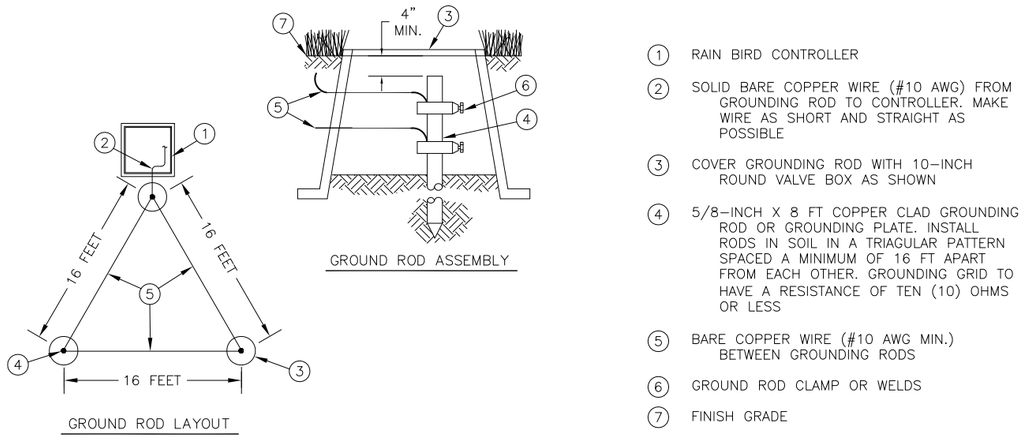


1. IRRIGATION CONTROLLER: RAIN BIRD ESP–LXMEF CONTROLLER WITH FLOW SMART MODULE IN LXMM METAL CABINET AND LXMMPED METAL PEDESTAL. INSTALL CONTROLLER, CABINET AND PEDESTAL PER MANUFACTURER'S RECOMMENDATIONS.
2. CONCRETE PAD: 6–INCH MINIMUM THICKNESS
3. FINISH GRADE
4. POWER SUPPLY WIRE
5. 1–INCH SCH 40 PVC CONDUIT, FITTINGS AND SWEEP ELL FOR POWER SUPPLY
6. COMPACTED AGGREGATE BASE
7. 3–INCH SCH 40 PVC CONDUIT, FITTINGS AND SWEEP ELL FOR STATION WIRES
8. FLOW SENSOR WIRE (PE 39, 89 OR 54) TO FLOW SENSOR
9. MASTER VALVE AND REMOTE CONTROL VALVE WIRES

NOTES:
1. ESP–LXMEF CONTROLLER IS AVAILABLE IN 8– OR 12–STATION BASE MODELS. ADDITIONAL MODULES IN 4–, 8– AND 12–STATION VERSIONS MAY BE ADDED TO BRING THE CONTROLLER UP TO 48 STATIONS MAXIMUM.
2. FOR EASE OF INSTALLATION INTO A CONTROLLER WITH MORE THAN 24 STATIONS, INSTALL A JUNCTION BOX AT THE BASE OF CONTROLLER AND TRANSITION LARGER VALVE AND COMMON WIRES FROM FIELD TO 18 AWG MULTI CONDUCTOR WIRE TO BE USED IN CONTROLLER.
3. PROVIDE PROPER GROUNDING COMPONENTS TO ACHIEVE GROUND RESISTANCE OF 10 OHMS OR LESS.

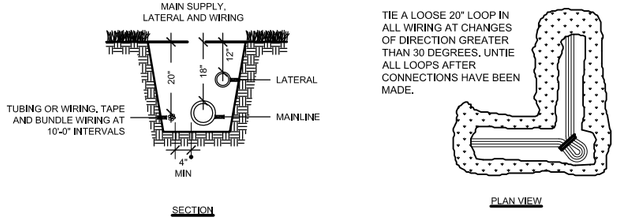
1 Pedestal Mounted Controller
NOT TO SCALE



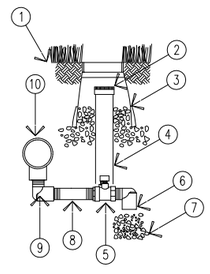
1. RAIN BIRD CONTROLLER
2. SOLID BARE COPPER WIRE (#10 AWG) FROM GROUNDING ROD TO CONTROLLER. MAKE WIRE AS SHORT AND STRAIGHT AS POSSIBLE
3. COVER GROUNDING ROD WITH 10–INCH ROUND VALVE BOX AS SHOWN
4. 5/8–INCH X 8 FT COPPER CLAD GROUNDING ROD OR GROUNDING PLATE. INSTALL RODS IN SOIL IN A TRIAGULAR PATTERN SPACED A MINIMUM OF 16 FT APART FROM EACH OTHER. GROUNDING GRID TO HAVE A RESISTANCE OF TEN (10) OHMS OR LESS
5. BARE COPPER WIRE (#10 AWG MIN.) BETWEEN GROUNDING RODS
6. GROUND ROD CLAMP OR WELDS
7. FINISH GRADE

2 Grounding Grid
NOT TO SCALE

NOTE:
ALL SPRINKLER PIPE SHALL BE PLACED ON UNIFORMLY SOLID TRENCH MATERIAL WITHOUT ANY HUMPS OR DEPRESSIONS. UNSUITABLE TRENCH BOTTOMS SHALL HAVE UNIFORMLY PLACED AND COMPACTED SAND BEDDING MATERIAL PRIOR TO PLACEMENT OF PIPE. ALL PIPE BACKFILL MATERIAL SHALL BE CLEAN EXCAVATED (OR IMPORTED IF REQ'D) MATERIAL WITH NO ROCKS LARGER THAN 1" CIRCUMFERENCE. PLACE BACKFILL MATERIAL IN 6" LIFTS COMPACTING EACH LAYER.

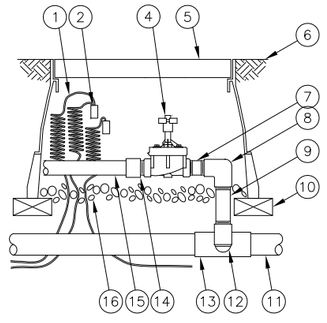


3 Trenching
NOT TO SCALE



1. FINISH GRADE
2. IRRICAP
3. CARSON BROOKS 10" ROUND BOX WITH LOCKING COVER
4. 2" SCH 40 PIPE
5. 3/4" STOP & WASTE VALVE MUELLER ORISEAL H–10288 OR CAMBRIDGE 263–F3F3
6. MARLEX STREET ELL
7. 1 CU/FT 3/4" GRAVEL
8. 3/4" X 6" S/80 NIPPLE
9. 3/4" SCH 40 STREET ELL
10. MAIN LINE PIPE

4 Manual Drain
NOT TO SCALE



1. 30–INCH LINEAR LENGTH OF WIRE, COILED
2. WATERPROOF CONNECTION RAIN BIRD SPLICE–1 (1 OF 2)
3.
4. REMOTE CONTROL VALVE, RAIN BIRD PESB
5. VALVE BOX WITH LOCKING COVER
6. FINISH GRADE/TOP OF MULCH
7. PVC SCH 80 NIPPLE (CLOSE)
8. PVC SCH 40 ELL
9. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
10. BRICK (1 OF 4)
11. PVC MAINLINE PIPE
12. SCH 80 NIPPLE (2–INCH LENGTH, HIDDEN) AND SCH 40 ELL
13. PVC SCH 40 TEE OR ELL
14. PVC SCH 40 MALE ADAPTER
15. PVC LATERAL PIPE
16. 3.0–INCH MINIMUM DEPTH OF 3/4–INCH WASHED GRAVEL

5 Remote Control Valve
NOT TO SCALE

RECORD DOCUMENT

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SALT LAKE CITY CORPORATION
349 SOUTH 200 EAST SUITE 100
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Terrell V. Budge
168549 - 5501
LANDSCAPE ARCHITECT

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MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

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SHEET IDENTIFIER:
L7.11
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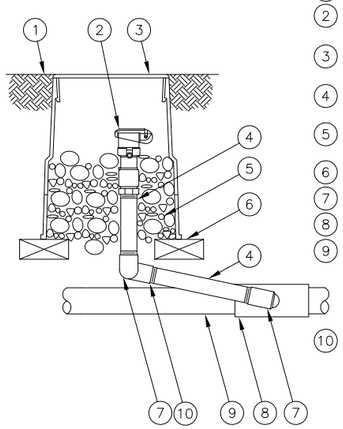


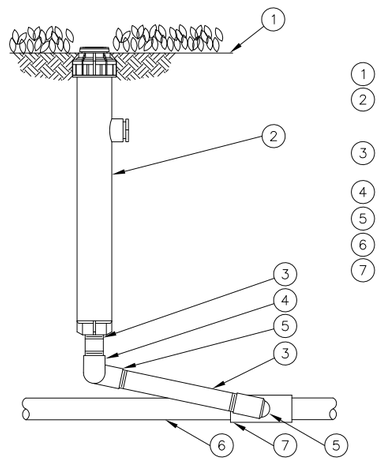
1. FINISH GRADE/TOP OF MULCH
2. QUICK-COUPLING VALVE, SEE PLAN
3. VALVE BOX WITH LOCKING COVER
4. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
5. 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
6. BRICK (1 OF 2)
7. PVC SCH 40 STREET ELL
8. PVC SCH 40 TEE OR ELL
9. PVC MAINLINE PIPE
10. PVC SCH 40 ELL

NOTE:

FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.

1 Quick Coupler Valve

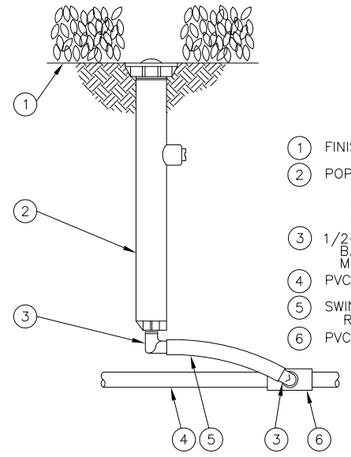
NOT TO SCALE



1. FINISH GRADE
2. ROTOR POP-UP SPRINKLER: RAIN BIRD 5012, SEE IRRIGATION PLANS
3. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
4. PVC SCH 40 ELL
5. PVC SCH 40 STREET ELL
6. PVC LATERAL PIPE
7. PVC SCH 40 TEE OR ELL

2 Rotor Head

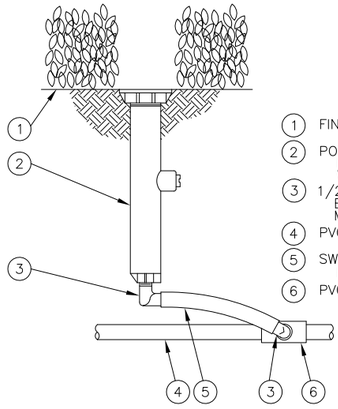
NOT TO SCALE



1. FINISH GRADE/TOP OF MULCH
2. POP-UP SPRAY SPRINKLER: RAIN BIRD 1812 WITH RAIN BIRD ROTARY NOZZLE, SEE IRRIGATION PLANS
3. 1/2-INCH MALE NPT x .490 INCH BARB ELBOW: RAIN BIRD MODEL SBE-050
4. PVC LATERAL PIPE
5. SWING PIPE, 12-INCH LENGTH: RAIN BIRD MODEL SP-100
6. PVC SCH 40 TEE OR ELL

3 Spray Head

NOT TO SCALE



1. FINISH GRADE/TOP OF MULCH
2. POP-UP SPRAY SPRINKLER: RAIN BIRD 1806-SAM-PRS WITH PLASTIC MPR NOZZLE
3. 1/2-INCH MALE NPT x .490 INCH BARB ELBOW: RAIN BIRD MODEL SBE-050
4. PVC LATERAL PIPE
5. SWING PIPE, 12-INCH LENGTH: RAIN BIRD MODEL SP-100
6. PVC SCH 40 TEE OR ELL

4 Spray Head

NOT TO SCALE

RECORD DOCUMENT

PREPARER:

SALT LAKE CITY CORPORATION

349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

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168549 - 2201
LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:

MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

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PREPARER #:
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SHEET IDENTIFIER:

L7.12

BINDING ORDER

SITE DETAIL KEY NOTES:

DETAIL/SHEET

0.0 EXISTING CONDITIONS/ WORK BY OTHERS

0.1	Existing Curb and Gutter	
0.2	Existing Sidewalk	
0.3	Existing Stone Wall	
0.4	Existing Stone Stair	
0.5	Existing Timber Stair	
0.6	Existing Timber Wall	
0.7	Existing Wood Bridge	
0.8	Existing Steel Bridge	
0.9	Existing Concrete Wall	
0.10	Existing Concrete Stair	

1.0 PAVEMENTS, RAMPS, CURBS

1.1	Trail	1 & 2/L7.07

2.0 SITE WALLS/EMBANKMENTS

2.1	Dry Stacked Stone Wall A	1/L7.06
2.2	Dry Stacked Stone Wall B	3/L7.06
2.3	Dry Stacked Stone Wall C	2/L7.06

3.0 PLANTING AND LANDSCAPE

See Planting Plans

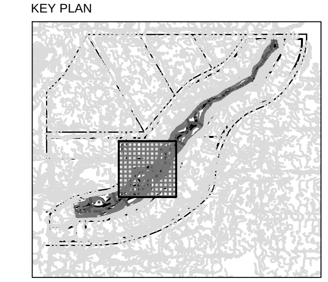
4.0 MISCELLANEOUS ELEMENTS

4.1	Creek Improvements	L7.01 - L7.05
4.2	Entry Sign and Gate	4/L7.07
4.3	Erosion Control Mat	4-7/L7.09
4.4	Kiosk	1-6/L7.08

REFERENCE NOTES

1. Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.
2. Trail at same alignment as before staging, with a consistent 8' width.
3. Area to receive topsoil fill as directed by Owner's Representative to prepare area for future installation of turf by Church.

KEY PLAN



NORTH

0 10 20 40

1"=20'-0"

PREPARER:

SALT LAKE CITY CORPORATION

349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

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REPARATION MATERIALS PLAN

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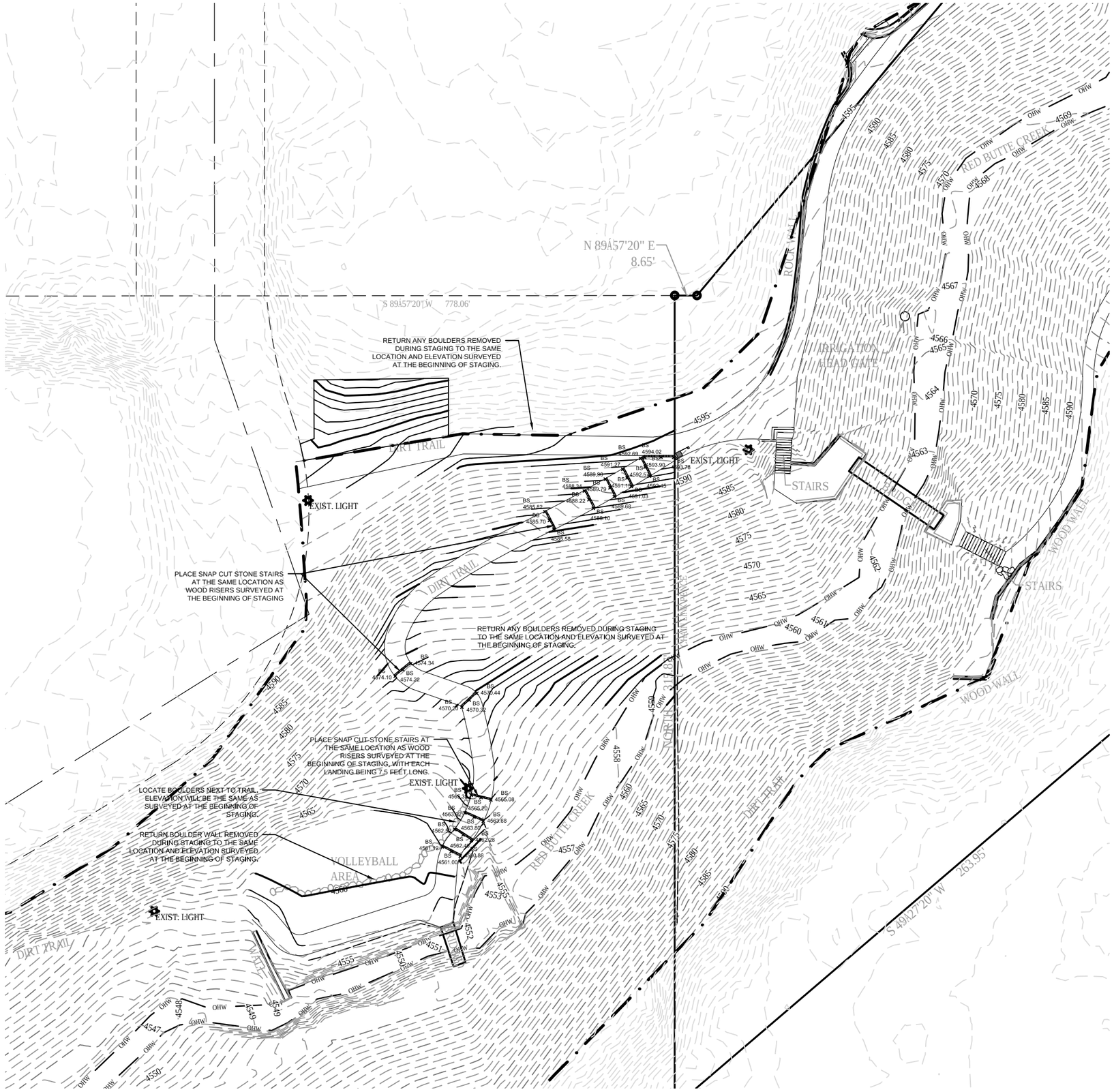
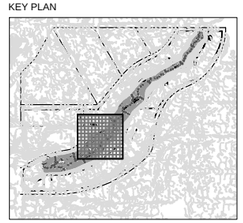


REFERENCE NOTES

1. Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.
2. Trail will have a 3% cross slope in the direction of natural drainage.

RECORD DOCUMENT

KEY PLAN



NORTH
0 10 20 40
1"=20'-0"

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REPARATION GRADING PLAN

SHEET IDENTIFIER:

L8.02

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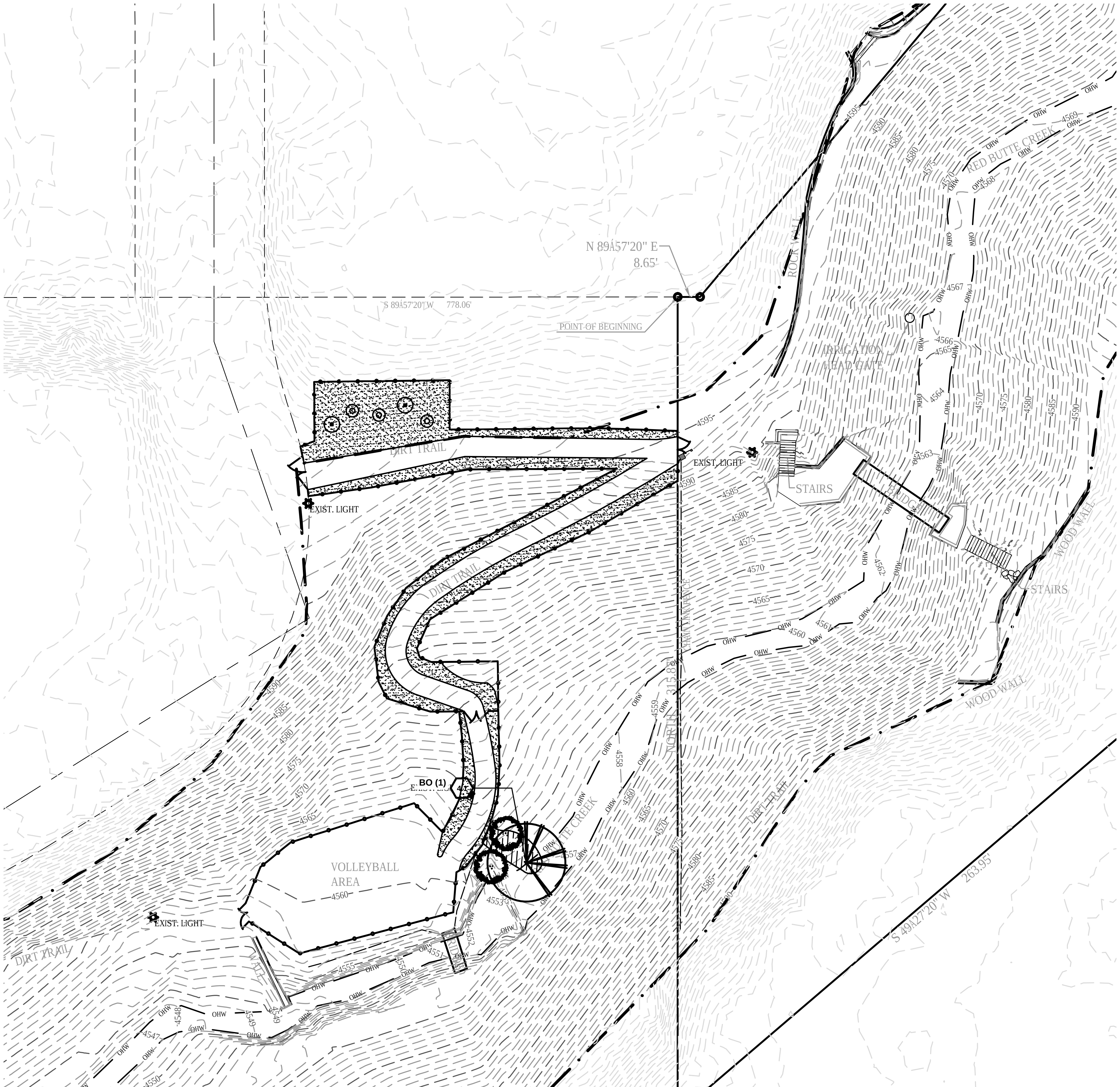


Plant List

ABBR.	BOTANICAL NAME	COMMON NAME.	QTY.	SIZE
TREES				
BO	Betula occidentalis	River Birch	1	#20
QG	Quercus gambelii	Scrub Oak	2	#15
SHRUBS				
AA	Amelanchier alnifolia	Serviceberry	2	3 GAL
PV	Prunus virginiana	Chokecherry	4	3 GAL
RA	Ribes aureum	Golden Current	6	3 GAL
RW	Rosa woodsii	Woods Rose	2	3 GAL
SA	Symphoricarpos occidentalis	Snowberry	6	3 GAL
RIPARIAN				
	Cornus sericea	Redtwig Dogwood	2	1 GAL
	Salix exigua	Sandbar Willow	6	1 GAL
SEED				
	Native Seed Mix			

PLANT COMPOSITION SCHEDULE

Miller Park Reparation Native Seed Mix Size (acres): 0.12

Quantity per acre	Frequency	Species Quantity	Vegetation Strata: Species Name	Common Name	Unit	Spacing Type
40.0	%	LBS	NATIVE SEED			
	20	1.0	Achnatherum hymenoides	Indian rice grass	LB OF P.L.S. 76%	SEED
	20	1.0	Agropyron spicata	Blue bunch wheat grass	LB OF P.L.S. 76%	SEED
	20	1.0	Leymus cinereus	Great Basin wild rye	LB OF P.L.S. 76%	SEED
	10	0.5	Poa secunda	Sandberg blue grass	LB OF P.L.S. 76%	SEED
	10	0.5	Poa fendleriana	Mutton grass	LB OF P.L.S. 76%	SEED
	4	0.2	Balsamorhiza macrophylla	Cutleaf balsamroot	LB OF P.L.S. 76%	SEED
	4	0.2	Geranium viscosissimum	Wild geranium	LB OF P.L.S. 76%	SEED
	2	0.1	Hedysarum boreale	Sweetvetch	LB OF P.L.S. 76%	SEED
	2	0.1	Linum lewisii	Lewis flax	LB OF P.L.S. 76%	SEED
	2	0.1	Penstemon cyananthus	Wasatch penstemon	LB OF P.L.S. 76%	SEED
	2	0.1	Rudbeckia occidentalis	Western coneflower	LB OF P.L.S. 76%	SEED
	4	0.2	Thermopsis montana	Golden Banner	LB OF P.L.S. 76%	SEED
	100.0	5	= total			

Seed quantity is for broadcast seeding.
P.L.S. = Pure Live Seed

NOTE: Space plants as noted on drawings and details and as directed by Owner's Representative and Landscape Architect.

PLANT DETAIL KEY NOTES: DETAIL/SHEET

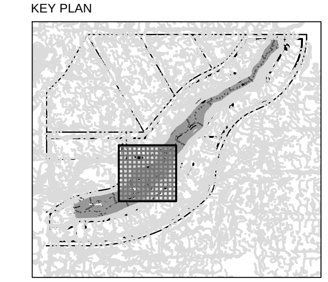
4.0 PLANTING AND LANDSCAPE

4.1	Deciduous Tree	1 & 2/L7.09
4.2	Deciduous Shrub	3/L7.09

REFERENCE NOTES

1. Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.
2. Over seed all irrigation trenches with the designated native seed mix.

KEY PLAN



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NORTH

0 10 20 40
1"=20'-0"

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349 SOUTH 200 EAST SUITE 100
SALT LAKE CITY, UTAH 84111

PREPARER CONSULTANTS:
Biohabitats

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PROFESSIONAL SEAL:
STATE OF UTAH
Terrell V. Budge
LANDSCAPE ARCHITECT

PROJECT IDENTIFICATION:
MILLER BIRD REFUGE AND BONNEVILLE GLEN RESTORATION (RED BUTTE CREEK)

PROJECT OWNER:

MARK	DATE	DESCRIPTION

PREPARER #:
CONTRACT #:
PROJECT #: 810802
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REPARATION PLANTING PLAN LDS CHURCH PROPERTY

SHEET IDENTIFIER:
L8.03

BINDING ORDER

IRRIGATION SCHEDULE

- Existing PVC Main
- Existing PVC lateral piping.
- Existing Valve
- Existing rotors
- New 1" Schedule 40 PVC lateral piping.
- Hunter PROS-12-PRS40-CV-MP3000-180 series pop-up rotators. See detail 4 on sheet L8.07.
- Hunter PROS-12-PRS40-CV-MP3000-90 series pop-up rotators. See detail 4 on sheet L8.07.

Plant List

ABBR.	BOTANICAL NAME	COMMON NAME.	QTY.	SIZE
TREES				
BO	Betula occidentalis	River Birch	1	#20
QG	Quercus gambelii	Scrub Oak	2	#15
SHRUBS				
AA	Amelanchier alnifolia	Serviceberry	2	3 GAL
PV	Prunus virginiana	Chokecherry	4	3 GAL
RA	Ribes aureum	Golden Current	6	3 GAL
RW	Rosa woodsii	Woods Rose	2	3 GAL
SA	Symphoricarpos occidentalis	Snowberry	6	3 GAL
RIPARIAN				
	Cornus sericea	Redtwig Dogwood	2	1 GAL
	Salix exigua	Sandbar Willow	6	1 GAL
SEED				
	Native Seed Mix			

PLANT COMPOSITION SCHEDULE
Miller Park Reparation Native Seed Mix — Size (acres): 0.12

Quantity per acre	Frequency	Species Quantity	Vegetation Survey/ Species Name	Common Name	Unit	Spacing Type
40.0	%	LBS	NATIVE SEED			
	20	1.0	Achnatherum hymenoides	Indian rice grass	LB OF P.L.S. 76%	SEED
	20	1.0	Agropyron spicatus	Blue bunch wheat grass	LB OF P.L.S. 76%	SEED
	20	1.0	Leymus cinereus	Great Basin wild rye	LB OF P.L.S. 76%	SEED
	10	0.5	Poa secunda	Sandberg blue grass	LB OF P.L.S. 76%	SEED
	10	0.5	Poa fendleriana	Mutton grass	LB OF P.L.S. 76%	SEED
	4	0.2	Balsamorhiza macrophylla	Cutleaf balsamroot	LB OF P.L.S. 76%	SEED
	4	0.2	Geranium viscosissimum	Wild geranium	LB OF P.L.S. 76%	SEED
	2	0.1	Hedysarum boreale	Sweetvetch	LB OF P.L.S. 76%	SEED
	2	0.1	Linum lewisii	Lewis flax	LB OF P.L.S. 76%	SEED
	2	0.1	Penzstemon cyananthus	Wasatch penzstemon	LB OF P.L.S. 76%	SEED
	2	0.1	Rudbeckia occidentalis	Western coneflower	LB OF P.L.S. 76%	SEED
	4	0.2	Thermopsis montana	Golden Banner	LB OF P.L.S. 76%	SEED
	100.0	5	# total			

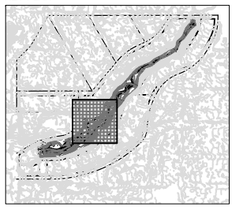
Seed quantity is for broadcast seeding.
P.L.S. = Pure Live Seed

NOTE: Space plants as noted on drawings and details and as directed by Owner's Representative and Landscape Architect.

REFERENCE NOTES

1. Line denotes transition from Ensign survey and regional topographic information. All information from this line to the centerline of creek is accurate Ensign survey information, all other is for context only.

KEY PLAN



RECORD DOCUMENT

NORTH 0 10 20 40
1"=20'-0"

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Terrell V. Dodge
168648-2001
LANDSCAPE ARCHITECT

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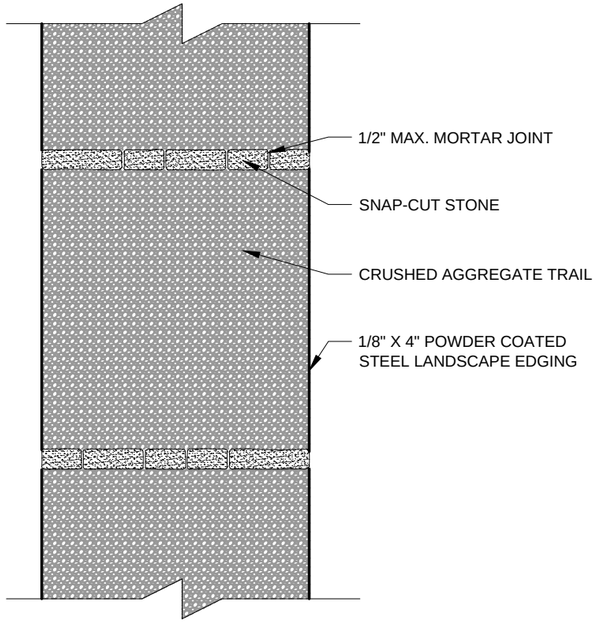
REPARATION IRRIGATION PLAN

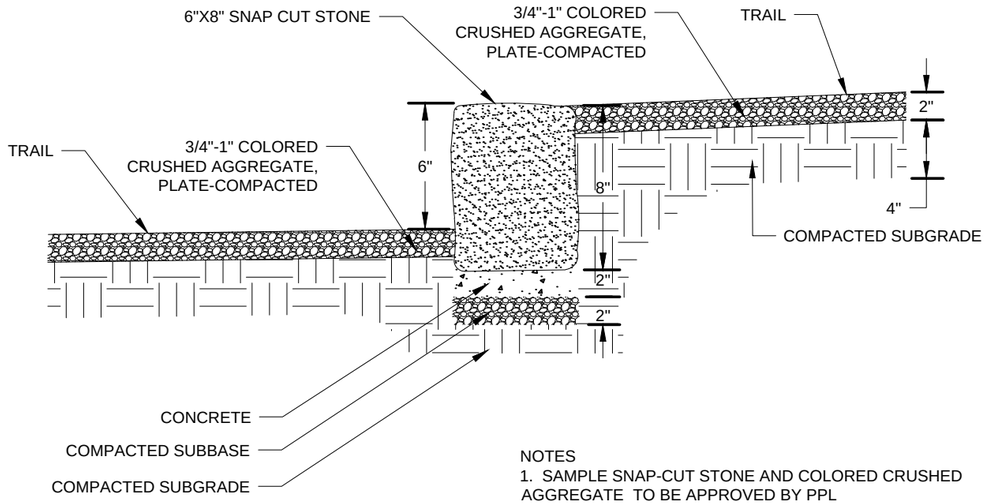
SHEET IDENTIFIER:
L8.04
BINDING ORDER



1 Trail Layout - Typical

NOT TO SCALE

1.2 1.3

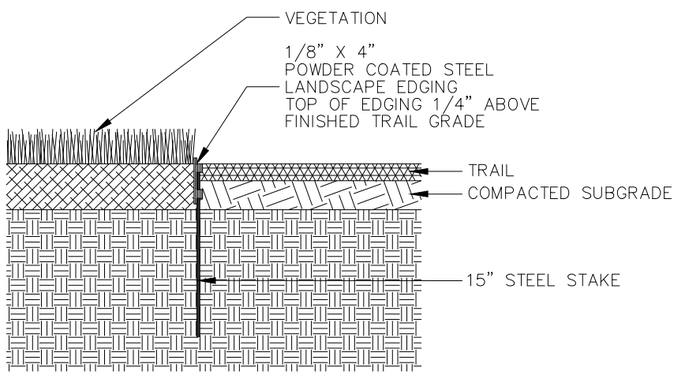


NOTES
1. SAMPLE SNAP-CUT STONE AND COLORED CRUSHED AGGREGATE TO BE APPROVED BY PPL
2. COLOR OF SNAP-CUT STONE AND COLORED CRUSHED AGGREGATE SHOULD BE COMPLIMENTARY

2 Crushed Aggregate Trail with Snap Stone Stair

NOT TO SCALE

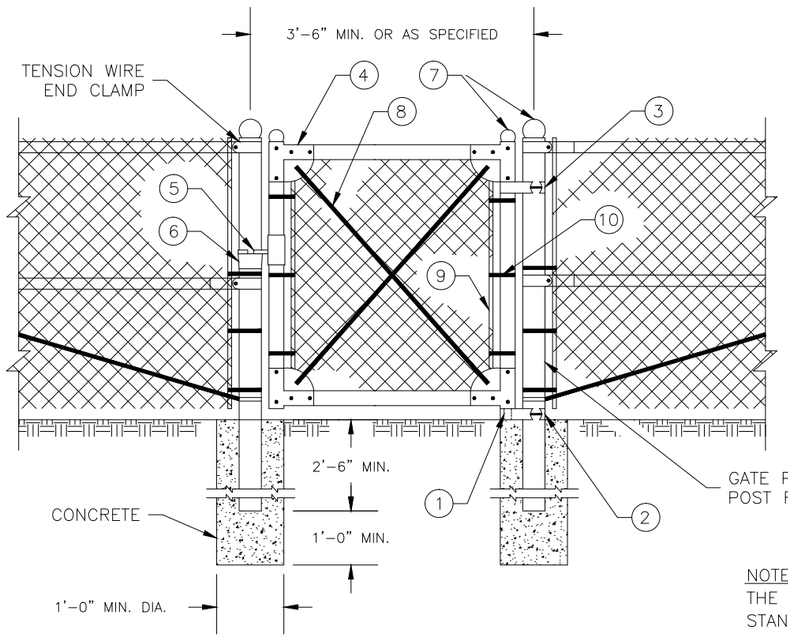
1.2 1.3



3 Edging

NOT TO SCALE

1.4



1. STRAIGHT PLUG – 1
2. BOTTOM HINGE – 1
3. TOP HINGE – 1
4. CORNER ELBOW – 4
5. LATCH FORK – 1
6. FORK CATCH – 1
7. ORNAMENTAL TOPS – 4
8. TRUSS RODS – 2
9. STRETCHER BAR – 2
10. HOOK BOLTS – 6

NOTE:
THE FENCING SHALL BE #9 GAGE FENCE FABRIC, STANDARD 2-INCH CHAIN LINK DIAMOND MESH

4 Chain Link Pedestrian Gate

NOT TO SCALE

4.5

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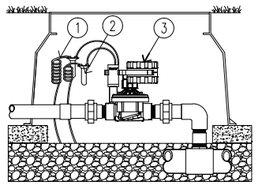
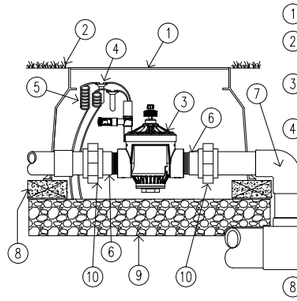


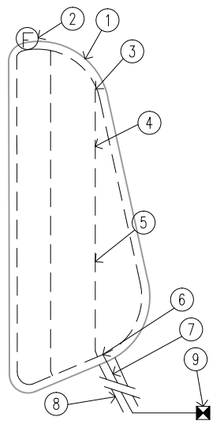
1. 18–24" COILED WIRE
2. WATERPROOF CONNECTORS (2)
3. NODE–100

1 Battery Powered Controller
NOT TO SCALE



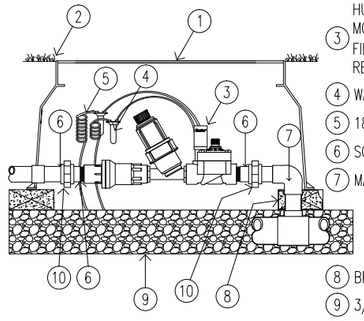
1. STANDARD LOCKING VALVE BOX
2. FINISH GRADE
3. HUNTER REMOTE CONTROL VALVE MODEL PGV–101G WITH ACCU–SYNC–ADJ
4. WATERPROOF CONNECTORS (2)
5. 18–24" COILED WIRE
6. SCH 80 T.O.E. NIPPLE
7. MAIN LINE PIPE & FITTINGS
8. BRICK SUPPORTS (4)
9. 3/4" MINUS WASHED GRAVEL
10. PVC SLIP UNIONS

2 Remote Control Valve
NOT TO SCALE



1. AREA BOUNDARY
2. FLUSH VALVE
3. HUNTER PLD–TEE
4. TUBING STAKE
5. HUNTER PLD–BLANK DRIP LINE
6. LATERAL TO PLD CONNECTION
7. LATERAL PIPE TO AREA
8. SLEEVE INTO AREA
9. HUNTER DRIP CONTROL VALVE: MODEL PCZ–101–25(40)

3 Drip Installation Components
NOT TO SCALE



1. JUMBO LOCKING VALVE BOX
2. FINISH GRADE
3. HUNTER DRIP ZONE KIT MODEL PCZ–101 WITH FILTER (TIP 45 DEGREES) REGULATOR 25 OR 40 PSI
4. WATERPROOF CONNECTORS (2)
5. 18–24" COILED WIRE
6. SCH 80 T.O.E. NIPPLE
7. MAIN LINE PIPE & FITTINGS
8. BRICK SUPPORTS (4)
9. 3/4" MINUS WASHED GRAVEL
10. PVC SLIP UNIONS

4 Drip Control Valve
NOT TO SCALE

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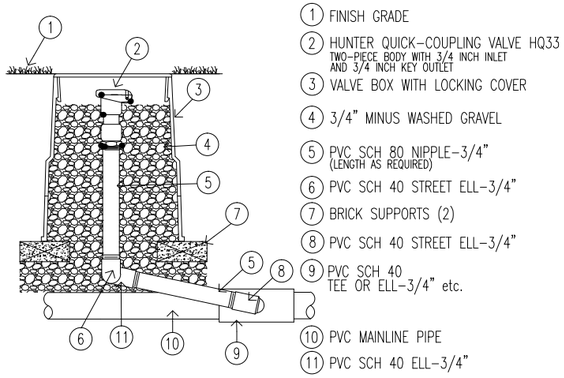
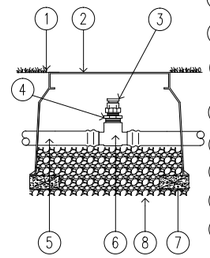


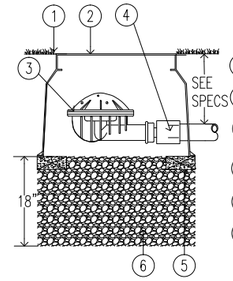
1. FINISH GRADE
2. HUNTER QUICK-COUPLING VALVE HQ33 TWO-PIECE BODY WITH 3/4 INCH INLET AND 3/4 INCH KEY OUTLET
3. VALVE BOX WITH LOCKING COVER
4. 3/4" MINUS WASHED GRAVEL
5. PVC SCH 80 NIPPLE-3/4" (LENGTH AS REQUIRED)
6. PVC SCH 40 STREET ELL-3/4"
7. BRICK SUPPORTS (2)
8. PVC SCH 40 STREET ELL-3/4"
9. PVC SCH 40 TEE OR ELL-3/4" etc.
10. PVC MAINLINE PIPE
11. PVC SCH 40 ELL-3/4"

1 Quick Coupler Valve
NOT TO SCALE



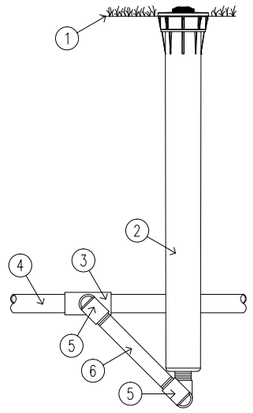
1. FINISH GRADE
2. 10" ROUND LOCKING VALVE BOX
3. HUNTER AIR/VACUUM RELIEF VALVE
4. 3/4"MPT x 1/2"FPT BUSHING
5. DRIPLINE TUBING
6. ADAPTER TEE
7. BRICK SUPPORTS (3)
8. 3/4" GRAVEL SUMP

2 Air/Vacuum Relief Valve
NOT TO SCALE



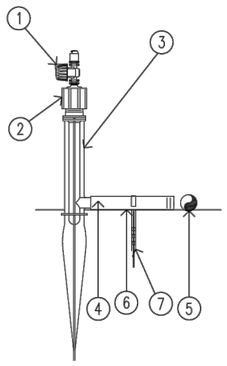
1. FINISH GRADE
2. 10" ROUND VALVE BOX
3. LINE FLUSHING VALVE
4. HUNTER PLD-050 OR 1/2" FPT ADAPTER
5. BRICK SUPPORTS (3)
6. 3/4" GRAVEL SUMP

3 Line Flushing Valve
NOT TO SCALE



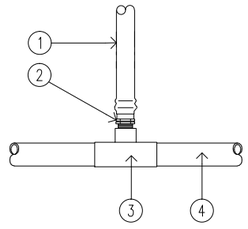
1. FINISH GRADE
2. HUNTER MODEL PROS-12-PRS40-CV-MP3000 WITH 'CV' OPTION INSTALLED
3. LATERAL TEE OR ELL
4. LATERAL PIPE
5. 1/2" MARLEX STREET ELLS (3)
6. SCH 80 NIPPLE

4 Rotator Head
NOT TO SCALE



1. HUNTER TRIO-SPRAY
2. 1/2" FPTx10-32 THREAD ADAPTER
3. MICRO SPRAY STAKE
4. HUNTER PLD-BLNK DRIPLINE TUBING
5. HUNTER PLD-TEE
6. FINISH GRADE
7. TIE-DOWN STAKE

5 Micro Spray Head
NOT TO SCALE



1. HUNTER PLD-BLNK DRIPLINE TUBING
2. PLD-075 3/4" MTPxBARB
3. 3/4" FPT LATERAL TEE
4. LATERAL OR HEADER

6 Start Connection Above Grade
NOT TO SCALE

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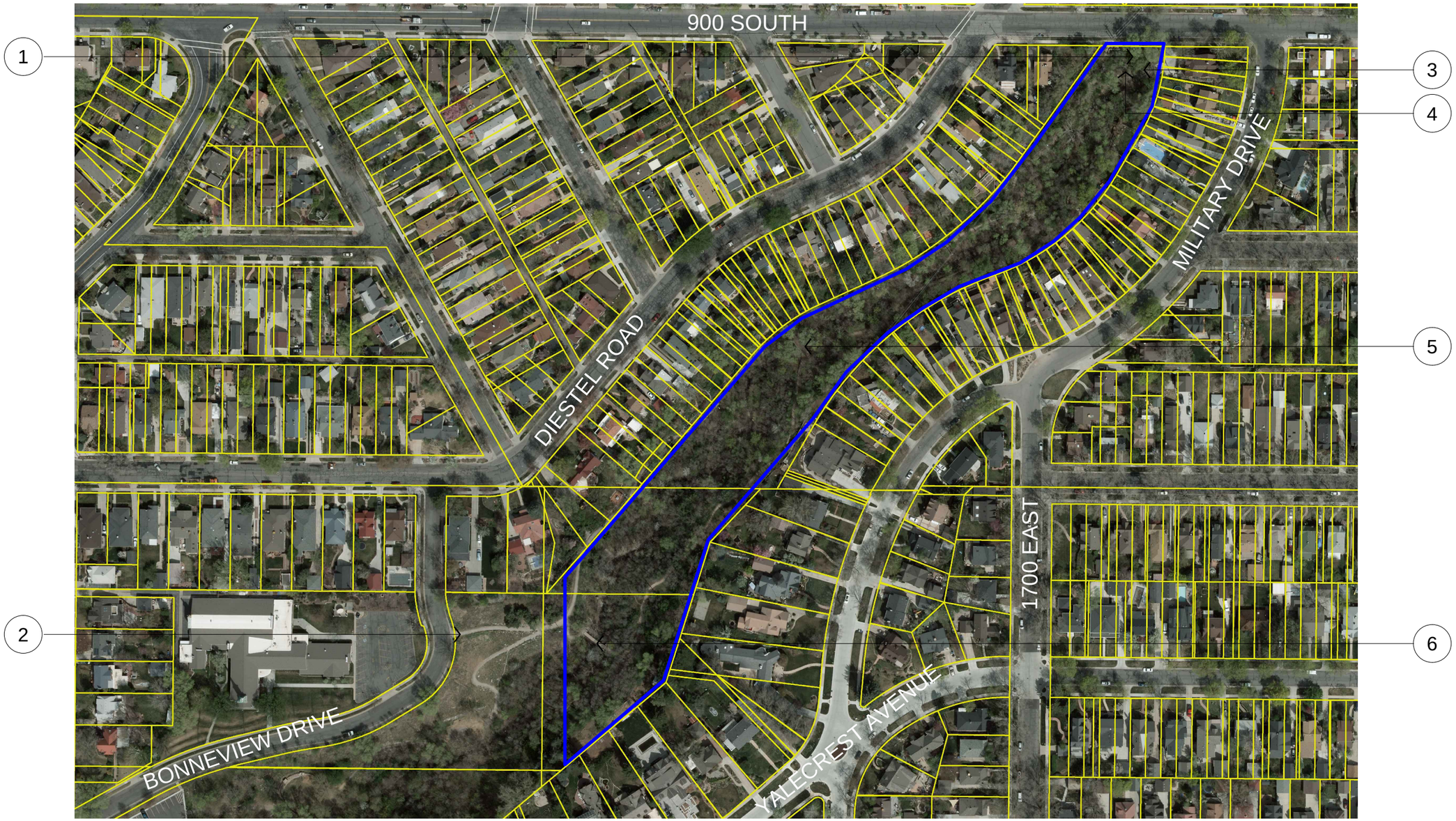

Imagery taken from AGRC's High Resolution Ortho-Photography (HRO) 6-inch resolution color aerial photography, 2012.

CALLOUT_DESCRIPTIONS

1	MAIN ENTRANCE & CURVED DOUBLE STAIRCASE	3	TERRACED SEATING AREA	5	STONE BRIDGE
2	ENTRANCE VIA BONNEVIEW GLEN	4	CULVERT & DAR PLAQUE	6	METAL BRIDGE

APPROXIMATE PARK BOUNDARY

PARCEL BOUNDARY

NORTH

0 80 160 240 320 Feet

SCALE

SALT LAKE CITY
HISTORIC LANDSCAPES REPORT
SLCHLR NO. 34

SHEET 1 OF 1

Miller Park

1708 East 900 South

SALT LAKE CITY SALT LAKE COUNTY UTAH

LANDMARK DESIGN