Silver Bowl Park
Master Recreation Plan

Clark County
Parks & Recreation
Real Property Management

poggemeyer design group, inc.
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2006

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The Silver Bowl Master Development Plan provides a vision for the future of our regional parks and trails. A vision to protect our natural environment while providing opportunities for outdoor experiences and activities that foster enjoyment and appreciation of and respect for the natural environment.

The long-term stewardship of our regional parks and trails brings many challenges. I ask you to join me in our important role as stewards in protecting the natural environment of our parks and trails while we continue to enjoy them.

This Master Plan, which spells out the Silver Bowl Park and Trails vision, is the result of the dedication and hard work of many. I want to particularly thank the Special Interest Group, Internal Design Team, PRAC Board, Poggemeyer Design Group and Parks staff. Most importantly, I want to thank the residents of the region for their contribution, support and guidance. Over the life of this Master Plan, I expect your continued support and guidance to ensure that management of your regional parks and trails system continues to reflect your collective vision.

Sincerely,

Rory Reid
Chairman
Clark County Commission

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Silver Bowl Park Master Recreation Plan

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INTRODUCTION

The site is located on Bureau of Land Management leased land adjacent to the Clark County Wetlands Park in an unincorporated area of Clark County, Nevada. The site covers approximately 200 acres and is located at the eastern end of the Las Vegas Valley, east of Boulder Highway. Sam Boyd Stadium and its parking lot are located in the middle of the site. The project site is located on the edge of an urban area. The existing terrain is variable and includes buildings, roads, paved areas, unpaved areas, grassy fields, flood control channels, and undeveloped areas. The undeveloped areas have light vegetation and sandy soil and consist of approximately 100 acres.

The Silver Bowl Recreation Park is situated on a 200 acre site surrounding Sam Boyd Stadium in south central Clark County (see Aerial Photo & Survey, next page). It is surrounded by the City of Henderson, Boulder Highway, Wetlands Park and varying residential districts (see Appendix B for Whitney Planning Area Maps). The central concept for the park enhancement is to upgrade existing facilities and integrate additional facilities to meet the growing recreational trends of the residents of Clark County. This project will create a regional sports facility to serve the southeast quadrant of urban Clark County.

The overall open space system that will be provided within the Silver Bowl Recreation Park will serve three (3) primary purposes:

- Sports Facility for team practice, league play and local and regional tournaments;
- Recreation and Open Space serving the needs of the neighboring community;
- Special Use Facilities.

A continuous buffer area is retained on the northern perimeter of the Silver Bowl Complex; where greenspace extends into the Wetlands Park corridor, protecting slopes, vegetation and wildlife.

This extensive open space will serve to establish and maintain the natural character of the overall park community.

The recreation and open space planned within the Park boundaries will include active and passive recreation areas and a central gathering area. The recreational amenities will be structured in a number of different ways including pick up athletic events and organized league play, clubs or organizations, educational events and family events.

NOTE:
AERIAL FLOWN ON 1/13/06. FOR INFORMATION ONLY. INFORMATION SHOWN MAY NOT REFLECT ACTUAL CONDITIONS TO DATE. CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS.

SCALE: 1"=300'

NORTH

REVISIONS | INITIALS | DATE

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DESIGNED BY: W BONE
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SILVER BOWL MASTER RECREATION PLAN
AERIAL PHOTO & SURVEY

SHEET
OSP1.1

SITE ANALYSIS

EXISTING PARK FACILITIES

The Silver Bowl Recreation Park currently contains numerous park amenities and facilities that are outdated and in need of repair (see Appendix A, Existing Photographs). As the Las Vegas Valley continues to grow, recreational needs are constantly changing and the Silver Bowl Park Master Recreation Plan will help guide Clark County in meeting the recreational needs of all of Clark County residents. The southeast quadrant is vitally deficient of both park and open space in meeting the minimum park acreage standards for Clark County residents.

Current recreational amenities that exist within the Silver Bowl Complex and surrounding County Parks are as follows:

Silver Bowl Park

- Youth Soccer;
- Flag Football;
- 60' Baseball/Softball Fields (4);
- R/C Car Tracks/Airplane Field;
- 90' Baseball Fields (2);
- Playground (1);
- Restrooms (2);
- Archery Range;
- Walking;
- Picnic;
- Volleyball.

Whitney Park & Center

- Fitness Trail;
- Neighborhood Center;
- Picnic;
- Walking Trails
- Basketball;
- Playground;
- Swimming;
- Tennis;
- Volleyball.

Wetlands Park & Information Center

- Neighborhood Center;
- Picnic;
- Walking Trails;
- Restrooms.

Vo-Tech School Park

- 60' Baseball Field (1);
- 90' Baseball Field (1).

Desert Inn Mobile Estates Park

- Dog Park;
- Picnic;
- Playground;
- Swimming;
- Walking Trails.

Dog Fancier's/Horseman's Park

- Dog Park;
- Picnic;
- Restroom;
- Horse Arenas;
- Stables;
- Cutting Pens.

Grapevine Springs Park

- Volleyball;
- Picnic;
- Playground;
- Walking Trails;

Additional lighted ballfields to serve youth are in need, in addition to lighted youth and adult soccer fields. Picnic shelters and gathering areas are limited and access to the entire facility is limited to vehicular access only. The Complex is broken into pods with Sam Boyd Stadium centrally located at Russell and Broadbent.

Sam Boyd Stadium, operated by UNLV, currently utilizes the existing open fields for additional parking for it's large events (4-5 times a year). Large events include UNLV football games, Vegoose, Monster Jam, SuperCross and the Las Vegas Bowl. As of March 25, 2006, the maximum parking required by these large events was 10,000 spaces[1]. Access to the site is limited to Russell and Broadbent Roads. A dedicated tailgate area is located north of the Stadium and the same space is utilized for practice facilities.

Current parking for the park accommodates approximately 836 vehicles. Existing parking facilities are located at the west end of the Silver Bowl Complex. During large attended events, vehicles can be found parked along streets to shorten access to the soccer fields due to lack of parking. Sam Boyd Stadium currently accommodates 3,327 vehicles within its parking facility. The Stadium site is currently fenced off to the general public during non-event periods preventing park users from utilizing existing parking facilities. Opportunities for additional parking for soccer fields are located on open land located to the north and east of Sam Boyd Stadium. For larger events at Sam Boyd Stadium, attendees utilize open park land south of the stadium where future park amenities will be located. With the proposed park amenities in the Master Plan, parking will become an issue for all users.

The current Complex also houses two unique amenities: a remote control airfield and a remote control car track. Due to radio frequency needs, these two facilities cannot be located within 1,300 feet of the other facility. Existing locations serve them well, but the facilities could be relocated to make better use of the overall Complex.

The Wetlands Park Learning Lab is located on-site on Russell Road. This building currently acts as an office space and community building. The original intended Lab activities have been relocated within the Wetlands Park facility.

The land on which the Silver Bowl Complex is located is leased from the Bureau of Land Management by Clark County. This lease has restrictions preventing certain uses and money-making activities from occurring.

[1] Information provided by the Events Services Dept, UNLV, April 6, 2006 via email. See Appendix D

SPORTS PROGRAMS

Current Clark County Sports Programming serves numerous sports, activities and users. Recreational activities and events are diverse and age groups range from Youth (5-7 years of age) to Adult leagues. These activities include:

Soccer	Kite Flying	Walking/Running
Flag Football	Picnicking	Regional Hot Air Balloon Event
Lacrosse	Baseball/Softball	Remote Control Vehicle Tracks

Currently, there are numerous organizations and private groups who regularly schedule events, tournaments and practices at the Silver Bowl Park. These users consist of: Nevada Youth Soccer Association, Nevada ASA, Nevada Community Baseball League, USSSA, C-Ultimate, Men's Senior Baseball League, Nevada Adult Soccer Association, Little League District 2, Trinity High School, Metro Stars, 360 Sports Management, Master Mailers, Nevada Warriors, Kids Entertainment Group Baseball Camp, Empire Chivalry & Steel, Quality Printing, Henderson Wolverines, Team Famous, Metro Police K9, NYBA American Legion Baseball, Las Vegas Rugby Club, Adrian Empire, So. Nevada Pop Warner Football, United States Youth Soccer, LV USL, Las Vegas Cadets, Triple Crown Sports, Las Vegas Baseball Academy, Clark County Special Events, Las Vegas Lacrosse League and numerous private sports team practices.

Monthly average attendance totals approximately 90,000[2] users and spectators. Clark County Cultural Events staff also schedules events on-site for culturally diverse population.

[2] Facility Usage Report, 10/10/06

EXISTING ZONING & LAND USE

ZONING

The property is zoned Clark County Zoning P-F (Public Facility), which is the typical zoning for such public facilities and properties. A variety of other zoning categories and uses surrounding the site include:

a.) **North**—Clark County Zoning PF (Public Facilities), and RE (Rural Estates, Residential District—20,000 sq. ft. minimum lot size);

b.) **East**—Clark County PF (Public Facilities);

c.) **South**—City of Henderson Zoning IG (General Industrial District—has recently been rezoned to low density Residential Planned Unit Development [PUD]); DH (which is a Development Holding Zone for a Business/Industry (BI) type development); Low Density Residential [LDR] Medium Density Residential [MDR]; Rural Neighborhood Preservation 1 [RNP-1]—RS-1A (Single Family Residential and PS (Public and Semi-Public); PS (Public and Semi-Public); RS-6 (Low Density Single Family Residential--6 units/acre); Clark County Zoning R-2 (Medium Density Residential District--8 units/acre); R-3 (Multiple Family Residential District—18 units/acre); and C-2 (General Commercial District) in the triangle below the western panhandle of Silver Bowl Park bordered by Broadbent/Gibson Road and Boulder Highway. It is interesting to note there is a relatively large parcel of property south of the eastern panhandle of Silver Bowl Park (north and west of the City of Henderson Water Treatment Facility) that appears to be unzoned. After discussion with the City of Henderson planning staff, that parcel has apparently been recently annexed by the City, but has not yet been assigned a land use or zoning category.

d.) **West**—Clark County R-4 (Multiple-Family Residential [High Density]—25 dwelling units/acre), R-V-P (Recreational Vehicle Park District)—20 units/acre) R-T (Manufactured Home Residential District—8 dwelling units/acre), RUD (Residential Urban Density District—14 dwelling units/acre).

LAND USE

As mentioned above, Silver Bowl Park is located within the Clark County Whitney Planning Area, east of Boulder Highway in the southeast Las Vegas Valley. It is currently adjacent to various land uses consisting of residential, commercial, and undeveloped open areas, including:

a.) **North**—Open space lands--wetlands drainage basin (Wetlands Park) for the majority of the project area and townhouse and apartment residential north of the areas western panhandle;

b.) **East**—Open space lands (Wetlands Park), and unzoned open land and the City of Henderson Water Treatment Plant east of the western panhandle of Silver Bowl Park;

c.) **South**—Existing commercial and residential uses in Clark County in the western portion of the project area, and some existing residential uses and lands currently being rezoned and/or designated for future low density residential development in the City of Henderson along the southern edge of Silver Bowl Park; City of Henderson Water Treatment Plant;

d.) **West**—Commercial uses, along Boulder Highway and townhouses and apartment development at the northwest edge of the site in Clark County.

LAND USE COMPATIBILITY ISSUES

Silver Bowl Park is located within the Whitney Unincorporated Planning Area of Clark County (see Parcel Map, next page). This area had a new Land Use Plan adopted on April 3, 2000, which illustrated future proposed planned land uses (See Appendix B—Whitney Planning Area Maps). The areas adjacent to Silver Bowl Park are designated in the plan essentially the same as the existing zoning. An exception to the approved 2000 Whitney Land Use Plan is the area to the north of the western panhandle of the park which was designated as Business Park Industrial, and was rezoned in 2001 to allow Residential Townhouses (RO1-1349-01). Also, a narrow strip of land adjacent to the north edge of the western panhandle of the park was designated as a commercial use in the 2000 plan and rezoned residential in 2004 (RO1-1460-04).

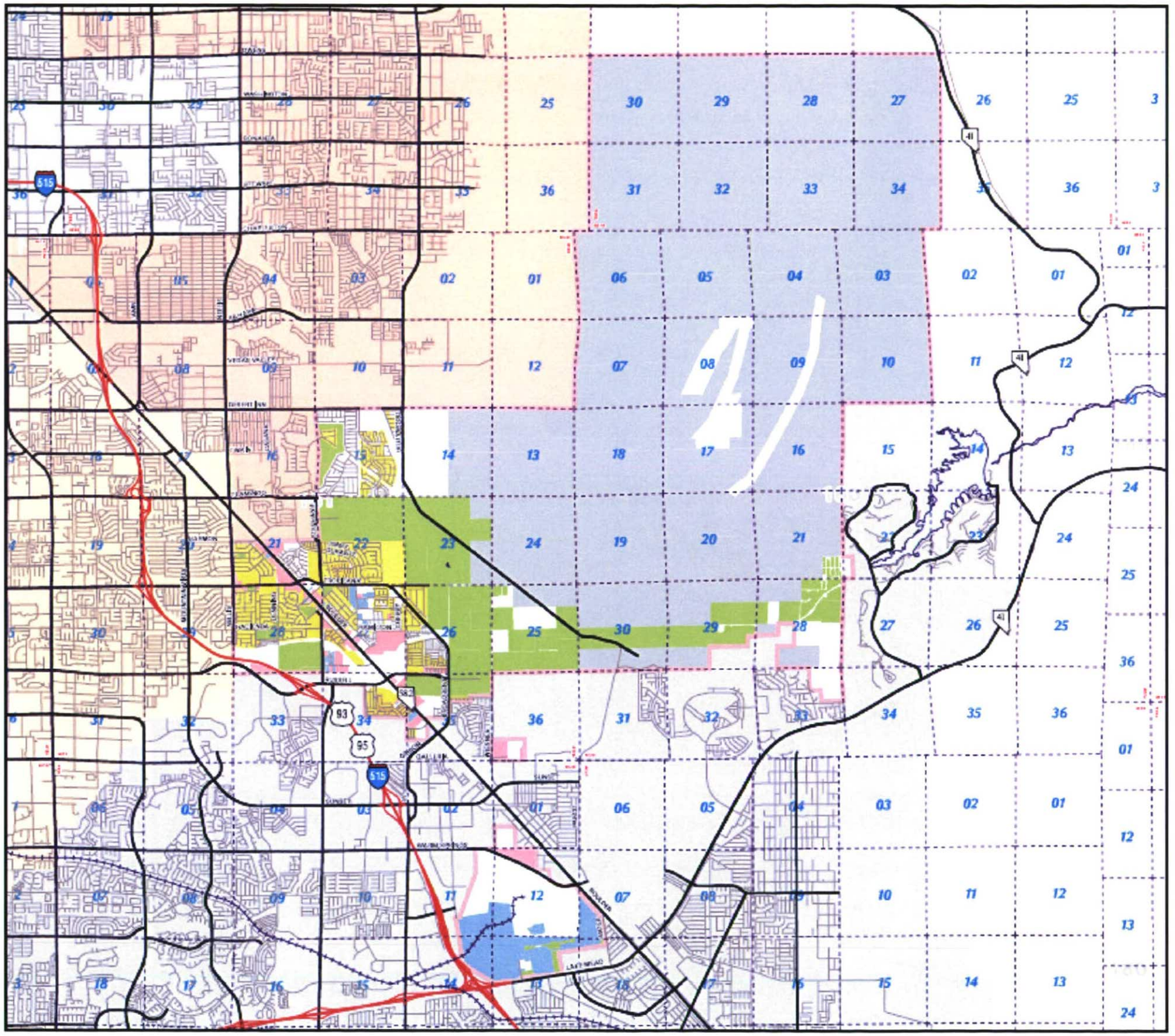
A major portion of the southern edge of Silver Bowl Park is adjacent to the City of Henderson, which is now the second largest city in the State of Nevada. Henderson has recently adopted a new Future Land Use Plan (March 2006) illustrating proposed future land uses, including those adjacent to the southern edge of Silver Bowl Park. The proposed land uses in Henderson to the southeast of Silver Bowl Park are primarily, Business/Industry (BI), Medium Density Residential (MDR), and Low Density Residential (LDR).

The Silver Bowl Park Master Recreation Plan project represents both potentially advantages and disadvantages for the surrounding neighborhoods. Advantages include readily accessible recreational opportunities in close proximity to a number of surrounding residents. Disadvantages include impact traffic, noise, dust, and light pollution which may affect the surrounding neighborhoods.

The design of the new Master Recreation Plan should contain appropriate mitigation measures to minimize such adverse impacts. This can be done utilizing various techniques such as:

- Development of efficient access/egress and internal vehicular circulation facilities through the park to the various recreation activity areas to minimize traffic congestion and air pollution.
- Provision of buffer areas to separate surrounding land uses from the activities of the park. Such buffers areas could include items such as:
  - Trees and landscaping that would provide a visual buffer between the neighborhood and park areas. Although landscaping does not provide a complete physical barrier, vegetation softens the appearance of concrete and asphalt and helps control dust;
  - Berms provide soft physical barriers and attenuate noise and dust levels;
  - Decorative walls constitute hard physical barriers while providing aesthetic amenities. Walls also attenuate noise and dust;
  - Natural preservation areas provide separation between uses and require little, if any, maintenance.
- Design the project with the most intensive recreational uses located toward the interior of the site, away from surrounding neighborhoods. Providing the greatest distance between noise, light and dust generators and surrounding areas will help mitigate impacts.

The above measures could help minimize the effect between the existing and future adjacent neighborhoods and recreational activities within the park. This effort would be particularly important to provide an amenable interface between Silver Bowl Park activities and the new and existing developments within the City of Henderson to the south.



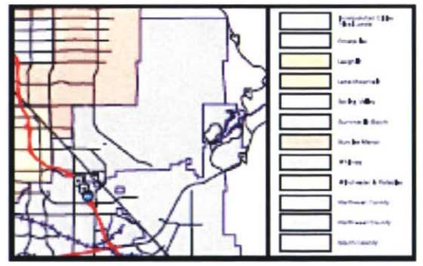
Comprehensive Planning

Chapter One - Map 18
Existing Land Use

Whitney Planning Area

- Single Family Residential
- Multi-Family Residential
- Commercial
- Industrial
- Mineral Extraction
- Public Facility
- Vacant Land
- Government Land Not Available For Development
- Incorporated Cities Tribal Lands
- Whitney Planning Area Boundary

PPEPP/GIS 2005 Existing Land Use



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SCALE IN FEET

Source: Clark County Central Repository

Plot created on: August 17, 2006

This information is for display purposes only.
No liability is assumed as to the accuracy of the data delineated hereon.

Categories denoted in the legend may not apply to a particular Planning Area.

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EXISTING DRAINAGE & HYDROLOGY

Duck Creek Wash flows from west to east through the northern and eastern portions of the site. The Las Vegas Valley Flood Control Master Plan[1] estimates the 100-year flow to be 2,700-cfs. The portions of the site north of Duck Creek Wash are uneven undeveloped ground that is subject to flooding. A portion of the bank has been stabilized with gabions adjacent to the site. The middle branch of Las Vegas Wash is located just to the north of the project site with an estimated 100-year flow of approximately 21,000-cfs[1] adjacent to the project site. Beyond this area to the north is mountainous desert terrain. The eastern end of the site is traversed by a wash and is characterized by uneven and undeveloped ground.

An existing riprap channel runs along the south property boundary between Broadbent Boulevard and Wiesner Way. At the downstream end the channel transitions to a concrete lined channel that turns northward along Wiesner Way. The concrete channel is blocked off at the north end forcing water to spill over the sides and continue eastward over the road. The proposed plan addresses this issue.

Russell Road currently has no curb and gutter along the south side adjacent to the project site. Runoff from the site to the south travels eastward along the side of the road and crosses underneath the road to the north in three small culverts. From this point, water crosses under Broadbent Boulevard in culverts to a drainage ditch on the east site of the street. The drainage ditch continues northward along Broadbent Boulevard and terminates in a long, narrow pond along the northwest project boundary adjacent to Broadbent Boulevard.

Two sewer lift stations and street sweeper maintenance facilities are located at the northwest corner of the project site near Duck Creek Wash.

HYDROLOGY

The terrain generally slopes at about 1% from southwest to northeast. The site is in the watershed of Duck Creek Wash, which redirects all offsite flow from the north. Offsite areas to the east flow eastward and do not impact the project site. A minor amount of offsite flow impacts the site from the south and from the west along Russell Road.
The existing offsite development north of Russell Road and west of Broadbent Boulevard discharges water to the west across Broadbent Boulevard and onto the project site.

REFERENCES

1) Clark County Regional Flood Control District, "*The Master Plan Update of the Las Vegas Valley,*" October 2002.
2) WRC, 1999. *Hydraulic Criteria and Drainage Design Manual*, Prepared for: Clark County Regional Flood Control District. Prepared by: WRC Engineering, Inc., August 1999.
3) *Technical Drainage Study for Whitney Lift Station,* Prepared by Stanley Consultants, for Clark County Sanitation District, 1996.
4) *Technical Drainage Study for Silver Bowl Village, Unit 1*, Prepared by Pentacore Engineering, 1999.
5) *Technical Drainage Study for Copper Creek, Units 1, 2, and 3*, Prepared by Taney Engineering, 2003-4.
6) *Duck Creek / Blue Diamond Flood Insurance Study*, G.C. Wallace, 2002

EXISTING UTILITIES

Water System

The Silver Bowl Complex is within the service area of the Las Vegas Valley Water District. A 12" line runs west to east along the south side of Russell Road to Broadbent Boulevard where it is reduced to a 10" line from Broadbent Boulevard to Sam Boyd Stadium. At the southern end of Sam Boyd Stadium, it is again reduced to an 8" line to the east side of Sam Boyd Stadium then turns north through the parking lot and turns back west to the east side of the fieldhouse. An 8" line is also connected to the west side of the fieldhouse from Broadbent Boulevard, this line then turns south to connect to the 12" line in Russell Road.

Sanitary Sewer System

The Silver Bowl Complex is within the service area of the Clark County Public Works Pump Station located just north of the Complex. Within the Broadbent Boulevard right-of-way, there is a six-inch (6") sanitary sewer force main which runs south from the pump station through the Complex. Additional sewer lines on both the east and west sides of the stadium run north/south, both 6".

Storm Sewer System

No public underground storm sewer system currently exists within the Silver Bowl Complex. There are several surface drainage facilities within the area which must be integrated. These include an existing channel adjacent to residential development on the south side of the Complex.

Electrical Power System

Nevada Power Company currently supplies electrical power for the Silver Bowl Complex. Overhead lines run the entire length of the southern boundary of the Complex and the north/south arterial of Broadbent Boulevard Along Russell Road, electrical connections are made to the existing Wetlands Park Lab building.

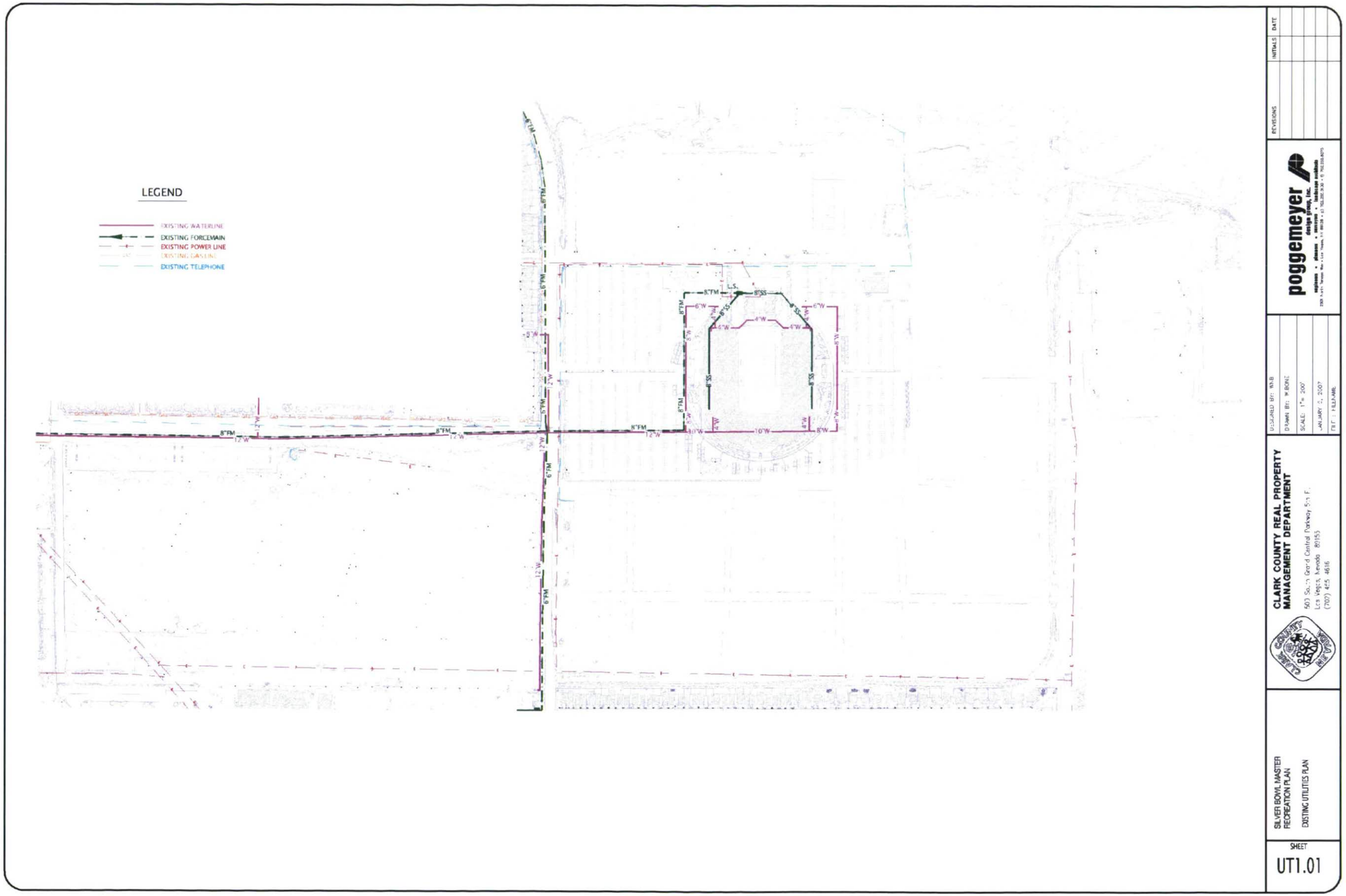
Telephone System

Sprint Central Telephone Company currently supplies the telephone system for the Silver Bowl Complex. The system is underground within the right-of-way of Russell Road and the northern portion of Broadbent Boulevard. A service line feeds Sam Boyd Stadium and extends to the R/C Airfield.

Natural Gas

Natural gas lines, provided by SouthWest Gas, run easterly along the north edge of the Russell Road right-of-way and turning north along Broadbent Boulevard on its western edge.

See Existing Utilities Plan, page 16.


LEGEND
EXISTING WATERLINE
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EXISTING GAS LINE
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engineers • planners • surveyors • landscape architects
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DRAWN BY: W.BONE
SCALE: 1"= 200'
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SILVER BOWL MASTER
RECREATION PLAN
EXISTING UTILITIES PLAN
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EXISTING TRAFFIC

This section of the report reviews existing traffic patterns relative to the existing Silver Bowl Park, evaluates existing roadway capacities and intersection levels of service in support of the transportation planning process for the Silver Bowl Master Recreation Plan.

METHODOLOGY

A field survey of the project site and nearby intersections was conducted to document existing physical conditions. The survey included roadway configurations, pavement conditions, channelization, traffic control, speed limits, parking, transit, and non-motorized facilities. Additionally, existing traffic counts on roadways in the vicinity of Silver Bowl Park, and previously completed traffic studies for ongoing residential developments along Broadbent Boulevard, as well as information on proposed parking facility expansion at Sam Boyd Stadium and the extension of Russell Road were collected for review.

The assembled data were used to determine existing weekday morning and evening peak hour volumes in Silver Bowl Park vicinity, and to identify prevailing traffic patterns. As the project develops and new facilities are identified for Silver Bowl Park, the anticipated traffic generated by the new and modified facilities would be added, distributed and assigned to roadways in Silver Bowl Park vicinity and analyzed. Completion of this exercise will reveal specific off-site improvements that may be required to accommodate traffic generated by the new Park facilities.

Capacity analysis at key intersections were conducted using methodologies contained in the *Highway Capacity Manual 2000*. The analysis results reveal the quality of traffic flow and any deficiencies at the selected intersections. The measure of effectiveness (MOE) of the quality of traffic flow at unsignalized intersections is average control delay, measured in seconds/vehicle. Average control delay less than 10 sec/veh is defined as Level of Service (LOS) A, whereas average control delay in excess of 50 sec/veh is assumed as the break point between LOS E and F; LOS E describing operation at capacity, and LOS F describing a failed intersection.

Definitions of LOS for unsignalized and signalized intersections are presented in Table 1 and Table 2 respectively.

TABLE 1. LEVEL OF SERVICE (LOS) DEFINITIONS – UNSIGNALIZED INTERSECTIONS

LOS	DESCRIPTION
A	Very low delay, less than or equal to 10.0 seconds of average control delay per vehicle
B	Average control delay in the range of 10.1 to 15.0 seconds per vehicle
C	Average control delay in the range of 15.1 to 25.0 seconds per vehicle
D	Average control delay in the range of 25.1 to 35.0 seconds per vehicle
E	Average control delay in the range of 35.1 to 50.0 seconds per vehicle
F	Average control delay in excess of 50 seconds per vehicle

Source: *Highway Capacity Manual 2000.*

TABLE 2. LEVEL OF SERVICE (LOS) DEFINITIONS – SIGNALIZED INTERSECTIONS

LOS	DESCRIPTION
A	Little or no delay, less than or equal to 10.0 seconds of average control delay per vehicle
B	Short traffic delay in the range of 10.1 to 20.0 seconds per vehicle
C	Average traffic delay in the range of 20.1 to 35.0 seconds per vehicle
D	Long traffic delay in the range of 35.1 to 55.0 seconds per vehicle

E Very long traffic delay in the range of 55.1 to 80.0 seconds per vehicle

F Extreme traffic delay in excess of 80 seconds per vehicle

Source: *Highway Capacity Manual 2000.*

EXISTING CONDITIONS

Existing traffic elements documented included access roadways, non-motorized facilities, speed limits, intersection control, traffic volumes, and transit operations. Descriptions of the traffic elements are provided below.

1. *Roadway System*

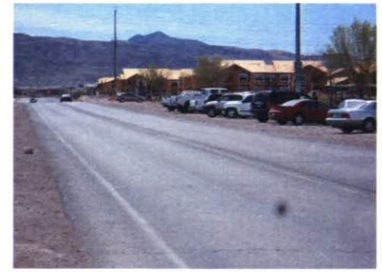
Boulder Highway (SR 582) provides regional access to Silver Bowl Park via Russell Road, Broadbent Boulevard and Tropicana Avenue. Boulder Highway consists of three lanes in each direction separated by a median. The posted speed limit is 55 MPH, and on-street parking is prohibited.

Russell Road is an east-west, seven-lane arterial roadway with three travel lanes in each direction and a center two-way-left turn-lane. There is no curb, gutter, or sidewalk along the roadway. Streetlights are present on the north side of the road next to the apartment complex west of Broadbent Boulevard, but not along the south side of the road. The roadway pavement is in poor condition. The posted speed limit is 45 MPH.

Russell Road looking east from western boundary of Park (Park Entrance).

Russell Road now dead-ends about 800' east of Broadbent Boulevard, just south of the stadium.

Broadbent Boulevard runs north and south along the west side of Sam Boyd Stadium. The road is a two-lane roadway south of Russell Road, with a speed limit of 25 MPH from Russell Road to Shimmering Avenue. South of Shimmering Avenue, the speed limit is 35 MPH. South of the sports complex, Broadbent Blvd. is currently developed to a half-street, and it is anticipated that the ongoing residential development along the west side of Broadbent Boulevard will construct the remaining half-street to a full four-lane roadway. Patrons of existing soccer fields park on the gravel shoulder, as shown in the photo on the right. There are no curbs or sidewalks except along the frontage of existing housing development further south on Broadbent Boulevard. Heading further south, Broadbent Boulevard connects with Gibson Road at Boulder Highway to form a 4-leg intersection there.



Looking south on Broadbent Blvd. just south of Russell Road, across from existing soccer fields.

Looking north on Broadbent Blvd. – view from east of the SOD Fields.

North of Russell Road, Broadbent Boulevard is a four-lane arterial with a posted speed limit of 45 MPH. The road serves existing residential development across from Sam Boyd Stadium, as well as ongoing residential developments further north and west of the Stadium. This section of the roadway has curb, gutter, and sidewalk along its west side. Further north, Broadbent Boulevard ties into Tropicana Avenue.

Weisner Road which runs along the eastside of the Stadium is a two lane wide north-south roadway with no curb, gutter, or sidewalk. It has a posted speed limit of 25 MPH. Access to the Park via Weisner Road is by Burns Road, off-of Boulder Highway.

Weisner Road looking south from southeast corner of project/city limits.

2. Traffic Control

Russell Road at Broadbent Boulevard is unsignalized. The primary access to the Park and Sam Boyd Stadium is via Russell Road by way of Boulder Highway. As a result, only cross street traffic on Broadbent Boulevard is required to stop at the intersection.

Stop-control on Broadbent Boulevard., looking north from Russell Road intersection.

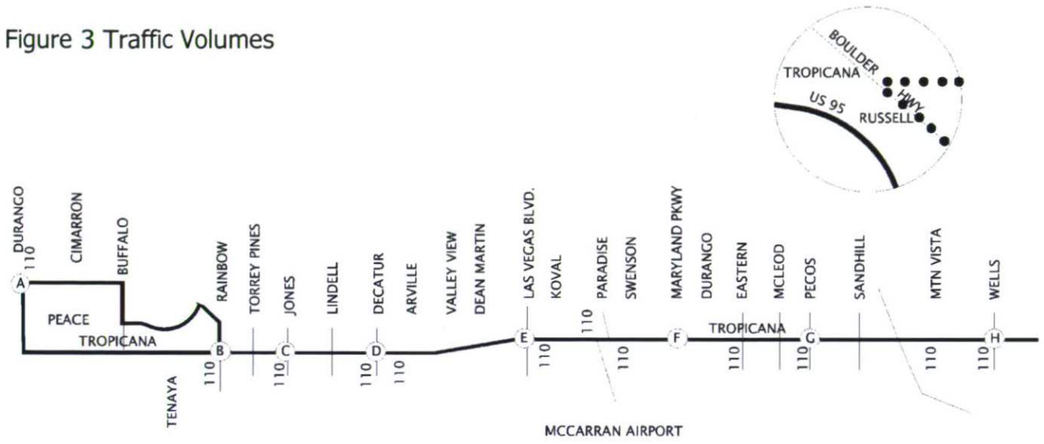
The internal roadway between the Stadium and Star Nursery's SOD Fields at Broadbent Boulevard is controlled by a stop sign.

The intersection of Gibson Road/Broadbent Boulevard and Boulder Highway is signalized.

3. Traffic Volumes

Existing peak hour and average daily traffic volumes are presented in Figure 3. The traffic data indicates that the travel direction for majority of traffic on Russell Road is to the west and south on Broadbent Boulevard during the weekday morning peak period, likely to access Boulder Highway. The predominant movement during the evening peak period is to the north along Broadbent Boulevard, and from northbound to westbound at the Russell Road intersection, likely due to people returning home from work, and to the Park for recreational activities.

Figure 3 Traffic Volumes



4. Transit Service

The Regional Transportation Commission (RTC) operates CAT Route 201 along Tropicana Avenue, with a loop along Durango, Flamingo, Buffalo, Peace Way, Spring Valley Parkway and Rainbow Drive as shown in the figure below. Existing transit bus service level within the vicinity of the Park is not expected to change in the near future since there is not enough ridership, according to John Fischer, RTC Long Range Planner.

5. Transportation System Management Programs

The RTC provides shuttle service via Routes 201A and 201B during Special Events at the Sam Boyd Stadium. Route 201A starts at a transit layover at Tropicana Avenue and loops along Rebel Road, Broadbent Boulevard (in front of the Stadium), and Boulder Highway and ends at the Stadium. The Route 201A service is essentially an extension of the existing fixed Route 201. During significantly higher demand events that involve UNLV students where parking cannot be provided on-site, Route 201B is put in service, and starts at the Thomas & Mack Center/UNLV campus to the Stadium.

6. Bicycle Facilities

The following streets are identified as "Bicycle Compatible Streets" on the *Nevada Bicycle Map*: Boulder Highway, Russell Road, Broadbent Boulevard, and Weisner Way.

TRAFFIC ANALYSIS

Existing Park facilities; baseball fields, soccer fields, remote control car track and airfield are dispersed around the Sam Boyd Stadium. Major townhouse developments are also situated along the two major access roadways to the Park; Russell Road and Broadbent Boulevard. Additionally, high-density residential developments are also under construction along Broadbent Boulevard, to the north and south of Russell Road.

In general, the Park facilities including the baseball and soccer fields are used after 5:00 p.m. on weekdays and throughout the day on weekends. In light of the high number of residential units within the Park vicinity, and considering the small number of facilities at the existing Park as well as the absence of passive activities at the Park, it was assumed that traffic impact on roadways during the commute peak hour (peak hour of adjacent roadway) is higher than the existing Park generated trips during the weekday and weekends. This assumption is also supported by the fact that the majority of Park trips to the baseball or soccer fields, for example, would occur during the evening peak hour of adjacent streets. Therefore, the weekday evening peak hour is considered the critical period for analysis of roadways within the Park vicinity. Available roadway peak hour counts and annual average daily traffic (AADT) counts were assembled for review and analysis. Intersection analysis was performed using methodologies contained in the *Highway Capacity Manual 2000*. Available roadway capacities were also evaluated by comparing theoretical capacities to existing vehicular volumes. The existing roadway capacity analysis will serve as the basis for assessment of potential traffic impacts, and provide the framework for mitigating any potential off-site impacts due to the addition of new facilities at the existing Park.

1. Roadway Capacities

The Level of Service (LOS) of roadway operations is a function of the traffic volumes currently utilizing the particular roadway compared to the theoretical roadway capacities. A roadway capacity evaluation was conducted on the roadways that provide access to the Park. The evaluation included comparing the theoretical capacities of the affected roadways to the corresponding existing vehicular volumes. A two-lane roadway has a theoretical daily capacity of 12,000 to 14,000 vehicles. Roadways of this type include Wiesner Way and Broadbent Boulevard south of Russell Road. A four-lane roadway has a theoretical daily capacity of 22,000 to 26,000 vehicles. Roadways of this type include Broadbent Boulevard north of Russell Road. A six-lane roadway such as Russell Road has a theoretical daily capacity of 34,000 to 38,000 vehicles. Existing (2006) daily vehicular volumes were estimated based on 2004 traffic counts adjusted by a growth factor of 1.009 developed from Nevada Department of Transportation (NDOT)'s *2004 Annual Traffic Report*. Traffic data from NDOT's permanent count Station 03-733 on Boulder Highway, 0.2 miles north of Gibson Road was used for the forecast.

Using these accepted volumes as a guideline, available roadway capacity was determined. Table 3 indicates the roadways that have excess capacity.

TABLE 3. ROADWAY CAPACITY ASSESSMENT

Roadway	Number of Lanes	Volumes	Theoretical Capacity
Wiesner Way	2	350*	12,000 to 14,000
Broadbent Boulevard (south of Russell Road)	2	4,100	12,000 to 14,000

Broadbent Boulevard (north of Russell Road)	4	4,020	22,000 to 26,000
Russell Road	6	4,000**	34,000 to 38,000

** Estimated based on existing land use and function of roadway relative to archery range and baseball fields.*

*** Excludes Special Event traffic at Sam Boyd Stadium.*

2. Intersection Capacities

Key intersections were analyzed using methodologies contained in the *Highway Capacity Manual 2000*. Results of the intersection analysis are summarized below in Table 4 and Table 5.

TABLE 4. UNSIGNALIZED INTERSECTION - BROADBENT BLVD AT RUSSELL ROAD

		AM PEAK	PM PEAK
EASTBOUND LEFT	Level of Service	A	A
	Average Delay (Sec)	5.3	7.2
NORTHBOUND APPROACH	Level of Service	B	A
	Average Delay (Sec)	10.4	9.4
SOUTHBOUND APPROACH	Level of Service	B	A
	Average Delay (Sec)	10.3	9.0

The LOS results indicate that the intersection currently operates at an acceptable level of service.

TABLE 5. SIGNALIZED INTERSECTION - BOULDER HIGHWAY AT GIBSON RD/BROADBENT BLVD

		AM PEAK	PM PEAK
EASTBOUND	Level of Service	C	C
	Average Delay (Sec)	30.1	32.8
WESTBOUND	Level of Service	C	C
	Average Delay (Sec)	32.8	29.1
NORTHBOUND	Level of Service	C	D
	Average Delay (Sec)	25.1	39.5
SOUTHBOUND	Level of Service	D	D
	Average Delay (Sec)	38.6	44.1
INTERSECTION	Level of Service	C	C
	Average Control Delay (Sec)	31.8	33.4

The LOS results indicate that the intersection currently operates at an acceptable level of service

3. Site Circulation

Site Vehicle Circulation – Presently, facilities at the Park are distributed around the Sam Boyd Stadium; the baseball fields and remote-control car track and parking are all located at the southwest corner of the Stadium, baseball fields and an archery range are located to the east of the Stadium, and a remote-control airfield is located north of the Stadium (north of the Star Nursery SOD Fields). There is no contiguous and uniform roadway network for the Park facilities. Each facility appears to exist in isolation.

For example, the circuitous roadway around the existing baseball fields east of the Stadium is accessible via Wiesner Way, which is accessible via Burns Road by way of Boulder Highway. Access to the archery range is via the circuitous roadway around the baseball field as shown in the photo on the left. The soccer fields are directly accessible via Broadbent Boulevard.

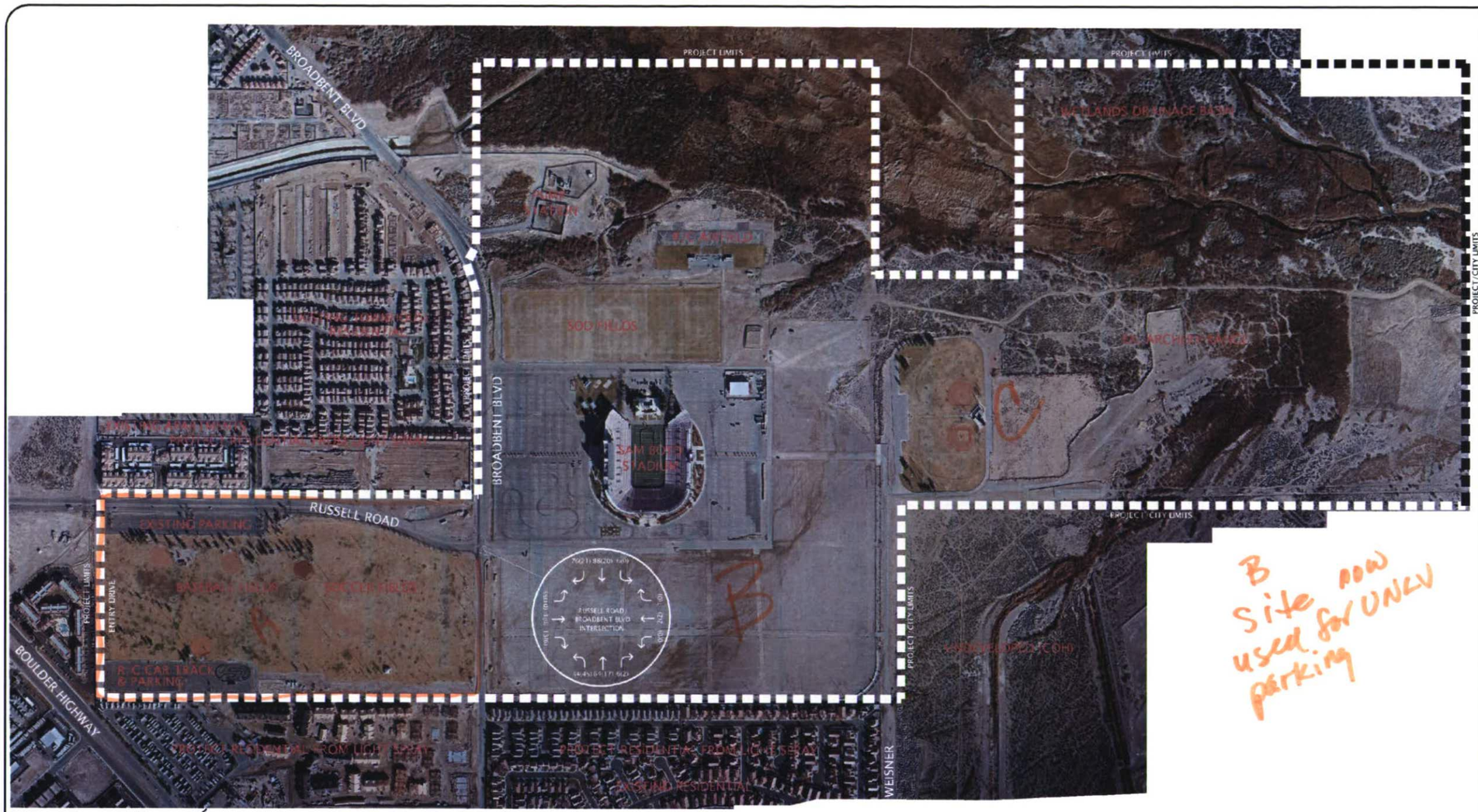
Future internal roadway circulation network should allow vehicles to exit the surrounding roadway system at more locations while still allowing access to the desired internal Park facilities.

On-site loop road around baseball fields looking at access road to Archery Range.

Site Pedestrian and Bicycle Circulation **-** Currently there is a lack of pedestrian access between Park facilities. Future improvements should consider the number of people the facility will serve, and linkages between facilities. With the increased number of residential neighborhoods along Broadbent Boulevard, it is expected that pedestrian access needs would be critical at the expanded Park.

4. Parking

There is not ample on-site parking to serve each existing Park facility. Users of the soccer fields however do park on street since the adjacent parking lots for the soccer fields are somewhat removed from the fields; located at the northwest and southwest corners of the soccer fields.



LOCATION	AADT (2006)
BOULDER HIGHWAY/N. GIBSON RD	32300
BROADBENT BLVD/TROPICANA AVE	4800
S. BOULDER HIGHWAY/GIBSON RD	8150
RUSSEL ROAD/ E. BOULDER HIGHWAY	4050
RUSSEL ROAD/W. BOULDER HIGHWAY	26050

DESIGNED BY: N/A
DRAWN BY: JMP
SCALE: 1" = 300'
JANUARY 5, 2007
FILE: TRAFFIC STUDY EXHIBIT.cwg

REVISIONS | INITIALS | DATE

poggemeyer design group, inc.
engineers · planners · surveyors · landscape architects

CLARK COUNTY REAL PROPERTY MANAGEMENT DEPARTMENT
500 South Grand Central Parkway 5th Fl.
Las Vegas, Nevada 89155
(702) 455-4616

SILVER BOWL MASTER RECREATION PLAN

EXISTING TRAFFIC VOLUMES

FIGURE
T-1

MASTER PLAN

The Master Plan is the culmination of the Design Process. The Plan itself is a graphic illustration of all facilities within the program. It is meant to be a development guide for all construction in the park.

If arbitrary decisions are made changing the Master Plan, problems may arise such as incompatible adjacent facilities or construction in a restricted zone. All changes require thorough examination and analysis in order to assure safety to the site and fulfillment of the program and will have concurrence of the designer and County.

The Master Plan consists of three (3) Recreation Use Zones containing the following elements:

***"Zone A"* consists of Multi-Use Fields containing the following characteristics**:

- The entire area will be planted with natural turf consisting of Bermuda or Hybrid Bermuda (SNWA Drought Plan) and will be irrigated by an automated sprinkler system. Irrigation water source is reclaimed water that is not potable.
- A two-hundred (200) ft. wide greenspace area will connect the park to the 400 unit residential development to the south. This area is shown in the southwest portion of the plan and provides direct aces to the Multi-Use fields and park office south of Russell Road. A concessions building for this zone will be located here and provide a central location for restrooms, food and drink, storage and additional office space.
- Three plazas are incorporated linking one side of the park with the other. These plazas will contain restrooms, benching, trash receptacles, pedestrian level lighting, playgrounds, a Clark County Wall of Fame and gathering areas with shade shelters.
- The Multi-Use Fields will allow flexibility for rotation to prevent wear patterns from players. The zone will consist of three (3) pods to allow multi-age and multi-sport usage.
- Three (3) concessions buildings (1 major, 2 minor) will be located in this zone including restrooms and storage areas. The locations of these facilities are shown on the plan as small hexagonal red symbols. Drinking fountains will also be located throughout this zone.
- The Multi-Use Fields will accommodate various types of sports such as soccer, flag football, and lacrosse.
- Shade shelters will be provided for park patrons, personnel, coaches training, and park police to protect participants and support personnel from the summer heat. The posts will be constructed steel with fabric canopies and will adhere to Clark County Standards. These shelters are illustrated as small hexagonal blue symbols on the plan and located around the perimeter of the fields.
- The Remote Control Paved Track will be relocated from its existing location to a new location adjacent to parking area along Russell Road
- Additional parking is provided along Russell Road to the north, Boulder Highway at the southwest corner of the park, and along the majority of the length of the southern boundary connecting to Weisner Road.
- Perimeter ten (10) ft. wide walking trails consisting of asphalt connected to the other park elements, are shown on the plan as a thin red-dashed line, connecting to trails along the park roads--Russell Road, Broadbent Boulevard, and Weisner Road, which are shown as a thick red-dashed line on the plan.
- Additional playgrounds will be provided for non-field users. Playgrounds will consist of varying age group structures and are shown on the plan as curvilinear blue areas.
- This zone will be protected with the use of rock boulders, bollards incorporated into a fencing system.
- Parking for "Zone A" will be improved providing new parking facilities to the east and additional parking to the south adjacent to the multi-family apartment complex. Parking counts are more than doubled giving users adequate, on-site parking. Access

to new parking facilities which are located at both the main entry drive with access to existing parking and off both Russell and Weisner Roads.

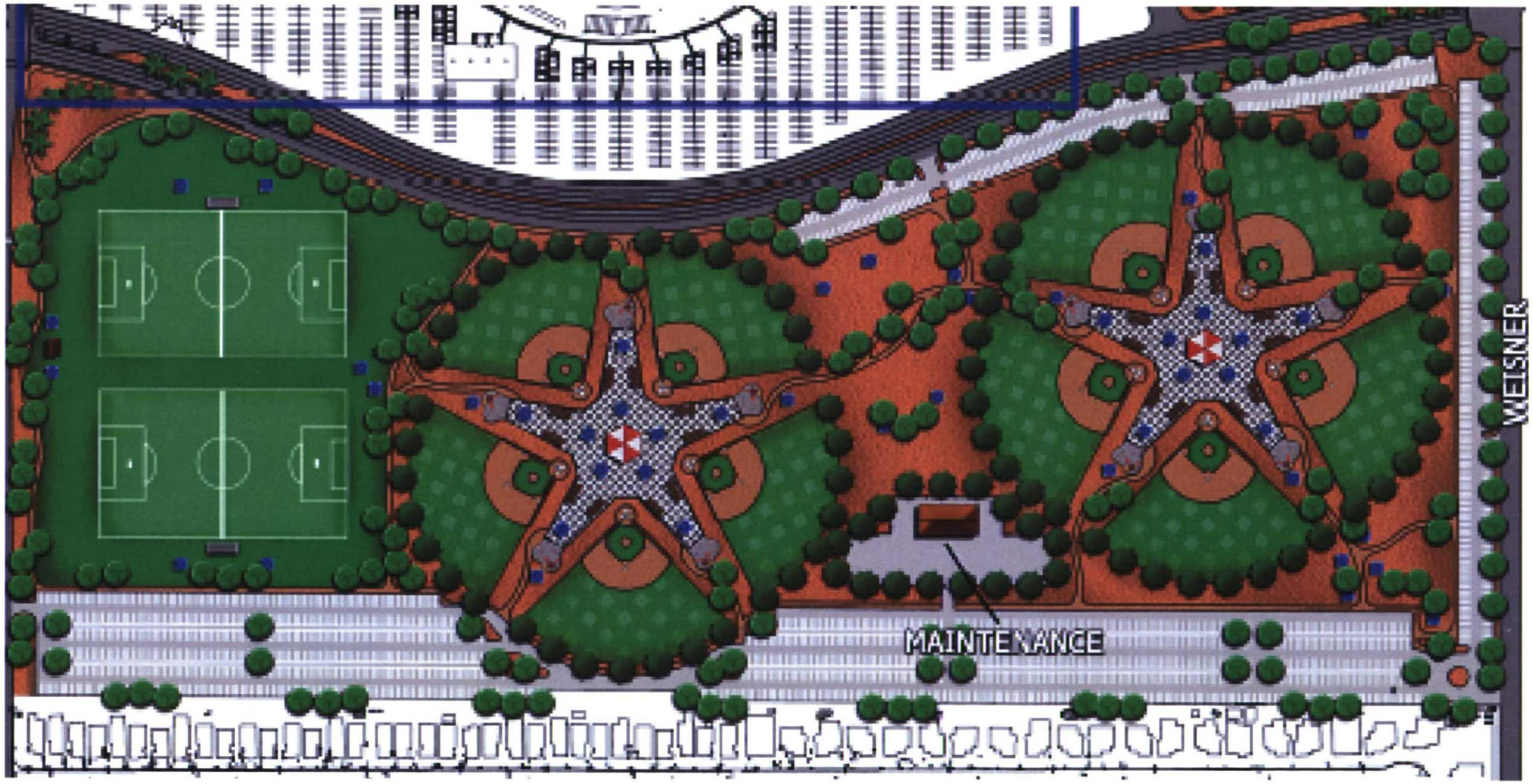
- Public art and sports figures will be located throughout "Zone A". This art will consist of statuary of famous sports figures, athletic equipment and sports activities, accent paving with markers, and a plaza with a Clark County Sports Wall of Fame for team photograph opportunities. The plaza will have picnic tables, benches, drinking fountain, trash receptacles and lighting. Drinking fountains (see Appendix C for Product Recommendations) will have mini gravel sumps and will not tie into the sanitary sewer system. These drinking fountain systems reduce maintenance and construction costs.
- Earthen berms with plantings will be located throughout the zone, separating uses and creating comfortable people spaces in this large vast space. The berms will be made of decomposed granite and granite boulders. Berm height will not exceed four (4) feet with slopes no greater than 5:1.
- Pedestrian linkage has been provided south of the parking lots to allow the newly constructed apartment complex, allowing residents easy access to park amenities. The apartment developer should be responsible for constructing and paying of the new facilities to County standards.

***"Zone B"* consists of a Youth Baseball and Softball Complex containing the following facilities:**

- Two (2) Adult-sized Tournament Soccer fields constructed of turf and fenced in for protection.
- This zone of the plan will contain one (1) 5-Plex Ballfield complex that will be lighted. This can be used for both Little League and softball games. It would have 60' baselines, 46' pitching distance, 225' foul lines, and a 245' center field. The size of a single ballfield would be 1.2 acres for little league play and 1.5 to 2.0 acres for softball. Therefore, the 5-Plex would require approximately 6 acres for Little League and 7.5-10 acres for softball play. One field would serve 5,000 people and serve a 1/4-1/2 mile radius. Unlighted fields are generally part of a neighborhood complex, and lighted fields are normally part of a regional/community complex. Ten foot warning tracks will be incorporated into all ballfields.
- Three fields will have turf infields for baseball and two (2) fields will have skinned infields for softball.
- A second 5-Plex Ballfield complex would be located in "Zone B" containing 70' baselines with turf. It will have field lighting and compliment the 60' Filed Complex. Fencelines will be located 300' from homeplate. Ten foot warning tracks will be incorporated into all ballfields.
- All ballfields will be wired for future scoreboards.
- All infields will be constructed of Parks Standard Burma Red Granite Infield Mix coated with a polymer to add cohesion and waterproof to each particle creating a non-permeable surface. Control of wind and water erosion is vital and assists the Maintenance Department minimizing care.
- Two (2) concession buildings containing restrooms and storage would be located within "Zone B" within the center of the 5-Plex.
- Shade shelters with nylon fabric roofs are located on the plan outer edges of ballfields to accommodate families and teams for pre and post game gatherings. A maintenance yard with storage and mobilization facilities will be located between the two (2) 5-Plexes on the south side adjacent to the proposed parking.
- Additional parking areas will be provided along the extension of Russell Road to the north of "Zone B" and along the southern edge of the site between the park and the existing residential development to the south.
- There will be walking trail connections to the other park elements, and are shown on the plan. These trails will consist of asphalt and decomposed granite and shall be a minimum 10 feet in width. Trash receptacles and benching shall be located along the entire length of the trail system.
- Playgrounds will be provided for those not using the ball fields consisting of multi-age playgrounds with slides, climbing equipment, spring rockers and swings. These are shown on the plan adjacent to ballfields where parents can monitor the young while enjoying the play of the older children.
- Desert landscaping consisting of plant materials on the approved SNWA Drought Tolerant Plants list. Plants will vary from low groundcovers to shade trees and will be repeated throughout the park facility.
- This zone will be protected with the use of rock boulders, bollards incorporated into a fencing system.
- Parking for "Zone B" will be improved providing new parking facilities to the north along Russell Road and parking to the south along single-family residential housing. Access to the new parking facilities is located off both Russell Road, Weisner and Broadbent Roads.
- Public art and sports figures will be located throughout "Zone B". This art will consist of statuary of famous sports figures, athletic equipment and sports activities, accent paving with markers, and a plaza with a Clark County Sports Wall of Fame for team photograph opportunities. The plaza will have picnic tables, benches, drinking fountain, trash receptacles and lighting. Drinking fountains (see Appendix C for Product

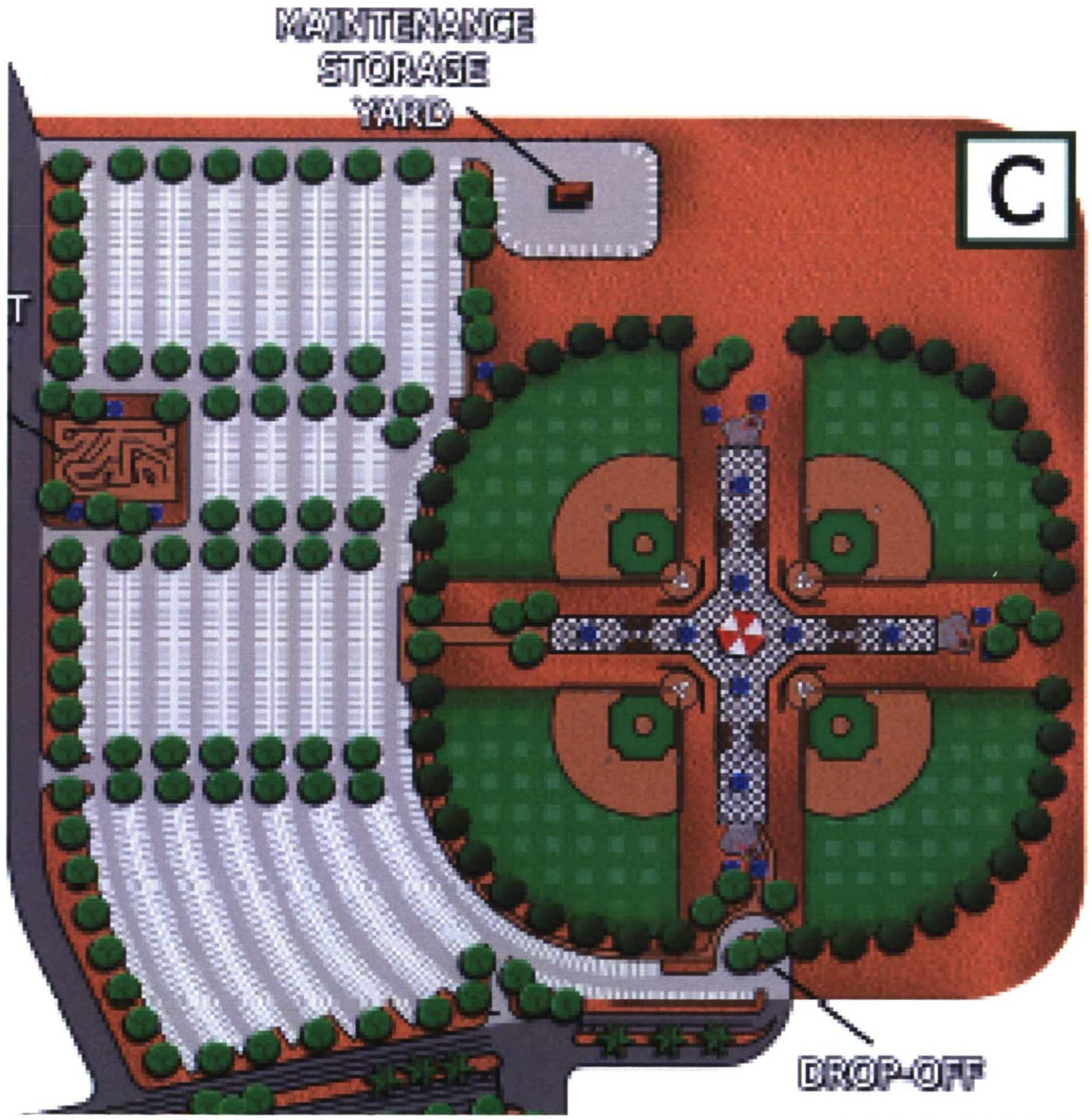
Recommendations) will have mini gravel sumps and will not tie into the sanitary sewer system. These drinking fountain systems reduce maintenance and construction costs.

- Earthen berms with plantings will be located throughout the zone, separating uses and creating comfortable people spaces in this large vast space. The berms will be made of decomposed granite and granite boulders. Berm height will not exceed four feet with slopes no greater than 5:1.
- Irrigation will use the existing reclaimed water system with a new pump house upgrading the system for the additional fields.
- Two (2) future pedestrian underpasses are planned by Public Works south of Sam Boyd Stadium connecting to "Zone B" allowing stadium visitors safer access to and from the stadium. These underpasses will be semi-buried and drainage improvements will need to be considered during the design process.



***"Zone C"* contains Adult 90' Ballfields consisting of:**

- This zone of the plan will contain one (1) 4-Plex consisting of a 90' Lighted Ballfield Complex. These are official sized fields utilizing 90' baselines, 60.5' pitching distance, 320 ' minimum foul lines, and a 400+ center field. The size of a single ballfield would be 3.0 to 3.85 acres, and the 5-Plex would require approximately 12 to 15.4 acres. One field would serve 5,000 people and serve a 1/4-1/2 mile radius. Unlighted fields are generally part of a neighborhood complex, and lighted fields are normally part of a regional/community complex. Ten foot warning tracks will be incorporated into all ballfields.
- All ballfields will be wired for future scoreboards.
- All infields will be constructed of Parks Standard Burma Red Granite Infield Mix coated with a polymer to add cohesion and waterproof to each particle creating a non-permeable surface. Control of wind and water erosion is vital and assists the Maintenance Department minimizing care.
- The parking area would be located on the west side of the complex to protect the wetlands areas located to the north and east of the park.
- Existing remote control dirt track relocated between Sam Boyd Stadium and the ballfields;
- There is a convenient drop-off area located near the south entrance of the 4-Plex at the intersection of the extension of Russell Road and Weisner Road.
- There will be an access loop road linking the Remote Control Airfield and Russell and Weisner Roads at the north end of the sod fields adjacent to Sam Boyd Stadium.
- Shade shelters with nylon fabric roofs are located on the plan within the plaza space to accommodate families and teams for pre and post game gatherings.
- Playgrounds for non-field users will be provided adjacent to the central plaza consisting of multi-age playgrounds with slides, climbing equipment, spring rockers and swings. These are located where parents can monitor the young while enjoying the play of the older children.
- Desert landscaping consisting of plant materials on the approved SNWA Drought Tolerant Plants List. Plants will vary from low groundcovers to shade trees and will be repeated throughout the park facility.
- This zone will be protected with the use of rock boulders, bollards incorporated into a fencing system.
- Parking for "Zone C" will be improved providing new parking facilities to the west along the proposed minor loop road and parking to the south along a future proposed Russell Road extension. Access to the new parking facilities is located off both Russell Road and the proposed loop road. The new parking facility will also accommodate the relocated Remote Control Dirt Car Track to the west adjacent to Sam Boyd Stadium.
- Public art and sports figures will be located throughout "Zone C". This art will consist of statuary of famous sports figures, athletic equipment and sports activities, accent paving with markers, and a plaza with a Clark County Sports Wall of Fame for team photograph opportunities. The plaza will have picnic tables, benches, drinking fountain, trash receptacles and lighting. Drinking fountains (see Appendix C for Product Recommendations) will have mini gravel sumps and will not tie into the sanitary sewer system. These drinking fountain systems reduce maintenance and construction costs.
- Earthen berms with plantings will be located throughout the zone, separating uses and creating comfortable people spaces in this large vast space. The berms will be made of decomposed granite and granite boulders. Berm height will not exceed four (4) feet with slopes no greater than 5:1.
- Irrigation will use the existing reclaimed water system with a new pump house upgrading the system for the additional fields.


MAINTENANCE
STORAGE
YARD
C
DROP-OFF

A Multi-Use Fields

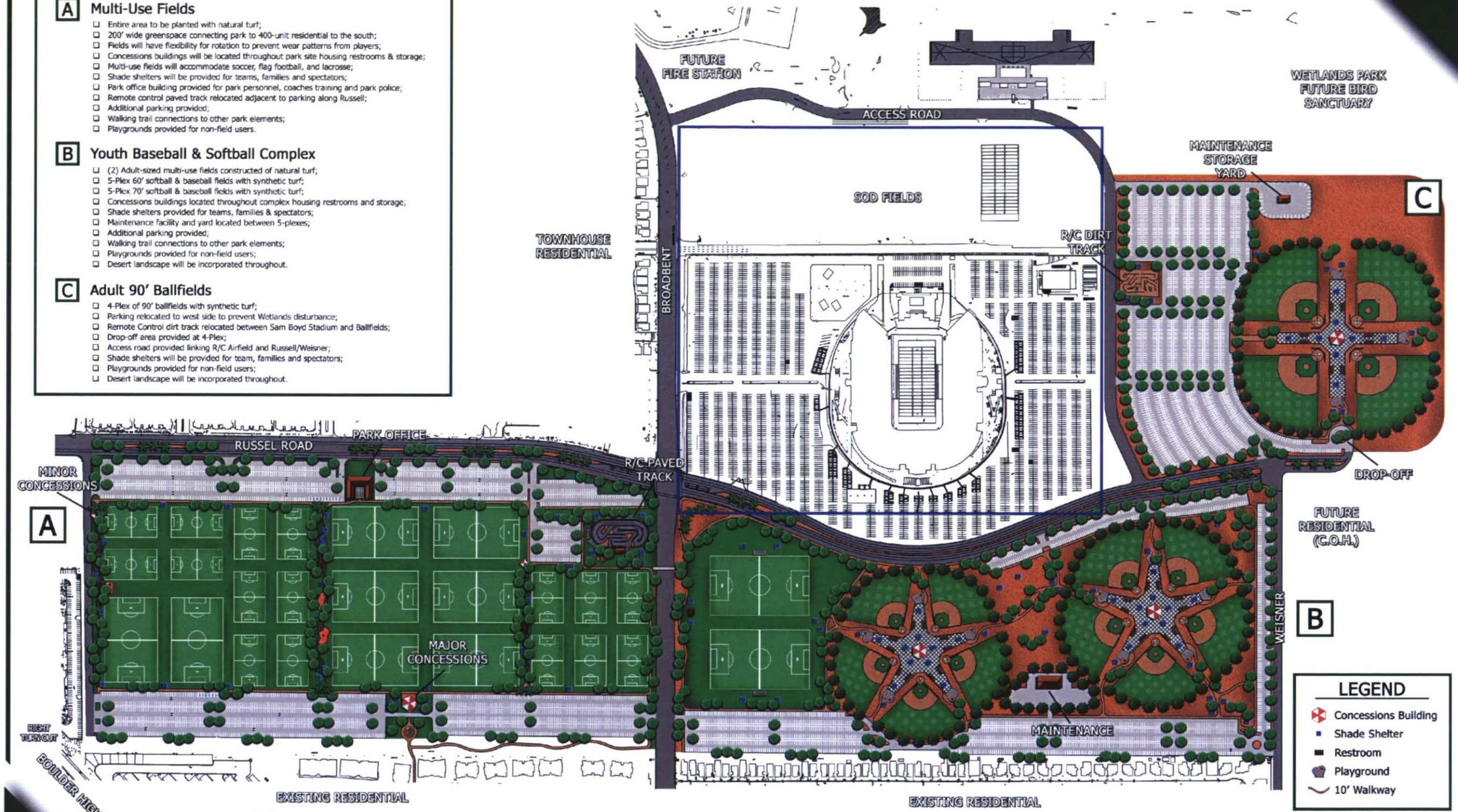
- Entire area to be planted with natural turf;
- 200' wide greenspace connecting park to 400-unit residential to the south;
- Fields will have flexibility for rotation to prevent wear patterns from players;
- Concessions buildings will be located throughout park site housing restrooms & storage;
- Multi-use fields will accommodate soccer, flag football, and lacrosse;
- Shade shelters will be provided for teams, families and spectators;
- Park office building provided for park personnel, coaches training and park police;
- Remote control paved track relocated adjacent to parking along Russell;
- Additional parking provided;
- Walking trail connections to other park elements;
- Playgrounds provided for non-field users.

B Youth Baseball & Softball Complex

- (2) Adult-sized multi-use fields constructed of natural turf;
- 5-Plex 60' softball & baseball fields with synthetic turf;
- 5-Plex 70' softball & baseball fields with synthetic turf;
- Concessions buildings located throughout complex housing restrooms and storage;
- Shade shelters provided for teams, families & spectators;
- Maintenance facility and yard located between 5-plexes;
- Additional parking provided;
- Walking trail connections to other park elements;
- Playgrounds provided for non-field users;
- Desert landscape will be incorporated throughout.

C Adult 90' Ballfields

- 4-Plex of 90' ballfields with synthetic turf;
- Parking relocated to west side to prevent Wetlands disturbance;
- Remote Control dirt track relocated between Sam Boyd Stadium and Ballfields;
- Drop-off area provided at 4-Plex;
- Access road provided linking R/C Airfield and Russell/Weisner;
- Shade shelters will be provided for team, families and spectators;
- Playgrounds provided for non-field users;
- Desert landscape will be incorporated throughout.



Silver Bowl Master Recreation Plan

Clark County Parks and Recreation Clark County Real Property Management

poggemeyer design group, inc.

PROPOSED DRAINAGE & HYDROLOGY

As an integral part of the design process, a review of potential solutions to the grading and drainage requirements was conducted. As outlined in this report earlier, the natural flow of the site is a fairly gentle slope from the southwest corner to the northeast corner where it empties into Duck Creek Wash.

There are currently several perimeter ditches which act as conduits to drain both the existing paved and unpaved parking areas for the Sam Boyd Stadium. This sheet flow is directed into the ditch system which ultimately discharges into the wash.

As currently envisioned the Multi-Use Fields will surface drain to catch basins at the central and perimeter portions of "Zone A", where it will flow into a collection conduit system and in turn connect to downstream portions of the overall park.

The perimeter collection system will approximately follow the existing ditch drainage system. However the ditches themselves will be filled in and constructed over. The connection to downstream portions shall be through culvert type conduits under Broadbent Boulevard.

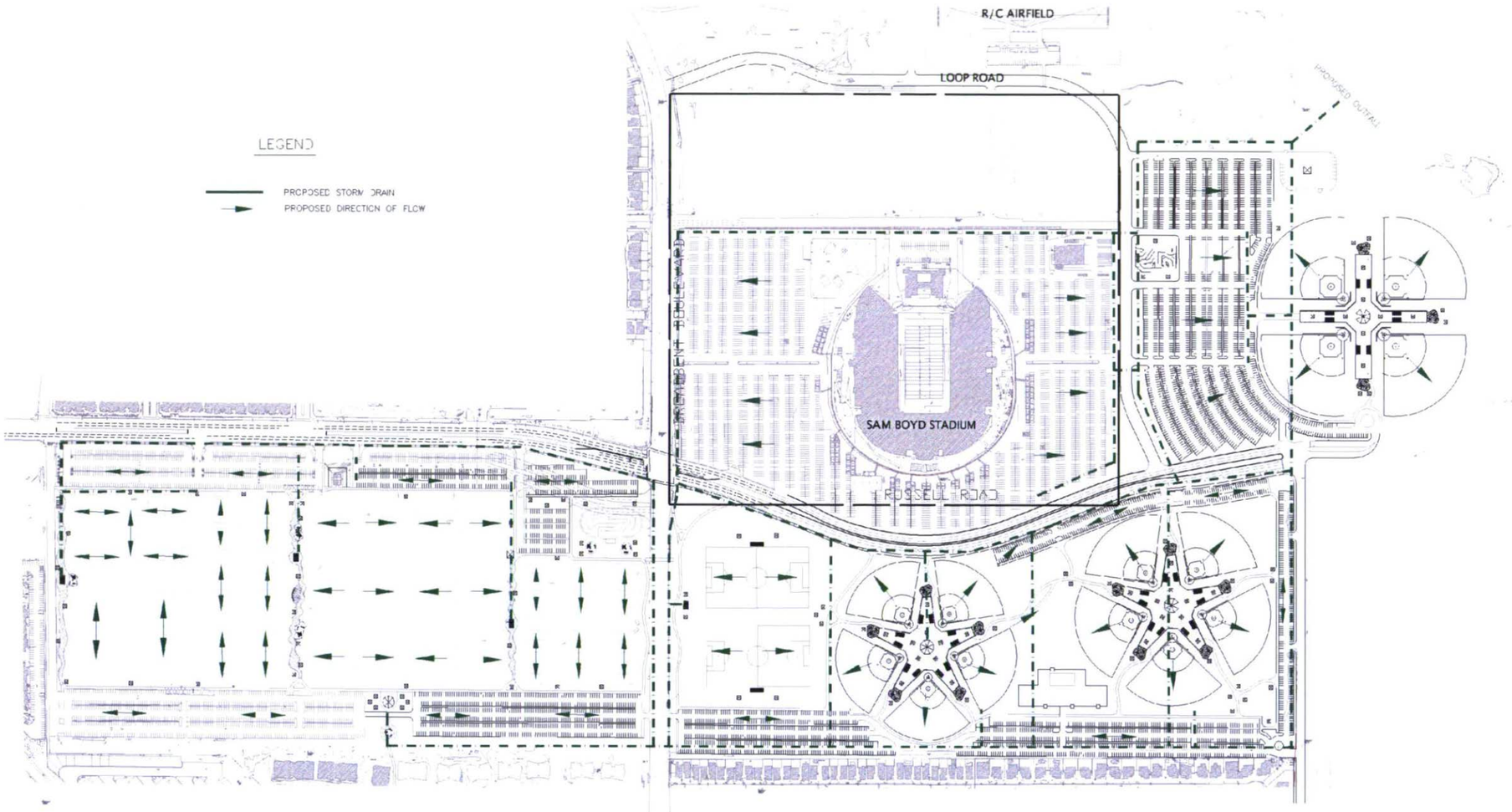
The Youth Baseball and Softball portion of the complex will drain in a similar fashion to the multi use fields. Fields will be surface drained into a central and perimeter catch basin system. This system will be connected to the continuing perimeter collection system. The conduit collection system shall located in the approximate locations as the existing ditch system which shall be filled in and constructed over as in "Zone A".

The Adult 90' Baseball Fields again will be surface drained to a catch basin system emptying into the conduit collection system in this area of the park. The conduit collection system in this area will also approximately follow the existing ditch system which will be filled in and constructed over. In addition, this area of the park, the conduit collection system will outfall into Duck Creek Wash.

In addition it is anticipated that due to the large amount of runoff that will occur at build out of the project there is a potential need for water quality remediation as well as a temporary storage facility to facilitate water flow management. The necessity of these latter items should be explored in more detail at the design stage of the project.

LEGEND

PROPOSED STORM DRAIN
PROPOSED DIRECTION OF FLOW



REVISIONS	INITIALS	DATE

poggemeyer design group, inc.
engineers · planners · surveyors · landscape architects

DESIGNED BY: KHS
DRAWN BY: KHS
SCALE: 1"= 200'
JANUARY 5, 2007
FILE: ENG-05-10 - FIGURES

CLARK COUNTY REAL PROPERTY MANAGEMENT DEPARTMENT
500 South Grand Central Parkway 5th F.
Las Vegas, Nevada 89155
(702) 455-4615

SILVER BOWL MASTER RECREATION PLAN
CONCEPTUAL GRADING AND DRAINAGE PLAN

SHEET
C3.01

UTILITIES

WATER SYSTEM

The proposed water system, as shown on the Utilities Plan is a closed loop system designed for maximum efficiency and fire flow delivery.

A new 12" waterline is proposed to connect to the existing 12" waterline in Broadbent Boulevard at Russell Road. It will then extend east to the eastern edge of the project. Also a new 12" waterline will be extended north from the end of the existing 12" waterline in Broadbent Boulevard to the northern edge of the project. As shown, 8" waterlines will be looped from the 12" waterlines.

Service leads to the concession kiosks will be installed from the new 8" waterlines.

SANITARY SEWER SYSTEM

The proposed sanitary sewer system, as shown on the Utilities Plan is designed to be an 8" gravity system flowing to a new lift station, and lifted to an existing 18" gravity system via a new forcemain.

An 8" sanitary sewer line will be constructed from the western part of the project, east along Russell Road to the new service drive, then north to a new lift station. A projected 3" forcemain will then run east along the new northern service drive to Broadbent Boulevard, then north along Broadbent Boulevard to an existing manhole at the Duck Creek Wash.

Service leads for the concession kiosks will connect to the new gravity sewer along Russell Road and the new service drive.

LIGHTING SYSTEM

The proposed lighting design for the proposed Silver Bowl Park will encompass standard Clark County Roadway Lighting standards to the unique on-site lighting consisting of specialized poles (SiteLink) that enable signage, trash receptacles, banners and speakers to be integrally mounted.

The modular and extremely versatile TracLoc System is a perfect fit for the open-all year recreation park. The changing seasons brings changing themes, decorations and signage, which is important to a vibrant and energy-focused public space. Applications such as these require intuitive, easy to use equipment to adapt with seasons and to promote upcoming events.

The SiteLink Pole Assemblies also play music or announcements with two outdoor speaker systems for each pole in addition to GFCI outlets that allow for holiday lighting and decorations.

Lighting standards themselves consist of the Pechina fixture, the Pechina™ optical system is housed in a stylish yet very durable cast aluminum alloy body. The body is comprised of a doorframe and canopy which houses the integral control gear to suit a wide range of high intensity discharge lamps. A corrosion resistant aluminum latch provides tool-less access for maintenance and positive lockdown of the canopy door assembly. A silicon gasket ensures an IP66 rating of the overall unit.

These fixtures will be installed in two varying heights. A 24-foot height pole for parking and drive side usage while using a 12-foot height pole for trails and pedestrian usage areas is incorporated in to the design. Fixture and pole colors will reflect the Zone color designation.

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TRAFFIC

Off-site Transportation Improvements

- **Russell Road** – Clark County Public Works is in the design stage for the reconstruction of Russell Road from Boulder Highway to Broadbent Boulevard. The roadway is being re-aligned so that it is shifted north, next to the apartment complex west of Broadbent Boulevard, and skewed to the south as it crosses Broadbent Boulevard (to provide space between Russell Road and the Stadium, east of Broadbent Boulevard). This section of Russell Road is being reconstructed to have the same number of travel lanes – 6 lanes and a center two-way-left-turn lane, with new curb and gutter, sidewalk, and street lighting on both sides of the roadway is very likely. Included in this project is the reconstruction of the Russell Road and Broadbent Boulevard intersection which is being shifted north, and skewed as mentioned above. The future intersection configuration is anticipated to accommodate 3 travel lanes each for eastbound and westbound, 2 travel lanes each for northbound and southbound, dual left–turn lanes on all 4 legs, and exclusive right-turn lanes on the west, north and south legs. If intersection signalization is not warranted with the Clark County Public Works Russell Road reconstruction, full intersection signalization will very likely be warranted with the construction of the Park's "Zone B". The ultimate street section configuration and vertical alignment of Russell Road east of the intersection will depend on whether an underpass connecting the Stadium and "Zone B" is planned, and the City of Henderson requirements for Russell Road for their future developments to the east. Clark County Public Works has scheduled construction of the project to start and be completed this year.
- **Boulder Highway Bus Rapid Transit** – RTC is currently in design on their project to provide a mass rapid transit line along the Boulder Highway corridor. The system being designed consists of a center-running bus rapid transit south of Harmon Avenue (curb-running - north of Harmon Ave.). According to the RTC website, the system will operate with vehicles similar to those in use on the RTC's MAX line on Las Vegas Boulevard North. According to Mr. Fidel Calixto, PE, RTC's Engineering Manager, their plans include construction of median station platforms at the Tropicana Avenue, Russell Road, and Broadbent Boulevard/Gibson Road intersections. The construction of this project is scheduled to start in the summer of 2008, and be completed in the summer of 2009. ...During special events, Silver Bowl Park could arrange transit service to and from Boulder Highway along Russell Road and Broadbent Boulevard (the distance from the Silver Bowl Park to Boulder Highway along these two roads is approximately half mile), to encourage Boulder Highway BRT ridership to and from the Silver Bowl Park.

Recommendations to Enhance Mobility and Access Within the Park

- **Redesign Vehicle Access** - Redesign vehicle access within the Park to improve vehicle, pedestrian and bicycle access to existing and new facilities. Consideration should be given, for example, to facilities where kids would be dropped-off to use new Park facilities, such as the BMX Course.
- **Loop Road and Interconnectivity of On-site Roads** – As shown in the Silver Bowl Park Master Recreation Plan, a loop road that runs from Broadbent Boulevard to Russell Road, north then east of the stadium is proposed to aid in the circulation of traffic to and from the facilities to the north of the stadium and "Zone C". Due to their great lengths, on-site roads along the parking lots are proposed to be "non-dead-end" roads to aid traffic circulation
- **Parking** - Improve parking areas with options to increase parking capacity to meet future Silver Bowl Park use. Parking should be provided to serve specific facilities to minimize site impact and reduce walking distances. It is recommended that no on-street parking be allowed on all streets inside the vicinity of and leading to the Silver Bowl Park.

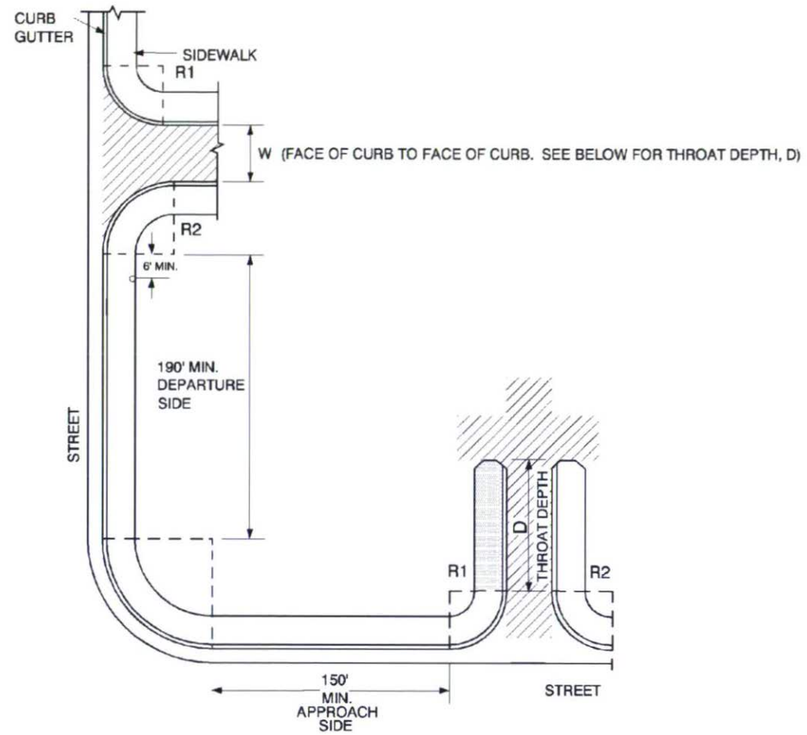
- **Shared Use Striping** - Provide walking paths or wide shoulders stripped to delineate vehicle travel lanes and pedestrian lanes to encourage passive use of the Silver Bowl Park.
- **Continuity of Non-Motorized Facilities** - Provide continuous and complete loops of pedestrian and bicycle paths to avoid potential damage to environmentally sensitive areas within the Park. As shown in the Master Plan, a 10' wide inter-connective trail system is proposed through out the park.
- **Wayfinding Signage** – Recreational facility signs for the Park should be installed on Boulder Highway, as well as on Burns Road; the indirect access to Weisner Road. Gateway treatments with signage at the main entrances will also provide a welcoming ambience to Park users and the residential communities around the Silver Bowl Park.
- **On-Site Signage** - Enhance signage within the Silver Bowl Park to regulate vehicle travel speeds, and parking.
- **Special Event Permitting** and **Off-Site Parking Coordination** - Coordinate with Sam Boyd Stadium to use its parking lot for off-site parking during Special Events at the Silver Bowl Park, if needed. Develop criteria for requiring off-site traffic control measures as part of the Clark County's Special Event Permitting process. Size, timing (weekends vs. weekdays) and duration of events are example criteria to consider. Potentially, there could be 4,880 parking stalls at the new Silver Bowl Park.
- **Park Patrol & Towing** - Establish conditions to contract with a licensed towing company to patrol the Silver Bowl Park and remove improperly parked vehicles from the Park, including cars parked on grass or contrary to posted signage.
- **Noise Impacts From Traffic** – Mitigate potential traffic impact to residential neighborhoods through vegetative buffers.
- **Expose Potential Problem Sites** - Improve access to and exposure to potential problem sites and youth-oriented facilities. Use of lighting should be considered carefully to ensure that its use (whether increased or decreased to total darkness) attracts the desired users. Lighting should set the tone for beautifying or enhancing the environments in addition to achieving other design objectives.

- **Roadway Typical Sections** – The proposed typical roadway sections are shown in the exhibit at the end of this section. As mentioned in the "Offsite Transportation Improvements Section" of this report, Russell Road from Boulder Highway to Broadbent Boulevard is being designed by Clark County Public Works to have 3 travel lanes in each direction, a center two-way-left-turn lane, and new curb and gutter, sidewalk and street lighting on both sides of the roadway. Russell Road, east of Broadbent Boulevard is proposed to have 3 travel lanes in each direction, with a center raised median island, and new curb and gutter, sidewalk and street lighting on both sides of the roadway. Broadbent Boulevard, north of Russell Road is proposed to have a minimum of 2 travel lanes in each direction, a center two-way-left-turn lane, and new curb and gutter, sidewalk and streetlighting on both sides of the roadway. Broadbent Boulevard, south of Russell Road is proposed to have 2 travel lanes in each direction, with a center raised median island, and new curb and gutter, sidewalk and street lighting on both sides of the roadway. At the proposed driveways along Russell Road and Broadbent Boulevard, it is recommended that left-turn and right-turn bays be included in the design of Russell Road and Broadbent Boulevard for the approaches to these driveways. The proposed loop road that runs from Broadbent Boulevard to Russell Road, north and east of the stadium is proposed to be a two-way, and minimum two-lane road. It is recommended that no on-street parking be allowed on all streets inside the vicinity of and leading to the Silver Bowl Park.
- **Russell Road and Broadbent Boulevard Intersection** – As mentioned in the "Offsite Transportation Improvements Section" of this report, as part of their Russell Road Improvement project, Clark County is currently in design of the reconstruction of the Russell Road and Broadbent Boulevard intersection. The intersection is being shifted north, and Russell Road is being skewed approximately 13 degrees. The future intersection configuration is anticipated to accommodate 3 travel lanes each for eastbound and westbound, 2 travel lanes each for northbound and southbound, dual left–turn lanes on all 4 legs, and exclusive right-turn lanes on the west, north and south legs. If intersection signalization is not warranted with the Clark County Public

Works Russell Road reconstruction, full intersection signalization will very likely be warranted with the construction of the Park's "Zone B".

- **Proposed Driveway Layout** – Driveways shall be designed to comply with the recently revised Uniform Standard Drawings, Drawing No. 222A. As shown in the Typical Driveway Layout in the following exhibit page. The throat depth will need to be of sufficient length to accommodate vehicle storage requirements for the large parking lots that are common within the park.
- **Proposed Pedestrian Bridge** – For ease of pedestrian access, a pedestrian bridge is being proposed over Broadbent Boulevard to connect "Zone A" and "Zone B". As seen in the Master Plan, Non-motorized trails lead to both bridge approaches. Recommendations for the pedestrian bridge include the following:

1. A minimum of 18'-6" of vertical clearance under the bridge to conform with NDOT criteria. This clearance will be sufficiently conservative to be well above legal over-height load limits.
2. Bridge approach grades to be at 5% or less to accommodate ADA use, and to improve site distances.
3. Pedestrian bridge to be designed structurally and to be of sufficient width to accommodate maintenance vehicle use.

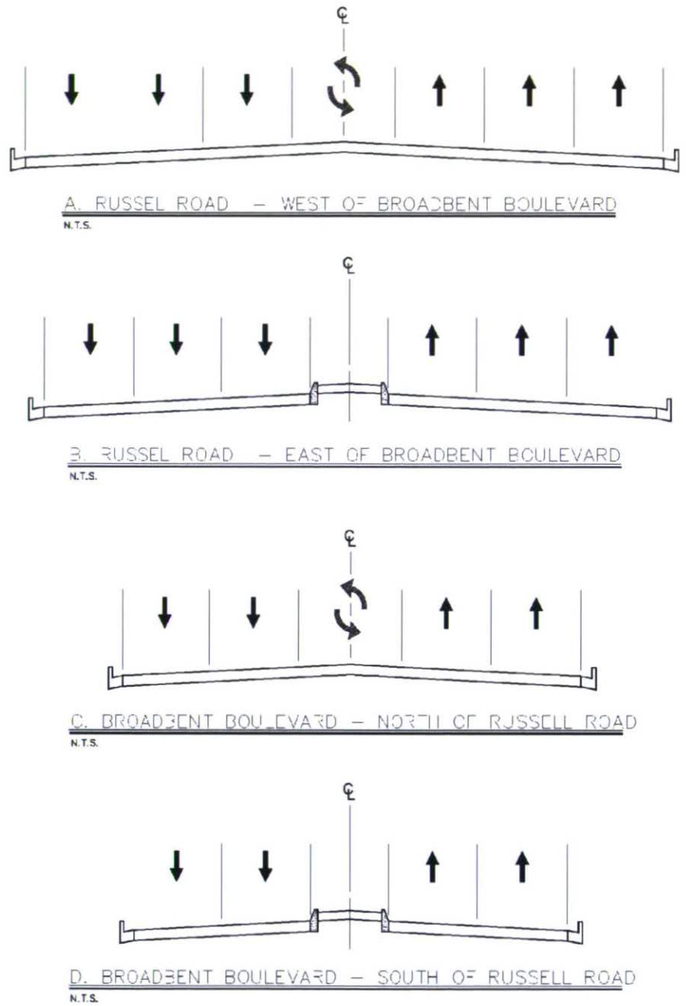


DIMENSIONS	
W. 12' MINIMUM FOR ONE-WAY DRIVEWAYS 32' MINIMUM FOR TWO-WAY DRIVEWAYS 40' MAXIMUM R1 = 15' MINIMUM & 35' MAXIMUM R2 = 25' MINIMUM & 35' MAXIMUM	D. THROAT DEPTH 25' MINIMUM 50' MINIMUM FOR PARKING LOTS > 50 PARKING SPACES 75' MINIMUM FOR PARKING LOTS 51 TO 100 PARKING SPACES 100' MINIMUM FOR PARKING LOTS 101 TO 200 PARKING SPACES 150' MINIMUM FOR PARKING LOTS > 201 PARKING SPACES

NOTES:

1. DRIVEWAY LAYOUT FROM "COMMERCIAL AND MULTI-FAMILY DRIVEWAY GEOMETRICS" UNIFORM STANDARD DRAWINGS, CLARK COUNTY AREA - DWG. NO. 222A.

TYPICAL DRIVEWAY LAYOUT



PROPOSED ROADWAY TYPICAL SECTIONS

REVISIONS | INITIALS | DATE

poggemeyer design group, inc.
engineers · planners · surveyors · landscape architects

DESIGNED BY: J.L.
DRAWN BY: BMR
SCALE:
JANUARY 5, 2007
FILE :

CLARK COUNTY REAL PROPERTY MANAGEMENT DEPARTMENT
500 South Grand Central Parkway 5th Fl.
Las Vegas, Nevada 89155
(702) 455-4616

SILVER BOWL MASTER RECREATION PLAN

TYPICAL LAYOUT & SECTIONS

FIGURE
T-2

APPENDIX A EXISTING PHOTOGRAPHS

Photo 1
View East through entry parking lot along Russell…

Photo 2
View South along entry drive

Photo 3
View West along Russell

Photo 4
View of CCWRD "Do Not Drink from the Irrigation System" sign

Photo 5
View of entry drive towards ball field

Photo 6
View of entry drive towards ball field

Photo 7
View of remote control car track

Photo 8
View of parking lot interior, adjacent to remote control car track

Photo 9
View of entire parking lot, adjacent to remote control car track

Photo 10
View along property line showing possible utility conflicts

Photo 11
View of field lighting standard

Photo 12
View of portion of remote control car track

Photo 13
View East @ playground w/picnic table standard

Photo 14
View of parking lot along Russell Road

Photo 15
View along entry drive showing existing palm

Photo 16
View of parking lot lighting standard

Photo 17
View of bleacher standard on concrete pad

Photo 18
View of picnic table standard on concrete pad

Photo 19
View North towards existing apartments along Russell

Photo 20
View of typical players bench

Photo 21
View of water system @ Wetlands Park Working Lab

Photo 22
View towards Working Lab

Photo 23
View East along Russell @ entry sign

Photo 24
View East at Existing Parking Lot & Field Lights

Photo 25
View South towards ball fields

Photo 26
View East towards ball fields

Photo 27
View of existing restroom facilities

Photo 28
View of existing restroom facilities

Photo 29
View of door @ existing restroom facilities

Photo 30
View of typical parking island

Photo 31
View West of parking lot along Russell

Photo 32
View of ceiling treatment @ existing restroom facility

Photo 33
View East of soccer fields

Photo 34
View of typical picnic shelter

Photo 35
View of typical picnic shelter

Photo 36
View Northeast towards Sam Boyd Stadium from Broadbent Boulevard

Photo 37
View West towards soccer fields

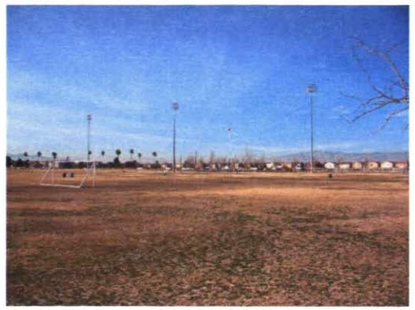


Photo 38
View Northwest towards soccer fields

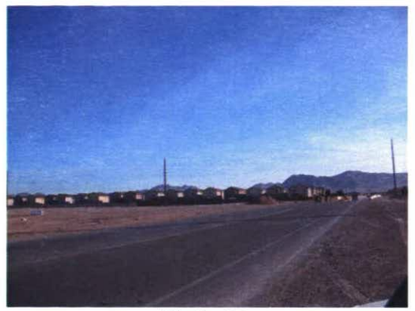


Photo 39
View South along Broadbent @ new home construction

Photo 40
View East along Broadbent @ undeveloped area

Photo 41
View East along Broadbent @ undeveloped area adjacent to Sam Boyd Stadium

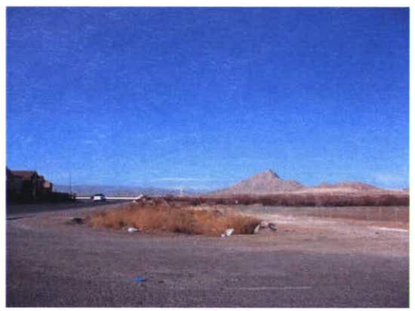


Photo 42
View North along Broadbent adjacent to single family

Photo 43
View North along Broadbent adjacent to single-family residential

Photo 44
View East along drainage ditch adjacent to single-family residential

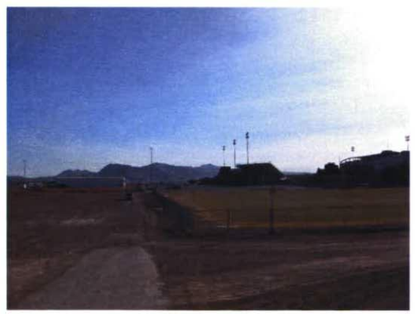


Photo 45
View East behind Sam Boyd Stadium towards Star Nursery Sod Fields

Photo 46
View North along Broadbent @ entry to Sod Fields

Photo 47
View North along Broadbent towards Sod Fields Entry

Photo 48
View towards Sam Boyd Stadium from Broadbent

Photo 49
View East toward Sam Boyd Stadium

Photo 50
View East along maintenance road at Sam Boyd Stadium

Photo 51
View South behind Stadium towards single family

Photo 52
View of west near Russell adjacent to Townhomes

Photo 53
View South towards existing restroom facility

Photo 54
View @ remote control airfield

Photo 55
View @ remote control airfield

Photo 56
View @ remote control airfield concrete picnic shelter

Photo 57
View @ remote control airfield

Photo 58
View @ remote control airfield

Photo 59
Remote control airfield flying rules sign

Photo 60
Undeveloped barren pit between airfield & Sam Boyd Stadium

Photo 61
View along airfield parking lot looking east

Photo 62
View @ remote control airfield runways

Photo 63
View along maintenance road

Photo 64
Remote control airfield parking and restroom facility

Photo 65
View east along maintenance road adjacent to remote control airfield

Photo 66
View east of soil stockpile area adjacent to remote control airfield

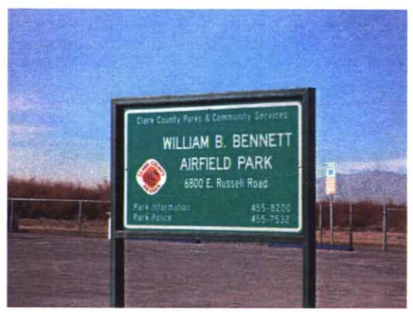
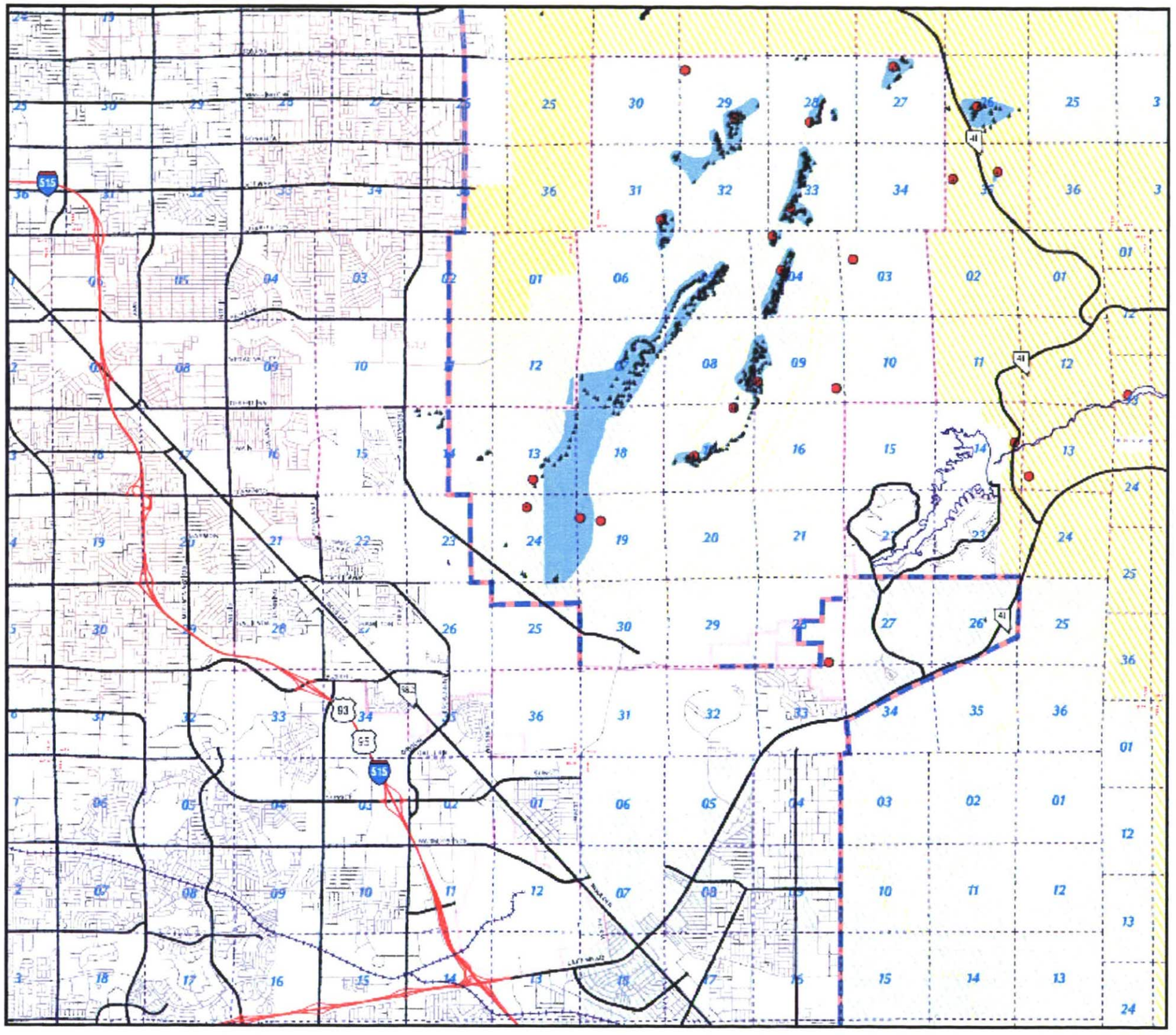


Photo 67
Remote control airfield signage

Photo 68
View of Drinking Fountain Standard at Airfield

APPENDIX B WHITNEY PLANNING AREA MAPS

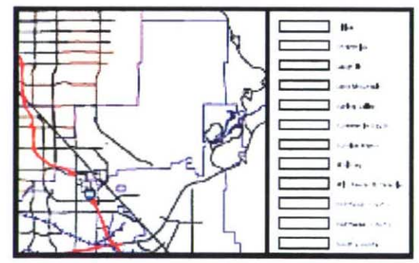


Comprehensive Planning

Chapter One - Map 2
Natural Environment

Whitney Planning Area

- BLM Areas of Critical Environmental Concern
- BLM Wilderness Areas
- Red Rock Canyon National Conservation Area
- Sloan Canyon National Conservation Area
- Large Scale Tortoise Translocation Area
- Desert Tortoise Conservation Center
- Desert Wildlife Management Areas
- Boulder City Conservation Easement
- Conservation Management Area IMAI Intensively Managed
- Conservation Management Area LIMAI Less Intensively Managed
- Conservation Management Area MUMA: Multiple Use Managed
- Conservation Management Area UMAI Un-Managed
- MSHCP Area; Bearpoppy (RECON)
- MSHCP Covered Species; Bearpoppy Sites (RECON)
- Nevada Natural Heritage Program Sites
- Disposal Boundary
- Incorporated Cities
- Tribal Lands
- Whitney Planning Area Boundary



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SCALE IN FEET

Source: Clark County Central Repository

Plot created on: July 20, 2006

This information is for display purposes only.
No liability is assumed as to the accuracy of the data delineated hereon.

Categories denoted in the legend may not apply to a particular Planning Area

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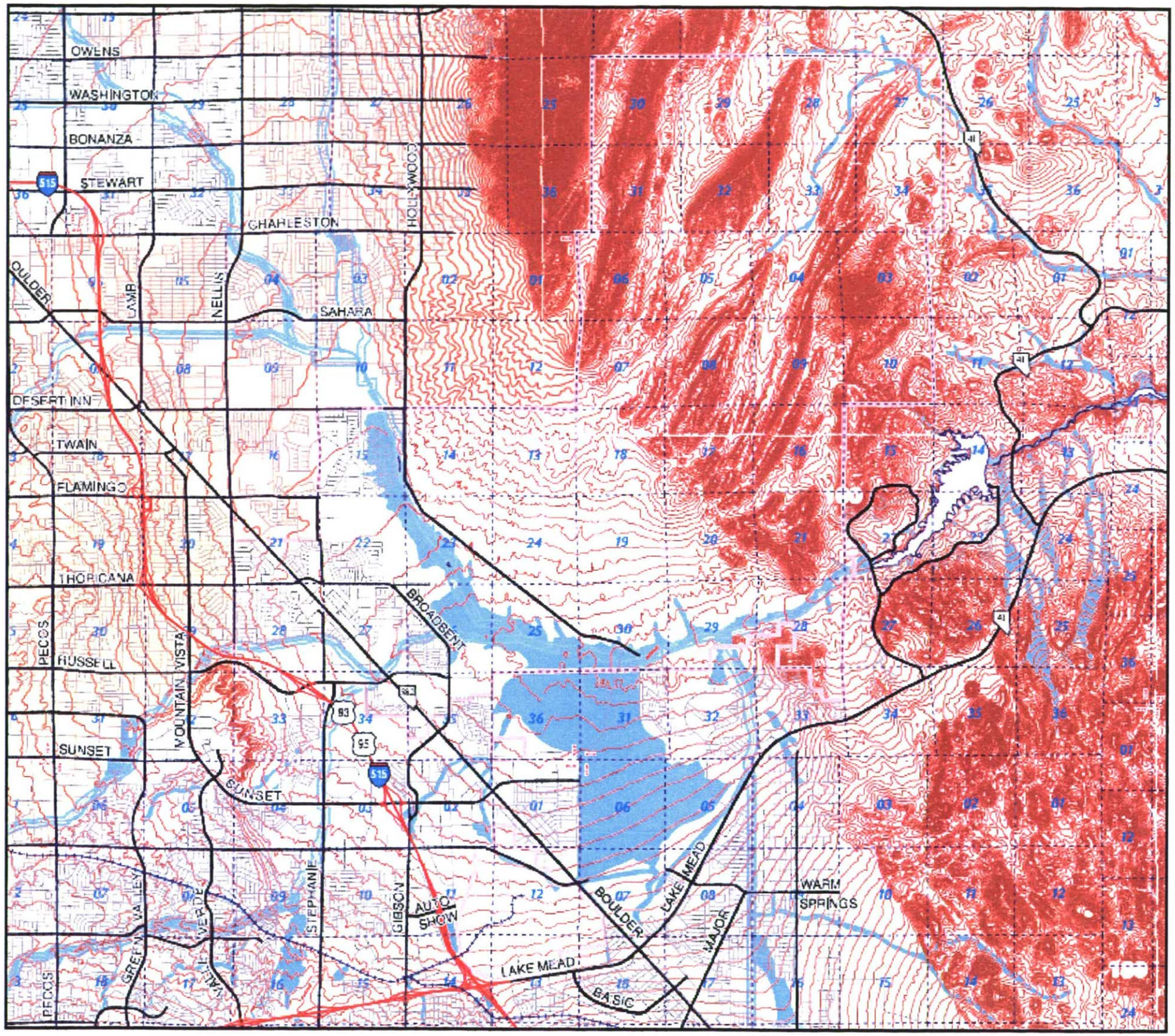
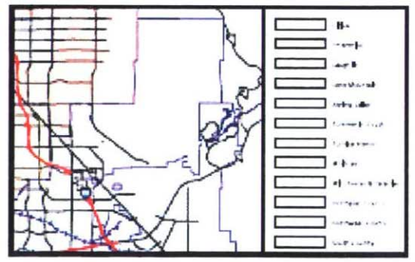


Comprehensive Planning

Chapter One - Map 3
Surface Hydrology

Whitney Planning Area

- 100 Year Flood Zone
- Lakes and Rivers
- Washes
- 20 Foot Contours
- Incorporated Cities
- Tribal Lands
- Whitney Planning Area Boundary



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Plot created on: July 14, 2006

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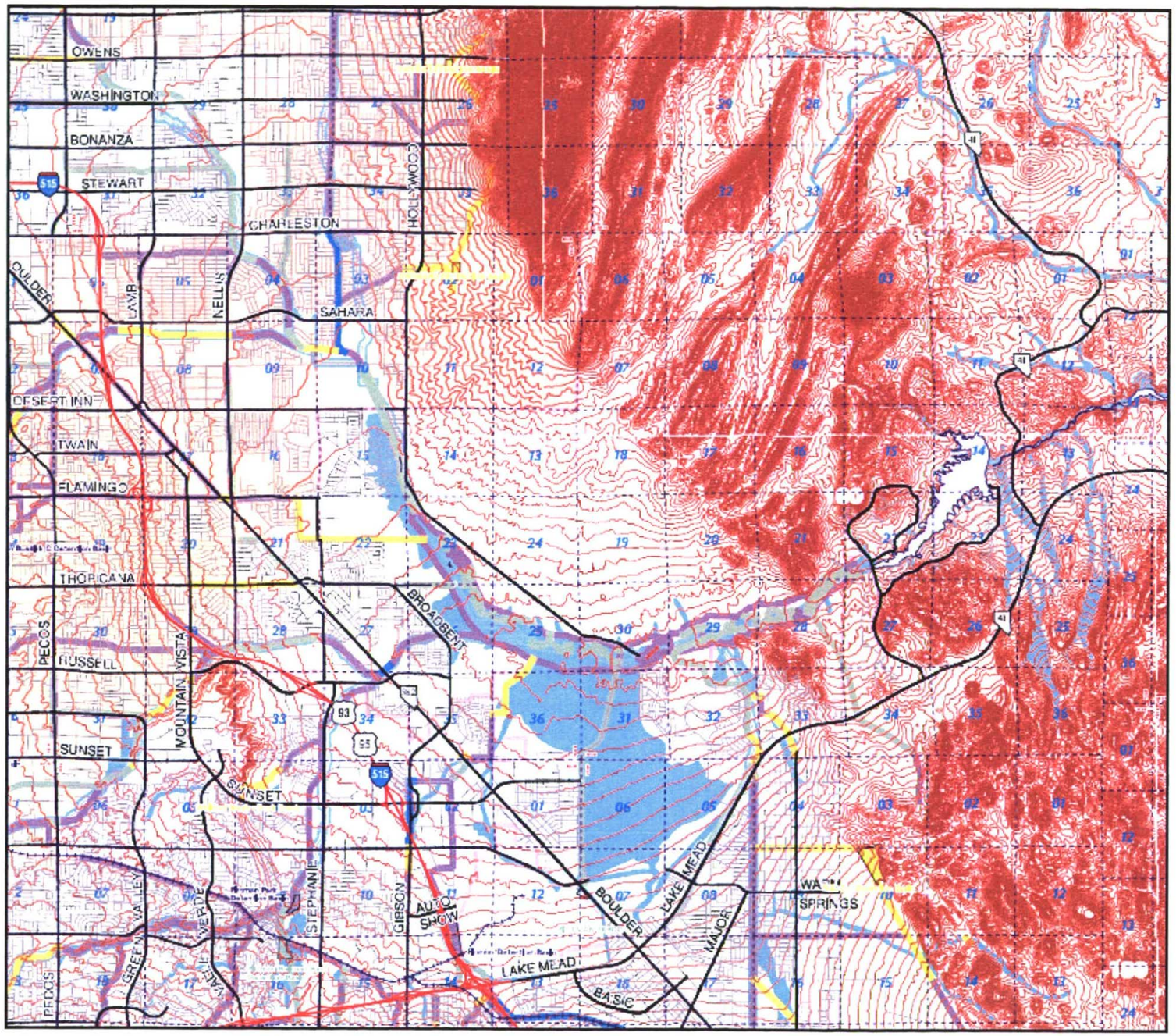
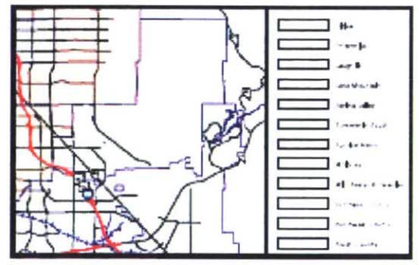


Comprehensive Planning

Chapter One - Map 7
Flood Control

Whitney Planning Area

- 100 Year Flood Zone
- Natural Lakes and Rivers
- Completed Detention Basins
- Detention Basins Under Construction
- Detention Basins to be Completed In 10 Years
- Proposed Detention Basins
- Completed Flood Conveyances
- Conveyances Under Construction
- Conveyances to be Completed In 10 Years
- Proposed Conveyances
- Washes
- 20 Foot Contours
- Incorporated Cities
- Tribal Lands
- Whitney Planning Area Boundary



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Categories denoted in the legend may not apply to a particular Planning Area

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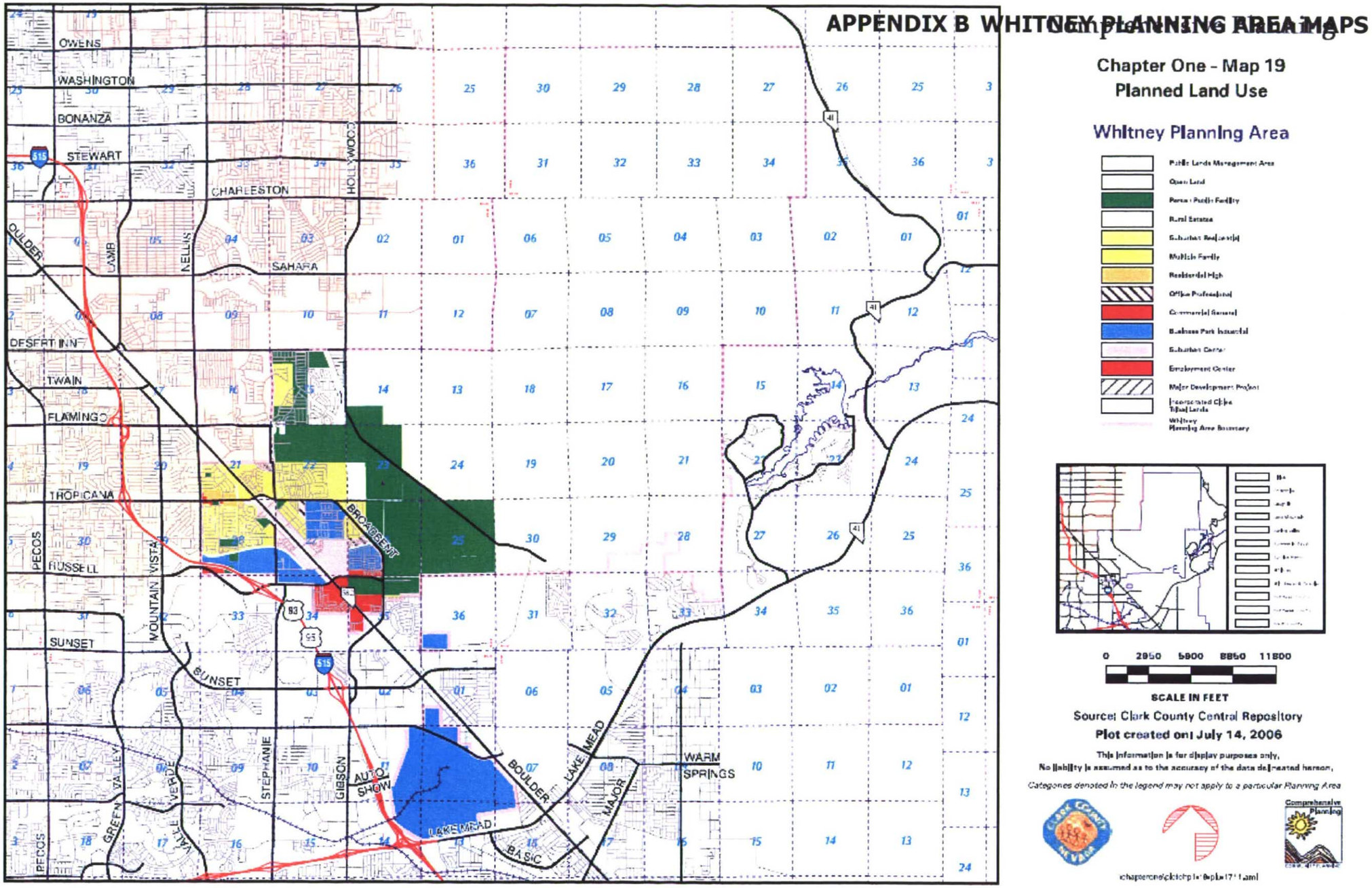
APPENDIX B WHITNEY PLANNING AREA MAPS



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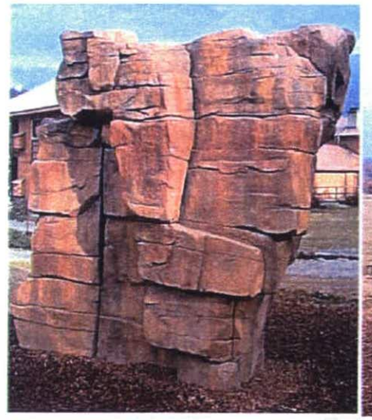
APPENDIX C PRODUCT RECOMMENDATIONS

Pechina Fixture from Holophane Lighting, 702.367.3949

Climbing Animals and Rocks at Playgrounds

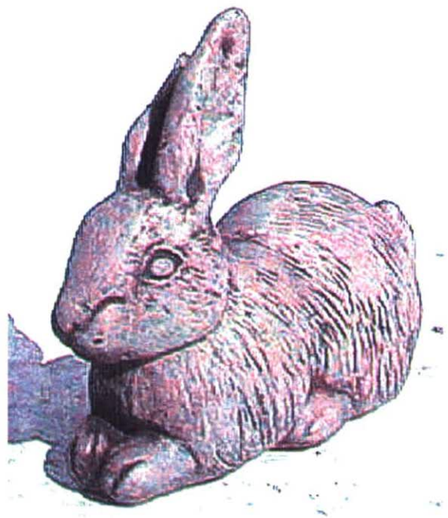


Flat Side

Overhang Side

BOLDR
are you game?

Beckwith Associates, Inc.
P.O. Box 880
Forestville, CA 95436
707.824.9349



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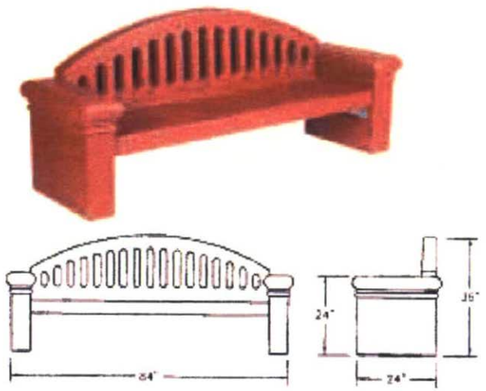
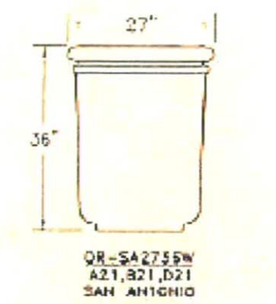
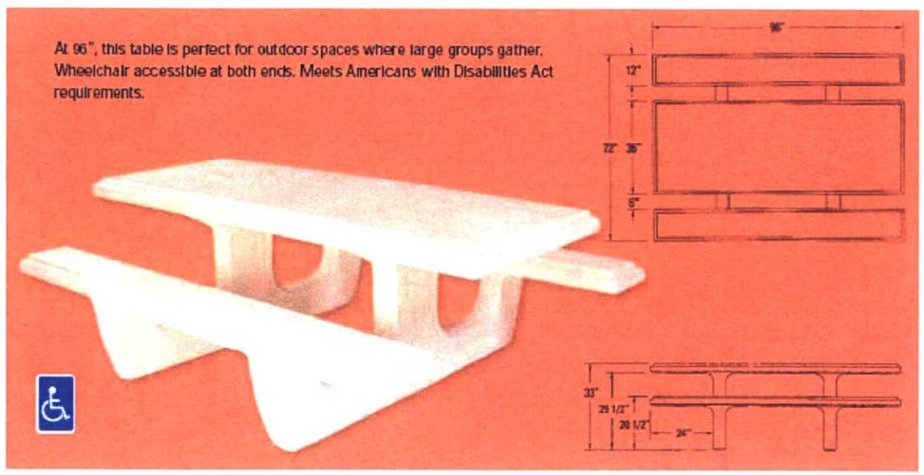


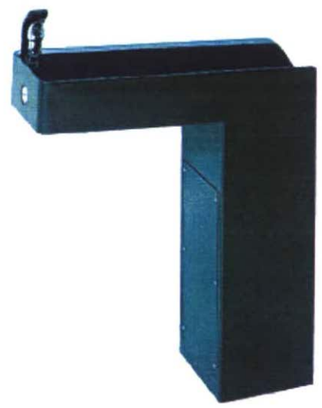
Victoria Bench by Quick Crete



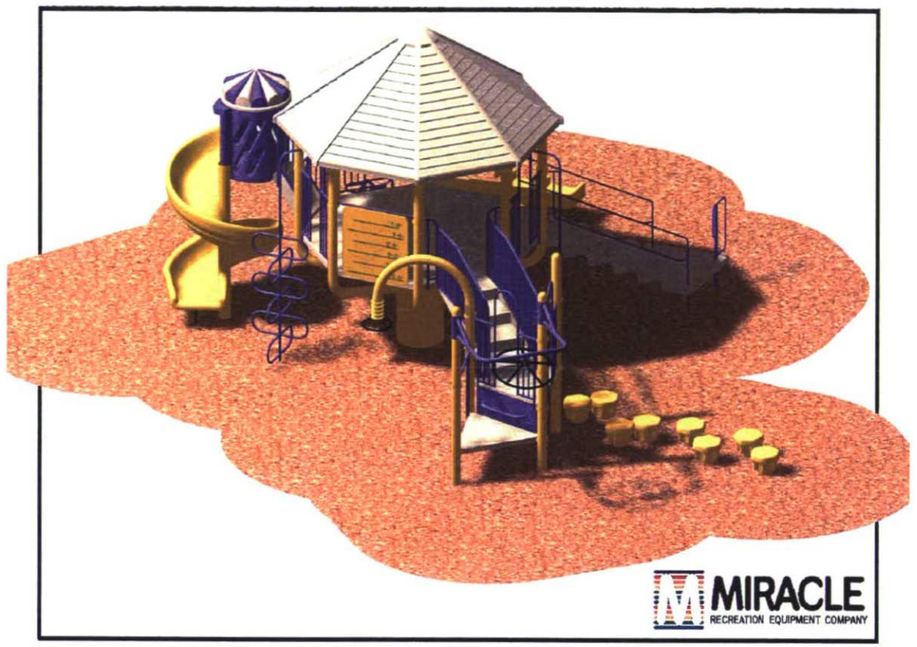
San Antonio Trash Receptacle by Quick Crete



Picnic Table by Quick Crete

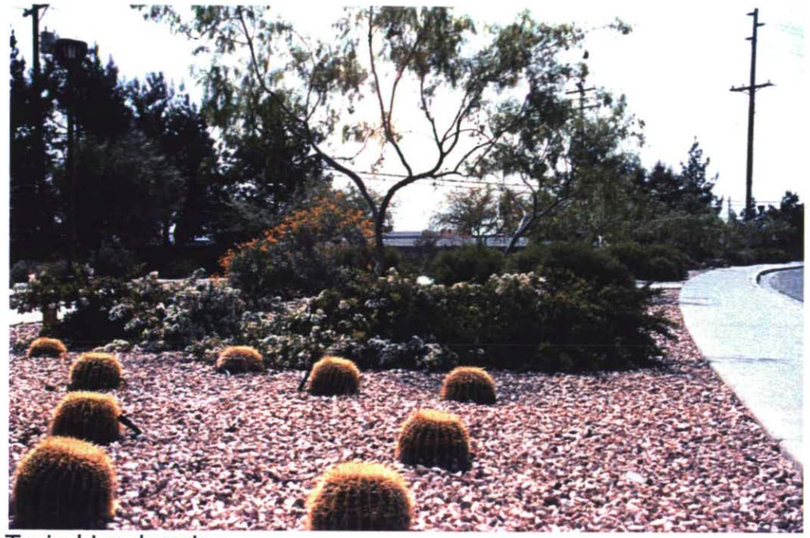


Water Fountain with Gravel Sump



Typical Playground

Water Play Feature



Typical Landscaping

APPENDIX D UNLV EVENT SERVICES INFORMATION

Jeff Chalfant /UNLV
04/06/2006 03:28 PM

To David Frommer/UNLV@UNLV, Rick Picone/UNLV@UNLV
cc
bcc
Subject Car counts for dirt lots

The file below is a list of major events over the past few years that have necessitated parking in the adjacent dirt lots. These numbers demonstrate that the amount of space available is used very heavily on a regular basis. Any significant loss in square footage would impact these types of events. The car counts demonstrate a pretty dense configuration and I don't believe any great gains would be made if it were paved and striped, should that become an option.

This information was provided by our Event Services Department and is meant to be available for the master planning of the area and its partners.

Thank you.

Jeff S. Chalfant
Stadium Manager
Sam Boyd Stadium
University of Nevada Las Vegas
(702) 895-4974 Office
(702) 895-3066 Fax
jeff@thomasandmack.com

CARCOUNTS.xls

Michael D. Newcomb | Thomas & Mack, Sam Boyd Stadium, Cox Pavilion UNLV | Senior Event Manager | miken@thomasandmack.com | Office: (702) 895.4069 | Fax: (702) 895.1814

For Tickets Log on: www.unlvtickets.com | Call: 739-FANS | Visit: The Galleria @Sunset, all Station Casinos and Fiestas

SAM BOYD STADIUM SOUTH PARKING LOT - CAR COUNTS

EVENT	DATE	NUMBER OF CARS PARKED IN SOUTI
MONSTER JAM	3/25/2006	8500
LAS VEGAS BOWL	12/22/2005	10000
UNLV FOOTBALL	11/19/2005	5500
UNLV FOOTBALL	11/5/2005	5500
VEGOOSE	10/30/2005	7000
VEGOOSE	10/29/2005	7000
UNLV FOOTBALL	10/2/2005	7000
UNLV FOOTBALL	10/8/2005	7000
UNLV FOOTBALL	9/10/2005	8000
SUPERCROSS	5/7/2005	10000
MONSTER JAM	3/19/2005	8500
LAS VEGAS BOWL	12/23/2004	5000
UNLV FOOTBALL	11/6/2004	5000
UNLV FOOTBALL	10/16/2004	5000
UNLV FOOTBALL	10/2/2004	6000
UNLV FOOTBALL	9/25/2004	6000
UNLV FOOTBALL	9/18/2004	7000
SUPERCROSS	5/1/2004	10000
MONSTER JAM	3/20/2004	8500
LAS VEGAS BOWL	12/24/2003	5000
UNLV FOOTBALL	11/8/2003	5500
UNLV FOOTBALL	11/1/2003	5500
UNLV FOOTBALL	10/18/2003	6000
UNLV FOOTBALL	9/13/2003	6000
UNLV FOOTBALL	8/29/2003	6500
SUPERCROSS	5/3/2003	9500
MONSTER JAM	3/22/2003	8500