

**TECHNICAL MEMORANDUMS 1, 2 and 3
Darmonte Ranch Wetland
and Storm Drainage Facilities**

City of Reno

April 26, 2007

**Kennedy/Jenks Consultants
Engineers & Scientists**

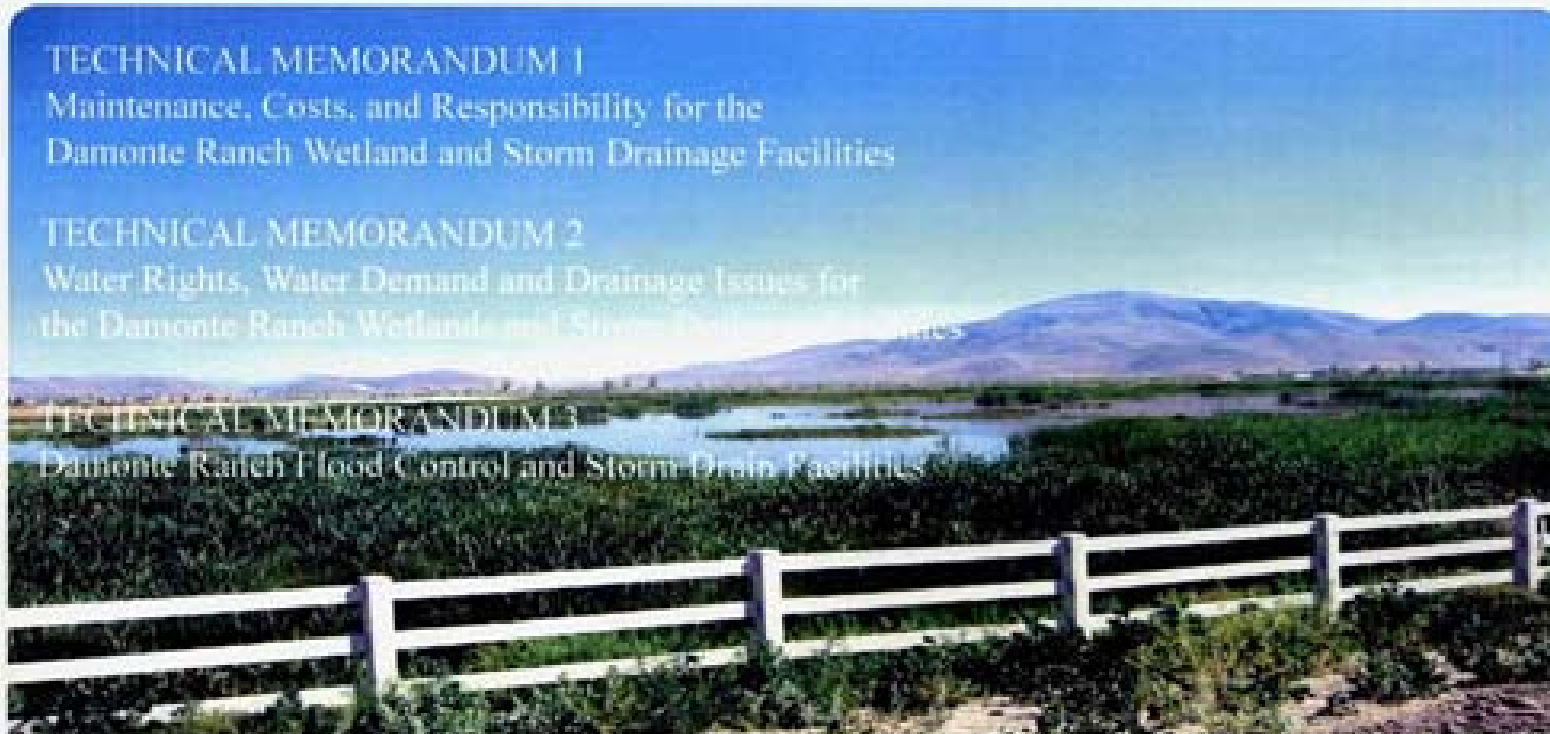
TECHNICAL MEMORANDUMS 1, 2 and 3

Damonte Ranch Wetland and Storm Drainage Facilities

TECHNICAL MEMORANDUM 1
Maintenance, Costs, and Responsibility for the
Damonte Ranch Wetland and Storm Drainage Facilities

TECHNICAL MEMORANDUM 2
Water Rights, Water Demand and Drainage Issues for
the Damonte Ranch Wetlands and Storm Drainage Facilities

TECHNICAL MEMORANDUM 3
Damonte Ranch Flood Control and Storm Drain Facilities



Prepared for the
City of Reno

26 April 2007
K/J 0595008

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Damonte Ranch Flood Control and Storm Drain Facilities
Assessment

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Black Eagle Consulting, 2004**

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Executive Summary

25 June 2007

Executive Summary

To: Greg Dennis, P.E. and Kerri Williams-Lanza, P.E., City of Reno
From: Lynn Orphan, P.E.
Subject: Damonte Ranch Wetlands and Storm Drainage Facilities
K/J 0595008

Background and Purpose

The Damonte Ranch wetlands and regional flood control and storm drainage facilities form a network of open channels, detention basins and wetlands that serve the 1924 acre Damonte Ranch development as well as surrounding future developments. The main regional flood control facilities were first built in 2001 to 2002 and have been expanded as the land is built out. A private drainage district funded by property owner fees was established at the time of construction under articles of incorporation that provided for future transfer of the facilities to Washoe County. After the City of Reno annexed the southeast Truckee Meadows, the owner asked the City to sign a commitment to FEMA that it would own and maintain the facilities in the future, although it is not known if that commitment was submitted to FEMA. City of Reno Public Works Department commissioned this evaluation for the cost and responsibilities associated with assuming ownership and/or maintenance of the facilities.

Damonte Ranch Facilities

The facilities include a network of wide earthen, riprap and vegetated channels, flood control detention basins, natural wetlands and constructed wetlands regulated under a Corps of Engineers 404 permit that receive storm drainage and provide some flood attenuation. At the time of the evaluation in 2005-2006, the facilities were comprised of the following, as shown in Figure 1 in Technical Memorandum No. 1.

- 41.93 acres of mitigation wetlands
- 68.94 acres of preserved wetlands
- 61.87 acres of avoidance wetlands
- 34 acre detention basin
- Approximately 3 miles of storm drainage channels
- Crane and Clow Irrigation ditch and pipeline, length of 2.1 miles

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- Culverts, bridges, catch basins and underground storm drains under public street right of way that have been accepted by the City as the streets have been dedicated and accepted.

Maintenance

Maintenance personnel are hired by the Damonte Ranch Drainage District (DRDD) as well as DiLoreto Homes and the Damonte Family Ranch. The budget and revenue of the DRDD at the current fees is not adequate by itself to fund the maintenance. At the time of the evaluation, the labor and cost was estimated to continue the level of service that had been provided at Damonte Ranch in the wetlands and provide a level of service for the channels similar to what the City provides on other channels and storm drains elsewhere in the City. The types of activities at the wetlands and basins include trail cleaning, landscape, perimeter fencing, benches, weed control, irrigation system, sediment removal, erosion repair, revegetation, riprap and concrete repair after storms and irrigation ditch clearing. The estimated maintenance is summarized below, assuming a contracted landscaping service for the wetlands and buffers and Level 1 City employees for the channels. Landscaping along the streets is maintained by the Landscape Maintenance Association, which is separate from the DRDD, with it's own revenue, responsibilities and governance structure.

Summary of Estimated Annual Labor, Equipment and Administrative Costs to Maintain Wetlands and Drainage Channels at the Damonte Ranch

Facility	Estimated Labor Required	Labor Cost	Equipment Costs	Admin Cost	Total Cost
Wetlands and Buffer Areas	9 Laborers	\$196,560	\$105,840	\$52,600	\$355,000
Drainage Channels	2 FTEs	\$153,920	\$82,880	\$41,200	\$278,000
TOTAL			\$633,000		

Issues of Responsibility

Management of the wetlands and channels provides the opportunity to manage flooding, protect wetlands habitat, incorporate recreation and open space and manage stormwater quality in ways to serve the region and the Truckee River watershed.

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Future Maintenance

If the City of Reno were to accept maintenance responsibility, it is recommended that the DRDD would remain the owner and would contract with the City of Reno to provide maintenance and operation of all regional channels, wetlands and flood control facilities. If future legislation enables a city to accept ownership of a general improvement district for operation and maintenance of flood control facilities, the City may wish to assume that full responsibility, similar to Washoe County's Storm Management District.

Water Rights

The Damonte Ranch wetlands consultant estimated in a preliminary water balance that mitigation wetlands MITWLA and MitWLB require 183 acre feet of permanent water rights, and preserved wetlands DE1, DE4 and DE5 should receive 225 acre feet of temporary rights. The water from those permanent and temporary rights has been used for wetland irrigation every year to date. The rights used for creating the wetlands come from Steamboat Creek. The Creek did not receive any overflow from Washoe Lake in the years 2002 – 2005, so storage rights supplied by Truckee River diversions to Steamboat Creek have provided supplemental water in these past years. Tail water and water intended for agricultural use have also provided supplemental water to the wetlands in past years. The agricultural water, the temporary 225 acre feet and the storage rights are not dedicated when the development is complete and the wetlands have achieved the success criteria for US Army Corps of Engineers certification. The 183 acre feet of permanent rights, dependent on natural flows out of Washoe Lake, is not expected to be adequate to support the type of vegetation now prevalent in the wetlands. It is recommended that adequate additional permanent water rights be dedicated to the wetlands.

Water Delivery System

The Crane and Clow Ditch delivers Steamboat Creek water to irrigate the Damonte Ranch wetlands and the remaining agricultural fields in the Damonte Ranch. A portion of the Crane and Clow Ditch is actually a buried pipe, but most of the ditch is unlined and has been eroding, sending soil into the inlet of the wetlands. As the agricultural fields are converted to residential and commercial developments, the wetlands will be the only user, and the wetlands owner will be sole responsible party for maintenance and operation of the ditch. The City may have to deal with ownership, easement and right-of-way issues related to the Crane and Clow Ditch when private owners have transferred use of the ditch to the drainage district.

System Condition

Field inspections in August, September and November 2006 identified twenty-one sites with damage or construction that did not meet appropriate standards. An analysis of the system condition and probable repair costs were presented in Technical Memorandum No. 3. Problems included erosion around concrete structures, debris and sediment washed into wetlands, lack of

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pedestrian fencing, lack of access ramps, lack of vegetated channel lining, rockery retaining walls encroaching into channels, flood control structures built differently from the approved designs, and damaged or improperly constructed riprap channel linings. The engineer's conceptual opinion of probable construction cost to repair and replace all of the problematic findings is \$2.0 million.

Because some flood control facilities may not have been built in accordance with FEMA approved models and permitted designs, it is also recommended that the hydrologic model and hydraulic design calculations for the South Truckee Meadows flood control facilities be reviewed to determine if they function as intended. Any modifications necessary to provide the design 100-year storage and conveyance capacity should be designed and constructed before the City accepts ownership of the regional facilities.

Recommendation

In summary it is recommended that

1. The City of Reno take over maintenance responsibility but not ownership of the regional facilities at a transfer time requested by Damonte Ranch Drainage District and mutually agreeable to the City.
2. The DRDD retain ownership of the Damonte Ranch Drainage Facilities, collecting fees from property owners in the district, and contract with the city to provide the maintenance. In 2006 dollars, it was estimated that an operating cost of \$633,000/year would provide a contractor crew of nine laborers for wetland maintenance and a City crew of two full time equivalents for channel maintenance.
3. Arrange for and procure employees, equipment, storage space and office space
4. Require permanent dedication of 225 acre feet of additional water rights to the City prior to transfer of maintenance responsibility.
5. Require repair and reconstruction of channels, headwalls, slopes and other identified facility components prior to acceptance of maintenance responsibility.
6. Review the hydrologic model and hydraulic design to confirm that the facilities as constructed to function as intended.

Technical Memorandum
No. 1

TECHNICAL MEMORANDUM 1

Maintenance, Costs, and Responsibility for the Damonte Ranch Wetland and Storm Drainage Facilities



**Prepared for the
City of Reno**

**26 April 2007
K/J 0595008**

**Kennedy/Jenks Consultants
Engineers & Scientists**

26 April 2007

Technical Memorandum No. 1

To: Greg Dennis, P.E. and Kerri Williams-Lanza, P.E., City of Reno
From: Drea Traeumer, Lynn Orphan, P.E., and Chris Conway, CPSWQ
Subject: Maintenance, Costs, and Responsibility for the Damonte Ranch Wetlands and Storm Drainage Facilities
K/J 0595008

Introduction

The purpose of this technical memorandum is to summarize the research Kennedy/Jenks has conducted and make recommendations for the management of the Damonte Ranch wetland and storm drainage facilities, located in the Southeast Truckee Meadows. In 1997, Kennedy/Jenks prepared a capital improvement plan, funding plan, and a storm drainage master plan for the Southeast Truckee Meadows. This area was initially an unincorporated area of Washoe County proposed for development and most of the regional storm drainage and flood control facilities were constructed by individual land owner/developers in lieu of connection fees as a condition of development agreements. Kennedy/Jenks drafted ordinance language in 1997 to create a storm water management district and collect user fees that would enable the County to manage the drainage and flood control facilities.

In recent years, the City of Reno has been annexing most of the Southeast Truckee Meadows that were in the County's storm water management area, including the Damonte Ranch development. Kennedy/Jenks has reviewed the developer agreements and the potential costs and staff requirements for the City to take over the responsibility of operating and maintaining the storm drainage and flood control facilities in the Damonte Ranch development.

This technical memorandum provides detailed information about the existing storm drainage and flood control facilities at the Damonte Ranch development, including the wetlands within the development. Potential alternatives for funding or assigning responsibility for operation and maintenance of the system are also addressed. The final goal, after the City of Reno acts upon this technical memo, will be the development of a recommended set of standard operation and maintenance procedures, a funding source, and enabling ordinances for the Southeast Truckee Meadows storm drainage and flood control facilities.



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Background

The Southeast Truckee Meadows is bounded by the Truckee River to the north, U.S. 395 to the west, S.R. 341 to the south, and the Virginia Range to the east (Figure 1). The area is drained by Steamboat Creek and includes a number of new and planned developments, drainage channels, detention basins, and wetlands. The Damonte Ranch project site (Project) is a 1,924-acre area located in the Southeast Truckee Meadows that is owned by Nevada Tri Partners, LLC and the Damonte Family, LLC. The Project encompasses the 1,743-acre Damonte Ranch East development and a 181-acre development commonly referred to as the Damonte Ranch Trade Center. The trade center includes the Whites Creek Meadows Subdivision and the Damonte Ranch West development. Damonte Ranch East is being built in several phases, and is approximately 28% built-out (Figure 2). When complete, the Damonte Ranch East development will be comprised of 5,610 residential units, a school, public facilities, industrial, distribution and manufacturing areas, general commercial lots, and open spaces/wetlands. In 2006, at the time of this writing, Phases 1, 2, 3, and 3a have been constructed for a total of 1,587 units; Phase 4 is under construction; and grading has begun for Phases 5 and 6 (C. Carter, Nevada Tri Partners, personal communication).

Nevada Tri Partners, the Damonte Ranch Landscape Maintenance Association (DRLMA), and the Damonte Ranch Drainage District (DRDD) perform maintenance activities within the Project. The DRLMA was created for the limited purpose of maintaining the landscapes of the uninhabited common areas (i.e. streetscapes). Per the Damonte Ranch CC&Rs, presented in Appendix A, the DRDD is a Master Flood Control Facilities Maintenance Association that was created for the limited purpose of maintaining and repairing DRDD facilities. The DRDD facilities are defined as certain flood control facilities that include the wetlands, storm water drainage facilities, and any other improvements related to flood control. The 2003 CC&Rs state that maintenance of the DRDD facilities may also include, but is not limited to, activities related to mosquito and other pest abatement, berm and path maintenance, Steamboat Creek, fencing, and lighting, etc. The DRDD is further described in the Revised Wetland Mitigation Plan for Damonte Ranch, issued by Huffman and Carpenter, Inc. (H&C), as being responsible for maintaining those flood control components (grass lined earth channels, concrete drop structures and riprap areas within channels, detention/retention basins, and berms) and wetlands which are more specifically outlined in the Southeast Truckee Meadows Specific Plan and the Southeast Truckee Meadows Flood Control Master Plan (H&C 2005).

Wetlands

Wetlands located within the Project are classified as jurisdictional or non-jurisdictional. Jurisdictional "waters of the United States" (WOUS) are within the limits of the authority of the United States Army Corps of Engineers (USACE) under the Clean Water Act (CWA), while non-jurisdictional are not. Initial compensatory mitigation planned for the Project was approved by the USACE issuance of Damonte Ranch Permit 199200382 (Appendix B). A second permit for compensatory mitigation planned for Whites Creek Meadows Subdivision was approved by the

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USACE issuance of Whites Creek Permit 199400866 (Appendix C). These former permits were combined into one permit, which was issued in June 2005 and continues to be referred to as Nevada Tri Partners Permit 199400866 (Appendix D). A photo documentation of the storm drainage facilities and wetlands located within the Project is presented in Appendix E.

Project 404 Permit Special Conditions

Nevada Tri Partners Permit 199400866 states that the permittee shall comply with all the Special Conditions listed in the Revised Wetland Mitigation Plan for Damonte Ranch (Mitigation Plan), which was submitted to the USACE in June 2005 by H&C and finalized in July 2005. In summary, the Mitigation Plan describes the wetlands located within the Project, documents the required Special Conditions referenced in the permit, specifies the success criteria that must be met to satisfy the permit, and identifies the entities responsible for the current and future maintenance of the wetlands. The Special Conditions in the Mitigation Plan are required by the permit, and will be discussed in more detail later in this document. Failure to comply, implement, and enforce the Special Conditions are grounds for modifying, suspending, or revoking the permit (H&C 2005).

Mitigation, Preserved, and Avoidance Wetlands

The wetlands located within the Project, as shown in Figure 3, were designed to be incorporated into the flood and drainage control features of the Project as part of the Southeast Truckee Meadows Flood Control Master Plan and are classified as:

- Compensatory mitigation wetlands (created to mitigate for project-related impacts)
- Preserved wetlands (modified, pre-existing)
- Avoidance wetlands (undisturbed, pre-existing)

The wetlands within the Project are further defined to include both the jurisdictional WOUS/wetland areas and their adjacent buffer areas, which extend from the edge of the wetland areas to the homeowner property boundaries (K. Barrett, Nevada Tri Partners, personal communication). Facilities located within the buffer areas include the levees (and the bike/walk paths located atop the levees), berms, fencing, and landscaping. Pertinent information from the Mitigation Plan is presented in the following sections.

A total of 172.74 acres of jurisdictional WOUS/wetlands are located within the Project and are classified as follows: 41.93 acres of compensatory mitigation wetlands; 68.94 acres of preserved wetlands; and 61.87 acres of avoidance wetlands (Table 1).

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Table 1: Aerial Extent of Jurisdictional Waters of the United States Located within the Damonte Ranch Project

WOUS/Wetland	Mitigation (ac)	Eliminated (ac)	Avail. (ac)
Mitigation Wetland A	23.16		
Mitigation Wetland B	18.77		
DE3			60.83
DW Whites Creek (Branch 3 Drainage Channel)			0.09
DW7			0.16
DE Steamboat Creek South			0.79
DE1		50.11	
DE4		4.17	
DE5		10.57	
DE Steamboat Creek North		4.09	
Subtotal Total (acres)	41.93	68.94	61.87
Grand Total (acres) = 172.74			

The wetlands within the Project were designed to accommodate the 100-year flood event, including the associated urban runoff expected to be delivered to the wetlands from neighboring developments upon full build out of Southeast Truckee Meadows (R. Simms, Odyssey Engineering, Inc., personal communication). The areas designated for the construction of the mitigation wetlands were selected because project engineers designated these areas for flood conveyance and urban storm drainage (H&C 2005). Further, an additional 25 acres of wetlands are being created at the Project as a potential advanced mitigation bank and will be held to the requirements and enforcements applicable to the existing 172.74 acres of jurisdictional WOUS/wetlands described above. If the potential advanced wetland mitigation bank is successful, Nevada Tri Partners will submit formal banking documentation. The potential advanced mitigation bank wetlands, jurisdictional wetlands, and WOUS located within the Project are presented in Figure 3.

Water Supply for Wetlands

Due to the cessation of ranching irrigation prior to the commencement of construction activities, wetland hydrology became absent in existing wetlands DE1, DE3, DE4, and DE5. As a result, the vegetation in these wetlands was converting to a more upland community. Rather than

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abandon their wetland status, wetlands DE1, DE4, and DE5 were lowered to increase flood storage capacity (R. Simms, Odyssey Engineering, Inc., personal communication). The wetlands were lowered by excavation in the fall of 2001 and the summer of 2002 to a base elevation consistent with the projected new groundwater levels under a post-development scenario, and replanted (H&C 2005). Due to being lowered, wetlands DE1, DE4, and DE5 have been modified and classified as preserved wetlands with a total area of 68.94 acres. An additional portion of wetland DE1, located in the northern section, was scheduled to be lowered in the fall of 2005 (H&C 2005); however, this portion is no longer planned to be lowered (R. Gebhart, USACE, personal communication).

Long-term hydrologic studies and groundwater modeling were not conducted due to construction phasing; therefore, a preliminary water balance was performed that indicated 3.175 acre-feet per acre would be necessary to sustain the wetlands (H&C 2005). As a result, 225 acre-feet of temporary water rights and 183 acre-feet of permanent water rights were requested from Nevada Tri Partners, LLC for the preserved and mitigation wetlands, respectively, as presented in Appendix F. In response, 225 acre-feet of temporary water rights have been reserved for the preserved wetlands and 185-acre feet of permanent water rights have been dedicated to the mitigation wetlands, as presented in Appendix G. Two additional acre-feet of permanent water rights were dedicated to the mitigation wetlands, in excess of the amount that was requested. The water rights have been dedicated from Steamboat Creek and/or Crane & Clow Ditch, and will be applied as standard surface irrigation through multiple irrigation outfalls between March and October (H&C 2005).

Temporary water rights in the amount of 225 acre-feet have been reserved for the 68.94 acres of preserved wetlands DE1, DE4, and DE5, and will be applied as supplemental irrigation to establish wetland vegetation (H&C 2005). Please note that wetland acreages have been modified during the span of the Project as a result of re-delineations, and that the original preserved wetland acreage at the time the water rights were requested was 70.99 acres (Appendix F). Upon USACE verification that the preserved wetlands have met the final wetland hydrology criteria, the water rights shall revert back to Nevada Tri Partners, LLC. If hydrology under post-project conditions is not sufficient due specifically to interception and diversion of water away from the preserved wetlands by infrastructure, i.e. the regional flood detention basin, utilities, etc., then the reserved water rights of 225 acre-feet shall be permanently dedicated, on a pro-rata basis, to preserved wetlands DE1, DE4, and DE5 (H&C 2005).

Permanent water rights in the amount of 185 acre-feet have been dedicated in perpetuity to 41.93 acres of mitigation wetlands MitWLA and MitWLB (H&C 2005). Please note that wetland acreages have been modified during the span of the Project as a result of re-delineations, and that the original mitigation wetland acreage at the time the water rights were requested was 57.72 acres (Appendix F). The Mitigation Plan stresses that the mitigation wetlands are not being supported by supplemental irrigation water; rather, the hydroperiod is being extended by use of supplemental irrigation to ensure the hydrologic success of these areas (H&C 2005).

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As noted above, the vegetation in wetland DE3 was converting to a more upland community due to the cessation of ranching irrigation; however, it was not lowered with wetlands DE1, DE4, and DE5. For this reason, wetland DE3 is classified as an avoidance wetland with a total area of 60.83 acres. Due to the cessation of irrigation ranching, wetland DE3 may revert to a more dry, ~~mesic~~ wetland. No restoration efforts other than avoidance, invasive weed control, and the channeling of water through the area are taking place at avoidance wetland DE3 (H&C 2005). Technical Memorandum No. 2 further addresses the issue of water rights seniority and use as well as wetland hydrology, future Washoe County Water Treatment Plant, Evapotranspiration, water delivery and issues related to impoundment.

Maintenance Requirements

Responsible Parties

The Project site is owned by DiLoreto Construction & Development (formerly Nevada Tri-Partners, LLC) and Damonte Family, LLC. These entities have the financial responsibility for the compensatory mitigation until the mitigation wetlands have met the success criteria referenced in the permit and defined in the Mitigation Plan. Per the permit, Nevada Tri Partners, LLC and Damonte Family, LLC shall compensate for authorized impacts by creating 41.93 acres of mitigation wetlands, and shall comply with all Special Conditions listed in the Mitigation Plan. Per the Mitigation Plan, success criteria will be met when 41.93 acres of mitigation wetlands prove successful with respect to wetland hydrology, soils, and vegetation, without human intervention, for three consecutive years. Per the Mitigation Plan, human intervention specifically includes supplemental irrigation to establish wetland vegetation, but does not include upstream irrigation pass-through of the Damonte Ranch Project area (H&C 2005). The Mitigation Plan also states supplemental water rights are generally available between May and October, which is after the seasonal peak or period of high groundwater when hydrology criteria are assessed (H&C 2005).

Once the mitigation wetlands meet the success criteria and the permit conditions are satisfied, the jurisdictional wetland areas (mitigation, preserved, and avoidance) will be transferred to and maintained in perpetuity by the DRDD. A discussion of the current and future maintenance activities required of these parties follows.

Current Maintenance: Nevada Tri Partners, LLC and Damonte Family, LLC

As part of the Special Conditions set forth in the permit, Nevada Tri Partners, LLC and Damonte Family, LLC are required to implement the following Special Conditions listed in the Mitigation Plan until permit conditions are satisfied:

- Provide and deliver approximately 3 acre-feet of water rights per acre per year for the mitigation wetlands. Specifically, approximately 185 acre-feet of water rights will be

WHEN
IS THIS
EXPECTED?
CITY MAY
BEING UNABLE
PERFORM THIS

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permanently transferred to the DRDD to maintain the hydrology for MitWLA and MitWLB, and the DRDD will provide a specific plan to deliver the water to the mitigation wetlands prior to completion of construction at the Project within WOUS/wetlands.

- Temporarily transfer and deliver 225 acre-feet of water rights to the preserved wetlands to maintain wetland hydrology. Upon USACE verification that the preserved wetlands have met the final wetland hydrology criteria, the water rights shall revert back to Nevada Tri Partners, LLC. If hydrology under post-project conditions is not sufficient due specifically to interception and diversion of water away from wetlands DE1, DE4, and DE5 by infrastructure, e.g. construction of regional flood detention basin, utilities, etc., then the reserved water rights of 225 acre-feet shall be permanently dedicated, on a pro-rata basis, to the DRDD for use on wetlands DE1, DE4, and DE5.
- Establish a fully funded endowment to maintain the mitigation, preserved, and avoidance wetlands in perpetuity, to be carried out by the DRDD with an Operations and Maintenance Manual that will be developed by the Nevada Tri Partners and approved by the USACE (note: this Special Condition has been modified, and Homeowner's Association fees will be used in lieu of an endowment to maintain the wetlands in perpetuity, as described on page 13).
- Control non-native species in the jurisdictional wetlands to less than 10% under the supervision of a Professional Wetland Scientist or a qualified biologist/botanist.
- Provide the following routine maintenance for the jurisdictional wetlands and buffer areas that will not require specific USACE authorization:
 - Hand or rubber tire mechanical removal for non-wetland vegetation or invasive species under the supervision of a Professional Wetland Scientist or a qualified biologist or botanist.
 - Sediment removal where less than three inches deep by manual hand labor or rubber tire mechanical removal under the supervision of a Certified Professional in Erosion and Sediment Control or a Professional Wetland Scientist within one week of discovery.
 - Trash removal from jurisdictional wetlands
 - Fencing maintenance
 - Bike/walk path repair
 - Routine landscape maintenance and irrigation repair
 - Bird feeding and watering stations installation and maintenance (note: bird feeding and watering stations have not been installed, and it is not known at this time if specialized feed will be required).
 - Invasive species and pest control

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- Provide the following non-routine maintenance for the jurisdictional wetlands and buffer areas that will require written USACE authorization:
 - Mechanized removal of vegetation or noxious weeds from the jurisdictional wetlands under the supervision of a Professional Wetland Scientist or a qualified biologist or botanist
 - Any dredging or excavation of jurisdictional wetlands, except sediment removal of less than three inches deep by manual labor within four months of discovery
 - Any mechanized filling of jurisdictional wetlands
 - Emergency flood control maintenance

There are currently no special sediment disposal requirements, and sediments removed from the wetlands are currently stored in upland areas located on the Project. It is assumed sediment removal within the wetlands could impede the attainment of success criteria if the aerial extent of disturbance to the wetland vegetation is great enough. The Mitigation Plan does not assign maintenance frequencies to the above activities, but does assign inspection frequencies, which are presented in Table 2.

Table 2: Current Maintenance Items and Inspection Frequencies for the Damonte Ranch Wetlands

Maintenance Item	Frequency of the operation
Perimeter fencing	Monthly
Irrigation systems	Weekly (when delivering water)
Hand or rubber Tire mechanical removal of non-native vegetation or invasive species	Minimum monthly or as needed
Trash removal by hand	Minimum monthly or as needed
Walk path repair	Minimum monthly or as needed
Landscape maintenance and irrigation repair	Minimum monthly or as needed
Bird feeding and watering stations	Weekly during months of December; February; March - July

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Maintenance Item	Frequency of Inspection
Sediment removal	Minimum monthly or as needed
Emergency flood control maintenance	Minimum monthly or as needed

Source: Revised Wetland Mitigation Plan for Waters of the United States/Wetlands at Damonte Ranch, Reno, Washoe County, Nevada Permit 199400866 (H&C 2005)



Future Maintenance Responsibilities: DRDD

As noted previously, once all success criteria and permit conditions have been met, the jurisdictional wetland areas (mitigation, preserved, and avoidance) will be transferred to and maintained in perpetuity by the DRDD (H&C 2005). The DRDD is a Master Flood Control Facilities Maintenance Association that was created for the limited purpose of maintaining and repairing the flood control facilities within the Project, which include the wetlands and the storm drainage channels (CC&Rs 2003). It is assumed that most maintenance activities listed as part of the Special Conditions will be continued by the DRDD, after transfer, to meet the expectations of the public; however, maintenance would not be as stringent. For example, sediment removal at specific sedimentation depths would not be required, nor would there be a requirement for professional oversight of routine sediment and invasive weed control (e.g. Certified Professional in Erosion and Sediment Control, Professional Wetland Scientist, or qualified biologist).

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In addition to the maintenance activities associated with the wetlands, the DRDD will be responsible for invasive weed control, sediment and trash removal, and the general maintenance of the storm drainage facilities, which include:

- Storm drainage channels
- Concrete drop structures
- Detention/retention basins

The wetlands and the regional detention basin are the only detention/retention basins planned for the Project (C. Carter, Nevada Tri Partners, personal communication). Current maintenance of the regional detention basin includes weeding, trash removal, and erosion repair.

Eight drainage channels planned for the Project are currently under construction, as presented in Figure 3 and Appendix H. The drainage channel system is summarized in Appendix I, and includes two south boundary collection channels that feed six delivery channels to the wetlands. All of the channels will be earthen and lined with rock riprap or grass, and none of the channels are designed to have a low flow channel. The south boundary collection channels include one channel that will convey irrigation tailwater flows and storm water runoff into delivery channels C5, C7, C5-B, and W1-B, and another channel that will convey storm water runoff into delivery channels SE-8A and W-3.

The channels will include both trapezoidal and V-shape designs, and it is not known at this time what seed mix will be planted. Delivery channels C-5 and SE-8A will be vegetation-lined and also include drop structures with some rock riprap for energy dissipation. These channels will be lined with rock riprap for 15-ft immediately downstream of the drop structures, at which point the channel lining will revert to grass. Channels C5-B and W1-B will be the primary channels for irrigation flows, and will be fully rock-lined for their entire lengths to accommodate the increased flows that would be associated with storm water runoff and irrigation flows occurring simultaneously (C. Carter, Nevada Tri Partners, personal communication). It should be noted that Appendix H does not show channels C5-B and W1-B as being rock-lined, and that actual construction can differ from design.

A review of Appendices H and I suggests a potential for channel bank and bed erosion within the grass-lined channels. As all of the drainage channels feed the wetlands, this could cause sedimentation within the wetlands. The potential for erosion is due to increased flow velocities resulting from channel curvature and breaks (changes) in the bed slope. An increase to the bed slope could cause the channel bed to erode, and channel curvature could cause the channel bank to erode. As shown in Appendix I, several channels have a maximum curvature greater than 45 degrees, grade breaks where the slope increases, or a combination of both. Specifically, grass-lined channels SE-8A, C5-B, and C-5 could be susceptible to bed and bank

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erosion caused by the combination of grade breaks and maximum curvature occurring at their inlets; however, additional analysis of the hydraulic properties and shear strengths of the channel banks and beds would be necessary to confirm the erosion potential within the drainage channels.

For example, comprehensive environmental assessment of proposed realignment designs for Steamboat Creek are expected, which address channel stability (D. Peters, City of Reno, personal communication). A similar environmental assessment that would analyze channel bottom and bank stability, erosion, and sedimentation could be required for drainage channels in an effort to prevent post-construction improvements. Technical Memorandum No. 3 addresses site assessments for design and construction standards as well as construction quality and recommendations and cost estimates for items found to be in need of redesign, repair or replacement (Kennedy/Jenks 2007).

Notes?
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The Crane & Clow Ditch is used to deliver temporary and permanent water rights to the wetlands via the drainage channels, and will continue to deliver permanent water rights to the wetlands in perpetuity. Permanent and temporary water rights have been reserved for the wetlands by Nevada Tri Partners, and will be conveyed in fee title to the DRDD in the future (Appendix G). The Crane & Clow Ditch diverts water from Steamboat Creek, and the upstream headgates are operated by the Washoe Lake-Galena Creek Ditch Company for an assessment fee paid by the ditch users (L. Damonte, Damonte Family, LLC, personal communication). The amount of this fee is determined each year, based on maintenance needs.

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The Crane & Clow Ditch has a total length of approximately 2.13 miles and is comprised of a closed pipe section (0.90 miles) and open ditch sections (1.23 miles), as shown in Figure 3. The upstream section of the open ditch is a rectangular channel with some vegetation stabilizing the vertical banks; however, sections of the vegetated banks are eroding and slumping. The downstream section of the open ditch includes approximately 900 feet of highly erodible, bare rectangular channel that lacks vegetation and appears to have recently been excavated. In its current condition, this section of the ditch is highly susceptible to erosion, and additional sediment loading from a large, adjacent stockpile of soil that has not been stabilized (Appendix E, photos 66 through 77). Flow in the downstream section of the open ditch was observed to be extremely turbid, and has eroded flow paths under (and bypassed) some of the culverts, as presented in Appendix E, photo 67. Additional erosion and sediment control measures will be required to stabilize the bare ditch and the adjacent stockpiled soil to prevent excessive transport of sediment to the wetlands.

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The closed pipe section of the ditch is between 36 and 48 inches in diameter, and was able to accommodate flows associated with the recent flood events of December 31, 2005; however, an open-ditch section upstream of the closed pipe section did breach during the flood event (L. Damonte, Damonte Family, LLC, personal communication). It is unknown if the pipe section could have conveyed all of the flood flows, as a portion of the flow was diverted upstream of the

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pipe inlet as a result of the breach. A significant amount of sediment may have also been deposited in the pipe section during the recent flood event.

The Damonte Family, LLC currently owns and maintains the Crane & Clow Ditch, and will continue to maintain the ditch for as long as they use it to irrigate their agricultural property adjacent to the Project (L. Damonte, Damonte Family, LLC, personal communication). Should Damonte Family, LLC stop irrigating their adjacent agricultural property, maintenance of the Crane & Clow Ditch would then become the responsibility of the last user of the ditch (i.e. DRDD). It is our understanding that KB Homes is developing lands adjacent to the Crane & Clow Ditch and is paying ditch maintenance fees to Damonte Family, LLC in lieu of assessing homeowner fees, ~~until such time as the City of Reno takes over~~. It is not yet known if Damonte Family, LLC has an agreement with KB Homes or Nevada Tri Partners, LLC for terms for service and terms for transfer to the DRDD.

Current maintenance of the Crane & Clow Ditch includes weeding and trash/debris removal, which is one of several maintenance activities performed by Damonte Ranch Family, LLC ranch laborers (L. Damonte, Damonte Family, LLC, personal communication). Further, Damonte Ranch Family, LLC also performs weeding and trash/debris removal along the reach of Steamboat Creek that is within the Project property boundary. It is estimated that maintenance of the Crane and Clow Ditch and Steamboat Creek generally requires one full time laborer; however, the amount of work is dependent on natural conditions, such as the recent flooding that will require significant ditch repair.

Recent Flood Impacts

The New Years flood event that occurred on December 31, 2005 generated a peak flow of 1,450 cfs in Steamboat Creek at USGS gage 10349849, located in Reno, and 16,400 cfs in the Truckee River at USGS gage 10348000, located in Reno. While the necessary period of record of data do not exist to calculate the return period for the flows in Steamboat Creek, a preliminary analysis of the Truckee River flow data at USGS gage 10348000 suggest this was a 25-year event. Flood impacts in the Project area included sedimentation in the wetlands and rock riprap areas, and rill erosion in the drainage channels (Appendix E). Further, large woody debris was unable to pass multi-span box culverts on Steamboat Creek basin (Appendix E, photo 8), resulting in flow being diverted to the regional detention basin and sedimentation of the rock riprap within the regional detention. It should be noted that the regional detention basin was designed to receive flows for a 50-year or greater event on Steamboat Creek; however, blockage of the culverts may have contributed to the regional detention basin receiving flows for the 25-year event.

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Maintenance Costs

Funding Mechanisms

The Mitigation Plan lists a Special Condition which states Nevada Tri Partners will create a fully-funded endowment to support maintenance activities performed by the DRDD in perpetuity (H&C 2005); however, maintenance activities are now funded through the quarterly assessment of Homeowner's Association fees, as determined by the DRDD Operating Budget, in lieu of an endowment fund (C. Carter, Nevada Tri Partners, personal communication and R. Gebhart, USACE, personal communication). Quarterly assessments at Damonte Ranch currently range, depending on the coverage, from \$24.00 to \$30.00 for the DRDD (AMI Property Management 2005).

There is a limitation on annual assessment increases and the DRDD Board shall not levy, for any fiscal year, an annual assessment that exceeds the "Maximum Authorized Annual Assessment" (CC&Rs 2003). The "Maximum Authorized Annual Assessment" in any fiscal year following the initial budgeted year is the sum which does not exceed the aggregate of the annual assessment for the prior fiscal year, plus a twenty-five percent (25%) increase. However, in the event that the DRDD Board reasonably determines the DRDD expenses cannot be met by the annual assessments levied under the current budget, a Supplemental Annual Assessment may be submitted with a majority vote of the DRDD and the DRDD Board (CC&Rs 2003).

Information Sources

Several sources were used to estimate the labor and cost for the City of Reno, to maintain the wetlands and storm drainage facilities:

- City of Reno Public Works Department
- Nevada Tri Partners, LLC
- Damonte Family, LLC
- Associated Management, Inc.
- Odyssey Engineering
- Peri Landscaping

Costs to Maintain Storm Drainage Facilities

The City of Reno Department of Public Works currently maintains the City's storm water system, which includes the removal of accumulated debris from catch basin sumps and storm drain lateral connections; the maintenance of open drainage channels and associated structures (i.e. bar screens, headwalls, and culverts); and the cleaning of storm drain pipes using high pressure water to remove materials and foreign objects (E. Strunge, City of Reno). Some erosion repair and sediment removal is performed, but erosion repair is on a small scale (with little associate

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cost) and removed sediments are generally redistributed on-site to prevent hauling (E. Strunge, City of Reno). The City's storm drainage system is currently comprised of approximately:

- 9,212 catch basins
- 411 miles of storm drain pipe
- 7,206 storm drain manholes
- 50 miles of open drainage channels
- 151 drainage bar screens
- 12 irrigation bar screens

Cost information provided by the City of Reno to maintain the existing storm water drainage facilities listed above is presented in Appendix J, and was applied to the corresponding storm drainage facilities located within the Project, which were provided by Odyssey Engineering, Inc. Facilities that are located in streets and in other City rights-of-way are cleaned as part of the normal public infrastructure maintenance (i.e. catch basins and storm drain pipe), and were omitted from the cost analysis for the wetlands and drainage channels per Erich Strunge of the City of Reno.

Information provided by the City of Reno shows that the salary (base plus benefits) for one FTE Level I employee is \$37/hr, which amounts to \$76,960/yr as follows:

$$\text{\$37/hr} \times 40 \text{ hrs/week} \times 52 \text{ weeks} = \text{\$76,960/yr}$$

The City of Reno provided cost information to maintain drainage channels, including the cleaning of bar screens, headwalls, and culverts (Appendix J). These costs were applied to information about the drainage channels provided by Odyssey Engineers, Inc, and the cost analysis presented in Table 3. Drainage channel surface area was estimated based on dimensions provided by Odyssey Engineers, Inc. Per the City of Reno, channel cleaning may be performed by hand or with equipment, depending upon conditions. A weighted average was calculated for channel cleaning based on the proportion of channel cleaned by hand and by equipment, as reported by the City of Reno for FY 04/05. The total number of drainage bar screens and irrigation bar screens located within the Project was estimated based on the average number of screens per mile of drainage channel as indicated by information provided by the City of Reno. The "Unit Cost" column represents the combined cost of both labor and equipment. Labor cost was calculated assuming it would comprise 65% of the combined cost.

As presented in Table 3, it will require approximately two Level I FTEs to perform drainage channel maintenance in pure labor cost. Factoring in estimated expenditures for equipment, this figure approaches 3 FTEs. Note that this estimate does not include costs for maintaining catch basins or storm drain pipe, as these are considered normal public infrastructure

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maintenance tasks already being performed by City staff in the public right-of-way in Damonte Ranch.

Table 3: Cost Estimate for Maintenance of Damonte Ranch Drainage Channels

Item	Quantity (estimated)	Unit Cost (labor & equip)	Freq (yr)	Cost	
				Labor & Equip	Labor
Drainage Channel Cleaning	652,101 sq.ft.	\$0.04 /sq.ft.	6	\$156,504	\$101,728
Drainage Channel Herbicide	652,101 sq.ft.	\$0.01 /sq.ft.	1	\$6,521	\$4,239
Drainage Channel Inspection	652,101 sq.ft.	\$0.01 /sq.ft.	6	\$39,126	\$25,432
Drainage Bar Screen Cleaning	8	\$6.57 each	16	\$841	\$547
Irrigation Bar Screen Cleaning	1	\$26.55 each	212	\$5,629	\$3,659
Total \$				\$208,621	\$135,604
Total FTEs					1.8

Costs to Maintain Wetlands

This section will present cost information collected, to date, to maintain the wetlands and their buffer areas within the Project. Information from several sources is presented and analyzed in an effort to determine: 1) the number of FTEs that would be required to maintain the wetlands at their current level and 2) if the DRDD Operating Budget, which is the funding mechanism to maintain the wetlands, provides a reasonable projection of maintenance costs.

Current Wetland Maintenance

Landscaping within the wetlands' perimeter fence is currently performed by four, full-time employees of Damonte Family, LLC and consists of one day/week of trash removal and four days/week of weeding, spraying and planting at a total monthly cost of approximately \$10,000.00 month, which includes labor, vehicles, equipment, and chemicals (L. Damonte, Damonte Family, LLC, personal communication).

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Landscaping of the wetland buffer areas (i.e. the area located between the perimeter fence and the private property fences, which includes the levee bike/walk path) is performed by Peri Landscaping. Approximately five full-time laborers work year-round, and an additional four full-time laborers work during the spring and summer months (Melodee Heeger, Peri Landscaping,

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personal communication). Costs to maintain the buffer areas of the wetlands, regardless of staffing, are a flat, monthly rate of ~~\$7,800.00~~ per month, which includes labor, equipment, and chemicals and do not include maintenance of the streetscapes in the Project, which are maintained by the DRLMA (Melodee Heeger, Peri Landscaping, personal communication).



DRDD Operating Budget

The current funding mechanism for the DRDD is the quarterly assessment of Homeowner's Association Fees, based on the DRDD Operating Budget. Costs to maintain the wetlands (including the berms, levees, bike/walk paths, and landscaping) were estimated by using information provided in the Draft 2005-06 DRDD Operating Budget Summary (Appendix K), provided by Associated Management, Inc., combined with information acquired through personal communications with representatives from Nevada Tri Partners, LLC; Damonte Family, LLC; and Peri Landscaping.

The Draft 2005-06 DRDD Operating Budget Summary (DRDD Budget) refers to wetland maintenance as "Landscape/Maintenance" and storm drainage maintenance as "Channel Cleaning/Inspection" (C. Carter, Nevada Tri Partners, personal communication). Per the DRDD Budget, \$67,500.00 is allocated for wetlands maintenance and \$50,000.00 is allocated for storm drainage facility maintenance, as presented in Appendix K. The maintenance work is performed by contractors (C. Carter, Nevada Tri Partners, personal communication), which include Peri Landscaping (T. Cleary, Associated Management, Inc., personal communication) and four, full-time employees that earn \$10.50/hr without benefits (L. Damonte, Damonte Family, LLC, personal communication). If it is assumed the DRDD Budget is based on an hourly labor rate of \$10.50 (without benefits), it currently funds 3 FTEs to maintain the wetlands and 2 FTEs to maintain the storm drainage facilities for a total 5 FTEs, as shown in Table 4.

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Table 4: Estimate of Number of Full Time Equivalents Funded by the Damonte Ranch Drainage District Operating Budget

Facility	DRDD Budget	Hourly Labor Rate	Full Time Equivalents
Wetlands	\$67,500	10.5	3
Storm Drainage Facilities	\$50,000	10.5	2
Total Number of FTEs			5

Source: Draft 2005-06 Damonte Ranch Drainage District Operating Budget

Cost of Maintenance Conclusion

Considering that the maintenance of wetlands and buffer areas consists primarily of general landscaping activities, the City could save considerable funds by employing contract labor to perform this work. The maintenance of storm drain channels, however, requires more technical expertise, preferably performed by trained city employees. Thus, costs for drainage facility maintenance is estimated in units of FTE.

Peri Landscaping currently employs five workers in the fall/winter and nine workers in the spring/summer to maintain the wetland buffer areas, and the Damonte Ranch Family, LLC currently employs four laborers to maintain the wetland areas within the perimeter fence, Steamboat Creek, and the Crane and Clow Ditch. Based on the above information, maintenance of the wetlands and their buffer areas, Steamboat Creek, and the Crane & Clow Ditch currently requires between 9 and 14 full-time laborers. However, the DRDD Budget only provides funding for three full-time laborers to maintain the wetlands and buffers, and no reference is made to maintaining Crane & Clow Ditch or Steamboat Creek. This discrepancy suggests the DRDD Budget does not reasonably reflect actual maintenance costs or activities associated with maintaining the wetlands and their buffers. It appears the DRDD Budget for wetland maintenance needs to include Crane & Clow Ditch and Steamboat Creek maintenance activities, and be significantly increased to ensure appropriate fees are collected.

The DRDD Budget suggests that revenue is collected to fund two full-time laborers to maintain the drainage facilities, while the cost analysis in Table 3 yielded an estimate of two Level 1 FTEs required to maintain the drainage facilities (not including equipment and administrative costs). Note that the cost of one laborer is much less than the cost of one FTE. This suggests that the DRDD budget does not provide a reasonable estimate of the costs associated with drainage ditch maintenance.

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It is expected that nine laborers, which may be contracted at approximately \$10.50/hr, will be needed to maintain the wetlands and their buffer areas. Maintenance of those drainage facilities that are currently the responsibility of the DRDD (i.e. drainage channels) are expected to require two FTEs at full build out. A summary of actual, budgeted, and estimated FTEs that will be required to maintain the wetland and storm drainage facilities at Damonte Ranch is presented in Table 5. Equipment costs were estimated as 54% of labor costs, and Administrative costs were estimated at 17.4% of the combined labor and equipment costs, based on City of Reno Public Works 04/05 budget data provided by Erich Strunge.

Table 5: Summary of Estimated Labor, Equipment and Administrative Costs to Maintain Wetlands and Drainage Channels at the Damonte Ranch

Facility	Present Number of Laborers	Estimated Labor Required	Labor Cost	Equipment Cost	Admin Cost	Total Cost
Wetlands and Buffer Areas	3 Laborers	9 Laborers	\$196,560	\$105,840	\$52,600	\$355,000
Drainage Channels	0.6 FTE	2 FTEs	\$153,920	\$82,880	\$41,200	\$278,000
					TOTAL	\$633,000

In summary, it is estimated that the City of Reno will require two FTEs to maintain the drainage channels, and maintenance of the wetlands and their buffers will require nine full-time laborers, which may be contracted. The total estimate for maintenance of wetlands, buffer areas, and drainage channels, including equipment and administration costs is \$633,000. It should be noted that development at the Project has been a dynamic process, as evidenced by revisions to the permit and the Mitigation Plan in response to changes, and that these changes could result in the need for revisions and updates to cost estimates as build out continues. ~~Storm Water Management and Low Impact Development~~

Cost of Maintenance Conclusion — TAKE 2

The purpose of this section is to comment on Damonte Ranch's consistency with the City of Reno's consideration of Low Impact Development Concepts. Storm water management from new development at Damonte Ranch is accomplished through the combined use of conventional storm drainage systems and wetlands. Runoff is conveyed from impervious streets, driveways, and sidewalks to curb and gutter systems, storm drain inlets and underground storm drain pipes. The storm drainage systems associated with the new development located north and west of the wetlands discharge to Steamboat Creek or to open channels that convey flows to the creek. Whereas the storm drainage systems associated with

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the new development located south and east of the wetlands discharge directly to the wetlands or to open channels that convey flows to the wetlands. Currently nine storm drain outfalls discharge to the south and east sides of the wetlands. Construction of new outfalls and open channels is currently active in the area bordered by Pioneer Parkway, Rio Wrangler Parkway and Big Trail Circle. Runoff from storm events, lawn and landscape irrigation, and washing activities enters the underground storm drainpipes and either discharges directly into the wetlands or intentionally leaks out of open jointed pipes. Open jointed pipes surrounded by a gravel envelope have been installed in several areas of the Southeast Truckee Meadows to increase groundwater recharge and slow the direct discharge of storm water to the wetlands (B. Carronite, City of Reno, personal communication). The relatively large storage capacity of the wetlands and the addition of open jointed storm drain pipes with gravel envelopes should effectively mitigate the increased volume of runoff from the new developed impervious surfaces at Damonte Ranch. Open jointed pipes have also been installed within the Project area under the roadways to dewater high groundwater that resulted from ongoing irrigation prior to the Project (R. Simms, Odyssey Engineering, personal communication). The open jointed pipes are enclosed in gravel (to provide bedding for the pipe) and wrapped in a filter fabric (to prevent the inflow of sediment). Sedimentation of the open jointed pipes is not expected, as they are wrapped in filter fabric to prevent the infiltration of sediment.

Low impact development (LID) is an innovative storm water management approach with the basic principle that is modeled after nature: manage runoff from rainfall and urban use of water at the source using uniformly distributed decentralized micro-scale controls. The goal of LID is to mimic predevelopment hydrology using site design and landscaping techniques that effectively capture, filter, store, evaporate, detain and infiltrate runoff close to its source. LID practices reduce the quantity of runoff and treat pollutants using passive physical, biological and chemical processes. LID design and landscaping techniques include the following:

- Vegetated swales and buffer strips (grassy and xeriscape)
- Biorentention or landscape detention basins
- Porous paving systems (porous concrete and asphalt and permeable pavers)
- Cluster development and open space preservation

Swales, buffer strips, and biorentention basins can be incorporated into the landscaping of all urban developments. Runoff from developed impervious surfaces can be directed to these LID practice through grade design, addition of berms, curb cuts, and trench drains. Roof gutter down spouts can also be directed towards these LID practices and other pervious surfaces and vegetated areas.

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The distributed use of alternative porous paving systems underlain with a gravel subbase can also effectively reduce the volume and increase the quality of urban runoff. Porous paving systems such as pervious concrete or asphalt, and/or porous pavers can be installed in parking turnouts, driveways, sidewalks and bike/walk paths.

Protection of native vegetation and open space, and reduction in the amount of directly connected hard surfaces and compacted soils can be accomplished by clustering developed structures, such as rows of new homes separated by areas of native vegetation, open space or parkways. If native soils are clays or silts with poor infiltration characteristics, soil amendments can be added to developed common areas, parks and fields to improve infiltration and retention of runoff.

LID practices are based on the premise that storm water management should not be seen as merely storm water disposal. Instead of conveying the majority of runoff in underground pipes and managing and treating storm water in large, costly end-of-pipe facilities located at the bottom of drainage areas, LID addresses storm water through small, cost-effective landscape features located at the lot level.

LID practices and design features have been incorporated into some of the homes in Damonte Ranch. Sand, rock or bark and low water use plant buffers are installed around some residential front lawns. Depending on the depth of the sand, rock, bark and amended soils, and the use of pervious liners, these buffers may potentially reduce runoff from turf irrigation and could improve the infiltration and retention of storm water. In addition, some homes have roof gutter down spouts directed towards pervious surfaces such as decorative rock or bark and vegetated areas. However, the majority of homes in Damonte Ranch do not have rain gutters and roof runoff either falls onto impervious surfaces such as concrete paths and driveways or to pervious surfaces such as gravel or landscaped beds. Some of the homes with rain gutters also have down spouts directed towards directly connected impervious concrete driveways. Many of the homes in this subdivision are relatively large (2,000 ft² or greater), with small front and rear landscaped yards, and relatively little space (20 to 30 ft) between adjacent houses. As noted above, most of the underground storm drain systems associated with the new residential developments located south and east of the wetlands discharge directly into the wetlands. Since the wetlands include a number of bays surrounded by developed areas, the existing nine outfalls drain relatively small developed areas. Therefore the quantity of storm water discharging from each outlet should be relatively small and unless illicit discharges from illegal dumping of wastes occurs, the quality of the water discharging to the wetlands should be relatively good. Maintenance of the various distributed LID practices and design features in the private homes in Damonte Ranch should primarily be the responsibility of the individual homeowner.

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Issues of Responsibility

The following section raises issues that should be considered as the City makes a decision to take maintenance responsibility of the wetlands and the drainage facilities. City staff requested that these issues be considered in light of three alternatives for maintaining the wetlands portion of the facilities: the City maintains the wetlands; the DRDD maintains the wetlands; or the County maintains the wetlands.

Jurisdiction of Wetlands

Damonte Ranch's wetlands are mostly located in a County "island" within the City corporate boundaries. When Damonte Ranch and the other properties to the north were annexed into the City of Reno, the wetlands were purposely excluded from the annexation and left in Washoe County. Research into the County Assessors and County Recorder's documents show that most of the wetlands are in unincorporated Washoe County, as presented in Appendix L. Portions of Damonte Ranch have been annexed into the City of Reno, but the DRDD facilities have not. Phone conversations with City and County staff have indicated that they believed that all of Damonte Ranch had been annexed, and were not aware of any intention to hold any piece back. (Chris Robinson, John Hester, and Gary Stockhoff, City of Reno; Jeanne Reuffer, Washoe County). Nevada Tri Partners may have excluded the wetlands from annexation and are waiting until locations have been finalized, construction completed, and final acceptance has been received from the USACE.

It may seem simpler for the County to provide the operation and maintenance, since the land is currently in its jurisdiction. However, this jurisdiction may be transferred to the City if annexation continues to the east and south, as intended when the City first decided to annex Damonte Ranch.

Ownership of Wetlands

Table 6 presents a summary of the known constructed wetlands in the Truckee Meadows and Washoe Valley. Reno, Sparks, and NDOT are the owners of most of the wetlands in the area, with Washoe County owning a very small portion.

If the City of Reno accepts the operation and maintenance of the Damonte Ranch wetlands, it will provide an opportunity for a consistent program to maintain all wetlands in the last meadows remaining in the Truckee Meadow, integrating them with Rosewood Lakes, Heron's Landing and the future wetlands planned in Bella Vista and the other developments that are within the City (with the exception of the airport mitigation wetlands). Reno could have a coordinated management plan for maintaining desirable plant species, invasive species and vector control, groundwater and surface water management to support the wetlands, and maintaining trails.

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Washoe County is currently responsible for maintenance of the wetlands along Evans Creek in Rancho San Rafael Park north of McCarran Blvd. The County is planning to construct additional (mitigation) wetlands along Evans Creek south of McCarran Blvd. Maintenance of the Damonte Ranch wetlands would certainly be within the capabilities of County staff; however, the Damonte Ranch wetlands differ from the Rancho San Rafael Park wetlands in soils, vegetation, topography, trees, size, and recreational use patterns. If another party such as the County or the DRDD had sole responsibility for maintaining the Damonte Ranch wetlands, additional efforts would likely be required by the City and other parties to coordinate management strategies.

Table 6: Wetland Ownership in the Truckee Meadows

Wetland	Owner	Area (ac)
Rosewood Lakes	City of Reno	219
Heron's Landing	City of Reno	10.5
South Washoe Valley	NDOT	300
Wingfield Springs	Homeowners Association	50
Kiley Ranch	City of Sparks	275
Reno-Tahoe Airport	Airport Authority of Washoe County	5.5
Rancho San Rafael	Washoe County	14.9
Damonte Ranch	Nevada Tri Partners	172.7

Flood Control

The Damonte Ranch wetlands are part of the flood storage volume for Damonte Ranch, detaining runoff directly from the residential area Southeast of the wetlands and receiving overflow from Steamboat Creek during stream flows greater than a 50-year event. The channels, detention basins and wetlands were designed to pass flows running on to Damonte Ranch from upstream portions of the watershed.

The Truckee River Flood Management Project is an ongoing planning process that began after the 1997 flood and has been developing alternatives and analyzing them with the hope of recommending a preferred alternative by the end of 2006. Damonte Ranch is not included in

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the Flood Management Project because a Drainage Plan was previously accepted that provided for storage of the 100-year event on Steamboat Creek. There may be opportunities to mitigate the floodplain north of Damonte Ranch by deepening, expanding or re-rating the capacity of the Damonte Ranch wetlands and detention basin. Properties along Steamboat Creek between Damonte Ranch and the Truckee River are included in some of the floodplain storage volume alternatives as potential areas to be inundated. It is unknown at the time of this writing what alternative will be accepted and implemented, or how much land will be reserved for flood plain mitigation, or what role the wetlands throughout the South Truckee Meadows will play in the flood plain storage.

The City of Reno Public Works Department and the City Manager are represented on the Truckee River Flood Management Project steering committee and executive committee. It is recommended that those representatives be aware of the maintenance responsibilities of the City for any of the considered alternatives. It is also recommended that the City obtain an integrated drainage model from Quad Knopf (formerly Nimbus Engineers) who has modeled and developed the flood control plans for most of the subdivisions in the Southeast Truckee Meadows. The integrated model should show the City how the full set of channels, detention basins and wetlands function together under the scenarios required by City codes and the scenarios of flooding that are used in the Truckee River Flood Management Project.

Sediment Control

Four major washes drain the eastern slopes of the Virginia Range and discharge directly into channels that lead to the Damonte Ranch wetlands. This provides the potential to carry sediment into the wetlands, both from natural erosion of steep slopes and from adjacent and upslope ground disturbing activities, such as the construction of new residential and commercial structures and associated roadways. For those developments in the City that drain into the wetlands, the City and the property owners in the City would be responsible for any sediment discharged into the wetlands. Since Washoe County is responsible for enforcing the implementation and maintenance of construction site erosion and sediment controls, it follows that the County and the property owners in the County would be responsible for installing and maintaining adequate construction site sediment controls at hillside developments upslope of the wetlands. If the NPDES permit required sediment controls were not in place and sediment was deposited in the wetlands from hillside developments during a storm event, the County and the property owners in the County would be responsible for clearing the sediment. By rough estimation of the drainage area, Washoe County has several thousand acres draining to the wetlands whereas the City of Reno has several hundred acres; therefore, it is recommended that Washoe County should be diligent in requiring best management practices (during construction) and adequate long term controls to prevent additional debris and sediment from washing into the wetlands.

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Water Quality

Wetlands have the potential to improve the quality of water running through them. In the case of the Damonte Ranch wetlands, the volume of storm water running through them is relatively small. Only the residential area located southeast of the wetlands currently drains into the wetlands. The larger area to the west and north of the wetlands drains directly into Steamboat Creek. In addition, Steamboat Creek only flows into the wetlands in overflow conditions, designed to occur during 50-year flood events. The Virginia Range drainages that discharge directly into the wetlands are the other significant drainage area that will benefit from water quality improvements. Although the City may want to use the wetlands as a portion of its regional Total Maximum Daily Load (TMDL) management program for non-point pollution, the contribution may be relatively minor in its present configuration.

The wetlands may have potential for water quality improvement of temperature, suspended solids, nitrogen, and phosphorus. However the concentration of some water quality constituents may increase in the wetlands. Although wetlands have the potential for some water quality improvements, it must be remembered that they are classified as "Waters of the United States" (WOUS), and it is prohibited to discharge pollutants into WOUS. Therefore the wetlands should not be expected to collect trash and sediment and treat other pollutants from urban and construction runoff. Instead, active treatment should take place in sedimentation basins, vegetated swales and other structural treatment controls prior to entering the wetlands.

The City of Reno has taken the lead responsibility for negotiating NPDES permits for both wastewater and storm water. Steamboat Creek and its tributaries provide one of the largest potentials for controlling non-point sources of pollution from urban runoff, agricultural runoff, geothermal discharges and Washoe Lake discharges. The current round of NPDES permit negotiations and TMDL setting make clear that Reno, Sparks and Washoe County must balance point sources (wastewater) and non-point sources. As the lead agency in water quality management and permit negotiation, it is to Reno's advantage to have control over stream zones and wetlands so that it can implement best management practices and structural treatment controls whenever and wherever it deems appropriate.

District Formation

Three private districts have been formed in Damonte Ranch: the DRDD, the DRLMA, and the Commercial Landscape Association. Nevada Revised Statutes (NRS) 271 gives the authority to form, accept and administer districts for the purpose of operating public services to counties, but not to cities. Attempts to broaden the statute to include cities have failed in the last two legislatures but there are plans to continue to pursue the change. The City of Reno cannot accept ownership of the DRDD. It can however enter into an agreement with DRDD in which the DRDD owns the facilities, collects fees from property owners, and the City accepts payment to maintain the facilities.

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Cities are authorized to form, accept, and administer landscape maintenance associations; however, they are narrowly defined to cover maintenance of landscaping along public streets and to collect association fees from residential properties in the neighborhood. Landscaping along drainageways or other common spaces is not included and the City cannot collect fees from commercial properties. The Damonte Ranch LMA only takes care of the landscaping along streets.

Washoe County on the other hand does have the authority to accept ownership of the DRDD. The County could take the responsibility of an elected board and develop a budget and bill the district landowners for the cost of service. Washoe County has enacted a code enabling the formation of a storm water district and collection of fees to support maintenance and administration of storm water and flood control facilities. One such district has been formed in the unincorporated portion of Spanish Springs Valley for maintenance of drainage channels and regional detention basins.

Recreation

The City of Reno is currently updating its Open Space and Greenways Plan. Greenways are defined in the City plan as linear open spaces established along natural corridors, such as a stream, for the purpose of conservation, recreation or alternative transportation. The Damonte Ranch trails, drainage channels, and wetlands are typical of the components desired in the plan. Excerpts of Reno's goals for Open Space and Greenways are as follows:

- Greenways should include environmental features such as wetlands and drainage ways
- Prioritize greenways that serve multiple purposes such as flood control
- Provide connections between urban green spaces and rural open spaces
- Coordinate with other local and regional plans, including the Steamboat Creek Restoration Plan
- Identify implementation strategies, including direct funding and grants
- Identify solutions for maintenance of new features

The trail system in development runs includes a section along Steamboat Creek and is intended as a regional amenity that allows bicycle and foot traffic around the entire circumference of the Truckee Meadows. The trail system is a cooperative program among Washoe County, City of Reno, City of Sparks, and other entities. If incorporated into the Steamboat Creek trail system, the Damonte Ranch trails would then become accessed by more than the residents of Damonte Ranch. From the perspective of managing a consistent system of trails and scenic destinations,

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either Reno or Washoe County would have the ability to add these wetlands to their portion of the system. Since the trails and wetlands are within the City of Reno and are typical of the components of Reno's Open Space and Greenways Plan, it would be most appropriate for Reno to take responsibility for them.



Safe Harbors Agreements

The U.S. Fish and Wildlife Service (USFWS) promulgated its Safe Harbors Policy in 1995 because the Endangered Species Act (ESA) created negative incentives for landowners to create, restore, or maintain habitat for threatened or endangered plant and/or animal species. The presence of these species can reduce the value of a property because the ESA limits the types of activities a landowner can apply to the property. This often makes landowners and developers view habitat that could potentially attract threatened or endangered species as a liability, and discourages them from creating, restoring and preserving habitat such as wetlands. Safe Harbor Agreements are intended to encourage private landowners to create, restore, and maintain habitat (or potential habitat) without fear of incurring additional regulatory restrictions. Safe Harbor Agreements provide guarantees to landowners who work with the USFWS that the landowners' management activities will not result in further regulations. They protect private property rights and encourage landowners to conduct voluntary conservation activities and beneficial stewardship efforts that might result in increased species populations. As long as the enrolled landowner maintains their baseline responsibilities, they may make any lawful use of their property.

The USFWS and the National Marine Fisheries Service (NMFS) jointly published the final Safe Harbor policy and the regulations to implement that policy in 1999. In May 2004, the USFWS issued revised regulations to resolve inconsistencies between the policy and the regulations. The revisions were intended to make Safe Harbor and Candidate Conservation Agreements with Assurances (Safe Harbors Agreements) easier to understand and implement. They were also intended to provide better incentives for landowners to use these programs. The goal of

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the 2004 regulations was to enhance the ability of the ESA to protect populations of threatened and endangered species. However, organizations such as Environmental Defense have noted that to make real improvements, the USFWS needs to go further and turn endangered and threatened species into assets for landowners, instead of merely limiting the liability landowners face when threatened or endangered species are found on their land.

From 1995 to 2003, approximately three million acres of land had been enrolled in Safe Harbors Agreements, and many more have been drafted and are awaiting final approval. Existing agreements are located in several states across the country. The agreements benefit a wide variety of species and landowners such as private forest owners, ranchers, residential property owners, corporate landowners, golf courses, and a monastery.

The first step in determining whether a Safe Harbors Agreement is appropriate is to determine if there are any threatened or endangered species within the area of interest or if the land provides potentially suitable habitat. This information and the type of land management actions that can be taken to create, restore, preserve, and/or maintain suitable habitat can be obtained from local sources such as the National Resources Conservation Service (NRCS), the Nevada Department of Wildlife (NDOW), the Washoe-Storey Conservation District (WSCD) or the Nature Conservancy. If such activities are consistent with the landowners' land-management objectives, a Safe Harbors Agreement may be appropriate. In order for the USFWS to issue such a permit, they must conclude that the actions to be undertaken by the landowner produce a "net conservation benefit" to the species. The policy also specifies how "baseline" conditions are to be determined, what happens in the event that there is a change in ownership of property, and other details.

An example of a successful Safe Harbors Agreement in the southwest US is in New Mexico. In June 2002, The Pattersons entered into a Safe Harbors Agreement intended to benefit several species on 309-acre section of their ranch located near Luna, New Mexico. Management actions outlined in the 30-year-agreement include riparian restoration activities, such as planting native vegetation and controlling erosion, as well as other overall management actions such as conducting prescribed burns, selective timber harvesting, and controlled grazing. In return for their beneficial land management, the Pattersons are relieved of increased ESA restrictions if, in the future, any of five federally protected species settle on the portion of their property enrolled in the agreement. These species include two endangered species: the southwestern willow flycatcher and the Mexican gray wolf, and three threatened species: the bald eagle; the Mexican spotted owl; and the loach minnow. None of these species were present on the Pattersons' property when the agreement was initiated. As in all Safe Harbor Agreements, the Pattersons are only responsible for protecting the baseline, which in their case is zero.

The proposed Safe Harbors Agreement for Indian Springs in White Pine County, dated August 2003, is the only known agreement in Nevada. The proposed agreement includes actions such as the introduction of the White River spinedace by NDOW and the USFWS and access for monitoring and maintenance. The proposed agreement stipulates that the introduced

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population of White River spinedace is secure from various land management activities for a period of five years, which includes: earthmoving activities; removal of vegetation; controlled burn activities and grazing within a defined distance of the springs, the stream and the pond; interruption, reduction or elimination of water flow from the springs to the pond; stocking of exotic fish or amphibian species in the springs, the stream or the pond; and draining the pond more than 25 percent of its capacity. After protecting the springs, the stream and the pond and the adjacent habitat for a period of five years, the landowner may then conduct otherwise lawful activities that may result in the partial elimination of the springs, the stream, or the pond, and the incidental taking of White River spinedace. However, the restrictions on returning the White River spinedace to its original baseline condition include NDOW and USFWS notification a minimum of three months prior to the activity to provide the agencies the opportunity to capture, rescue, and/or translocate the fish. The return baseline conditions must also be completed within the 30-year term of the agreement. The USFWS has made a preliminary determination that approval of the Safe Harbors Agreement for Indian Springs qualifies as a categorical exclusion under the NEPA.

The Cities of Reno and Sparks and Washoe County should consider the facilitation of a Safe Harbors Agreement with the landowners of all of the wetlands in the Truckee Meadows. A watershed-wide Safe Harbors Agreement for the Truckee Meadows would create regionally consistent policies and procedures that define how wetlands should be created, restored, preserved, and maintained. It should be structured to encourage wetland landowners to maintain viable wetlands that attract native species. A watershed-wide Safe Harbors Agreement would also protect wetland landowners from additional regulations if threatened or endangered species were to inhabit the wetlands after the agreement was established. A similar watershed-wide agreement that could be used as a model was recently established for the watershed in central California.

As noted previously, under a Safe Harbors Agreement landowners are only responsible for maintaining baseline conditions. They cannot be required to make additional improvements if threatened or endangered species were to later inhabit the wetlands. Whereas improvements and/or change land management activities may be required where the landowner does not have a Safe Harbors Agreement. The agencies and groups that would likely be involved in the development of a watershed-wide Safe Harbors Agreement for the Truckee Meadows would be the wetland landowners, NDOW, the USFWS, the Cities and the County and potentially the Washoe-Storey Conservation District and/or The Nature Conservancy. It should be noted that it generally takes several years to establish a Safe Harbors Agreement.

In the case of the Damonte Ranch wetlands, a Safe Harbors Agreement could be developed to clearly define water rights and irrigation delivery schedules, and maintenance responsibilities and procedures. The Nevada Natural Heritage Program reported that a survey of the Project area conducted in 1995 did not report any plant or animal species listed by the USFWS (i.e. threatened, endangered, or species of concern), but did report the presence of the Townsend's Big-Eared Bat (*Corynorhinus townsendii*), which is listed as "protected" by the State of Nevada

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and "sensitive" by the Bureau of Land Management (E. Miskow, Nevada Natural Heritage Program, personal communication). A more recent survey would likely be requested by NDOW and the USFSW if a watershed-wide Safe Harbors Agreement, or one specific to the Damonte Ranch wetlands, is pursued.

Maintenance Alternatives

There are two options that are viable. The first is for the City of Reno to maintain the Damonte Ranch wetlands and storm drainage facilities. At present this would be done through a cooperative maintenance agreement with the DRDD that owns the wetlands. The DRDD would continue to collect fees from property owners, and would pay the City of Reno to manage and maintain the facilities. In the future, legislation may allow the DRDD to transfer ownership and fee-collecting authority to the City for clear and simple responsibility for maintenance and management.

The second option is for Washoe County to maintain the wetlands by accepting the ownership of the DRDD as a County district and the City would maintain the channels. The City would then endeavor to coordinate with the County on issues of flood control, water quality management and trail/greenway connections in this County "island" of wetlands surrounded on all sides by the City of Reno.

Recommendations

It is recommended that the City of Reno accept maintenance of the wetlands and drainage facilities in Damonte Ranch, and continue to follow that precedent with other developments in the Southeast Truckee Meadows.

The Southeast Truckee Meadows have the largest remaining wetlands in the Truckee Meadows, providing a unique opportunity for open space trails and habitat. The Southeast Truckee Meadows is also one of the most, if not the most, significant flood plains in the region, providing a significant opportunity for regional flood control protection. In addition, the Southeast Truckee Meadows has adopted a development style that emphasizes the incorporation of open surface waters, offering an opportunity to manage storm water quality from a whole set of "Greenfield" subdivisions using low impact development techniques.

Smart growth has been touted as the desired planning concept, but it only is smart if it actually is built and maintained that way. The goals of regional trails, regional flood control and regional water quality protection can only be achieved if the representational government takes the responsibility for owning and managing the facilities that meet those goals. It is strongly recommended that the City accept the Damonte Ranch wetlands and channels, and be

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prepared to accept all of the channels, detention basins and wetlands in the surrounding developments. The City will then be able to review designs to fit its long-term plans, exercise control over maintenance, modification and extension of the facilities, and integrate Damonte Ranch with other residential, commercial, public facilities and greenways.

The developer agreements and maintenance agreements that will be developed for Damonte Ranch can become the prototype for the City to use on new developments.

It is recommended that the City continue to advocate a revision to the NRS regulating General Improvement Districts to enable Cities to establish a district to collect fees to fund the operation of drainage and flood control facilities.

In the long term it makes sense for all wetlands, open space and trails to become part of the City's network of parks and public works. And the level of care would be consistent among all of the wetlands in the Southeast Truckee Meadows, which are within the City of Reno. Acceptance of the wetlands cannot take place until Nevada Tri Partners receives USACE certification, which may not occur until 2010.

In the time leading up to certification the City would have to take the following actions:

- Annex the wetlands area into the City
- Draft and advocate a legislative amendment of the NRS regarding maintenance district authority
- Condition other developments in the South Truckee Meadows to follow the Damonte Ranch precedent for district formation
- Follow CC&R procedures for election of a City of Reno representative to the DRDD board
- ★ • Require the DRDD to increase its budget to provide full cost recovery before the City begins maintenance
- ★ • Require an audit and financial review of the DRDD
- ★ • Identify what maintenance funding mechanism will replace the DRDD budget, should the DRDD cease to exist
 - Negotiate the agreement between DRDD and the City
 - Sign the agreement contingent upon USACE wetland certification
 - Establish the right to sell or use credits in the 25-acre mitigation bank as belonging to either Nevada Tri Partners or the City, with commensurate funding of maintenance
- ★ • Analyze the erosion potential of the grass- and rock-lined earthen drainage channels

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- Consider the requirement of environmental assessment to analyze channel bottom and bank stability, erosion, and sedimentation for future drainage channels
- Require the repair or reconstruction of any portions of the drainage facilities that were damaged by storms or were not constructed according to approved designs or County Standards
- Determine the DRDD's obligation to maintain Crane & Clow
- Require the implementation of erosion control on the Crane & Clow Ditch
- Determine if Damonte Family, LLC has an agreement with Nevada Tri Partners, LLC for terms for service and terms for transfer to the DRDD
- Require the permanent transfer of 225 acre-feet of water rights for the preserved wetlands
- Analyze the seniority of DRDD water rights from Steamboat Creek
- Pursue a Safe Harbors Agreement

Agreements

Three forms of agreements have been drafted for the City's review and are presented in Appendix M. The agreements propose three strategies, as follows:

- Strategy 1 City maintains wetlands and drainage channels
- Strategy 2 City maintains channels only and DRDD maintains wetlands
- Strategy 3 City maintains channels only and County maintains wetlands

The City may use the one that reflects their choice of responsible party for the wetlands. Strategy 1 is the recommended alternative.

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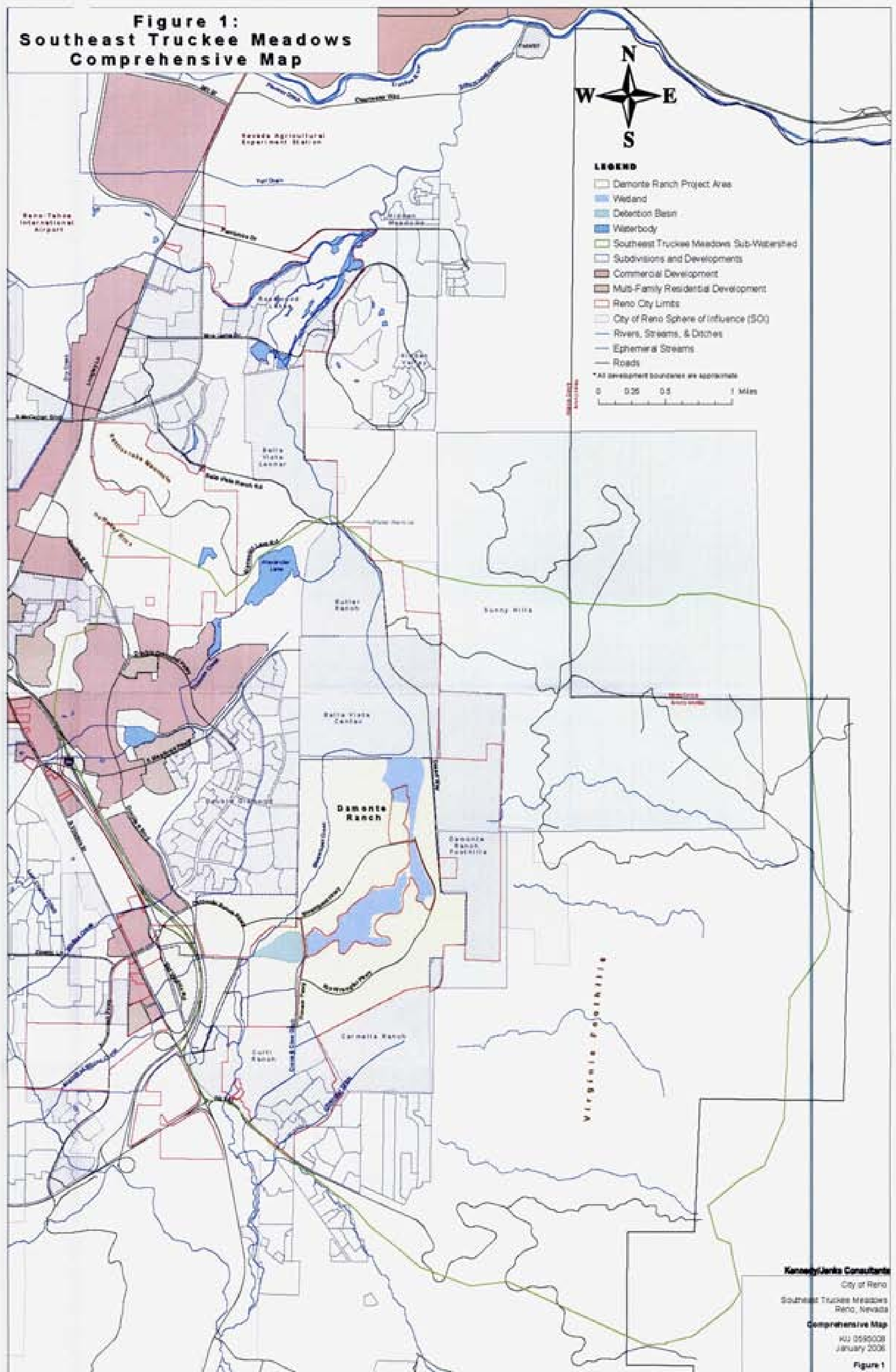
Roadhouse, Wilbur, 2003. Master Declaration of Covenants, Conditions and Restrictions and Reservation of Easements for Damonte Ranch.

**Figure 1:
Southeast Truckee Meadows
Comprehensive Map**



LEGEND

- Damonte Ranch Project Area
 - Wetland
 - Detention Basin
 - Waterbody
 - Southeast Truckee Meadows Sub-Watershed
 - Subdivisions and Developments
 - Commercial Development
 - Multi-Family Residential Development
 - Reno City Limits
 - City of Reno Sphere of Influence (SOI)
 - Rivers, Streams, & Ditches
 - Ephemeral Streams
 - Roads
- *All development boundaries are approximate
- 0 0.25 0.5 1 Mile
-

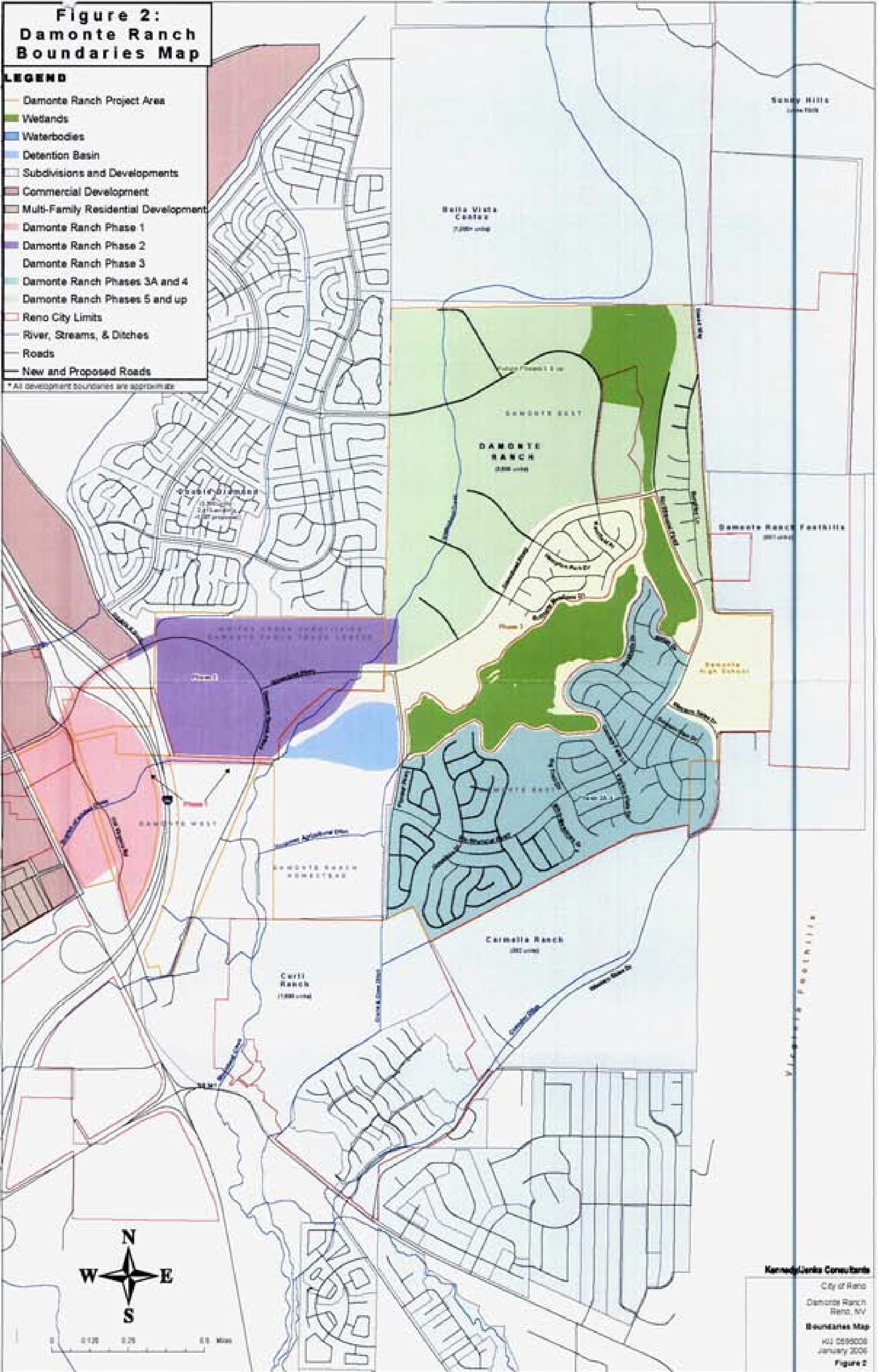


**Figure 2:
Damonte Ranch
Boundaries Map**

LEGEND

- Damonte Ranch Project Area
- Wetlands
- Waterbodies
- Detention Basin
- Subdivisions and Developments
- Commercial Development
- Multi-Family Residential Development
- Damonte Ranch Phase 1
- Damonte Ranch Phase 2
- Damonte Ranch Phase 3
- Damonte Ranch Phases 3A and 4
- Damonte Ranch Phases 5 and up
- Reno City Limits
- River, Streams, & Ditches
- Roads
- New and Proposed Roads

*All development boundaries are approximate

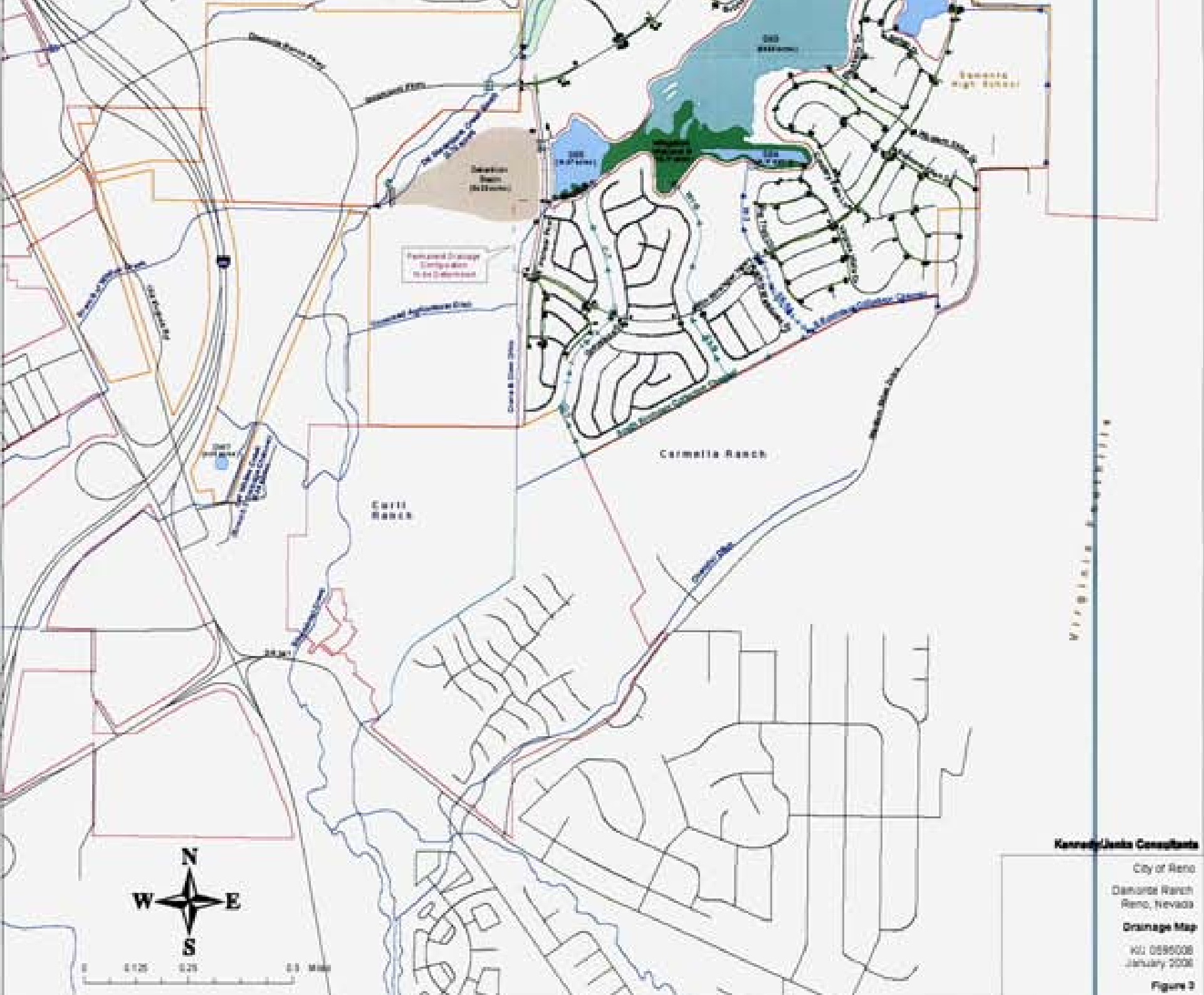


**Figure 3:
Damonte Ranch
Drainage Map**

LEGEND

- Damonte Ranch Project Area
- Avoided Wetland
- Preserved Wetland
- Mitigation Wetland
- Potential Future Mitigation Wetland Bank
- Detention Basin
- Waterbody
- Reno City Limits
- Road
- New or Proposed Road
- Rivers, Streams, & Irrigation Ditches
- Irrigation and Storm Water Drainage Channel
- Storm Water Drainage Channel
- Maintenance Access Ramp
- Concrete Apron
- Riprap
- Levee
- Irrigation Pipe
- Box Culvert
- Culvert
- Drop Structure
- Catch Basin (Odyssey Engineering, Inc.)
- Catch Basin (City of Reno)
- Culvert Inlet
- Culvert Outlet
- Irrigation Inlet
- Irrigation Outlet

Water Feature	Mitigation (ac)	Preserved (ac)	Avoided (ac)
100' Wetland	20.0		
100' Wetland	16.7		
100'		10.0	
100' Wetland (New Storm Storage)		1.0	
100'		0.0	
100' Wetland (New Storm)		0.0	
100'	10.1		
100'	4.0		
100'	10.0		
100' Wetland (New Storm)		1.0	
100' Wetland (New Storm)	14.0	10.0	1.0



Kennedy/Jenks Consultants

City of Reno
Damonte Ranch
Reno, Nevada
Drainage Map
WJ 0895028
January 2008

Figure 3

Appendix A



Appendix A
2003 Covenants, Conditions, and Restrictions for
Damonte Ranch

APN: 140-020-03 through 140-020-09, inclusive; 140-020-15;
140-020-17; 140-020-18; and 140-020-20

0221101938

WHEN RECORDED, RETURN TO:

WILBUR M. ROADHOUSE, ESQ.
Gould, Patterson Ales, Roadhouse & Day
4496 South Pecos Road
Las Vegas, Nevada 89121
(702) 438-2600

(Space Above Line for Recorder's Use Only)

**MASTER DECLARATION
OF
COVENANTS, CONDITIONS AND RESTRICTIONS
AND RESERVATION OF EASEMENTS**

FOR

DAMONTE RANCH

(a Nevada Master Planned Community)
Master Landscape Maintenance Association
Master Flood Control Facilities Maintenance Association

CITY OF RENO, WASHOE COUNTY, NEVADA



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EXHIBIT "A" Original Property
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EXHIBIT "C" Disclosure Statement



Section 1.5 "Builder Assessment" shall mean the annual or supplemental charge against each Builder and its Builder Parcel, as determined and/or levied by Declarant and/or the LMA Board and/or the DRDD Board, until such time as the Builder Parcel has been subdivided by Recorded Plat and Units in the Builder Parcel have been conveyed to Purchasers.

Section 1.6 "Builder Parcel" shall mean that portion of the Project or Annexable Area, purchased or for purchase by a Builder, which portion has not yet been subdivided by Recorded Plat, or as to which portion Units have not been conveyed to Purchasers.

Section 1.7 "City" shall mean the City of Reno, Nevada.

Section 1.8 "Close of Escrow" shall mean the date on which a deed is Recorded conveying a Unit from a Builder to a Purchaser.

Section 1.9 "Commercial Component" shall mean certain land which does not comprise part of the residential Planned Community encumbered by this Declaration, but which shall be required to pay certain amounts for use of or benefit from certain LMA Common Elements and/or DRDD Facilities, as set forth in Article 20.

Section 1.10 "County" shall mean Washoe County, Nevada.

Section 1.11 "Declarant" or "NTP" shall mean NEVADA TRI PARTNERS, A LIMITED LIABILITY COMPANY, a Nevada limited liability company, and its successors and any Person(s) to which Declarant shall have assigned any rights hereunder by express written and Recorded assignment (but specifically excluding Purchasers, as said term is defined in NRS § 116.110375).

Section 1.12 "Declarant Rights Period" shall mean the time during which Declarant is marketing and/or selling any Builder Parcel in the Project and/or Annexable Area, and/or during which any Builder is marketing, selling, and/or constructing any Unit in the Project and/or Annexable Area, and shall extend until the Close of Escrow of the last Unit in the Project from a Builder to a Purchaser, subject to the right of Declarant, in its sole and absolute discretion, to earlier end the Declarant Rights Period, or certain rights thereunder, by express written instrument.

Section 1.13 "Declaration" shall mean this instrument as it may be amended from time to time.

Section 1.14 "Deed of Trust" shall mean a mortgage or a deed of trust, as the case may be.

Section 1.15 "Design Standards" shall mean the Damonte Ranch Single Family Residential Design Handbook, dated November 5, 2002, as may be amended from time to time.

Section 1.16 "DRDD" shall mean DAMONTE RANCH DRAINAGE DISTRICT, a Nevada nonprofit corporation, and its successors and assigns, and shall mean and refer to the entity or authority (including a Transferee District), as designated from time to time by Declarant (and/or by such Transferee District), responsible for maintenance and repair of the DRDD Facilities (which may also include activities reasonably ancillary thereto, including, but not necessarily limited to, mosquito and other pest abatement, related berm and path maintenance, Steamboat Creek, fencing, lighting, etc.) and for assessment and collection of DRDD Assessments, with certain rights and powers pertaining to the Project as set forth in this Declaration, including, but not necessarily limited to, Articles 9 and 10, below, and/or as designated from time to time by Declarant or DRDD.

Section 1.17 "DRDD Assessments" shall refer collectively to DRDD Annual Assessments, and any applicable DRDD Capital Assessments and/or DRDD Special



Assessments (but does not refer to Builder Assessments or LMA Assessments), Units in the Project are subject to DRDD Assessments as set forth in this Declaration.

(a) "DRDD Annual Assessment" shall mean the annual or supplemental charge against each Builder and its Builder Parcel, and/or each Owner and its Unit, representing a portion of the DRDD Expenses, which are to be paid in equal periodic (monthly, quarterly, or annually as determined from time to time by the DRDD Board) installments commencing on the DRDD Assessment Commencement Date, by each Owner to the DRDD in the manner and at the times and proportions provided herein.

(b) "DRDD Capital Assessment" shall mean a charge against each Owner and its Unit, representing a portion of the costs to the DRDD for installation, construction, or reconstruction of any DRDD Facilities which the DRDD may from time to time authorize, pursuant to the provisions of this Declaration. Such charge shall be levied among all Owners and their Units in the same proportion as DRDD Annual Assessments.

(c) "DRDD Special Assessment" shall mean a charge against a particular Owner and its Unit, directly attributable to, or reimbursable by, that Owner, equal to the cost incurred by the DRDD for corrective action, performed pursuant to the provisions of this Declaration, for damage to DRDD Facilities, plus interest and other charges on such DRDD Special Assessments as provided for herein.

Section 1.18 "DRDD Assessment Commencement Date" shall mean that date, pursuant to Section 10.1 hereof (which in part incorporates revised Sections 6.2 and 6.8 hereof), on which DRDD Annual Assessments shall commence.

Section 1.19 "DRDD Board" shall mean the Board of Directors of the DRDD.

Section 1.20 "DRDD Budget" shall mean a written, itemized estimate of the expenses to be incurred by the DRDD in performing its functions under this Declaration.

Section 1.21 "DRDD Bylaws" shall mean the Bylaws of the DRDD which have or will be adopted by the DRDD Board, as such DRDD Bylaws may be amended from time to time.

Section 1.22 "DRDD Director" shall mean a duly appointed or elected and current member of the DRDD Board of Directors.

Section 1.23 "DRDD Expenses" shall mean expenditures made by, or financial liabilities or obligations of, the DRDD, including the actual and estimated costs of: (1) maintenance, management, operation, repair and replacement of the DRDD Facilities, including but not limited to the cost of parts and supplies, utilities, landscaping, cleaning, pest control and hiring of any outside contractor services; (2) unpaid DRDD Assessments; (3) management and administration of the DRDD, including, but not limited to, amounts paid by the DRDD to DRSC for services rendered, and compensation paid by the DRDD to managers, accountants, outside auditors, attorneys, consultants and employees; (d) casualty, liability, workers' compensation, fidelity and directors' and officers' liability insurances, and any other insurance obtained for or on behalf of the DRDD; (e) reasonable reserves as provided herein and as deemed appropriate by the DRDD Board from time to time; (f) bonding of the Directors and Officers of the DRDD, or of any professional managing agent or any other Person handling funds of the DRDD; (g) taxes paid for or by the DRDD; (h) amounts paid for or by the DRDD for discharge of any lien or encumbrance levied against the DRDD Facilities or any portion thereof, provided, however, that such lien or encumbrance is secured solely by, or applies solely to, the DRDD Facilities, or any portion thereof; (i) any licenses or permits needed for the DRDD Facilities; (j) costs of compliance with Wetlands Permits, and cooperation with DRSC, and/or the Owners of all or any other portions of the Project, if necessary, to accomplish the foregoing, so long as the DRDD has responsibility therefor; (k) contracting with an outside agency or organization for the provision of a security force to patrol and protect all DRDD Facilities, and such other areas of



and in compliance with all applicable federal and Nevada laws and local health codes and other applicable City and County ordinances.

Section 1.35 "Fiscal Year" shall mean the twelve (12) month fiscal accounting and reporting period of the LMA selected from time to time by the LMA Board, or the DRDD selected from time to time by the DRDD Board (as applicable).

Section 1.36 "Governing Documents" shall refer collectively to the LMA Governing Documents and the DRDD Governing Documents.

Section 1.37 "Homeowner(s)" shall mean members of the home buying public who are Owner(s), and shall not include Declarant or a Builder.

Section 1.38 "Improvement" shall mean any structure or appurtenance thereto of every type and kind, whether above or below the land surface, whether permanent or temporary, placed in the Project, including but not limited to Dwellings and other buildings, utility lines, entry monuments, driveways, streets, parking areas, walkways, irrigation and drainage pipes, surface and storm water facilities, Landscape Improvements, DRDD Facilities, lights, lighting fixtures, garages, swimming pools, spas, and other recreational facilities, carports, perimeter walls, hardscape, party walls, curbs, gutters, walls, fences, screening walls, block walls, retaining walls, stairs, decks, landscaping, antennae, hedges, windbreaks, patio covers, railings, plantings, planted trees and shrubs, poles, signs, exterior air conditioning and water softener fixtures or equipment.

Section 1.39 "Landscape Common Elements" shall mean the LMA Common Elements.

Section 1.40 "Landscape Improvements" shall mean improvements of or on the LMA Common Elements, which may include but are not necessarily limited to, plants, lighting, paths, fences, signs, entry monuments (but shall not include DRDD Facilities).

Section 1.41 "Laws" shall mean and refer to all laws, statutes, ordinances, rules, regulations, and policies of any City, County, State of Nevada, or Federal governmental body or agency.

Section 1.42 "LMA" shall mean DAMONTE RANCH LANDSCAPE MAINTENANCE ASSOCIATION, a Nevada nonprofit corporation, and its successors and assigns.

Section 1.43. "LMA Articles" shall mean the LMA Articles of Incorporation of the LMA, as filed or to be filed in the office of the Secretary of State of Nevada, as such LMA Articles may be amended from time to time.

Section 1.44 "LMA Assessments" shall refer collectively to LMA Annual Assessments, and any applicable LMA Capital Assessments and/or LMA Special Assessments (but does not refer to Builder Assessments or DRDD Assessments). Units in the Project are subject to LMA Assessments as set forth in this Declaration.

(a) "LMA Annual Assessment" shall mean the annual or supplemental charge against each Builder and its Builder Parcel, and/or each Owner and its Unit, representing a portion of the LMA Expenses, which are to be paid in equal periodic (monthly, quarterly, or annually as determined from time to time by the LMA Board) installments commencing on the LMA Assessment Commencement Date, by each Owner to the LMA in the manner and at the times and proportions provided herein.

(b) "LMA Capital Assessment" shall mean a charge against each Owner and its Unit, representing a portion of the costs to the LMA for installation, construction, or reconstruction of any Landscape Improvements which the LMA may from time to time authorize,



for any reason whatsoever in connection with the LMA Common Elements or in connection with any other item or items designated by the LMA Governing Documents or (ii) incurred in furtherance of the purposes of the LMA or in the discharge of any duties or powers of the LMA.

Section 1.53 "LMA Funds" shall mean the accounts created for receipts and disbursements of the LMA, pursuant to Article 6 hereof.

Section 1.54 "LMA Governing Documents" shall mean this Declaration, LMA Articles, LMA Bylaws, Entitlements, and Rules (and, with regard to relevant portion of the Project, relevant Plat, and any applicable Supplemental Declaration and/or Supplemental Rules). Any irreconcilable inconsistency among the LMA Governing Documents shall be governed pursuant to Section 21.9 below.

Section 1.55 "LMA Officer" shall mean a duly elected or appointed and current officer of the LMA.

Section 1.56 "LMA Rules" shall mean the Rules and Regulations, if any, from time to time promulgated by Declarant (during the Declarant Rights Period), or by the LMA Board (after the Declarant Rights Period) pursuant to the Declaration and LMA Bylaws, as such Rules from time to time may be amended.

Section 1.57 "Lot" shall mean a Unit.

Section 1.58 "Manager" shall mean the Person, if any, whether an employee or independent contractor, appointed by the LMA (and/or DRDD, as applicable) and delegated the authority to implement certain duties, powers or functions of the LMA (and/or DRDD, as applicable) as further provided in this Declaration and in the Governing Documents.

Section 1.59 "Master ALC" shall mean the Architectural and Landscaping Committee created pursuant to Article 12 hereof.

Section 1.60 "Maximum Units" shall mean the total "not to exceed" maximum number of aggregate Units which may (but need not necessarily) be created within the Project (i.e., 6,500 Units).

Section 1.61 "Member," "Membership," "Member" shall mean any Person holding a membership in the LMA/DRDD, as provided in this Declaration. "Membership" shall mean the property, voting and other rights and privileges of Members as provided herein and/or in the other LMA/DRDD Governing Documents, together with the correlative duties and obligations, including liability for Assessments, contained in this Declaration and the other Governing Documents.

Section 1.62 "Mortgage," "Mortgagee," "Mortgagor," "Mortgage" shall mean any unreleased mortgage or deed of trust or other similar instrument of Record, given voluntarily by an Owner, encumbering its Unit to secure the performance of an obligation or the payment of a debt, which will be released and reconveyed upon the completion of such performance or payment of such debt. The term "Deed of Trust" or "Trust Deed" when used herein shall be synonymous with the term "Mortgage." "Mortgage" shall not include any judgment lien, mechanic's lien, tax lien, or other similarly involuntary lien on or encumbrance of a Unit. The term "Mortgagee" shall mean a Person to whom a Mortgage is made and shall include the beneficiary of a Deed of Trust. "Mortgagor" shall mean a Person who mortgages its Unit to another (i.e., the maker of a Mortgage), and shall include the trustor of a Deed of Trust. "Trustor" shall be synonymous with the term "Mortgagor," and "Beneficiary" shall be synonymous with "Mortgagee."



any conflict between a Supplemental Declaration and this Declaration, this Declaration shall prevail.

Section 1.77 "Supplemental Rules" shall mean such Rules and Regulations, if any, pertaining to a relevant portion of the Project, and adopted and promulgated by or with the written consent of Declarant in its sole discretion (during the Declarant Rights Period) or, after the Declarant Rights Period, with the written consent of both the LMA Board and DRDD Board, as such Supplemental Rules from time to time may be amended. In the event of any conflict between any Supplemental Rules and the other Governing Documents, the other Governing Documents shall prevail.

Section 1.78 "Transferee District" shall mean and refer to the City, County, or any other public or quasi-public agency or district, or other Person, within the context set forth in Section 5.7 or Section 5.8, below (and in Section 10.1 hereof, in part incorporating revised Sections 5.7 and 5.8 hereof).

Section 1.79 "Unit" shall mean the portion of a Boulder Parcel, to be acquired and owned by a Purchaser/Homeowner, as shown and separately identified as such on a Recorded map (but shall not include any Boulder Parcel which is intended to be subdivided, but as to which a subdivision map has not yet been Recorded), and shall also include any and all improvements thereon, but shall not include any LMA Common Elements and/or DRDD Facilities.

Section 1.80 "Wetlands Permit" shall mean and refer to any surface water drainage improvements and/or maintenance permit (including, without limitation such permit issued by the U.S. Army Corps of Engineers), which Wetlands Permit may apply to all or any portion(s) of the DRDD Facilities and/or Project and/or Annexable Area.

Declarant shall have the right, in its reasonable discretion, to redefine any capitalized term or to define any capitalized term not separately defined in this Declaration.

ARTICLE 2 EASEMENTS

Section 2.1 Easements for Benefit of LMA, DRDD, Governmental Agencies, and Public Utilities. Certain easements (in perpetuity or otherwise) have been and may in the future be granted by Declarant to certain governmental agencies (including, but not limited to, the City and/or County) and public utilities, or to the LMA, DRDD, or other Persons, including, without limitation, easements for open space, avigation, DRDD Facilities and other surface water and subsurface drainage facilities, wetlands, drainage, signs, lighting, slopes, sewer, water, gas, telephone, cable television and electrical power lines, which easements may affect property within the Project. Declarant hereby reserves the right, and shall be entitled, without the consent of any Boulder, other Owner, LMA, or DRDD, to grant any such future easements as Declarant determines are in the best interests of the Project; provided, however, that such easements shall be limited only to the location, scope and size reasonably necessary to accomplish the stated purpose of such easement or to comply with any relevant governmental requirements, and provided further that: (a) all such easements will be located so as to reasonably minimize, consistent with applicable governmental requirements, the impact on the access and use (including the ability to construct Improvements) by the Owner or LMA or DRDD of its respective property and the Improvements thereon, and (b) no such easement will be located under any building footprint. Each Owner and LMA (or DRDD, as applicable) shall fully and faithfully comply with all requirements of LMA (or DRDD, as applicable), said governmental or public agencies, or other Persons in connection with the easements granted pursuant to this Section 2.1.

Section 2.2 Easements for Benefit of Declarant, LMA, and/or DRDD. In addition to the rights of entry and any other rights given to Declarant, LMA, and/or DRDD in this Declaration,



reasonably minimize, consistent with appropriate governmental requirements, the impact on the access and use (including the ability to construct improvements on the Unit or Builder Parcel) by any Owner of its particular Unit or Builder Parcel and the improvements thereon.

Section 2.4 Encroachment Easements. In the event that any Landscape Improvement or DRDD Facility encroaches on any other portion of the Project, or any improvement on a Unit encroaches upon an LMA Common Element or DRDD Facility, or upon another Unit, as a result of minor engineering variances, or as a result of construction, reconstruction, repair, shifting, settlement or movement of any improvement or portion of the Project, there shall exist a valid easement for minor encroachment and for the maintenance of the same, so long as the minor encroachment exists. Declarant and the Owner of each portion of the Project on which are constructed improvements along or adjacent to such lot line shall have an easement appurtenant to such Unit over the lot line to and over the adjacent Unit, for the purposes of accommodating any natural movement or settling of any improvement located on such Unit; any encroachment of such improvement due to minor engineering or construction variances, any encroachment of walls and architectural features comprising parts of the original construction of any improvement located on such Unit, and for maintenance thereof. The foregoing notwithstanding, no Owner shall have any easement for an encroachment resulting from the willful misconduct of such Owner.

Section 2.5 Drainage Easements. Declarant hereby reserves, for itself, the City, County, LMA, DRDD, DRSC, all Owners, and all owners of neighboring land, nonexclusive easements for the natural drainage and established drainage of surface waters over, across, under, and through the Project, in accordance with drainage plans approved by Declarant and/or those public agencies having jurisdiction thereof. The drainage easement shall include the right, but not the obligation, of such benefited parties to enter upon any portion of the Project, to construct, maintain, and/or repair any drainage ways or facilities identified on such drainage plans. Notwithstanding anything in this Section 2.5 to the contrary, such easements with respect to DRDD Facilities shall be exclusive to Declarant and such Persons specifically designated by Declarant in writing.

Section 2.6 Drainage Covenants. By acceptance of a deed to a Unit, each Owner agrees for himself and his assigns that he will not in any way interfere with or alter, or permit any Occupant to interfere with or alter, the established drainage pattern over any Unit, so as to affect said Unit, any other Unit, or LMA Common Element or DRDD Facility, unless adequate alternative provision is made for properly engineered drainage and approved in advance and in writing by the Declarant and/or LMA/DRDD, in their respective sole and absolute discretion, and any request therefor shall be subject to the Owner obtaining all necessary governmental approvals. For the purpose hereof, "established drainage pattern" is defined as the drainage which exists at the time that such Unit is conveyed to a Purchaser from a Builder, or later grading changes which are shown on plans and specifications approved by the Declarant.

Section 2.7 Owners' Easements of Enjoyment. Each Owner shall have a nonexclusive right and easement of enjoyment of the LMA Common Elements and/or DRDD Facilities, which easement shall be appurtenant to and shall pass with title to the Owner's Unit, subject to the following:

(a) the right of the LMA/DRDD in accordance with the LMA/DRDD Governing Documents, with the vote of at least two-thirds (2/3) of the voting power of the LMA/DRDD and a majority of the voting power of the LMA/DRDD Board, to borrow money for the purpose of improving or adding to the LMA Common Elements/DRDD Facilities, and in aid thereof, and further subject to the Mortgagee protection provisions of Article 15 of this Declaration, to mortgage, pledge, deed in trust, or hypothecate any or all of its real or personal property as security for money borrowed or debts incurred, provided that the rights of such Mortgagee shall be subordinated to the rights of the Owners;



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Section 2.10. Easements for Water, Sewage, Utility and Irrigation Purposes. In addition to the foregoing easements, there shall be, and Declarant hereby reserves and covenants for itself and all future Owners within the Project, easements for purposes of public and private utilities, power, telephone, cable television, water, and gas lines and appurtenances (including but not limited to, the right of any public or private utility or mutual water and/or sewage district of ingress or egress over the Project, including portions of Units, for purposes of reading and maintaining meters, and using and maintaining any fire hydrants located on the Project). There is hereby created a blanket easement in favor of Declarant and the LMA/DRDD upon, across, over, and under all Units and the Common Elements, for the installation, replacement, repair, and maintenance of utilities (including, but not limited to, water, sewer, gas, telephone, electricity, "smart" data cabling, if any, and master and cable television systems, if any), provided that said easement shall not extend beyond, across, over, or under any structure located on any Unit. By virtue of this easement, it shall be expressly permissible to erect and maintain the necessary facilities, equipment and appurtenances in the Project and to install, repair, and maintain water, sewer and gas pipes, electric, telephone and television wires, circuits, conduits, and meters. Notwithstanding anything to the contrary contained in this Section, no sewer, electric, water or gas lines or other utilities or service lines may be installed or relocated within the Project until the end of the Declarant Rights Period, except as approved by Declarant. This easement shall in no way affect any other Recorded easements in the Project. There is also hereby reserved to Declarant during such period the nonexclusive right and power to grant such specific easements as may be necessary in the sole discretion of Declarant in connection with the orderly development of any property in the Project. Any damage to a Unit resulting from the exercise of the easements described in this Section shall promptly be repaired by, and at the expense of, the Person exercising the easement. The exercise of these easements shall not extend to permitting entry into the structures on any Unit, nor shall it unreasonably interfere with the use of any Unit and, except in an emergency, entry onto any Unit shall be made only after reasonable notice to the Owner or occupant thereof. Declarant further reserves and covenants for itself and the LMA/DRDD, and their respective agents, employees and contractors, easements over the LMA Common Elements/DRDD Facilities, and all Units, for the control, installation, maintenance, repair and replacement of water and/or sewage lines and systems for watering or irrigation of any landscaping on, and/or sewage disposal from or related to, LMA Common Elements/DRDD Facilities. In the event that any utility exceeds the scope of this or any other easement reserved in this Declaration, and causes damage to property, the Owner of such property shall pursue any resultant claim against the offending utility, and not against Declarant or the LMA/DRDD.

Section 2.11. Additional Reservation of Easements. Declarant hereby expressly reserves for the benefit of each Owner and its Unit reciprocal, nonexclusive easements over the adjoining Unit(s) for the control, maintenance and repair of the utilities serving such Owner's Unit. Declarant further expressly reserves for the benefit of all of the real property in the Project, and for the benefit of all of the Units, the LMA/DRDD and the Owners, reciprocal, nonexclusive easements over all Units and the LMA Common Elements/DRDD Facilities, for the control, installation, maintenance and repair of utility services and drainage facilities serving any portion of the Project (which may be located on portions of Units, pursuant to Plats), for drainage of water resulting from the normal use thereof or of neighboring Units and/or LMA Common Elements/DRDD Facilities, for the use, maintenance, repair and replacement of Perimeter Walls/Fences (subject to Section 8.0 below), and for any required customer service work and/or maintenance and repair of any Dwelling or other Improvement, wherever located in the Project. In the event that any utility or governmental body exceeds the scope of any easement pertaining to the Project, and thereby causes bodily injury or damage to property, the injured or damaged Owner or Occupant shall pursue any and all resultant claims against the offending utility, and not against Declarant or the LMA/DRDD. In the event of any minor encroachment upon the LMA Common Elements/DRDD Facilities or Unit(s), as a result of initial construction or as a result of reconstruction, repair, shifting, settlement or movement of any portion of the Project, a valid easement for minor encroachment and for the maintenance of the same shall exist so long as the minor encroachment exists. Declarant and each Owner of a Unit on which there is constructed an Improvement along or adjacent to the property line, shall have an easement



Interest in such easements shall be maintained, and that a merger shall not take place without the express prior written consent of Declarant.

Section 2.19 Taxes. Each Owner shall execute such instruments and take such action as may reasonably be specified by the LMA/DRDD to obtain separate real estate tax assessment of each Unit. If any taxes or assessments of any Owner may, in the opinion of the LMA/DRDD (if applicable), become a lien on the LMA Common Elements/DRDD Facilities (if applicable), or any part thereof, they may be paid by the LMA/DRDD as an LMA Expense (or DRDD Expense if applicable) or paid by the LMA/DRDD and levied against such Owner as a Special Assessment.

Section 2.20 Additional Easements Reserved to Declarant. Notwithstanding any other provision in this Declaration, Declarant reserves unto itself all mineral rights, but without right of entry on the surface of the Project nor the right to drill, mine, store, explore or operate through the surface of the Project or within five hundred feet (500') from the surface of the Project. Declarant further reserves unto itself all mineral rights, oil, gas and/or hydrocarbon rights, telecommunication rights, all water rights, water stock, and any water or sewer connection fees, groundwater, geothermal rights, surface water, storm water runoff, and effluent located or produced within the Project, and all rights and benefits of wetlands wherever located, and any and all rights to change or modify the Wetlands Permit and/or mitigation program in its sole discretion, including but not limited to the right to sell excess mitigation area from time to time. Declarant further reserves a perpetual non-exclusive easement over, across, upon, and beneath the Project for access, for installation and maintenance of utilities and related facilities, for installation and maintenance of drainage and other facilities and equipment, for compliance with the Wetlands Permit, to adjust or relocate walls and/or fencing or otherwise to correct boundary discrepancies, for mass grading, to perform any of Declarant's work of improvement, to place slope banks or retaining walls as needed, to comply with drainage needs, to accomplish any of Declarant's construction projects, to fulfill any jurisdictional agency requirements, to install and maintain any telecommunication and/or broadband systems, to extend, construct, connect to, and maintain utilities and drainage lines, and to accomplish any other tasks required of or by Declarant in its sole and absolute discretion. Said perpetual non-exclusive easement will be modified upon sale of individual lots from the Builder to Purchasers such that the easement is limited to a five foot (5') width around the entire perimeter of each final map lot. Reservation of any such licenses, easements, and/or rights shall not be deemed to impose any affirmative duty or obligation on Declarant other than as expressly set forth in this Declaration.

ARTICLE 3

REGULATION OF IMPROVEMENTS AND CONSTRUCTION

Section 3.1 General Regulation of Improvements. Any and all development and construction within the Project shall be subject to the Governing Documents and all applicable Entitlements (including, but not necessarily limited to, the Specific Plan, and any Wetlands Permits) and any and all conditions or restrictions imposed in connection therewith, and all Laws from time to time applicable to the Project.

Section 3.2 Construction Regulations and Restrictions. All Improvements within Units or Builder Parcels shall conform to the Governing Documents, unless an exemption has been specifically approved in writing by Declarant. Declarant further reserves the right, for itself and/or for the LMA/DRDD Board, from time to time to promulgate detailed Rules pertaining to construction of Improvements on Builder Parcels and/or Units. Notwithstanding the foregoing or any other provision, all Improvements shall conform at all times with all applicable Entitlements and Laws.

Section 3.3 Indemnification. Each Owner, by accepting a deed to any portion of the Project (whether or not it shall be so expressed in such deed), and each Occupant, by accepting the right to occupy any portion of the Project, is hereby conclusively deemed to have agreed



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(ll) maintenance dredging of Project Wetlands areas (potentially needed for flood control purposes) will be allowed only upon written approval of the Corps (or any successor governmental authority with jurisdiction).

(d) Any and all activities required on the Project for, or pertaining to, implementation of the foregoing Project Wetlands Provisions in compliance therewith shall conclusively be deemed permitted uses hereunder.

(e) All of the foregoing Project Wetlands Provisions notwithstanding, in the event that all or any or any part of these Project Wetlands Provisions are or is no longer required by the Corps (or any successor governmental agency with jurisdiction over Project Wetlands) for inclusion in this Declaration, as set forth in official instrument evidencing the same, such Project Wetlands Provisions or portion thereof shall be accordingly and correspondingly deemed modified or deleted from this Declaration; provided that, in any event and at all times, the Project and Owners shall be subject to and shall fully and fairly comply with all wetlands requirements from time to time imposed by the Corps (or any such successor jurisdiction).

ARTICLE 4 LANDSCAPE MAINTENANCE ASSOCIATION

Section 4.1 Organization of LMA. The LMA is or shall be incorporated under the name of DAMONTE RANCH LANDSCAPE MAINTENANCE ASSOCIATION, or similar name, as a non-profit corporation under NRS Chapter 82. *The LMA is created under Nevada law for the limited purpose of maintaining the landscape of the uninhabited Landscape Common Elements of the Community (not including the DRDD Facilities, which shall be maintained by the DRDD); accordingly, pursuant to NRS § 116.1201.2(a)(1), and NAC §116.800.1, it is contemplated and intended that the LMA shall be EXEMPT from NRS Chapter 116 (and not subject to the Ombudsman Fee, with the understanding that certain services of the Office of the Ombudsman may not be available to the LMA or the Membership thereof).* Upon dissolution of the LMA, the assets of the LMA shall be disposed of in compliance with applicable Laws.

Section 4.2 Duties, Powers and Rights. Duties, powers and rights of the LMA are those set forth in this Declaration, and the LMA Articles and LMA Bylaws.

Section 4.3 LMA Membership. Each Owner, upon acquiring title to a Unit, shall automatically become an LMA Member and shall remain an LMA Member until such time as its ownership of the Unit ceases, at which time its membership in the LMA shall automatically cease. Memberships shall not be assignable, except to the Person to which title to the Unit has been transferred, and each Membership shall be appurtenant to and may not be separated from the fee ownership of such Unit. Ownership of such Unit shall be the sole qualification for Membership, and shall be subject to the Governing Documents.

Section 4.4 Transfer of LMA Membership; LMA Transfer Fees. The Membership held by any Owner shall not be transferred, pledged or alienated in any way, except upon the sale or encumbrance of such Owner's Unit, and then only to the purchaser or Mortgagee of such Unit. Any attempt to make a prohibited transfer is void, and will not be reflected upon the books and records of the LMA. Until evidence of such transfer (which may, but need not necessarily be, a copy of the Recorded deed of transfer) first has been presented to the reasonable satisfaction of the LMA Board, the purchaser shall not be entitled to vote at meetings of the LMA, unless the purchaser shall have a valid proxy from the seller of said Unit. The LMA may levy a transfer fee ("LMA Transfer Fee") against a new Homeowner and his or her Unit (which LMA Transfer Fee shall be added to the LMA Annual Assessment and LMA Capital Contributions chargeable to such new Homeowner). LMA Transfer Fees are in addition to, and shall not be considered as, an advance payment of, LMA Annual Assessments and/or LMA Capital Contributions for a Unit. LMA Transfer Fee requirements shall not apply to the conveyance of a Boulder Parcel from



believed was appropriate conduct within the scope of his duties for LMA, unless it is proven in a court of competent jurisdiction that the Agent acted with willful or wanton misfeasance or with gross negligence. After such proof, the LMA shall cease to have any further obligations under this Section 4.9 and may personally recover all costs previously expended on behalf of such agent by the LMA under this Section 4.9.

Section 4.10 Limitation on Damages. A Director or Officer of LMA (and/or a director, officer, manager or member of Declarant and/or its respective members) (all and any one or more of the foregoing, a "Protected Person") shall not be personally liable to victims of crime occurring within the Project or personally liable in excess of the coverage of the insurance maintained by the LMA, if reasonably available, as provided in the Declaration, to any person who suffers injury, including without limitation bodily injury, emotional distress, wrongful death or property damage or loss as a result of the tortious act or omission of the Protected Person, if all of the following conditions are satisfied: (a) the act or omission was performed with the scope of the Protected Person's duties for LMA and/or Declarant (as applicable); (b) the Protected Person exercised ordinary and reasonable care in performing the act or omission, subject to the business judgment rule; and (c) the act or omission was not willful, wanton or grossly negligent. Notwithstanding the foregoing, all Protected Persons shall be insulated from personal liability to the fullest extent provided by law.

ARTICLE 5 FUNCTIONS OF LMA

Section 5.1 Powers and Duties. The LMA's obligations to maintain the LMA Common Elements shall commence on the date LMA Annual Assessments commence on Units; until commencement of LMA Annual Assessments, the LMA Common Elements shall be maintained by Declarant, at Declarant's expense. Without in any way limiting the generality of the foregoing provisions, the LMA may act through the LMA Board, and shall have:

(a) **Repair and Maintenance of LMA Common Elements.** The power and duty to plant, maintain, irrigate, and repair in a neat and attractive condition, in accordance with standards adopted by Declarant during the Declarant Rights Period, all LMA Common Elements, and to pay for utilities, gardening, landscaping, and other necessary services for the LMA Common Elements. Notwithstanding the foregoing, the LMA shall have no responsibility to provide any of the services referred to in this subsection 5.1(a) with respect to any improvement which is accepted for maintenance by any state, local or municipal governmental agency or public entity. Such responsibility shall be that respectively of the applicable agency or public entity.

(b) **Assessments.** The power and duty to levy LMA Assessments against the Owners of Units, and to enforce payment of such LMA Assessments in accordance with the provisions of Article 7 hereof.

(c) **Removal of Graffiti.** The power and duty to remove or paint over any graffiti from Exterior Walls, pursuant and subject to Section 8.9, below.

(d) **Taxes.** The power and duty to pay all taxes and assessments levied upon the LMA Common Elements and all taxes and assessments payable by the LMA.

(e) **Utility Services.** The power and duty to obtain, for the benefit of the LMA Common Elements, any necessary commonly metered water, and/or electric services (or other similar services).

(f) **Manager.** The power, but not the duty, to employ or contract with a professional Manager to perform all or any part of the duties and responsibilities of the LMA, and the power but not the duty to delegate powers to committees, Officers and employees of the LMA. Any such management agreement, or any agreement providing for services by



related to and affecting LMA Common Elements. Subject to the foregoing, to protect the LMA and the Owners from being subjected to potentially costly or prolonged Non-Operational Controversies without full disclosure, analysis and consent; to protect the LMA Board and individual Directors from any charges of negligence, breach of fiduciary duty, conflict of interest or acting in excess of their authority or in a manner not in the best interests of the LMA and the Owners; and to ensure voluntary and well-informed consent and clear and express authorization by the Owners, strict compliance with all of the following provisions of this Section 5.2 shall be mandatory with regard to any and all Non-Operational Controversies commenced, instituted or maintained by the LMA Board:

(i) The LMA Board shall first endeavor to resolve any Non-Operational Controversy by good faith negotiations with the adverse party or parties. In the event that such good faith negotiations fail to reasonably resolve the Non-Operational Controversy, the LMA Board shall then endeavor in good faith to resolve such Non-Operational Controversy by mediation, provided that the LMA Board shall not incur liability for or spend more than Five Thousand Dollars (\$5,000.00) in connection therewith (provided that, if more than said sum is reasonably required in connection with such mediation, then the LMA Board shall be required first to reasonably seek approval of a majority of the voting power of the Members for such additional amount for mediation before proceeding to either arbitration or litigation). In the event that the adverse party or parties refuse mediation, or if such good faith mediation still fails to reasonably resolve the Non-Operational Controversy, the LMA Board shall not be authorized to commence, institute or maintain any arbitration or litigation of such Non-Operational Controversy until the LMA Board has fully complied with the following procedures:

(1) The LMA Board shall first investigate the legal merit, feasibility and expense of prosecuting the Non-Operational Controversy, by obtaining the written opinion of a licensed Nevada attorney regularly residing in Washoe County, Nevada, with a Martindale-Hubbell rating of "av", expressly stating that such attorney has reviewed the underlying facts and data in sufficient, verifiable detail to render the opinion, and expressly opining that the LMA has a substantial likelihood of prevailing on the merits with regard to the Non-Operational Controversy, without substantial likelihood of incurring any material liability with respect to any counterclaim which may be asserted against the LMA. The LMA Board shall be authorized to spend up to an aggregate of Five Thousand Dollars (\$5,000.00) to obtain such legal opinion, including all amounts paid to said attorney therefor, and all amounts paid to any consultants, contractors and/or experts preparing or processing reports and/or information in connection therewith. The LMA Board may increase said \$5,000.00 limit, with the express consent of more than fifty (50%) of all of the Members of the LMA, at a special meeting called for such purpose.

(2) Said attorney opinion letter shall also contain the attorney's best good faith estimate of the aggregate maximum "not-to-exceed" amount of legal fees and costs, including, without limitation, court costs, costs of investigation and all further reports or studies, costs of court reporters and transcripts, and costs of expert witnesses and forensic specialists (all collectively, "Quoted Litigation Costs") which are reasonably expected to be incurred for prosecution to completion (including appeal) of the Non-Operational Controversy. Said opinion letter shall also include a draft of any proposed fee agreement with such attorney. If the attorney's proposed fee arrangement is contingent, the LMA Board shall nevertheless obtain the Quoted Litigation Costs with respect to all costs other than legal fees, and shall also obtain a written draft of the attorney's proposed contingent fee agreement. (Such written legal opinion, including the Quoted Litigation Costs, and also including any proposed fee agreement, contingent or non-contingent, are collectively referred to herein as the "Attorney Letter").

(3) Upon receipt and review of the Attorney Letter, if two-thirds (2/3) or more of the LMA Board affirmatively vote to proceed with the institution or prosecution of, and/or intervention in, the Non-Operational Controversy, the LMA Board thereupon shall duty notice and call a special meeting of the Members. The written notice to each Member of the LMA shall include a copy of the Attorney Letter, including the Quoted Litigation Costs and any



of the LMA Board of Directors; and any purported amendment or deletion of this Section 5.2, or any portion hereof, without both of such express prior written approvals shall be void.

Section 5.3 Manager. The LMA shall have the power to employ or contract with a Manager, to perform all or any part of the duties and responsibilities of the LMA, subject to the LMA Governing Documents, for the purpose of operating and maintaining the Project, subject to the following:

(a) Any agreement with a Manager shall be in writing and shall be for a term not in excess of one (1) year, subject to cancellation by the LMA for cause at any time upon not less than thirty (30) days written notice, and without cause (and without penalty or the payment of a termination fee) at any time upon not more than ninety (90) days written notice. In the event of any explicit conflict between the Governing Documents and any agreement with a Manager, the Governing Documents shall prevail.

(b) The Manager shall possess sufficient experience, in the reasonable judgment of the LMA Board, in managing projects reasonably similar to the Project, in the County, and shall be duly certified or licensed as may be required from time to time by the appropriate licensing and governmental authority with jurisdiction. Any and all employees of the Manager with responsibilities to or in connection with the LMA and/or the Community shall have such experience with regard to similar projects. (If no Manager meeting the above-stated qualifications is available, the LMA Board shall retain the most highly qualified management entity available, which is duly licensed by the appropriate licensing authorities).

(c) After the Declarant Rights Period, no Manager, or any director, officer, shareholder, principal, partner, or employee of the Manager, may be a Director or Officer of the LMA.

(d) As a condition precedent to the employ of, or agreement with, a Manager, the Manager (or any replacement Manager) first shall be required, at its expense, to review the Governing Documents, Plat, and any and all LMA Reserve Studies and inspection reports pertaining to the Project.

(e) By execution of its agreement with the LMA, a Manager shall be conclusively deemed to have covenanted: (1) in good faith to be bound by, and to faithfully perform all duties (including, but not limited to, full and faithful accounting for all LMA funds within the possession or control of Manager) required of the Manager under the Governing Documents (and, in the event of any irreconcilable conflict between the Governing Documents and the contract with the Manager, the Governing Documents shall prevail); (2) that any penalties, fines or interest levied upon the LMA as the result of Manager's error or omission shall be paid (or reimbursed to the LMA) by the Manager; (3) to comply fully, at its expense, with all applicable regulations of the Nevada Real Estate Division and statutes; and (4) at Manager's sole expense, to promptly turn over, to the LMA Board, possession and control of all funds, documents, books, records and reports pertaining to the Project and/or LMA, and to coordinate and cooperate in good faith with the LMA Board in connection with such turnover, in any event not later than ten (10) days of expiration or termination of the LMA's agreement with Manager (provided that, without limiting its other remedies, the LMA shall be entitled to withhold all amounts otherwise due to the Manager until such time as the Manager turnover in good faith has been completed).

(f) Upon expiration or termination of an agreement with a Manager, a replacement Manager meeting the above-stated qualifications shall be retained by the LMA Board as soon as possible thereafter and a limited review performed, by qualified Person designated by the LMA Board, of the books and records of the LMA, to verify assets.

(g) The LMA shall also maintain and pay for the services of such other personnel, including independent contractors, as the LMA Board shall determine to be necessary or desirable for the proper management, operation, maintenance, and repair of the



Section 5.7 Curtailment of LMA Functions. The primary purpose and reason for the formation and existence of LMA are to maintain the LMA Common Elements. Declarant hereby reserves the right, for itself and for LMA, to petition an Transferee District to accept the Transfer (as said terms are defined in this Article 5) of, or to assume the obligation to maintain, all or any part of the LMA Common Elements (whether or not the costs of such Transferee District maintenance are paid in whole or in part by the Owners), pursuant to this Article 5. Such reservation by Declarant includes the right by Declarant to unilaterally amend the Declaration or to Record a Supplemental Declaration as necessary to permit such maintenance by an Transferee District and to execute, on behalf of LMA and its Members, all documents of Transfer, and such other documents as may be required to effectuate the intent of this Section 5.7, including, but not limited to, grants or conveyances of easements in or to the LMA Common Elements. To the extent LMA's functions and/or obligations are Transferred pursuant to the foregoing, the powers and duties of LMA hereunder shall be curtailed accordingly; provided that, if such Transfer is subject to revocation by the Transferee District, then the curtailment of LMA's powers and duties shall be subject to reinstatement by Declarant upon such revocation by the Transferee District. In the event of conveyance or dedication of all of the LMA Common Elements to one or more Transferee District(s), and irrevocable acceptance by the Transferee District(s) of the obligation to maintain the LMA Common Elements, LMA shall be dissolved in accordance with the LMA Articles and LMA Bylaws, and shall cease to have any further powers, duties, rights or obligations (all covenants, conditions, restrictions, reservations, and easements herein concerning LMA shall automatically terminate). Each Owner of a Lot, by acceptance of a deed thereto (whether or not it shall be so expressed in such deed), is hereby conclusively deemed to agree to such curtailment or dissolution of LMA (and termination of such covenants, conditions, restrictions, reservations, and easements concerning LMA) without the need for any further consent by the Owners. Notwithstanding any such curtailment or dissolution of LMA, all covenants, conditions, restrictions and easements herein (other than those concerning LMA) including, without limitation, those pertaining to the Master ALC, shall remain in full force.

Section 5.8 Transferee District. Declarant hereby reserves the right, for itself, for the LMA, and for any respective successor, to petition the City, the County, or any other public or quasi-public agency or district, including, without limitation, a general, local or special improvement district, or maintenance district, or any other Person ("Transferee District") to accept the conveyance, delegation, transfer or assignment (hereafter, in this Section 5.8, "Transfer") of, or to assume the obligation to maintain, all or any part of the LMA Common Elements and attendant features (whether or not the costs of such Transferee District maintenance are paid in whole or in part by the Owners of portion(s) of the Project). Declarant further reserves the right to dedicate, release, alienate, or otherwise transfer to any Transferee District, if acceptable to such entity, the LMA Common Elements or any portion thereof. Such reservations by Declarant include the right by Declarant to unilaterally amend this Declaration or to Record a Supplemental Declaration as necessary to permit such maintenance by an Transferee District and to execute, on behalf of the Owners, all documents of Transfer, and such other documents as may be required to effectuate the intent of this Section 5.8, including, but not limited to, necessary grants or conveyances of easements in or to the Project. Without limiting the foregoing, in the event and to the extent any of the functions and/or obligations of Declarant may be assumed by an Transferee District, Declarant shall have the power and obligation to Transfer such functions and/or obligations and/or portion thereof (such as, by way of example, and not of limitation, the maintenance of surface water drainage facilities and/or wetlands) to such Transferee District and, in connection therewith, to grant or convey necessary easements in or to the Project, or any easements afforded Declarant herein, to enable the Transferee District to perform the Transferred functions or obligations. To the extent Declarant's functions and/or obligations are Transferred pursuant to the foregoing, the powers and duties of Declarant hereunder shall be curtailed accordingly; provided that, if such Transfer is subject to revocation by the Transferee District, then the curtailment of Declarant's powers and duties shall be subject to reinstatement upon such revocation by the Transferee District.

Section 5.9 Damonte Ranch Service Company. The LMA Common Elements, or a portion thereof, may be owned by DRSC. In such event, the LMA shall be authorized and



be avoided by abandonment of a Builder Parcel or by an offer to waive use of the LMA Common Elements/DRDD Facilities. The personal obligation only shall not pass to the successors in title of any Builder unless expressly assumed by such successors.

Section 6.3 LMA Funds. The LMA Board shall establish at least the following separate accounts (the "LMA Funds") into which shall be deposited all monies paid to the LMA, and from which disbursements shall be made, as provided herein, in the performance of functions by the LMA under the provisions of this Declaration. The LMA Funds shall be established as insured accounts at a federally insured banking or savings institution and shall include: (1) an operating fund ("LMA Operating Fund") for current expenses of the LMA, and (2) a reserve fund ("LMA Reserve Fund") for capital repairs and replacements as set forth in Section 6.4, below, and (3) any other funds which the LMA Board may establish to the extent necessary under the provisions of this Declaration. To qualify for higher returns on accounts held at banking or savings institutions, the LMA Board may commingle any amounts deposited into any of the LMA Funds (other than the LMA Reserve Fund which shall be kept segregated), provided that the integrity of each individual LMA Fund shall be preserved on the books of the LMA by accounting for disbursements from, and deposits to, each LMA Fund separately. Each of the LMA Funds shall be established as a separate insured savings or insured checking account, at any federally insured banking or lending institution. All amounts deposited into the LMA Operating Fund and the LMA Reserve Fund must be used solely for the common benefit of the Owners for purposes authorized by this Declaration. The Manager shall not be authorized to make withdrawals from the LMA Reserve Fund. Withdrawals from the LMA Reserve Fund shall require signatures of both the President and Treasurer (or, in the absence of either the President or Treasurer, the Secretary may sign in place of the absent Officer). The President, Treasurer, and Secretary all must be Directors and (after the Declarant Rights Period) must also all be Owners.

Section 6.4 LMA Reserve Fund: LMA Reserve Studies.

(a) Any other provision herein notwithstanding: (i) the LMA shall establish a reserve fund ("LMA Reserve Fund"); (ii) the LMA Reserve Fund shall be used only for capital repairs, restoration, and replacement of major components ("Major Components") of the LMA Common Elements, (iii) in no event whatsoever shall the LMA Reserve Fund be used for regular maintenance recurring on an annual or more frequent basis, or as the source of funds to institute, prosecute, maintain and/or intervene in any Proceeding, or for any other purpose whatsoever, (iv) the LMA Reserve Fund shall be kept in a segregated account, withdrawals from which shall only be made upon specific approval of the LMA Board subject to the foregoing, (v) funds in the LMA Reserve Fund may not be withdrawn without the signatures of both the President and the Treasurer (provided that the Secretary may sign in lieu of either the President or the Treasurer, if either is not reasonably available); (vi) under no circumstances shall the Manager (or any one Officer or Director, acting alone) be authorized to make withdrawals from the LMA Reserve Fund.

(b) The LMA Board shall periodically cause to be prepared a reserve study ("LMA Reserve Study") at such times as the LMA Board deems reasonable and prudent, and shall make such adjustments as the LMA Board deems reasonable and prudent to maintain the required reserves from time to time (i.e., by increasing Assessments). It shall be an obligation of the Manager to timely remind the LMA Board in writing of these LMA Reserve Study requirements from time to time as applicable.

(c) Each LMA Reserve Study shall be prepared in accordance with any legal requirements from time to time applicable, applied in each instance on a prospective basis. Subject to the foregoing sentence, the LMA (upon Recordation of this Declaration) and each Owner (by acquiring title to any portion of the Project) shall be deemed to have unequivocally agreed that the following, among others, shall be deemed reasonable and prudent for and in connection with preparation of each LMA Reserve Study: (i) utilization, by a Reserve Analyst, of the "pooling" or "cash flow" method, and/or (ii) utilization or reliance, by a Reserve Analyst, of an assumption that there will be future annual increases in amounts from time to time allocated to



Section 6.8 LMA Assessment Commencement Date. LMA Annual Assessments of Builders ("Builder Assessments") and LMA Annual Assessments of Homeowners shall commence respectively as set forth in Section 6.2, above. Declarant may, but shall not be obligated to, make loan(s) to the LMA, to be used by the LMA for the sole purpose of paying LMA Expenses, to the extent the budget therefor exceeds the aggregate amount of LMA Assessments for a given period, provided that any such loan shall be repaid by LMA to Declarant as soon as reasonably possible. The first Builder Assessment for each Builder Parcel, and the first LMA Annual Assessment to a Homeowner ("Homeowner Assessment") for each Unit, shall be pro-rated based on the number of months remaining in the Fiscal Year. All installments of Builder Assessments and Homeowner Assessments shall be collected in advance on a regular basis by the LMA Board, at such frequency and on such due dates as the LMA Board shall determine from time to time in its sole discretion. The LMA shall, upon demand, and for a reasonable charge, furnish a certificate binding on the LMA, signed by an Officer or LMA agent, setting forth whether the LMA Assessments on a Builder Parcel or Unit have been paid. At the end of any Fiscal Year, the LMA Board may determine, in its sole discretion, that all excess funds remaining in the LMA Operating Fund, over and above the amounts used or reasonably necessary for the operation of the Project, may be retained by the LMA for use in reducing the following year's LMA Assessments, or may be deposited into an LMA operating reserve account or into the LMA Reserve Fund. Upon dissolution of the LMA incident to the abandonment or termination of the maintenance of the Project, any amounts remaining in any of the LMA Funds shall be distributed proportionately to or for the benefit of the Members, in accordance with Nevada law, or as otherwise may be required by applicable law.

Section 6.9 LMA Capital Assessments. The LMA Board may levy, in any Fiscal Year, an LMA Capital Assessment applicable to that Fiscal Year only, for the purpose of defraying, in whole or in part, the cost of any construction, reconstruction, repair or replacement of a capital improvement or other such addition upon the LMA Common Elements, including fixtures and personal property related thereto; provided that, from and after the Declarant Rights Period, any proposed LMA Capital Assessment shall require the advance consent of a majority of the voting power of the LMA.

Section 6.10 Rate of Assessment on Lots; Voting Rights. LMA Annual Assessments, and LMA Capital Assessments shall be assessed at a uniform rate (which may be per Lot; per number of square feet per Lot or Dwelling; or on any other reasonably articulable uniform basis, as determined by the LMA Board) against all Owners and their Lots within a particular Neighborhood. Notwithstanding the foregoing, Declarant shall be entitled in its reasonable discretion to establish Reasonable Amounts (in lieu of LMA Assessments) on Commercial/Public/Other Components and on Multi-Family Components pursuant to Article 20 below. Voting rights within the LMA shall be allocated as follows: each single family Lot in the Project shall have one (1) equal vote in the LMA, appurtenant to said Lot, and each Multi-Family Component shall be entitled to one (1) vote in the LMA for each four (4) apartment units contained therein. Commercial/Public/Other Components shall not be entitled to any votes in the LMA. Notwithstanding the foregoing, a Builder shall not be entitled to any votes on a Builder Parcel before the relevant LMA Assessment Commencement Date for such Builder pursuant to Sections 6.2 and 6.8 above. From and after the relevant LMA Commencement Date, such Builder shall be entitled to one (1) vote per each Lot from time to time on which said Builder is currently paying Builder Assessments.

Section 6.11 Exempt Property: Damonte Ranch High School. LMA Common Elements owned by the LMA shall be exempt from the LMA Assessments herein. Other portions, if any, of the Project dedicated to and accepted by, the United States, the State of Nevada, the City, County, or any political subdivision of any of the foregoing, or any public agency, entity or authority, for so long as such entity or political subdivision is the owner thereof, or for so long as such dedication remains effective, may, but need not necessarily, also be exempt from the assessments herein, in the discretion of the LMA Board, subject to any applicable Laws or agreements. Notwithstanding the foregoing, the Damonte Ranch High School, to be located on all or a portion of Parcel 12 of Record of Survey Number 4001 as recorded in the Washoe



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the power to bid on the Unit at the foreclosure sale and to acquire and hold, lease, mortgage, and convey the same. Notices of default and election to sell shall be provided in like manner as set forth in NRS §116.31163, and notice of time and place of sale shall be provided in like manner as set forth in NRS § 116.311635.

Section 7.5 Cure of Default. Upon the timely cure of any default for which a notice of default and election to sell was filed by the LMA, the Officers thereof shall Record an appropriate release of lien, upon payment by the defaulting Owner of a reasonable fee to be determined by the LMA Board, to cover the cost of preparing and Recording such release. A certificate, executed and acknowledged by any two (2) Directors or the Manager, stating the indebtedness secured by the lien upon any Unit created hereunder, shall be conclusive upon the LMA and, if acknowledged by the Owner, shall be binding on such Owner as to the amount of such indebtedness as of the date of the certificate, in favor of all Persons who rely thereon in good faith. Such certificate shall be furnished to any Owner upon request, at a reasonable fee, to be determined by the LMA Board.

Section 7.6 Cumulative Remedies. The assessment liens and the rights of foreclosure and sale thereunder shall be in addition to and not in substitution for all other rights and remedies which the LMA and its assigns may have hereunder and by law or in equity, including a suit to recover a money judgment for unpaid assessments, as provided above.

Section 7.7 Mortgagee Protection. Notwithstanding all other provisions hereof, no lien created under this Article 7, nor the enforcement of any provision of this Declaration shall defeat or render invalid the rights of the Beneficiary under any Recorded First Deed of Trust encumbering a Unit, made in good faith and for value; provided that after such Beneficiary or some other Person obtains title to such Unit by judicial foreclosure, other foreclosure, or exercise of power of sale, such Unit shall remain subject to this Declaration and the payment of all installments of assessments accruing subsequent to the date such Beneficiary or other Person obtains title. The lien of the assessments, including interest and costs, shall be subordinate to the lien of any First Mortgage upon the Unit. The release or discharge of any lien for unpaid assessments by reason of the foreclosure or exercise of power of sale by the First Mortgagee shall not relieve the prior Owner of its personal obligation for the payment of such unpaid assessments.

Section 7.8 Priority of Assessment Lien. Recording of the Declaration constitutes Record notice and perfection of a lien for LMA Assessments. A lien for LMA Assessments, including interest, costs, and attorneys' fees, as provided for herein, shall be prior to all other liens and encumbrances on a Unit, except for: (a) liens and encumbrances Recorded before the Declaration was Recorded, (b) a first Mortgage Recorded before the delinquency of the LMA Assessment sought to be enforced, and (c) liens for real estate taxes and other governmental charges. The sale or transfer of any Unit shall not affect an assessment lien. However, the sale or transfer of any Unit pursuant to judicial or nonjudicial foreclosure of a First Mortgage shall extinguish the lien of such LMA Assessment as to payments which became due prior to such sale or transfer. No sale or transfer shall relieve such Unit from lien rights for any LMA Assessments which thereafter become due. Where the Beneficiary of a First Mortgage of Record or other purchaser of a Unit obtains title pursuant to a judicial or nonjudicial foreclosure or "deed in lieu thereof," the Person who obtains title and its successors and assigns shall not be liable for the share of the LMA Expenses or LMA Assessments by the LMA chargeable to such Unit which became due prior to the acquisition of title to such Unit by such Person. Such unpaid share of LMA Expenses and LMA Assessments shall be deemed to become expenses collectible from all of the Units, including the Unit belonging to such Person and its successors and assigns.



Section 8.5, an Owner who by its sole negligent or willful act causes a Party Wall/Fence to be damaged or destroyed, shall bear the entire cost of furnishing the necessary protection repair or replacement. The right of any Owner to contribution from any other Owner under this Section 8.5 shall be appurtenant to the land and shall pass to such Owner's successors in title. The foregoing, and any other provision in this Declaration notwithstanding, no Owner shall alter, add to, or remove any Party Wall/Fence constructed by Declarant, or portion of such wall or fence, without the prior written consent of the other Owner(s) who share such Party Wall/Fence, which consent shall not be unreasonably withheld. In the event of any dispute arising concerning a Party Wall/Fence under the provisions of this Section 8.5, each party shall choose one arbitrator, such arbitrator shall choose one additional arbitrator, and the decision of a majority of such panel of arbitrators shall be binding upon the Owners which are a party to the arbitration.

Section 8.6 Perimeter Walls/Fences. No permanent changes or alterations (including, without limitation, permanent removal of a portion of any Perimeter Wall/Fence for construction of a swimming pool or other improvement) shall be made to any Perimeter Wall/Fence, whether or not built by Declarant, or any portion thereof, without the prior written approval of Declarant. The foregoing and any other provision herein notwithstanding, under no circumstances shall any wall, or portion thereof, originally constructed by Declarant or a Builder, be changed, altered or removed by any Owner (or agent or contractor thereof) if such wall, or portion thereof, is shown on any improvement plan as a flood control wall, or any other wall, or if such change, alteration or removal in the sole judgment of Declarant (without obligation to make such judgment) would adversely affect surface water, drainage, or other flood control considerations or requirements.

Section 8.7 Installed Landscaping.

(a) Declarant reserves the right, for itself and for the LMA Board from time to time to promulgate Rules requiring each Owner of a Unit to install, within a specified period of time after Close of Escrow for the purchase of the Unit, and to thereafter maintain, the landscaping on its Unit in good repair. Each Owner shall be responsible, at its sole expense, for: (1) maintenance, repair, replacement, and watering of any and all landscaping on its Unit in a neat and attractive condition; and (2) maintenance, repair, and/or replacement of any and all sprinkler or irrigation or other related systems or equipment pertaining to such landscaping, subject to Section 8.7(b) below.

(b) To help prevent and/or control water damage to foundations and/or walls, each Owner covenants, by acceptance of a deed to its Unit, whether or not so stated in such deed, to not cause or permit irrigation water or sprinkler water on its Unit to seep or flow onto, or to strike upon, any foundation, slab, side or other portion of Dwelling, wall (including, but not necessarily limited to, Party Wall/Fence and/or Perimeter Wall/Fence), and/or any other improvement. Without limiting the generality of the foregoing or any other provision in this Declaration, each Owner shall at all times ensure that: (1) there are no unapproved grade changes (including, but not necessarily limited to, mounding) within three (3) feet of any such foundation or wall located on or immediately adjacent to the Owner's Unit; and (2) only drip (and not spray or sprinkler) irrigated landscaping is located on the Owner's Unit within three feet of any foundation, slab, side or other portion of Dwelling, wall (including, but not necessarily limited to, party wall and/or Perimeter Wall/Fence) and/or any other improvement.

(c) Each Owner covenants to pay promptly when due all water bills for its Unit, and (subject to bonafide force majeure events) to not initiate or continue any act or omission which would have the effect of water being shut off to the Unit.

(d) In the event that any plants (including, but not necessarily limited to, trees, shrubs, bushes, lawn, flowers, and ground cover) on a Unit require replacement, then the cost of such replacement, and costs reasonably related thereto, shall be the responsibility of the Owner of the Unit. Soils within the Project may not sustain all plant materials due to the presence of chemicals such as boron and arsenic. Each Owner shall be obligated to select plant materials which will survive in the soils within the Project.



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the DRDD Board, the purchaser shall not be entitled to vote at meetings of the DRDD, unless the purchaser shall have a valid proxy from the seller of said Unit. The DRDD may levy a transfer fee ("DRDD Transfer Fee") against a new Homeowner and his or her Unit (which DRDD Transfer Fee shall be added to the DRDD Annual Assessment and DRDD Capital Contribution chargeable to such new Homeowner). DRDD Transfer Fees are in addition to, and shall not be considered as, an advance payment of, DRDD Annual Assessments and/or DRDD Capital Contributions for a Unit. DRDD Transfer Fee requirements shall not apply to the conveyance of a Builder Parcel from Declarant to a Builder. Each new Homeowner shall, if requested by the DRDD Board or Manager, timely attend an orientation to the Community and the Project, conducted by an DRDD Officer or Manager.

Section 9.5 DRDD Articles; DRDD Bylaws. The purposes and powers of the DRDD and the rights and obligations with respect to Members of the DRDD set forth in this Declaration and in the Declarations for the Trade Center Project and TCI Project (all, collectively herein, the "Declarations") respectively may and shall be amplified by provisions of the DRDD Articles and DRDD Bylaws, including any reasonable provisions with respect to corporate matters.

Section 9.6 DRDD Board of Directors. The affairs of the DRDD shall be managed by a DRDD Board of Directors. In accordance with the provisions of Section 9.7 below, upon the formation of the DRDD, Declarant in its sole discretion shall appoint the DRDD Board. The DRDD Board may act in all instances on behalf of the DRDD, except as otherwise may be provided in the DRDD Governing Documents or applicable Laws. The DRDD Directors, in the performance of their duties, are required to exercise the ordinary and reasonable care of directors of a corporation, subject to the business-judgment rule. *Notwithstanding the foregoing, or any other provision in this Declaration, the DRDD Board SHALL NOT AND MAY NOT regulate any part of the Project, other than the DRDD Facilities, and/or act on behalf of the DRDD to enforce any use restrictions, to amend the Declarations, or to terminate the Community.* DRDD Directors and/or Declarant are not personally liable to the victims of crimes occurring within the Project. Punitive damages may not be recovered against Declarant or the DRDD, subject to applicable Nevada law.

Section 9.7 Declarant's Control of the DRDD Board. Declarant shall have the right to appoint and remove all of the DRDD Directors, until the end of the Declarant Rights Period. During the Declarant Rights Period, Declarant at any time, with or without cause, may remove or replace any DRDD Director appointed by Declarant. DRDD Directors appointed by Declarant need not be Owners.

Section 9.8 Control of DRDD Board by DRDD Members. Subject to and following the Declarant Rights Period: (a) the DRDD Members shall elect the DRDD Board, and (b) the DRDD Board may fill vacancies in its membership (e.g., due to death or resignation of a DRDD Director), subject to the right of the DRDD Members to elect a replacement DRDD Director, for the unexpired portion of any term.

Section 9.9 Indemnification. The DRDD shall indemnify, defend, and hold harmless any present or former director, officer, employee, or other agent of the DRDD (collectively, "Agent" for purposes of this Section 9.9) to the fullest extent authorized by law, and may pay all expenses (including but not limited to expenses incurred in connection with settling an action or threatened action), judgments, or fines levied against any Agent as a result of any action or threatened action which attempts to impose liability on such Agent for damages or injuries resulting from that Agent's acts or omissions in connection with what the agent reasonably believed was appropriate conduct within the scope of his duties for DRDD, unless it is proven in a court of competent jurisdiction that the Agent acted with willful or wanton misfeasance or with gross negligence. After such proof, the DRDD shall cease to have any further obligations under this Section 9.9 and may personally recover all costs previously expended on behalf of such agent by the DRDD under this Section 9.9.



ARTICLE 12
ARCHITECTURAL AND LANDSCAPING COMMITTEE

Section 12.1 Master ALC. The Architectural and Landscaping Committee, sometimes referred to in this Declaration as the "Master ALC," shall initially consist of one (1) to three (3) committee members. Declarant shall have the sole right and power to appoint and/or remove all of the members to the Master ALC during the Declarant Rights Period; provided that Declarant, in its sole discretion, by written instrument, may at any earlier time turn over to the Homeowners the power to appoint the members to the Master ALC. The address of the Master ALC for all purposes, including the submission of plans for approval, shall be as designated from time to time by the Master ALC. At the end of the Declarant Rights Period (or such earlier date, if any, referred to in the preceding sentence) (such date being referred to herein as the "Applicable Date"), the terms of the Master ALC members appointed by Declarant shall expire, and the Master ALC shall terminate and be dissolved, unless within 180 days following the Applicable Date, new Master ALC committee members shall have been elected by the Owners of a majority of the Lots in the Project, and a Certificate of such election, showing the numbers of voting Owners electing the new Master ALC committee members, and the names and addresses of such new committee members shall have executed and acknowledged by the President and Secretary of the LMA, and recorded in the Official Records of Washoe County, Nevada, as an addendum to this Declaration. In the event of such election, the terms of the newly elected Master ARC committee members shall be one (1) year in duration, commencing initially on the day following the Applicable Date. The last day of said one(1) year term thereupon in turn shall become the Applicable Date, and the procedures set forth in the preceding portion of this Section 12.1 shall thereupon apply again with regard to the following one (1) year period, and so on thereafter.

Section 12.2 Review of Plans and Specifications. The Master ALC shall consider and act upon any and all proposals, plans and specifications, drawings, and other information or other items (collectively in this Article 12, "plans and specifications") submitted, or required to be submitted, for Master ALC approval under this Declaration and shall perform such other duties as from time to time may be assigned to the Master ALC by the LMA Board and/or Declarant, including the inspection of construction in progress to assure conformance with plans and specifications approved by the Master ALC.

(a) With the exception of any such activity of Declarant, no construction, alteration, grading, addition, excavation, removal, relocation, repainting, demolition, installation, modification, decoration, repair or reconstruction of an Improvement, including Dwelling and landscaping, or removal of any tree, shall be commenced or maintained by any Owner, until the plans and specifications therefor showing the nature, kind, shape, height, width, color, materials and location of the same shall have been submitted to, and approved in writing by, the Master ALC. No design or construction activity of Declarant shall be subject to Master ALC approval. The Owner submitting such plans and specifications ("Applicant") shall obtain a written receipt therefor from an authorized agent of the Master ALC. The Master ALC shall approve plans and specifications submitted for its approval only if it deems that: (1) the construction, alterations, or additions contemplated thereby in the locations indicated will not be detrimental to the appearance of the surrounding area or the Project as a whole; (2) the appearance of any structure affected thereby will be in harmony with other structures in the vicinity; (3) the construction will not detract from the beauty, wholesomeness and attractiveness of the LMA Common Elements or the enjoyment thereof by the Members; (4) the construction will not unreasonably interfere with existing views from other Units; (5) the upkeep and maintenance will not become a burden on the LMA; and (6) the construction will not impede or adversely affect the DRDD and/or any DRDD Facility or function.

(b) The Master ALC may condition its review and/or approval of plans and specifications for any Improvement upon any one or more or all of the following conditions: (1) such changes therein as the Master ALC deems appropriate; (2) agreement by the Applicant to grant appropriate easements to the LMA for the maintenance of the Improvement; (3)



with a building code or other applicable legal requirement. Master ALC approval shall be subject to all applicable requirements of applicable government authority, drainage, and other similar matters, and shall not be deemed to encompass or extend to possible impact on neighboring Lots.

Section 12.3 Meetings of the Master ALC. The Master ALC shall meet from time to time as necessary to perform its duties hereunder. The Master ALC may from time to time, by resolution unanimously adopted in writing, designate an Master ALC representative (who may, but need not, be one of its members) to take any action or perform any duties for and on behalf of the Master ALC, except the granting of variances pursuant to Section 12.8 below. In the absence of such designation, the vote of a majority of the Master ALC, or the written consent of a majority of the Master ALC taken without a meeting, shall constitute an act of the Master ALC.

Section 12.4 No Waiver of Future Approvals. The approval by the Master ALC of any proposals or plans and specifications or drawings for any work done or proposed or in connection with any other matter requiring the approval and consent of the Master ALC, shall not be deemed to constitute a waiver of any right to withhold approval or consent as to any similar proposals, plans and specifications, drawings or matters subsequently or additionally submitted for approval or consent.

Section 12.5 Compensation of Members. Subject to the provisions of Section 12.2(b) above, members of the Master ALC shall not receive compensation from the LMA for services rendered as members of the Master ALC.

Section 12.6 Correction by Owner of Nonconforming Items. Subject in all instances to compliance by Owner with all applicable requirements of governmental authorities with jurisdiction, Master ALC inspection (which shall be limited to inspection of the visible appearance of the size, color, location and materials of work), and Owner correction of visible nonconformance therein, shall proceed as follows:

(a) The Master ALC or its duly appointed representative shall have the right to inspect any Improvement ("Right of Inspection") whether or not the Master ALC's approval has been requested or given, provided that such inspection shall be limited to the visible appearance of the size, color, location, and materials comprising such Improvement (and shall not constitute an inspection of any structural item, method of construction, or compliance with any applicable requirement of governmental authority). Such Right of Inspection shall, however, terminate sixty (60) days after receipt by the Master ALC of written notice from the Owner of the Unit that the work of Improvement has been completed. If, as a result of such inspection, the Master ALC finds that such Improvement was done without obtaining approval of the plans and specifications therefor or was not done in substantial compliance with the plans and specifications approved by the Master ALC, it shall, within sixty (60) days from the inspection, notify the Owner in writing of the Owner's failure to comply with this Article 12, specifying the particulars of noncompliance. If work has been performed without approval of plans and specifications therefor, the Master ALC may require the Owner of the Unit in which the Improvement is located, to submit "as-built" record drawings certified by a licensed architect or engineer which describe the Improvement in detail as actually constructed. The Master ALC shall have the authority to require the Owner to take such action as may be necessary to remedy the noncompliance.

(b) If, upon the expiration of sixty (60) days from the date of such notification, the Owner has failed to remedy such noncompliance, the Master ALC shall notify the LMA Board in writing of such failure. Upon Notice and Hearing, the LMA Board shall determine whether there is a noncompliance (with the visible appearance of the size, color, location, and/or materials thereof) and, if so, the nature thereof and the estimated cost of correcting or removing the same. If a noncompliance exists, the Owner shall remedy or remove the same within a period of not more than forty-five (45) days from the date that notice of the LMA Board ruling is given to the Owner. If the Owner does not comply with the LMA Board ruling within that period, the LMA



or entity for any damage, loss, or prejudice suffered or claimed on account of (a) the approval or disapproval of any proposals, plans and specifications and drawings, whether or not defective, or (b) the construction or performance of any work, whether or not pursuant to the approved proposals, plans and specifications and drawings.

Section 12.10 Architectural Guidelines. The Master ALC, in its sole discretion, from time to time, may, but is not obligated to, promulgate Architectural and Landscape Standards and Guidelines for the Community.

Section 12.11 Declarant Exemption. The Master ALC shall have no authority, power or jurisdiction over Units or other property in the Project owned by Declarant, and the provisions of this Article 12 shall not apply to Improvements built by Declarant, or, until such time as Declarant conveys title to the Unit to a Purchaser, to Units owned by Declarant. This Article 12 shall not be amended without Declarant's written consent set forth on the amendment. After the Declarant Rights Period: (a) the Master ALC additionally shall have no authority, power or jurisdiction over the LMA, LMA Common Elements, Landscape Improvements, DRDD, or DRDD Facilities, and the provisions of this Article 12 shall not apply respectively thereto, and (b) this Article 12 shall not be amended without written consent of LMA and DRDD, in their respective discretion, set forth on the amendment.

ARTICLE 13 **DAMAGE TO OR CONDEMNATION OF LMA COMMON ELEMENTS/DRDD FACILITIES**

Section 13.1 Damage or Destruction. Damage to, or destruction or condemnation of, all or any portion of the LMA Common Elements/DRDD Facilities shall be handled in the following manner:

(a) Repair of Damage. Any portion of this Community, for which insurance is required by this Declaration, which is damaged or destroyed, must be repaired or replaced promptly, unless: (i) the Community is terminated; (ii) repair or replacement would be illegal under any state or local statute or ordinance governing health or safety; or (iii) eighty percent (80%) of the Owners, including every Owner of a Unit that will not be rebuilt, vote not to rebuild. If the entire Community is not repaired or replaced, the proceeds attributable to the damaged LMA Common Elements/DRDD Facilities must be used to restore the damaged area to a condition compatible with the remainder of the Community; (A) the proceeds attributable to Units that are not rebuilt must be distributed to the Owners of those Units; and (B) the remainder of the proceeds must be distributed to all the Owners or lien holders, as their interests may appear, in proportion to the liabilities of all the Units for LMA Expenses. If the Owners vote not to rebuild any Unit, that Unit's allocated interests are automatically reallocated upon the vote as if the Unit had been condemned, and the LMA promptly shall prepare, execute and Record an amendment to this Declaration reflecting the reallocations.

(b) Damage by Owner. To the full extent permitted by law, each Owner shall be liable to the LMA/DRDD for any damage to the LMA Common Elements/DRDD Facilities not fully reimbursed to the LMA by insurance proceeds, provided the damage is sustained as a result of the negligence, willful misconduct, or unauthorized or improper installation or maintenance of any improvement by said Owner or the Persons deriving their right and easement of use and enjoyment of the LMA Common Elements/DRDD Facilities from said Owner, or by its respective Family and guests, both minor and adult. The LMA reserves the right, acting through the LMA Board, after Notice and Hearing, to: (1) determine whether any claim shall be made upon the insurance maintained by the LMA; and (2) levy against such Owner a Special Assessment equal to any deductible paid and the increase, if any, in the insurance premiums directly attributable to the damage caused by such Owner or the Person for whom such Owner may be responsible as described above. In the case of joint ownership of a Unit, the liability of the co-owners thereof shall be joint and several. After Notice and Hearing, the LMA may levy a Special Assessment in the amount of the cost of correcting such damage,



malicious mischief, in such limits as it shall deem desirable (but in no event less than \$1,000,000.00 covering all claims for bodily injury and property damage arising out of a single occurrence), insuring the LMA/DRDD, LMA/DRDD Board, Directors, Officers, Declarant, and Manager, and their respective agents and employees, and the Owners and Occupants of Units and their respective Families, guests and invitees, against liability for bodily injury, death and property damage arising from the activities of the LMA/DRDD or with respect to property maintained or required to be maintained by the LMA/DRDD including, if obtainable, a cross-liability endorsement insuring each insured against liability to each other insured. Such insurance shall also include coverage, to the extent reasonably available, against liability for non-owned and hired automobiles, liability for property of others, and any other liability or risk customarily covered with respect to projects similar in construction, location, and use. The LMA/DRDD may also obtain, through the LMA/DRDD Board, Worker's Compensation insurance (which shall be required if the LMA/DRDD has one or more employees) and other liability insurance as it may deem reasonable and prudent, insuring each Owner and the LMA/DRDD, LMA/DRDD Board, and any Manager, from liability in connection with the LMA Common Elements/DRDD Facilities, the premiums for which are an LMA/DRDD Expense included in the Annual Assessment levied against the Owners. All insurance policies shall be reviewed at least annually by the LMA/DRDD Board and the limits increased in its reasonable business judgment.

Section 14.3 Fidelity Insurance. The LMA/DRDD Board shall further cause to be obtained and maintained errors and omissions insurance, blanket fidelity insurance coverage (in an amount at least equal to 100% of the LMA/DRDD Funds from time to time handled by such Persons) and such other insurance as it deems prudent, insuring the LMA/DRDD Board, the Directors, and Officers, and any Manager against any liability for any act or omission in carrying out their respective obligations hereunder, or resulting from their membership on the LMA/DRDD Board or on any committee thereof, if reasonably feasible, the amount of such coverage shall be at least \$1,000,000.00. Said policy or policies of insurance shall also contain an extended reporting period endorsement (a tail) for a six-year period, if reasonably available. The LMA/DRDD shall require that the Manager maintain fidelity insurance coverage which names the LMA/DRDD as an obligee, in such amount as the LMA/DRDD Board deems prudent. From and after the end of the Declarant Rights Period, blanket fidelity insurance coverage which names the LMA/DRDD as an obligee shall be obtained by or on behalf of the LMA/DRDD for any Person handling funds of the LMA/DRDD, including but not limited to, Officers, Directors, trustees, employees, and agents of the LMA/DRDD, whether or not such Persons are compensated for their services, in such an amount as the LMA/DRDD Board deems prudent; provided that in no event may the aggregate amount of such bonds be less than the maximum amount of LMA/DRDD Funds that will be in the custody of the LMA/DRDD or Manager at any time while the policy is in force (but in no event less than the sum equal to one-fourth (1/4) of the Annual Assessments on all Units, plus LMA/DRDD Reserve Funds) (or such other amount as may be required by FNMA, VA, or FHA from time to time, if applicable).

Section 14.4 Other Insurance Provisions. The LMA/DRDD Board shall also obtain such other insurances customarily required with respect to projects similar in construction, location, and use, or as the LMA/DRDD Board may deem reasonable and prudent from time to time, including, but not necessarily limited to, Worker's Compensation insurance (which shall be required if the LMA/DRDD has any employees). All premiums for insurances obtained and maintained by the LMA/DRDD are an LMA/DRDD Expense included in the Annual Assessment levied upon the Owners. All insurance policies shall be reviewed at least annually by the LMA/DRDD Board and the limits increased in its sound business judgment. In addition, the LMA/DRDD shall continuously maintain in effect such casualty, flood, and liability insurance and fidelity insurance coverage necessary to meet the requirements for similar developments, as set forth or modified from time to time by any governmental body with jurisdiction, except to the extent such coverage is not available or has been waived in writing by the applicable agency.

Section 14.5 Insurance Obligations of Owners. Each Owner is required, at Close of Escrow on its Unit, at its sole expense to have obtained, and to have furnished its Mortgagee (or, in the event of a cash transaction involving no Mortgagee, then to the LMA/DRDD Board)



ARTICLE 15
MORTGAGEE PROTECTION CLAUSE

In order to induce FHA, VA, FHLMC, GNMA and FNMA and any other governmental agency or other Mortgagees to participate in the financing of the sale of Units within the Project, the following provisions are added hereto (and to the extent these added provisions conflict with any other provisions of the Declaration, these added provisions shall control):

(a) Each Eligible Holder, at its written request, is entitled to written notification from the LMA/DRDD of any default by the Mortgagor of such Unit in the performance of such Mortgagor's obligations under this Declaration, the LMA/DRDD Articles of Incorporation or the LMA/DRDD Bylaws, which default is not cured within thirty (30) days after the LMA/DRDD learns of such default. For purposes of this Declaration, "first Mortgage" shall mean a Mortgage with first priority over other Mortgages or Deeds of Trust on a Unit, and "first Mortgagee" shall mean the Beneficiary of a first Mortgage.

(b) Each Owner, including every first Mortgagee of a Mortgage encumbering any Unit which obtains title to such Unit pursuant to the remedies provided in such Mortgage, or by foreclosure of such Mortgage, or by deed or assignment in lieu of foreclosure, shall be exempt from any "right of first refusal" created or purported to be created by the Governing Documents.

(c) Except as provided in NRS § 116.3116(2), each Beneficiary of a first Mortgage encumbering any Unit which obtains title to such Unit or by foreclosure of such Mortgage, shall take title to such Unit free and clear of any claims of unpaid assessments or charges against such Unit which accrued prior to the acquisition of title to such Unit by the Mortgagee.

(d) Unless at least sixty-seven percent (67%) of Eligible Holders (based upon one (1) vote for each first Mortgage owned) or sixty-seven percent (67%) of the Owners (other than Declarant) have given their prior written approval, neither the LMA/DRDD nor the Owners shall:

(i) subject to Nevada nonprofit corporation law to the contrary, by act or omission seek to abandon, partition, alienate, subdivide, release, hypothecate, encumber, sell or transfer the LMA Common Elements/DRDD Facilities and the Landscape Improvements thereon which are owned by the LMA/DRDD; provided that the granting of easements for public utilities or for other public purposes consistent with the intended use of such property by the LMA/DRDD as provided in this Declaration shall not be deemed a transfer within the meaning of this clause.

(ii) change the method of determining the obligations, assessments, dues or other charges which may be levied against an Owner, or the method of allocating distributions of hazard insurance proceeds or condemnation awards;

(iii) by act or omission change, totally waive or abandon any scheme of regulations, or enforcement thereof, pertaining to the architectural design of the exterior appearance of the Dwellings and other Improvements on the Units, the maintenance of Exterior Walls/Fences or common fences and driveways, or the upkeep of lawns and plantings in the Project;

(iv) fail to maintain Fire and Extended Coverage on any insurable Improvements on LMA Common Elements/DRDD Facilities on a current replacement cost basis in an amount as near as possible to one hundred percent (100%) of the insurance value (based on current replacement cost);



previously approved by the VA; provided that no such approval shall be required in the event that the VA no longer regularly requires or issues such approvals at such time.

In addition to the foregoing, the LMA/DRDD Board of Directors may enter into such contracts or agreements on behalf of the LMA/DRDD as are required in order to reasonably satisfy the applicable express requirements of Mortgagees, so as to allow for the purchase, insurance or guaranty, as the case may be, by such entities of first Mortgages encumbering Units. Each Owner hereby agrees that it will benefit the LMA/DRDD and their respective Membership, as a class of potential Mortgage borrowers and potential sellers of their Units, if such agencies approve the Project as a qualifying subdivision under their respective policies, Rules, as adopted from time to time. Mortgagees are hereby authorized to furnish information to the LMA/DRDD Board concerning the status of any Mortgage encumbering a Unit.

ARTICLE 16 **DECLARANT'S RESERVED RIGHTS**

Section 16.1 Declarant's Reserved Rights. Any other provision herein notwithstanding, pursuant to NRS § 116.2015(1)(h), Declarant reserves, in its sole discretion, the following developmental rights and other special rights, on the terms and conditions and subject to the expiration deadlines, if any, set forth below:

(a) **Right to Complete Improvements and Construction Easement.** Declarant reserves, for a period terminating on the fifteenth (15th) anniversary of the Recordation of this Declaration, the right, in Declarant's sole discretion, to complete the construction of the Improvements on the Project and an easement over the Project for such purpose; provided, however, that if Declarant still owns any property in the Project on such fifteenth (15th) anniversary date, then such rights and reservations shall continue, for one additional successive period of ten (10) years thereafter.

(b) **Exercise of Developmental Rights.** Pursuant to NRS Chapter 116, Declarant reserves the right to annex all or portions of the Annexable Area to the Community, pursuant to the provisions of Article 17 hereof, for as long as Declarant owns any portion of the Annexable Area. No assurances are made by Declarant with regard to the boundaries of those portions of the Project which may be annexed or the order in which such portions may be annexed. Declarant also reserves the right to withdraw real property from the Community.

(c) **Offices, Model Homes and Promotional Signs.** Declarant reserves the right, for itself (and/or for Builders, subject to such Rules established by Declarant in its sole discretion), to install and maintain signs, sales and management offices, and models in the Project, for the period set forth in Section 16.1(a), above, and Declarant further expressly reserves the right to use said signs, offices and models, in connection with marketing and sales of other projects of Declarant in the County. Without limiting the foregoing, Declarant further reserves the right in its sole discretion (subject only to Laws) to grant signage and/or entry monumentation rights and/or easements in the arterial Landscaping and/or other portions of the Project.

(d) **Appointment and Removal of Directors.** Declarant reserves the right to appoint and remove the LMA/DRDD Board as set forth in Section 4.7 hereof, and the DRDD Board as set forth in Section 9.7 hereof, respectively during the Declarant Rights Period.

(e) **Amendments.** Declarant reserves the right to amend this Declaration from time to time, as set forth in detail in Section 21.5, below, and any other provision of this Declaration, during the time periods set forth therein.

(f) **Easements.** Declarant has reserved certain easements, and related rights, as set forth in this Declaration.



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(g) The rights and reservations of Declarant referred to herein, if not earlier terminated pursuant to the Declaration, shall terminate on the date set forth in Section 16.1(a) above.

Section 16.3 Limitations on Amendments. In recognition of the fact that the provisions of this Article 16 operate in part to benefit the Declarant, no amendment to this Article 16, and no amendment in derogation of any other provisions of this Declaration benefitting the Declarant, may be made without the written approval of the Declarant, and any purported amendment of Article 16, or any portion thereof, or the effect respectively thereof, without such express prior written approval, shall be void; provided that the foregoing shall not apply to amendments made by Declarant.

ARTICLE 17 **ANNEXATION**

Section 17.1 Annexation of Property. Declarant may, but shall not be required to, at any time or from time to time, add to the Project covered by this Declaration all or any portions of the Annexable Area then owned by Declarant, by Recording an annexation amendment ("Annexation Amendment") with respect to the real property to be annexed ("Annexed Property"). Upon the recording of an Annexation Amendment covering any portion of the Annexable Area and containing the provisions set forth herein, the covenants, conditions and restrictions contained in this Declaration shall apply to the Annexed Property in the same manner as if the Annexed Property were originally covered in this Declaration and originally constituted a portion of the Original Property; and thereafter, the rights, privileges, duties and liabilities of the parties to this Declaration with respect to the Annexed Property shall be the same as with respect to the Original Property and the rights, obligations, privileges, duties and liabilities of the Owners and occupants of Units within the Annexed Property shall be the same as those of the Owners and occupants of Units originally affected by this Declaration. By acceptance of a deed from Declarant conveying any real property located in the Annexable Area, in the event such real property has not theretofore been annexed to the Project encumbered by this Declaration, and whether or not so expressed in such deed, the grantee thereof covenants that Declarant shall be fully empowered and entitled (but not obligated) at any time thereafter (and appoints Declarant as attorney in fact, in accordance with NRS § 111.450 and 111.460, of such grantee and its successors and assigns) to unilaterally execute and Record an Annexation Amendment, annexing said real property to the Community, in the manner provided for in this Article 17.

Section 17.2 Annexation Amendment. Each Annexation Amendment shall conform to the requirements of NRS § 116.2110, and shall include:

- (a) the written and acknowledged consent of Declarant;
- (b) a reference to this Declaration, which reference shall state the date of Recordation hereof and the County book and instrument number and any other relevant Recording data;
- (c) a statement that the provisions of this Declaration shall apply to the Annexed Property as set forth therein;
- (d) a sufficient description of the Annexed Property; and
- (e) assignment of an Identifying Number to each new Unit created;
- (f) a reallocation of the allocated interests among all Units ; and



these arbitration procedures shall include, without limitation, Claims for real and personal property damage, construction defects (whether patent or latent), bodily injury or wrongful death, nondisclosure, misrepresentation, fraud, emotional distress, monetary damages, rescission of any agreement, enforceability of this Declaration (including, without limitation, this Article 19), and/or specific performance.

Section 19.2 Framework for Arbitration. With respect to any Dispute governed by Nevada Revised Statutes, Section 40.600 to 40.695, inclusive, mediation of any Dispute is hereby waived and the mediation procedures set forth in Nevada Revised Statutes, Section 40.680, shall not be utilized. In lieu of the mediation procedures set forth in Nevada Revised Statutes Section, 40.680, the following procedures shall apply thereto, as well as to any other Disputes between Claimant and Declarant::

(a) Any Dispute between Claimant and Declarant where the claim of damage is \$3,500 or less, including disputes governed by the provisions of Nevada Revised Statutes, Sections 40.600 to 40.695, inclusive, where the estimated cost of repair or replacement of the item(s) in dispute is \$3,500 or less, shall be within the sole jurisdiction of the Small Claims Court and neither mediation nor arbitration shall be applicable unless both Claimant and Declarant so agree in writing.

(b) Any dispute between Claimant and Declarant where the claim of damage is more than \$3,500, including disputes governed by the provisions of Nevada Revised Statutes, Sections 40.600 to 40.695, inclusive, where the estimated cost of repair or replacement of the item(s) in dispute is more than \$3,500, shall, upon request by either Claimant or Declarant, be submitted to arbitration conducted in accordance with the Federal Arbitration Act, 9 U.S.C 1, et. Seq., the Uniform Arbitration Act of the Nevada Revised Statutes and the Construction Industry Arbitration Rules of the American Arbitration Association. Arbitration shall be initiated by filing a written Demand for Arbitration with the American Arbitration Association ("AAA"), accompanied by the required filing fee, and concurrently mailing a copy of the demand to the other party. Unless Claimant and Declarant agree otherwise, the Procedures for Large, Complex Construction Cases issued by the AAA shall apply to all cases to the extent such procedures are not in conflict with the Federal Arbitration Act or the Uniform Arbitration Act.

(c) Declarant may, in its sole discretion, consolidate the Disputes of various Claimants in the event that such Disputes are similar in nature and, if the aggregate amount of damage claimed by such Claimants exceeds \$3,500, such Disputes will be addressed in the same manner as a single Dispute where the claim of damage is more than \$3,500 as set forth herein.

(d) Before any Dispute can be submitted to arbitration, the party wishing to submit the Dispute must first, at least sixty (60) days prior to filing a Demand for Arbitration, give the other party written notice of the Dispute and, with reasonable specificity, the actions that should be taken by the other party to resolve the Dispute. With respect to any Dispute regulated by Nevada Revised Statutes, Sections 40.800 to 40.845, this sixty (60) day notice, if given by Claimant, shall comply with the requirements of Nevada Revised Statutes, Section 40.845. Each party may, prior to the arbitration hearing, conduct discovery as provided in Nevada Revised Statutes, Section 40.680, and Nevada Rules of Civil Procedure, Section V, Rules 26 to 37, inclusive.

(e) This Article 19 is intended to be binding upon Claimant and Declarant for all claims regulated by Nevada Revised Statutes, Sections 40.600 to 40.695, inclusive, after all the requirements of Sections 40.645 to 40.675 for resolution of the dispute prior to commencement of a civil action have been satisfied or waived by Claimant and Declarant in accordance with said statutes and in place and instead of any court action described therein.

Section 19.3 Arbitration Rules. The arbitration shall take place in the office of the American Arbitration Association ("AAA") nearest to the Project, at such time and date selected



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payments of Reasonable Amounts, as set forth in Section 20.4 below) are not otherwise subject to Assessments under this Declaration.

Section 20.2 Conveyance of Commercial/Public/Other Components. All Persons, including all Owners, are hereby advised that no representations or warranties have been or are made by Declarant, the LMA, DRDD, any Builder, or by any Person acting on behalf of any of the foregoing, with regard to ownership or operation of any of the Commercial/Public/Other Components. No purported representation or warranty in such regard, either written or oral, shall be effective unless specifically set forth in a written instrument executed by the record owner of the Component. The ownership or operation of the Commercial/Public/Other Components, and portions thereof, may change at any time. Consent of the LMA, DRDD, or any Owner shall not be required to effectuate any change in ownership or operation of any of the Commercial/Public/Other Components, for or without consideration and subject to or free of any mortgage, covenant, lien, or other encumbrance.

Section 20.3 View Impairment. Neither Declarant, the LMA, DRDD, nor the owner of any of the Commercial/Public/Other Components ("Component Owners") guarantees or represents that any view over and across the Commercial/Public/Other Components from adjacent Units will be preserved without impairment. Any additions or changes to the Commercial/Public/Other Components may diminish or obstruct any view from the Units, and any express or implied easements for view purposes or for the passage of light and air are hereby expressly disclaimed.

Section 20.4 Payments of Reasonable Amounts by Commercial/Public/Other Components. The Commercial/Public/Other Components shall be required to pay to the LMA and DRDD, in lieu of all LMA Assessments and DRDD Assessments, the following amounts ("Reasonable Amounts") which shall be conclusively deemed to constitute reasonable amounts therefor: (a) for each Commercial Component, and/or Public Component, Reasonable Amounts shall be amounts equal to Annual Assessments computed on a deemed basis of four (4) Units per each acre (prorated for each partial acre) comprising such Commercial Component or Public Component; and (b) for each Multi-Family Component, Reasonable Amounts shall be amounts equal to LMA and DRDD Annual Assessments computed on a deemed basis of four (4) apartment units comprising one (1) Unit for Assessment purposes. No other payment shall ever be required by or for the benefit of the LMA and/or DRDD (or otherwise in connection with the LMA Common Elements and/or DRDD Facilities) from any Commercial/Public/Other Components. Reasonable Amounts shall be due and payable periodically in installments, in like manner and at such times as LMA Annual Assessments and DRDD Annual Assessments are due from Units under this Declaration. Declarant is hereby fully empowered and entitled (but not obligated), in its sole discretion, to enter from time to time into separate written agreements with any owner of a Commercial/Public/Other Component and to Record separate Instruments, to memorialize the foregoing.

Section 20.5 Further Limitation on Amendments. In recognition of the fact that the provisions of this Article 20 operate in part to benefit the Commercial/Public/Other Components, no amendment to this Article 20, and no amendment in derogation of any other provisions of this Declaration benefiting any of the Commercial/Public/Other Components, may be made without the written approval of the affected Component Owners. The foregoing shall not apply, however, to amendments made by Declarant. Notwithstanding the foregoing, or any other provision in this Declaration, without the express prior written approval of Declarant (or Declarant's successor or assignee of Record as to such rights): (a) the Reasonable Amounts set forth in Section 20.4 above shall not be increased; (b) no other payment shall be required by or for the benefit of the Association (or related to the LMA Common Elements and/or DRDD Facilities) from any Commercial/Public/Other Component, or the owner(s) respectively thereof; and/or (c) this Article 20 (expressly including, but not limited to, Section 20.4 above) may not be revoked, deleted, modified, or supplemented (collectively and severally, an "amendment of Article 20"), and any purported amendment of Article 20, or any portion thereof, or the effect respectively thereof, without such express prior written approval, shall be void.



Section 21.3 Term. The covenants and restrictions of this Declaration shall run with and bind the Project, and shall inure to the benefit of and be enforceable by the LMA/DRDD or the Owner of any land subject to this Declaration, their respective legal representatives, heirs, successive Owners and assigns, until terminated by written agreement signed by at least eighty percent (80%) of the total voting power of the Members and a majority of the Directors.

Section 21.4 Interpretation. The provisions of this Declaration shall be liberally construed to effectuate its purpose of creating a uniform plan for the development of a Projected community and for the maintenance of the LMA Common Elements/DRDD Facilities. The article and section headings have been inserted for convenience only, and shall not be considered or referred to in resolving questions of interpretation or construction. Unless the context requires a contrary construction, the singular shall include the plural and the plural the singular; and the masculine, feminine and neuter shall each include the masculine, feminine and neuter.

Section 21.5 Amendment. Except as otherwise provided in this Declaration, and except in cases of amendments that may be executed by a Declarant, this Declaration, including the Plat, may only be amended by both: (a) the affirmative vote and/or written consent of Owners constituting at least two-thirds (2/3) of the total voting power of the LMA and/or DRDD (as applicable), and a majority of the total voting power of the LMA Board and/or DRDD Board (as applicable); and (b) during the Declarant Rights Period, the written consent of Declarant in its sole discretion. Notwithstanding the foregoing, termination of this Declaration and any of the following amendments, to be effective, must be approved in writing by at least sixty-seven percent (67%) of the Eligible Holders at the time of such amendment or termination, based upon one (1) vote for each first Mortgage owned:

- (a) Any amendment which affects or purports to affect the validity or priority of Mortgages or the rights or protection granted to Beneficiaries, insurers and guarantors of first Mortgages as provided in Article 15 and any other provision of this Declaration.
- (b) Any amendment which would necessitate a Mortgagee, after it has acquired a Unit through foreclosure, to pay more than its proportionate share of any unpaid assessment or assessments accruing after such foreclosure.
- (c) Any amendment which would or could result in a Mortgage being canceled by forfeiture, or in a Unit not being separately assessed for tax purposes.
- (d) Any amendment relating to the insurance provisions as set out in Article 14 hereof, or to the application of insurance proceeds as set out in Article 14 hereof, or to the disposition of any money received in any taking under condemnation proceedings.
- (e) Any amendment which would or could result in termination or abandonment of the Project or subdivision of a Unit, in any manner inconsistent with the provisions of this Declaration.
- (f) Any amendment which would subject any Owner to a right of first refusal or other such restriction if such Unit is proposed to be sold, transferred or otherwise conveyed.
- (g) Any amendment materially and substantially affecting: (i) voting rights; (ii) rights to use the LMA Common Elements/DRDD Facilities; (iii) reserves and responsibility for maintenance, repair and replacement of the LMA Common Elements; (iv) leasing of Units; (v) establishment of self-management by the LMA/DRDD where professional management has been required by any Beneficiary, insurer or guarantor of a first Mortgage; (vi) boundaries of any Unit; (vii) Declarant's right and power to annex or de-annex property to or from the Project; and (viii) assessments, assessment liens, or the subordination of such liens.



hereby consent and agree, and shall be conclusively deemed to have consented and agreed, to every limitation, restriction, easement, reservation, condition and covenant contained herein, whether or not any reference to these restrictions is contained in the instrument by which such person acquired an interest in the Project, or any portion thereof.

Section 21.8 Notices. Any notice permitted or required to be delivered as provided herein shall be in writing and may be delivered either personally or by mail. If delivery is made by mail, it shall be deemed to have been delivered three (3) business days after a copy of the same has been deposited in the United States mail, postage prepaid, addressed to any person at the address given by such person to the LMA and/or DRDD for the purpose of service of such notice, or to the residence of such person if no address has been given to the LMA or DRDD. Such address may be changed from time to time by notice in writing to the LMA and DRDD.

Section 21.9 Priorities and Inconsistencies. Subject to Section 5.6, above: (a) the LMA/DRDD Governing Documents shall be construed to be consistent with one another to the extent reasonably possible; (b) if there exist any irreconcilable conflicts or inconsistencies among the LMA/DRDD Governing Documents, the terms and provisions of this Declaration shall prevail (unless and to the extent only that a term or provision of this Declaration fails to comply with applicable law); (c) in the event of any inconsistency between the LMA/DRDD Articles and LMA/DRDD Bylaws, the LMA/DRDD Articles shall prevail; and (d) in the event of any inconsistency between the LMA/DRDD Rules and any other LMA/DRDD Governing Document, the other LMA/DRDD Governing Document shall prevail.

Section 21.10 Limited Liability. Except to the extent, if any, expressly prohibited by applicable law, neither Declarant, the LMA, any LMA Director or Officer, the DRDD, any DRDD Director or Officer, the Master ALC, nor any officer, agent, employee, or committee representative, respectively of Declarant or the LMA and/or DRDD or the Master ALC, shall be liable to any Owner or any other Person for any action or for any failure to act with respect to any matter if the action taken or failure to act was reasonable or in good faith. The LMA shall indemnify every present and former LMA Officer and LMA Director and every present and former LMA committee representative against all liabilities incurred as a result of holding such office, to the full extent permitted by law. The DRDD shall indemnify every present and former DRDD Officer and DRDD Director and every present and former DRDD committee representative against all liabilities incurred as a result of holding such office, to the full extent permitted by law.

Section 21.11 Indemnity. Each Owner shall, to the maximum extent permitted by law, indemnify and hold free and harmless each and every one of: Declarant, the LMA, LMA Directors and LMA Officers, the DRDD, DRDD Directors and DRDD Officers, the Master ALC, and any officer, agent, employee, or committee representative, respectively of Declarant, LMA, DRDD, and their respective partners, members, divisions, subsidiaries and affiliated companies (if any), and the Master ALC, and their respective employees, officers, directors, members, shareholders, agents, professional consultants and representatives, and all of their respective successors and assigns (collectively, "Indemnitees") from and against any and all claims, damages, losses, liabilities, demands, and expenses, including, but not limited to, reasonable attorneys' fees, court costs and expenses of litigation (collectively, hereinafter referred to as "Liabilities"), arising out of or resulting from, or claimed to arise out of or result from, in whole or in part, any fault, act, or omission of the Owner, any contractor or subcontractor employed by the Owner, anyone directly or indirectly employed by any of the foregoing entities, or anyone for whose acts any of the foregoing entities may be liable, in connection with: (a) any work by or of the Owner within the Project and/or the performance of the Owner's obligations with respect to any and all improvements designed, installed, constructed, added, altered or remodeled by the Owner pursuant and subject to the Governing Documents, including, without limitation, any such loss, damage, injury or claim arising from or caused by or alleged to have arisen from or have been caused by (i) any use of the Unit, or any part thereof, (ii) any defect in the design, construction of, or material in, any structure or other improvement upon the Unit, (iii) any defect in soils or in the preparation of soils or in the design and accomplishment of grading, including a



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health hazard, property damage, bodily injury, and/or death) arising from or related to all and/or any one or more of the conditions, activities, occurrences, or other matters described in Exhibit "C" hereto, to the maximum extent not prohibited by applicable Laws.

IN WITNESS WHEREOF, Declarant has executed this Declaration the day and year first written above.

DECLARANT:

NEVADA TRI PARTNERS, A LIMITED LIABILITY COMPANY
a Nevada limited-liability company

By its Managing Members:

STEAMBOAT CREEK DEVELOPMENT, INC.,
a Nevada corporation

By: Lois T. Brown
Lois T. Brown, Vice President

DI LORETO SOUTH TRUCKEE MEADOWS, INC.,
a Nevada corporation

By: [Signature]
Perry M. Di Loreto, President

BDM DEVELOPMENT,
a Nevada limited-liability company

By: [Signature]
Craig Dutton, Managing Member

[acknowledgments set forth on following page]



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CONSENT AND JOINDER OF OWNER OF PARCEL 6
(PORTION OF ORIGINAL PROPERTY)

The undersigned fee title owner ("Owner") of a certain portion of the Original Property, more particularly described as Parcel 6 of Record of Survey Number 4001 as recorded in the Washoe County Official Records, October 25, 2001 under Filing Number 2609660, APN 140-020-03 ("Subject Property"), hereby consents to and joins in the foregoing Declaration, and the execution, recordation, and effect thereof. Without limiting the foregoing, Owner hereby acknowledges that Declarant (as defined in the foregoing Declaration) and Owner at all relevant times had intended that the foregoing Declaration upon its Recordation shall cover said Subject Property, and Owner hereby unconditionally and irrevocably agrees that this Declaration upon its Recordation shall cover the Subject Property, and shall run with the land, and shall be binding upon Owner and all persons and/or entities from time to time having or acquiring any right, title or interest in the Subject Property, and/or any part thereof.

OWNER:

LEWIS LAND COMPANY OF NEVADA, LLC
a Delaware limited liability company

By: **Lewis Operating Corp.**
a California corporation
its Sole Manager

By: Lois T. Brown
Lois T. Brown
Authorized Agent

STATE OF NEVADA

COUNTY OF WASHOE

} ss

This instrument was acknowledged before me on this 14th day of February, 2003, by LOIS T. BROWN, as Authorized Agent of LEWIS OPERATING CORP, a California corporation, as Sole Manager of LEWIS LAND COMPANY OF NEVADA, LLC, a Delaware limited liability company.

Raina Kolstrup
NOTARY PUBLIC
(seal)





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CONSENT AND JOINDER OF OWNER OF PARCELS 2 & 12
(PORTION OF ORIGINAL AND ANNEXABLE AREA)

The undersigned fee title owner ("Owner") of certain portions of the Original and Annexable Area, more particularly described as Parcels 2 and 12 respectively of Record of Survey Number 4001 as recorded in the Washoe County Official Records, October 25, 2001 under Filing Number 2809860, APN 140-020-12 and APN 140-020-07 respectively (collectively, "Subject Property"), hereby consents to and joins in the foregoing Declaration, and the execution, recordation, and effect thereof. Without limiting the foregoing, Owner hereby acknowledges that Declarant (as defined in the foregoing Declaration) and Owner at all relevant times had intended that, upon unilateral Recordation by Declarant of an instrument of annexation, the covenants, conditions and restrictions and reservation of easements contained in the foregoing Declaration shall apply to the Subject Property in the same manner as if the Subject Property originally had been covered in the Declaration and constituted a portion of the Original Property. Owner hereby unconditionally and irrevocably agrees that the Declaration upon said Recordation of an instrument of annexation, shall cover the Subject Property; and shall run with the land, and shall be binding upon Owner and all persons and/or entities from time to time having or acquiring any right, title or interest in the Subject Property, and/or any part thereof. Upon said Recordation of instrument of annexation, the rights, privileges, duties and liabilities of the parties to the Declaration with regard to the Subject Property shall be the same as with regard to the Original Property, and the rights, obligations, privileges, duties and liabilities of the owners and/or occupants of the Subject Property and/or portions thereof, shall be the same as those of the owners and/or occupants of the Original Property and/or portions thereof.

OWNER:

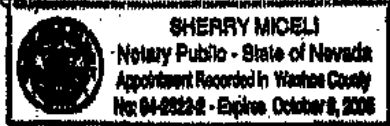
WASHOE COUNTY SCHOOL DISTRICT

By: James L. Hager
Printed Name: James L. Hager
Its: Superintendent

STATE OF NEVADA }
COUNTY OF WASHOE } ss

This instrument was acknowledged before me on this 14th day of February, 2003, by James L. Hager as Superintendent of WASHOE COUNTY SCHOOL DISTRICT.

Sherry Miceli
NOTARY PUBLIC
(seal)



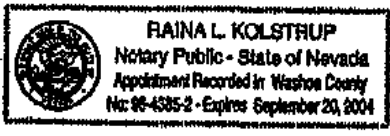


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STATE OF NEVADA }
COUNTY OF WASHOE } ss

This instrument was acknowledged before me on this 14th day of February, 2003, by Craig Dutton as President of DUTTON ENTERPRISES, a Nevada corporation.

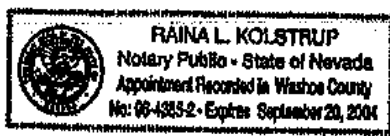
Raina Kolstrup
NOTARY PUBLIC
(seal)



STATE OF NEVADA }
COUNTY OF WASHOE } ss

This instrument was acknowledged before me on this 14th day of February, 2003, by Stephen W. Bailey as President of S & V, Inc., a Nevada corporation.

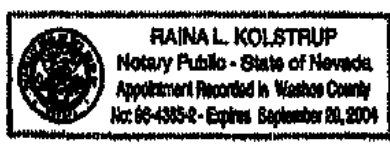
Raina Kolstrup
NOTARY PUBLIC
(seal)



STATE OF NEVADA }
COUNTY OF WASHOE } ss

This instrument was acknowledged before me on this 14th day of February, 2003, by Stephen W. Bailey as Officer of BAILEY, INC., a Nevada corporation.

Raina Kolstrup
NOTARY PUBLIC
(seal)





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EXHIBIT "A"

ORIGINAL PROPERTY

ALL THAT REAL PROPERTY SITUATED IN THE CITY OF RENO, COUNTY OF WASHOE, STATE OF NEVADA, DESCRIBED AS FOLLOWS:

Parcels 6, 7, 8, 10, 11, 12, 13 and 15 of Record of Survey Number 4001 as recorded in the Washoe County Official Records, October 25, 2001 under Filing Number 2609660, and

Parcels A, B and D of Parcel Map 3916 as recorded in the Washoe County Official Records, September 30, 2002 under Filing Number 2741606.

TOGETHER WITH a non-exclusive easement of use and enjoyment of the LMA Common Elements and/or DRDD Facilities thereof (subject to and set forth in the foregoing Declaration)

The Assessor's Parcel Numbers for the above Parcels are described as follows:

Parcel 6 of ROS 4001 - 140-020-03
Parcel 7 of ROS 4001 - 140-020-04
Parcel 8 of ROS 4001 - 140-020-05
Parcel 10 of ROS 4001 - 140-020-09
Parcel 11 of ROS 4001 - 140-020-08
Parcel 12 of ROS 4001 - 140-020-07
Parcel 13 of ROS 4001 - 140-020-06
Parcel 15 of ROS 4001 - 140-020-15

Parcel A of PM 3916 - 140-020-17
Parcel B of PM 3916 - 140-020-18
Parcel D of PM 3916 - 140-020-20



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EXHIBIT "C"

DISCLOSURE STATEMENT
DAMONTE RANCH PHASE 3 AND 3A

[to be attached here]



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2. Seller

Seller is Nevada Tri-Partners, a Nevada limited liability company, whose managing members ("Managing Members") are Steamboat Creek Development, Inc., a Nevada corporation; DiLoreto South Truckee Meadows, Inc., a Nevada corporation; and BDM Development, a Nevada limited liability company. Seller may be referred to in this Disclosure as "Seller" or "NTP."

3. Buyer

The term "Buyer" used in this Disclosure includes any purchaser or prospective purchaser of any part of the Development, including but not limited to builders, developers, subdividers, and residential purchasers.

4. Activities of Affiliates

Certain parts of the development have been acquired by Managing Members, Members, or affiliates of Seller, specifically Damonte Ranch Commerce Center, LLC, Damonte Ranch Commerce One, DiLoreto Commercial, Lewis Land Company of Nevada, LLC, LHN Cougar, LLC, Bailey & Dutton, BDM, LLC, Fairmount Homes and others. Uses of these properties by such affiliates will include residential, multi-family, commercial, office, industrial and retail facilities.

5. Sources of Information

A partial list of sources of information pertaining to the property is provided below. This itemization is intended for the convenience of the Buyer, but is not intended to be comprehensive. These may be amended or modified from time to time. The plans referred to in (a) and (b) below are available through Washoe County (www.co.washoe.nv.us); City of Reno Ordinances are available on the City's website at www.ci.reno.nv.us. Copies of documents referenced below are available at the DiLoreto South Truckee Meadows office located at 500 Damonte Ranch Parkway, Suite 703, Reno, Nevada 89511.

- (a) Comprehensive Plan: The Southeast Truckee Meadows Specific Plan (referred to in this Disclosure as the "Specific Plan.")
- (b) Regional Plan, Sphere of Influence Map;
- (c) City of Reno Ordinances;
- (d) Title Report for Damonte Ranch Phase 3 and 3A;
- (e) Design Standards Handbook;



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7. Land Use Designations

Prior to completing the purchase, Buyer should be aware of surrounding land uses and should consult documents such as the Specific Plan regarding land use designations. These documents are based on information from public agencies and are accurate only as of the date they were published. Land uses are always subject to changes and land use classifications do not necessarily indicate how land will be developed. Seller makes no representation that development will take place as shown and assumes no responsibility for errors or omissions in these maps or documents. For further information, Buyer should contact the planning staffs at the agencies having jurisdiction over the Development.

Seller reserves the right to change the land use designations, including eliminating or initiating specific uses, and to modify plans and designs on property it owns or controls within the Development, in its sole discretion.

Buyer should be aware that there is no assurance that any public facility not in existence will be built, or if built, will continue to be used in the same or similar manner and scope as currently operated. Parks and schools are under the control of governmental agencies that have the power to change their plans, including changing the location of sites and selling and exchanging sites. Seller may not have the power to fix sites for public facilities or to stop sites from being moved from one site to another, and Seller may initiate such changes. As to those public facilities constructed with public funding, Seller cannot determine whether, where, or when such facilities may be constructed.

8. Declaration of Covenants, Conditions, Restrictions and Easements

Title to each lot in the Development will be conveyed subject to certain easements, reservations, restrictions, covenants, and conditions, liens, assessments and charges set forth in the recorded Declaration of Covenants, Conditions, Restrictions and Easements (the "CC&R's"). The CC&R's are designed to enhance and protect the value of the Development, while ensuring continued compliance with land use restrictions, permits and other conditions affecting the project. The CC&R's will be comprised of the following declarations:

(a) Damonte Ranch Master Declaration. The Master Declaration of Covenants, Conditions, Restrictions and Reservation of Easements for Damonte Ranch, recorded or to be recorded by NTP, as may be amended from time to time (as so amended, the "Master Declaration").

(b) Supplemental Declaration. A Supplemental Declaration of Annexation and of Covenants, Conditions, Restrictions and Reservation of Easements, to be recorded by NTP prior to Close of Escrow.

(c) Development Declaration. The Declaration of Development Covenants and Restrictions to be Recorded against the Property at the Close of Escrow.



maintenance of utilities and related facilities, for installation and maintenance of drainage and other facilities and equipment, for compliance with the Wetlands Permit, to adjust or relocate walls and/or fencing or otherwise to correct boundary discrepancies, for mass grading, to perform any of Seller's work of improvement, to place slope banks or retaining walls as needed, to comply with drainage needs, to accomplish any of Seller's construction projects, to fulfill any jurisdictional agency requirements, to install and maintain any telecommunication and/or broadband systems, to extend, construct, connect to, and maintain utilities and drainage lines, and to accomplish any other tasks required of or by Seller in its sole and absolute discretion.

14. Postal Service

Buyer should consult the United States Post Office regarding requirements and conditions governing initiation of postal deliveries.

15. Environmental and Natural Conditions Affecting the Development

Former use as a cattle ranching facility:

Endemic diseases affecting cattle, including but not limited to anthrax, have been reported on this site at the southwestern corner of the property and north of future Steamboat Parkway. These sites are currently being evaluated by the Washoe County District Health Department (WCDHD). The Nevada State Veterinarian, David Thain, said: "The anthrax bacteria is common in the livestock industry," and that "anthrax bacteria found in nature is not in the same form as that associated with biological terrorism," (Reno Gazette Journal, September 6, 2000). Since anthrax is extremely difficult to culture from soil, there are no documented cases of inhalation anthrax due to soil contact, excavation or construction activities (WCDHD, 2000). In addition, naturally-occurring anthrax in humans is acquired through direct contact with anthrax-infected animals or anthrax-contaminated animal products (WCDHD, 2000) and, as a result, naturally-occurring inhalation anthrax is a rare cause of human disease (WCDHD, 2000). Protocols administered by the Nevada State Veterinarian and the WCDHD exist for the disposal of infected animals relative to cattle ranching activities and the former property owners have confirmed that disposal of infected animals conformed to such protocols, including deep burial. [See Black Eagle Phase I Site Assessment, Nov. 2001, page 1.]

Other standard ranching activities include the use of chemical pesticides, herbicides, fertilizers and other potentially hazardous materials. It is possible that residues of such materials may be found in soils or water on the Development, although the Seller is unaware of any tests detecting such substances. [See Black Eagle Phase I Site Assessment, Nov. 2001, page 2].



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excess mitigation area from time to time. Buyer has no right to modify the Development Plan with respect to wetlands.

The wetland areas have been designed to be incorporated into flood and drainage control features of the Development, and will add to the aesthetic quality of the Development as well as fulfilling important ecologic functions. These features initially will be managed by the DRDD, but may ultimately be transferred to the City of Reno, Washoe County or some other jurisdiction. Wetland areas may also be sold to other private or public interests or used in wetlands mitigation banking.

It is anticipated that the wetland areas will attract wildlife, waterfowl and insect communities typical to this environment. Wild geese commonly congregate in these types of areas in the Truckee Meadows, occasionally in numbers that some buyers may find offensive. Mosquito abatement and control will likely be required from time to time to minimize nuisance factors as well as the threat of mosquito-borne diseases, such as encephalitis and West Nile Virus. The WCDHD, or other jurisdictional agency, may conduct periodic aerial spraying within the Development pursuant to the Avigation Easement disclosed at Paragraph 5(n) hereof. The Washoe County District Health Department conducts a county-wide mosquito abatement program. It is anticipated that additional abatement and control may be undertaken by the DRDD and may include the use of chemical sprays, or other appropriate technologies, including the possible use of sentinel poultry flocks at strategic locations. Application of chemicals may include aerial spraying by helicopters. Although the DRDD may attempt to minimize nuisance from mosquitoes and other fauna associated with the wetlands, it cannot guarantee a mosquito-free environment.

Buyers will be expected to employ common sense strategies to avoid risks associated with the wetlands and to protect wetland values, including providing appropriate supervision over small children and animals.

19. Flood Zones, Flood Control, and Flood Insurance

The Development is or may be located in an area designated by the Federal Emergency Management Agency ("FEMA") to be a flood plain having special flood hazards. If the Property is located in such area, Seller intends to remove the Property from such area, to the extent commercially practicable. Seller has obtained a Conditional Letter of Map Revision ("CLOMR") from FEMA, and intends to construct required improvements pursuant to a drainage study, upon its approval. Upon completion of such improvements, Seller intends to apply for a full or partial Letter of Map Revision ("LOMR") from FEMA. In the meantime, Buyer may have to purchase flood insurance, pending issuance of a LOMR by FEMA. Issuance of a LOMR may eliminate the federal flood insurance purchase requirement as a condition of federal or federally backed financing; however, mortgage lenders may require flood insurance as a condition to providing financing, regardless of the location of the improvements. The City of Reno may require flood elevation certificates on each home built.



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23. Geologic, Soil and Groundwater Conditions

Soil and geologic conditions vary throughout the country and not all locations are ideal for building. A possible earthquake fault about a mile northwest of the Development is indicated in some geologic reports covering the area (see Black Eagle Phase I Site Assessment, Nov. 2001). Information regarding earthquake risk is contained in soils reports and in local government offices. The area is located near an active geothermal spring complex, and naturally occurring geothermal springs are present within the Development near Steamboat Creek.

The structural and chemical properties of soils vary widely. Foundations and methods of construction should be designed on the basis of soils engineers' recommendation to accommodate soil conditions for the particular location. Jurisdictional agencies have authority to approve these designs. During grading operations, native soils and rocks are often relocated. Structurally better soils are sometimes placed in areas beneath houses and less desirable materials placed in yard areas. Dirt and fill materials are often imported for use on a site.

Certain types of soils pose hazards to structures. For example, some clays swell when wet. Salts may damage concrete. Many problems relate to excessive moisture and it is important to maintain positive drainage of lots and avoid moisture accumulations near foundations in utility trenches and near concrete flatwork. Buyer should read the soils reports that relate to the property to understand conditions and constraints on property use and improvements.

Seller is relying on its soils engineers and grading contractors to provide appropriate soils engineering and mass grading and assumes no responsibility for geologic or soils conditions within the Development.

In addition to structural constraints, certain chemicals may be present in native soils in this area, including but not limited to boron, that may inhibit the growth of specific plants. Buyer should consult a site-specific soils chemistry report in making landscaping decisions.

Groundwater levels are known to be high (near surface) in many areas of the Development. Because of the shallow depth to groundwater, special design may be required to de-water construction trenches and to construct appropriate grading. Buyer should be aware that high concentrations of natural constituents in the groundwater, such as arsenic, may constrain use and disposal of groundwater.

24. Use of Effluent and Reclaimed Water for Landscape Irrigation

The Development, the LMA, and the DDRD utilize effluent water supplied by the Washoe County Division of Water Resources, or affiliates, for irrigation of common area landscape and lawn(s) under their respective direct control. Two golf courses in the immediate vicinity of the Development and other developments in the area also use effluent and reclaimed water as their primary source for golf course irrigation.



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28. Steamboat Parkway

Steamboat Parkway is presently designed to have four lanes, medians and arterial landscaping. Landscaping may be reduced at some time in the future to accommodate street widening and lane increases.

29. Freeway Noise

Parts of the Development will be impacted by traffic and construction noise from Highway 395 and other nearby arterial routes.

30. Construction Activities, Dust, Quarrying, and Haulage

Full build out of the Development is anticipated to take many years. Throughout the development and construction phases of the Development, certain areas will be impacted by construction activities, including quarrying from the borrow pit located in the northeast part of the Development described in Paragraph 25 hereof, gravel and dirt haulage from the borrow pit and to and from other locations, occasional dust, roadway infrastructure improvements and construction noise. Seller does not covenant to complete construction of the Development and associated infrastructure in any particular time frame or in any particular order, so that these impacts may not be predictable. In addition to construction activities, certain areas within the Development may be used for storage of construction materials, construction dewatering, and other related activities.

31. Proximity to the Reno-Tahoe Airport, Avigation Easement

Buyer is aware of the proximity of the Development to the Reno-Tahoe International Airport and that the area will be affected by aircraft noise from overflights by commercial, military and general aviation aircraft using the airport. Seller has granted an Avigation Easement over the Development to the Airport Authority of Washoe County described at Paragraph 5(m) hereof and to the Washoe County District Health Department. These easements provide that airplanes may fly to within 550 feet above the property and creates certain restrictions regarding vegetation, glare, etc. See copy of the referenced Avigation Easements for more detail.

32. Proximity to Geothermal Plant

Parts of the Development are within a few miles of a large geothermal power plant located near the Mt. Rose Highway and South Virginia Street. Because the general vicinity is an area of potential geothermal activity, additional geothermal exploration and development of geothermal resources should be anticipated.

MASTER DECLARATION FOR DAMONTE RANCH
END PAGE

When Recorded, Return To:

WILBUR M. ROADHOUSE, ESQ.
Goold Patterson Ales Roadhouse & Day
4496 South Pecos Road
Las Vegas, Nevada 89121
(702) 438-2600

DOC # 2808863
02/14/2009 05:00P Fee:102.00
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Requested By
STEWART TITLE OF NORTHERN NEVADA
Washoe County Recorder
Kathryn L. Burke - Recorder
Pg 89 of 89 RPT 0.00



Appendix B

Appendix B
USACE 404 Damonte Ranch Permit 199200382



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA 95814-2822
DEPARTMENT OF THE ARMY PERMIT

Permittee: Nevada Tri-Partners, D.L.C.
c/o 1425 Greg Street
Sparks, Nevada 89431

Permit Number: 199200382

Issuing Office: U.S. Army Engineer District, Sacramento
Corps of Engineers
1325 "J" Street
Sacramento, California 95814-2822

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: Place fill and excavate fill in approximately 18.8 acres of waters of the United States, including wetlands in conjunction with the development of the Damata Ranch East and West. The project consists of the construction of residential housing, industrial complexes, distribution commercial complexes, and flood control structures and supporting infrastructure.

All work is to be completed in accordance with the attached plans.

Project Location: the proposed project is located within portions of Sections 10, 14, 15, 16, 20, 21, 22, and 23 of T.18N., R.20E., M.D.B.M. in the city of Reno, Washoe County, Nevada.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on December 31, 2002. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archaeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

- 1) The permittee shall be required to implement the mitigation plan as specified in the document entitled "Final Wetland Mitigation Plan for the Damonte Ranch (Damonte East and Damonte West)" prepared by Huffman & Associates and dated April 1997, and revised July 1997, which is attached hereto and made part of this document.
- 2) The permittee shall reserve and offer for dedication to Washoe County as permanent open space, approximately 232.91 acres of existing wetlands and open space specified in the Southeast Truckee Meadows Wetland Corridor Plan and the Steamboat Creek Stream Environment Zone. The permittee agrees to adhere to the open space boundaries approved by the Washoe County Board of County Commissioners on November 9, 1993 as generally depicted in the Southeast Truckee Meadows Specific Plan dated November 9, 1993. This dedication of open space will occur in phases as development occurs and be incorporated into the Development Plans, to be approved by Washoe County, for the Damonte Ranch Development. Until this offer of dedication of open space is accepted and transferred to Washoe County, the permittee or its successors or assignees agree to maintain the open space lands. Activities involving impacts to the federally protected wetlands must be approved by the U.S. Army Corps of Engineers.
- 3) Water for the wetland mitigation project from the spring systems on that portion of the property known as Damonte West shall be withdrawn from the spring systems after it leaves the spring-fed wetlands (i.e., from the ditch to which the water now flows, or any subsequent similar conveyance system) or as consistent with State of Nevada water law as codified by the Nevada Revised Statute as regulated by the Nevada Department of Conservation and Natural Resources under the State Engineer, Nevada Division of Water Resources, Carson City Nevada.
- 4) The permittee shall provide a specific plan for water supply to the wetland mitigation area prior to commencing any construction on the project within waters of the United States. Such plan shall address, at a minimum, how and when water will be diverted, and the source(s) of the water rights being utilized.
- 5) The permittee shall provide updated maps and drawings prior to commencing any construction on the project within waters of the United States. Such maps and drawings shall, at a minimum, show the recent land use changes indicated in the November 13, 1996 letter from the Washoe County Department of Comprehensive Planning commenting on the Public Notice for this project.
- 6) The permittee shall provide drawings of all mechanisms/structures for controlling sediments and oil and grease prior to commencing construction on the project within waters of the United States, to include as built drawings under the projects proposed phasing plan.

- 7) The permittee shall provide to the U.S. Army Corps of Engineers and the State of Nevada Department of Conservation and Natural Resources - Department of Environmental Protection, Division of Water Quality (DWP) for review and approval (with copies supplied) the following prior to commencing construction on the project within waters of the United States as they are individually affected:
- (a) the design details for the flood control features shown in the permit;
 - (b) the erosion protection measures in Steamboat Creek near its confluence with the west side flood channel; and
 - (c) details on the diversion structure in Steamboat Creek and the east side flood channel and flood detention facility including the design of treatment wetlands for water quality improvement.
- 8) The permittee shall prepare as part of a wetlands educational program a "Wetland Brochure" that will educate the public concerning the wetlands found within the project area. The final wetland brochure will be consistent with the draft brochure found in the "Revised Wetland Mitigation Plan for the Danonte Ranch (Danonte East and Danonte West)" prepared by Ruffman & Associates and dated January 1997.
- 9) All plans submitted must be on 24" x 36" blueprints or similar format. The scale of the drawings shall be 1 inch = 100 feet.
- 10) The permittee shall provide two complete sets of as-built drawings of the completed works within the preservation and mitigation areas and the avoidance areas to the Corps of Engineers. The as-built drawings shall indicate changes made from the original plans in indelible red ink. These as-built drawings shall be provided no later than 60 days after the completion of construction of the mitigation area wetlands.
- 11) Monitoring of the avoidance areas and the preservation and mitigation areas shall occur as specified in the incorporated mitigation plan. This period shall commence upon completion of the construction of the mitigation wetlands. Additionally, continued success of the mitigation wetlands, without human intervention, must be demonstrated for three consecutive years, once the success criteria have been met. The mitigation plan will not be deemed successful until this criteria has been met.
- 12) All currently unfenced, verified wetlands to be avoided and preserved, shall be fenced prior to any work in waters of the United States, including wetlands. Fences shall be located on average no less than 25 feet outside the perimeters of all waters of the United States, including wetlands. This fencing shall be maintained by the permittee until the final approved mitigation treatments are implemented.
- 13) For those areas where the minimum buffer of 25 feet cannot be met the permittee must provide, prior to construction, a specific plan for proposed mitigation. This plan must indicate how the proposed mitigation will offset the additional adverse impacts which would result from the encroachment of residential and commercial landscaping to within several feet of the waters of the United States, including wetlands.

- 14) Monitoring reports shall be furnished to the Corps in accordance with the monitoring plan. Additional compensation work shall be required if the District Engineer determines that the mitigation work has failed to meet the success criteria or the goals of the mitigation plan. Included within the monitoring report shall be discussions as to what remedial actions, if any, that have been taken to ensure the eventual achievement of the mitigation success criteria.
- 15) The permittee shall be responsible for implementing and adhering to the approved wetland creation and enhancement plan. However, should monitoring of the preservation and mitigation areas indicate that growing conditions are other than those anticipated, a modified plan intended to ensure successful revegetation shall be submitted for approval by the District Engineer, in consultation with the U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency and the Nevada Division of Wildlife. Approved modifications shall be implemented. If at the end of the applicable monitoring period wetland creation is determined to be unsuccessful, the permittee shall continue to implement approved mitigation measures to implement the mitigation plan and continue monitoring until the mitigation effort is successful.
- 16) Until the offer of dedication of open space is accepted and transferred to Washoe County the following actions shall be taken prior to the start of construction on each phase of construction of the authorized project:
- a. Formation and recordation of the formation of a Landscape and Lighting District, or similar mechanism, to fund the long term maintenance of the mitigation and preserve areas.
 - b. In accordance with Special Condition 2, recordation of deed restrictions maintaining all preservation and mitigation areas as wetland preserves or conservation open space in perpetuity. Copies of the proposed deed restriction language shall be provided to the Corps for approval prior to recordation.
 - c. Copies of the recorded documents shall be provided to the Corps no later than 15 days prior to the start of construction of any phase of the activities authorized by this permit.
- 17) Copies of the acceptance and transfer agreement for the open space plan between the permittee and Washoe County shall be provided to the Corps within 10 days of the completion of the documents.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

- () Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
- (X) Section 404 of the Clean Water Act (33 U.S.C. 1344).
- () Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

- a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

- b. This permit does not grant any property rights or exclusive privileges.
- c. This permit does not authorize any injury to the property or rights of others.
- d. This permit does not authorize interference with any existing or proposed Federal projects.

3. **Limits of Federal Liability.** In issuing this permit, the Federal Government does not assume any liability for the following:

- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
- d. Design or construction deficiencies associated with the permitted work.
- e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. **Reliance on Applicant's Data.** The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. **Reevaluation of Permit Decision.** This office may reevaluate its decision on this permit at any time the circumstances warrant.

Circumstances that could require a reevaluation include, but are not limited to, the following:

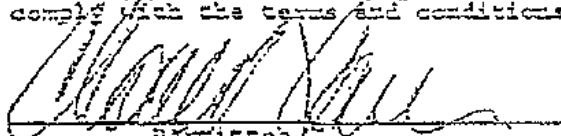
- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. **Extensions.** General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are

circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

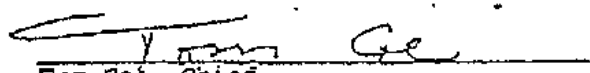
Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.


Permittee

8/1/97
Date

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Issued for and in behalf of Colonel John N. Reese, District Engineer.


Tom Coe, Chief
Central California/Nevada Regulatory Section

08/04/97
Date

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

Permittee

Date

Appendix C

Appendix C
USACE 404 Whites Creek Permit 199400866

Monitoring needs to be done

DEPARTMENT OF THE ARMY PERMIT

Permittee: DiLorato South Truckee Meadows, Inc.
 Permit Number: 199400966
 Issuing Office: U.S. Army Engineer District, Sacramento
 Corps of Engineers
 1325 "J" Street
 Sacramento, California 95814-3922

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description:

Location: The proposed White's Creek Meadows Subdivision project is east of U.S. Highway 395, at Zolezzi Lane, within the southern half of Section 16, Township 19 North, Range 20 East, M.D.B. & M., south of Reno, in Washoe County, Nevada.

Purpose: To prepare and develop a residential subdivision with a school or public facilities and associated infrastructure.

Description: Discharge fill material and excavate in a total of approximately 1.8 acres of waters of the United States, including wetlands, adjacent to and including White's and Stearboat Creeks, to configure and construct infrastructure, roads, utility lines, residential, school or public facilities. This work is to be done in accordance with the five (5) attached drawings, except where modified by the permit conditions.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on October 31, 1998. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a

Department of the Army Permit

Page 2

199400866

recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. A conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

1. All currently unfenced, verified wetlands to be avoided and preserved, shall be fenced prior to any work in waters of the United States, including wetlands. Fences shall be located no less than 20 feet outside of the perimeters of all waters of the United States, including wetlands. This fencing shall be maintained by the permittee until final approved mitigation treatments are implemented.
2. No work in waters of the United States, including wetlands, may occur until a comprehensive, detailed wetland mitigation plan has been reviewed and approved by this office, after consultation with the U.S. Fish and Wildlife Service and the U.S. Environmental Protection Agency.
3. The wetland mitigation plan must provide for the creation and restoration of wetlands and riverine streambeds, following the ratios and general design developed in the conceptual mitigation plan, dated January, 1995, revised August 15, 1995. This plan must include site locations, design drawings showing transect and well locations, specific vegetation plans, final success criteria and mitigation monitoring and reporting schedules and responsibility. The plan must insure that all the discharges into waters of the United States comply with approved water quality standards.
4. Mitigation and preservation areas shall include buffers and use restrictions to minimize significant human use impacts to special aquatic sites. Buffers shall be a minimum of 20 feet wide, outside of all wetlands and stream corridors and be designated as non-disturbance areas, with the exception of approved mitigation work. These buffers must be clearly identified and shown in the mitigation plan at an appropriate scale.
5. Construction of the compensatory mitigation areas as detailed in the approved mitigation plan shall commence concurrently with, or in advance of, the start of construction of the authorized activity, and be completed within one year. The permittee shall notify the District Engineer of the start date and the completion date of mitigation construction in writing and no later than ten (10) calendar days after each date.
6. Monitoring of the mitigation, preservation, and avoidance areas shall occur for five years or until the success criteria that have been developed and approved as part of the mitigation and monitoring plan are met, whichever is longer. This period shall commence upon completion of the construction of

the mitigation wetlands. Additionally, continued success of the mitigation wetlands, without human intervention, must be demonstrated for three consecutive years, once the success criteria have been met. The mitigation will not be deemed successful until this criteria has been met. Monitoring reports shall be submitted annually to the Corps of Engineers, U.S. Fish and Wildlife Service, and the U.S. Environmental Protection Agency for the five year monitoring period, and for each additional year, if needed, due to remediation to the mitigation program. An additional monitoring report shall be provided at the end of the three year period demonstrating continued success of the mitigation program without human intervention.

7. Cultural resource sites must be completely avoided according to the procedures listed in the "Archaeological Avoidance Plan, White's Creek Meadows Subdivision," dated September 1995, by Kautz Environmental Consultants, Inc. The measures in this avoidance plan must be executed and maintained until a final historic properties treatment plan has been developed and approved by this office, in accordance with the appropriate consultation process.

8. The following actions shall be taken prior to the start of construction of the authorized project:

a. Formation and recordation of the formation of a Landscape and Lighting District, or similar mechanism, to fund long term maintenance of mitigation and preserve areas.

b. Recordation of deed restrictions maintaining all preservation and mitigation areas as wetland preserve and wildlife habitat in perpetuity. Copies of the proposed deed restriction language shall be provided to the Corps for approval prior to recordation.

c. Copies of the recorded documents shall be provided to the Corps of Engineers no later than 15 days prior to the start of construction of any of the activities authorized by this permit.

9. The permittee shall provide two complete sets of as-builts of the completed work within the preservation, mitigation, and avoidance areas to this office. The as-builts shall indicate any changes made from the original plans in red ink. These as-builts shall be provided no later than 60 days after the completion of authorized work including the mitigation area wetlands.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

- () Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
- (x) Section 404 of the Clean Water Act (33 U.S.C. 1344).
- () Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

- a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

- b. This permit does not grant any property rights or exclusive privileges.
- c. This permit does not authorize any injury to the property or rights of others.
- d. This permit does not authorize interference with any existing or proposed Federal projects.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
- d. Design or construction deficiencies associated with the permitted work.
- e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data. The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant.

Circumstances that could require a reevaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain

Department of the Army Permit

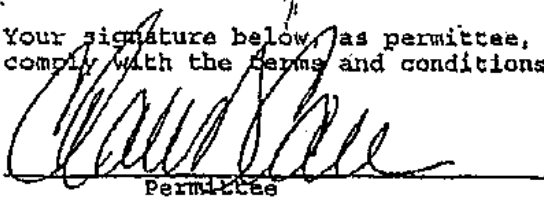
Page 5

199400866

situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.


Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.


Permittee

11/30/05
Date

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Issued for and in behalf of Colonel John N. Reese, District Engineer.


Tom Coe, Chief
Central California/Nevada Section

1/9/96
Date

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

Permittee

Date

Appendix D

Appendix D
USACE 404 Nevada Tri Partners Permit 199400866

REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA 95814-2922

June 28, 2005

Regulatory Branch (199400866)

Perry DiLoreto
Nevada TriPartners, LLC
500 Damonte Ranch Parkway, Ste 703
Reno, Nevada 89521-3911

Dear Mr. DiLoreto:

The US Army Corps of Engineers (Corps) completed our review of your request to combine Corps permits (199200382 and 199400866) and revise the permit conditions and their special conditions. The revised permit will still use and reference the latest Corps permit number: 199400866. Please sign and date both copies of the enclosed draft permit and return both of them to the Reno Regulatory Office for our signature. We will then sign both permits and return one copy, with both "wet" signatures, to you and keep the other copy for our files. The document reference by the permit, *Revised Wetland Mitigation Plan for Waters of the United States / Wetlands at Damonte Ranch, Reno, Washoe County, Nevada Permit 199400866 (2005 Revised Plan)* prepared by your consultant, Huffman and Carpenter, Inc., is not included with this letter because the notebook is quite large; it is being provided under separate cover.

The revised permit consolidates all the authorized discharges into regulated waters from the above referenced permits as well as some more recent proposed discharges, notably from WCMS and DW-1 wetlands. The total authorized impacts to regulated waters are 39.91 acres for which you are required to complete 41.93 acres of compensatory mitigation, referenced in the 2005 Revised Plan as Wetland A (MitWLA) and Wetland B (MitWLB). It is noted that all the authorized fills and all the mitigation are completed, except for WCMS and DW-1 wetlands. Additionally, nearly 69 acres have been restored or enhanced at the Damonte Ranch. Two water retention swales and some water redistribution swales from the north-south irrigation ditch all located in DE-1 North are minor, temporary impacts and do not require specific authorization. There are considered uncompleted mitigation enhancement efforts.

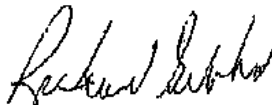
It is noted that the Corps expects there may be a need for more minor permit modifications because as your development becomes more complete, it may be necessary to reallocate resources and evaluate fringe areas to determine which would be in the overall best interest for regulated wetlands and your development. It is also noted that the Steamboat Creek restoration project, exclusive of the small portions part of the Whites Creek Meadows Subdivision, old Corps permit 199200866, is excluded from this authorization.

-2-

This permit revision has taken over two and a half years; we sincerely appreciate your patience and cooperation while the final permit changes were being developed and accepted by your staff and your consultant.

Please refer to Corps number 199400866 in any correspondence related to this project. If you have any questions, please contact the Reno Regulatory Office, 300 Booth Street, Room 2103, Reno, Nevada 89509-1361; email richard.a.gebhart@usace.army.mil; or telephone 775-784-5307.

Sincerely,



Richard Gebhart
Chief, Reno Regulatory Office

Enclosures

Copy Furnished w/o Enclosures:

Debra Lemke, Huffman and Carpenter, Inc., 500 Damonte Ranch Pkwy, Ste 929, Reno NV
89521-5911

DEPARTMENT OF THE ARMY PERMIT

Permittee: Nevada TriPartners

Permit Number: 199400866

Issuing Office: US Army Engineer District, Sacramento

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: This project proposes fill up to 39.91 acres of jurisdictional waters on the Damonte Ranch within the project boundaries as depicted on Attachment 1, Figures 7a & 7b, *Revised Wetland Mitigation Plan for Waters of the United States / Wetlands at Damonte Ranch, Reno, Washoe County, Nevada Permit 199400866 (2005 Revised Plan)*.

Project Location: Sections 10, 11, 14, 15, 16, 17, 20, 21, and 22, Township 18 North, Range 20 East, MDB&M, Washoe County, Nevada on the Steamboat Creek USGS Topographic Quadrangle.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on December 31, 2006. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

a. You shall compensate for authorized impacts by creating 41.93 acres of wetlands as shown on Attachment 1, Figure 15b of the 2005 Revised Plan.

b. You shall comply with all the conditions listed in Section 8.3 of the 2005 Revised Plan. Additionally, you should use the processes and procedures listed in this plan for the Damnote Ranch site affected by this authorization.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

- Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
- Section 404 of the Clean Water Act (33 U.S.C. 1344).
- Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

- a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
- b. This permit does not grant any property rights or exclusive privileges.
- c. This permit does not authorize any injury to the property or rights of others.
- d. This permit does not authorize interference with any existing or proposed Federal projects.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
- d. Design or construction deficiencies associated with the permitted work.
- e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data. The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision. Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

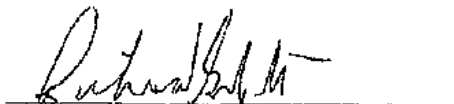


(PERMITTEE)

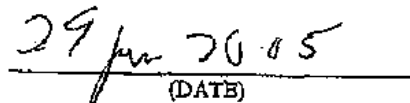


(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.



Richard Gebhart, Chief
Reno Regulatory Office
(FOR the District Engineer)



(DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE)

(DATE)

Appendix E

1

Appendix E
Photo Documentation of Damonte Ranch

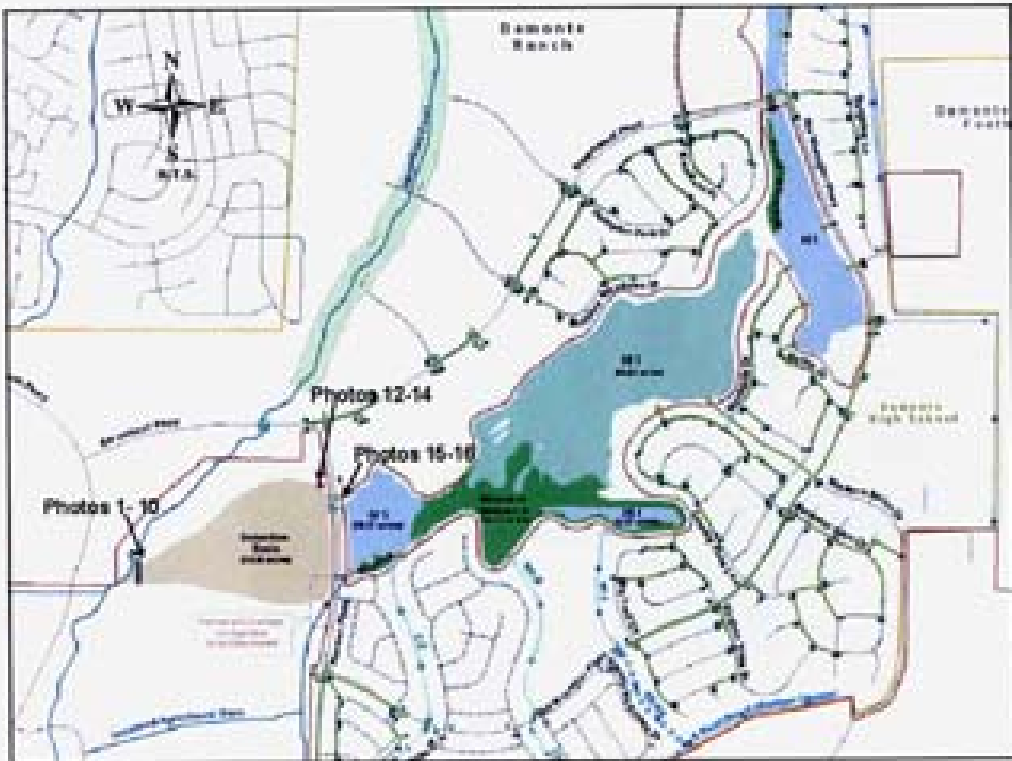


Photo 1. 10/21/05 - Overflow weir and culvert structure on Streamboat Creek at upper west end of detention basin. View looking north.



Photo 4, 1/9/06 - Upper west end of detention basin after 12/31/05 storm event where flows spilled over weir. View looking southwest.

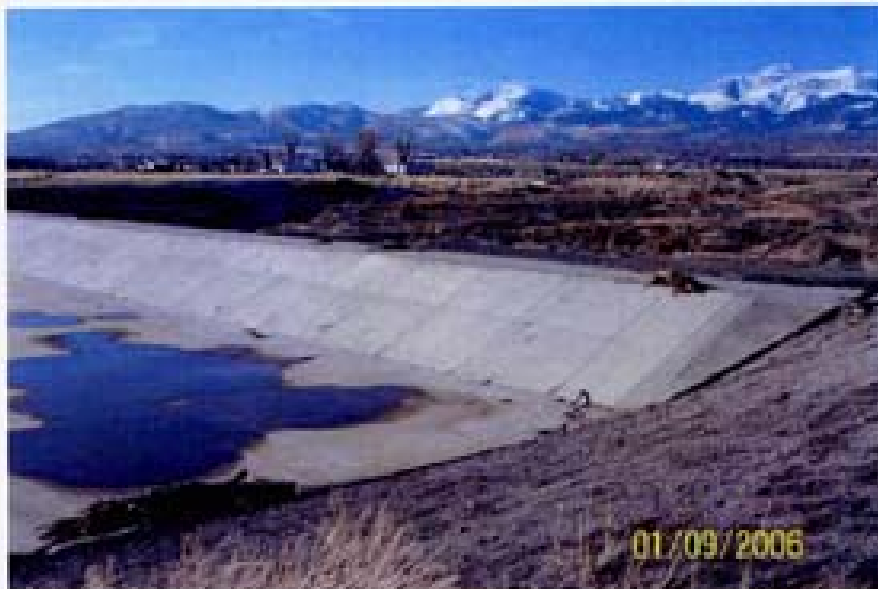


Photo 5, 1/9/06 - Overflow weir and Steamboat Creek at upper west end of detention basin after 12/31/05 storm event. View looking southwest.



Photo 8, 10/06 - Close-up of debris trapped between culverts after 10/05 storm event.



Photo 9, 10/21/05 - Steamboat Creek just downstream of culverts. View looking northeast.



Photo 12. 10/21/05 - Water slowly draining out of detention basin into wetland 065. Hay bales apparently installed to filter trash and debris. View looking southwest.



Photo 13. 12/02/05 - Same view as previous photo after 12/1/05 rain event. View looking west.



Photo 16. 1556 - Culverts under Pioneer Parkway. View looking southeast of culvert outlets just above west end of wetland D65 after 12/31/05 storm event.





Photo 28. 10/21/05 - Pond upstream of weir structure separating wetlands DE3 and DE 1. View looking east.



Photo 29. 10/21/05 - Small drain recently installed under bike path apparently to drain nuisance ponding.



Photo 23. 10/21/05 - Peil Lands capping removing weeds adjacent to bike path west of wetland DE1 near Steamboat Parkway.



Photo 24. 10/21/05 - Collects separating southern and northern sections of wetland DE1. View looking southwest at Steamboat Parkway and upper end of southern section of wetland DE1.



Photo 26. 10/21/05 - Culverts draining channel shown in previous photo. Filter rolls installed at entrance to culverts, apparently intended to provide sediment control.



Photo 27. 12/5/05 - Flood control channel above Rio Wrangler Parkway with new construction in the background. View looking northeast.



Photo 30. 1/1/06 - Same view as previous photo after 12/31/05 storm event.



Photo 31. 12/02/05 - Temporary (?) channel installed below culverts shown in previous photo. Culvert invert elevations appear to be below adjacent wetlands and are unable to drain completely. View looking north.



Photo 24. 1/1/06 - New drainage ditch in construction area above Rio Wrangler Parkway draining to southern section of wetland DE 1. No erosion or sediment control BMPs were observed. View looking east.



Photo 25. 1/1/06 - View across Rio Wrangler Parkway from previous photo. New drainage ditch discharging to southern section of wetland DE 1. View looking west.



Photo 37. 10/21/05 - Southern section of wetland DE1 adjacent to previous photo. View looking west.



Photo 38. 10/21/05 - Wetland DE1 northwest of Demento Ranch High School appear dry and may be converting to uplands. View looking northwest.



Photo 42. 10/21/05 - Homeowner has modified the front yard landscape. Turf area has been reduced and is separated from sidewalk and driveway by sand and decorative gravel and xeriscape plants. This approach provides a buffer and reduces runoff onto the roadway from irrigation.



Photo 44. 10/21/05 - Wetland DE3 just upstream of web structure to wetland DE1. View looking southwest.



Photo 45. 12/1/05 - Web between wetlands DE1 and DE3. View looking north.



Photo 48, 10/21/05 - Paved maintenance access next to culvert outlet on south side of wetland DE3. View looking north.



Photo 11. 12/1/95 - Mining operation above Damonte Ranch could be a sediment source to channels SE BA and W3 and wetland DE4.



Photo 54. 1/1/06 - Low grade control structures on channel SE 8A above Rio Wraugler Parkway after 12/01/05 storm event. View looking south.



Photo 55. 12/1/05 - Channel W3 just below Rio Wraugler Parkway with no erosion or sediment control BMPs. View looking north.



Photo 58. 1/1/06 - Erosion in channel W-1. Note that dune tracks parallel with slopes accelerated erosion.



Photo 59. Close up of rills that developed from runoff following dune tracks parallel with slope.



Photo 62. 1/1/06 - Sediment discharge from channel W3 to wetland DE 4 after 12/31/05 storm event. View looking north.



Photo 63. 1/1/06 - Close up of sediment discharge to wetland DE 4 after 12/31/05 storm event.

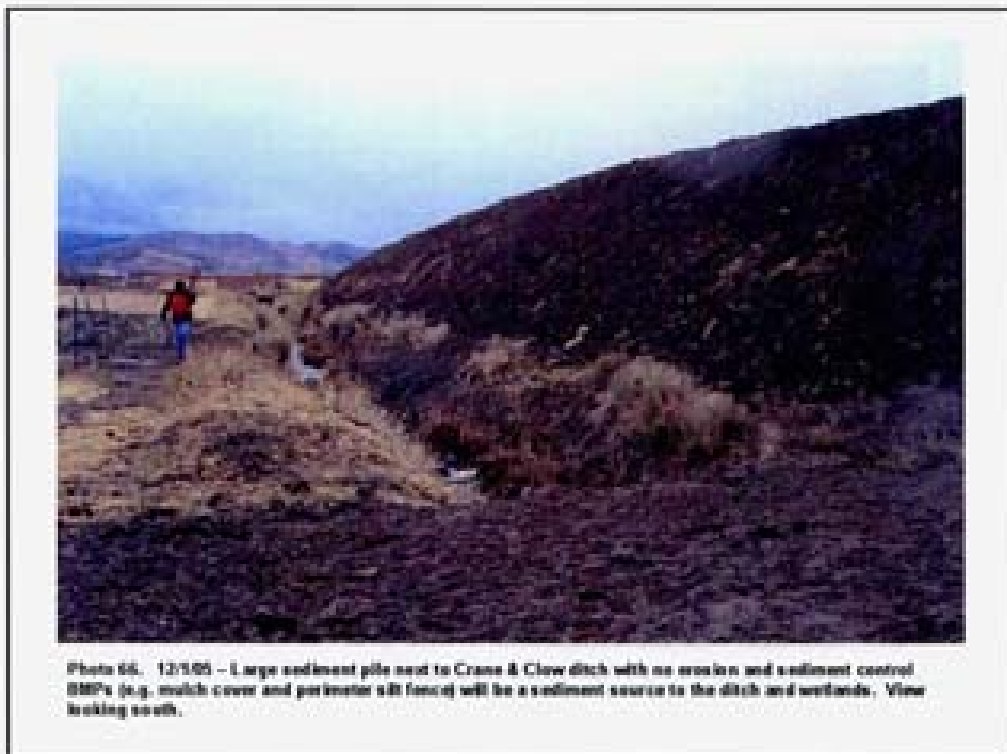
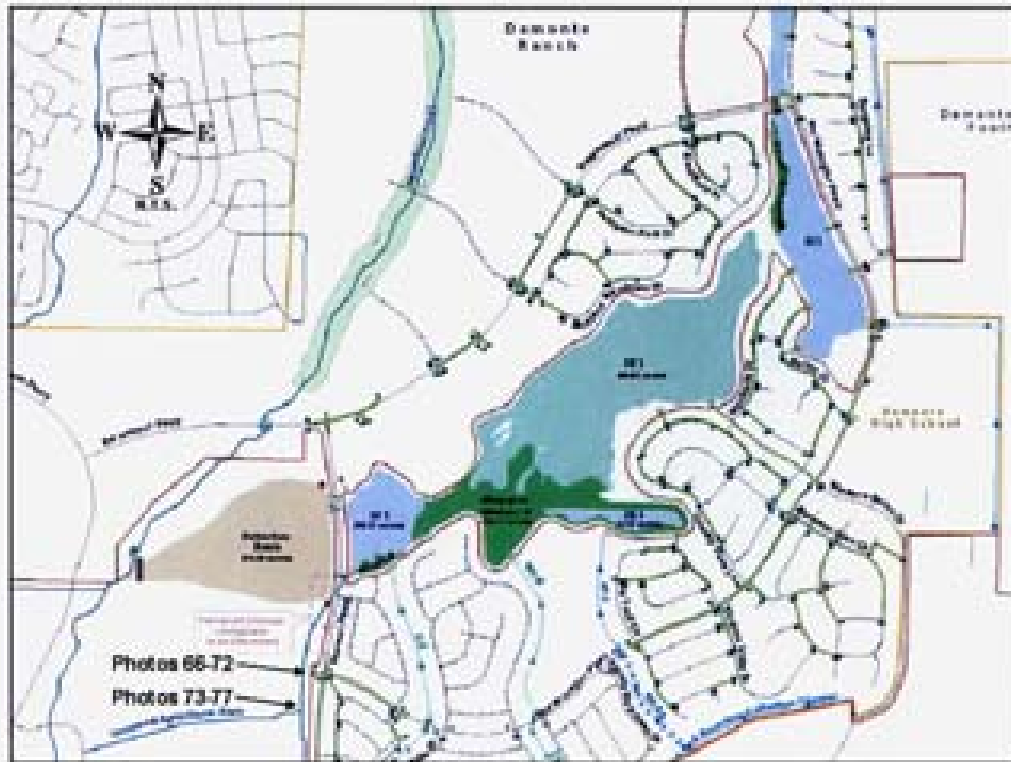


Photo 66. 12/1/05 - Large sediment pile next to Crane & Clow ditch with no erosion and sediment control BMPs (e.g. mulch cover and perimeter silt fence) will be a sediment source to the ditch and wetlands. View looking south.

Photo 69, 1/9/06 - Diversion in Crane & Crow ditch just upstream of culvert shown in previous photo. View looking west.



Photo 70, 1/9/06 - Diversion in Crane & Crow ditch 90' from previous photo. View looking north.



Photo 73. 1/9/06 - Erosion in Grass & Clover ditch after 12/31/05 storm event. Opposite view from previous photo looking south.



Photo 74. 1/9/06 - Erosion in Grass & Clover ditch after 12/31/05 storm event. View looking north approximately 50 ft. south of previous photo.



Photo 77. 1/5/06 - Unnamed drainage ditch tributary to the Cross & Cross. Opposite view from previous photo (looking west).





Photo 88. 1/9/05 - Erosion in in Crane & Claw ditch between culvert to small temporary (7) detention basin. View looking north.



Photo 89. 12/1/05 - Temporary detention basin (7) between Crane & Claw ditch and wetland DE-5. View looking north.



Photo 83. 1/9/08 - Outlet from Crane & Claw ditch to wetland D15 after 12/01/05 storm event. View looking north.



Photo 84. Silt fence near culvert outlet from Crane & Claw ditch needs maintenance.



Photo 87, 10/21/05 - Silt fence protecting upper southern end of wetland 015. View looking west with a portion of the drop structure for channel C-7 in the foreground.



Photo 88, 1/9/06 - Erosion of the channel C-7 drop structure after the 12/31/05 storm event. Note the light purple recycled water line is exposed. View looking east.



Photo 91, 1/9/06 - The lower end of unprotected channel C-7 after the 12/31/05 storm event. View looking southeast.

BMP Maintenance & Design Considerations



Photo 94. 12/5/05 - Roadway median being irrigated during rain event. Sensors could be installed to prevent irrigation during windy weather and unnecessary irrigation during rain events.



Photo 95. 1/9/06 - Port a potties should not be stored in low lying areas subject to flooding.



Photo 08, 1/9/06 - The erosion shown in this photo is the result of an impermeable surface (the bike path) located directly above a steep fill slope. A gravel or sand buffer at the edge of the pavement would help to disperse the runoff and the slope should be a maximum 3H:1V. The unprotected slope should also be stabilized as soon as possible with mulch or another similar BMP.



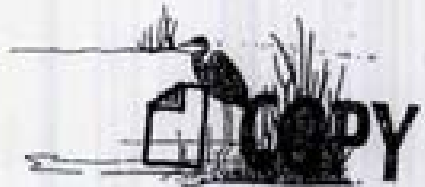
Photo 09, 1/9/06 - Erosion rills in the side slopes of channel C-7 were accelerated because tracking was conducted perpendicular to slope, leaving grooves parallel to slope.

Appendix F

Appendix F
Damonte Ranch Water Rights for Wetlands,
February 2002; Huffman & Carpenter

HUFFMAN & CARPENTER, INC.

Wetland Regulatory and Hydrologic Consultants



700 Smithridge Drive, Suite 102A, Reno, Nevada 89502 * (775) 828-1991 * Fax (775) 828-2302
Additional locations in Truckee and Oakland, California

February 11, 2002

Mr. Perry DiLoreto
Nevada Tri-Partners
500 Damonte Ranch Parkway
Reno, NV 89511

SUBJECT: WATER RIGHTS FOR DAMONTE RANCH COMPENSATORY WETLANDS

Dear Perry,

Attached you will find a detail sheet that describes the water rights necessary for the compensatory wetlands at the Damonte Ranch. In summary, 408 acre feet will need to be reserved until it can be shown that the areas meet the criteria for 'wetland hydrology'. Please reserve the 408 acre feet from Orr Ditch Decree claim number 703. 183 acre-feet will be necessary to permanently transfer to the Damonte Ranch project. These water rights will need to remain with the property on a permanent basis. 225 acre-feet will be temporarily transferred until the wetland hydrology criteria are satisfied. H&C anticipates that this temporary period would last approximately 3 to 5 years depending on snow pack and climatic conditions, to include, the final grade within the wetland areas (also known as detention basins 2 and 4). Because the water rights are already an appurtenance to the property, it should not be necessary to transfer the place or use, the manner of use or the point of diversion with the State Engineer's Office.

Please give us a copy of the water rights deed and ownership transfer after it has been completed so that we can relay this information to the Corps.

Best Regards,

Debra Lemke

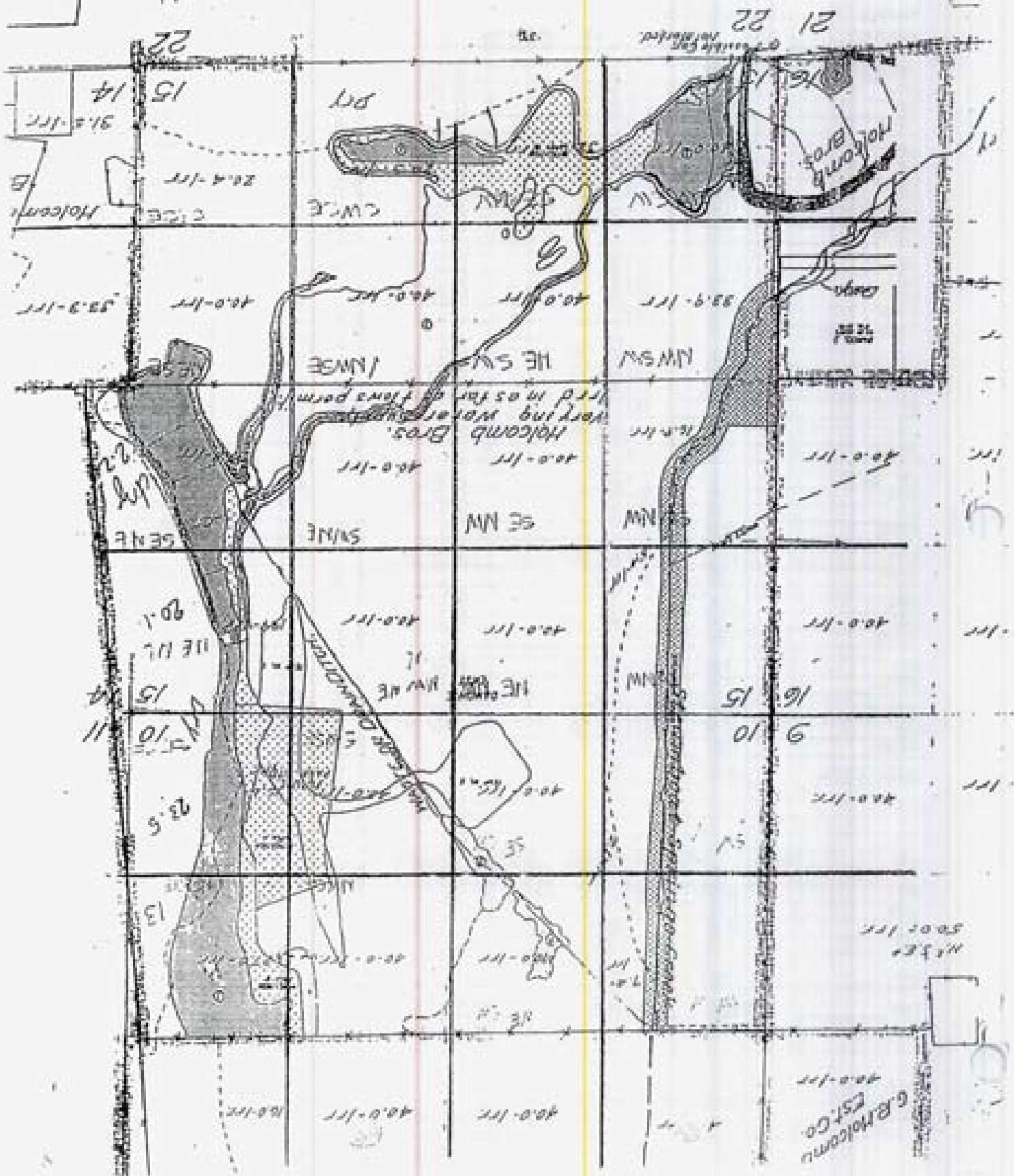
Attachments: Water Rights Table
Map showing the land and appurtenant water rights
Page 79, from the Orr Ditch Decree showing claim number 703 from Steamboat Creek
Table from Charlie Carter showing project water rights

WATER RIGHTS TO BE HELD FOR THE DAMONTE IRRIGATION WETLANDS

Wetland Number	Mitigation Acres	Acres with Water Right	1/4 Section			AF left in DUTY		DUTY WETLAND MITIGATION
			T	R	1/4	(AFPA)		
DE1 - Dry	1.858	27 NE SE	10	18	20		3.175	
MITA	5.073	27 NE SE	15	18	20			
DE1	18.447	27 NE SE	13	18	20			
TOTAL	23.387	27				3.175	74.250725	
MITA	2.278	40 NW SE	10	18	20			
DE1	0.282	40 NW SE	10	18	20			
TOTAL	2.56	40				37.44	8.138	
MITA	12.1	40 SW SE	10	18	20			
TOTAL	12.1	40				37.8	38.4175	
DE1 - Dry	5.171	18.5 SE SE	10	18	20			
MITA	10.928	18.5 SE SE	10	18	20			
DE1	3.828	18.5 SE SE	10	18	20			
TOTAL	19.925	18.5				3.425	52.3875	
NWSE SECTION 18	40					38.575	10.874375	
DE1 - Dry	0.988	18.9 NE NE	15	18	20			
MITA	4.912	18.9 NE NE	15	18	20			
DE1	4.311	18.9 NE NE	15	18	20			
TOTAL	10.189	18.9				8.711	32.35075	
MITA	1.184	45 NW NE	15	18	20			
TOTAL	1.184	45				38.818	3.7582	
DE1 - Dry	0.441	37.8 SE NE	15	18	20			
MITA	1.333	37.8 SE NE	15	18	20			
DE1	17.475	37.8 SE NE	15	18	20			
TOTAL	19.25	37.8				18.38	61.11875	
MITB	15.096	32.8 SE SW	15	18	20			
TOTAL	15.096	32.8				17.504	47.9238	
MITB	3.061	45 SW SW	15	18	20			
DES	11.841	45 SW SW	15	18	20			
TOTAL	14.702	45				25.298	48.87885	
DE1	4.89	37.8 NE SE	15	18	20			
TOTAL	4.89	40				35.11	15.92575	
MITB - Dry	1.237	28.5 SW SE	15	18	20			
DE4	4.19	28.5 SW SE	15	18	20			
TOTAL	5.427	28.5				15.073	17.290725	
Mitigation Acres	128.71					TOTAL	468.85425	

Area	Acres	Permanent	Temporary	Permanent AFPA	Temporary AFPA
MITA	33.29	33.29			
MITB	24.43	24.43			
DE1	55.18		55.18		
DE4	4.17		4.17		
DES	11.64		11.64		
Total	128.71	57.72	70.99	181.26	228.38

Omnate Land and Appurtenant Water Rights



Appendix G

Appendix G
Damonte Ranch Water Rights for Wetlands,
January 2003; Nevada Tri Partners

 **COPY**

**D A M O N T E
R A N C H**

January 15, 2003

Richard Gebhart, Chief
Nevada Office Regulatory Branch
Department of the Army
U.S. Army Engineer District, Sacramento
Corps of Engineers
1325 J Street
Sacramento, CA. 95814-2922

RE: Damonte Ranch Water Rights for Wetlands

Dear Richard,

Please accept this letter as our commitment to reserve the attached water rights for both permanent and temporary irrigation of those wetlands and mitigation areas designated as DE1, DE2, DE3, DE4, DE5, Mit A, and Mit B.

As these rights are currently appurtenant to Damonte Ranch, no additional reporting or permitting to change the point of diversion, place or manner of use should be required with the State Engineer until such time as these areas are conveyed in fee title to the Damonte Ranch Drainage District.

Should you require any further information, please don't hesitate to contact me.

Sincerely,
NEVADA TRIPARTNERS, LLC


Perry M. Di Lorenzo, Member

N E V A D A T R I P A R T N E R S , L L C .

Di Lorenzo South Truckee Meadows, Inc.
Perry Di Lorenzo
P.O. Box 70230
Reno, Nevada 89570
775/359-3000
Fax 775/359-4303

BDM Development, LLC
Craig Burton
1641 Glen Oaks Drive
Reno, Nevada 89523
775/747-5388
Fax 775/747-8393

Sawtooth Creek Development, Inc.
Paul Curtis
1330 Gray Street, Suite 231
Sparks, Nevada 89431
775/331-6900
Fax 775/331-7611

EXHIBIT "A"

All that certain water right being a portion of "Steamboat Creek", or the "Crane and Clow Ditch" heretofore allocated to Holcomb Brothers, successors to Nick Sorgi, being a portion of Claim 702-706 of that certain action entitled The United States of America Plaintiff. vs. Orr Water Ditch Company, et al., Defendants, the same in Equity Docket No. A-3 in the District Court of the United States in and for the District of Nevada, said water being appurtenant to the following described parcels of land:

The NW $\frac{1}{4}$ of SE $\frac{1}{4}$ Section 15, Township 18 North, Range 20 East, Mount Diablo Meridian being 40.00 acres of water righted ground.

A portion of the SW $\frac{1}{4}$ of SE $\frac{1}{4}$ Section 15, Township 18 North, Range 20 East, Mount Diablo Meridian being 16.25 acres of water righted ground.

Total water righted acreage of 56.25 acres for a total of 225.00 acre-feet and a proportional part of the diversion rate from "Steamboat Creek" together with the right to change the point of diversion, place and manner of use thereof.

When Recorded, Return to:
Nevada Tri Partners
500 Damonte Ranch Parkway #703
Reno, NV 89521

WATER RIGHTS DEED

Damonte Family Limited Partnership, A Nevada Limited Partnership, ("Grantor"), hereby conveys to Nevada Tri Partners, L.L.C., a limited liability company, ("Grantee"), all of the rights of the Grantor to divert from the Truckee River and its tributaries that portion of the water appurtenant to the lands situated in the County of Washoe, State of Nevada, that is more specifically described in Exhibit "A" attached hereto and made a part hereof.

This Deed is being executed for the benefit of Nevada Tri Partners, LLC., for future allocation and assignment by Nevada Tri Partners, its Successors or Assigns, under that certain Nevada Tri Partners Permit #19940866 by and between Nevada Tri Partners and United States Corps of Engineers revised 12/31/02.

Grantee does hereby agree to assume the payment of all water master fees and charges that may hereafter become due and payable in respect to said rights referred to herein by the reason of the Decree in The United States of America Plaintiff vs Orr Water Ditch Company, et al Defendants, the same in equity Docket No. A-3 in District Court of the United States in and for the District of Nevada, and Grantee does hereby further agree to pay all administrative and operation and maintenance charges that may be herein payable to the Washoe County Water Conservation District described by the reason of Boca Dam construction.

GRANTOR:

DAMONTE FAMILY LIMITED PARTNERSHIP
A Nevada Limited Partnership

By: DAMONTE LLC,
A Nevada limited liability Company, its general partner


Louis G. Damonte, Manager

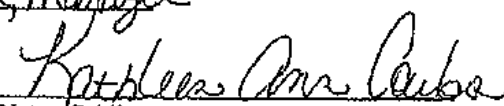
STATE OF NEVADA)

COUNTY OF WASHOE)

This Water Rights Deed was acknowledged before me on February 14, 2002,
by Louis G. Damonte, Manager



KATHLEEN ANN COULSON
Notary Public - State of Nevada
Appointment Recorded in Washoe County
No: S3-3793-2 - Expires June 17, 2005


Kathleen Ann Coulson
Notary Public

My commission expires: June 17, 2005

EXHIBIT "A"

All that certain water right being a portion of "Steamboat Creek", or the "Crane and Clow Ditch" heretofore allocated to Holcomb Brothers, successors to Nick Sorgi, being a portion of Claim 702-706 of that certain action entitled The United States of America Plaintiff, vs. Orr Water Ditch Company, et al., Defendants, the same in Equity Docket No: A-3 in the District Court of the United States in and for the District of Nevada, said water being appurtenant to the following described parcels of land:

A portion of the NE $\frac{1}{4}$ of NE $\frac{1}{4}$ Section 15, Township 18 North, Range 20 East, Mount Diablo Meridian being 16.64 acres of water righted ground designated as a portion of Washoe County Assessor's Parcel No. 16-360-77.

A portion of the SE $\frac{1}{4}$ of NE $\frac{1}{4}$ Section 15, Township 18 North, Range 20 East, Mount Diablo Meridian being 13.22 acres of water righted ground designated as a portion of Washoe County Assessor's Parcel No. 16-360-77.

A portion of the SE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 10, Township 18 North, Range 20 East, Mount Diablo Meridian being 16.5 acres of water righted ground designated as a portion of Washoe County Assessor's Parcel No. 140-020-10.

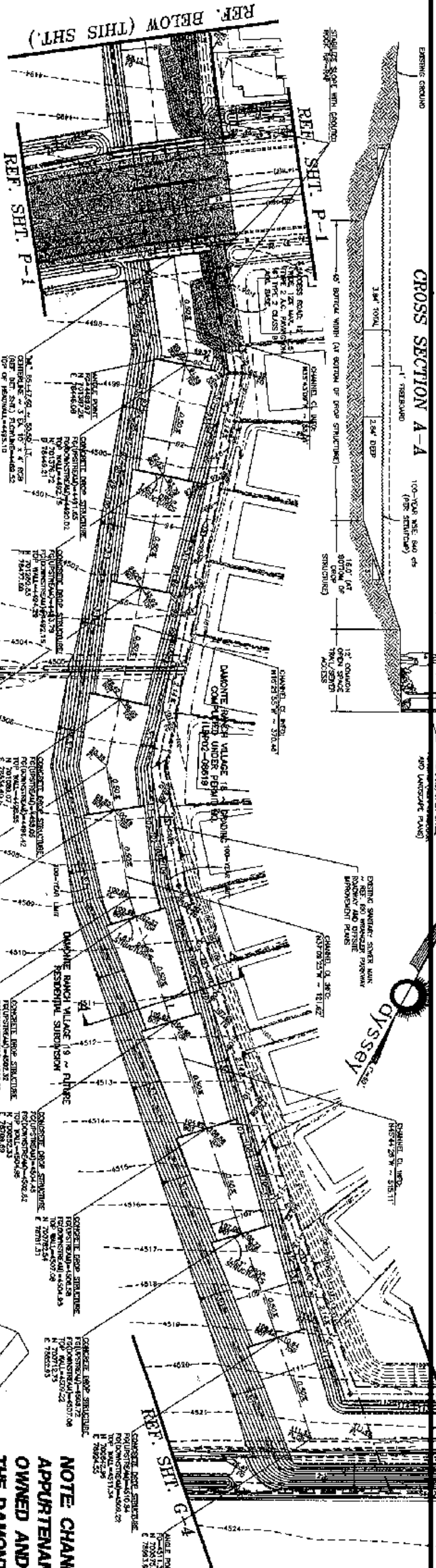
Total water righted acreage of 46.36 acres for a total of 185.44 acre-feet and a proportional part of the diversion rate from "Steamboat Creek" together with the right to change the point of diversion, place and manner of use thereof.

Appendix H

Appendix H
Grading Plans for Damonte Ranch Drainage Channels
(Odyssey Engineering, Inc.)

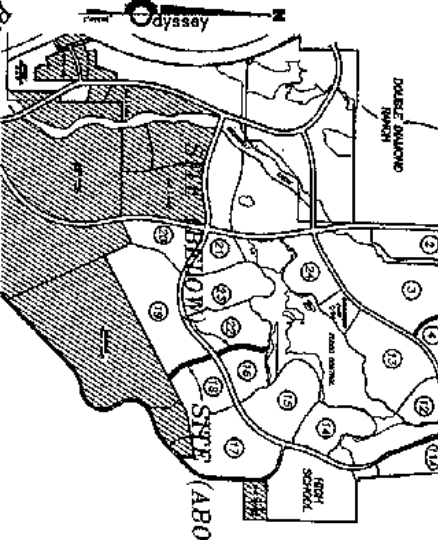
CHANNEL SE-8A

CROSS SECTION A-A

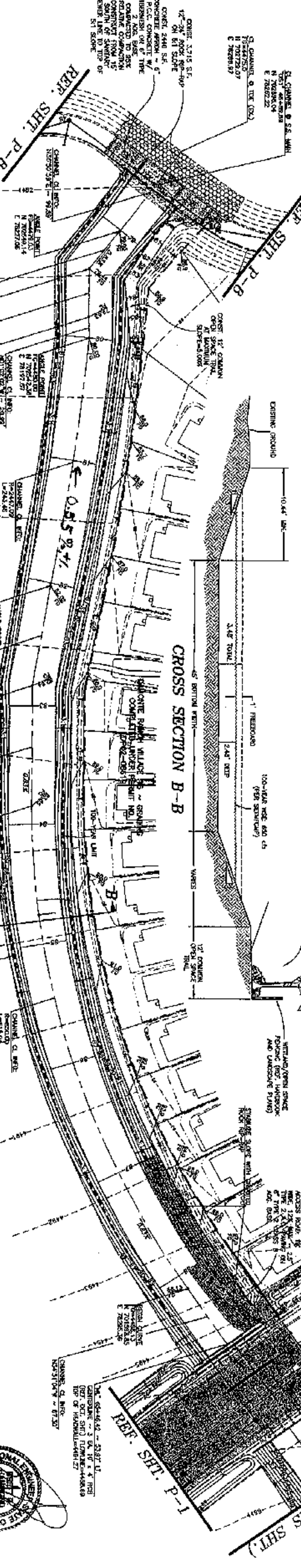


NOTE CHANNELS AND APPURTENANCES TO BE OWNED AND MAINTAINED BY THE DAMONTE RANCH DRAINAGE DISTRICT (DRDD)

REF. DETENTION BASIN LEVEE DESIGN AND CONSTRUCTION CRITERIA DAMONTE RANCH BLACK EMBLE CONSULTING, INC. MAY 31, 2001.



CROSS SECTION B-B



CHANNEL W-3

CROSS SECTION X-X

CROSS SECTION Y-Y

CROSS SECTION Z-Z

CROSS SECTION AA

dysssey ENGINEERING INCORPORATED

665 ROBERTA LANE, SUITE 104, SPARKS, NV 89431
(775) 356-3303 FAX (775) 356-3328

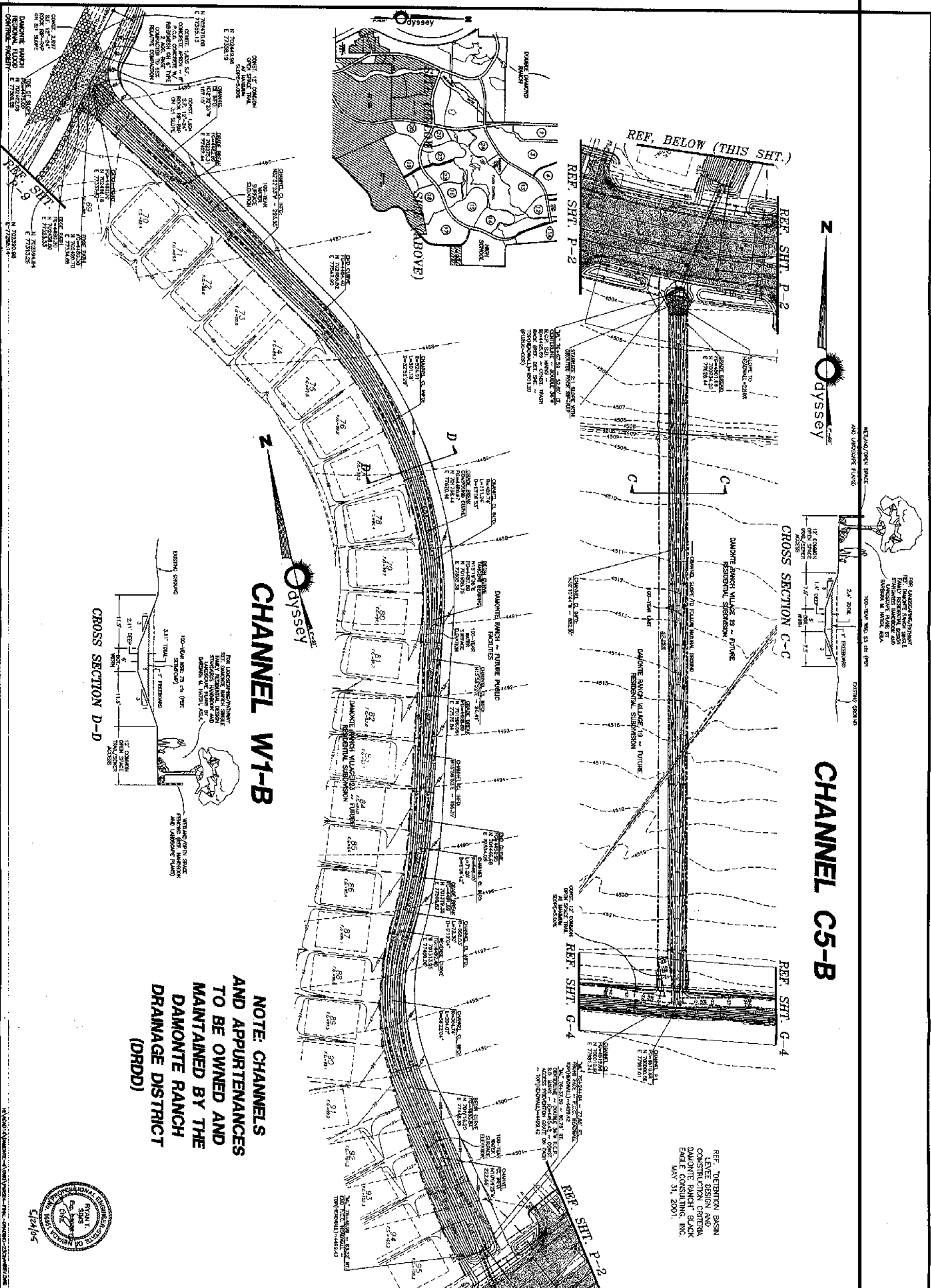
RIO WRANGLER PARKWAY AND PIONEER PARKWAY ROADWAY, OFFSITE SANITARY SEWER, AND FLOOD CONTROL IMPROVEMENTS CHANNELS SE-8A AND W-3 GRADING PLAN
RENO, WASHOE COUNTY, NEVADA

DATE: SEPTEMBER, 2003
DRAWN BY: ACAD2002
DESIGNED BY: R.S.
CHECKED BY: B.H.

REV.	DATE	DESCRIPTION	BY	APP'D

1/4" = 50' 1" = 110'

33
G-1
dysssey ENGINEERING INCORPORATED



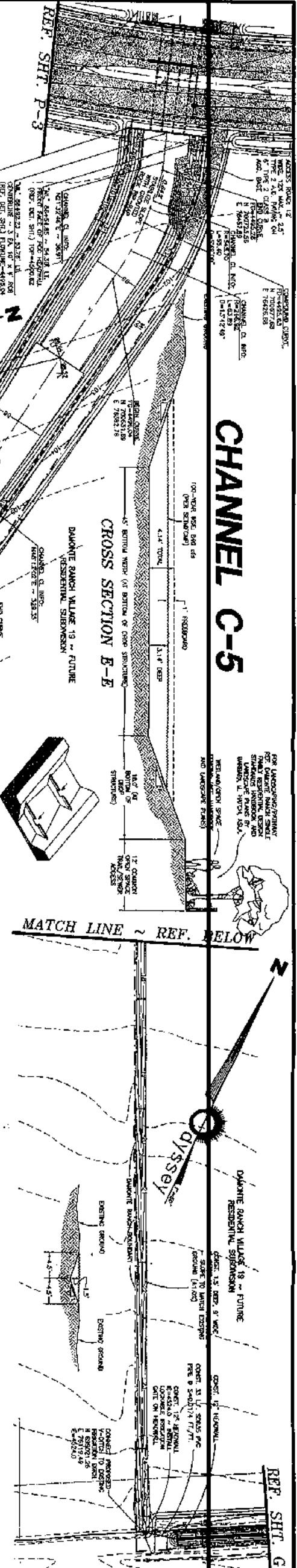
NOTE: CHANNELS AND APPURTENANCES TO BE OWNED AND MAINTAINED BY THE DAMONTE RANCH DRAINAGE DISTRICT (DRDD)

REF. "DETENTION BASIN LEVEE DESIGN AND CONSTRUCTION CRITERIA DAMONTE RANCH" BLACK EMLE CONSULTING, INC. MAY 31, 2001.

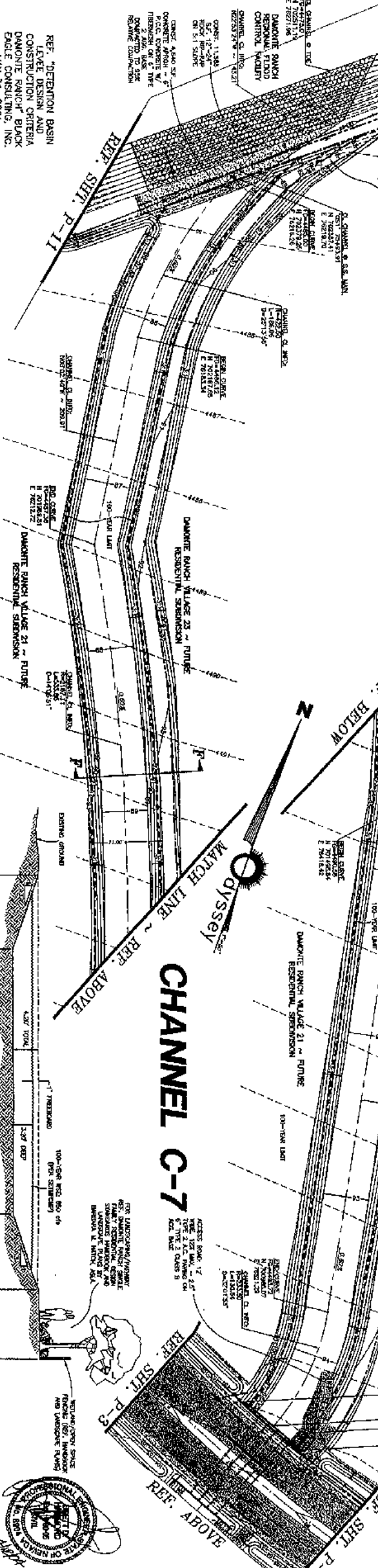


33 G-2 SHEET	SCALE: HORIZ. 1"=40' VERT. 1"=4' JOB NO. 0978 DATE: 5/24/05	265 ROBERTA LANE, SUITE 104, SPARKS, NV 89431 (775) 859-3303 FAX (775) 359-5324 Odyssey ENGINEERING INCORPORATED	RIO WRANGLER PARKWAY AND PIONEER PARKWAY ROADWAY, OFFSITE SANITARY SEWER, AND FLOOD CONTROL IMPROVEMENTS CHANNELS C5-B AND W1-B GRADING PLAN RENO, WASHOE COUNTY, NEVADA	DATE: SEPTEMBER, 2003 DRAWN BY: ACAD2003 DESIGNED BY: R.S. CHECKED BY: E.H.	<table border="1"> <thead> <tr> <th>REV.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> <th>APP'D</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>5/24/05</td> <td>CHANNEL W1-B COMPLETE</td> <td>ENVSION</td> <td>R.S. R.S.</td> </tr> </tbody> </table>	REV.	DATE	DESCRIPTION	BY	APP'D	1	5/24/05	CHANNEL W1-B COMPLETE	ENVSION	R.S. R.S.
	REV.	DATE	DESCRIPTION	BY	APP'D										
	1	5/24/05	CHANNEL W1-B COMPLETE	ENVSION	R.S. R.S.										

CHANNEL C-5



NOTE: CHANNELS AND APPURTENANCES TO BE OWNED AND MAINTAINED BY THE DAMONTE RANCH DRAINAGE DISTRICT (DRDD)



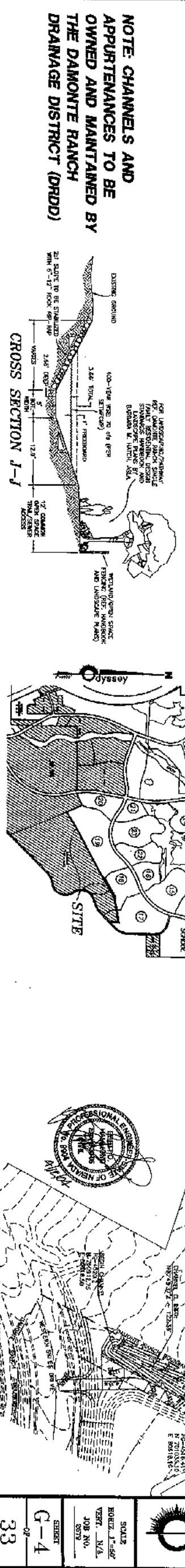
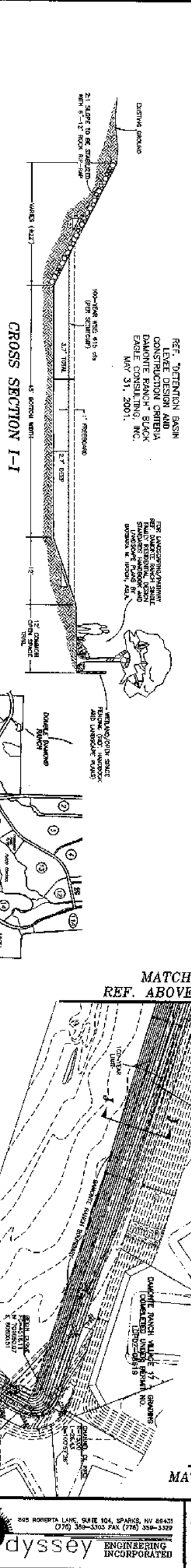
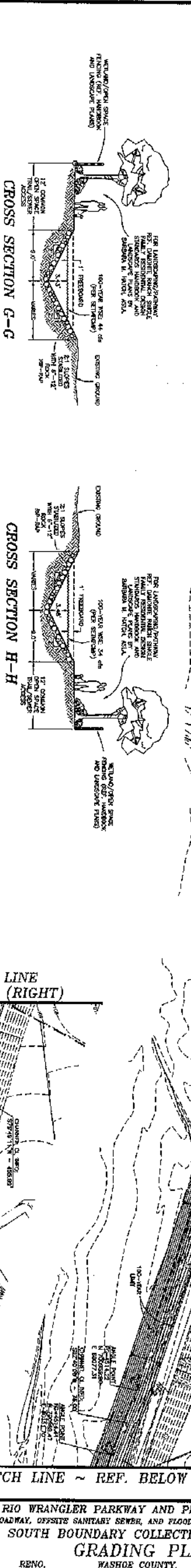
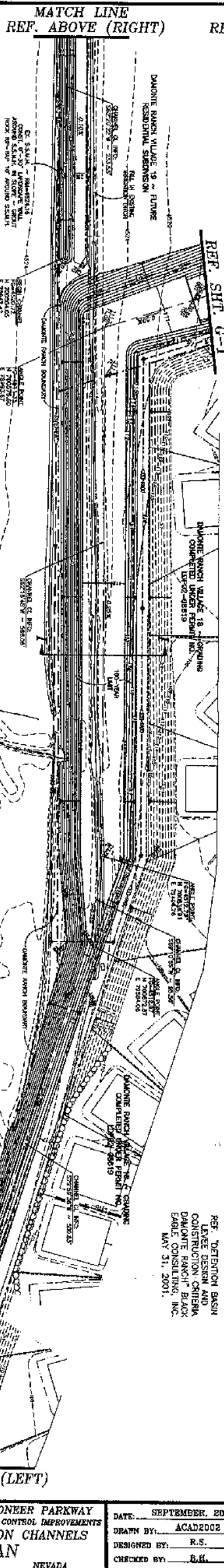
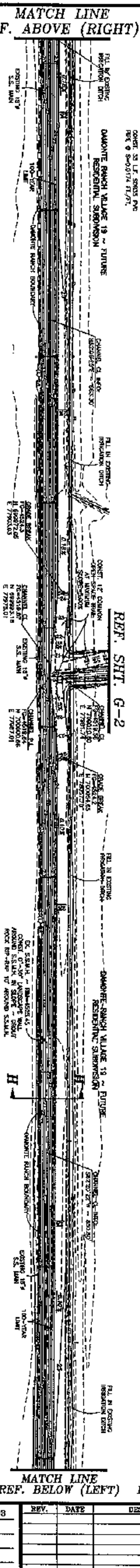
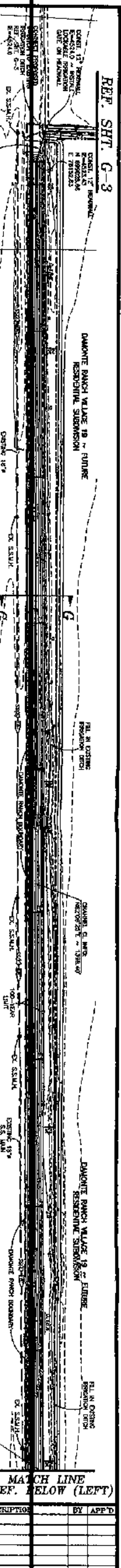
REF. RETENTION BASIN LAYOUT DESIGN AND CONSTRUCTION CRITERIA DAMONTE RANCH BLACK ENGINEERING, INC. MAY 31, 2001.

REV.	DATE	DESCRIPTION	BY	APP'D

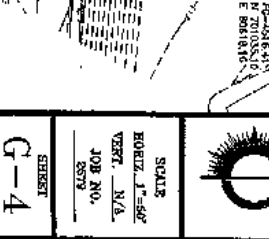
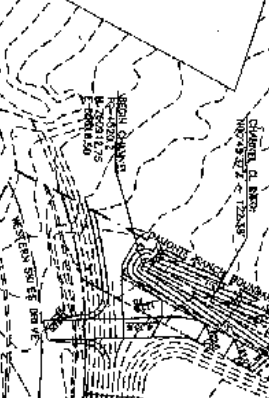
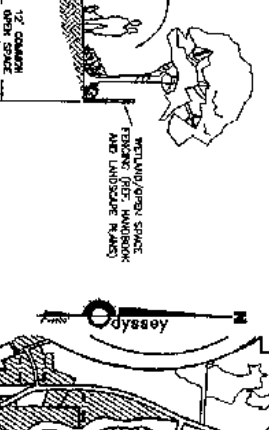
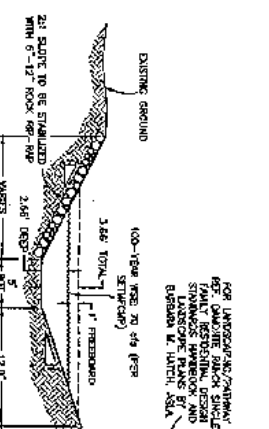
RIO WRANGLER PARKWAY AND PIONEER PARKWAY ROADWAY, OFFSITE SANITARY SEWER, AND FLOOD CONTROL IMPROVEMENTS CHANNELS C-5 AND C-7 GRADING PLAN RENO, WASHOE COUNTY, NEVADA

Odyssey ENGINEERING INCORPORATED
 800 ROBERTA LANE, SUITE 104, SPARKS, NV 89431
 (775) 359-3303 FAX (775) 355-3309

SCALE: 1"=40'
 DESIGNED BY: R.S.
 CHECKED BY: B.H.
 DRAWN BY: ACAD2002
 DATE: SEPTEMBER, 2003



NOTE: CHANNELS AND APPURTENANCES TO BE OWNED AND MAINTAINED BY THE DAMONTE RANCH DRAINAGE DISTRICT (DRDD)



	Odyssey ENGINEERING INCORPORATED 205 ROBERTA LANE, SUITE 104, SPARKS, NV 89431 (775) 345-5500 FAX (775) 383-1333	RIO WRANGLER PARKWAY AND PIONEER PARKWAY ROADWAY, OFFSHORE SANITARY SEWER, AND FLOOD CONTROL IMPROVEMENTS SOUTH BOUNDARY COLLECTION CHANNELS GRADING PLAN RENO, WASHOE COUNTY, NEVADA	DATE: SEPTEMBER, 2008 DRAWN BY: ACAD2008 DESIGNED BY: R.S. CHECKED BY: B.H.	<table border="1"> <thead> <tr> <th>REV.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> <th>APP'D</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	REV.	DATE	DESCRIPTION	BY	APP'D					
	REV.	DATE	DESCRIPTION	BY	APP'D									
	SCALE: HORIZ. 1"=50' VERT. 1/4"=10' JOB NO. 0807	SHEET G-4 OF 33												

Appendix I

Appendix I
Summary of Damonte Ranch Drainage
Channels

APPENDIX I

SUMMARY OF DAMONTE RANCH DRAINAGE CHANNELS

Channel ID	Description	Stationing	Shape	Length (ft)	Width (ft)	Depth (ft)	Slope	Flow Area (sq ft)	Velocity (ft/s)	Flow Capacity (cfs)	Material	Notes	
South Boundary	Begins at Western Skies Dr	G4	Trapezoid	1211	5	2:1	0.25	105			Rock	Grass	No
South Boundary	Ends at Channel SE-8A Inlet	G4	Trapezoid	654	45	2:1	0.25 - 0.50 ^a	75			Rock	Grass	No
SE-8A	South Boundary Channel to Rio Wrangler Pkwy	G1	Trapezoid	1142	45	3:1	0.50	25			Grass	Grass/Rock ^b	Yes
W-3	Rio Wrangler Pkwy to Wetland DE4	G1	Trapezoid	1313	45	3:1	0.83	10			Grass	Grass	No
South Boundary	Channel SE-8A Inlet to Channel C5-B Inlet	G4	V-Shape	1112	18°	2:1	0.10 - 5.00 ^d	90			Rock	Rock	No
C5-B	South Boundary Channel to Rio Wrangler Pkwy	G2	Trapezoid	894	5	3:1	To follow existing ground	0			Grass	Grass	No
W1-B	Rio Wrangler Pkwy to Wetland MILWLB	G2	Trapezoid	1705	5	3:1	0.71 - 1.32 ^e	50			Grass	Grass	No
South Boundary	Channel C5-B Inlet to Channel C5 Inlet	G4	V-Shape	2065	18°	2:1	0.18 - 5.00 ^d	90			Rock	Rock	No
C-5	Begins at Channel C-5 Inlet	G3	V-Shape	667	9°	3:1	To follow existing ground	0			Grass	Grass	No
C-5	Ends at Rio Wrangler Pkwy	G3	Trapezoid	1725	45	3:1	0.64	28			Grass	Grass/Rock ^b	Yes
C-7	Rio Wrangler Pkwy to Wetland DE5	G3	Trapezoid	1391	45	3:1	0.60	23			Grass	Grass	No

Total Length = 13,879 ft

^a Grade break within maximum curvature (inlet to Channel SE-8A)
^b Rock rip-rap on channel bottom extending 15- ft downstream from each drop structure
^c Channel width from top bank to top bank is given; true bottom width for V-shaped channel is zero
^d Grade break within maximum curvature (inlet to Channel C5-B)
^e Grade break within maximum curvature
^f Grade break within maximum curvature (inlet to Channel C-5)

Appendix J

Appendix J
City of Reno Sewer and Storm Drain System
Maintenance Costs

**City of Reno
Sewer & Storm System Maintenance
(Provided by Erich Strunge)**

Catch Basin Cleaning

All work associated with the removal of accumulated debris from catch basin sumps and storm drain lateral connections.

Current Inventory

- 9,212 catch basins

Level of service

- 2 times annually

MMS Activities

- Routine Cleaning = 95%
- Problem Cleaning = 5%

Resource Requirements

- 2 Maintenance Workers @ \$35 per hour each (1 team)
- 1 combination flush/vac sewer cleaning truck @ \$40 per hour

Rate of Production

- Average for routine – 5.5 per hour
- Average for problem – 2.5 per hour

Cost

- Per unit routine - \$20
- Per unit problem - \$ 44

Ditch Maintenance

All work associated with the maintenance of open drainage channels and associated structures including bar screens, headwalls and culverts.

Current Inventory

- **Approximately 50 miles of open drainage channels in 8 major basins**
- **151 drainage bar screens**
- **12 irrigation bar screens**

Level of service

- **Based on weather and site specific conditions per inspections**

MMS Activities

- **Inspection**
- **Hand work**
- **Equipment work**
- **Irrigation bar screen cleaning**
- **Drainage bar screen cleaning**
- **Herbicide Application**
- **Cover Burning**

Resource Requirements (varies depending on conditions)

- **2 FTE's @ \$35 per hour each**
- **4 seasonal laborers @ \$23 per hour each**
- **2 - Backhoes @ \$66.02 per hour each**
- **1 - Loader @ \$ 75.00 per hour**
- **2 - 10yd Dump Trucks @ \$60.00 per hour each**
- **2 - 2yd Dump Trucks @ \$55.00 per hour each**
- **Roto Mister Herbicide Sprayer @ \$75.00 per hour**
- **Misc. Specialized Equipment (rental) @\$100 - \$200 per hour**

Production FY 04/05

- **809,736 sq ft of inspection @ \$0.01 per sq ft**
- **3,480,944 sq ft of drainage cleaned by hand @ \$0.03 per sq ft**
- **115,243 sq ft of drainage cleaned by equipment @ \$0.31 per sq ft**
- **2,539 irrigation bar screens cleaned @ \$ 26.55 per screen**
- **2,468 drainage bar screens cleaned @ \$6.57 per screen**
- **2,590,991 sq ft of herbicide application @ \$0.01 per sq ft**
- **No cover burning 04/05**

Storm Drain Pipe Cleaning

All work associated with cleaning of storm drain pipes using high pressure water to remove materials such as sand, rock, trash and any other foreign objects.

Current Inventory

- 411 miles of storm drain pipe
- 7,206 storm drain manholes

Level of Service

- As required

MMS Activities

- High Pressure Jetting
- Root Cutting
- Power Rodding
- Hand Rodding

Resource Requirements

- 2 Maintenance Workers @ \$35 per hour each (1 team)
- 1 combination flush/vac sewer cleaning truck @ \$40 per hour
- Power rodding truck @ \$40 per hour

Rate of Production

- Varies depending on specific conditions
- Average production rate FY04/05 – 40 feet per hour
- Approximately \$110 per hour or \$2.75 per foot

Appendix K

Appendix K
Draft 2005-2006 Operating Budget for Damonte
Ranch Drainage District
(Associated Management, Inc.)

Damonte Ranch Drainage District
 2005-06 Operating Budget Summary
 Draft 10/4/05

2005-06
 Budget

INCOME:	
Homeowners Assessments	See sheet 3. 3 classes of assessments have been created, based on imperious coverage- Unit 11B added in October, Lemnar Village and Toll Brothers in January
TCMA Assessments	No charge in existing assessments
High School/Elementary	No charge in existing assessments
Less Reserves	\$1.50 per unit based on existing reserve study
Bank Interest	Minimal amount of interest (1%) on operating account balance
Late Charges	Item not Budgeted
Miscellaneous	Item not Budgeted
Total Income:	367,546.08

EXPENSES:	
MAINTENANCE	
Channel Cleaning/Inspect	Cleaning of channels, including whitetop removal, and annual inspections
Landscaping/Maintenance	North Berm + March addition of the South Berm
General Maint/Repairs	Landscaping & Irrigation Systems, Pass and Trails, Berms, Weirs, Headgate
Discovery Park Maint	Daily inspection, trash pickup in area set aside for artifacts found on the prc
Vandalism	Contingency/Budget-Abs Change from 2004-05 Budget
Supplies	Cost for any associated supplies, such as lumber for repairs, trash bags, herbicides, etc. - Increase cost for addition of South Berm in April
Total Maintenance & Repairs:	7,500.00
UTILITIES:	152,000.00
Electricity	Irrigation Controllers at North Berm & add South Berm in April
Water	Add south berm in April
Total Utilities:	12,400.00

ADMINISTRATIVE:	
Management Contract	Management costs based on existing contract - \$2 per unit per month, for billing and admin functions
Office Supplies	Office supplies, telephones, etc. based on 2005 Actuals
Legal	Amount set aside for legal consultations, opinion letters, etc.
Insurance	Includes general liability, umbrella, Directors and Officers, and property co.
Tax Prep / Audit	Based on 2004-05 CPA Expense
Federal Taxes	DRDD Has applied for IRS 501C12 tax exemption
Property Tax	Washoe County Property tax for common areas
TOTAL ADMINISTRATIVE:	1,000.00
AMENITY PATROLL	92,617.55
AMENITY PATROLL	91,243.00

CONTINGENCY	18,680.50
TOTAL EXPENSES	367,546.05
EXCESS/DEFICIENCY OF REVENUE OVER EXPENSE	0.03

DRDDBudget

Duaneau Ranch Drainage District
2005-06 Operating Budget
Draft 9/27/05

	July	August	September	October	November	December	January	February	March	April	May	June	2005-06 Budget
INCOME:													
# Units	1587	1587	1587	1633	1633	1633	2116	2116	2116	2116	2116	2116	
Homeowner's Assessments	15,870.00	15,870.00	15,870.00	16,530.00	16,530.00	16,530.00	21,160.00	21,160.00	21,160.00	21,160.00	21,160.00	21,160.00	224,160.00
TOMA Assessments	10,435.47	10,435.47	10,435.47	10,435.47	10,435.47	10,435.47	10,435.47	10,435.47	10,435.47	10,435.47	10,435.47	10,435.47	125,225.64
High School/Elementary	4,290.37	4,290.37	4,290.37	4,290.37	4,290.37	4,290.37	4,290.37	4,290.37	4,290.37	4,290.37	4,290.37	4,290.37	51,484.44
Less Reserves	(2,380.50)	(2,380.50)	(2,380.50)	(2,479.50)	(2,479.50)	(2,479.50)	(3,174.00)	(3,174.00)	(3,174.00)	(3,174.00)	(3,174.00)	(3,174.00)	(33,624.00)
Bank Interest	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	300.00
Late Charges	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Income:	28,240.34	28,240.34	28,240.34	28,801.34	28,801.34	28,801.34	32,736.84	32,736.84	32,736.84	32,736.84	32,736.84	32,736.84	367,246.08
EXPENSES:													
MAINTENANCE													
Charred Cleanups/Inspect	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50,000.00	0.00	0.00	0.00	50,000.00
Landscape Maintenance	4,500.00	4,500.00	4,500.00	4,500.00	4,500.00	4,500.00	4,500.00	4,500.00	4,500.00	4,500.00	4,500.00	4,500.00	67,500.00
General Maintenance/Repairs	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	15,000.00
Discovery Park Maint	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vandalism	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	12,000.00
Supplies	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	7,500.00
Total Maintenance & Repairs:	7,250.00	7,250.00	7,250.00	7,250.00	7,250.00	7,250.00	7,250.00	7,250.00	57,250.00	12,250.00	12,250.00	12,250.00	152,000.00
UTILITIES:													
Electricity	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	400.00	400.00	400.00	400.00	3,600.00
Water	600.00	600.00	600.00	600.00	600.00	600.00	600.00	600.00	1,000.00	1,000.00	1,000.00	1,000.00	8,800.00
Total Utilities:	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	1,400.00	1,400.00	1,400.00	1,400.00	12,400.00
ADMINISTRATIVE:													
Management Contract	3,174.00	3,174.00	3,174.00	3,306.00	3,306.00	3,306.00	4,232.00	4,232.00	4,232.00	4,232.00	4,232.00	4,232.00	44,832.00
Office Supplies	1,900.00	200.00	200.00	1,800.00	2,000.00	2,000.00	1,900.00	200.00	200.00	1,900.00	200.00	200.00	9,200.00
Legal	0.00	0.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,000.00
Insurance	2,423.80	2,423.80	2,423.80	2,423.80	2,423.80	2,423.80	2,423.80	2,423.80	2,423.80	2,423.80	2,423.80	2,423.80	29,085.55
Tax Prep / Audit	0.00	0.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,500.00
Federal Taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Property Tax	0.00	0.00	0.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	1,000.00
Total Administration	7,497.80	5,797.80	5,797.80	7,529.80	12,423.80	5,924.80	9,055.80	6,855.80	6,855.80	9,055.80	8,855.80	8,855.80	92,617.55
AMENITY PATROLL													
AMENITY PATROLL	7,654.00	7,654.00	7,654.00	7,654.00	7,654.00	7,654.00	7,654.00	7,654.00	7,654.00	7,654.00	7,654.00	7,654.00	91,848.00
CONTINGENCY	1,556.71	1,556.71	1,556.71	1,556.71	1,556.71	1,556.71	1,556.71	1,556.71	1,556.71	1,556.71	1,556.71	1,556.71	18,680.50
TOTAL EXPENSES	24,808.51	23,108.51	23,108.51	24,940.51	29,740.51	23,240.51	26,366.51	24,186.51	74,716.51	31,916.51	31,716.51	29,716.49	367,246.05
EXCESS/DEFICIENCY OF REVENUE OVER EXPENSE	3,431.83	5,131.83	5,131.83	3,860.83	(939.17)	5,560.83	6,370.33	8,570.33	(41,979.67)	820.33	1,020.33	3,020.35	0.03

**Damonte Ranch Drainage District
Operating Budget Assumptions**

Homeowners Dues	
See sheet 3. 3 classes of assessments have been created, based on impervious coverage	#REF!
Classes A, B, and C were created from lowest density to highest. Dues are as follows:	
A - \$10 per unit per month, B - \$8 per unit per month, C - \$4 per unit per month Class C	
Less Reserves	-\$33,624.00
Amount set aside for replacement of major components. Reserve study shows \$1.32	
per unit per month with a 6% increase each year. This amount is based on \$1.50 per unit per	
month, to allow for less frequent increases.	
Bank Interest	\$300.00
Minimal amount of interest (1%) on operating account balance	
Late Charges	\$0.00
Amount charged for late payment of fees. No amount is budgeted, as this should not be counted	
on for operations funding, and there is no history as of yet	
Transfer Fees	\$0.00
Amount charged for the sale of a property. Associated Management charges \$100 for a 1st sale	
and \$150 to process a resale. This is paid out of escrow, and is a net of 0.	
Miscellaneous Income	\$0.00
Any income not projected above. None is foreseen at this time.	
Total Operating Income	#REF!
EXPENSES	
MAINTENANCE	
Channel Cleaning/Inspections	\$50,000.00
Amount set aside for cleaning of channels, including whitetop removal, and annual inspections	
by civil engineer	
Landscape Maintenance	
North Berm	\$67,500.00
General Maintenance and Repairs	\$15,000.00
Amount for any other repairs, such as trails, fencing, trash pickup, and landscape maintenance of	
480,000 square feet @ .005 per square foot	
Discovery Park Maintenance	\$0.00
Daily inspection, trash pickup in area set aside for artifacts found on the property	
Vandalism	\$12,000.00
Supplies	\$7,500.00
Cost for any associated supplies, such as lumber for repairs, trash bags, herbicides, etc.	
TOTAL MAINTENANCE AND REPAIRS	\$152,000.00
UTILITIES	
Electricity	\$3,600.00
Cost for lighting of any trails and irrigation timers	
Water	\$8,800.00

Darronte Ranch Drainage District Assessment Calculation												
East of Steamboat Creek												
Planning Area	Density	Acres	Units	% Impervious	Imp Acres	Estimate/yr	Per Unit per month	Avg per unit per month	\$ per year	Density	Dues Class	
1	5	34	170	0.65	22.10	\$22,409.40	\$10.99	10	\$20,400.00	5A		
2	4	28	112	0.38	10.64	\$10,789.96	\$8.03	8	\$10,752.00	4B		
3	6	88	528	0.65	57.20	\$58,000.80	\$9.15	10	\$63,360.00	6A		
4	4	31	124	0.38	11.78	\$11,944.92	\$8.03	8	\$11,904.00	4B		
5	6	9	45	0.65	5.85	\$5,931.90	\$10.99	10	\$5,400.00	5A		
6	6	62	372	0.65	40.30	\$40,864.20	\$9.15	10	\$44,640.00	6A		
7	5	52	260	0.65	33.80	\$34,273.20	\$10.99	10	\$31,200.00	5A		
8	5	49	245	0.65	31.85	\$32,295.90	\$10.99	10	\$29,400.00	5A		
9	3	50	150	0.38	19.00	\$19,266.00	\$10.70	10	\$18,000.00	3A		
10	4	35	140	0.38	13.30	\$13,486.20	\$8.03	8	\$13,440.00	4B		
11	4	144	360	0.3	43.20	\$43,804.80	\$10.14	10	\$43,200.00	2.5A		
12	4.34	16.6	100	0.65	13.00	\$13,182.00	\$10.99	10	\$12,000.00	5A		
13	5.13	53.22	318	0.65	34.45	\$34,932.30	\$9.15	10	\$38,160.00	6A		
14	4.25	30.14	120	0.38	11.40	\$11,559.60	\$8.03	8	\$11,520.00	4B		
15	4.8	39.19	145	0.65	18.85	\$19,113.90	\$10.99	10	\$17,400.00	5A		
16	5.73	19.71	210	0.65	22.75	\$23,068.50	\$9.15	10	\$25,200.00	6A		
17	2.5	60.04	147	0.38	18.62	\$18,880.68	\$10.70	10	\$17,640.00	3A		
18	3.62	29.52	92	0.38	8.74	\$8,862.36	\$8.03	8	\$8,832.00	4B		
19	4.86	76.16	370	0.65	48.10	\$48,773.40	\$10.99	10	\$44,400.00	5A		
20	12	27	182	0.65	17.55	\$17,795.70	\$9.15	10	\$19,440.00	6A		
21	12	28	336	0.71	19.88	\$20,158.32	\$5.00	4	\$16,128.00	12C		
22	18	17	306	0.71	12.07	\$12,238.98	\$3.33	4	\$14,688.00	18C		
23	6	46	276	0.65	29.90	\$30,318.60	\$9.15	10	\$33,120.00	6A		
24	18	29	522	0.71	20.59	\$20,878.26	\$3.33	4	\$25,056.00	18C		
						\$572,828.88			\$575,280.00			
						\$244,779.60	\$84.50		\$244,799.60			
						\$57,595.20	\$84.50		\$57,595.20			
						\$3,599.70	\$84.50		\$3,599.70			
						\$866.67	\$84.50		\$861,274.50			
						\$1,014.00	\$1,014.00					
						\$84.50	\$84.50					

5

5

5

Irrigation costs for 480,000 square of landscaping, with drip irrigation, avg of 2 acre feet of water per acre per year, at .70 per 1000 gallons, and 10 meters at \$56.50 per meter per month (effluent rates)

TOTAL UTILITIES	\$12,400.00
ADMINISTRATIVE	
Management Contract Management costs estimated at \$2 per unit per month, for billing and admin functions	\$44,832.00
Office Supplies Office supplies, telephone, etc.	\$9,200.00
Legal Amount set aside for legal consultations, opinion letters, etc.	\$4,000.00
Insurance Includes 1 million general liability, 15 mil umbrella, 1 mil Directors and Officers, and property coverage for fencing, Discovery Park open building, etc.	\$29,085.55
Tax Prep/Audit Recommend audit of financials every year by independent CPA firm	\$4,500.00
Property Tax	\$1,000.00
TOTAL ADMINISTRATIVE	\$310,840.00
TOTAL EXPENSES	#REF!
CONTINGENCY Amount set aside to cover unforeseen expenses. Any amount left over at year end will be placed in a separate account and held as a reserve for catastrophic events	\$18,680.50
TOTAL EXPENSES	\$781,488.00

Appendix L

Appendix L
City of Reno Annexation Ordinances and Annexation
Tract Maps

EXPLANATION: *Matter in Italics is new; Matter in brackets [] is material to be omitted.*

BILL NO. 6084

ORDINANCE NO. 5546

AN ORDINANCE ANNEXING TO AND MAKING PART OF THE CITY OF RENO CERTAIN SPECIFICALLY DESCRIBED TERRITORY BEING ±76.19 ACRES OF PROPERTY LOCATED SOUTH OF RIO WRANGLER PARKWAY ±2,500 FEET SOUTHWEST OF THE INTERSECTION WITH DESERT WAY, WASHOE COUNTY, NEVADA, TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO.

SPONSORED BY: RENO CITY PLANNING COMMISSION

WHEREAS, all of the property owners within the area proposed to be annexed by this Ordinance have petitioned for annexation pursuant to the provisions of the Nevada annexation law (N.R.S. §268.670); and

WHEREAS, it appears in the best interest of the City of Reno that the property described herein be annexed to the City of Reno; and

WHEREAS, said property as described in the attached Exhibit "A" will be zoned in accordance with R.M.C. Section 18.06.205(a), or the translation table contained in settlement agreement CV02-03469, whichever is applicable, upon the date of annexation.

THEREFORE, THE CITY COUNCIL OF THE CITY OF RENO DO ORDAIN:

SECTION 1. In compliance with the provisions of the Nevada Annexation Law (N.R.S. §268.610 et. seq.) and pursuant to Petitions filed November 17, 2003, with the City of Reno by one hundred percent (100%) of the owners of record within the hereinafter described property contiguous to the Second Ward of the City of Reno, the exterior boundaries of the City of Reno are hereby extended to annex and include the real property described in the attached Exhibit "A".

Ordinances\LDC04-00198 (Damonte 19A-19B) - Jenny Brekhus -1-

CASE NO. LDC04-00198 (DAMONTE RANCH VILLAGE 19A AND 19B)
APN NO. 140-020-35 & 140-020-40

Appendix L
City of Reno Annexation Ordinances and Annexation
Tract Maps

EXPLANATION. *Matter in italics is new*; Matter in brackets [] is material to be omitted.

BILL NO. 6084

ORDINANCE NO. 5546

AN ORDINANCE ANNEXING TO AND MAKING PART OF THE CITY OF RENO CERTAIN SPECIFICALLY DESCRIBED TERRITORY BEING ±76.19 ACRES OF PROPERTY LOCATED SOUTH OF RIO WRANGLER PARKWAY ±2,500 FEET SOUTHWEST OF THE INTERSECTION WITH DESERT WAY, WASHOE COUNTY, NEVADA, TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO.

SPONSORED BY: RENO CITY PLANNING COMMISSION

WHEREAS, all of the property owners within the area proposed to be annexed by this Ordinance have petitioned for annexation pursuant to the provisions of the Nevada annexation law (N.R.S. §268.670); and

WHEREAS, it appears in the best interest of the City of Reno that the property described herein be annexed to the City of Reno; and

WHEREAS, said property as described in the attached Exhibit "A" will be zoned in accordance with R.M.C. Section 18.06.205(a), or the translation table contained in settlement agreement CV02-03469, whichever is applicable, upon the date of annexation.

THEREFORE, THE CITY COUNCIL OF THE CITY OF RENO DO ORDAIN:

SECTION 1. In compliance with the provisions of the Nevada Annexation Law (N.R.S. §268.610 et. seq.) and pursuant to Petitions filed November 17, 2003, with the City of Reno by one hundred percent (100%) of the owners of record within the hereinafter described property contiguous to the Second Ward of the City of Reno, the exterior boundaries of the City of Reno are hereby extended to annex and include the real property described in the attached Exhibit "A".

Ordinances\LDC04-00198 (Damonite 19A-19B) - Jenny Brekhus -1-

CASE NO. LDC04-00198 (DAMONITE RANCH VILLAGE 19A AND 19B)
APN NO. 140-020-35 & 140-020-40

SECTION 2. Said real property together with all the tenements and inhabitants thereof, shall be subject to all of the laws applicable to the City of Reno and entitled to all the benefits of the government of the City of Reno and is hereby annexed and made a part of the Second Ward of the City of Reno to which said property is contiguous.

SECTION 3. The City Engineer of the City of Reno is hereby instructed to prepare a plat of said territory described in Section 1 of this Ordinance and to file and record the same in the office of the County Recorder of Washoe County, Nevada, together with this Ordinance.

SECTION 4. This Ordinance shall be in effect from and after its passage, adoption and publication in one issue of a newspaper printed and published in the City of Reno.

SECTION 5. The City Clerk and Clerk of the City Council of the City of Reno is hereby authorized and directed to have this Ordinance published in one issue of the Reno-Gazette Journal, a newspaper printed and published in the City of Reno.

PASSED AND ADOPTED this 10th day of March, 2004, by the following vote of the Council:

AYES: Zadra, Hascheff, Sferrazza, Dortch, Cashell

NAYS: None

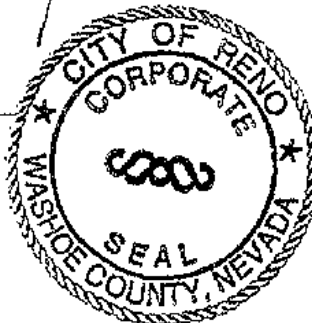
ABSTAIN: None ABSENT: Harsh, Aiazzi

APPROVED this 10th day of March, 2004.

ATTEST:

Carmie Henderson Deputy
CITY CLERK AND CLERK OF THE CITY
COUNCIL OF THE CITY OF RENO, NEVADA

J. Glorioso Assistant
MAYOR OF THE CITY OF RENO

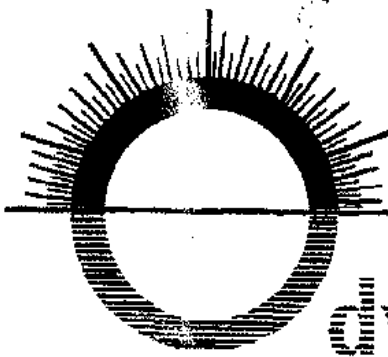


EFFECTIVE DATE: March 12, 2004

EXHIBIT "A"

LDC04 00198
EXHIBIT A

895 Roberta Lane, Suite 104, Sparks, NV 89431
(775) 359-3303 Fax (775) 359-3329



dyssey ENGINEERING
INCORPORATED

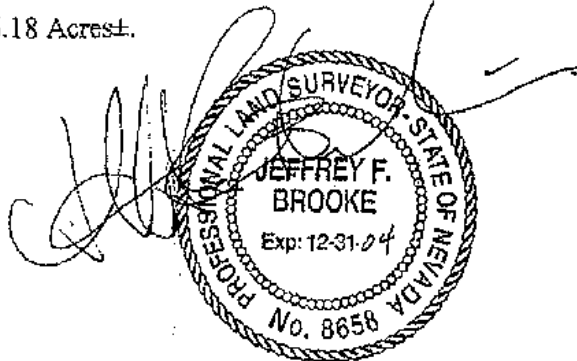
November 13, 2003

**LEGAL DESCRIPTION
OF PROPERTY FOR
ANNEXATION TO THE CITY OF RENO**

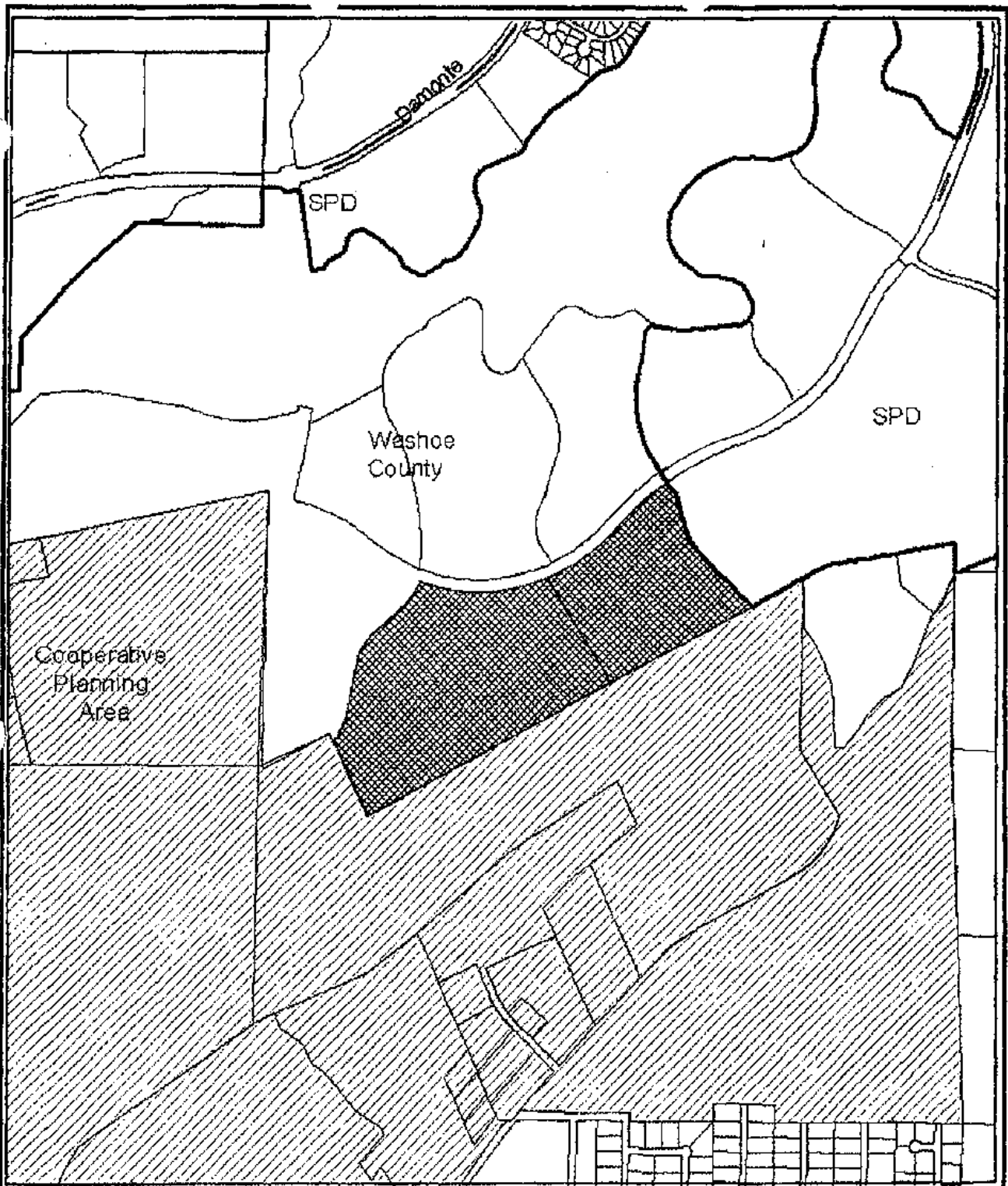
All that certain real property situate in Section 22, T18N, R20E, M.D.M., County of Washoe, State of Nevada, and being more particularly described as follows:

Parcel "G" of Parcel Map No. 3963 as recorded in Washoe County Official Records on February 24, 2003 under filing No. 2809840 & Parcel "M" of Parcel Map No. 3964 as recorded in Washoe County Official Records on February 24, 2003 under filing No. 2809841.

CONTAINING: 75.18 Acres±.



11/13/03



LDC04-00198 (Damonte Ranch Village 19A and 19B)
 Zoning and Vicinity Map

 **Subject Site**

 **Zoning Designation**

 **City Limit Boundary**



Data Source: Community Development Department
 Date: 02/2002



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Legal Ad Cost **\$136.46**

**STATE OF NEVADA
COUNTY OF WASHOE**

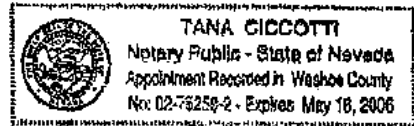
ss: Julia Ketcham

Being first duly sworn, deposes and says: That as the legal clerk of the Reno Gazette-Journal, a daily newspaper published in Reno, Washoe County, State of Nevada, that the notice referenced below has published in each regular and entire issue of said newspaper between the dates: **03/12/04 - 03/12/04**, for exact publication dates please see last line of Proof of Publication below.

Subscribed and sworn to before me

Signed: Julia Ketcham

MAR 16 2004

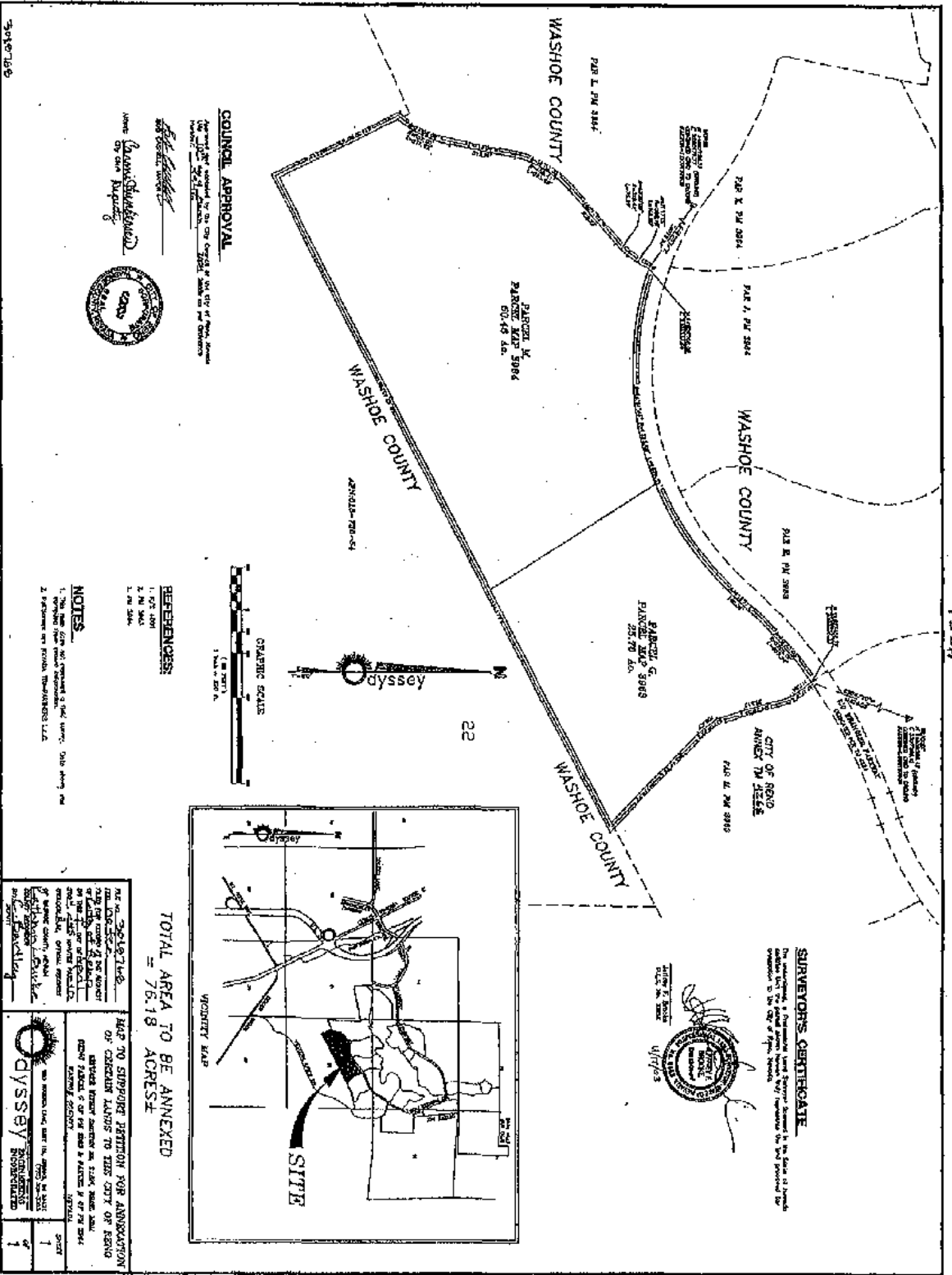


Tana Cicotti

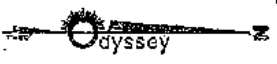
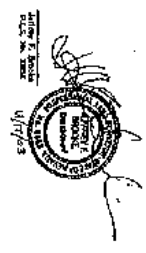
Proof of Publication

NOTICE OF CITY ORDINANCES NOTICE IS HEREBY GIVEN that the ordinances, listed below by title and containing the vote of the Council, were prepared on February 25, 2004, and final action and adoption of such ordinances took place on March 10, 2004. **BILL NO. 6082, ORDINANCE NO. 5544: AN ORDINANCE TO AMEND ORDINANCE NO. 4541 OF THE CITY OF RENO CHANGING THE TIME AND DATE OF THE REGULAR MEETINGS OF THE RENO CITY COUNCIL** AYES: Zadra, Hascheff, Harsh, Sferrazza, Dortch, Cashell NAYS: None ABSTAIN: None ABSENT: Aiazzi **BILL NO. 6083, ORDINANCE NO. 5545: An ordinance to amend Chapter 18.06 of The reno Municipal Code entitled "Zoning" by adding Section 18.06.502.40 to allow fence setbacks to be five feet on front yards not providing primary access subject to height, landscaping and irrigation standards and to amend Chapter 14.18 entitled "Fences" by modifying Article I, "In General," Section 14.18.010, to reflect new provisions in section 18.06.502.40 and Article II "Permit," Section 14.18.090 to modify the cross-reference for a variance request and other matters properly related thereto.** AYES: Dortch, Hascheff, Harsh, Zadra, Sferrazza, Cashell NAYS: None ABSTAIN: None ABSENT: Aiazzi **BILL NO. 6084, ORDINANCE NO. 5546: AN ORDINANCE ANNEXING TO AND MAKING PART OF THE CITY OF RENO CERTAIN SPECIFICALLY DESCRIBED**

1524

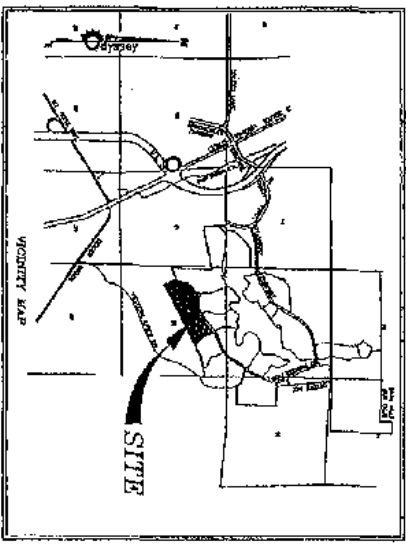


SURVEYOR'S CERTIFICATE
 I, the undersigned, a duly licensed and sworn Surveyor in the State of Nevada, do hereby certify that the foregoing is a true and correct copy of the original survey as shown to me by the City of Reno, Nevada, and that the same is in accordance with the laws of Nevada.



- REFERENCES**
- 1. 1978 UTM
 - 2. 1978 UTM
 - 3. 1978 UTM

- NOTES**
- 1. This map was prepared by the City of Reno, Nevada, and is subject to the laws of Nevada.
 - 2. Reference to other maps should be made as indicated.



TOTAL AREA TO BE ANNEXED
 = 76.18 ACRES

COUNCIL APPROVAL
 Approved by the City Council of the City of Reno, Nevada, on this 15th day of August, 1993.

James Stankiewicz
 Mayor of the City of Reno

<p>MAP TO SUPPORT PETITION FOR ANNEXATION OF CERTAIN LANDS TO THE CITY OF RENO</p> <p>THIS MAP WAS PREPARED BY THE CITY OF RENO, NEVADA, AND IS SUBJECT TO THE LAWS OF NEVADA.</p> <p>DATE: 8/15/93</p> <p>BY: JAMES STANKIEWICZ, MAYOR</p>	<p>ANNEXATION TRACT MAP 4331</p>
---	----------------------------------

THIS MAP SHOULD BE EXAMINED FOR ANY SUBSEQUENT CHANGES TO THE MAP

TERRITORY BEING 76.19 ACRES OF PROPERTY LOCATED south of Rio Wrangler Parkway 2,500 feet southwest of the intersection with Desert Way, WASHOE COUNTY, NEVADA, TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO. AYES: Zadra, Hascheff, Sferrazza, Dortch, Cashell NAYS: None ABSTAIN: None ABSENT: Harsh, Aiazzi BILL NO. 6085, ORDINANCE NO. 5547: AN ORDINANCE ANNEXING TO AND MAKING PART OF THE CITY OF RENO CERTAIN SPECIFICALLY DESCRIBED TERRITORY BEING ANNEXED OF 138.6 ACRES OF PROPERTY ALONG THE NORTH AND SOUTH SIDES OF RIO WRANGLER PARKWAY EAST OF ITS INTERSECTION WITH PIONEER PARKWAY, WASHOE COUNTY, NEVADA, TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO. AYES: Zadra, Hascheff, Harsh, Sferrazza, Dortch, Cashell NAYS: None ABSTAIN: None ABSENT: Aiazzi BILL NO. 6086, ORDINANCE NO. 5548: AN ORDINANCE AMENDING CHAPTER 18.09 OF THE MUNICIPAL CODE ENTITLED "NEW DEVELOPMENT ENGINEERING DESIGN AND IMPROVEMENTS" TO CHANGE THE FORMAT BY ADDING ARTICLES AND SUBSTITUTING SECTIONS FOR SUBSECTIONS AND TO ADD TWO SECTIONS ENTITLED, "CRITICAL FLOOD POOLS" AND "SEVERABILITY" AND OTHER MATTERS PROPERLY RELATED THERETO. AYES: Sferrazza, Hascheff, Harsh, Zadra, Dortch, Cashell NAYS: None ABSTAIN: None ABSENT: Aiazzi These ordinances shall be in full force and effect from and after March 12, 2004. Notice is further given that copies of the above ordinances are available for inspection by all interested parties at the office of the City Clerk, City Hall, 490 South Center Street, Room 209, Reno, Nevada.

LYNNETTE R. JONES, CITY CLERK AND CLERK OF
THE CITY COUNCIL No.223883 Mar 12, 2004

EXPLANATION: *Matter in italics is new*; Matter in brackets [] is material to be omitted.

BILL NO. 6226

ORDINANCE NO. 5681

AN ORDINANCE ANNEXING TO AND MAKING PART OF THE CITY OF RENO CERTAIN SPECIFICALLY DESCRIBED TERRITORY BEING ±236.39 ACRES OF PROPERTY LOCATED ±650 FEET NORTHEAST OF THE INTERSECTION OF STEAMBOAT PARKWAY AND RIO WRANGLER PARKWAY WITHIN THE SOUTHEAST TRUCKEE MEADOWS SPECIFIC PLAN, WASHOE COUNTY, NEVADA, TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO.

SPONSORED BY: RENO CITY PLANNING COMMISSION

WHEREAS, all of the property owners within the area proposed to be annexed by this Ordinance have petitioned for annexation pursuant to the provisions of the Nevada annexation law (N.R.S. §268.670); and

WHEREAS, it appears in the best interest of the City of Reno that the property described herein be annexed to the City of Reno; and

WHEREAS, said property as described in the attached Exhibit "A" will be zoned in accordance with R.M.C. Section 18.06.205(a), or the translation table contained in settlement agreement CV02-03469, whichever is applicable, upon the date of annexation.

THEREFORE, THE CITY COUNCIL OF THE CITY OF RENO DO ORDAIN:

SECTION 1. In compliance with the provisions of the Nevada Annexation Law (N.R.S. §268.610 et. seq.) and pursuant to Petitions filed October 18, 2004, with the City of Reno by one hundred percent (100%) of the owners of record within the hereinafter described property contiguous to Ward 2 of the City of Reno, the exterior boundaries of the City of Reno are hereby extended to annex and include the real property described in the attached Exhibit "A".

-1-

CASE NO. LDC05-00154 (Damonte Ranch Village 11B)
APN NO. 140-040-08

SECTION 2. Said real property together with all the tenements and inhabitants thereof, shall be subject to all of the laws applicable to the City of Reno and entitled to all the benefits of the government of the City of Reno and is hereby annexed and made a part of Ward 2 of the City of Reno to which said property is contiguous.

SECTION 3. The City Engineer of the City of Reno is hereby instructed to prepare a plat of said territory described in Section 1 of this Ordinance and to file and record the same in the office of the County Recorder of Washoe County, Nevada, together with this Ordinance.

SECTION 4. This Ordinance shall be in effect from and after its passage, adoption and publication in one issue of a newspaper printed and published in the City of Reno.

SECTION 5. The City Clerk and Clerk of the City Council of the City of Reno is hereby authorized and directed to have this Ordinance published in one issue of the Reno-Gazette Journal, a newspaper printed and published in the City of Reno.

PASSED AND ADOPTED this 13th day of April, 2005, by the following vote of the Council:

AYES: Zadra, Hascheff, Gustin, Sferrazza, Dortch, Aiazzi, Cashell


NAYS: None

ABSTAIN: None ABSENT: None

APPROVED this 13th day of April, 2005.


MAYOR OF THE CITY OF RENO

ATTEST:


CITY CLERK AND CLERK OF THE CITY
COUNCIL OF THE CITY OF RENO, NEVADA



EFFECTIVE DATE: April 15, 2005

EXHIBIT 'A'

DAMONTE RANCH PHASE 6
ANNEXATION BOUNDARY

All that certain parcel situate in Sections 10, 11 & 15, T18N, R20E, M.D.M., City of Reno, County of Washoe, State of Nevada, and being Parcel A as shown on Record of Survey 4236 as recorded in Washoe County Official Records on April 28, 2003 under filing no. 2844296 and being more particularly described as follows:

BEGINNING at the West ¼ corner of said Section 11,

Thence, S 87°15'38" E, 1939.96 feet along the East-West centerline of said Section 11 to the Southwest corner of the SE ¼ of the SE ¼ of the NW ¼ of said Section 11;

Thence, N 01°58'31" E, 661.59 feet along the West line of said SE ¼ of the SE ¼ of the NW ¼ to the Northwest corner of said SE ¼ of the SE ¼ of the NW ¼;

Thence, S 87°17'47" E, 647.67 feet along the North line of said SE ¼ of the SE ¼ of the NW ¼ to the Northeast corner of said SE ¼ of the SE ¼ of the NW ¼;

Thence, S 02°03'49" W, 661.98 feet along the East line of said SE ¼ of the SE ¼ of the NW ¼ to the Southeast corner of said SE ¼ of the SE ¼ of the NW ¼;

Thence, S 02°03'49" W, 2486.42 feet along the North-South centerline of said Section 11 to a point 100.00 feet Northerly of the South ¼ corner of said Section 11, said point being the Northeasterly corner of the parcel described in document no. 272142 as recorded in Washoe County Official Records on March 27, 1957;

Thence, N 88°53'19" W, 2554.32 feet along a line 100.00 feet North of, and parallel to, the South line of the SW ¼ of said Section 11 to the Northwesterly corner of the parcel described in said document no. 272142;

Thence, N 04°37'54" W, 11.64 feet;

Thence, S 85°22'34" W, 326.57 feet;

Thence, N 65°28'59" W, 74.51 feet;

Thence, N 48°26'42" W, 124.20 feet;

Thence, N 70°16'37" W, 66.22 feet;

Thence, N 83°45'26" W, 210.76 feet;

Thence, S 06°14'34" W, 296.85 feet;

Thence, along a tangent curve to the left having a radius of 1400.00 feet, a central angle of $17^{\circ}49'12''$, and an arc length of 435.42 feet

Thence, S $76^{\circ}43'47''$ W, 90.16 feet;

Thence, along a non-tangent curve to the right having a tangent bearing of S $08^{\circ}04'58''$ E, a radius of 40.00 feet, a central angle of $81^{\circ}35'23''$, and an arc length of 56.96 feet

Thence, S $73^{\circ}30'24''$ W, 25.54 feet;

Thence, along a tangent curve to the right having a radius of 2951.00 feet, a central angle of $3^{\circ}16'34''$, and an arc length of 168.74 feet

Thence, N $01^{\circ}14'36''$ E, 208.80 feet;

Thence, along a tangent curve to the left having a radius of 500.00 feet, a central angle of $43^{\circ}51'42''$, and an arc length of 382.76 feet

Thence, N $42^{\circ}37'05''$ W, 124.77 feet;

Thence, along a non-tangent curve to the left having a tangent bearing of N $36^{\circ}58'33''$ E, a radius of 790.00 feet, a central angle of $22^{\circ}01'16''$, and an arc length of 303.63 feet

Thence, N $18^{\circ}11'34''$ W, 34.62 feet;

Thence, N $03^{\circ}33'37''$ W, 52.38 feet;

Thence, N $13^{\circ}45'40''$ E, 497.54 feet;

Thence, along a non-tangent curve to the left having a tangent bearing of N $24^{\circ}34'51''$ E, a radius of 191.42 feet, a central angle of $64^{\circ}13'45''$, and an arc length of 214.59 feet

Thence, along a tangent curve to the right having a radius of 242.13 feet, a central angle of $37^{\circ}57'26''$, and an arc length of 160.40 feet

Thence, N $01^{\circ}38'27''$ W, 541.72 feet;

Thence, along a non-tangent curve to the left having a tangent bearing of N $06^{\circ}59'23''$ E, a radius of 220.51 feet, a central angle of $73^{\circ}54'28''$, and an arc length of 284.44 feet

Thence, N $66^{\circ}55'05''$ W, 172.78 feet;

Thence, N $77^{\circ}55'42''$ W, 64.23 feet;

Thence, N $04^{\circ}37'14''$ W, 549.94 feet;

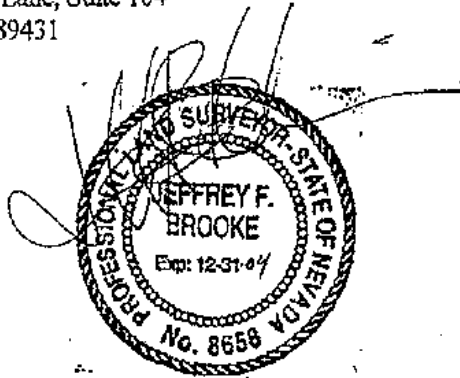
Thence, N 89°18'56" E, 1606.76 feet to the POINT OF BEGINNING.

CONTAINING: 236.39 acres.

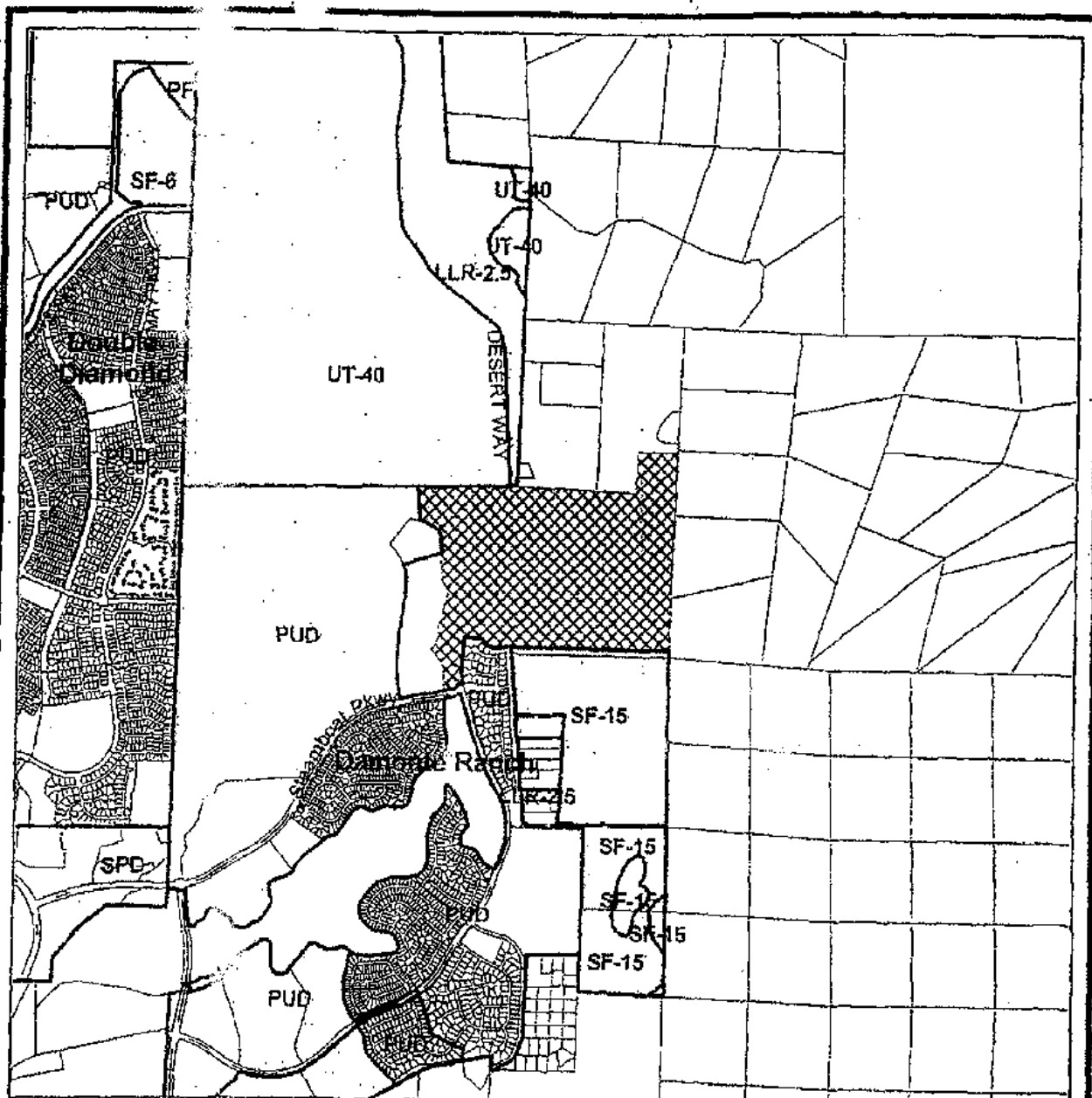
Basis of Bearings: NAD 83, Nevada State Plane, West Zone.

Legal Description written by:




Jeffrey F. Brooke, PLS
ODYSSEY ENGINEERING, INC.
895 Roberta Lane, Suite 104
Sparks, NV 89431

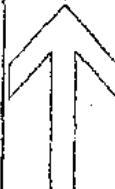


10/14/04




LDC05-00154
Damonte Ranch Village 11B

-  Subject Site
-  City Limits
-  City of Reno Zoning



0 400 800 Feet

Map Produced: February 2005



Community Development Department

450 Sinden Street
 P.O. Box 1900
 Reno, NV 89505

Phone: 334-2063
 Fax: 334-2043
www.cityofreno.com

SD/10/05/02/Planning Case

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**STATE OF NEVADA
COUNTY OF WASHOE**

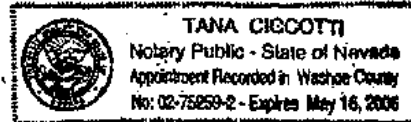
ss: **Julia Ketcham**

Being first duly sworn, deposes and says: That as the legal clerk of the Reno Gazette-Journal, a daily newspaper published in Reno, Washoe County, State of Nevada, that the notice referenced below has published in each regular and entire issue of said newspaper between the dates: **04/15/2005 - 04/15/2005**, for exact publication dates please see last line of Proof of Publication below.

Subscribed and sworn to before me

Signed: *Julia Ketcham*

APR 15 2005



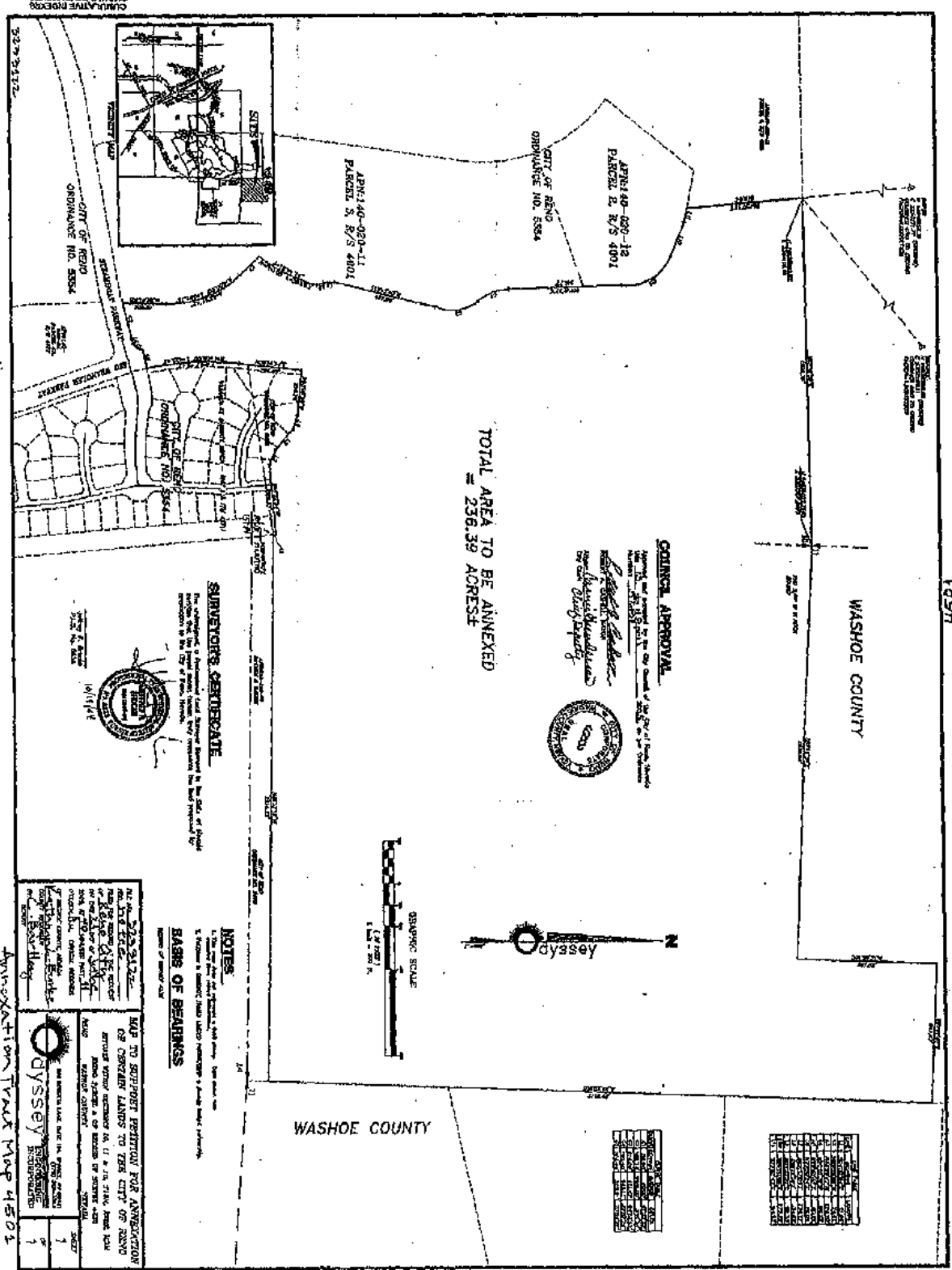
Tana Ciccotti

Proof of Publication

NOTICE OF CITY ORDINANCES NOTICE IS HEREBY GIVEN that the ordinances, listed below by title and containing the vote of the Council, were prepared on February 23, 2005, and final action and adoption of such ordinance took place on March 9, 2005. **BILL NO. 6216, ORDINANCE NO. 5673: AN ORDINANCE AMENDING RENO MUNICIPAL CODE, TITLE 18, "ANNEXATION AND LAND DEVELOPMENT," CHAPTER 18.12 "GENERAL DEVELOPMENT AND DESIGN STANDARDS," ARTICLE VI, "UTILITIES AND SERVICES," SECTION 18.12.603 TO ADD A NEW SUBSECTION TO REQUIRE NEW DEVELOPMENT UNDER CERTAIN CONDITIONS TO BURY EXISTING OVERHEAD UTILITY FACILITIES AND OTHER MATTERS PROPERLY RELATING THERETO. AYES: Zadra, Hascheff, Gustin, Sferrazza, Dortch, Aiazzi, Cashell NAYS: None ABSTAIN: None ABSENT: None BILL NO. 6217, ORDINANCE NO. 5674: AN ORDINANCE TO AMEND TITLE 18, CHAPTER 18.08 OF THE RENO MUNICIPAL CODE, ENTITLED "ZONING", REZONING A +/- 7.76 ACRE SITE LOCATED AT THE NORTHWEST CORNER OF SOUTH VIRGINIA STREET AND KIETZKE LANE FROM AC (ARTERIAL COMMERCIAL) TO HC (HOTEL CASINO); TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO. AYES: Zadra, Aiazzi, Gustin, Dortch NAYS: Hascheff, Sferrazza**

ABSTAIN: Cashell ABSENT: None BILL NO. 6221, ORDINANCE NO. 5676: AN ORDINANCE CONFIRMING THE PROCEEDINGS TAKEN IN PROVIDING FOR CERTAIN SIDEWALK, DRIVEWAY APPROACH AND STREET IMPROVEMENTS IN THE CITY OF RENO, NEVADA 2003 SPECIAL ASSESSMENT DISTRICT NO. 2; PROVIDING FOR THE PAYMENT OF THE COST AND EXPENSES OF SAID IMPROVEMENTS, PROVIDING FOR ASSESSING THE COST OF SAID IMPROVEMENTS AGAINST THE PARCELS OF LAND BENEFITTED BY SAID IMPROVEMENTS, DESCRIBING THE MANNER FOR THE COLLECTION AND PAYMENT OF SAID ASSESSMENTS AND PROVIDING PENALTIES FOR DELINQUENT PAYMENTS; TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO. AYES: Aiazzi, Hascheff, Gustin, Zadra, Sferrazza, Dortch, Cashell NAYS: None ABSTAIN: None ABSENT: None BILL NO. 6222, ORDINANCE NO. 5677: AN ORDINANCE ANNEXING TO AND MAKING PART OF THE CITY OF RENO CERTAIN SPECIFICALLY DESCRIBED TERRITORY BEING A +/- 13.81 ACRE PARCEL LOCATED IMMEDIATELY NORTH OF U.S HIGHWAY 40 +/- 3,900 FEET NORTHWEST OF THE INTERSTATE 80 OFF-RAMP FOR U.S. HIGHWAY 40 WITHIN THE CITY'S SPHERE OF INFLUENCE AND COOPERATIVE PLANNING AREA, WASHOE COUNTY, NEVADA, TO BE ZONED LLR1 (LARGE LOT RESIDENTIAL - 1 ACRE), OS (OPEN SPACE) AND UT40 (UNINCORPORATED 40 ACRE) UPON ANNEXATION TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO. AYES: Aiazzi, Hascheff, Gustin, Zadra, Sferrazza, Dortch, Cashell NAYS: None ABSTAIN: None ABSENT: None BILL NO. 6223, ORDINANCE NO. 5678: AN ORDINANCE ANNEXING TO AND MAKING PART OF THE CITY OF RENO CERTAIN SPECIFICALLY DESCRIBED TERRITORY BEING A +/- 1.0 ACRE PARCEL OF PROPERTY LOCATED IMMEDIATELY NORTH OF THE UNION PACIFIC RAILROAD LINE, +/- 500 FEET SOUTH OF NORTH VIRGINIA STREET AND +/- 4,000 FEET WEST OF STEAD BOULEVARD WITHIN THE RENO-STEAD CORRIDOR JOINT PLAN IN THE CITY'S SPHERE OF INFLUENCE AND COOPERATIVE PLANNING AREA, WASHOE COUNTY, NEVADA, TO BE ZONED PF (PUBLIC FACILITY) UPON ANNEXATION TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO. AYES: Dortch, Aiazzi, Hascheff, Gustin, Zadra, Cashell NAYS: Sferrazza ABSTAIN: None ABSENT: None BILL NO. 6224, ORDINANCE NO. 5679: AN ORDINANCE ANNEXING TO AND MAKING PART OF THE CITY OF RENO CERTAIN SPECIFICALLY DESCRIBED TERRITORY BEING +/- 72.19 ACRES OF PROPERTY LOCATED IMMEDIATELY SOUTH OF THE INTER- STATE 80 AND ROBB DRIVE INTERCHANGE, WASHOE COUNTY, NEVADA, TO BE ZONED LLR1 (LARGE LOT RESIDENTIAL-1 ACRE) UPON ANNEXATION TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO. AYES: Gustin, Aiazzi, Hascheff, Zadra, Sferrazza, Dortch, Cashell NAYS: None ABSTAIN: None ABSENT: None BILL NO. 6225, ORDINANCE NO. 5680: AN ORDINANCE TO AMEND TITLE 18, CHAPTER 18.34, OF THE RENO MUNICIPAL CODE ENTITLED "SAFE SCAPE ORDINANCES" TO IMPOSE CERTAIN CONDITIONS UPON BUSINESSES SUBJECT TO SEC. 5.07.125, "MAXIMUM NUMBER OF PRIVILEGED BUSINESS LICENSES FOR THE SALE OF ALCOHOLIC BEVERAGES FOR OFF-SITE CONSUMPTION IN THE REDEVELOPMENT AREA EXTENDED NORTH TO NINTH STREET" RELATING TO REFUSE CONTAINER REQUIREMENTS FOR BUSINESSES; TO EXEMPT TRASH COMPACTORS SHARED BY AT LEAST 5 BUSINESSES FROM NEEDING A STAND-ALONE ENCLOSURE; AND OTHER MATTERS PROPERLY RELATING THERETO. AYES: Gustin, Hascheff, Zadra, Sferrazza, Dortch, Aiazzi, Cashell NAYS: None ABSTAIN: None ABSENT: None BILL NO. 6226, ORDINANCE NO. 5681: AN ORDINANCE ANNEXING TO AND MAKING PART OF THE CITY OF RENO

CERTAIN SPECIFICALLY DESCRIBED TERRITORY BEING <4>236.39 ACRES OF PROPERTY LOCATED <4>650 FEET NORTHEAST OF THE INTER-SECTION OF STEAMBOAT PARKWAY AND RIO WRANGLER PARKWAY WITHIN THE SOUTHEAST TRUCKEE MEADOWS SPECIFIC PLAN, WASHOE COUNTY, NEVADA, TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO. AYES: Zadra, Hascheff, Gustin, Sferrazza, Dortch, Aiazzi, Cashell NAYS: None ABSTAIN: None ABSENT: None BILL NO. 6218, ORDINANCE NO. 5682: AN ORDINANCE TO AMEND CHAPTER 16.06, SECTION 16.06.010 OF THE RENO MUNICIPAL CODE, ENTITLED "FIRE CODES" - AN ORDINANCE CREATING CHAPTER 16.01 OF THE RENO MUNICIPAL CODE, ENTITLED "FIRE ADMINISTRATION AND CODES" INCLUDING THE ADOPTION OF A FIRE PREVENTION CODE PRESCRIBING REGULATIONS GOVERNING CONDITIONS HAZARDOUS TO LIFE AND PROPERTY FROM FIRE OR EXPLOSION, BY ADOPTING THE 2003 EDITION OF THE INTERNATIONAL FIRE CODE, TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO. AYES: Aiazzi, Hascheff, Gustin, Zadra, Sferrazza, Dortch, Cashell NAYS: None ABSTAIN: None ABSENT: None BILL NO. 6219, ORDINANCE NO. 5683: AN ORDINANCE REPEALING ALL SECTIONS OF CHAPTERS 16.04 THROUGH CHAPTER 16.40 OF THE RENO MUNICIPAL CODE BECAUSE ALL SUCH ORDINANCES OR PARTS OF ORDINANCES ARE EITHER INTEGRATED INTO OR IN CONFLICT WITH THE NEWLY ADOPTED FIRE CODE, REFERENCED AS CHAPTER 16.01 OF THE RENO MUNICIPAL CODE, TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO. AYES: Hascheff, Aiazzi, Gustin, Zadra, Sferrazza, Dortch, Cashell NAYS: None ABSTAIN: None ABSENT: None These ordinances shall be in full force and effect from and after April 15, 2005. Notice is further given that copies of the above ordinances are available for inspection by all interested parties at the office of the City Clerk, City Hall, One East First Street, Second Floor, Reno, Nevada or by accessing our website at cityofreno.com. LYNNETTE R. JONES, CITY CLERK AND CLERK OF THE CITY COUNCIL No. 28554 April 15, 2005



COUNCIL APPROVAL

APPROVED AND PASSED BY THE CITY COUNCIL OF THE CITY OF BEND, OREGON, THIS 15th DAY OF FEBRUARY, 2010.

[Signature]
 Mayor
[Signature]
 City Clerk



TOTAL AREA TO BE ANNEXED
 = 236.39 ACRES

SURVEYOR'S CERTIFICATE

This plat was prepared from the original field notes of the Survey of the City of Bend, Oregon, and is a true and correct copy of the same as the same are on file in the office of the Surveyor of the County of Washoe, Oregon.



APN	ACRES	SECTION
40-020-11	11.00	1
40-020-12	11.00	1
40-020-13	11.00	1
40-020-14	11.00	1
40-020-15	11.00	1
40-020-16	11.00	1
40-020-17	11.00	1
40-020-18	11.00	1
40-020-19	11.00	1
40-020-20	11.00	1

ANNEXATION TRAIL MAP 41501

CUMULATIVE SURVEY SHOULD BE EXAMINED FOR ANY SUBSEQUENT CHANGES TO THIS MAP

CUMULATIVE SURVEY SHOULD BE EXAMINED FOR ANY SUBSEQUENT CHANGES TO THIS MAP

EXPLANATION: *Matter in italics is new; Matter in brackets [] is material to be omitted.*

BILL NO. 5945

ORDINANCE NO. 5412

AN ORDINANCE ANNEXING TO AND MAKING PART OF THE CITY OF RENO CERTAIN SPECIFICALLY DESCRIBED TERRITORY BEING 10.7 ACRES OF PROPERTY LOCATED SOUTH OF THE INTERSECTION OF OLD VIRGINIA ROAD AND DAMONTE RANCH PARKWAY, WASHOE COUNTY, NEVADA; TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO.

SPONSORED BY: RENO CITY PLANNING COMMISSION

WHEREAS, all of the property owners within the area proposed to be annexed by this Ordinance have petitioned for annexation pursuant to the provisions of the Nevada annexation law (N.R.S. §268.670); and

WHEREAS, it appears in the best interest of the City of Reno that the property described herein be annexed to the City of Reno; and

WHEREAS, said property as described in the attached Exhibit "A", in accordance with R.M.C. Section 18.06.205(a), will be zoned SPD (Specific Plan District), upon the date of annexation.

THEREFORE, THE CITY COUNCIL OF THE CITY OF RENO DO ORDAIN:

SECTION 1. In compliance with the provisions of the Nevada Annexation Law (N.R.S. §268.610 et. seq.) and pursuant to Petitions filed July 1, 2002, with the City of Reno by one hundred percent (100%) of the owners of record within the hereinafter described property contiguous to the Second Ward of the City of Reno, the exterior boundaries of the City of Reno are hereby extended to annex and include the real property described in the attached Exhibit "A".

SECTION 2. Said real property together with all the tenements and inhabitants thereof, shall be subject to all of the laws applicable to the City of Reno and entitled to all the benefits of the government of the City of Reno and is hereby annexed and made a part of the Second Ward of the City of Reno to which said property is contiguous.

SECTION 3. The City Engineer of the City of Reno is hereby instructed to prepare a plat of said territory described in Section 1 of this Ordinance and to file and record the same in the office of the County Recorder of Washoe County, Nevada, together with this Ordinance.

SECTION 4. This Ordinance shall be in effect from and after its passage, adoption and publication in one issue of a newspaper printed and published in the City of Reno.

SECTION 5. The City Clerk and Clerk of the City Council of the City of Reno is hereby authorized and directed to have this Ordinance published in one issue of the Reno-Gazette Journal, a newspaper printed and published in the City of Reno.

PASSED AND ADOPTED this 14th day of January, 2003, by the following vote of the Council:

AYES: Zadra, Aiazzi, Dortch, Cashell

NAYS: None

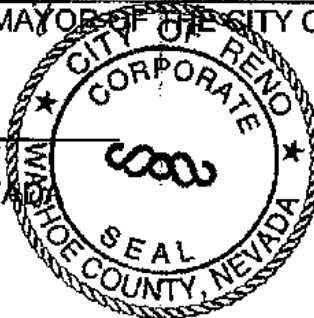
ABSTAIN: None

ABSENT: Hascheff, Harsh, Sferrazza

APPROVED this 14th day of January, 2003.

David L. Aiazzi
Asst. MAYOR OF THE CITY OF RENO

Simmette R. Jones
CITY CLERK AND CLERK OF THE CITY
COUNCIL OF THE CITY OF RENO, NEVADA



EFFECTIVE DATE: January 17, 2003

exhibit a

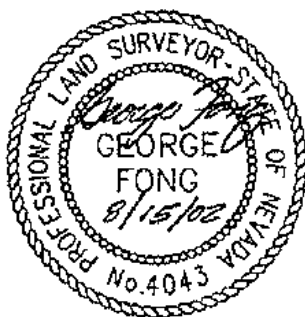
DESCRIPTION

ANNEXATION AREA

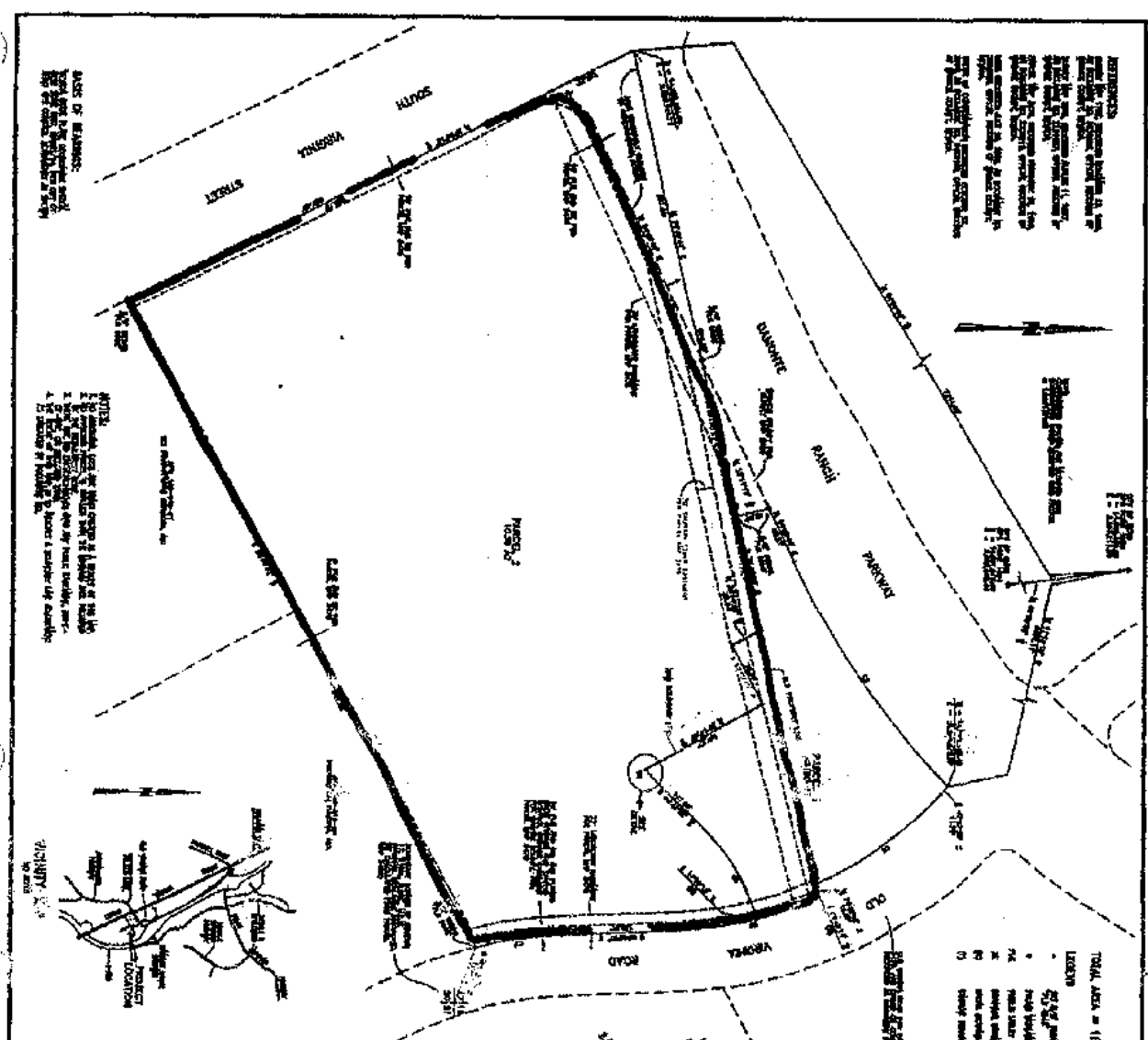
A parcel of land situate within the SE1/4 of Section 17 and the NE1/4 of Section 20, T.18N., R.20E., M.D.M.; Washoe County, Nevada, and being a portion of Parcel 2 of Parcel Map 3478, as shown on the plat thereof, recorded February 19, 1999, as Document No. 2308919, Official Records of Washoe County, Nevada; more particularly described as follows:

Beginning at the southwest corner of said Parcel 2, said point being on the easterly line of South Virginia Street;
thence along said easterly line, N 25°54'12" W, 528.73 feet;
thence along the arc of a 50.00 foot radius curve to the right through a central angle of 90°00'00" a distance of 78.54 feet to a point on the southerly line of Damonte Ranch Parkway;
thence along said southerly line, N 64°05'48" E, 298.88 feet;
thence N 76°48'43" E, 627.42 feet to a point on the westerly line of Old Virginia Road;
thence along said westerly line the following three (3) courses and distances:
on the arc of a 460.50 foot radius curve to the right from a tangent bearing S 24°14'39" E through a central angle of 21°11'42" a distance of 170.35 feet;
S 03°02'57" E, 139.01 feet;
on the arc of a 532.50 foot radius curve to the left through a central angle of 11°04'00" a distance of 102.85 feet;
thence S 60°45'40" W, 841.82 feet to the point of beginning.

Containing 10.70 acres, more or less.



cfa, Inc.
1150 Corporate Blvd.
Reno, NV 89502

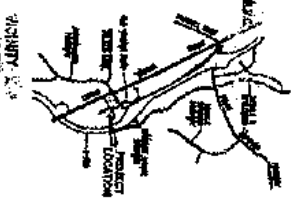


NOTICES:
 1. The owner hereby certifies that the information furnished in this application is true and correct to the best of his knowledge and belief.
 2. The owner hereby certifies that the information furnished in this application is true and correct to the best of his knowledge and belief.
 3. The owner hereby certifies that the information furnished in this application is true and correct to the best of his knowledge and belief.
 4. The owner hereby certifies that the information furnished in this application is true and correct to the best of his knowledge and belief.
 5. The owner hereby certifies that the information furnished in this application is true and correct to the best of his knowledge and belief.

LIST OF REVISIONS:
 1. 11/15/78
 2. 11/15/78
 3. 11/15/78
 4. 11/15/78
 5. 11/15/78

NOTES:
 1. The owner hereby certifies that the information furnished in this application is true and correct to the best of his knowledge and belief.
 2. The owner hereby certifies that the information furnished in this application is true and correct to the best of his knowledge and belief.
 3. The owner hereby certifies that the information furnished in this application is true and correct to the best of his knowledge and belief.
 4. The owner hereby certifies that the information furnished in this application is true and correct to the best of his knowledge and belief.
 5. The owner hereby certifies that the information furnished in this application is true and correct to the best of his knowledge and belief.

TOTAL AREA = 11.87 ACRES ±
 LEGEND:
 * 1/4" = 100' (SEE SCALE)
 * 1/8" = 50' (SEE SCALE)
 * 1/16" = 25' (SEE SCALE)
 * 1/32" = 12.5' (SEE SCALE)
 * 1/64" = 6.25' (SEE SCALE)



RECORD OF SURVEY
 PREPARED BY: [Name]
 DATE: [Date]
 PROJECT: [Project Name]

OWNER'S CERTIFICATE
 I, the undersigned, hereby certify that the information furnished in this application is true and correct to the best of my knowledge and belief.

CITY OF RENO COMMUNITY DEVELOPMENT
 16. [Address]
 RENO, NV

CURVE TABLE

Station	Curve Length	Radius	Delta	Chord	Area
1+00.00	100.00	1000.00	180.00	100.00	10000.00
2+00.00	100.00	1000.00	180.00	100.00	10000.00
3+00.00	100.00	1000.00	180.00	100.00	10000.00
4+00.00	100.00	1000.00	180.00	100.00	10000.00
5+00.00	100.00	1000.00	180.00	100.00	10000.00
6+00.00	100.00	1000.00	180.00	100.00	10000.00
7+00.00	100.00	1000.00	180.00	100.00	10000.00
8+00.00	100.00	1000.00	180.00	100.00	10000.00
9+00.00	100.00	1000.00	180.00	100.00	10000.00
10+00.00	100.00	1000.00	180.00	100.00	10000.00

LDC03-00033
 (Karadani/Old Virginia Road)

RENO NEWSPAPERS INC

Publishers of

RENO GAZETTE-JOURNAL

955 Kuenzli St. P.O.Box 22000 RENO, NV 89520 PHONE: (775) 788-6200
Legal Advertising Office (775) 788-6394

Customer Account # 315603
PO# /ID# 216
Legal Ad Cost \$149.42

- City of Reno
Cami Gundersen
PO Box 7
Reno, NV 89504

STATE OF NEVADA
COUNTY OF WASHOE

ss: Julia Ketcham

Being first duly sworn, deposes and says:
That as the legal clerk of the RENO
GAZETTE-JOURNAL, a daily newspaper
published in Reno, Washoe County,
State of Nevada, that the notice:

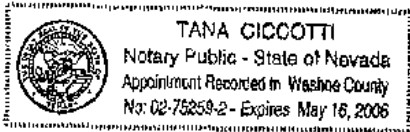
Ordinances

has published in each regular and entire
issue of said newspaper on the following
dates to wit:
Jan. 17, 2003

Signed: Julia Ketcham

Subscribed and sworn to before me this
JAN 20 2003

Tana Cicotti



NOTICE OF
CITY ORDINANCES

NOTICE IS HEREBY GIVEN that the ordinances, listed below by
title and containing the text of the Council, were presented on
December 10, 2002, and final action and adoption of said ordi-
nances took place on January 14, 2003.

BILL NO. 5045, ORDINANCE NO. 5412: AN ORDINANCE
AMENDING TO AND MAKING PART OF THE CITY OF RENO
CERTAIN SPECIFICALLY DESCRIBED TERRITORY BEING 10.7
ACRES OF PROPERTY LOCATED SOUTH OF THE INTERSEC-
TION OF OLD VIRGINIA ROAD AND DAMONTE RANCH PARK-
WAY, WASHOE COUNTY, NEVADA; TOGETHER WITH OTHER
MATTERS PROPERLY RELATING THERETO.

AYES: Zadra, Alizzi, Dorch, Cashell
NAYS: None
ABSENT: None

BILL NO. 5046, ORDINANCE NO. 5413: AN ORDINANCE
AMENDING TITLE 1, CHAPTER 1.05 OF THE RENO MUNICI-
PAL CODE, ENTITLED "CODE ENFORCEMENT ADMINISTRA-
TIVE PROVISIONS" BY AMENDING SECTION 1.05.600
THEREOF ENTITLED "APPEAL OF ADMINISTRATIVE ORDER TO
CITY COUNCIL; PROCEDURE" TO PROVIDE FOR APPEALS
FROM THE ADMINISTRATIVE HEARINGS OFFICER TO GO TO
COUNCIL RATHER THAN TO COUNCIL; TOGETHER WITH OTHER
MATTERS PROPERLY RELATING THERETO.

AYES: Zadra, Dorch, Alizzi, Cashell
NAYS: None
ABSENT: None

BILL NO. 5047, ORDINANCE NO. 5414: AN ORDINANCE
AMENDING TITLE 1, CHAPTER 1.05 OF THE RENO MUNICI-
PAL CODE, ENTITLED "CODE ENFORCEMENT ADMINISTRA-
TIVE PROVISIONS" BY AMENDING SECTION 1.05.605
THEREOF ENTITLED "SERVICE OF APPEAL DECISION; TIME
LIMITS FOR REPAIR, CORRECTION, OR ABATEMENT" TO CON-
FORM TO APPEALS BEING HEARD BY COUNCIL RATHER THAN
COUNCIL; TOGETHER WITH OTHER MATTERS PROPERLY
RELATING THERETO.

AYES: Zadra, Dorch, Alizzi, Cashell
NAYS: None
ABSENT: None

BILL NO. 5048, ORDINANCE NO. 5415: AN ORDINANCE
AMENDING TITLE 4, CHAPTER 4.04 OF THE RENO MUNICI-
PAL CODE, ENTITLED "PRIVILEGED LICENSES GENERALLY"
BY AMENDING SECTION 4.04.100 THEREOF ENTITLED
"APPEALS" TO CLARIFY REVOCATION PROCEDURES AND TO
PROVIDE FOR APPEALS TO MUNICIPAL COURT FROM DECISIONS
OF THE ADMINISTRATIVE HEARINGS OFFICER;
TOGETHER WITH OTHER MATTERS PROPERLY RELATING
THERETO.

AYES: Zadra, Dorch, Alizzi, Cashell
NAYS: None
ABSENT: None

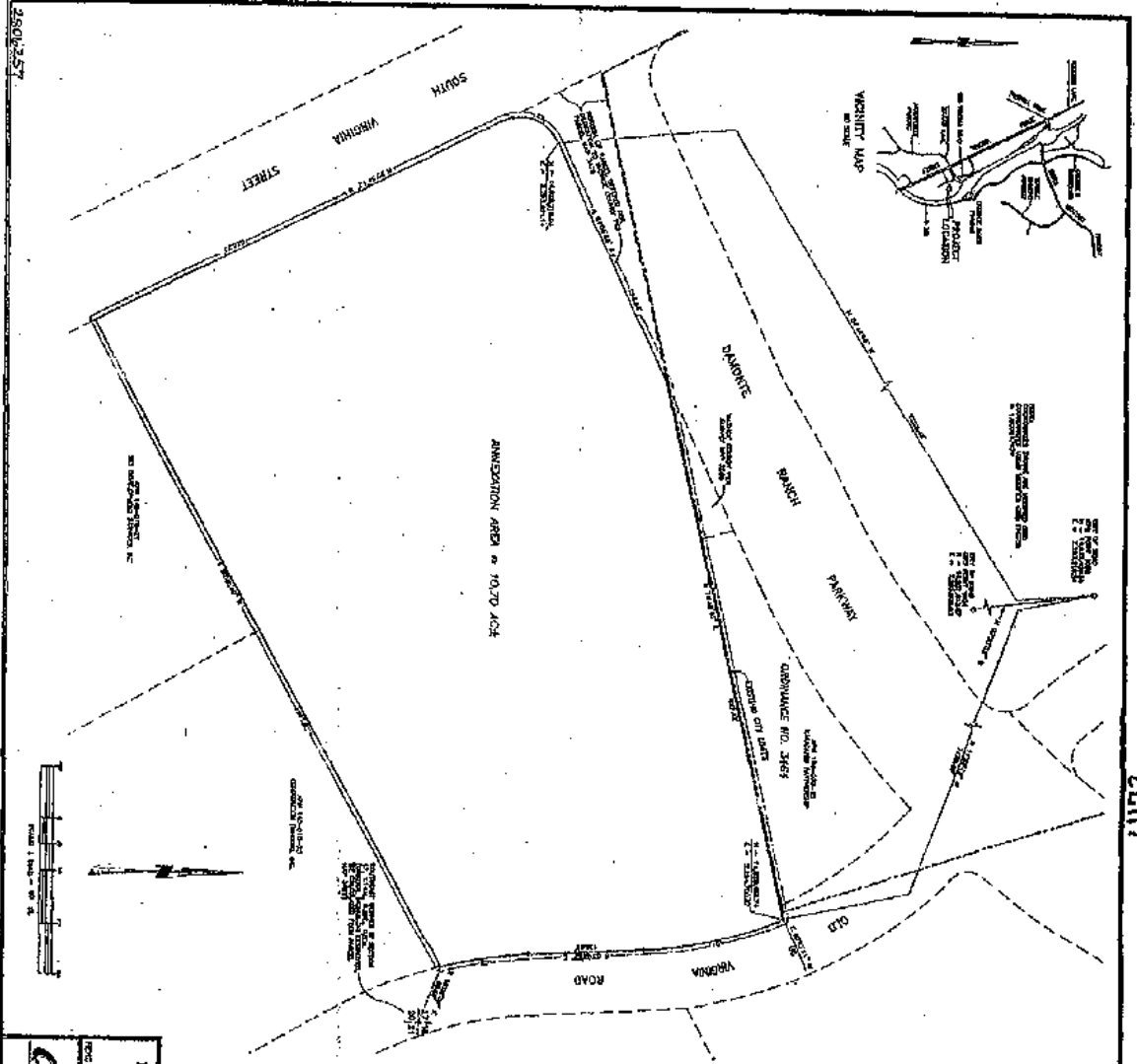
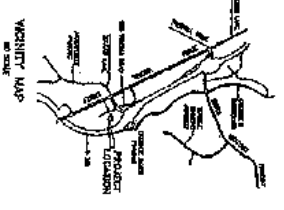
BILL NO. 5049, ORDINANCE NO. 5416: AN ORDINANCE
AMENDING TITLE 5, CHAPTER 5.05 OF THE RENO MUNICI-
PAL CODE, ENTITLED "PRIVILEGED LICENSES GENERALLY"
BY AMENDING SECTION 5.05.017 THEREOF ENTITLED
"APPEALS" TO PROVIDE FOR APPEALS TO A HEARING OFFICER
INSTEAD OF TO COUNCIL FOR DENIALS OF PRIVILEGED
LICENSES; TOGETHER WITH OTHER MATTERS PROPERLY
RELATING THERETO.

AYES: Zadra, Dorch, Alizzi, Cashell
NAYS: None
ABSENT: None

These ordinances shall be in full force and effect from and after
January 17, 2003. Notice is further given that copies of the
above ordinances are available for inspection by all interested
parties at the office of the City Clerk, City Hall, 400 South Deser-
ter Street, Room 203, Reno, Nevada.

LYNNETTE R. JONES, CITY CLERK AND CLERK OF THE CITY
COUNCIL

4117



PETITIONER

OWNER: [Name]

SUBJECT: [Property Description]

THE CITY OF [City Name] HAS REVIEWED THE PETITION AND HAS DETERMINED THAT THE PROPOSED ANNEXATION IS IN THE BEST INTERESTS OF THE CITY AND IS IN ACCORDANCE WITH THE CITY CHARTER AND ORDINANCES.



CITY COUNCIL CERTIFICATE
 APPROVED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF [City Name], MISSOURI, THIS [Date] DAY OF [Month], 20[Year].



CURVE TABLE

STATION	ANGLE	RADIUS	CHORD	ARC LENGTH
1+00.00	90°	100.00	100.00	157.08
1+15.71	90°	100.00	100.00	157.08
1+31.42	90°	100.00	100.00	157.08
1+47.13	90°	100.00	100.00	157.08
1+62.84	90°	100.00	100.00	157.08
1+78.55	90°	100.00	100.00	157.08
1+94.26	90°	100.00	100.00	157.08
2+10.00	90°	100.00	100.00	157.08

NOTE: THE LINES AND CURVES SHOWN ON THIS MAP WERE DERIVED FROM A FIELD SURVEY BY [Surveyor Name] ON [Date].

REFERENCES:
 1. [Reference 1]
 2. [Reference 2]

DATE OF RECORDING: [Date]
 TITLE: AREA OF ANNEXATION = 10.270 AC ±

NO.	DESCRIPTION	DATE	BY
1	PREPARED BY [Name]	[Date]	[Signature]
2	REVIEWED BY [Name]	[Date]	[Signature]
3	APPROVED BY [Name]	[Date]	[Signature]

Annexation Tract Map 4117

CHANGING THIS MAP SHOULD BE EMBARRASSED FOR ANY SUBSEQUENT CHANGES TO THIS MAP

CHURN & WOODS
SURVEYORS & ENGINEERS
PLANNERS & ARCHITECTS
DRAWN BY THIS MAP

Copy to Marge 12/20/02

EXPLANATION: *Matter in italics is new*; Matter in brackets [] is material to be omitted.

BILL NO. 5943

ORDINANCE NO. 5401

AN ORDINANCE ANNEXING TO AND MAKING PART OF THE CITY OF RENO CERTAIN SPECIFICALLY DESCRIBED TERRITORY BEING ±149.07 ACRES OF PROPERTY LOCATED ALONG THE NORTH (VILLAGES 14, 15, AND 16) AND SOUTH (VILLAGE 17) SIDES OF RIO WRANGLER PARKWAY, ADJACENT TO THE WEST AND SOUTH OF DAMONTE RANCH HIGH SCHOOL, WASHOE COUNTY, NEVADA, AS IS MORE FULLY DESCRIBED IN THE ATTACHED EXHIBIT "A"; TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO.

SPONSORED BY: RENO CITY PLANNING COMMISSION

WHEREAS, all of the property owners within the area proposed to be annexed by this Ordinance have petitioned for annexation pursuant to the provisions of the Nevada annexation law (N.R.S. §268.670); and

WHEREAS, it appears in the best interest of the City of Reno that the property described herein be annexed to the City of Reno; and

WHEREAS, said property as described in the attached Exhibit "A", in accordance with R.M.C. Section 18.06.205(a), will be zoned SPD (Specific Plan District), upon the date of annexation.

THEREFORE, THE CITY COUNCIL OF THE CITY OF RENO DO ORDAIN:

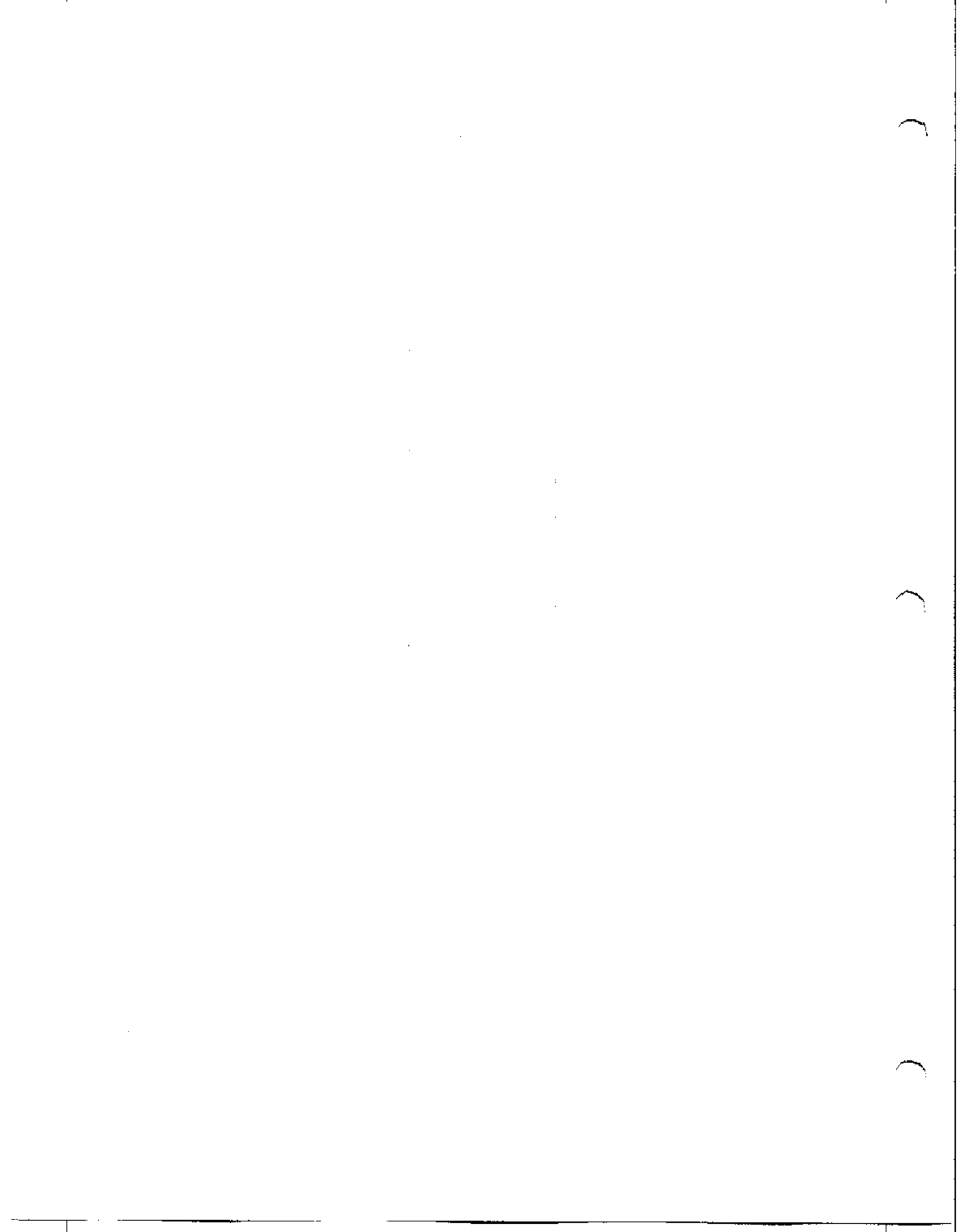
SECTION 1. In compliance with the provisions of the Nevada Annexation Law (N.R.S. §268.610 et. seq.) and pursuant to Petitions filed September 16, 2002 with the City of Reno by one hundred percent (100%) of the owners of record within the hereinafter described property contiguous to the Second Ward of the City of Reno, the exterior boundaries of the City of Reno are hereby extended to annex and include the real property described in the attached Exhibit "A".

LDC03-00127 (Damonte Ranch) - Vern Kloos

-1-

CASE NO. LDC03-00127 (Damonte Ranch/Villages 14, 15, 16, & 17)
APN NO. 140-020-01 and 06

Annex Y 4160



7

7

7

SECTION 2. Said real property together with all the tenements and inhabitants thereof, shall be subject to all of the laws applicable to the City of Reno and entitled to all the benefits of the government of the City of Reno and is hereby annexed and made a part of the Second Ward of the City of Reno to which said property is contiguous.

SECTION 3. The City Engineer of the City of Reno is hereby instructed to prepare a plat of said territory described in Section 1 of this Ordinance and to file and record the same in the office of the County Recorder of Washoe County, Nevada, together with this Ordinance.

SECTION 4. This Ordinance shall be in effect from and after its passage, adoption and publication in one issue of a newspaper printed and published in the City of Reno.

SECTION 5. The City Clerk and Clerk of the City Council of the City of Reno is hereby authorized and directed to have this Ordinance published in one issue of the Reno-Gazette Journal, a newspaper printed and published in the City of Reno.

PASSED AND ADOPTED this 10th day of December, 2002, by the following vote of the Council:

AYES: Zadra, Hascheff, Harsh, Sferrazza, Dortch, Alazzi, Cashell

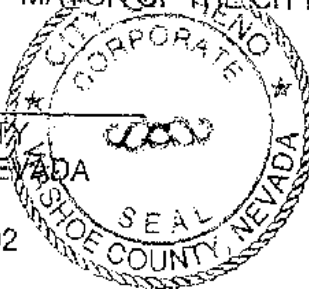
NAYS: None

ABSTAIN: None ABSENT: None

APPROVED this 10th day of December, 2002.

[Signature]
MAYOR OF THE CITY OF RENO

[Signature]
CITY CLERK AND CLERK OF THE CITY
COUNCIL OF THE CITY OF RENO, NEVADA



EFFECTIVE DATE: December 13, 2002

EXHIBIT "A"

LEGAL DESCRIPTION NEVADA TRI-PARTNERS DAMONTE VILLAGES 14

All that certain parcel situate in the East ½ of Section 15, T18N, R20E, M.D.M., City of Reno, County of Washoe, State of Nevada, and being Parcel 13 of Record of Survey No. 4001 as recorded in Washoe County Official Records on October 25, 2001 under filing No. 2609660 and being more particularly described as follows:

BEGINNING at a point from which the East ¼ corner of said Section 15 bears N19°30'25"E, 705.94 feet;

Thence, S 62°39'12" E, 167.80 feet;

Thence, S 21°37'45" W, 520.80 feet;

Thence, along a tangent curve to the right having a radius of 1255.00 feet, a central angle of 17°22'10", and an arc length of 380.46 feet

Thence, N 50°59'18" W, 182.99 feet;

Thence, N 61°52'02" W, 151.62 feet;

Thence, N 60°50'36" W, 223.01 feet;

Thence, N 52°18'58" W, 398.32 feet;

Thence, N 40°07'47" W, 113.87 feet;

Thence, N 17°23'09" W, 75.96 feet;

Thence, N 72°36'51" E, 36.72 feet;

Thence, along a tangent curve to the left having a radius of 110.00 feet, a central angle of 17°30'16", and an arc length of 33.61 feet

Thence, N 55°06'36" E, 32.26 feet;

Thence, along a tangent curve to the left having a radius of 110.00 feet, a central angle of 19°00'05", and an arc length of 36.48 feet

Thence, N 36°06'31" E, 31.15 feet;

Thence, along a tangent curve to the left having a radius of 180.00 feet, a central angle of 23°11'08", and an arc length of 72.84 feet

Thence, N 12°55'23" E, 130.11 feet;

Thence, along a tangent curve to the left having a radius of 210.00 feet, a central angle of 17°22'50", and an arc length of 63.70 feet

Thence, N 04°27'28" W, 203.48 feet;

Thence, along a tangent curve to the right having a radius of 390.00 feet, a central angle of 19°46'49", and an arc length of 134.64 feet

Thence, N 15°19'21" E, 244.34 feet;

Thence, along a tangent curve to the right having a radius of 90.00 feet, a central angle of 27°30'13", and an arc length of 43.20 feet

Thence, N 42°49'34" E, 150.24 feet;

Thence, along a tangent curve to the left having a radius of 275.00 feet, a central angle of 40°52'30", and an arc length of 196.19 feet

Thence, along a tangent curve to the right having a radius of 895.00 feet, a central angle of 4°26'22", and an arc length of 69.35 feet

Thence, N 06°23'26" E, 101.36 feet;

Thence, along a tangent curve to the right having a radius of 30.00 feet, a central angle of 136°44'07", and an arc length of 71.59 feet

Thence, S 36°52'27" E, 114.59 feet;

Thence, S 29°02'58" E, 362.88 feet;

Thence, along a tangent curve to the right having a radius of 200.00 feet, a central angle of 15°08'23", and an arc length of 52.85 feet

Thence, S 13°54'35" E, 150.05 feet;

Thence, along a tangent curve to the right having a radius of 65.00 feet, a central angle of 54°24'11", and an arc length of 61.72 feet

Thence, S 40°29'36" W, 53.46 feet;

Thence, along a tangent curve to the left having a radius of 285.00 feet, a central angle of 34°04'11", and an arc length of 169.47 feet

Thence, S 06°25'25" W, 28.80 feet;

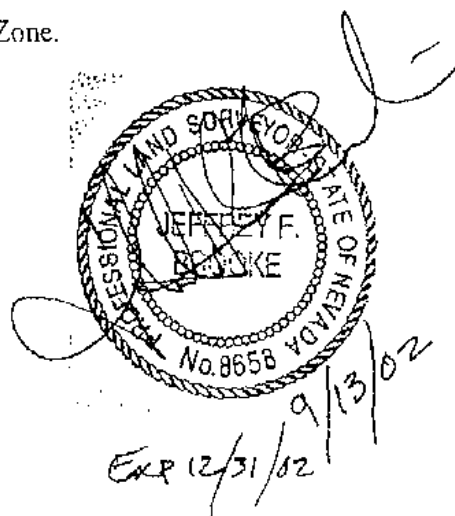
Thence, along a tangent curve to the left having a radius of 65.00 feet, a central angle of 78°41'16", and an arc length of 89.27 feet

Thence, S 72°15'51" E, 220.18 feet;

Thence, S 34°24'19" E, 269.18 feet to the POINT OF BEGINNING.

CONTAINING: 30.14 acres.

Basis of Bearings: NAD 83, Nevada State Plane, West Zone.



**LEGAL DESCRIPTION
NEVADA TRI-PARTNERS
DAMONTE VILLAGES 15**

All that certain parcel situate in Sections 15 & 22, T18N, R20E, M.D.M., City of Reno, County of Washoe, State of Nevada, and being more particularly described as follows:

BEGINNING at a point from which the Southeast corner of said Section 15 bears S66°04'54"E, 1708.33 feet;

Thence, N 28°04'14" W, 64.40 feet;

Thence, along a tangent curve to the left having a radius of 182.00 feet, a central angle of 54°17'42", and an arc length of 172.47 feet

Thence, N 82°21'56" W, 96.08 feet;

Thence, along a tangent curve to the left having a radius of 282.00 feet, a central angle of 6°41'46", and an arc length of 32.96 feet

Thence, N 89°03'41" W, 56.14 feet;

Thence, along a tangent curve to the right having a radius of 100.00 feet, a central angle of 37°10'12", and an arc length of 64.87 feet

Thence, N 51°53'29" W, 115.63 feet;

Thence, along a tangent curve to the right having a radius of 330.00 feet, a central angle of 82°47'24", and an arc length of 476.84 feet

Thence, N 30°53'55" E, 49.24 feet;

Thence, along a tangent curve to the right having a radius of 655.00 feet, a central angle of 68°48'53", and an arc length of 786.68 feet

Thence, along a tangent curve to the left having a radius of 215.00 feet, a central angle of 27°05'56", and an arc length of 101.69 feet

Thence, N 72°36'51" E, 76.90 feet;

Thence, S 17°23'09" E, 75.96 feet;

Thence, S 40°07'47" E, 113.87 feet;

Thence, S 52°18'58" E, 398.32 feet;

Thence, S 60°50'36" E, 223.01 feet;

Thence, S 61°52'02" E, 151.62 feet;

Thence, S 50°59'18" E, 182.99 feet;

Thence, along a non-tangent curve to the right having a tangent bearing of S38°59'55"W, a radius of 1255.00 feet, a central angle of 4°05'35", and an arc length of 89.65 feet

Thence, along a curve to the left having a radius of 1645.00 feet, a central angle of 13°58'23", and an arc length of 401.18 feet

Thence, S 29°07'07" W, 367.58 feet;

Thence, along a curve to the right having a radius of 1305.00 feet, a central angle of 24°21'22", and an arc length of 554.75 feet;

Thence, N 23°28'46" W, 87.68 feet;

Thence, along a curve to the left having a radius of 477.43 feet, a central angle of 31°05'21", and an arc length of 259.06 feet;

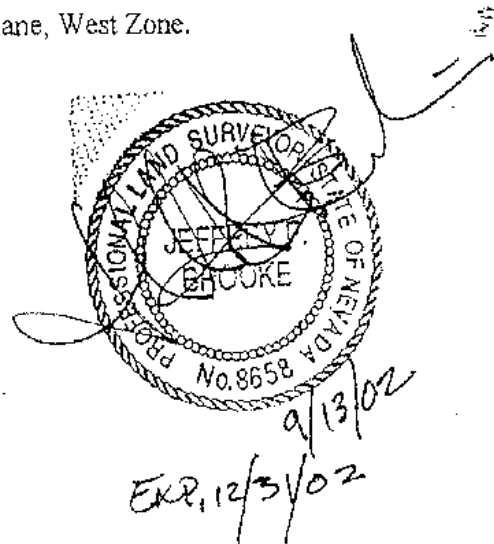
Thence, along a curve to the right having a radius of 308.17 feet, a central angle of 44°40'57", and an arc length of 240.33 feet;

Thence, along a non-tangent curve to the left having a tangent bearing of N07°46'13"W, a radius of 199.16 feet, a central angle of 40°19'31", and an arc length of 140.17 feet

Thence, along a non-tangent curve to the left having a tangent bearing of N40°15'25"E, a radius of 127.00 feet, a central angle of 68°19'39", and an arc length of 151.45 feet to the **POINT OF BEGINNING.**

CONTAINING: 39.19 acres.

Basis of Bearings: NAD 83/94, Nevada State Plane, West Zone.



**LEGAL DESCRIPTION
NEVADA TRI-PARTNERS
DAMONTE VILLAGES 16**

All that certain parcel situate in Sections 15 & 22, T18N, R20E, M.D.M., City of Reno, County of Washoe, State of Nevada, and being more particularly described as follows:

BEGINNING at a point from which the Southeast corner of said Section 15 bears N87°09'55"E, 1227.82 feet;

Thence, N 23°28'46" W, 87.68 feet;

Thence, along a tangent curve to the left having a radius of 477.43 feet, a central angle of 31°05'21", and an arc length of 259.06 feet;

Thence, along a tangent curve to the right having a radius of 308.17 feet, a central angle of 44°40'57", and an arc length of 240.33 feet;

Thence, along a non-tangent curve to the left having a tangent bearing of N07°46'13"W, a radius of 199.16 feet, a central angle of 40°19'31", and an arc length of 140.17 feet

Thence, along a non-tangent curve to the right having a tangent bearing of S40°15'25"W, a radius of 127.00 feet, a central angle of 44°37'57", and an arc length of 98.93 feet

Thence, S 84°53'22" W, 412.19 feet;

Thence, along a tangent curve to the right having a radius of 252.00 feet, a central angle of 15°40'46", and an arc length of 68.96 feet

Thence, N 79°25'51" W, 105.49 feet;

Thence, along a tangent curve to the right having a radius of 152.00 feet, a central angle of 26°16'51", and an arc length of 69.72 feet

Thence, S 40°55'28" W, 82.51 feet;

Thence, along a non-tangent curve to the right having a tangent bearing of S04°42'51"W, a radius of 2500.00 feet, a central angle of 6°57'51", and an arc length of 303.87 feet

Thence, S 11°40'42" W, 93.77 feet;

Thence, S 00°04'24" E, 103.40 feet;

Thence, along a tangent curve to the left having a radius of 800.00 feet, a central angle of 34°46'28", and an arc length of 485.54 feet;

Thence, S 34°50'52" E, 85.56 feet;

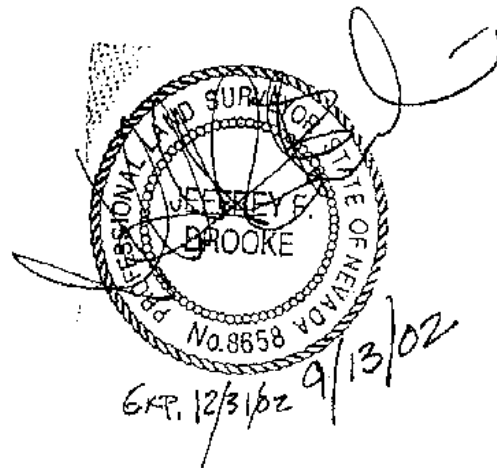
Thence, along a non-tangent curve to the right having a tangent bearing of N55°06'19"E, a radius of 2295.00 feet, a central angle of 15°23'23", and an arc length of 616.44 feet

Thence, N 70°32'31" E, 124.36 feet;

Thence, along a tangent curve to the left having a radius of 1305.00 feet, a central angle of 17°04'03", and an arc length of 388.74 feet to the **POINT OF BEGINNING**.

CONTAINING: 19.71 acres.

Basis of Bearings: NAD 83/94, Nevada State Plane, West Zone.



**LEGAL DESCRIPTION
NEVADA TRI-PARTNERS
DAMONTE VILLAGES 17**

All that certain parcel situate in Sections 14, 15, 22 & 23, T18N, R20E, M.D.M., City of Reno, County of Washoe, State of Nevada, and being more particularly described as follows:

BEGINNING at a point from which the Northeast corner of said Section 22 bears N00°46'37"E, 1098.84 feet;

Thence, S 79°49'11" W, 458.86 feet;

Thence, N 00°40'01" E, 186.01 feet;

Thence, N 68°07'22" W, 195.14 feet;

Thence, N 48°18'53" W, 17.11 feet;

Thence, N 63°01'31" W, 380.61 feet;

Thence, N 20°23'49" E, 71.41 feet;

Thence, N 22°17'04" W, 173.56 feet;

Thence, along a tangent curve to the right having a radius of 1273.70 feet, a central angle of 6°38'0", and an arc length of 147.46 feet;

Thence, along a tangent curve to the left having a radius of 617.08 feet, a central angle of 16°21'57", and an arc length of 176.26 feet;

Thence, N 26°35'52" W, 71.91 feet;

Thence, along a non-tangent curve to the left having a tangent bearing of N54°19'24"E and a radius of 1395.00 feet, a central angle of 25°12'17", and an arc length of 613.67 feet;

Thence, N 29°07'07" E, 367.58 feet;

Thence, along a tangent curve to the right having a radius of 1555.00 feet, a central angle of 13°58'23", and an arc length of 379.23 feet;

Thence, along a tangent curve to the left having a radius of 1345.00 feet, a central angle of 0°28'48", and an arc length of 11.27 feet;

Thence, along a tangent curve to the right having a radius of 40.00 feet, a central angle of 86°50'13", and an arc length of 60.62 feet;

Thence, along a tangent curve to the left having a radius of 601.00 feet, a central angle of 23°23'05", and an arc length of 245.29 feet;

Thence, S 74°29'46" E, 226.30 feet;

Thence, along a tangent curve to the right having a radius of 474.00 feet, a central angle of 75°49'46", and an arc length of 627.33 feet

Thence, S 88°40'00" E, 52.00 feet;

Thence, along a non-tangent curve to the left having a tangent bearing of N01°20'00"E a radius of 526.00 feet, a central angle of 21°25'42", and an arc length of 196.72 feet

Thence, N 70°09'46" E, 52.50 feet;

Thence, S 01°18'11" W, 510.60 feet;

Thence, S 01°17'42" W, 709.52 feet;

Thence, along a tangent curve to the right having a radius of 460.00 feet, a central angle of 18°58'57", and an arc length of 152.40 feet

Thence, S 20°16'39" W, 228.59 feet;

Thence, along a tangent curve to the right having a radius of 245.00 feet, a central angle of 45°29'35", and an arc length of 194.53 feet

Thence, S 65°46'14" W, 181.15 feet;

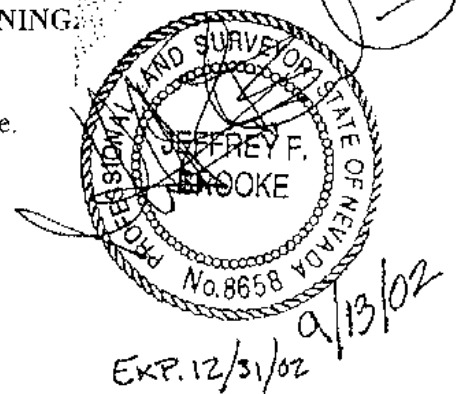
Thence, along a tangent curve to the left having a radius of 230.00 feet, a central angle of 17°35'00", and an arc length of 70.58 feet

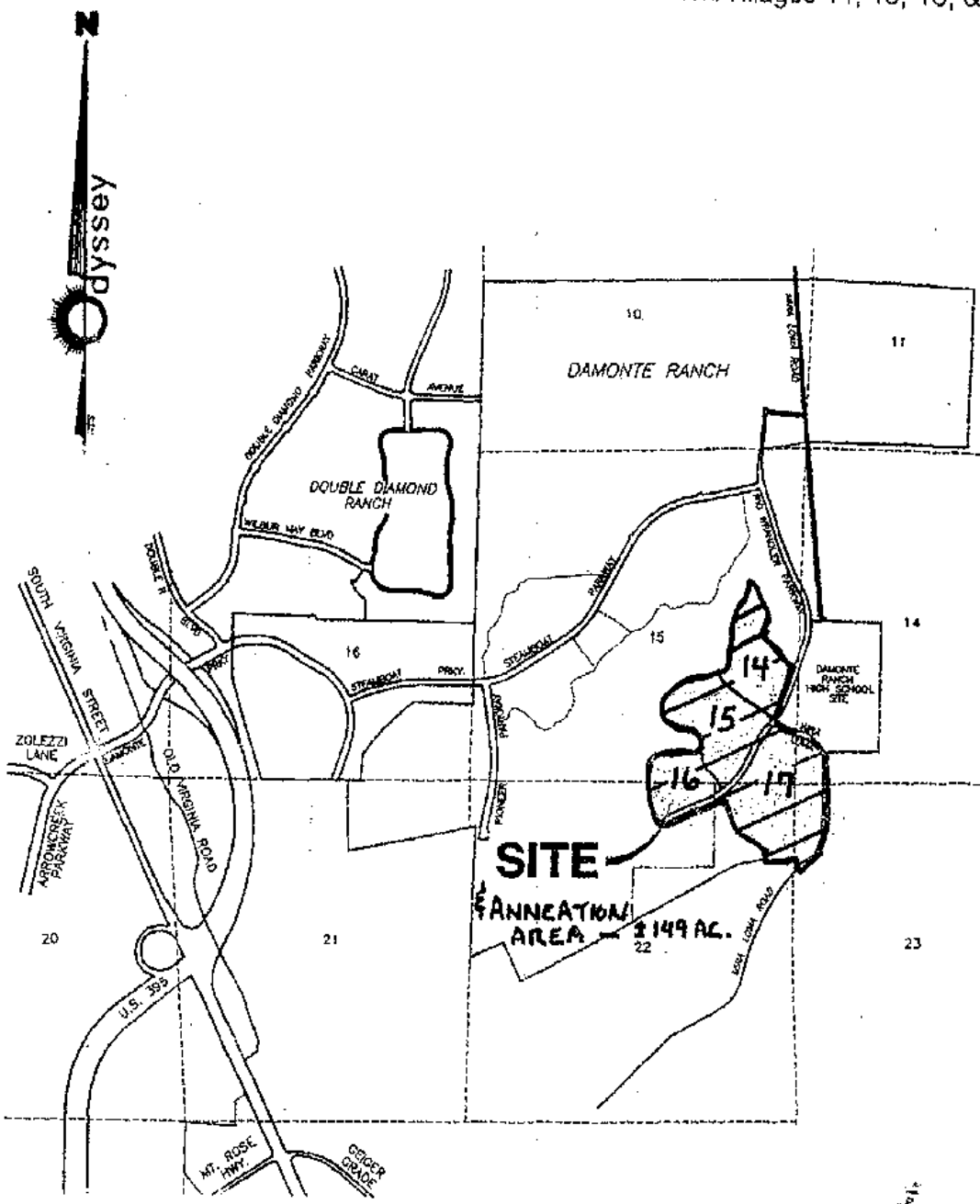
Thence, N 89°15'53" W, 60.49 feet;

Thence, N 00°46'37" E, 216.47 feet to the POINT OF BEGINNING.

CONTAINING: 60.04 acres.

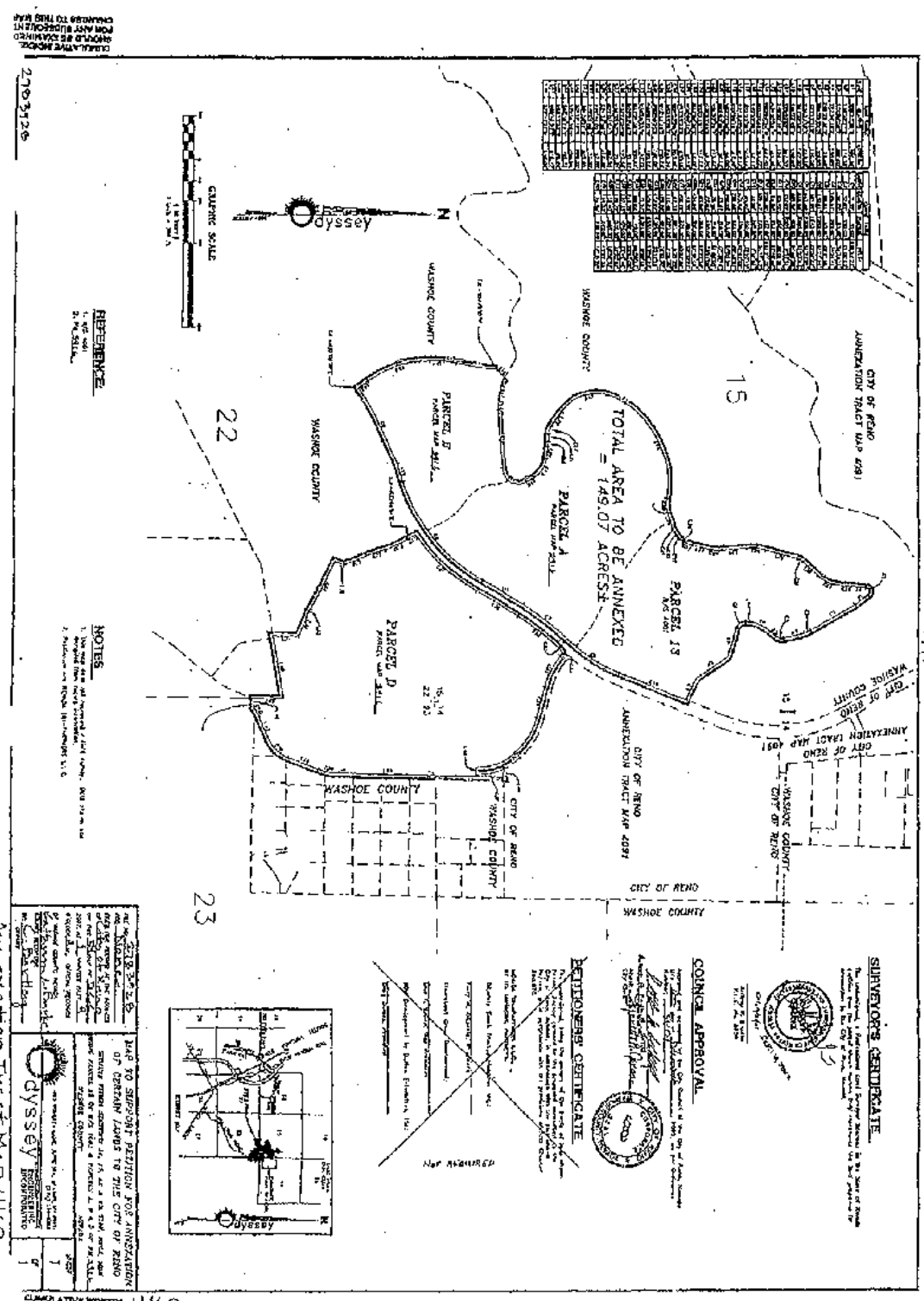
Basis of Bearings: NAD 83/94, Nevada State Plane, West Zone.





DAMONTE RANCH VILLAGES 14, 15, 16, & 17 VICINITY MAP

File Nos 140-020-06
140-020-17
140-020-18
140-020-20



REFERENCE
1. 140-020-06
2. 140-020-17
3. 140-020-18
4. 140-020-20

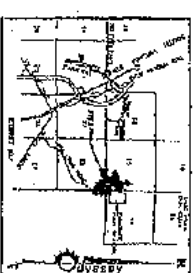
NOTES
1. This map was prepared by the City of Reno, Washoe County, Nevada.
2. This map was prepared by the City of Reno, Washoe County, Nevada.

SEARCHED	INDEXED	SERIALIZED	FILED
JAN 0 2 2009			
1/23/09			

SURVEYOR'S CERTIFICATE
I, the undersigned, being duly sworn, depose and say that I am a duly Licensed Surveyor in the State of Nevada, and that I am the author of the foregoing map, and that the same is a true and correct copy of the original map as shown to me by the City of Reno, Washoe County, Nevada.

COUNCIL APPROVAL
I, the undersigned, being duly sworn, depose and say that I am a member of the City Council of the City of Reno, Washoe County, Nevada, and that I have read the foregoing map and that the same is a true and correct copy of the original map as shown to me by the City of Reno, Washoe County, Nevada.

RETURNERS CERTIFICATE
I, the undersigned, being duly sworn, depose and say that I am a member of the City Council of the City of Reno, Washoe County, Nevada, and that I have read the foregoing map and that the same is a true and correct copy of the original map as shown to me by the City of Reno, Washoe County, Nevada.



PAID TO SUPPORT PETITION FOR ANNEXATION OF CERTAIN LANDS TO THE CITY OF RENO

1
1

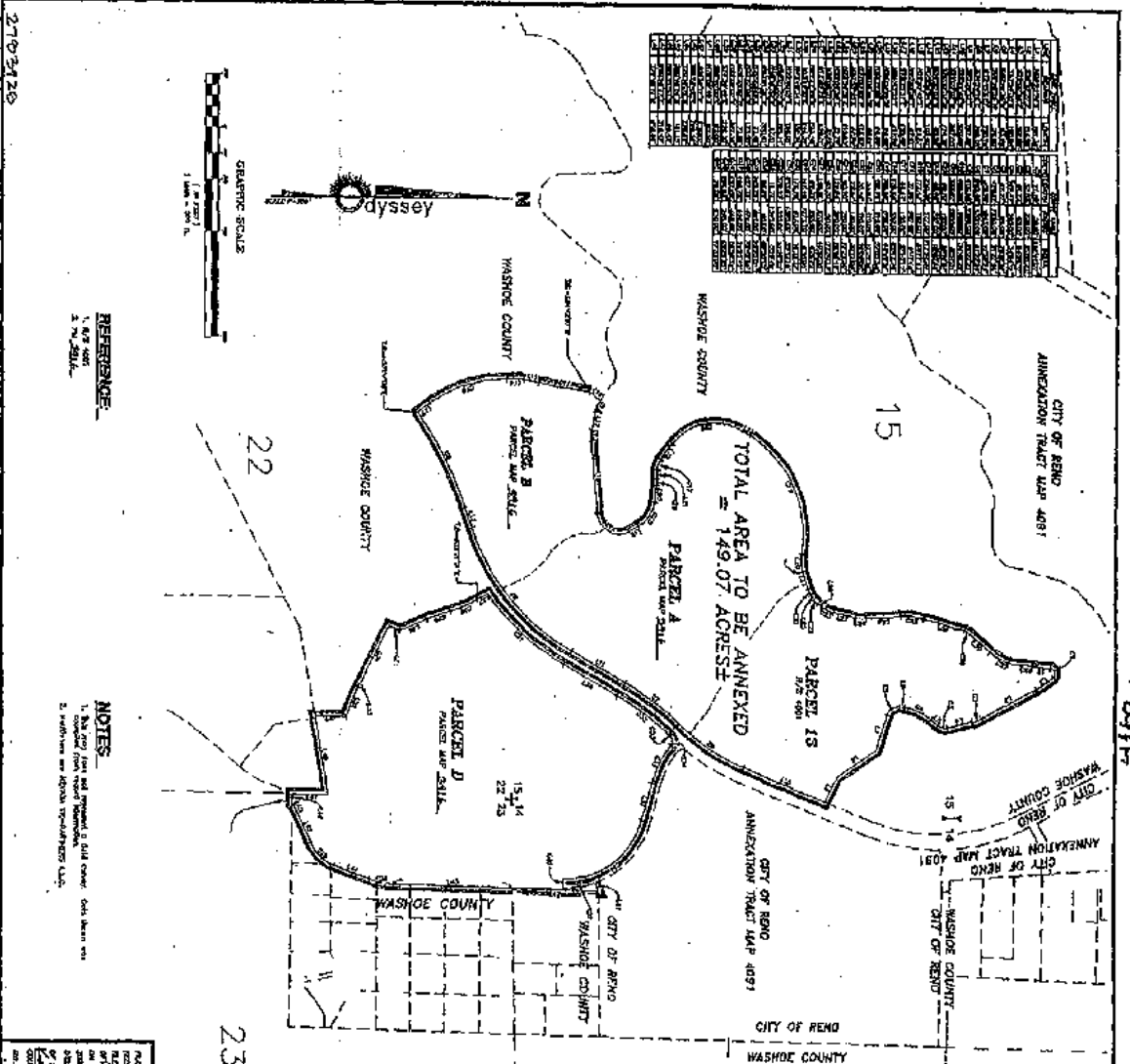
ANNEXATION TRACT MAP 4160

DOC # 2783928
12/31/2002 09:01R Fee: NC
8K6 P4100
Requested By
CITY OF RENO
Washoe County Recorder
Kathryn L. Burke - Recorder
Pg 1 of 1 RPIT 0.00



01A-5101
Dm 100615
1/23/09

LEGISLATIVE WRITING
SHOULD BE EXAMINED
FOR ANY DISCREPANCY
CHANGES TO THIS MAP



REFERENCE:
1. 6.75 ACRES
2. 7.75 ACRES

NOTES:
1. This map was prepared by a civil engineer. Civil Engineer's seal is shown on this map.
2. Washoe County Ordinance 12.010, Washoe County Code.

27203420

MAP TO SUPPORT PETITION FOR ANNEXATION OF CERTAIN LANDS TO THE CITY OF RENO

DATE: 11/11/2010

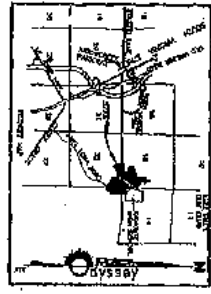
BY: [Signature]

WASHOE COUNTY REGISTERED PROFESSIONAL CIVIL ENGINEER

NO. 11111

1

1



PETITIONERS CERTIFICATE

I, the undersigned, being the owner of the lands of the City of Reno, Nevada, do hereby certify that the lands shown on this map are within the boundaries of the City of Reno, Nevada, and that the same are eligible for annexation to the City of Reno, Nevada, under the provisions of the Nevada Constitution and the Nevada Statutes.

WASHOE COUNTY REGISTERED PROFESSIONAL CIVIL ENGINEER

NO. 11111

1

COUNCIL APPROVAL

APPROVED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF RENO, NEVADA, ON 11/11/2010.

[Signature]

WASHOE COUNTY REGISTERED PROFESSIONAL CIVIL ENGINEER

NO. 11111

1

SURVEYORS CERTIFICATE

The boundaries of the proposed land being annexed to the City of Reno, Nevada, have been surveyed and shown on this map. The survey was conducted by the undersigned, a registered professional civil engineer, and the same is true and correct.

WASHOE COUNTY REGISTERED PROFESSIONAL CIVIL ENGINEER

NO. 11111

1

LEGISLATIVE WRITING
SHOULD BE EXAMINED
FOR ANY DISCREPANCY
CHANGES TO THIS MAP

EXPLANATION: *Matter in italics is new*; Matter in brackets [] is material to be omitted.

BILL NO. 6085

ORDINANCE NO. 5547

AN ORDINANCE ANNEXING TO AND MAKING PART OF THE CITY OF RENO CERTAIN SPECIFICALLY DESCRIBED TERRITORY BEING ANNEXED OF ±138.6 ACRES OF PROPERTY ALONG THE NORTH AND SOUTH SIDES OF RIO WRANGLER PARKWAY EAST OF ITS INTERSECTION WITH PIONEER PARKWAY, WASHOE COUNTY, NEVADA, TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO.

SPONSORED BY: RENO CITY PLANNING COMMISSION

WHEREAS, all of the property owners within the area proposed to be annexed by this Ordinance have petitioned for annexation pursuant to the provisions of the Nevada annexation law (N.R.S. §268.670); and

WHEREAS, it appears in the best interest of the City of Reno that the property described herein be annexed to the City of Reno; and

WHEREAS, said property as described in the attached Exhibit "A" will be zoned in accordance with R.M.C. Section 18.06.205(a), or the translation table contained in settlement agreement CV02-03469, whichever is applicable, upon the date of annexation.

THEREFORE, THE CITY COUNCIL OF THE CITY OF RENO DO ORDAIN:

SECTION 1. In compliance with the provisions of the Nevada Annexation Law (N.R.S. §268.610 et. seq.) and pursuant to Petitions filed December 15, 2003 with the City of Reno by one hundred percent (100%) of the owners of record within the hereinafter described property contiguous to the Second Ward of the City of Reno, the exterior boundaries of the City of Reno are hereby extended to annex and include the real property described in the attached Exhibit "A".

SECTION 2. Said real property together with all the tenements and inhabitants thereof, shall be subject to all of the laws applicable to the City of Reno and entitled to all the benefits of the government of the City of Reno and is hereby annexed and made a part of the Second Ward of the City of Reno to which said property is contiguous.

SECTION 3. The City Engineer of the City of Reno is hereby instructed to prepare a plat of said territory described in Section 1 of this Ordinance and to file and record the same in the office of the County Recorder of Washoe County, Nevada, together with this Ordinance.

SECTION 4. This Ordinance shall be in effect from and after its passage, adoption and publication in one issue of a newspaper printed and published in the City of Reno.

SECTION 5. The City Clerk and Clerk of the City Council of the City of Reno is hereby authorized and directed to have this Ordinance published in one issue of the Reno-Gazette Journal, a newspaper printed and published in the City of Reno.

PASSED AND ADOPTED this 10th day of March, 2004, by the following vote of the Council:

AYES: Zadra, Hascheff, Harsh, Sferrazza, Dortch, Cashell

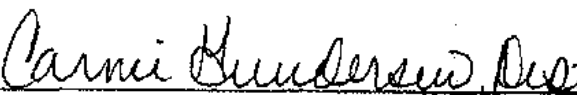
NAYS: None

ABSTAIN: None ABSENT: Aiazzi

APPROVED this 10th day of March, 2004.


MAYOR OF THE CITY OF RENO *Assistant*

ATTEST:


CITY CLERK AND CLERK OF THE CITY
COUNCIL OF THE CITY OF RENO, NEVADA

EFFECTIVE DATE: March 12, 2004

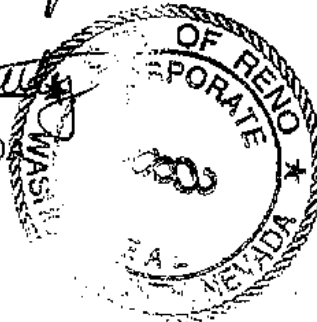


EXHIBIT "A"

LEGAL DESCRIPTION
OF PROPERTY TO BE ANNEXED TO THE CITY OF RENO, NEVADA
NEVADA TRI-PARTNERS-DAMONTE RANCH - PHASE 4

December 11, 2003

All that certain real property situate in Sections 15 & 22, T18N, R20E, M.D.M., City of Reno, County of Washoe, State of Nevada, and being Parcel E of Parcel Map 3963 (as recorded in Washoe County Official Records on February 24, 2003 in Washoe County Official Records under filing No's 2809840), Parcels J, K and a portion of Parcel L of Parcel Map 3964 (as recorded in Washoe County Official Records on February 24, 2003 in Washoe County Official Records under filing No. 2809841) and all of the property shown on Dedication Tract Map (as recorded in Washoe County Official Records on _____ in Washoe County Official Records under filing No. _____) and being more particularly described as follows:

BEGINNING at the Westernmost corner of Parcel M of said Parcel Map 3964;

Thence, N 24°39'00" W, 62.10 feet along the Southerly line of said Parcel L;

Thence, S 64°24'49" W, 560.40 feet, continuing along said Southerly line;

Thence, N 88°47'46" W, 22.63 feet, continuing along said Southerly line;

Thence, N 01°52'07" E, 2005.11 feet, continuing along the boundary of said Parcel L;

Thence, S 78°44'33" E, 44.31 feet;

Thence, along a tangent curve to the left having a radius of 40.00 feet, a central angle of 90°00'00", and an arc length of 62.83 feet;

Thence, N 11°15'27" E, 516.30 feet;

Thence, along a tangent curve to the left having a radius of 2943.00 feet, a central angle of 19°42'29", and an arc length of 1012.31 feet;

Thence, N 08°27'03" W, 711.93 feet;

Thence, N 81°33'44" E, 114.00 feet;

Thence, S 08°27'03" E, 711.91 feet;

Thence, along a tangent curve to the right having a radius of 3057.00 feet, a central angle of 19°24'37", and an arc length of 1035.63 feet to the Northwest corner of said Parcel K;

Thence, N 61°29'53" E, 626.92 feet along the North boundary of said Parcel K to the Northwest corner of said Parcel J;

Thence, along the Northerly boundary of said Parcels J & E the following seventeen (17) courses:

- 1.) along a non-tangent curve to the right having a tangent bearing of $N01^{\circ}14'28''W$, a radius of 375.00 feet, a central angle of $50^{\circ}40'07''$, and an arc length of 331.63 feet
- 2.) $N 49^{\circ}25'48'' E$, 34.66 feet;
- 3.) along a tangent curve to the right having a radius of 90.00 feet, a central angle of $12^{\circ}03'02''$, and an arc length of 18.93 feet
- 4.) $N 61^{\circ}28'42'' E$, 133.44 feet;
- 5.) along a tangent curve to the left having a radius of 120.00 feet, a central angle of $32^{\circ}52'11''$, and an arc length of 68.84 feet
- 6.) $N 28^{\circ}36'31'' E$, 31.05 feet;
- 7.) along a tangent curve to the right having a radius of 8.00 feet, a central angle of $31^{\circ}42'55''$, and an arc length of 4.43 feet
- 8.) $N 60^{\circ}19'25'' E$, 297.97 feet;
- 9.) along a tangent curve to the right having a radius of 105.00 feet, a central angle of $118^{\circ}23'59''$, and an arc length of 216.98 feet
- 10.) $S 01^{\circ}16'36'' E$, 295.48 feet;
- 11.) along a tangent curve to the left having a radius of 150.00 feet, a central angle of $139^{\circ}56'14''$, and an arc length of 366.36 feet
- 12.) $N 38^{\circ}47'09'' E$, 483.22 feet;
- 13.) along a tangent curve to the right having a radius of 148.00 feet, a central angle of $89^{\circ}20'30''$, and an arc length of 230.78 feet
- 14.) along a tangent curve to the left having a radius of 275.00 feet, a central angle of $62^{\circ}30'34''$, and an arc length of 300.02 feet
- 15.) $N 65^{\circ}37'06'' E$, 58.00 feet;
- 16.) along a tangent curve to the right having a radius of 88.00 feet, a central angle of $61^{\circ}13'54''$, and an arc length of 94.05 feet
- 17.) $S 53^{\circ}09'01'' E$, 123.45 feet to the Northeast corner of said Parcel E;

Thence, along the Easterly boundary of said Parcel E the following six (6) courses:

- 1.) $S 40^{\circ}55'28'' W$, 82.51 feet;
- 2.) along a non-tangent curve to the right having a tangent bearing of $S04^{\circ}42'51''W$, a radius of 2500.00 feet, a central angle of $6^{\circ}57'51''$, and an arc length of 303.87 feet

3.) S 11°40'42" W, 93.77 feet;

4.) S 00°04'24" E, 103.40 feet;

5.) along a tangent curve to the left having a radius of 800.00 feet, a central angle of 34°46'28", and an arc length of 485.54 feet;

6.) S 34°50'52" E, 85.56 feet to the Northerly line of Rio Wrangler Parkway (90-foot right-of-way) as shown on Dedication Tract Map 4224 as recorded in Washoe County Official Records on June 17, 2003 under filing No. 2873237;

Thence, along the boundary of said Rio Wrangler Parkway as shown on said Dedication Tract Map 4224 and Dedication Tract Map _____ (as recorded in Washoe County Official Records on _____ under filing No. _____) the following thirteen (13) courses:

1.) along a non-tangent curve to the right having a tangent bearing of N55°09'08"E, a radius of 2295.00 feet, a central angle of 15°23'23", and an arc length of 616.44 feet

2.) N 70°32'31" E, 124.36 feet;

3.) along a tangent curve to the left having a radius of 1305.00 feet, a central angle of 41°25'24", and an arc length of 943.48 feet

4.) N 29°07'07" E, 367.58 feet;

5.) along a tangent curve to the right having a radius of 1645.00 feet, a central angle of 13°58'23", and an arc length of 401.18 feet;

6.) along a radial line, S 46°54'30" E, 90.00 feet;

7.) along a non-tangent curve to the left having a tangent bearing of S 43°05'30" W, a radius of 1555.00 feet, a central angle of 13°58'23", and an arc length of 379.23 feet;

8.) S 29°07'07" W, 367.58 feet;

9.) along a tangent curve to the right having a radius of 1395.00 feet, a central angle of 41°25'24", and an arc length of 1008.55 feet

10.) S 70°32'31" W, 124.36 feet;

11.) along a tangent curve to the left having a radius of 2205.00 feet, a central angle of 26°15'40", and an arc length of 1010.64 feet

12.) S 44°16'51" W, 190.05 feet;

13.) along a tangent curve to the right having a radius of 1395.00 feet, a central angle of 82°41'18", and an arc length of 1883.36 feet to the Northwest corner of said Parcel "M";

Thence, along the Westerly boundary of said Parcel "M" the following six (6) courses:

- 1.) along a non-tangent curve to the right having a tangent bearing of $S25^{\circ}46'07''W$, a radius of 598.19 feet, a central angle of $11^{\circ}11'15''$, and an arc length of 116.80 feet;
- 2.) along a tangent curve to the right having a radius of 319.42 feet, a central angle of $13^{\circ}30'05''$, and an arc length of 75.27 feet;
- 3.) $S48^{\circ}12'02''W$, 328.27 feet;
- 4.) along a tangent curve to the left having a radius of 459.41 feet, a central angle of $36^{\circ}52'32''$, and an arc length of 295.68 feet;
- 5.) $S10^{\circ}12'04''W$, 313.91 feet;
- 6.) along a tangent curve to the right having a radius of 557.85 feet, a central angle of $27^{\circ}58'09''$, and an arc length of 271.92 feet to the **POINT OF BEGINNING**.

CONTAINING: 138.60 Acres.

Basis of Bearings: NAD 83/94, Nevada State Plane, West Zone.

Legal Description prepared by:

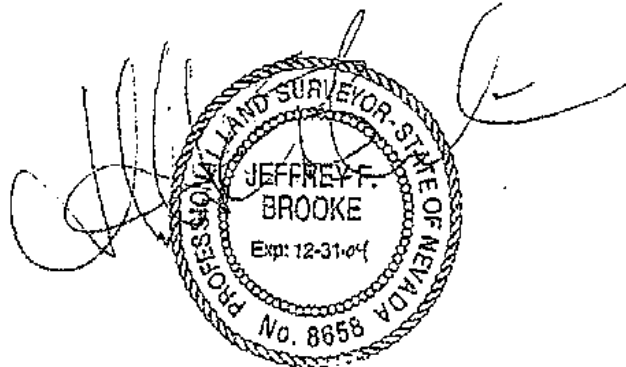
Jeffrey F. Brooke, P.L.S.

Odyssey Engineering, Inc.

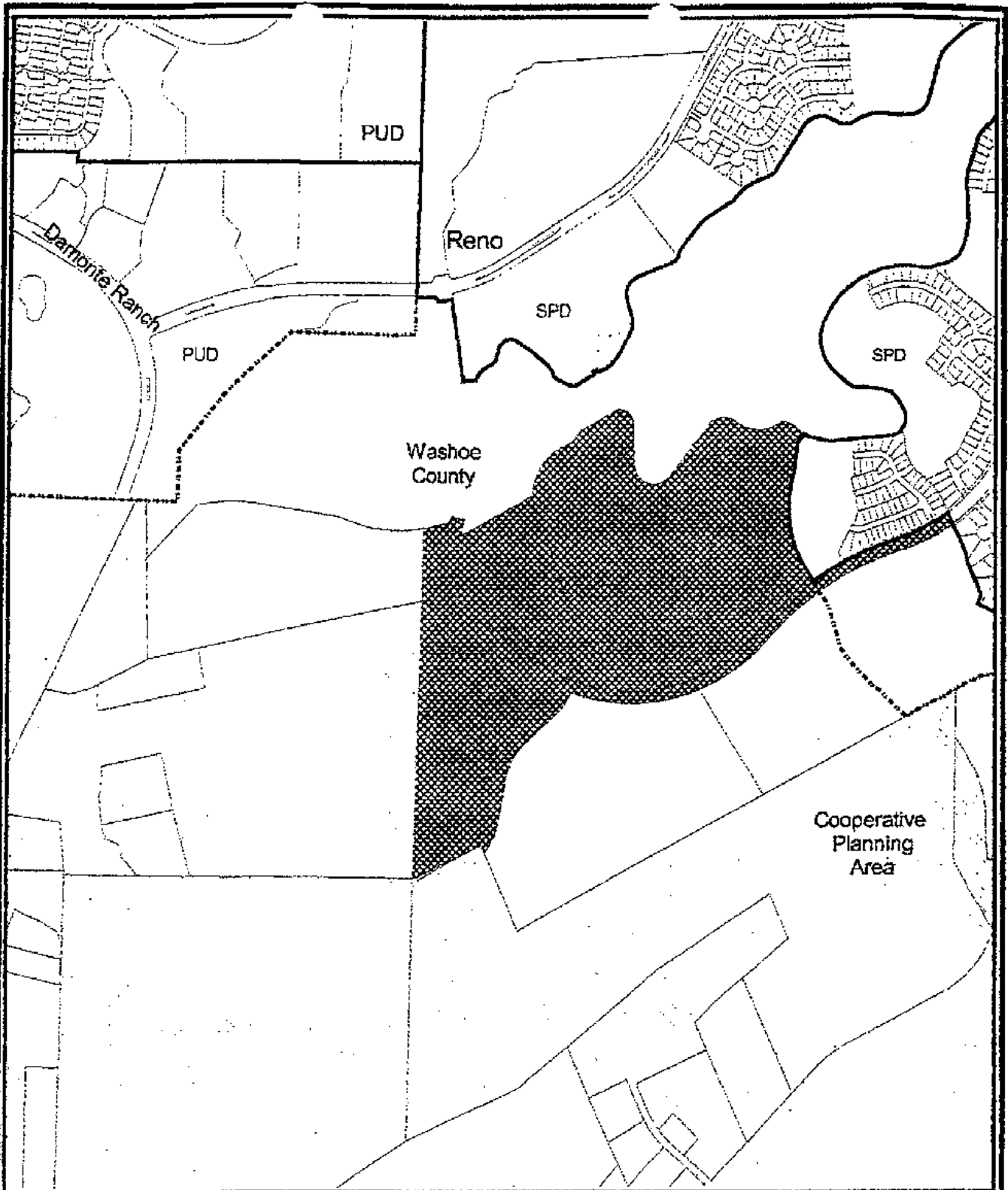
895 Roberta Lane, # 104

Sparks, NV 89431

NOTE TO WASHOE COUNTY RECORDER: THIS DESCRIPTION IS NOT TO BE ATTACHED TO ANY DOCUMENT TRANSFERRING FEE TITLE.




12/11/03




LDC04-00229 (Damonte Ranch Village 20) Annexation Area

Zoning and Vicinity Map

 Subject Site

 Cooperative Planning Area

 AC Zoning Designation

 City Limit Boundary



Data Source: Community Development Department
JLG: 1/16/04

0 600 1200 Feet

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STATE OF NEVADA
COUNTY OF WASHOE

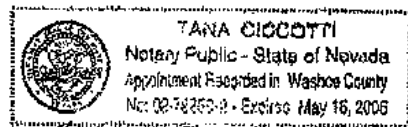
ss: Julia Ketcham

Being first duly sworn, deposes and says: That as the legal clerk of the Reno Gazette-Journal, a daily newspaper published in Reno, Washoe County, State of Nevada, that the notice referenced below has published in each regular and entire issue of said newspaper between the dates: **03/12/04 - 03/12/04**, for exact publication dates please see last line of Proof of Publication below.

Subscribed and sworn to before me

Signed: *Julia Ketcham*

MAR 16 2004



Tana Cicotti

Proof of Publication

NOTICE OF CITY ORDINANCES NOTICE IS HEREBY GIVEN that the ordinances, listed below by title and containing the vote of the Council, were prepared on February 25, 2004, and final action and adoption of such ordinances took place on March 10, 2004. BILL NO. 6082, ORDINANCE NO. 5544: AN ORDINANCE TO AMEND ORDINANCE NO. 4541 OF THE CITY OF RENO CHANGING THE TIME AND DATE OF THE REGULAR MEETINGS OF THE RENO CITY COUNCIL AYES: Zadra, Hascheff, Harsh, Sferrazza, Dortch, Cashell NAYS: None ABSTAIN: None ABSENT: Aiazzi BILL NO. 6083, ORDINANCE NO. 5545: An ordinance to amend Chapter 18.06 of The Reno Municipal Code entitled "Zoning" by adding Section 18.06.502.40 to allow fence setbacks to be five feet on front yards not providing primary access subject to height, landscaping and irrigation standards and to amend Chapter 14.18 entitled "Fences" by modifying Article I, "In General," Section 14.18.010, to reflect new provisions in section 18.06.502.40 and Article II "Permit," Section 14.18.090 to modify the cross-reference for a variance request and other matters properly related thereto. AYES: Dortch, Hascheff, Harsh, Zadra, Sferrazza, Cashell NAYS: None ABSTAIN: None ABSENT: Aiazzi BILL NO. 6084, ORDINANCE NO. 5546: AN ORDINANCE ANNEXING TO AND MAKING PART OF THE CITY OF RENO CERTAIN SPECIFICALLY DESCRIBED

TERRITORY BEING 76.19 ACRES OF PROPERTY LOCATED south of Rio Wrangler Parkway 2,500 feet southwest of the intersection with Desert Way, WASHOE COUNTY, NEVADA, TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO.

AYES: Zadra, Hascheff, Sferrazza, Dortch, Cashell NAYS: None ABSTAIN: None ABSENT: Harsh, Aiazzi BILL NO. 6085, ORDINANCE NO. 5547: AN ORDINANCE ANNEXING

TO AND MAKING PART OF THE CITY OF RENO CERTAIN SPECIFICALLY DESCRIBED TERRITORY BEING ANNEXED OF 138.6 ACRES OF PROPERTY ALONG THE NORTH AND SOUTH SIDES OF RIO WRANGLER PARKWAY EAST OF ITS INTERSECTION WITH PIONEER PARKWAY, WASHOE COUNTY, NEVADA,

TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO. AYES: Zadra, Hascheff, Harsh, Sferrazza, Dortch, Cashell NAYS: None ABSTAIN: None ABSENT: Aiazzi BILL NO. 6086, ORDINANCE NO. 5548: AN ORDINANCE AMENDING

CHAPTER 18.09 OF THE MUNICIPAL CODE ENTITLED "NEW DEVELOPMENT ENGINEERING DESIGN AND IMPROVEMENTS" TO CHANGE THE FORMAT BY ADDING ARTICLES AND SUBSTITUTING SECTIONS FOR SUBSECTIONS AND TO ADD TWO SECTIONS ENTITLED, "CRITICAL FLOOD POOLS" AND "SEVERABILITY" AND OTHER MATTERS PROPERLY RELATED THERETO. AYES: Sferrazza, Hascheff, Harsh, Zadra, Dortch, Cashell NAYS: None ABSTAIN: None ABSENT: Aiazzi

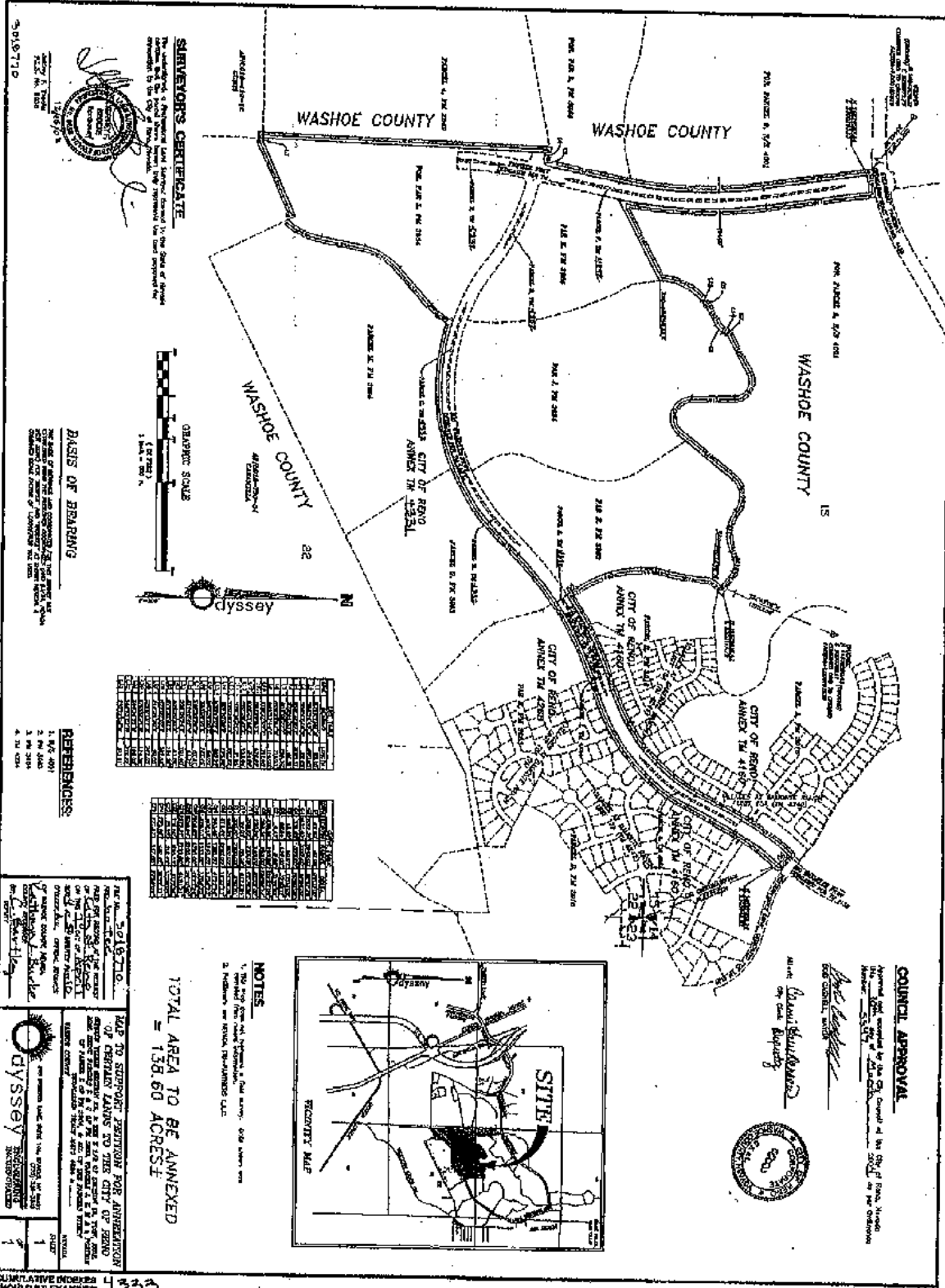
These ordinances shall be in full force and effect from and after March 12, 2004. Notice is further given that copies of the above ordinances are available for inspection by all interested parties at the office of the City Clerk, City Hall, 490 South Center Street, Room 209, Reno, Nevada.

LYNNETTE R. JONES, CITY CLERK

AND CLERK OF

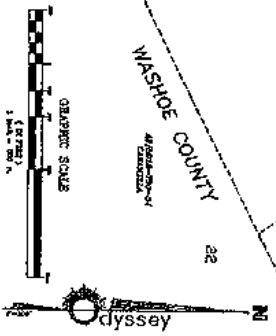
THE CITY COUNCIL No.223883 Mar 12, 2004

CUMULATIVE INDEXES SHOULD BE EXAMINED FOR ANY DISCREPANCIES TO THIS MAP



SURVEYOR'S CERTIFICATE
 I, the undersigned, a duly Licensed Surveyor in the State of Oregon, do hereby certify that the foregoing is a true and correct copy of the original map as filed in my office, and that the same has been approved by me for recording.

12/18/2010
 [Signature]
 [Seal]



BASIS OF BEARING
 All bearings and distances were taken from the original map as filed in my office, and the same have been approved by me for recording.

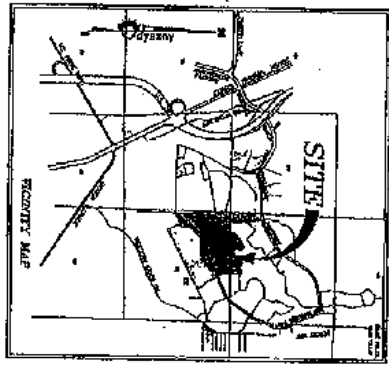
REFERENCES
 1. W.C. 2001
 2. W.C. 2002
 3. W.C. 2003
 4. W.C. 2004

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NOTES:
 1. The map was prepared by [Name] and [Name] of [Company].
 2. The map was prepared in accordance with the provisions of the Oregon Land Use Act.

TOTAL AREA TO BE ANNEXED = 136.60 ACRES



COUNCIL APPROVAL
 Approved and accepted by the City Council of the City of Bend, Oregon, on this 12th day of December, 2010.
 [Signature]
 [Seal]

MAP TO SURVEY WITH PERMISSION FOR ANNEXATION OF CERTAIN LANDS WITHIN CITY OF BEND
 The City of Bend, Oregon, has granted permission to the undersigned to survey and map the lands shown on this map for the purpose of annexation to the City of Bend, Oregon.

Annexation Tract Map H333

CUMULATIVE INDEXES SHOULD BE EXAMINED FOR ANY DISCREPANCIES TO THIS MAP

EXPLANATION: *Matter in italics is new*; Matter in brackets [] is material to be omitted.

BILL NO. 6038

ORDINANCE NO. 5500

AN ORDINANCE ANNEXING TO AND MAKING PART OF THE CITY OF RENO CERTAIN SPECIFICALLY DESCRIBED TERRITORY BEING 14 PARCELS TOTALING 178.53 ACRES, LOCATED WEST OF STEAMBOAT CREEK, EAST OF U.S. HIGHWAY 395, SOUTH OF PARKWOOD DRIVE AND NORTH OF SAGE HILL ROAD, WASHOE COUNTY, NEVADA, TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO.

SPONSORED BY: RENO CITY COUNCIL

WHEREAS, all of the property owners within the area proposed to be annexed by this Ordinance have petitioned for annexation pursuant to the provisions of the Nevada annexation law (N.R.S. §268.670); and

WHEREAS, it appears in the best interest of the City of Reno that the property described herein be annexed to the City of Reno; and

WHEREAS, said property as described in the attached Exhibit "A" will be zoned SPD (Specific Plan District) in accordance with R.M.C. Section 18.06.205(a), and the translation table contained in settlement agreement CV02-03469, upon the date of annexation.

THEREFORE, THE CITY COUNCIL OF THE CITY OF RENO DO ORDAIN:

SECTION 1. In compliance with the provisions of the Nevada Annexation Law (N.R.S. §268.610 et. seq.) and pursuant to Petitions filed July 1, 2003 with the City of Reno by one hundred percent (100%) of the owners of record within the hereinafter described property contiguous to the Second Ward of the City of Reno, the exterior boundaries of the City of Reno are hereby extended to annex and include the real property described in the attached Exhibit "A".

SECTION 2. Said real property together with all the tenements and inhabitants thereof, shall be subject to all of the laws applicable to the City of Reno and entitled to all the benefits of the government of the City of Reno and is hereby annexed and made a part of the Second Ward of the City of Reno to which said property is contiguous.

SECTION 3. The City Engineer of the City of Reno is hereby instructed to prepare a plat of said territory described in Section 1 of this Ordinance and to file and record the same in the office of the County Recorder of Washoe County, Nevada, together with this Ordinance.

SECTION 4. This Ordinance shall be in effect from and after its passage, adoption and publication in one issue of a newspaper printed and published in the City of Reno.

SECTION 5. The City Clerk and Clerk of the City Council of the City of Reno is hereby authorized and directed to have this Ordinance published in one issue of the Reno-Gazette Journal, a newspaper printed and published in the City of Reno.

PASSED AND ADOPTED this 10th day of September, 2003, by the following vote of the Council:

AYES: Zadra, Ajazzi, Harsh, Sferrazza, Dortch, Cashell

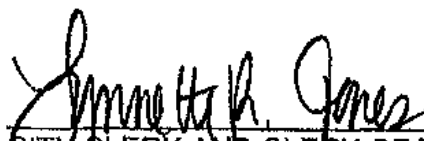
NAYS: None

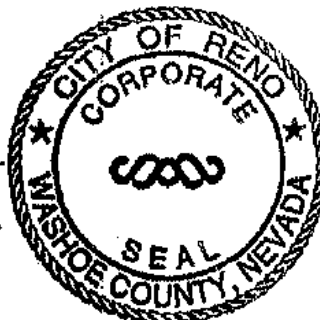
ABSTAIN: None ABSENT: Hascheff

APPROVED this 10th day of September, 2003.


MAYOR OF THE CITY OF RENO

ATTEST:


CITY CLERK AND CLERK OF THE CITY
COUNCIL OF THE CITY OF RENO, NEVADA



EFFECTIVE DATE: September 12, 2003

EXHIBIT "A"

LEGAL DESCRIPTION
ANNEXATION PROPERTY
DAMONTE RANCH TRADE CENTER - PHASE 2

All that certain real property situate in the S 1/2 Section 16, T18N, R20E, M.D.M., County of Washoe, State of Nevada, and being portions of Parcels 1 through 7 of Record of Survey No. 3839 as recorded in Washoe County Official Records on September 18, 2000 under filing No. 2483182, all of Parcel 1 of Parcel Map No. 3126 as recorded in Washoe County Official Records on November 12, 1996 under filing No. 2046716, all of Parcel 2 of Parcel Map No. 2920 as recorded in Washoe County Official Records on June 20, 1995 under filing No. 1902073. Said real property being more particularly described as follows:

BEGINNING at the Northwest corner of Parcel 4 of said Record of Survey No. 3839, Thence, along the boundary of the aforementioned parcels, the following thirteen (13) courses:

- 1.) Thence, S 89°23'20" E, 1366.66 feet,
- 2.) Thence, S 00°00'00" E, 68.09 feet,
- 3.) Thence, S 89°42'42" E, 2608.76 feet,
- 4.) Thence, S 01°17'36" W, 1266.60 feet,
- 5.) Thence, N 88°42'24" E, 950.00 feet,
- 6.) Thence, S 49°34'00" W, 653.19 feet,
- 7.) Thence, S 40°00'00" W, 550.00 feet,
- 8.) Thence, S 01°53'07" W, 377.57 feet,
- 9.) Thence, N 88°06'53" W, 306.54 feet,
- 10.) Thence, S 26°02'13" W, 2.07 feet,
- 11.) Thence, N 88°06'53" W, 1491.75 feet,
- 12.) Thence, N 16°31'44" W, 1156.75 feet,
- 13.) Thence, along a tangent curve to the right having a radius of 950.00 feet, a central angle of 4°31'33", and an arc length of 75.04 feet to the Southerly line of the property described in the "DEED OF GIFT OF REAL PROPERTY" recorded in Washoe County Official Records on August 31, 2001 under filing No. 2592441 ;

Thence, S 89°23'14" E, 13.37 feet along said Southerly line to the East line of said property;

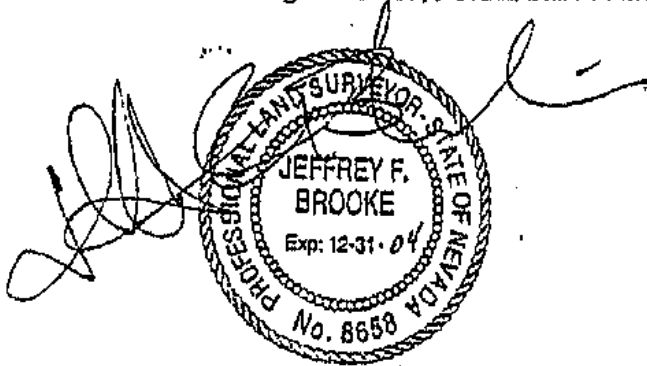
Thence, N 00°51'29" E, 242.61 feet along said East line;

Thence, continuing along said East line, through a tangent curve to the left having a radius of 521.00 feet, a central angle of 16°22'00", and an arc length of 148.83 feet;

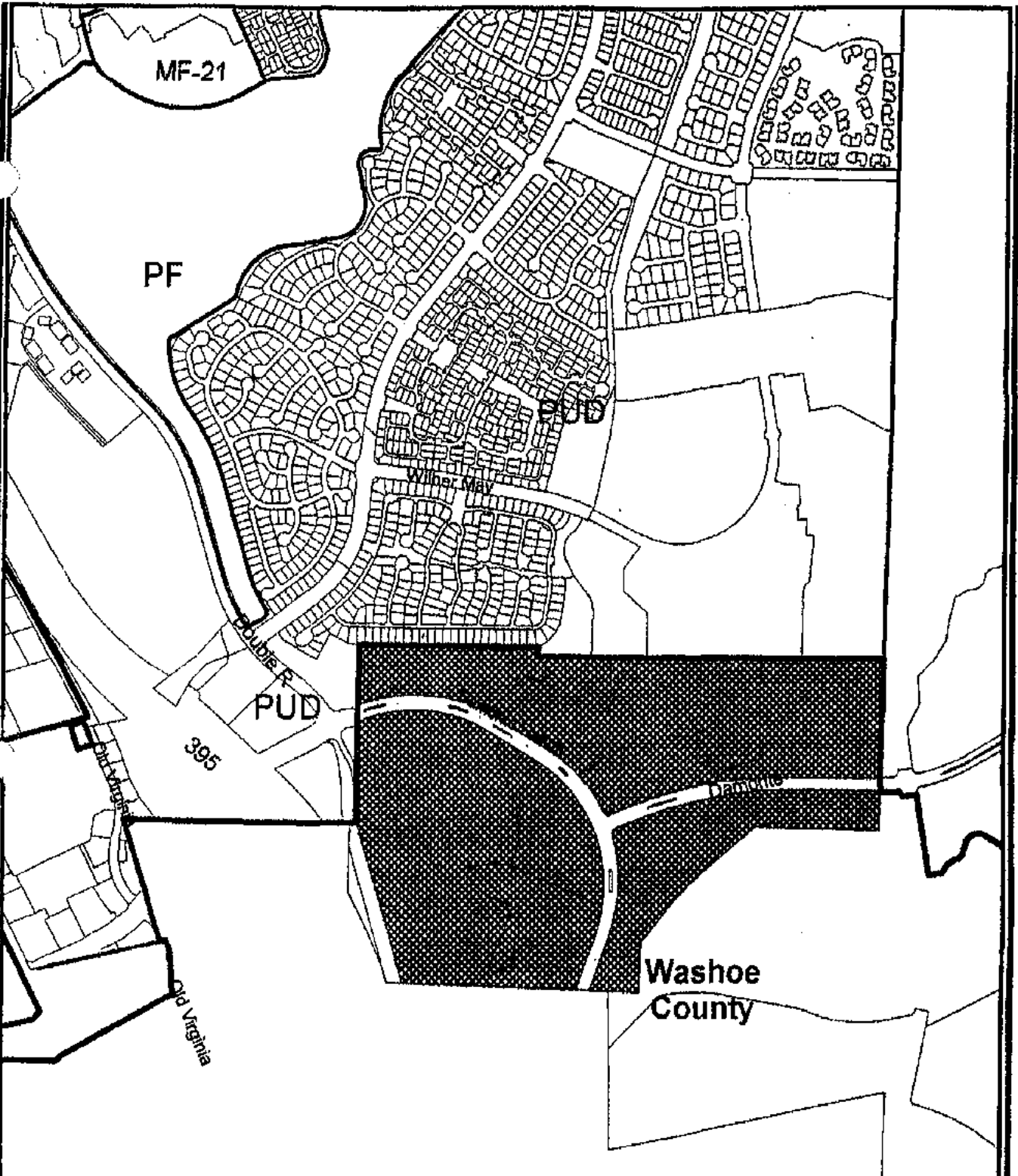
Thence, N 00°51'14" E, 934.35 feet to the POINT OF BEGINNING.

Contains: 178.53 Ac.±

Basis of Bearings: NAD 83, Nevada State Plane, West Zone.



06/30/03



LDC04-00007 (Damonte Ranch Trade Center)
Zoning and Vicinity Map



Subject Site



City of Reno Zoning
 Designation (RMC 18.06)



City Limit Boundary



Date Source: Zoning - Community Development Department
 JLG: 7/18/03, 5/18/03

1000 0 1000 Feet



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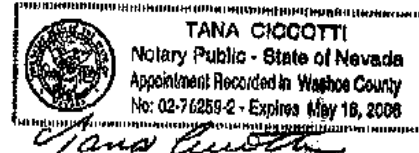
STATE OF NEVADA
COUNTY OF WASHOE

ss: Julia Ketcham

Being first duly sworn, deposes and says: That as the legal clerk of the Reno Gazette-Journal, a daily newspaper published in Reno, Washoe County, State of Nevada, that the notice referenced below has published in each regular and entire issue of said newspaper between the dates: **09/12/03 - 09/12/03**, for exact publication dates please see last line of Proof of Publication below.

Subscribed and sworn to before me

Signed: *Julia Ketcham*
SEP 12 2003



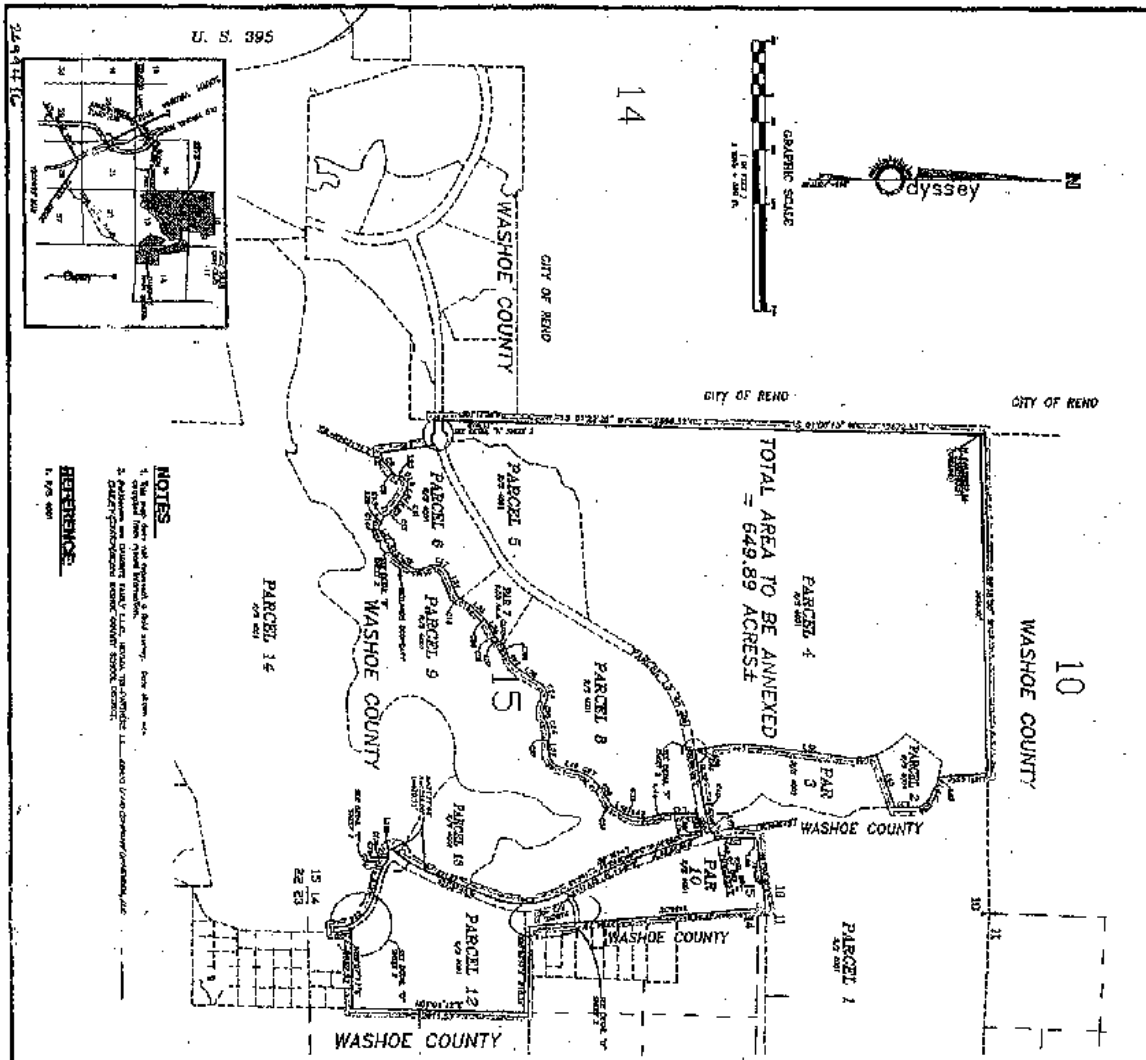
Proof of Publication

NOTICE OF CITY ORDINANCES NOTICE IS HEREBY GIVEN that the ordinances, listed below by title and containing the vote of the Council, were prepared on August 27, 2003, and final action and adoption of such ordinances took place on September 10, 2003. **BILL NO. 6037, ORDINANCE NO. 5499: AN ORDINANCE TO AMEND CHAPTER 18.06 OF THE RENO MUNICIPAL CODE, ENTITLED "ZONING", BY REZONING 386 ACRES OF LLR-2.5 (LARGE LOT RESIDENTIAL - 2.5 ACRE LOTS) AND 80 ACRES OF UT-40 (UNINCORPORATED TRANSITION - 40 ACRE LOTS) TO PUD (PLANNED UNIT DEVELOPMENT) ON PROPERTY LOCATED SOUTH OF CAUGHLIN PARKWAY, WEST OF SOUTH MCCARRAN BOULEVARD, WITH ACCESS FROM PINEHAVEN DRIVE, TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO. AYES: Harsh, Aiazzi, Zadra, Sferrazza, Dortch, Cashell NAYS: None ABSTAIN: None ABSENT: Hascheff BILL NO. 6038, ORDINANCE NO. 5500: AN ORDINANCE ANNEXING TO AND MAKING PART OF THE CITY OF RENO CERTAIN SPECIFICALLY DESCRIBED TERRITORY BEING 14 parcels totaling 178.53 acres. The Washoe County Comprehensive Plan, Southeast Truckee Meadows Specific Plan, designates these properties as Open Space, Neighborhood Commercial/Office, and Town Center. Upon annexation, the lands will be zoned**

SPD (Specific Plan District). The lands are generally located west of Steamboat Creek, east of U.S. Highway 395, south of Parkwood Drive and north of Sage Hill Road, WASHOE COUNTY, NEVADA, TOGETHER WITH OTHER MATTERS PROPERLY RELATING THERETO.

AYES: Zadra, Aiazzi, Harsh, Sferrazza, Dortch, Cashell NAYS: None ABSTAIN: None

ABSENT: Hascheff These ordinances shall be in full force and effect from and after September 12, 2003. Notice is further given that copies of the above ordinances are available for inspection by all interested parties at the office of the City Clerk, City Hall, 490 South Center Street, Room 209, Reno, Nevada. LYNNETTE R. JONES, CITY CLERK
AND CLERK OF THE CITY COUNCIL No.935773 Sept 12, 2003



TOTAL AREA TO BE ANNEXED = 649.89 ACRES

- NOTES**
1. All land shown on this map is the property of the City of Reno.
 2. All other land shown on this map is the property of the State of Nevada.
 3. All other land shown on this map is the property of the State of Nevada.
 4. All other land shown on this map is the property of the State of Nevada.
 5. All other land shown on this map is the property of the State of Nevada.

REFERENCE
1. 708 000

SURVEYOR'S CERTIFICATE

The undersigned, a Registered Land Surveyor, State of Nevada, Certificate No. 4014, having been duly sworn and qualified, do hereby certify that the above is a true and correct copy of the original plat of the above described land.



GREGORY E. GANDY
REGISTERED LAND SURVEYOR
No. 4014
PLATE No. 2002

COUNCIL APPROVAL

Approved and assented to by the City Council of the City of Reno, Nevada, this 1st day of March, 2011.
I, _____ Mayor
I, _____ City Clerk
I, _____ City Auditor



PETITIONER'S CERTIFICATE

The undersigned hereby certify that the above described land is the property of the City of Reno, Nevada, and that the same is being offered for sale to the highest bidder at a public auction on the 1st day of March, 2011, at 10:00 AM, at the City of Reno, Nevada, for the purpose of raising money for the City of Reno, Nevada, and that the same is being offered for sale to the highest bidder at a public auction on the 1st day of March, 2011, at 10:00 AM, at the City of Reno, Nevada, for the purpose of raising money for the City of Reno, Nevada.

PLATE No. 2002
GREGORY E. GANDY
REGISTERED LAND SURVEYOR
No. 4014
PLATE No. 2002

Plat No. 2002

City of Reno, Nevada, U.S.A.

City of Reno, Nevada, U.S.A.

City of Reno, Nevada, U.S.A.

City of Reno, Nevada, U.S.A.

City of Reno, Nevada, U.S.A.

City of Reno, Nevada, U.S.A.

City of Reno, Nevada, U.S.A.

City of Reno, Nevada, U.S.A.

City of Reno, Nevada, U.S.A.

City of Reno, Nevada, U.S.A.

City of Reno, Nevada, U.S.A.

MAP TO SUPPORT PETITION FOR ANNEXATION OF CERTAIN LOTS TO THE CITY OF RENO

SECTION 16, T.14N. R.10E. S.7E., RANGE 10E., TOWNSHIP 14N., RANGE 10E., COUNTY 3E., STATE OF NEVADA.

ANNEXATION MAP NO. 1404

1 1 2

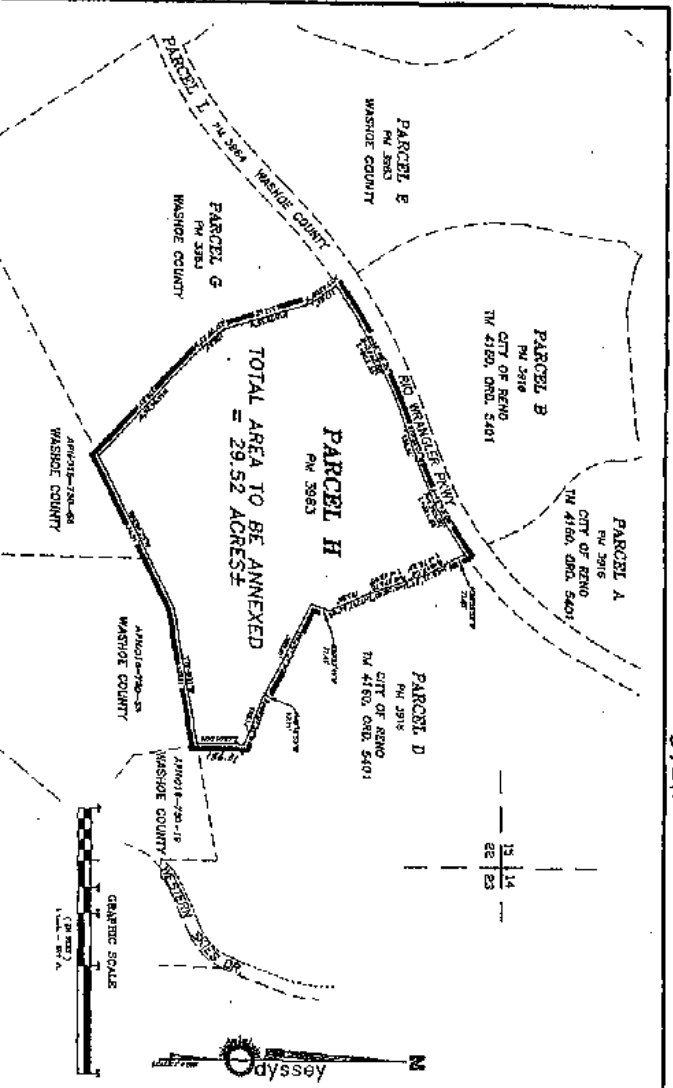
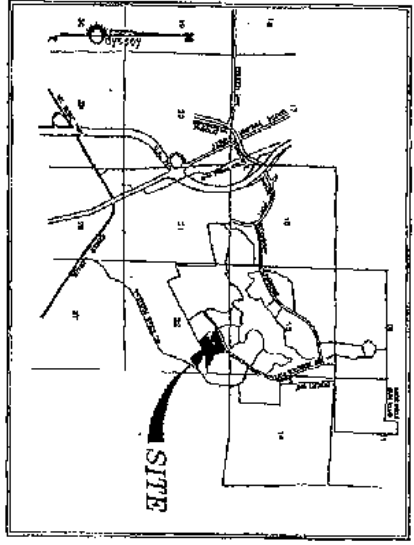
Annexation Tract Map 1404

DRAWING BOARD
SCALE AS SHOWN
CHECKED BY ENGINEER
DATE TO PRINT

2924

LEGISLATIVE NUMBER
SHOULD BE BRACKETED
FOR ANY SUBSEQUENT
CHANGES TO THIS MAP

2128535



SURVEYOR'S CERTIFICATE

This certificate is prepared and signed by the Surveyor of the State of Nevada, and is subject to the provisions of the laws of the State of Nevada, and the rules and regulations of the State Board of Surveyors.



Walter L. Brown
Surveyor of the State of Nevada

COUNCIL APPROVAL

Approved and certified by the City Council of the City of Reno, Nevada, on this 15th day of October, 2008, at the City of Reno, Nevada.

[Handwritten signatures]

[Official seal]

NOTES

1. This map is prepared in accordance with the laws of the State of Nevada.
2. Subsequent to the date of recording this map, any change in the boundaries of the parcels shown hereon shall be shown by a separate map.

REFERENCES

1. NV 2001
2. NV 2002

Map No. 2128535-2
 Date of Recording: 10/15/08
 City of Reno, Nevada
 State of Nevada

Map No. 2128535-2
 Date of Recording: 10/15/08
 City of Reno, Nevada
 State of Nevada

Map No. 2128535-2
 Date of Recording: 10/15/08
 City of Reno, Nevada
 State of Nevada

Map No. 2128535-2
 Date of Recording: 10/15/08
 City of Reno, Nevada
 State of Nevada

Annexation Tract Map 426B

LEGISLATIVE NUMBER
SHOULD BE BRACKETED
FOR ANY SUBSEQUENT
CHANGES TO THIS MAP

426B

Appendix M

Appendix M
Draft Agreements for Maintenance of Damonte
Ranch Drainage Facilities and Wetlands

Strategy 1

City maintains Drainage facilities and wetlands

**DAMONTE RANCH DRAINAGE DISTRICT MAINTENANCE AND
OPERATION AGREEMENT FOR WETLANDS & CHANNELS**

1. SCOPE OF AGREEMENT

1.1 The intent of this Agreement is to set forth the maintenance and operation standards and responsibilities for those flood control facilities located within the Damonte Ranch East and West developments and the Damonte Ranch Trade Center and as specifically depicted in the Southeast Truckee Meadows Master Flood Control Plan.

2. DEFINITIONS

2.1 The City is the City of Reno, Nevada. The address of the City is 1 East First Street, Reno, Nevada 89501.

2.2 City Facilities are those drainage structures within public right of ways.

2.3 The Damonte Ranch Drainage District ("DRDD") represents the owners of the real property described in Exhibit "A" which is attached hereto and incorporated herein by this reference, located within the DRDD.

2.4 DRDD Drainage Facilities are those surface and storm water drainage areas and/or improvements related to flood control purposes, including channels, culverts and sedimentation basins, as depicted in Exhibit "B."

2.5 DRDD Wetlands are those wetlands, constructed or natural, delineated in the Corps of Engineers permit as depicted in "Exhibit C."

2.6 DRDD Board is the Board of Directors elected by the property owners, under the conditions of the DRDD governing documents and as described in the Master Declaration of Covenants, Conditions and Restrictions and Reservation of Easements for Damonte Ranch.

2.7 Operation and Maintenance is the regular activity to control weeds and vegetation, repair earthen and rock banks and channels, remove sedimentation deposits, litter and debris and make minor modifications to maintain proper function.

2.8 The Damonte Ranch Landscape Maintenance Association ("LMA") is the non-profit organization for maintaining the landscape of the uninhabited Landscape Common Elements of the Community.

Strategy 1
City maintains Drainage facilities and wetlands

3. ASSIGNMENT OF RESPONSIBILITIES

- 3.1 The DRDD shall establish an annual budget that includes the O&M and Capital budget set by the City, collect and manage reserve accounts, assign the appropriate fees, collect fees and conduct an annual audit.
- 3.2 The DRDD shall transfer funds monthly to the City of Reno for operation and maintenance of the DRDD Drainage Facilities and the DRDD Wetlands
- 3.3 The City shall maintain and operate all DRDD Drainage Facilities.
- 3.4 The City shall maintain and operate all City Facilities within all public right of ways.
- 3.5 The City shall maintain and operate the DRDD Wetlands.
- 3.6 The City shall determine capital costs for major repair and replacement of the DRDD Drainage Facilities and the DRDD Wetlands.
- 3.7 The City shall determine an annual budget for operation and maintenance of the DRDD Drainage Facilities and the DRDD Wetlands.
- 3.8 The DRDD reserves the right to expand the boundaries of these facilities from time to time, subject to the review and approval of those facility expansions by the City.
- 3.9 Landscape Maintenance Association (LMA) facilities are excluded from this agreement and are not included in the facilities to be operated and maintained by the City.
- 3.10 Storm drainage and flood control facilities on private property not owned by the DRDD are excluded from this agreement and are not included in the facilities to be operated and maintained by the City.
- 3.11 The work of the City shall be done by its employees or contractors to the City.

4. LEVEL OF MAINTENANCE

- 4.1 The level of maintenance by the City of the DRDD Drainage Facilities and Wetlands shall be equivalent to the level of maintenance provided by the City of its drainage facilities throughout the City.

Strategy 1

City maintains Drainage facilities and wetlands

- 4.2. The City's maintenance activities shall be litter and debris collection, woody plant removal, weed management, sedimentation removal, erosion repair, rip rap replacement, drainage structure repair and maintenance, revegetation, minor modifications for proper function and vector control, and inspection.

5. FUTURE MODIFICATIONS

- 5.1 The City must review and approve in writing any future modifications that are made to the DRDD Drainage Facilities prior to construction.
- 5.2 The City must review and approve in writing any future transfer of ownership, rights or responsibilities by the DRDD to any successors or agents.

6. COMPLIANCE WITH PERMITS

- 6.1 The DRDD shall enroll in a Safe Harbors agreement with the Nevada Division of Wildlife and the U.S. Fish and Wildlife Service for maintenance within wetlands.
- 6.2 The City will not accept responsibility for maintaining the DRDD Wetlands until the DRDD has received final certification from the Corps of Engineers wetland permit and has received written notification that all requirements of the Corps permit have been met.

7. MAINTENANCE FEE

- 7.1 The DRDD shall be responsible for the collection of the maintenance fees as set forth in the recorded CC&Rs, Article VI, for Damonte Ranch Trade Center and Damonte Ranch Trade Center I and the CC&Rs for Damonte Ranch.
- 7.2 The maintenance fee shall include at a minimum, annual operation and maintenance costs, capital costs for major repair and replacement, reserves for routine maintenance, reserves for emergency maintenance and administrative costs for the DRDD.

8. RESERVE ACCOUNTS

- 8.1 The DRDD shall establish and maintain a joint reserve account with the City for routine operations, maintenance and capital expenditures, at a minimum, in the amount determined by the City. The DRDD shall provide annual evidence of the maintenance of this account to the City. The City may draw from that account and will notice the DRDD of withdrawals.

Strategy 1

City maintains Drainage facilities and wetlands

- 8.2 The DRDD shall establish and maintain a joint emergency reserve account with the City in an amount equivalent to two years' annual capital, operations and maintenance budget. The fund is to be initially established by Nevada Tri Partners or its successors. The City will draw from the account at its discretion for extraordinary maintenance, including, but not limited to sediment removal after a large storm event and emergency repair of flood control facilities. When the account is drawn down for extraordinary expenses, the DRDD shall adjust its rates as appropriate to achieve the target reserves within three years. The DRDD shall provide annual evidence of the maintenance of this account to the City. The City may draw from that account and will notice the DRDD of withdrawals.

9. ACCESS RIGHTS FOR INSPECTION

- 9.1 It is understood that the City shall have complete access rights to the Project, including use of private streets and driveways within the DRDD for the purpose of inspecting and maintaining the Project, as necessary.

10. PERMITS, LICENSES AND OTHER RIGHTS

- 10.1 The DRDD has obtained and does maintain all licenses, permits or other entitlements necessary or required to provide for the operation and maintenance of these drainage facilities and wetlands.

11. AGREEMENT LIFE

- 11.1 This AGREEMENT shall remain valid indefinitely or until such time as the City of Reno deems necessary.

12. MISCELLANEOUS

- 12.1 A Copy of the DRDD's financial statement shall be sent to the City each year for the purpose of verifying the balance in the accounts.
- 12.2 The City shall be furnished with a copy of the DRDD's official annual budget within 30 days of the beginning of the DRDD's fiscal year.
- 12.3 The City shall furnish the DRDD a copy of the City's proposed annual O&M budget and Capital Budget in July of each year for incorporation into the DRDD annual budget.
- 12.4 Each party represents that all required authorizations have been obtained to execute this AGREEMENT and for compliance with each and every term hereof. Each person signing this AGREEMENT warrants and represents to the other party that he or she has actual authority to execute this AGREEMENT on behalf of the party for whom he or she is signing.

Strategy 1
City maintains Drainage facilities and wetlands

12.5 This AGREEMENT is executed in one duplicate original for each party hereto.

APPROVED this _____ day of _____, 2005

PROPERTY OWNERS

ALL PROPERTY OWNERS WILL BE LISTED AND WILL ACKNOWLEDGE

STATE OF NEVADA)
)SS
COUNTY OF WASHOE)

This instrument was acknowledged before me on this _____ day of _____, 200_, by _____, as _____ of _____.

(Notary)

CITY

ATTEST:

Robert A. Cashell, Sr. Mayor

Reno City Clerk

APPROVED AS TO LEGAL FORM:

Deputy City Attorney

**DAMONTE RANCH DRAINAGE DISTRICT MAINTENANCE AND
OPERATION AGREEMENT FOR CHANNELS**

1. SCOPE OF AGREEMENT

- 1.1 The intent of this Agreement is to set forth the maintenance and operation standards and responsibilities for those flood control facilities located within the Damonte Ranch East and West developments and the Damonte Ranch Trade Center and as specifically depicted in the Southeast Truckee Meadows Master Flood Control Plan.

2. DEFINITIONS

- 2.1 The City is the City of Reno, Nevada. The address of the City is 1 East First Street, Reno, Nevada 89501.
- 2.2 City Facilities are those drainage structures within public right of ways.
- 2.3 The Damonte Ranch Drainage District ("DRDD") represents the owners of the real property described in Exhibit "A" which is attached hereto and incorporated herein by this reference, located within the DRDD.
- 2.4 DRDD Drainage Facilities are those surface and storm water drainage areas and/or improvements related to flood control purposes, including channels, culverts and sedimentation basins, as depicted in "Exhibit B."
- 2.5 DRDD Wetlands are those wetlands, constructed or natural, delineated in the Corps of Engineers permit as depicted in "Exhibit C."
- 2.6 DRDD Board is the Board of Directors elected by the property owners, under the conditions of the DRDD governing documents and as described in the Master Declaration of Covenants, Conditions and Restrictions and Reservation of Easements for Damonte Ranch.
- 2.7 Operation and Maintenance (DRDD) is the regular activity to control weeds and vegetation, repair earthen and rock banks and channels, and remove sedimentation deposits, litter and debris and make minor modifications to maintain proper function.
- 2.8 The Damonte Ranch Landscape Maintenance Association ("LMA") is the non-profit organization for maintaining the landscape of the uninhabited Landscape Common Elements of the Community.

Strategy 2

City maintains channels, DRDD maintains wetlands

3. ASSIGNMENT OF RESPONSIBILITIES

- 3.1 The DRDD shall establish the annual budget which includes the O&M and capital budget set by the City, collect and manage reserve accounts, assign the appropriate fees, collect fees and conduct an annual audit.
- 3.2 The DRDD shall transfer funds monthly to the City of Reno for operation and maintenance of the DRDD Drainage Facilities.
- 3.3 The City shall maintain and operate all DRDD Drainage Facilities located within the City of Reno.
- 3.4 The City shall determine capital costs for major repair and replacement of the DRDD Drainage Facilities.
- 3.5 The City shall determine an annual budget for operation and maintenance of the DRDD Drainage Facilities.
- 3.6 The City shall maintain and operate City Facilities.
- 3.7 The DRDD shall maintain and operate the DRDD Wetlands.
- 3.9 The DRDD reserves the right to expand the boundaries of these facilities from time to time, subject to the review and written approval of those facility expansions by the City.
- 3.10 Landscape Maintenance Association (LMA) facilities are excluded from this agreement and are not included in the facilities to be operated and maintained by the City.
- 3.11 Storm drainage and flood control facilities on private property not owned by the DRDD are excluded from this agreement and are not included in the facilities to be operated and maintained by the City.
- 3.12 The work of the City shall be done by its employees or contractors to the City.
- 3.13 The work of the DRDD shall be done by its staff or contractors to the DRDD.

Strategy 2

City maintains channels, DRDD maintains wetlands

4. LEVEL OF MAINTENANCE

- 4.1 Primary maintenance responsibility for the DRDD Wetlands facilities rests with the DRDD.
- 4.2 The level of maintenance by the City for the DRDD Drainage Facilities shall be equivalent to the level of maintenance provided by the City of its drainage facilities throughout the City.
- 4.3 The City's maintenance activities shall be litter and debris collection, woody plant removal, weed management, sedimentation removal, erosion repair, rip rap replacement, drainage structure repair and maintenance, revegetation, minor modifications for proper function and vector control, and inspection.

5. FUTURE MODIFICATIONS

- 5.1 The City must review and approve in writing any future modifications that are made to the DRDD Drainage Facilities prior to construction.
- 5.2 The City must review and approve in writing any future transfer of ownership, rights or responsibilities by the DRDD to any successors or agents.

6. COMPLIANCE WITH PERMITS

- 6.1 The DRDD shall be responsible for compliance with the Corps of Engineers wetland permit. The City shall have no responsibility for the wetlands and its compliance with any laws, permits, or legal actions. The DRDD shall hold harmless, defend and indemnify the City and its officers, employees and agents from any liabilities, damages, losses, claims, actions or proceedings, including, without limitation, reasonable attorneys' fees that are caused by the negligence, recklessness or intentional misconduct of the DRDD with regard to the wetlands.

7. MAINTENANCE FEE

- 7.1 The DRDD shall be responsible for the collection of the maintenance fees as set forth in the recorded CC&Rs, Article VI, for Damonte Ranch Trade Center and Damonte Ranch Trade Center I and the CC&Rs for Damonte Ranch.
- 7.2 The maintenance fee shall include at a minimum, annual operation and maintenance costs, capital costs for major repair and replacement, reserves

Strategy 2

City maintains channels, DRDD maintains wetlands

for routine maintenance, reserves for emergency maintenance and administrative costs for the DRDD.

8. RESERVE ACCOUNTS

- 8.1 The DRDD shall establish and maintain a joint reserve account with the City for routine operations, maintenance and capital expenditures, at a minimum, in the amount determined in a Reserve Study Report for the DRDD Drainage Facilities. The DRDD shall provide annual evidence of the maintenance of this account to the City in conjunction with the submission of the Facility Status Report. The City may draw from the Drainage Facilities account and will notice the DRDD of withdrawals.
- 8.2 The DRDD shall establish and maintain a joint emergency reserve account with the City in amounts equivalent to two years' annual capital, operations and maintenance budget for the DRDD Drainage Facilities. The account is to be initially established by Nevada Tri Partners or its successors. The City will draw from the Drainage Facilities account at its discretion for extraordinary maintenance, including, but not limited to sediment removal after a large storm event and emergency repair of flood control facilities. When the account is drawn down for extraordinary expenses, the DRDD shall adjust its rates as appropriate to achieve the target reserves within three years. The DRDD shall provide evidence of the maintenance of this account to the City in conjunction with the submission of the annual Facility Status Report. The City may draw from the Drainage Facilities account and will notice the DRDD of withdrawals.

9. ACCESS RIGHTS FOR INSPECTION

- 9.1 It is understood that the City shall have complete access rights to the Project, including use of private streets and driveways within the DRDD for the purpose of inspecting and maintaining the Project, as necessary.

10. PERMITS, LICENSES AND OTHER RIGHTS

- 10.1 The DRDD has obtained and does maintain all licenses, permits or other entitlements necessary or required to provide for the operation and maintenance of the Drainage Facilities and the Wetlands.

11. AGREEMENT LIFE

- 11.1 This AGREEMENT shall remain valid indefinitely or until such time as the City of Reno deems necessary to terminate.

Strategy 2
City maintains channels, DRDD maintains wetlands

12. MISCELLANEOUS

- 12.1 A Copy of the DRDD's financial statement shall be sent to the City each year for the purpose of verifying the balance in the accounts.
- 12.2 The DRDD shall furnish the City a copy of the DRDD's official annual budget within 30 days of the beginning of the DRDD's fiscal year.
- 12.3 The City shall furnish the DRDD a copy of the City's annual O&M budget in July of each year for incorporation into the DRDD annual budget.
- 12.4 The DRDD shall furnish the City a Facilities status report that documents the operation and maintenance activities from the previous year and provides an opinion regarding the proper function of the wetlands for flood control and an opinion of the vegetation of the wetlands.
- 12.5 Each party represents that all required authorizations have been obtained to execute this AGREEMENT and for compliance with each and every term hereof. Each person signing this AGREEMENT warrants and represents to the other party that he or she has actual authority to execute this AGREEMENT on behalf of the party for whom he or she is signing.
- 12.6 This AGREEMENT is executed in one duplicate original for each party hereto.

APPROVED this _____ day of _____, 2005

PROPERTY OWNERS

ALL PROPERTY OWNERS WILL BE LISTED AND WILL ACKNOWLEDGE

Strategy 2

City maintains channels, DRDD maintains wetlands

STATE OF NEVADA)
)SS
COUNTY OF WASHOE)

This instrument was acknowledged before me on this _____ day of
_____, 200_, by _____, as _____ of
_____.

(Notary)

CITY

ATTEST:

Robert A. Cashell, Sr. Mayor

Reno City Clerk

APPROVED AS TO LEGAL FORM:

Deputy City Attorney

Strategy 3
City maintains channels, County GID maintains wetlands

**DAMONTE RANCH DRAINAGE DISTRICT MAINTENANCE AND
OPERATION AGREEMENT FOR CHANNELS**

1. SCOPE OF AGREEMENT

1.1 The intent of this Agreement is to set forth the maintenance and operation standards and responsibilities for those flood control facilities located within the Damonte Ranch East and West developments and the Damonte Ranch Trade Center and as specifically depicted in the Southeast Truckee Meadows Master Flood Control Plan.

2. DEFINITIONS

2.1 The City is the City of Reno, Nevada. The address of the City is 1 East First Street, Reno, Nevada 89501.

2.2 City Facilities are those drainage structures within public right of ways.

2.3 The Damonte Ranch General Improvement District ("DRGID") represents the owners of the real property described in Exhibit "A" which is attached hereto and incorporated herein by this reference, located within the DRGID.

2.4 DRDD Drainage Facilities are those surface and storm water drainage areas and/or improvements related to flood control purposes, including channels, culverts and sedimentation basins, as depicted in "Exhibit B."

2.5 DRGID Wetlands are those wetlands, constructed or natural, delineated in the Corps of Engineers permit as depicted in "Exhibit C."

2.6 DRDD Board is the Board of Directors elected by the property owners, under the conditions of the DRGID governing documents and as described in the Master Declaration of Covenants, Conditions and Restrictions and Reservation of Easements for Damonte Ranch.

2.7 Operation and Maintenance (DRGID) is the regular activity to control weeds and vegetation, repair earthen and rock banks and channels, and remove sedimentation deposits, litter and debris, and make minor modifications to maintain proper function.

2.8 The Damonte Ranch Landscape Maintenance Association ("LMA") is the non-profit organization for maintaining the landscape of the uninhabited Landscape Common Elements of the Community.

Strategy 3

City maintains channels, County GID maintains wetlands

3. ASSIGNMENT OF RESPONSIBILITIES

- 3.1 The DRGID shall establish the annual budget which includes the O&M and capital budget set by the City, collect and manage reserve accounts, assign the appropriate fees, collect fees and conduct an annual audit.
- 3.2 The DRDD shall transfer funds monthly to the City of Reno for operation and maintenance of the DRDD Drainage Facilities.
- 3.3 The City shall maintain and operate all DRDD Drainage Facilities located within the City of Reno.
- 3.4 The City shall determine capital costs for major repair and replacement of the DRDD Drainage Facilities.
- 3.5 The City shall determine an annual budget for operation and maintenance of the DRDD Drainage Facilities.
- 3.6 The City shall maintain and operate City Facilities.
- 3.7 The DRGID shall maintain and operate the DRGID Wetlands.
- 3.9 The DRDD reserves the right to expand the boundaries of these facilities from time to time, subject to the review and written approval of those facility expansions by the City.
- 3.10 Landscape Maintenance Association (LMA) facilities are excluded from this agreement and are not included in the facilities to be operated and maintained by the City.
- 3.11 Storm drainage and flood control facilities on private property not owned by the DRDD are excluded from this agreement and are not included in the facilities to be operated and maintained by the City.
- 3.12 The work of the City shall be done by its employees or contractors to the City.
- 3.13 The work of the DRGID shall be done by its staff or contractors to the DRGID.

Strategy 3

City maintains channels, County GID maintains wetlands

4. LEVEL OF MAINTENANCE

- 4.1 Primary maintenance responsibility for the DRGID Wetlands facilities rest with the DRGID.
- 4.2 The level of maintenance by the City for the DRDD Drainage Facilities shall be equivalent to the level of maintenance provided by the City of its drainage facilities throughout the City.
- 4.3 The City's maintenance activities shall be litter and debris collection, woody plant removal, weed management, sedimentation removal, erosion repair, rip rap replacement, drainage structure repair and maintenance, revegetation, minor modifications for proper function and vector control, and inspection.

5. FUTURE MODIFICATIONS

- 5.1 The City must review and approve in writing any future modifications that are made to the DRDD Drainage Facilities prior to construction.
- 5.2 The City must review and approve in writing any future transfer of ownership, rights or responsibilities by the DRDD to any successors or agents.

6. COMPLIANCE WITH PERMITS

- 6.1 The DRGID shall be responsible for compliance with the Corps of Engineers wetland permit. The City shall have no responsibility for the wetlands and its compliance with any laws, permits, or legal actions. The DRGID shall hold harmless, defend and indemnify the City and its officers, employees and agents from any liabilities, damages, losses, claims, actions or proceedings, including, without limitation, reasonable attorneys' fees, that are caused by the negligence, recklessness or intentional misconduct of the DRGID with regard to the wetlands.

7. MAINTENANCE FEE

- 7.1 The DRDD shall be responsible for the collection of the maintenance fees as set forth in the recorded CC&Rs, Article VI, for Damonte Ranch Trade Center and Damonte Ranch Trade Center I and the CC&Rs for Damonte Ranch.

Strategy 3

City maintains channels, County GHD maintains wetlands

- 7.2 The maintenance fee shall include at a minimum, annual operation and maintenance costs, capital costs for major repair and replacement, reserves for routine maintenance, reserves for emergency maintenance and administrative costs for the DRDD.

8. RESERVE ACCOUNTS

- 8.1 The DRDD shall establish and maintain a joint reserve account with the City for routine operations, maintenance and capital expenditures, at a minimum, in the amount determined in a Reserve Study Report for the DRDD Drainage Facilities. The DRDD shall provide evidence of the maintenance of this account to the City in conjunction with the submission of the Facility Status Report. The City may draw from the Drainage Facilities account and will notice the DRDD of withdrawals.
- 8.2 The DRDD shall establish and maintain a joint emergency reserve account with the City in amounts equivalent to two years' annual capital, operations and maintenance budget for the DRDD Drainage Facilities. The account is to be initially established by Nevada Tri Partners or its successors. The City will draw from the Drainage Facilities account at its discretion for extraordinary maintenance, including, but not limited to sediment removal after a large storm event and emergency repair of flood control facilities. When the account is drawn down for extraordinary expenses, the DRDD shall adjust its rates as appropriate to achieve the target reserves within three years. The DRDD shall provide evidence of the maintenance of this account to the City in conjunction with the annual submission of the Facility Status Report. The City may draw from the Drainage Facilities account and will notice the DRDD of withdrawals.

9. ACCESS RIGHTS FOR INSPECTION

- 9.1 It is understood that the City shall have complete access rights to the Project, including use of private streets and driveways within the DRDD for the purpose of inspecting and maintaining the Project, as necessary.

10. PERMITS, LICENSES AND OTHER RIGHTS

- 10.1 The DRDD has obtained and does maintain all licenses, permits or other entitlements necessary or required to provide for the operation and maintenance of the Drainage Facilities and the Wetlands.

11. AGREEMENT LIFE

Technical Memorandum
No. 2

TECHNICAL MEMORANDUM 2

Water Rights, Water Demand and Drainage Issues for The Damonte Ranch Wetlands and Storm Drainage Facilities



Prepared for the
City of Reno

26 April 2007
K/J 0595008

Kennedy/Jenks Consultants
Engineers & Scientists

26 April 2007

Technical Memorandum No. 2

To: Greg Dennis, P.E. and Kerri Williams-Lanza, P.E., City of Reno
From: Karin Peternel and Lynn Orphan, P.E.
Subject: Water Rights, Water Demand and Drainage Issues for the Damonte Ranch Wetlands
and Storm Drainage Facilities
K/J 0595008

Introduction

The purpose of this technical memorandum is to summarize the issues related to the supply, availability and conveyance of irrigation water to the Damonte Ranch wetlands. This includes water rights, water demand, or amount of water deemed necessary to sustain the wetlands, and delivery of water to the wetlands from Steamboat Creek via the Crane & Clow Ditch.

This technical memorandum provides detailed information about the seniority of water rights as decreed by the Orr Ditch Decree, an analysis of the estimate of the evapotranspiration from the wetlands, and an evaluation of the ownership and maintenance of the system used to transmit the water from Steamboat Creek to the wetlands via Crane & Clow Ditch.

Background

Technical Memorandum 1 set forth Summary/Recommendations for management of the Damonte Ranch wetland and storm drainage facilities. It listed a series of additional actions required before the City could take certification of the wetlands. Action items covered in this memorandum include seniority and possible transfer of the assigned water rights; ownership, maintenance and transfer of ownership of the Crane and Clow Ditch; an assessment of the erosion potential, stability and repair of existing and future drainage channels; and implementation of erosion control on the Crane and Clow Ditch.

Water Rights

A preliminary water balance estimated by Huffman & Carpenter (H&C) determined an amount of water that would be necessary to sustain the wetlands' vegetation and habitat. This considered precipitation inputs and evapotranspiration losses. Their estimate determined that the mitigated wetlands (MitWLA and MitWLB) would receive 183 acre feet of permanent water rights, while the preserved wetlands (DE1, DE4, DE5) would receive 225 acre feet of temporary water rights. Therefore, a total of 408 acre feet was reserved for the wetlands from Orr Ditch Decree (Decree) Claim 703, out of the total of Claim 703's 411 acre feet. This water, when available, is routed to the wetlands via the Crane and Clow Ditch from Steamboat Creek. These rights are considered primary water rights, in contrast to supplemental rights that include storage contained in Washoe Lake and additional water from Steamboat Canal during years when there is little or no flow in Steamboat Creek.

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Seniority

Primary Rights

Because water rights in the Truckee Meadows are so valuable and desirable, it is important to evaluate the seniority of the rights for Claim 703 in the event that there are other impacts/draws on the available water from Steamboat Creek. Additionally, future development in the South Truckee Meadows will exert a change in the point of use, manner and schedule of the water rights in the region, especially with the building of a water treatment plant.

The Orr Ditch Decree (Decree) sets forth the date of priority for the water rights claims on Steamboat Creek. Under Nevada water law, the oldest dated right has the highest priority. Table 1 details the claim, date of priority and amount allotted to the oldest claims on Steamboat Creek, under which Claim 703 falls.

Table 1: Excerpt from Orr Ditch Decree for Steamboat Creek

Claim No.	Date of Priority	Total Inches	Acre-feet
700	Apr. 20, 1860	50	225
702	Apr. 20, 1860	50	207
700.5	May, 1860	100	466
703	May, 1860	100	413

Claims 700 and 702 are the oldest water rights. Some of these rights have been reserved for in-stream flow by a company called Western Supply Corp. (Lewis Operating Corp.) They receive a total of 100 inches of water, or 2.5 cfs.¹ If the flow in Steamboat Creek is only 2.5 cfs, these two users will receive their allotted supply of water, and there will be none available to any downstream users (Claims 700.5 or 703). However, if there is 120 inches of water (3 cfs), for example, Claims 700 and 702 would be fully satisfied, and the remaining 20 inches would be divided up between Claims 700.5 and 703 equally. If there were 300 inches of water available (7.5 cfs), then all of these rights would be fully satisfied (50+50+100+100 inches). If there is less than 300 inches, then the amount received by Claims 700.5 and 703 would each be reduced by the same amount (writ. comm., Federal Water Master).

Secondary Rights

The climate of the region is such that on some years there is not enough flow out of Washoe Lake into Steamboat Creek to satisfy these rights. Therefore, secondary to these Steamboat Creek water rights is a right to the water stored within Washoe Lake. During the winter, water flowing into the lake from diversions on Galena Creek and Browns Creek is stored in the reservoir, becoming available to water rights holders downstream during the irrigation season. This storage right comes into play when the primary right (Steamboat Creek) goes dry (runs

¹ 1 inch = 1/40 second-foot (or cfs)

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out), then the floodgates on Little Washoe Lake are opened and the storage water flows out into Steamboat Creek. This storage is also documented in the Decree, which states that it is a secondary right to the primary decreed right. If water rights of equal priority are held by two users, for example, then the user who also has the storage right will have a higher priority in a dry year. Storage rights are not regulated by the Water Master the same way as water rights. Steamboat Creek rights 673 – 706 all have these supplemental storage rights, which are set forth in the Decree for a total of 200 shares for irrigation of 3,110 acres of land. These secondary storage rights are tied to the primary right unless the place of use of the primary use is changed by application to the State Engineer's office. For example, if an application is filed with the State Engineer for permission to change the use and place of a Claim to in-stream flow from the previous use of irrigation, then approval from the State Engineer of this change specifies that the supplemental storage rights can no longer be used at the existing place; i.e., if the primary right is moved away from the irrigated lands, you can no longer use the supplemental right, since the supplemental storage right was intended for irrigation of lands. It is unclear what happens to this "share" of the storage rights once it is "lost."

Because these storage rights are shares, their ownership is questionable and may only be transferred (as opposed to sold). It is not known at this time if the water rights that were deeded to support the wetlands retained these rights and if the wetlands can use these secondary storage rights; the water rights deed submitted by Nevada Tri-Partners does not specifically mention any storage. It would be beneficial to the overall right, if they are. Washoe County is in the process of legal research to determine the potential ownership of these supplemental storage rights. This is important, because if the water rights that the wetlands have do have these storage rights, they have a more senior right to water than to a right with the same priority date but no storage

Although these rights have been reserved for the wetlands, during dry years there is no flow out of Washoe Lake into Steamboat Creek. According to records obtained from the Federal Water Master, 2006 is the first year since 2001 that there was outflow from Washoe Lake. When there is no outflow from Washoe Lake, diverted Truckee River water to satisfy the rights along Steamboat Creek is input from the Steamboat Canal, which discharges to Steamboat Creek upstream from the Chandler and Crane & Clow diversions. These Steamboat Canal water rights are supplemental to the Steamboat Creek water rights supplied by these two ditches. According to the Federal Water Master, these rights were transferred in and "stacked" on the original decreed rights. This water is used to satisfy the rights on the Chandler and Crane & Clow Ditches when there is little or no flow from Steamboat Creek itself. However, at this time, all of the rights for Steamboat Canal water have been stripped or are being stripped from their original use.

The rights on the Chandler Ditch are currently being stripped from their original use, and a new use has been designated for treatment and eventual supply for developments in the immediate area. This may affect the amount of water that is delivered to the wetlands. This Steamboat Canal water would stay in Steamboat Creek instead of being delivered to the Chandler and

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Crane & Clow Ditches, therefore the only water available to the Crane & Clow Ditch for delivery to the wetlands is as Steamboat Creek water or Washoe Lake storage water. Whereas over the past few years the rights have been supplemented by these Canal rights, this would cease. For example, Table 2 shows the amount (cfs) of water at the gauge at Steamboat (actual Steamboat Creek water), the amount of water input to Steamboat Creek via the Steamboat Canal, and the amount of water delivered to Crane & Clow Ditch, all for the year 2003. From these figures it is evident that without this Steamboat Canal water, there would have been significantly less water available to irrigate the surrounding area, and this will likely be the case once the remaining Steamboat Canal rights are stripped.

Table 2. Amount of water (cfs) in the Steamboat Creek system for the irrigation season of 2003.

Year	Steamboat Creek gage	Steamboat Canal Input	C&C Diversion
2003			
May	287.5	153.7	357
June	438.3	264.2	447.3
Jul	37.55	339.6	194.3
Aug	19.84	461	239
Sep	19.05	371.6	214.1

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Wetland Hydrology

Because these are jurisdictional WOUS wetlands as established by the United States Army Corp of Engineers (USACE) under Permit 199400866, these wetlands must meet designated hydrologic success criteria, outlined in H&C's Revised Wetlands Mitigation Plan (June, 2005). This success criteria includes maintaining their "wetland" status without human intervention. Upon reaching the success criteria, it must be demonstrated that they can maintain this success for three consecutive years without human intervention. This means that they must be able to sustain their wetland status without the additional irrigation water input from the Crane and Clow Ditch, at which point the 225 temporary acre feet of water rights would revert back to Nevada Trip Partners (NTP). In the event that the wetlands are not able to meet the hydrologic success criteria without the additional irrigation water, the 225 acre feet of temporary water rights are intended to be converted to permanent water rights, and transferred to the Damonte Ranch Drainage District (DRDD) (H&C, 2005).

WTF BACK
 ON WOTE? JUSTIF
 NEEDS CALTRIA,
 BUT STILL WILL
 NEED 225
 TEMP RIGHTS FOR
 FUTURE SUSTAINABILITY?



Wetlands receiving water from the Crane & Clow Ditch in June, 2006.

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In addition to the input of irrigation water from the Crane & Clow Ditch originally intended to establish the wetlands, the wetlands are designed to receive inputs of water from the surrounding developments due to a system of drainage channels designed to route urban runoff, stormwater flow and irrigation tailwater directly to them.



Drainage Channel directing water into the wetlands.

A series of south boundary collection channels (as shown in Technical Memorandum No. 1 Figure 1) collect the tailwater from upstream irrigation activities and route it to the wetlands. The South Boundary Collection Channel was designated to collect irrigation runoff from the surrounding agricultural activities and route it to the wetlands. However, this will be the last year that any water will be transferred to those lands via the Chandler Ditch; therefore any water delivered to the wetlands via this drainage will no longer occur.

According to H&C and the USACE, the irrigation water from Crane & Clow has not been applied to the wetlands in 2006; it is intended that they only receive tailwater from surrounding irrigation activities and the urban drainage in an attempt to sustain the wetlands without human intervention in order to begin the three year time period. However, as previously mentioned, the tailwater is routed through the drainage channels, whereas the Crane and Clow Ditch inputs the direct flow of irrigation water to the wetlands and tailwater from other surrounding irrigation activities. Any input of the actual irrigation water would violate the USACE criteria; the irrigation water under Claim 703 was originally intended to establish the wetland vegetation. Although there is no record of the actual amount of water that has flowed into the wetlands, there is record of the amount of water that flows into the Crane & Clow Ditch. It is not known, or measured how much tailwater or direct flow is actually going to the wetlands, nor the frequency. Data collected by H&C from shallow groundwater wells located within the wetlands would provide insight as to the varying depths to groundwater over the years, yielding information as to whether there were inputs of water based on changes in the water table. This groundwater data may be included in the monitoring report submitted to the USACE. Therefore, the amount of water actually required to sustain the health of the wetlands is unknown.

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Consideration should be made that if the wetlands are able to meet their hydrologic success criteria in the near future, was this success influenced by tailwater or ungauged irrigation water? ← ☆

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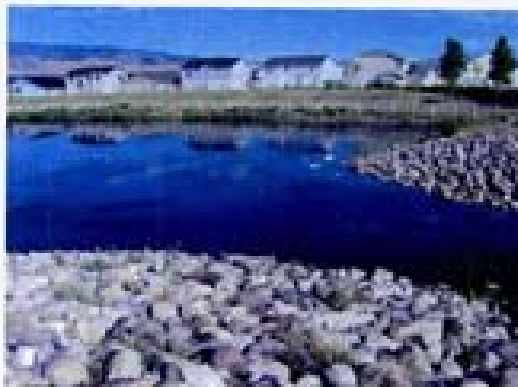
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In the event the surrounding irrigation activities cease, then they would no longer receive the tailwater (and additional direct flow) that may have helped them meet the designated hydrologic success criteria. On a field visit to the wetlands 9 July 2006, there was visible flow into the wetlands not only as input from the Crane and Clow Ditch, but also from a number of these drainage outfalls. Although there had been no precipitation in the Reno area since May 2006, the wetlands contained a significant amount of standing water and healthy vegetation. At that time, therefore, it appeared that the wetlands are receiving not only tailwater from the upstream irrigation activities, but also direct flow of water from the Crane and Clow Ditch. This is confirmed through correspondence with the Federal Water Master, who indicates that the Crane & Clow Ditch has been receiving flow of 15-25 cfs for the previous couple of months, prior to 9 July 2006 and in a personal communication between the Water Master and Louis Damonte, water not used for irrigation goes directly to the wetlands, an amount which may be significant at times (Writ. Comm. Federal Water Master, 17 July 2006). It is the Water Master's understanding that the only users of the ditch are Damonte and the wetlands. However, the apparent intention of H&C was to cease the direct flow of the water from Crane and Clow Ditch in order to try to meet the designated wetland hydrologic success criteria as outlined by the USACE.

The USACE stated that the tailwater is not considered human intervention and would therefore not affect the hydrologic success criteria (K. Roukey, pers. Comm., June 2006). On two visits to the wetlands in July 2006, there was direct flow to the wetland DE5 from the Crane & Clow Ditch. Communication with the Water Master revealed that during one of these visits on 18 July 2006, no water was being delivered to the Crane & Clow Ditch from Steamboat Creek, therefore there is definitely some other input to the Crane & Clow Ditch. According to the Water Master this input is likely tailwater from the surrounding fields that are irrigated from the Chandler Ditch.

Wetland DE3 comprises 60 acres of wetlands that were not lowered in elevation and classified as avoidance wetlands. Therefore no water rights were reserved for this segment. However, water that is delivered to DE5 through the Crane and Clow Ditch and urban runoff routed to WLAMitB and DE4 does affect this wetland; i.e., it is receiving water from these sources. This water is conveyed from DE3 to DE1 and lower WLAMitA, as evidenced on numerous field visits.



East end of wetland DE3,
with the conveyance
channel to DE1 on the right.

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This incidental input of water to DE3 needs to be considered when the amount of water rights reserved is addressed.

In June, 2006, H&C was to have submitted to the USACE a monitoring report detailing the status of the wetlands as of 2004/2005. This report may detail some of these issues, as well as give a current update on the health of the wetlands while they were still receiving irrigation water. At this time, the three consecutive year period without human intervention has not begun, as the wetlands have not yet met the hydrologic success criteria. The Revised Wetlands Mitigation Plan specifies that if the preserved wetlands aren't supported by natural drainage and require human intervention, that the temporary water rights be converted to permanent water rights to guarantee the success of the wetlands (H&C, 2005). This matter likely will not be resolved within the next few years, as once they finally do meet the hydrologic success criteria, they will require the additional three consecutive year time period with which to demonstrate wetland success without human intervention.

Washoe County Potable Water Treatment Plant

At this time, a water treatment plant is being designed to serve the growing population of the South Truckee Meadows. Water from Galena Creek, White's Creek and Thomas Creek have been designated for this treatment plant (Facility Plan, 2002). Washoe County owns a portion of Steamboat Creek Claims 702 through 706, which are designated for in-stream flow, but not for use in the water treatment plant. Washoe County does not currently have any Municipal and Industrial (M&I) rights on the water in Steamboat Creek. Some of the older rights that are currently designated for in-stream flow are older rights on Steamboat Creek than Claim 703, and therefore have priority over the wetlands' rights if there is water in the Creek.

Washoe County funded a water rights yield analysis for rights on Browns, Galena, and Steamboat Creeks (EcoLogic, 2006), in an effort to determine the amount of water from these creeks that could be used for M&I use, and the availability of these rights for sale. At the current time, water service is expected to increase 15% over the 2002 Facility Plan estimate, hence the need to acquire additional sources of water. The EcoLogic report documents their findings on the quantity of water (acre-feet) that is potentially available for M&I use from these three Creeks; however, they do acknowledge that extensive title research will need to be conducted on any of these rights before their purchase to ensure their applicable use. The authors do recognize that the supplemental shares and storage rights appurtenant to some of these water rights cannot be relied upon without Steamboat Creek water rights. Per the Orr Ditch Decree, rights to the water "stored" in Washoe Lake, (versus what would flow if the dam weren't there), are divided into shares. This "storage" issue has confounded Washoe County, the State of Nevada Department of Water Resources, and the Federal Water Master. It is still not known if a water right that has storage associated with it has the storage deeded to a new owner upon sale of the water right. Washoe County has attempted to investigate the disposition of such storage rights versus the actual water rights when the water rights are sold. The EcoLogic study, completed in October 2006, states that this issue is still unresolved. Although their study listed 124 acre-feet of water potentially available from Claim 703, resulting

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quantitative yield estimates detailed in the report for this and other rights on Steamboat Creek will likely change (decrease) if further information indicates that some of the rights will not be available for M&I use (writ. comm., Don Mahin, Mar. 2007).

Water Demand (Evapotranspiration)

Huffman & Carpenter performed a "preliminary" water balance to determine the amount of water potentially required by the wetlands to enable them to meet the USACE's hydrologic success criteria. This estimate considered the removal of water from the wetlands through evapotranspiration, the input of water due to precipitation, a soil drought factor, and an amount of water lost through transmission via the ditch, finally yielding an amount, in feet, that needs to be replaced to the wetlands. This amount, 2.9 feet, was multiplied by the acreage in the wetlands, originally 57.75, to yield a value in acre feet of water necessary to sustain the wetland vegetation, resulting in 183 acre feet of permanent water rights reserved for the mitigated wetlands, and a total of 225 feet for the preserved wetlands. The value of 2.9 feet of water per acre evapotranspired in the wetlands does correspond to other research in Washoe Valley, where the USGS used a value of 3 acre feet of water evapotranspired from wetlands in a water budget of Washoe Lake (Arteaga and Nichols, 1984). H&C's estimate of water required results in, for the temporary and permanent rights, a total that is almost exactly equal to the amount of water righted to claim 703 (409 out of 413 acre feet).

The value of evapotranspiration used in H&C's estimate was obtained from the County Extension Agent. This value is a measure of the reference crop evapotranspiration, usually a grass or alfalfa crop. This value is then multiplied by a crop coefficient representative of vegetation in the area to yield an "actual" evapotranspiration rate. A value of 0.8 was chosen by H&C for this coefficient; however research on wetland crop coefficients yields a more likely value of 1.2 (FAO, 1999). Use of this value in the water balance would result in an increased amount of water required over H&C's previous estimation.

However, because only 41.93 acres were mitigated rather than the 57.75 used in the estimate, use of this crop coefficient still accommodates 4.1 feet of water per acre available to the wetlands. In the event that the evapotranspiration rate is re-evaluated, research should be made of wetland-type crop coefficients. This coefficient varies monthly, and is based on local weather conditions, age of plant, soil water content, and plant type, making calculation of an accurate evapotranspiration rate difficult without actual field measured data.

Water Delivery via Crane and Clow Ditch

The Crane and Clow Ditch is a 2.13 mile long diversion from Steamboat Creek which conveys irrigation water to the wetlands as well as other users of this irrigation water in the Damonte area. The ditch is owned by the Damonte family who currently irrigate lands within the greater Damonte Ranch area. Excess water in the ditch not used for irrigation upstream is sent downstream to the wetlands which are the end users of this water. In the event that the Damonte family ceases farming in the area and no longer requires use of the irrigation water or the ditch, the maintenance of the ditch will need to be taken over by the last user, potentially the

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City of Reno if it takes over maintenance of the wetlands. It is in the best interest of the user of the irrigation water to maintain the ditch in a properly functioning condition in order to ensure the maximum delivery potential of the ditch.

The ditch is unlined earthen ditch, leading to significant erosion of the ditch walls which has appeared to have sent sediment into the wetlands. There are undercuts in the banks and soil overhangs at the culvert crossing near Veterans Parkway.



Crane & Clow Ditch
crossing near
Veterans Parkway

The ditch should be stabilized, and the bends armored if it is to be kept for water delivery to the wetlands. Recommendations for improvements are contained in Tech Memo 3.

As previously discussed, it is our understanding that this ditch does not carry the tailwater from the Damonte's irrigation activities, that it instead passes on water unused by the Damontes, but may carry tailwater from lands irrigated by the Chandler Ditch. It is the understanding of the Water Master that the only users of the ditch are Damonte and the wetlands. A thorough evaluation of the physical characteristics of the ditch has been made in Technical Memorandum 1 (Kennedy/Jenks, 2007). At this time, the ditch is owned and maintained by the Damonte family.

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**Figure 1:
Damonte Ranch
Wetlands Map**

LEGEND

- Damonte Ranch Project Area
- Avoided Wetland
- Preserved Wetland
- Mitigation Wetland
- Potential Future Mitigation Wetland Bank
- Detention Basin
- Waterbody
- Road
- New or Proposed Road
- Rivers, Streams, & Irrigation Ditches
- Maintenance Access Ramp
- Irrigation Pipe
- Irrigation Inlet
- Irrigation Outfall
- Reno City Limits

Wetland Type	Mitigation (ac)	Preservation (ac)	Restoration (ac)
Mitigation Wetland 1	21.14		
Mitigation Wetland 2	14.77		
DE1			18.41
DE2 (Wetland Over (Stream 2) Storage (2000))			1.68
DE2			1.18
DE3 (Wetland Over (Stream 1) Storage)			1.24
DE3		18.11	
DE4		4.17	
DE4		14.27	
DE5 (Wetland Over (Stream 1) Storage)			1.68
DE5		18.11	
DE6 (Wetland Over (Stream 1) Storage)			1.68
DE6		18.11	
DE7 (Wetland Over (Stream 1) Storage)			1.68
DE7		18.11	
DE8 (Wetland Over (Stream 1) Storage)			1.68
DE8		18.11	
DE9 (Wetland Over (Stream 1) Storage)			1.68
DE9		18.11	
DE10 (Wetland Over (Stream 1) Storage)			1.68
DE10		18.11	
DE11 (Wetland Over (Stream 1) Storage)			1.68
DE11		18.11	
DE12 (Wetland Over (Stream 1) Storage)			1.68
DE12		18.11	
DE13 (Wetland Over (Stream 1) Storage)			1.68
DE13		18.11	
DE14 (Wetland Over (Stream 1) Storage)			1.68
DE14		18.11	
DE15 (Wetland Over (Stream 1) Storage)			1.68
DE15		18.11	
DE16 (Wetland Over (Stream 1) Storage)			1.68
DE16		18.11	
DE17 (Wetland Over (Stream 1) Storage)			1.68
DE17		18.11	
DE18 (Wetland Over (Stream 1) Storage)			1.68
DE18		18.11	
DE19 (Wetland Over (Stream 1) Storage)			1.68
DE19		18.11	
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DE20		18.11	
DE21 (Wetland Over (Stream 1) Storage)			1.68
DE21		18.11	
DE22 (Wetland Over (Stream 1) Storage)			1.68
DE22		18.11	
DE23 (Wetland Over (Stream 1) Storage)			1.68
DE23		18.11	
DE24 (Wetland Over (Stream 1) Storage)			1.68
DE24		18.11	
DE25 (Wetland Over (Stream 1) Storage)			1.68
DE25		18.11	
DE26 (Wetland Over (Stream 1) Storage)			1.68
DE26		18.11	
DE27 (Wetland Over (Stream 1) Storage)			1.68
DE27		18.11	
DE28 (Wetland Over (Stream 1) Storage)			1.68
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DE29 (Wetland Over (Stream 1) Storage)			1.68
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DE30 (Wetland Over (Stream 1) Storage)			1.68
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DE31 (Wetland Over (Stream 1) Storage)			1.68
DE31		18.11	
DE32 (Wetland Over (Stream 1) Storage)			1.68
DE32		18.11	
DE33 (Wetland Over (Stream 1) Storage)			1.68
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DE35 (Wetland Over (Stream 1) Storage)			1.68
DE35		18.11	
DE36 (Wetland Over (Stream 1) Storage)			1.68
DE36		18.11	
DE37 (Wetland Over (Stream 1) Storage)			1.68
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DE38		18.11	
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DE40		18.11	
DE41 (Wetland Over (Stream 1) Storage)			1.68
DE41		18.11	
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DE42		18.11	
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DE44		18.11	
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DE46 (Wetland Over (Stream 1) Storage)			1.68
DE46		18.11	
DE47 (Wetland Over (Stream 1) Storage)			1.68
DE47		18.11	
DE48 (Wetland Over (Stream 1) Storage)			1.68
DE48		18.11	
DE49 (Wetland Over (Stream 1) Storage)			1.68
DE49		18.11	
DE50 (Wetland Over (Stream 1) Storage)			1.68
DE50		18.11	



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No. 3

TECHNICAL MEMORANDUM 3
Damonte Ranch Flood Control and Storm Drain Facilities
Assessment



Prepared for the
City of Reno

26 April 2007
K/J 0595008

Kennedy/Jenks Consultants
Engineers & Scientists

Kennedy/Jenks Consultants

25 April 2007

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To: Greg Dennis, P.E. and Kerri Williams-Lanza, P.E., City of Reno
From: Christopher Anderson, P.E., Rusty Sage, Lynn Orphan, P.E.
Subject: Damonte Ranch Flood Control and Storm Drain Facilities Assessment
K/J 0595008

Introduction

The purpose of the Technical Memorandum Number 3 is to summarize the assessment of the Damonte Ranch Regional Flood Control Facilities (DRRFC) and portions of the storm drain facilities that drain to the DRRFC located in the Southeast Truckee Meadows.

This assessment and memorandum will document the design standards, construction quality, construction standards and specifications, and present our recommendations for repair or replacement of facilities. Some comments are made with regards to concerns associated with hydrology and hydraulic design based on familiarity with the Damonte Ranch area and design experience, however, research into and recommendations regarding hydrologic and hydraulic design are not part of the scope for this memorandum.

Kennedy/Jenks Consultants recommendations and observations are based on the available information and the professional experience of our staff in flood design, storm drain design, and construction practices. Limitations to our observations and recommendations include:

- Limited availability of as-builts
- Field observations are post construction and limited to what is readily visible in the field

The reader is referred to Technical Memorandum No. 1 for background information relating to the history of the Damonte Ranch subdivisions, regional flood control, maintenance provisions, wetlands and wetland mitigation, and Technical Memorandum No. 2 for the water rights and water supply to the Damonte Ranch Wetlands. These are referenced herein since observations made by Kennedy/Jenks Consultants during the field assessment portion of this memorandum are in some cases tied to the Technical Memorandums Nos. 1 and 2.

Figure 1 Damonte Ranch Assessment Sites show the location of flood and drainage facilities that are included in this assessment.

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The New Years Flood of 2006 provided an opportunity to observe and document the performance of some of the flood and drainage facilities in the DRRFC. These channels and detention facilities are designed to convey or detain the 100-year flood and the New Years flood represents the first flood event these facilities have seen. The observed performance during that event is discussed in Technical Memorandum No. 1 in the section titled Recent Flood Impacts.

Background

This portion of the technical memorandum will document the design engineer and owner, and review the design and construction standards, as well as other sources of information relating to the drainage facilities. Table 1 summarizes design data and standards for the portions of Damonte Ranch that are related to the site assessments performed.

Other sources of information gathered during this assessment include:

- Nevada Division of Water Resources (NDWR), letter to DiLoreto Construction & Development, Inc.; August 18, 2006 regarding Damonte Ranch diversion and Storm Dams (J-545)
- Nevada Department of Transportation (NDOT); Damonte Ranch Subdivision Bridges B2732 and B2764 Inspection Reports
- Construction drawings, drainage reports, and other permit documentation gathered from the City of Reno Records Division regarding the Damonte Ranch subdivisions, flood improvements, and drainage facilities.
- As-Built Construction Documentation Steamboat Creek Diversion Structure And Detention Basin Weir Structure, Black Eagle Consulting, Inc., February 2004
- Personal communications

The NDWR and NDOT information is attached as Appendices C and D, respectively. Some information is referenced and discussed in the assessments of the Damonte Ranch sites.

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Table 1: Summary of Design Standards, Specifications, and Design Engineers for Damonte Ranch Sites

Site	Design Standards, Specifications, and Design Engineers	Notes
Regional Flood Control Facilities	<ul style="list-style-type: none"> Washoe County Standards Standard Specifications for Public Works Construction Standard Details for Public Works Construction 	<ul style="list-style-type: none"> Nimbus Engineers, February 2004 Tri-Partners Development Geotechnical Report by Black Eagle Consulting, Inc. <p>These plans pertained to the design and construction of the diversion structure, regional detention basin, wetland detention area, and the Pond 4.</p>
Regional Flood Control Facilities	<ul style="list-style-type: none"> Standard Specifications for Public Works Construction Standard Details for Public Works Construction City of Reno Public Works Design Manual, November 2000 	<ul style="list-style-type: none"> Odyssey Engineering, Inc.; September 2003 and April 2004 Gribben Hartman & Assoc. DiLoreto Construction & Development, Inc. (f.k.a. Nevada Tri-Partners) <p>These plans included the following:</p> <ul style="list-style-type: none"> Veterans Parkway (f.k.a. Pioneer Parkway) and the multiple box culverts out of the regional detention basin to DE5 Regional flood control channels, crossings under Rio Wrangler Parkway, and the outlet facilities into the wetlands South boundary collection channels, and channels C-5, C-7, C5-B, W1-B, SE-8A, and W-3
Steamboat Parkway North & South Roadway Improvements	<ul style="list-style-type: none"> Washoe County Standards Standard Specifications for Public Works Construction Standard Details for Public Works Construction Geotechnical Report by Black Eagle Consulting, Inc. 	<ul style="list-style-type: none"> Odyssey Engineering, Inc.; September 2001 Nevada Tri-Partners <p>These plans included the following:</p> <ul style="list-style-type: none"> Portion of Veterans Parkway (f.k.a. Pioneer Parkway) Grading plans for regional flood control Detention Basins nos. 1, 2, 3 and 4 (DE5, DE4, DE3 and DE1 herein as shown on Figure 1) Storm drain and culvert design for Steamboat Parkway North and South RCB's under Steamboat Parkway out of DE1 (Site 19) RCB's under Rio Wrangler at Damonte High School (Site 18)

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Damonte Ranch Village 14-A	<ul style="list-style-type: none"> ▪ Standard Specifications for Public Works Construction ▪ Standard Details for Public Works Construction ▪ City of Reno Public Works Design Manual, November 2000 	<ul style="list-style-type: none"> ▪ Wood Rogers Reynen & Bards Development, LLC 	These plans include 3 storm drain outfalls to the regional facility DE1 (a.k.a. Pond 4) shown as sites 16 and 17 on Figure 1 and also a storm drain outfall off of Baton Drive in the southwest corner of DE1.
Damonte Ranch Village 15A	<ul style="list-style-type: none"> ▪ Standard Specifications for Public Works Construction ▪ Standard Details for Public Works Construction ▪ City of Reno Public Works Design Manual, November 2000 	<ul style="list-style-type: none"> ▪ Odyssey Engineering, Inc.; April 2003 ▪ Lennar 	These plans include 1 storm drain outfall to the regional facility DE3 shown as site 13 on Figure 1.
Damonte Ranch Village 16A	<ul style="list-style-type: none"> ▪ Standard Specifications for Public Works Construction ▪ Standard Details for Public Works Construction ▪ City of Reno Public Works Design Manual, November 2000 	<ul style="list-style-type: none"> ▪ Odyssey Engineering, Inc.; April 2003 ▪ Centex Homes 	These plans include 1 storm drain outfall to the regional facility DE4 shown as site 12 on Figure 1
Damonte Ranch Village 19A-1	<ul style="list-style-type: none"> ▪ Standard Specifications for Public Works Construction ▪ Standard Details for Public Works Construction ▪ City of Reno Public Works Design Manual, November 2000 	<ul style="list-style-type: none"> ▪ Odyssey Engineering, Inc.; April 2003 ▪ Bailey & Dutton 	This village is adjacent to the SE-8A regional flood control channel.

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Site Evaluations

Throughout 2006, much of the flood control facilities have continued to be constructed and in some cases revised or changed as a result of damage, changes to or deficiencies in design or reconstruction after the New Years Flood of 2006. The photographic documentation contained in Appendix B illustrates some of the progression and changes to the flood control facilities from the original designs. In some cases, there appears to be a lack of design documentation or engineered plans associated with some of the changes.

The site visits for this memorandum were conducted on 15 and 22 August, 18 September and 12 November 2006. Other photographs from field visits conducted in support of the Technical Memorandums Nos. 1 and 2 were also used in support of this Technical Memorandum No. 3 in order to help evaluate the state of facilities in the period of June 2005 to January 2006. Site evaluations generally following the guidelines outlined below.

- Site description
- Observations including quality of construction, damage, functionality, and other observations or findings on a case by case basis
 - Problematic findings
 - Positive findings
- Design conformance with common engineering practices and guidelines
 - Construction Conformance
 - Built according to plans
- Compliance with the applicable codes and standards
- Other comments based on other sources of information; i.e. NDOT, NDWR, personal communication, etc.
- Recommendations for improvements
- Conceptual cost estimate for recommended improvements

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Summary of Findings

This section will briefly summarize the problematic findings for the sites shown on Figure 1 and detailed in Appendix A - Site Assessments. While some positive findings were observed at some of the sites and reported in Appendix A, the following summary addresses only the problematic findings for brevity. Additionally, some sites of similar design and construction are summarized together where findings were typical between these sites.

Sites 1 and 2 - Regional Flood Control Structures and Detention Basin

This site is the main diversion weir structure and detention basin for the regional flood control facilities.

*Low BICEA
on impoundment?*

- Site is listed as a high hazard dam by NDWR Division of Dam Safety
 - Irrigation tailwater is being diverted into the detention basin; there is no permit to impound water filed with NDWR
- ★ • Weir is lacking Portland cement concrete (PCC) cut-off footing per the Nimbus plans
 - Erosion has resulted at ends of PCC weir structure
- ★ • Soil cement is unraveling, resulting in a layer of ~6 inches of loose, non-cohesive coarse sand material
- As-builts do not reflect certain existing features at the diversion weir structure
 - Sloping PCC paving
 - Riprap on slope above PCC diversion weir at north end
- Degradation of the PC sloping apron at the junction with wingwall at Reinforced Concrete Box (RCB) culvert inlet
- RCB wingwall has honeycombing and voids; portion of wingwall chipped away
- Portion of PCC weir is cracked at NE corner
- RCB inlets on Steamboat Creek are prone to clogging with debris as observed post New Years Flood of 2006
- ★ • Riprap protection at RCB outlets
 - Questionable riprap placement and gradation
- Sediment and bed load aggradation from Steamboat Creek deposition upstream of the RCB's may impact the rating curve for the diversion structure as well as potentially contribute to stream degradation downstream
- Potential hazard at pedestrian path above Steamboat Creek RCB's and headwall

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- Major erosion observed along southern slopes of the detention basin
 - Large sediment load to the detention basin
 - ✱ ▪ Large gully erosion from agricultural tailwater ditch overflowing into basin
 - Riprap placed along southern embankment; no apparent engineering
- Access road along south embankment of detention basin not constructed per plan
- No vegetation establishment per design plans
- Miscellaneous construction debris at bottom of northeastern access road into basin
- Detention basin outlet under Veterans Parkway different than design plan
 - ✱ ▪ PCC weir at RCB inlet; no apparent documentation of hydraulic design
 - Could not verify that the change was documented in the drainage master plan; potential change to rating curve of outlet could affect 100-year water surface elevations (WSEL's)
- Improperly abandoned culvert at southeastern corner of detention basin needs to be removed
- Documented concerns by NDWR for the detention basin and diversion structures
 - Complete as-built information needs to be submitted with Proof of Completion form; submit Request for Approval to impound with filing fees
 - ✱ ▪ Riprap at detention basin needs to extend 2 feet above spillway weir elevation of 4485 feet NAD88
 - If water is to be diverted into basin, water right and separate authorization for operation as a wetland obtained

Site 3 - Regional Flood Control Basin Outlet

This site is the outlet from the detention basin under Veterans Parkway where flow enters the DE5 wetland per Figure 1. Problematic findings are summarized below.

- ✱ • Adverse gradient from RCB outlets to the DE5 wetland
- ✱ • Potential fall hazard at pedestrian path above channel
 - Riprap at outlet not documented on design plans
- ✱ • Rockery wall in floodway channel

Sites 4, 12 through 14, 16 and 17 - Storm Drain Outlets to Wetlands

These sites are all similar with respect to being storm drain outlets with RCP/PVC pipe headwalls that discharge to the wetlands. With the exception of Site 4, all of these sites discharge storm runoff from storm drain systems associated with the subdivisions surrounding

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the wetlands. Site 4, in addition to discharging storm water from Veterans Parkway is also the conveyance that carries irrigation water from the Crane and Clow Ditch to the wetlands. Problematic findings are summarized below.

- Site 4 has a potential fall hazard above the headwall at the end of the access road
- In general, all of these sites exhibited construction quality issues including
 - Pipe outlets not formed flush with the face of headwall
 - Honeycombing and in some cases voids caused by inadequate vibration of PCC
 - Tiebacks not removed and filled
 - Headwalls not finished surface
- Sites 12 – 14, 16, 17 and another SD outfall from Baton Drive all need to have access ramps constructed per City standards

Site 5 – Crane and Clow Ditch

This site is where the Crane and Clow Ditch has been diverted into the RCP and storm drainage system that delivers water to the DE5 wetland. The site is located opposite the intersection of Rio Wrangler and Veterans Parkway as shown on Figure 1.

- The diverted portion of the Crane and Clow Ditch shows significant erosion of channel banks. This sediment would have been directly transported to the DE5 wetland.
- The 24 inch RCP has no headwall and there is significant erosion around the pipe inlet

Sites 6 through 11 – Regional Flood Control Channels

These sites constitute the flood control channels that direct flow into the wetlands from the south boundary collection channels at the southern end of the Damonte Ranch as shown in Figure 1. All of these channels were designed as earthen channels with vegetation for stabilization. These channels are referenced as being designed per the SETMFCMP as amended by Nimbus Engineers in 2002 as referenced by the hydrology report *Damonte Ranch Villages 19A, 19B, 20, 21, 22, 23 and Sports Complex Grading Permit Application Hydrology Report* by Odyssey Engineering dated September 2003 as submitted for LDP04-00662. The SETMFCMP is a conceptual level document and not appropriate for final design per the City of Reno Design Manual.

Problematic findings at these sites include:

- Site 12 needs riprap outlet protection installed per the plan
- Significant changes from design plans resulting from repair of damage from the New Years Flood of 2006. These changes appear to be made by the DRDD without proper engineering design.

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- Lack of vegetation in channels
- Erosion in channels from low flows
- Poorly constructed headwalls
 - Some headwalls lack finished surface
 - Tiebacks not removed and plugged
- Lack of engineering detail and poor construction of grade control sills at Sites 7 and 11
 - Poorly placed riprap at ends of grade control sills
 - Site 7 has numerous grade control sills either improperly designed, improperly constructed or showing damage from improper construction

- ★ • Low flow PVC culverts placed at less than 3 feet deep under PCC sections of maintenance roads at outlets of Channels C-7, W1-B and W-3
- No riprap outlet protection at outlets of RCB/RCP culverts under Rio Wrangler Parkway
- Access roads and slopes being protected with loose riprap instead of grouted riprap per the design plans
- The C5-B and W1-B channels at Sites 8 and 9 were designed as earthen channels that were constructed with riprap
 - Could not find any engineering in support of the riprap channel
 - Riprap has been poorly placed and shows significant erosion; some sections appear to have no underlayment beneath the riprap
- The 2-36 inch RCP headwall under Rio Wrangler Parkway at Site 9 is very poorly constructed and should be removed and rebuilt
 - ★ • RCP not formed flush with headwall; the easterly 36 inch RCP appears to have been formed flush with the back of the headwall
 - ★ • Large slumps of PCC escaped the form and are partially blocking the pipe inlets
 - Tiebacks not removed and no finish surface on headwall
- ★ • Site 11 at the SE-8A channel has a rockery wall that was constructed in the flood channel
 - ★ • The LDP05-03683 permit for construction of the wall was previously cancelled
 - ★ • Encroachment violates Reno Municipal Code
 - ⊙ • Wall will likely fail if subjected to prolonged scour at the base of the wall
- ★ • Site 11 at the SE-8A channel; design plans shows riprap protection on the easterly slope of the boundary channel that has not been constructed
- ★ • Site 11 at the SE-8A channel at the intersection of the boundary channel is a 90 degree bend in the channel that should have riprap protection
 - The boundary channel at this location would direct flood waters directly at the rockery wall

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Site 15 – Regional Flood Control Channels

Site 15 is the weir that controls flow between the DE3 and DE1 wetlands. This is a critical structure in the function of the regional flood control facilities as it controls the amount of water flow between the wetlands and therefore affects the 100-year WSEL in the two wetlands as mapped per the Conditional Letter of Map Amendment (CLOMR). The existing conditions as observed differ significantly from the design plans versus the construction of the weir and is summarized below.

- Original design calls for a PCC weir with a crest length of 65 feet and side slopes of 1:4 foot per foot
- ✧ • The weir was constructed with a PCC weir section with a crest length that is ~20 feet and has side slopes that are riprap lined with 3:1 foot per foot slope
- ✧ • No design calculations or engineering plans were found for this modification
- The riprap on the side slopes appears to be of poor quality and is placed in a single layer
 - No design calculations or engineering plans were found for this modification
 - It appears that the public uses this location as a pedestrian route and there are signs that riprap has been moved by the public
- Maintenance access surface needs to be stabilized per the Reno Design Manual

Site 18 – Outlet of Damonte Ranch High School Channel

Site 18 is the outlet of the two RCB's from the boundary channel around the Damonte Ranch High School and a 30 inch RCP storm drain that drains portions of the Rio Wrangler Parkway into the DE 1 wetland. Problematic findings at the site include:

- Maintenance access needs to be constructed per the Reno Design Manual
- Headwall exhibits cracking at the wingwalls
- ✧ • The riprap outlet protection was called out as grouted riprap per the engineering plans
 - Loose riprap was used for the outlet protection

Site 19 – Outlet of Regional Flood Control Facility

This Site is the RCB bridge under the Steamboat Parkway near the intersection with Rio Wrangler Parkway. Problematic findings at this site include:

- ✧ • Adjacent storm drain outfall and headwall was poorly constructed with large void in the headwall with ~1/4 of the PCC missing from the headwall
- Large cracks in headwall
- Rooted vegetation in the PCC apron on inlet side
- Scour at end of PCC outlet apron has exposed apron cut off wall

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- Temporary construction access across downstream channel may continue to scour at the apron and could potentially affect the hydraulics of the outlet structure

Site 20 – Damonte Ranch Foothills Boundary Channel

This site is the bridge structure and flood control channel located just north of the intersection of Steamboat and Rio Wrangler Parkways. The flood control channel drains a series of boundary channels protecting the adjacent subdivision located in the Damonte Foothills area.

- A rockery wall encroaches into the flood control channel at the north channel slope upstream of the bridge structure.
 - Encroachment violates Reno Municipal Code
 - Wall will likely fail if subjected to prolonged scour at the base of the wall

Site 21 – Storm Drain Outlet at Rio Wrangler

This site is an incomplete storm drain outfall located just north of the intersection of Steamboat and Rio Wrangler Parkways. The storm drain is PVC and will need a headwall and outlet protection designed and constructed.

Conceptual Cost Estimate for Recommended Site Improvements

A conceptual level cost estimate was performed for the various sites that have recommended improvements per this Technical Memorandum. The conceptual level cost estimate has an accuracy of +50% to -30% which is appropriate for this level of work and the recommended improvements. The line item costs are directly associated with the site specific recommendations for repairs or reconstruction as contained in Appendix A Site Evaluations. There are some recommendations that are not included in the conceptual cost estimate and these are noted in the Summary of Findings above.

The development of these conceptual level costs utilized the following and including the standards and specifications listed in Table 1:

- Site evaluations per Appendix A
- Design and as-built plans and details
- Design standards
 - Washoe County Hydrologic Criteria and Drainage Design Manual
 - Standard Specifications for Public Works Construction
 - Standard Details for Public Works Construction *2 NOT IN USE ANYMORE*
 - NDOT Standard Specifications
 - NDOT Standard Plans

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- NDOT bid tabulations

All of the conceptual cost estimates utilize the NDOT bid tabulations and therefore were developed using the NDOT specifications for consistent comparison between recommended improvements and unit costs.

The NDOT bid tabulation contains all of the materials used for NDOT projects and lists the materials by the cost per unit. In order to create a reasonable conceptual estimate for the recommended improvements, the past four year bid tab unit costs were used for the applicable materials and improvements. An effort was made to "average" the unit costs for a material by quantity in an effort to account for the economy of scale for large project unit prices versus small project unit prices. The conceptual costs for each site also include a contingency of 10% in order to attempt to compensate for the variations in unit prices and quantities. In some cases, engineering costs have also been added at a 10% of the subtotal cost.

An estimate of conceptual probable cost by line item for each individual site can be found in Appendix F. Table 2 summarizes the roll-up of conceptual costs for recommended improvements for all sites evaluated per this technical memorandum.

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Table 2: Summary of Total Estimated Conceptual Improvement Costs Per Site

Site	Description	Cost
1	Steamboat Creek Diversion Structure	\$ 134,000
2	Regional Detention Basin Upgrades	\$ 327,000
3	Regional Detention Basin Outlet at Veterans Parkway	\$ 7,000
4	Outlet of Crane and Clough Ditch at DE5	\$ <1,000
5	Crane and Clough Ditch Repair	\$ 40,000
6	Channel C-7	\$ 25,000
7	Channel C-5	\$ 24,000
8	Channel W1-B	\$ 252,000
9	Channel C5-B	\$ 84,000
10	Channel W-3	\$ 69,000
11	Channel SE-8A	\$ 860,000
12	Detention Basin DE4 Storm Drain Culvert Outlet	\$ 6,000
13	Detention Basin DE3 Storm Drain Culvert Outlet	\$ 6,000
14	Detention Basin DE3 Storm Drain Culvert Outlet	\$ 8,000
15	Detention Basin DE3 Weir Outlet to DE1	\$ 92,000
16	Detention Basin DE1 Storm Drain Culvert Outlet	\$ 3,000
17	Detention Basin DE1 Storm Drain Culvert Outlet	\$ 3,000
18	Detention Basin DE1 Storm Drain Box Culvert Outlet	\$ 13,000
19	Detention Basin DE Outlet at Steamboat Parkway	\$ 41,000
20	Damonte Ranch Foothills Boundary Channel	\$ 0
21	Detention Basin DE1 Storm Drain Culvert Outlet	\$ 10,000
Total		\$ 2,005,000

(a) A cost of zero (\$0) dollars indicates there were no recommended improvements at that site within the scope of this Technical Memorandum No. 3

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General Recommendations

In addition to the recommendations contained in Appendix A - Site Assessments, Kennedy/Jenks Consultants also recommends that the City of Reno consider the following:

- Prior to acceptance of the regional flood control facilities, require that recommended improvements be made per this Technical Memorandum 3. There may be other improvements that may need to be made that are not documented in this memorandum.
- Confirm the hydrologic and hydraulic performance of the regional facilities with an engineering analysis.
 - There are differences between the designs of the regional detention basin outlet structure and the outflow weir from DE3 and what was constructed. These differences could have an effect on the actual performance of the regional facilities and the 100-year WSEL's.
 - Resurvey Steamboat Creek in the vicinity of the diversion structure and determine if sediment and bed load aggradation has affected the hydraulic rating of the diversion structure
- Install safety fencing or railing at fall hazard locations.

The Appendices are enclosed and are summarized below.

- Appendix A – Site Evaluations
- Appendix B – Site Photographs
- Appendix C – Nevada Division of Water Resources letter dated August 18, 2006
- Appendix D – Nevada Division of Transportation bridge inspections
- Appendix E – Excerpts from "As-Built Construction Documentation Steamboat Creek Diversion Structure and Detention Basin Weir Structure" by Black Eagle Consulting, 2004
- Appendix F – Conceptual Cost Estimates for All Sites

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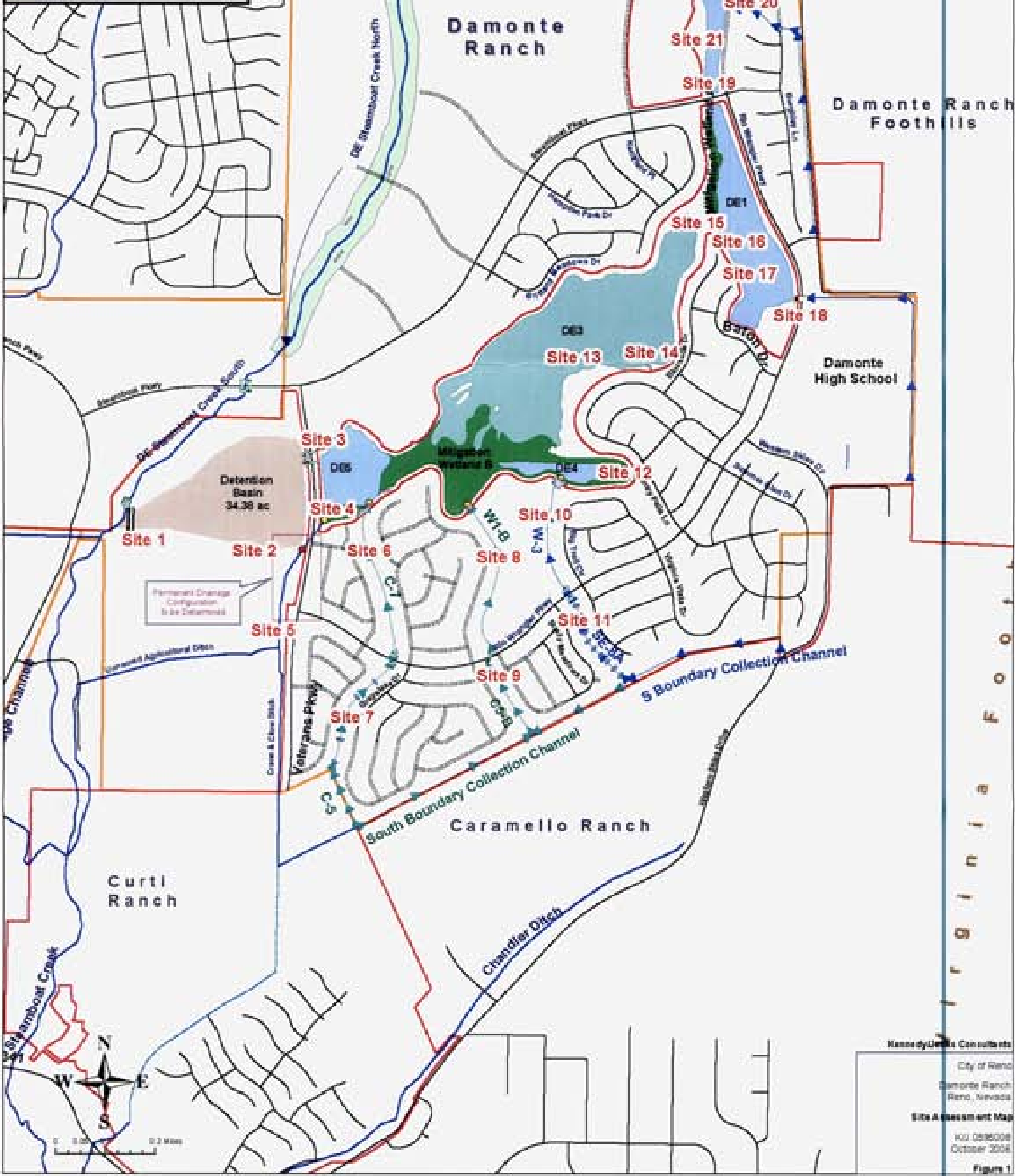
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**Figure 1:
Damonte Ranch
Site Assessment Map**

- Legend**
- Damonte Ranch Project Area
 - Avoided Wetland
 - Preserved Wetland
 - Mitigation Wetland
 - Detention Basin
 - Waterbody
 - Reno City Limits
 - Road
 - New or Proposed Road
 - Rivers, Streams, & Irrigation Ditches
 - Irrigation and Storm Water Drainage Channel
 - Storm Water Drainage Channel
 - Maintenance Access Ramp
 - Level
 - Drop Structure



Appendix A



Kennedy/Jenks Consultants

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Appendix A

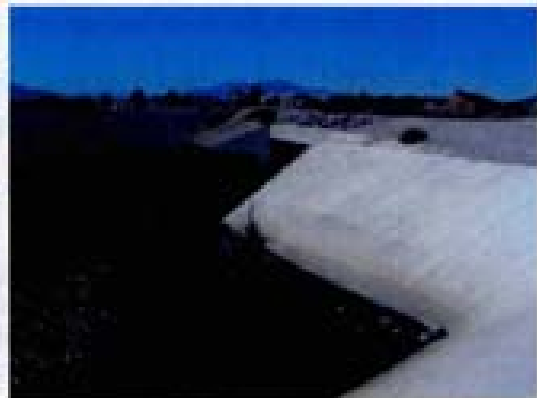
Appendix A
SITE ASSESSMENTS

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Appendix A



Site 1

Description of Site

The regional flood control diversion structure is located on the western edge of the regional detention basin at the Damonte Ranch development and is designed to start diverting flow from Steamboat Creek and into the detention basin when the water surface in Steamboat Creek exceeds elevation 4485.0 North American Datum 1988 (NAD 88). The diversion structure is a Portland concrete cement (PCC) broad crested weir structure and works in tandem with the four 8'x10' reinforced concrete boxes (RCB's) located just downstream on Steamboat Creek. These facilities were designed based on the combination of the rating curves for both of these structures and the backwater ponding from the RCB's sending a rated amount of flow into the detention basin and downstream Steamboat Creek through the RCB's. This structure was designed and built as part of the required flood mitigation for development of the Damonte Ranch. The diversion structure and detention basin serve to both remove development from the 100-year flood plain and to mitigate for post-development increases in storm water runoff. This structure is considered low use and low visibility, as it is to the west of Veterans Parkway by about a third of a mile. In the future this site may see more use by trail runners living in the Damonte Ranch development.

This site is also listed as a high hazard dam by NDWR's under Permit J-545. Appendix C contains a copy of a letter from NDWR to DiLoreto Construction and Development regarding NDWR inspections and listing corrective actions for the diversion structure and detention dam. The findings of the NDWR with regards to Sites 1, 2 and 3 of this memorandum are summarized herein. Many of the inspection items are the same as noted by Kennedy/Jenks.

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Appendix A

The diversion structure and appurtenances were designed as follows:

- PCC broad crested diversion weir with crown elevation of 4485.0 feet NAD 88
- Four 8'x10' RCB's with 45 degree wingwalls in Steamboat Creek
- Soil cement lined dikes

Problematic Findings

- Design plans for the diversion structure (Nimbus, 2001) show in Detail C on Sheet 6 of 9, Note 2 "Cut off walls shall be constructed at each end of structure along the full width of section." These cut off walls were not constructed.
- Erosion and separation of PCC spillway from soil cement bank on the South East portion of the structure, 8-14' and also along the PCC apron. Contractor failed to construct the diversion weir per note 2 of Detail C - Construction Plans Diversion Weir and Stilling Basin Apron Section on Sheet 6 of 9.
- Soil cement is unraveling and has approximately six (6) inches of loose, non-cohesive material overlaying the more cohesive soil cement underneath. This non-cohesive material appears to be highly susceptible to erosion. Erosion did occur as shown in the photo documentation and as noted above as a result of the New Years Flood of 2006. The as-built documentation from Black Eagle Consulting does note that some soil cement at the south side tested for low compressive strengths, however, it was concluded that the "...material and methods satisfy the intent of the design and project specifications." Copies of the cover letters are excerpted from the as-built documentation and is contained in Appendix E.
- There does not appear to be a cut off wall constructed at the bottom of the sloped PCC apron between the upstream RCB wing wall and the northern corner of the diversion weir. This portion of the diversion structure was designed and is documented in the Nimbus as-builts as a soil cement embankment with a three (3) foot toe below the grade of Steamboat Creek. The sloping PCC apron appears to be an undocumented change. The only reference to a slab is contained in the excerpt from the Black Eagle Plate 2 contained in Appendix E relating to the hot spring drains.
- Steamboat Creek alignment, flows against the PCC sloping apron structure where there is no cutoff wall as noted above.
- There is significant degradation of the PCC sloping apron at the RCB culvert wingwall and sloping PCC apron interface. This degradation can be seen in the photo 2 of Appendix E of Technical Memorandum 1 and photo 2238 from the 8/22/06 site walk in Appendix B attached herein.
- The RCB culvert wingwall has significant voids and honeycombing due to lack of proper vibration of concrete. Also, portions of the wingwall have been chipped away.

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- Rock at north end of diversion structure appears out of place. If intended for slope stabilization, it is not placed per standard practices, details, and specifications for riprap slope protection. The rock is placed in a single layer, no underlayment or bedding, is not embedded, and the gradation is questionable.
- Top north-eastern corner of PCC diversion weir is broken on the detention basin side
- Post New Years Flood photographs show that the RCB's are susceptible to blocking from debris. This was documented as a potential factor in flow from Steamboat Creek being diverted into the detention basin in Technical Memorandum 1.
- Riprap outlet protection at downstream end of the RCB's appears to have unraveled in places within the channel. The design calls for a 125 foot, Class 400 riprap apron, slope protection and a riprap end protection. All riprap was designed to extend up the side slopes to elevation 4485 NAD 88. This design is consistent with the Washoe County drainage design standards. There is some documentation in the NDWR inspection report regarding riprap placement during construction and geotextile being placed on inadequately prepared subgrade and ripping. It could not be verified at this time if the gradation and construction of the riprap was done per plan. The riprap gradation is questionable and the riprap material does not appear to be in strict compliance with Washoe County standards for stone shape, i.e. there appear to be lots of rounded stone of a less angular nature in the riprap mix.
- There appears to be sediment and bed load deposition in Steamboat Creek upstream of the RCB's. This sediment aggradation could potentially affect the rating curve of flow and hydraulics at the diversion structure.
- There is a pedestrian path over the RCB's and a potential for a fall hazard as there is no fencing or railing between the pedestrian path and the top of the RCB's.



Undercutting of PCC apron



PCC weir and soil cement interface. Erosion and undercutting of weir.

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- Could not observe the upstream riprap apron at the RCB's due to stream aggradation and vegetation growth.

Positive Findings

- Downstream riprap holding to slope
- Steamboat Creek does not appear to have undercut the weir structure or the sloping PCC apron where it runs against the structure.
- The PCC of the diversion weir, except for the cracked portion, appears to be holding up well.

Design and Construction Compliance

- Design conformed with Washoe County standards
- Portions of the facilities at Site 1 are clearly not constructed in conformance with the design plans. Some aspects are less clear with respect to construction due to lack of construction documentation.

Recommendations

The following summarizes our recommendations based on the above observations and other information.

- Construct the cut off wall for the PCC diversion weir and repair the soil cement at this interface. Undercut voids of the PC weir should be backfilled with PCC slurry backfill.
- Have a geotechnical engineer review specifications and as-built information and test the integrity of the soil cement
- Construct cut off wall or other form of scour protection at the toe of the sloping PCC apron along Steamboat Creek
- Repair cracked PCC at north east corner of weir
- Repair the degraded PCC sloped apron at the at southeast RCB wingwall interface
- Fill honeycombing and voids on the RCB headwalls and wingwalls per Standard Specifications
- Remove rock at north end of weir and design and install PCC sloped apron.
- Install a debris rack at the inlet of the RCB's
- Install safety fencing or railing along top of embankment to protect public against fall hazards and keep the public off the soil cement slope.
- Locate the hot spring outlet per the NDWR letter.

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- Confirm the hydraulics of the diversion weir have not changed due to sediment aggradation in Steamboat Creek.
- Fulfill all requirements for documentation and permitting per the NDWR letter of August 18, 2006.

Estimate of Conceptual Probable Cost of Recommended Improvements

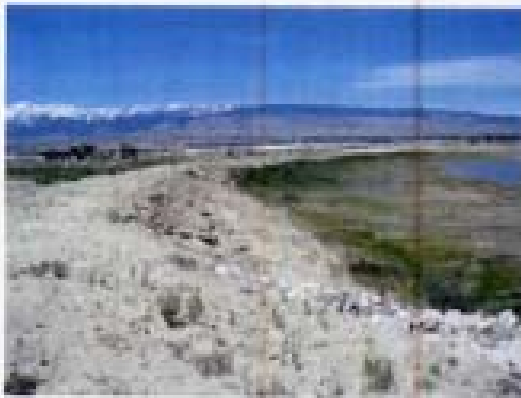
- The total conceptual cost for Site 1 improvements is \$ 134,000.

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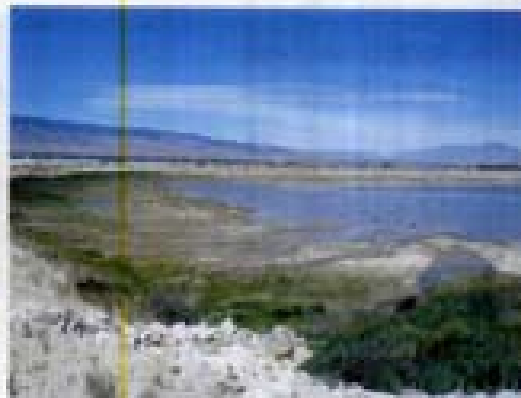
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Detention Basin Berm looking west



Bank erosion into the wetland

Site 2

Description of Site

The detention basin is located on the south-western side of the corner of Steamboat Parkway and Veterans Parkway (f.k.a. Pioneer Parkway) which detains a portion of the 100-year peak flood. The portion of the 100-year flood hydrograph that the basin detains is the result of hydrologic and hydraulic modeling that relates the rating curve at the Steamboat Creek diversion weir, the detention basin volume, and the rating curve of the detention basin outlet under Veterans Parkway. The detention basin was designed as an excavation with the southern embankment formed by excavation or cut and the northern embankment consisting of cut and fill forming a dike. The embankments that surround this basin were designed at a slope of 3:1 (H:V) with revegetation consisting of various seeds, mulch and tackifier as described on Sheet 7 of the Regional Flood Control Improvements for Washoe County (Nimbus Engineers, 2001). The revegetation notes state that overhead irrigation should be applied for at least two whole growing seasons to ensure the success of the seeding. The detention basin is designed to have a 100-year water surface elevation of 4481.5 feet NAD88.

Problematic Findings

- The basin had seen heavy erosion of the southern embankment from the New Years Flood of 2006. Heavy sediment loads from the erosion were transferred into the basin. It is not known if this sediment was removed.

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- An irrigation return flow ditch that runs parallel to the southern embankment has breached into the detention basin. This ditch had previously run into the temporary pond located at the south eastern corner of the detention basin where the water would exit via a pipe connecting to the piped portion of the Crane and Clow ditch prior to exiting into the DE5 wetland. The breached irrigation return flow ditch caused massive gully erosion and sediment transport into the detention basin. Currently, this breach has been piped into the basin and the gully erosion backfilled with riprap at a 90 degree angle with the ditch. This poses the following problems:
 - The detention basin is currently permitted as a dry detention basin with no impoundment longer than 48 hours (NDWR, 2006).
 - The irrigation return flow is part of the water righted irrigation water that was meant to be perpetuated down the Crane and Clow Ditch. This water now flows into the detention basin and out the low flow outlet located in the north eastern corner and from there directly into the Steamboat Creek south of Steamboat parkway.
 - The erosion continues in the ditch and appears likely to breach again.
- There is no constructed access road on the southern embankment. The design plans by Nimbus Engineers clearly show in Detail D of Sheet 6 of 9 that there was to be a twelve (12) foot wide maintenance road with six (6) inches of Type 2, Class B base constructed along the top of the embankments surrounding the detention basin. The top of the northern berm has been stabilized by AC and base material. The access road located in the north eastern corner has not been stabilized with base material.
- Vegetation at the sight is sparse with little or no vegetation in many spots. Photographs dating back to June of 2005 show that this condition persisted in 2005. The significant erosion on the southern bank of the basin has exacerbated the condition.
- Riprap placed in September of 2006; it does not appear that underlayment or bedding was constructed. The riprap was not toed into the basin floor. The consequences of this placement method may be minimized due to the low energy and velocity of water detained in the basin adjacent to the southern embankment.
- Construction debris located at bottom of access road located in the north eastern corner of the basin.
- The outlet of the detention basin is different than the design plans and as-builts by Nimbus (Nimbus, 2001). The original design called for a set of seven (7) – fourteen (14) foot Conspan arch structures. The basin outlet was built using a set of six (6) - 6 foot by 10 foot RCB's and 1- 7.5 foot by 14 foot RCB. This is a concern since the Nimbus design and the detention basin hydraulic characteristics are determined by the rating curve of the outlet. If the RCB's that were constructed have a different rating curve, then the basin will likely not perform as designed.

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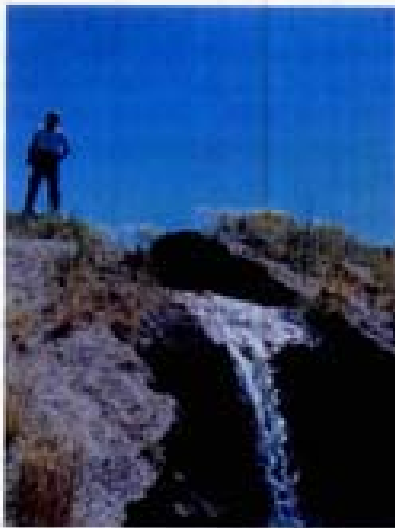
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- The PCC weir that was constructed at the inlets of the RCB's under Veterans Parkway does not appear on the Nimbus plans. The weir was constructed as part of the Odyssey Engineering plans under permit LDP 06-04803. There is a concern by NDWR that this weir may affect the detention basin hydraulics.
- Remove the abandoned culvert that connected the temporary irrigation return flow pond to the detention basin. This culvert has been buried in riprap and is only visible at the inlet.
- Other concerns by the NDWR are (see Appendix C for complete letter):
 - Complete the as-built documentation, proof of completion form, request for approval to impound and filing fee. This is an immediate action per the NDWR letter of August 18, 2006 in Appendix C.
 - Riprap in the basin should be extended a minimum of 2 feet above the spillway weir elevation of 4485 feet NAD88.
 - If water is to be introduced into the basin, then a water right must be obtained and separate authorization needed for operation as a wetland.



Large erosion gully from irrigation return flow breach



Bank Erosion

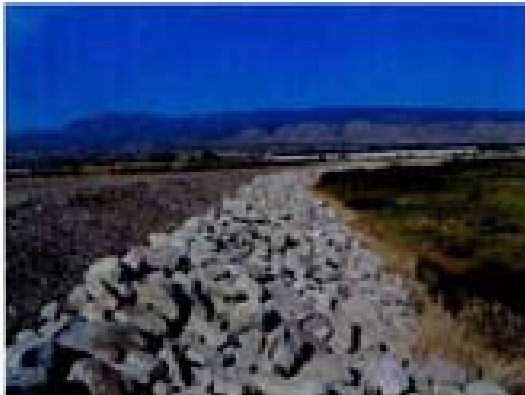
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Positive Findings



- In September of 2006, the owner regraded the southern embankment slope and installed riprap slope protection. The riprap is of a good quality, exhibits angularity, fractured faces, good gradation or mix of sizes, and has good length to width ratios for individual stones.

Design and Construction Compliance

- Design conformed with Washoe County standards
- Portions of the facilities at Site 2 are clearly not constructed in conformance with the design plans. Some aspects are less clear with respect to construction due to lack of construction documentation.

Recommendations

- Clear sediment from erosion from the detention basin to original design grade.
- Reseed all embankments and irrigate until established
- Remove all culverts that are associated with irrigation return flow. Backfill on conformance with the Black Eagle specifications.
- Grade and construct the access road on the southern embankment and the access ramps at the southwest and northeast corners of the detention basin per the Nimbus Engineers plans.
 - 12 feet wide and 6 inches of Type II, Class B fill compacted to 95% MDD.
- Confirm the hydraulics of the outlet structure conform to the original design.

Estimate of Conceptual Probable Cost of Recommended Improvements

- The total conceptual cost for Site 2 improvements is \$ 327,000.

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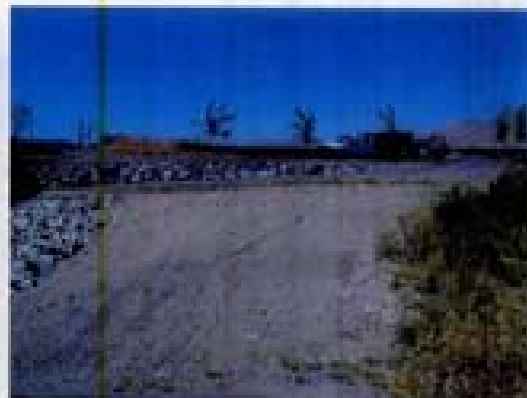
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Outlet from detention basin



Channel into DE5 wetland

Site 3

Description of Site

This is a bridge for vehicle traffic on Veterans Parkway as well as the outlet structure located on the northeast corner of the detention basin. Flow from this structure goes into a series of downstream detention basins, wetlands and channels. The tall RCB in the background of the photo above is also pedestrian access under Veterans Parkway. This bridge was also recently inspected by NDOT as part of their requirements to maintain the National Bridge Inventory. These inspection reports are attached as Appendix D and are not discussed further herein.

Problematic Findings

- This site has an adverse gradient that slopes back towards the detention basin outlet. This would cause ponding and a backwater into the RCB's.
- There appears to be a likely fall hazard at the top of the rockery wall as there is a pedestrian path.
- The riprap was not found on the design plans.
- A rockery wall was constructed in the flood channel at the left bank adjacent to the pedestrian path under Veteran parkway. Rockery walls in flood channels are contrary to the Reno Design Manual and are not an approved flood channel improvement and will likely fail if subject to scour at the base of the wall.

Positive Findings

- No major cracks in concrete
- No erosion around structure

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- Riprap appears to be of good quality and size. Could not verify thickness, underlayment or bedding.
- Access for vehicles

Design Compliance

- Design appears to be in compliance with City of Reno standards.
- Construction differs from the design plans.
 - Design plans show 7-6' x 14' RCB's. As-builts show 6-6' x 14' and 1-7.5' x 14' RCB's
 - Riprap at outlet not shown on plans

Recommendations

- Restore a gradient sloping from the outlet of the RCB's into DE5.
- Confirm hydraulic rating curve of outlet performs per the original Nimbus Engineers design.

Estimate of Conceptual Probable Cost of Recommended Improvements

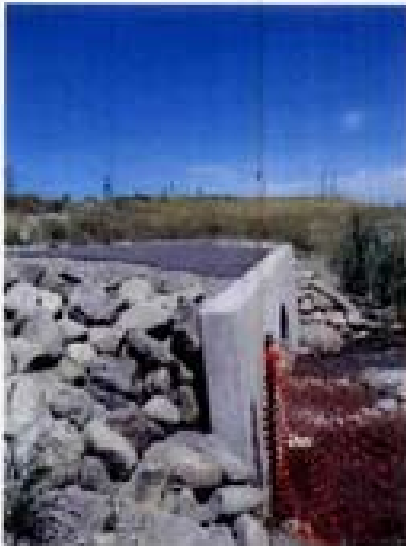
- The total conceptual cost for Site 3 improvements is \$ 7,000.

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Storm Drain and Crane & Clow Ditch outflow into DE5

Site 4

Description of Site

The Crane and Clow Ditch flows from south to north going under Veterans Parkway and draining into the detention basin labeled DE5. The culvert shown above is located on the east side of Veterans Parkway and is easily accessible. Water from the Crane and Clow ditch originates from Steamboat Creek and is used by the Damonte Ranch for irrigation purposes. The remaining flow from the ditch is used for the wetland.

Problematic Findings

- The RCP was not formed flush with the face of the headwall.
- There is a fall hazard as the access road is open to the public and ends at the top of the headwall.
- There is water that seeps out from around the headwall. This is likely due to the open jointed construction of the RCP.



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Positive Findings

- Easy road access for vehicle.
- Flow contained within its boundaries.

Design and Construction Compliance

- Design appears to meet City of Reno standards.
- The construction of the headwall was poorly formed and exhibits PCC flaking away from the pipe interface and also some PCC escaped the form and is in the flow area of the pipe. Standard Specifications clearly state that pipe shall be formed or cut flush with the face of the headwall.

Recommendations

- Refinish the face of the culvert headwall and remove the PCC blowout.

Estimate of Conceptual Probable Cost of Recommended Improvements

- The total conceptual cost for Site 4 improvements is \$ 100.



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The Crane & Clow Ditch where it has been diverted from its original alignment by the developer.

Site 5

Description of Site

The Crane & Clow Ditch flows from south to north going under Veterans Parkway and draining into the wetland labeled DE5. The culvert shown above is located on the West side of Veterans Parkway and is easily accessible. Water from the Crane & Clow ditch originates from Steamboat Creek and is used by the Damonte Ranch for irrigation purposes. The remaining flow from the ditch is used for the wetland.

Figure 1 shows the original alignment of the ditch. As part of the development of Damonte Ranch and the permitting process and conditions, the Crane & Clow Ditch was diverted from its original alignment. The RCP inlet pictured above is the inlet of the pipe system that carries irrigation water into the DE5 wetland at Site 4 as described in this memo. Prior to discharging into the DE5 wetland, the flow is commingled with storm water as there are numerous storm drain laterals and drop inlet that connect to this pipe. It is unclear from design plans where this pipe actually runs as they don't appear to reflect what is built in the field.

Problematic Findings

- The realigned ditch is unstable and has degraded over time and contributed sediment to the DE5 wetland. The ditch realignment contains two 90 degree turns that are contributing to instability of the ditch.
- The entrance to the 24 inch RCP is very unstable and has eroded significantly over the past year.

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- The ditch collects flood flows that end up going down the abandoned alignment into the return flow pond located at the southeast corner of the regional detention basin. This pond overtopped during the New Years Flood of 2006, causing erosion of the embankment as described for Site 2.

Positive Findings

- Easy road access to ditch and pipe inlet
- Normal irrigation flow contained within the ditch

Design and Construction Compliance

- Could not find design information for the Crane & Clow Ditch realignment and piping. Does not meet the City of Reno standards
- Construction was non-engineered as there was apparently no design plans for the realignment or piping that match what was observed in the field

Recommendations

- Design and construct a stabilized ditch and RCP pipe inlet
- Design and construct flood improvements to prevent degradation to the adjacent regional detention basin (no conceptual cost estimate for this item)
- Remove sediment from DE5
- Consider backfilling the old, abandoned Crane & Clow ditch

Estimate of Conceptual Probable Cost of Recommended Improvements

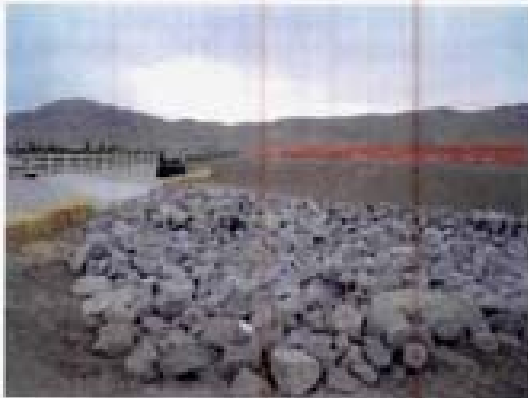
- The total conceptual cost for Site 5 improvements is \$ 40,000.

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End of the C-7 channel where riprap and low flow PVC culverts have been added.

Site 6

Description of Site

This storm channel (C-7) is located between Rio Wrangler Parkway and the DE5 wetland. This channel conveys storm water from the adjacent development and the C-5 channel via a channel and storm drain system. The C-7 channel is part of the DRRFC and is intended to convey the 100-year flood flow to the DE5 wetland via the C-7 channel located north of Rio Wrangler as shown in Figure 1. Per Technical Memorandum No. 1 and personal communication with Odyssey Engineering, this channel is intended to be lined with grass or vegetation. The channel was originally designed to discharge to the DE5 wetland over a PCC dip section along the pedestrian path. This channel was modified from the original design in the summer of 2006 to incorporate additional riprap and low flow PVC culverts at the crossing with the pedestrian path along the DE5 wetland. This was apparently done in response to damage incurred from the New Years Flood of 2006.



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Problematic Findings

- It does appear from photographs taken in July of 2006 that the channel may have been seeded in the past as there were grasses and some small brush growing on the side slopes of the channel. However, there was no grass or vegetation where water had been flowing. It is unlikely that a channel stabilization consisting of vegetation established from seeding will stabilize these channels without the addition of other methods of channel stabilization such as geoweb or turf reinforcement material's (TRM's). During the 2006/2007 winter it was observed that hydroseed and channel sediment was eroded from very low flows.
- The access ramp at the beginning of the C-7 channel encroaches into the channel in such a manner that cross sectional flow area in the channel is reduced. Additionally, all the energy from the 36 inch RCP and the eastern 10' x 4' RCB is directed at the side slope of the access ramp. The design plans show that the access road side slope is to be protected with grouted riprap. As of September of 2006, the grouted riprap had not been installed. The design plans do not address the construction of the grouted riprap, gradation, or specifications in any detail other than to call out on the plan sheet.
- There is an access grate on the RCP storm drain outlet that needs to be removed at Rio Wrangler Parkway. Access grates are no longer required per the City of Reno standards. This was a requirement at the time of construction.
- There is no riprap outlet protection for the RCB and RCP outlet under Rio Wrangler Parkway.
- The riprap at the end of the C-7 channel does not appear to have underlayment or bedding. The riprap was not excavated into the channel bed and does not cover the entire cross sectional width of the channel geometry. Water will likely erode around the edges of the riprap.
- The low flow PVC culverts at the end of the C-7 channel are blocked at their outlets by the placement of riprap. There does not appear to be any underlayment or bedding for the riprap.
 - The PVC culverts are not buried to a minimum 3 foot depth to top of pipe per the Reno Public Works Design Manual Chapter IV. The minimum 3 foot burial does not appear in Chapter II Storm Drainage, yet solid wall plastic pipe with a minimum stiffness of 46 psi is allowed for storm drainage pipe with diameters less than 36 inches. This pipe will likely fail and crack due to shallow burial.

Positive Findings

- The riprap placed at the end of the C-7 channel is of good quality and gradation exhibiting angular, fractured faces and good length to width ratio.
- The main channel appeared to be able to withstand the 2006 New Years storm event. This channel did not appear to have any significant flows during the event.

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Design and Construction Compliance

- The design plans reference the following:
 - Standard Specifications/Details for Public Works Construction
 - For maintenance, the plans reference City of Reno Public Works Design Manual effective November 1, 2000
- The design plans do not show a channel 5-year and 100-year HGL in profile, flow rates and capacity, freeboard, channel slope, or minimum and maximum channel velocities per the Reno Public Works Design Manual.
 - This information is necessary to determine if the channels require lining per the Reno Design Manual.
- Construction of the channel and appurtenances:
 - The grouted riprap slope protection has not been constructed at the access ramp.
 - Riprap construction was poor. There does not appear to be a design for this construction.
 - NDOT bridge inspection for the crossing under Rio Wrangler B-2889 is contained in Appendix D.

Recommendations

- Design and construct the grouted riprap at the maintenance ramp.
- Remove and reinstall riprap at the end of the C-7 channel. Riprap for the entire cross section of the channel including the channel side slope to an elevation 1 foot above the 100-year HGL.
- Clear the riprap obstructing the outlet of the PCV low flow culverts at the end of the C-7 channel.
- Revegetate Channel
 - Show hydraulic calculations sufficient to justify vegetated channel stabilization per the Reno Public Works Design Manual.
 - It is unlikely that a channel stabilization consisting of vegetation established from seeding will stabilize these channels without the addition of other methods of channel stabilization such as geoweb or turf reinforcement material's (TRM's).
 - Normal depth calculations show an excess of 6 fps for a straight, uniform earthen channel with short grass with few weeds ($n=0.027$).

Estimate of Conceptual Probable Cost of Recommended Improvements

- The total conceptual cost for Site 6 improvements is \$ 25,000.

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Beginning of C-5 channel.



End of C-5 channel at Rio Wrangler

Site 7

Description of Site

This storm channel (C-5) is located on the Rio Wrangler Parkway about a third of a mile to the east of the intersection of Veterans Parkway. This channel conveys storm water from the adjacent development, from the south boundary collection channel, and from the Curti Ranch development to the southwest via a channel and storm drain system. The C-5 channel is part of the DRDD and is intended to convey the 100-year flood flow to the DE5 wetland via the C-7 channel located north of Rio Wrangler as shown in Figure 1. The C-5 channel contains PCC grade control sills with riprap aprons to control the velocity of flow water below erosive velocities. Per Technical Memorandum No. 1 and personal communication with Odyssey Engineering, this channel is intended to be lined with grass or vegetation.

Problematic Findings

- Poorly placed riprap at the ends of some of the grade control sills. There are no visible signs of underlayment or riprap bedding being placed as part of the riprap construction per the design plans. It is obvious that the riprap was dumped, in some cases, right on top of silt fence that was in place prior to the riprap.
- The first grade control sill up gradient from Rio Wrangler appears to be poorly constructed, modified via saw cuts, and exhibits a large crack that will likely shorten the service life of this sill.

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- Could not verify if the footings were constructed for the grade control sills.
- Construction debris and loose dirt has been repeatedly pushed into the channel. This dirt is loose and will be a source of sediment.
- It does appear from photographs taken in June that the channel may have been seeded in the past as there were grasses growing on the side slopes of the channel in June of 2006. However, there was no grass or vegetation where water had been flowing. It is unlikely that a channel stabilization consisting of vegetation established from seeding will stabilize these channels without the addition of other methods of channel stabilization such as geowebbs or turf reinforcement material's (TRM's).
- The access ramp encroaches into the channel in such a manner that cross sectional flow area in the channel is reduced. The design plans show that the access road side slope is to be protected with grouted riprap. As of September of 2006, the grouted riprap had not been installed. The design plans do not address the construction of the grouted riprap, gradation, or specifications in any detail other than to call out on the plan sheet. This channel had been hydroseeded again in late 2006, however, the majority of the hydroseed has been eroded away and also damaged by construction equipment tracking and from the public.
- The channel grading and grade control sill construction is questionable at the upper end of the C-5 channel. It appears that the sills were constructed after the channel was graded. Photographs 1010155 and 1010158 from the 18 September, 2006 field walk show that the grade of the control sills at the upper portion of the C-5 channel have the same channel elevation upstream as downstream of the sill. The riprap at these sills has been dumped at the upstream edge, shows no underlayment or bedding, and is of poor gradation. As constructed, the sills at these locations form a "wall" in the channel as opposed to a grade control sill. This is contrary to the design plans and the intent of grade control sills.
- In general, the design plans are lacking in sufficient detail with regards to the grade control sill. The design plans do not address grade control sill and channel side slope interconnection, or footing dimensions.
- The culvert headwall at the inlet of the C-5 channel exhibits some air pockets and honeycombing on the face of the headwall. The access grate on the RCP outlet needs to be removed as these no longer are a requirement per City standards. There is not riprap outlet protection for the RCB and RCP outlet.

Positive Findings

- No noticeable bank erosion.
- Appears to be able to withstand the 2006 New Years storm event. This channel did not appear to have any significant flows.

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Design and Construction Compliance

- The design plans reference the following:
 - Standard Specifications/Details for Public Works Construction
 - For maintenance, the plans reference City of Reno Public Works Design Manual effective November 1, 2000
- The design plans do not show a channel 5-year and 100-year HGL in profile, flow rates and capacity, freeboard, channel slope, or minimum and maximum channel velocities per the Reno Public Works Design Manual.
 - This information is necessary to determine if the channels require lining per the Reno Public Works Design Manual.
- The design plans are lacking in detail sufficient to construct the grade control sills, grade control sill footings, appurtenant riprap and the grouted riprap.
 - Design plans show footing but no dimensions for footing construction. Also lack detail on design and construction of how the sills were to be integrated with the channel side slope.
 - Design plans do not show riprap at ends of sills
 - Design plans do not show sill embedment into side slope of channel.
 - Design plans do not show detail for grouted riprap.
- Construction of the channel and appurtenances:
 - The grading of the channel does not meet the design.
 - The grouted riprap slope protection has not been constructed.
 - Could not verify the footings for the grade control sills.
 - Riprap construction was poor and does not meet the design plans.
 - NDOT bridge inspection for the crossing under Rio Wrangler B-2889 is contained in Appendix D.

Recommendations

- Correct the channel grading and grade control sills at the upper end of the channel.
 - remove and reconstruct the first two (2) control sills from upstream to downstream.
 - Need survey shots of channel and walls in order to determine what corrective actions should be taken.
- Remove and correctly place the riprap at the ends of all the grade control sills.

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- Remove and correctly place the riprap at the bottom of all the grade control sills.
- Construct the grouted riprap at the maintenance ramp.
 - Needs additional design detail.
- Remove construction debris and excess dirt that has been pushed into the channel from adjacent construction (no conceptual cost estimate done for this item).
- Show hydraulic calculations sufficient to justify vegetated channel stabilization per the Reno Public Works Design Manual.
 - Reinforce per results of hydraulic calculations and engineered design approved by City.

Estimate of Conceptual Probable Cost of Recommended Improvements

- The total conceptual cost for Site 7 improvements is \$ 24,000.

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W1-B channel just north of Rio Wrangler



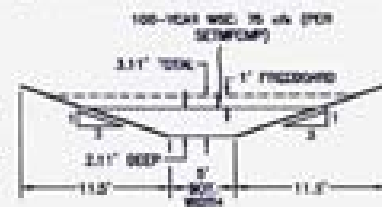
The middle stretch of the W1-B channel

Site 8

Description of Site

The W1-B channel is was designed to convey irrigation return flows from the Chandler Ditch and Caramella Ranch as well as the 100-year flood flow of 75 cfs per the design plans. The channel was originally designed as a trapezoidal earthen channel (see inset). The channel has been constructed with a riprap lining.

The W1-B channel discharges to the mitigation wetland B. Originally the channel discharged over a PCC dip section along the pedestrian path. This section of the channel was modified in the summer of 2006 to include two PVC low flow culverts with metal end sections to pass low flow under the PCC apron.



Problematic Findings

- This channel is bordered by undeveloped future public facilities to the east of the channel. Runoff from this undeveloped, stripped and grubbed site contributes sediment as well as lateral inflow to the channel that has undermined the riprap in some locations. There is no sediment control adjacent to the ditch. There was a significant sediment load to the mitigation wetland from the New Years Flood.
- This channel has two temporary steel culvert crossings (construction access). The steel culvert crossing just north of Rio Wrangler was a flow restriction during the New Years Flood of 2006. The two steel culverts at the northern temporary crossing are undersized and as of mid-December of 2005, had blown out the downstream channel.

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- The constructed riprap channel does not have the cross section per the design plans. Riprap does not extend up the sides of the channel sufficient to meet the 4.11 foot depth per the design plans. Additionally, the 3.11 foot depth was likely calculated for a manning's roughness coefficient commensurate with an earthen channel, and therefore the design cross section no longer applies.
- The riprap has moved in numerous places, exposing the geotextile underlayment. This is an indication that the riprap may be undersized, placed incorrectly and of insufficient thickness. The riprap appears to be of good quality and gradation.
- Where the riprap has slumped from the sides of the channel, there is no sign of geotextile underlayment.
- The headwall at the inlet of the W1-B channel under Rio Wrangler have access grates that need to be removed as they are no longer required per City standards (see inset).
- The culvert headwall at the beginning of the channel under Rio Wrangler. The RCP was not formed flush with the face of the headwall per Standard Specifications. The tieback holes need to be grouted per the Reno Design Manual. (see inset).
- Post New Years Flood, two low flow PVC culverts have been constructed at the end of the W1-B channel under the PCC dip section at the maintenance road and recreation path. There does not appear to be any underlayment or bedding for the riprap.
 - The PVC culverts are not buried to a minimum 3 foot depth to top of pipe per the Reno Public Works Design Manual Chapter IV. The minimum 3 foot burial does not appear in Chapter II Storm Drainage, yet solid wall plastic pipe with a minimum stiffness of 46 psi is allowed for storm drainage pipe with diameters less than 36 inches. This pipe will likely fail and crack due to shallow burial.



Positive Findings

- The riprap appears to be of good quality and gradation. The size and placement of the rock is questionable per the above findings.

Design and Construction Compliance

- The design plans reference the following:
 - Standard Specifications/Details for Public Works Construction
 - For maintenance, the plans reference City of Reno Public Works Design Manual effective November 1, 2000

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- The design plans do not show a channel 5-year and 100-year HGL in profile, flow rates and capacity, freeboard, channel slope, or minimum and maximum channel velocities per the Reno Public Works Design Manual.
 - This information is necessary to determine if the channels require lining per the Reno Public Works Design Manual.
- The channel has not been constructed per the design plans.
- The adjacent undeveloped land has no sediment or erosion controls. This site has been bare for going on a year and is likely in violation of the NPDES Stormwater Permit NVR1000000.
- The construction of the culvert headwall at the beginning of the channel under Rio Wrangler was poorly formed and does not meet the Standard Specifications.
- The riprap channel is poorly constructed.

Recommendations

- Install sediment and erosion controls per Stormwater Permit NVR 1000000; prevent sediment from going into the W1-B channel and into the Mitigation Wetland B (no conceptual cost for this item).
 - Prevent stormwater run on into the W1-B channel that is causing degradation to the channel lining.
- Repair the culvert outlet headwall at Rio Wrangler
 - Grout and fill holes and tiebacks
 - Repair the pipe and headwall interface per Standard Specifications 311.04
- Remove the temporary crossings and culverts
- Provide design calculations for the channel for riprap lining.
 - Remove and reconstruct the entire channel per results of revised channel design

Estimate of Conceptual Probable Cost of Recommended Improvements

- The total conceptual cost for Site 8 improvements is \$ 252,000.

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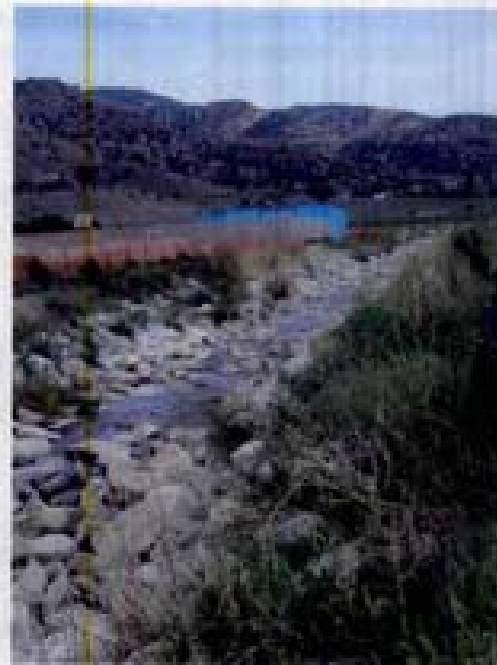
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Culvert entrance under Rio Wrangler

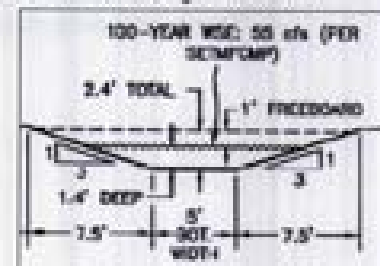


Upstream channel

Site 9

Description of Site

This storm channel C5-B is located on the Rio Wrangler Parkway about two-thirds of a mile to the east of the intersection of Veterans Parkway. This channel conveys storm water from the development and from the south boundary collection channel that intercepts both irrigation return flow from Carmelia Ranch and 100-year flood flows. The south boundary collection channel runs along the entire length of the south eastern property line between the C-5 channel and the SE-8A channel. The C-5-B channel was designed as an earthen trapezoidal channel (see inset). Technical Memorandum 1 references that this channel was to be grass lined. The south boundary channels were designed as rock lined v-shaped channels.



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Problematic Findings

- The culvert headwall at the inlet to the two 36 inch RCP under Rio Wrangler
 - Pipes were not placed and formed flush with the culvert face per Standard Specifications.
 - The headwall was poorly formed and there are two blowouts of PPC that escaped and are obstructions to the pipe entrances.
 - The RCP on the east side of the headwall was formed with the groove end of the pipe and the RCP placed at a skew of ~15 degrees. The result is a pipe that is barely formed integral with the headwall. This is best illustrated in Photo's 2223 and 2224 of the September 15, 2006 site walk as contained in Appendix B. This is contrary to Standard Specifications 306.05.03.
 - The tiebacks are not filled per Reno Design Manual.
- Photographs from December 2005 show the C5-B channel unraveling prior to the New Years Flood of 2006. There is no underlayment or bedding (see inset).
- The C5-B channel design depth was likely calculated for a manning's roughness coefficient commensurate with an earthen channel, and therefore the design cross section no longer applies.



Positive Findings

- The riprap in the C5-B channel appears to be of good quality, showing fractured faces and good length to width ratio and gradation. The size of the riprap is in question due to the lack of design information.
- The south boundary channel appears to be constructed per the design plans. The south boundary channel appears to have handled the New Years Flood of 2006.

Design and Construction Compliance

- The design plans reference the following:
 - Standard Specifications/Details for Public Works Construction
 - For maintenance, the plans reference City of Reno Public Works Design Manual effective November 1, 2000.
- The design plans do not show a channel 5-year and 100-year HGL in profile, flow rates and capacity, freeboard, channel slope, or minimum and maximum channel velocities per the Reno Public Works Design Manual.
 - This information is necessary to determine if the channels require lining per the Reno Public Works Design Manual.

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- The channel has not been constructed per the design plans.
- The construction of the culvert headwall at the end of the C5-B channel under Rio Wrangler was poorly formed and does not meet the Standard Specifications or the Reno Design Manual.
- The C5-B riprap channel is poorly constructed and does not appear to have underlayment or riprap bedding.

Recommendations

- Remove and reconstruct the C5-B culvert headwall for the two 36 inch RCP's under Rio Wrangler.
- Provide design calculations for the channel for riprap lining.
 - Remove and reconstruct the entire C5-B channel per results of revised channel design with underlayment or bedding.

Estimate of Conceptual Probable Cost of Recommended Improvements

- The total conceptual cost for Site 9 improvements is \$ 84,000.

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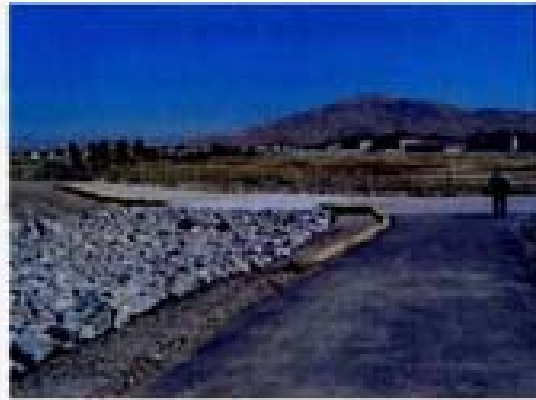
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RCB and RCP outlet into W-3 channel



Riprap and PVC culverts at end of W-3 channel

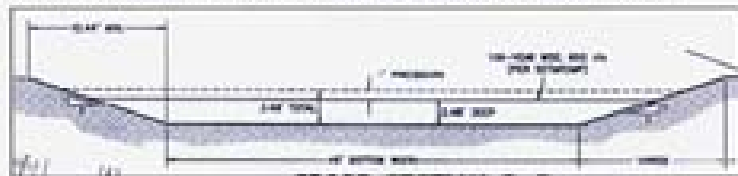
Site 10

Description of Site

This storm channel W-3 is located between Rio Wrangler Parkway and the DE4 wetland adjacent to Damonte Ranch Village 16. This channel conveys storm water from the adjacent development and from the SE-8A channel and the south boundary collection channel that intercepts both irrigation return flow from Carmelia Ranch and 100-year flood flows at the eastern corner of the Damonte Ranch development. The W-3 channel was designed as an earthen trapezoidal channel (see inset).

Per Technical Memorandum No. 1 and

personal communication with Odyssey Engineering, this channel is intended to be lined with grass or vegetation.



The south boundary channel was designed as an earthen channel with a riprap lined slope adjacent to the Carmelia Ranch. The channel was originally designed to discharge to the DE4 wetland over a PCC dip section along the pedestrian path. This channel was modified from the original design in the summer of 2006 to incorporate additional riprap and low flow PVC culverts at the crossing with the pedestrian path along the DE4 wetland. This was apparently done as part of the damage incurred from the new Years Flood of 2006.

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Problematic Findings

- This channel is bordered by undeveloped future public facilities to the west of the channel. Runoff from this undeveloped, stripped and grubbed site contributes sediment as well as lateral inflow to the channel that has undermined the riprap in some locations. There is no sediment control adjacent to the channel. There was a significant sediment load to the mitigation wetland DE4 from the New Years Flood.
- It does appear from photographs taken in July of 2006 that the channel may have been seeded in the past as there were grasses and some small brush growing on the side slopes of the channel. However, there was no grass or vegetation where water had been flowing. It is unlikely that a channel stabilization consisting of vegetation established from seeding will stabilize these channels without the addition of other methods of channel stabilization such as geowebbs or turf reinforcement material's (TRM's).
- The access ramp at the beginning of the W-3 channel encroaches into the channel in such a manner that cross sectional flow area in the channel is reduced. Additionally, all the energy from the eastern 10' x 4' RCB is directed at the side slope of the access ramp. The design plans show that the access road side slope is to be protected with grouted riprap. As of September of 2006, there was riprap on the slope, but not grouted per the design plans. The design plans do not address the construction of the grouted riprap, gradation, or specifications in any detail other than to call out on the plan sheet.
- There is an access grate on the RCP storm drain outlet that needs to be removed at Rio Wrangler Parkway.
- There is no riprap outlet protection for the RCB and RCP outlets under Rio Wrangler Parkway. There is erosion of the channel, particularly from the 36 inch RCP.
- The riprap at the end of the W-3 channel was not excavated into the channel bed and does not cover the entire cross sectional width of the channel geometry. Additionally, the riprap is installed in single layer. Most riprap design recommends a riprap thickness of twice the D_{50} . Water will likely erode around the edges of the riprap.
- The hay bale sediment control is not an approved BMP per the Truckee Meadows Construction Site Best Management Practice Manual.



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- Post New Years Flood, two low flow PVC culverts have been constructed at the end of the W-3 channel under the PCC dip section at the maintenance road and recreation path. There does not appear to be any underlayment or bedding for the riprap.
 - The PVC culverts are not buried to a minimum 3 foot depth to top of pipe per the Reno Public Works Design Manual Chapter IV. The minimum 3 foot burial does not appear in Chapter II Storm Drainage, yet solid wall plastic pipe with a minimum stiffness of 46 psi is allowed for storm drainage pipe with diameters less than 36 inches. This pipe will likely fail and crack due to shallow burial.

Positive Findings

- The riprap placed at the end of the C-7 channel is of good quality and gradation exhibiting angular, fractured faces and good length to width ratio.
- The main channel appeared to be able to withstand the 2006 New Years storm event. This channel did not appear to have any significant flows during the event.

Design and Construction Compliance

- The design plans reference the following:
 - Standard Specifications/Details for Public Works Construction
 - For maintenance, the plans reference City of Reno Public Works Design Manual effective November 1, 2000
- The design plans do not show a channel 5-year and 100-year HGL in profile, flow rates and capacity, freeboard, channel slope, or minimum and maximum channel velocities per the Reno Public Works Design Manual.
 - This information is necessary to determine if the channels require lining per the Reno Public Works Design Manual.
- The adjacent undeveloped land has no sediment or erosion controls. This site has been bare for going on a year and is likely in violation of the NPDES Stormwater Permit NVR1000000.

Recommendations

- Construct the grouted riprap at the maintenance ramp
 - Needs additional design detail for proper construction of grouted riprap
- Remove and reinstall riprap at the end of the W-3 channel. Riprap for the entire cross section of the channel including the channel side slope to an elevation 1 foot above the 100-year HGL.
- Clear the riprap partially obstructing the outlet of the PCV low flow culverts at the end of the W-3 channel.

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- Remove and reconstruct the riprap at the outlet of the PVC culverts with proper underlayment or bedding.
- Show hydraulic calculations sufficient to justify vegetated channel stabilization per the Reno Public Works Design Manual.
- Reinforce per results of hydraulic calculations and engineered design approved by City.

Estimate of Conceptual Probable Cost of Recommended Improvements

- The total conceptual cost for Site 10 improvements is \$ 69,000.

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Channel SE-8A looking up gradient

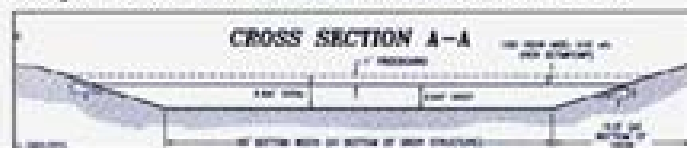


Looking downstream from intersection with south boundary channel

Site 11

Description of Site

This storm channel SE-8A is located above and south of the Rio Wrangler Parkway adjacent to Damonte Ranch Villages 18 and 19. This channel conveys storm water from the adjacent developments and from the south boundary collection channel. The SE-8A channel is part of the DRDD and is intended to convey the 100-year flood flow to the DE4 wetland via the W-3 channel located north of Rio Wrangler as shown in Figure 1. The SE-8A channel contains PCC grade control sills with riprap aprons to control the velocity of flow water below erosive velocities. Per Technical Memorandum No. 1 and personal communication with Odyssey Engineering, this channel is intended to be lined with grass or vegetation.



Problematic Findings

- Poorly placed riprap at the ends of some of the grade control sills. There are no visible signs of underlayment or riprap bedding being placed as part of the riprap construction.
- The grade control sills have no riprap protection at the western ends. The grade control sills are not sufficiently protected at the western ends. Photo's 2247 through 2254 from the 22 August 2006 site walk contained in Appendix B illustrate this. In some cases the end of the sills are exposed.

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- The rockery wall encroaches into the flood channel. This is contrary to the Reno Design Manual and a violation of Reno Municipal Code. Additionally:
 - The design plans (LDP06-04803) does not show the rockery wall.
 - Permit LDP05-03683 for the rockery wall was cancelled.
 - The base of the rockery wall will be approximately two to three feet submerged according to the limits of the 100-year WSEL shown on Sheet G-1 of the Village 19A-1 plans (LDP04-13213). This sheet shows the rockery wall as "existing rockery wall."
 - A rockery wall is not an approved or designed flood improvement and will likely fail if subject to scouring forces at the base of the wall.
- It does appear from photographs taken in June that the channel may have been seeded in the past as there were grasses growing on the side slopes of the channel in June of 2006 (see inset). However, there was no grass or vegetation where water had been flowing or prior to and after the new years Flood. It is unlikely that a channel stabilization consisting of vegetation established from seeding will stabilize this channel without the addition of other methods of channel stabilization such as geoweb or turf reinforcement material's (TRM's).
- The access ramp encroaches into the channel in such a manner that cross sectional flow area in the channel is reduced. The design plans show that the access road side slope is to be protected with grouted riprap. As of September of 2006, the grouted riprap had not been installed. The design plans do not address the construction of the grouted riprap, gradation, or specifications in any detail other than to call out on the plan sheet.
- In general, the design plans are lacking in sufficient detail with regards to the grade control sill. The design plans do not address grade control sill and channel side slope interconnection, or footing dimensions.
- The south boundary channel is not constructed per the plan. There is no riprap slope protection.
- The intersection of the south boundary channel and the SE-8A channel is a 90 degree bend. This channel is calculated to convey 615 cfs to the SE-8A channel per Sheet H-1 of the design plans. The force of this flow will be directed directly at the rockery wall and additionally, there will be eddy forces working on the inside corner of the boundary and SE-8A channel intersection.



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Positive Findings

- Appears to be able to withstand the 2006 New Years storm event. This channel did not appear to have any significant flows.

Design and Construction Compliance

- The design plans reference the following:
 - Standard Specifications/Details for Public Works Construction
 - For maintenance, the plans reference City of Reno Public Works Design Manual effective November 1, 2000
- The design plans do not show a channel 5-year and 100-year HGL in profile, flow rates and capacity, freeboard, channel slope, or minimum and maximum channel velocities per the Reno Public Works Design Manual.
 - This information is necessary to determine if the channels require lining per the Reno Public Works Design Manual.
- The design plans are lacking in detail sufficient to construct the grade control sills and appurtenant riprap and the grouted riprap to standard of care for engineering practices.
- Construction of the channel and appurtenances:
 - The grouted riprap slope protection has not been constructed.
 - Could not verify the footings for the grade control sills.
 - Riprap construction was poor and does not meet the design plans.
 - NDOT bridge inspection for the crossing under Rio Wrangler B-2890 is contained in Appendix D.

Recommendations

- Remove, design, and reconstruct the riprap at the ends of the grade control sills.
- Construct the grouted riprap at the maintenance ramp
 - Needs additional design detail for proper construction of grouted riprap
- Show hydraulic calculations sufficient to justify vegetated channel stabilization per the Reno Public Works Design Manual.
 - It is unlikely that a channel stabilization consisting of vegetation established from seeding will stabilize these channels without the addition of other methods of channel stabilization such as geoweb or turf reinforcement material's (TRM's).
- Remove rockery wall and replace with engineered wall appropriate for encroachment into floodway; such as a concrete retaining wall with sufficient scour depth.

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- Provide engineering design criteria and geotechnical and hydraulic calculations for replacement wall.

Estimate of Conceptual Probable Cost of Recommended Improvements

- The total conceptual cost for Site 11 improvements is \$ 860,000.

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Site 12

Description of Site

This 24 inch storm drain is part of the Damonte Ranch Village 16A (LDP03-05603) that drains the 16A subdivision and discharges into the southeast corner of the wetland labeled DE4.

Problematic Findings

- Safety grate needs to be removed as it is no longer needed per City standards.
- The Reno Design Manual requires an access ramp to service the storm drain and headwall. No access ramp was designed or constructed.
- Riprap outlet protection needs to be constructed per the plan.
- The top of the storm drain headwall needs to be finished per the Standard Specifications.

Positive Findings

- The headwall appears to be constructed in conformance with Standard Specifications.

Design and Construction Compliance

- Design generally appears to meet City of Reno standards. An access road needs to be designed and constructed per the Reno Design Manual.

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Recommendations

- Design and construct a permanent access ramp per the Reno Design Manual.
- Refinish the face of the culvert headwall per Standard Specifications.
- Construct culvert riprap outlet protection

Estimate of Conceptual Probable Cost of Recommended Improvements

- The total conceptual cost for Site 12 improvements is \$ 6,400.

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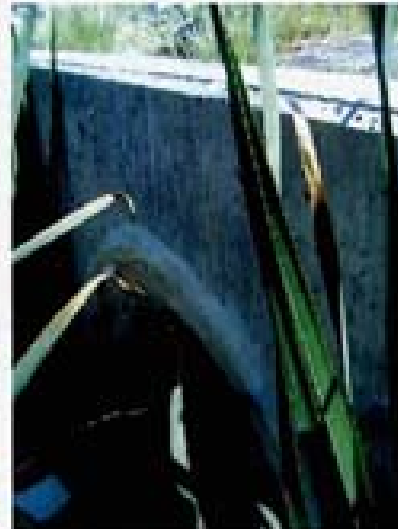
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Culvert headwall at DE4 wetland



Site 13

Description of Site

This 24 inch storm drain is part of the Damonte Ranch Village 15A (LDP03-05989) that drains the 15A subdivision and discharges into the wetland labeled DE3.

Problematic Findings

- The RCP was not formed flush with the face of the headwall.
- The design plans call for an access ramp to service the culvert. No access ramp was constructed.
 - Reno Design Manual requires access to headwall
- Riprap at the top of the headwall looks like it is incomplete or has been stolen. This rock was not part of the design plans.
- The riprap for the culvert outfall protection is of poor quality, showing poor length to width ratio, non-fractured faces, and poor gradation and is primarily made up of stone smaller than the 12 to 18 inches specified per the design plan.

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- The culvert headwall was poorly formed.
 - RCP was not formed flush with the headwall face per Standard Specifications. There was a repair made to the RCP and headwall interface that is exhibiting signs of cracking.
 - There are air voids, a sign of poor concrete vibration (Standard Specifications).
 - Large chunks of PCC have been knocked off of portions of the headwall.
 - The top of the headwall was not a finished surface (Standard Specifications).
 - The tiebacks were not removed and filled (Reno Design Manual).
 - Vegetation is causing a backwater into the SD pipe.

Positive Findings

- Headwall appears stable.

Design and Construction Compliance

- Design generally appears to meet City of Reno standards with the exception of an access ramp to maintain the storm drain outlet and headwall.
- Regarding construction, the headwall was poorly formed and constructed. Construction does not meet the standard of care per the Standard Specifications and the Reno Design Manual.

Recommendations

- Construct the permanent access ramp per the Reno Design Manual.
- Refinish the face of the culvert headwall per Standard Specifications.
- Remove the rock culvert apron and reconstruct with riprap meeting the size per the plan and rock quality per the Standard Specifications.
- Remove vegetation to allow for free draining path to the wetland.

Estimate of Conceptual Probable Cost of Recommended Improvements

- The total conceptual cost for Site 13 improvements is \$ 6,400.

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Appendix A



Culvert outlet in Sept. 2006



Culvert headwall in Dec. 2005

Site 14

Description of Site

This is a 60 inch RCP storm drain that runs in between Damonte Ranch Villages 14A and 15A and discharges to the corner of the DE3 wetland. Design plans for this storm drain could not be located.

Problematic Findings

- There is a safety grate that needs to be removed it is no longer required per City standards.
- The access road has a saw cut in the AC paving that needs to be patched per Reno Standards.
- The 60 inch RCP was not constructed with the pipe flush with the face of the headwall per Standard Specifications. The RCP and headwall interface needs to be repaired per Standard Specifications 311.04.
- The riprap for the culvert outfall protection could not be assessed due to vegetation growth.

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Positive Findings

- Other than the RCP not being formed flush with headwall face, the headwall appears to be very well constructed and conforms to the Standard Specifications and the Reno Design Manual.

Design and Construction Compliance

- Design generally appears to meet City of Reno standards.
- The access ramp was not constructed per the design plans.

Recommendations

- Construct the permanent access ramp. Refinish the face of the culvert headwall per Standard Specifications.
- Confirm the riprap apron was installed that construction and rock riprap meets Standard Specifications.
- Remove vegetation to allow for free draining path to the wetland.

Estimate of Conceptual Probable Cost of Recommended Improvements

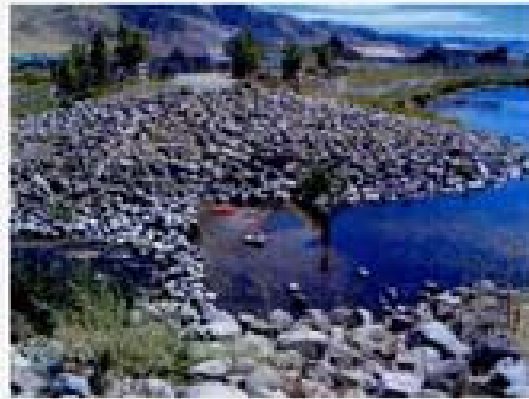
- The total conceptual cost for Site 14 improvements is \$ 8,000.

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Appendix A



Outlet weir from DE3 to DE1 looking north
June 2005

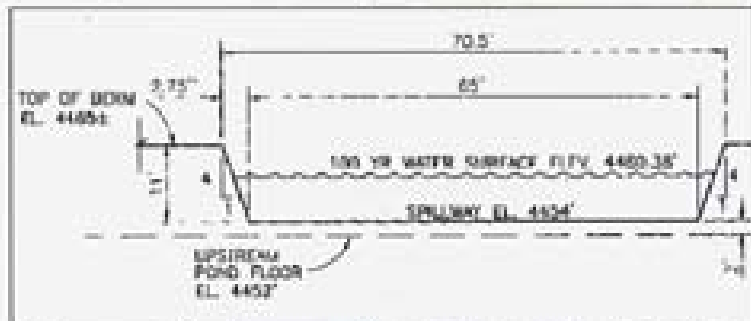
Looking south August 2006

Site 15

Description of Site

The outlet weir from DE3 into DE1 was designed as part of the Regional Flood Control Improvements designed by Nimbus Engineers and is designed to operate in conjunction with the outflow from the regional detention basin and the flood control channels at the southern portion of Damonte Ranch. The diversion structure, regional detention basin, the wetlands and flood channels serve to both remove development from the 100-year flood plain and to mitigate for post-development increases in storm water runoff. The

outflow weir from DE3 was designed as a 65 foot crest length PCC broad crested weir with 1:4 (H:V) side slopes as shown on the as-built plans by Nimbus Engineers dated September 2004 (see inset).



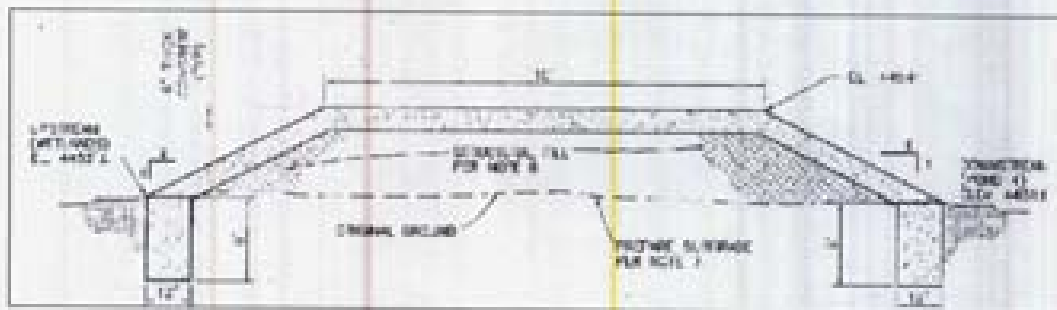
The weir structure is a PCC broad crested weir that was designed for a specific rating curve that works in conjunction with the upstream diversion and detention hydraulics, input from flood channels and the level pool routing of the DE5, mitigation wetland B, DE4 and DE3 wetlands.

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This site is also part of the NDWR's Permit J-545. Appendix C contains a copy of a letter from NDWR to DiLoreto Construction and Development regarding NDWR inspections and listing corrective actions for the diversion structure, detention dam and wetland appurtenances.

Problematic Findings

- Design plans for the outlet weir structure (Nimbus, 2001) show on Sheet 9 of 9 a design that is vastly different than what was constructed. The pictures above are a longitudinal and transverse cross section details taken from the as-built plans by Nimbus Engineers (Nimbus, 2004).
 - The design configuration of the weir was a hydraulically rated design that primarily controls the 100-year WSEL in the wetlands DE3, DE4, DE5 and mitigation wetland B. The outflow weir in the field is an approximately 20 foot crest length with ~3:1 side slopes.
 - The low flow gate valve was not part of the as-builts.
 - The as-built plans by Odyssey dated August, 2001 also show a 65 foot weir crest length and 1:4 (H:V) side slopes.
- The final as-builts by Odyssey Engineering dated August 13, 2003 show the grading for the basin and the PCC weir as matching the Nimbus plans.
- The riprap exhibits non-fractured faces, poor length to width ratios and poor gradation that conform to Orange Book Standard Specifications, but not to Washoe County standards or Corps of Engineer guidelines.
 - The rock seems to be placed in a single layer.
 - Portions of the rock have moved, exposing the granular riprap bedding.
 - The rock appears to have been moved around by the public to create a path across the weir.
 - The design plans and as-builts do not show the riprap.

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- The construction of the cutoff walls could not be verified in the field.
- The access road on the northern jetty has a graded dirt surface with some gravel, and needs to be stabilized and constructed per the Reno Design Manual.
- The low flow gate valve appears to be plugged with rock/debris. Functionality is questionable.
 - The chain and lock on the gate valve were broken.
- Debris in the weir.
- The public as apparently moved some of the riprap.

Positive Findings

- The PCC weir appears to be stable with no cracks or obvious signs of degradation.

Design and Construction Compliance

- Design appears to be in general compliance with Washoe County Standards.
 - The design is lacking in some detail regarding the design and construction of the side slopes for the weir.
- Portions of the facilities at Site 15 are clearly not constructed in conformance with the design plans. Some aspects are less clear with respect to construction due to lack of construction documentation.
- Construction of the riprap protection is not in compliance with the Standard Specifications or Washoe County Standards. County standards prevail.

Recommendations

- Maintain and repair the low flow gate valve.
- Install fencing to deter public use and degradation and promote public safety
- Remove rock riprap
 - Engineer a design
 - Reconstruct per engineered design and Standard Specifications
- Confirm the hydraulics of the outflow weir have not changed the design and performance of the outflow hydraulics, 100-year WSEL and hydrograph routing.
- Fulfill all requirements for documentation and permitting per the NDWR letter of August 18, 2006.

Estimate of Conceptual Probable Cost of Recommended Improvements

- The total conceptual cost for Site 15 improvements is \$ 92,000.

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Appendix A



Site 16

Description of Site

This 24 inch PVC storm drain is part of the Damonte Ranch Village 14A (LDP03-03081) that drains the 14A subdivision and discharges into the southern portion of the wetland labeled DE1.

Problematic Findings

- Safety grate needs to be removed.
- The Reno Design Manual requires an access ramp to service the storm drain and headwall. No access ramp was designed or constructed.
- The headwall is of moderate quality and shows air pockets, honeycombing, poor finishing and the pipe was not formed flush with the face of the headwall.
- The design plans do not have sufficient detail for construction of the riprap apron.
 - Riprap bedding

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- The design plans call for Class III RCP unless otherwise noted (no conceptual cost estimate for this item).
 - This pipe was called out Class III RCP. Reno Design Manual allows a solid wall plastic pipe if stiffness of pipe exceeds 46 psi. Could not verify the class of PVC pipe in the field.

Positive Findings

- The riprap appears to be of decent quality and proper gradation per the plans. Could not verify the limits of the riprap protection due to vegetation growth.

Design and Construction Compliance

- Design generally appears to meet City of Reno standards. An access road needs to be designed and constructed per the Reno Design Manual.
 - The PVC storm drain does not appear to be buried to a minimum 3 foot depth to top of pipe per the Reno Public Works Design Manual Chapter IV. The minimum 3 foot burial does not appear in Chapter II Storm Drainage, yet solid wall plastic pipe with a minimum stiffness of 46 psi is allowed for storm drainage pipe with diameters less than 36 inches. This pipe may fall and crack due to shallow burial.
- Refinish the face of the culvert headwall per Standard Specifications.

Recommendations

- Design and construct a permanent access ramp per the Reno Design Manual.
- Refinish the face of the culvert headwall per Standard Specifications.
- Remove safety grate.
- Verify that PVC pipe meets the Reno Design Manual criteria.

Estimate of Conceptual Probable Cost of Recommended Improvements

- The total conceptual cost for Site 16 improvements is \$ 3,100.

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Appendix A



Top of headwall

Site 17

Description of Site

This 24 inch PVC storm drain is part of the Damonte Ranch Village 14A (LDP03-03081) that drains the 14A subdivision and discharges into the southern portion of the wetland labeled DE1.

Problematic Findings

- Safety grate needs to be removed.
- The Reno Design Manual requires an access ramp to service the storm drain and headwall. No access ramp was designed or constructed.
 - Vegetation is very thick and should be removed.

Positive Findings

- Culvert headwall appears to meet standards.

Design and Construction Compliance

- Design generally appears to meet City of Reno standards. An access road needs to be designed and constructed per the Reno Design Manual.

Recommendations

- Design and construct a permanent access ramp per the Reno Design Manual.
- Remove safety grate as it is no longer required per City standards.

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Estimate of Conceptual Probable Cost of Recommended Improvements

- The total conceptual cost for Site 17 improvements is \$ 2,900.

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Appendix A



Outlet of twin RCB's August of 2005



Outlet on January 1, 2006

Site 18

Description of Site

These two RCB's discharge to the DE1 wetland and carry flow under Rio Wrangler Parkway from a channel that intercepts storm runoff from behind Damonite Ranch High School. The east side of the RCB's have been extended and go under a portion of McCauley Ranch Road. The RCB culvert and detention basin grading was done by Odyssey Engineering as shown in their as-builts dated August, 2003. The original planning design for the DE1 wetland apparently was done by Nimbus Engineers in 2001.

Problematic Findings

- There are cracks in the headwall/wingwall interface on both sides of the headwall. See NDOT bridge inspection report B2764 in Appendix D.
- The Reno Design Manual requires an access ramp to service the storm drain and headwall. No access ramp was constructed.
 - Vegetation is heavy in the summer and will likely require some removal prior to the winter season.
- The headwall had been refinished at some time after construction.
 - The finish around the RCP outlet is of moderate quality and should be monitored.



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- The riprap is of moderate quality with many of the stones exhibiting rounded characteristics or poor length to width ratio.
 - The design plans call ~2,200 s.f. of 24 inch grouted riprap. It does not appear that the apron was constructed of grouted riprap.

Positive Findings

- The headwall seems to be in decent shape and had been refinished.
- The riprap apron seemed to handle the New Years Flood. It is unknown how much flow occurred at this location.

Design and Construction Compliance

- The as-built plans by Odyssey Engineering (Odyssey, 2003) reference the following:
 - Standard Specifications/Details for Public Works Construction
 - County Ordinances, Standards, and County Code are prevailing.
 - For maintenance, the plans reference City of Reno Public Works Design Manual effective November 1, 2000 for maintenance of storm drain mains and sanitary sewer stubs.
- Design generally appears to meet County standards.
 - An access road would need to be constructed per the Reno Design Manual for access to culvert and storm drain outfalls. The County standards would possibly over ride the Reno Design Manual per the Engineers Certificate on the title sheet of the plans. The County Policy does require that the owner "...include maintenance access to the entire drainage facility. A minimum 15 foot wide drainage easement shall be provided for all publicly and privately maintained drainage facilities."
- The plans include the NDOT Standard Plans construction of the RCB's.
- NDOT bridge inspection for the crossing under Rio Wrangler B-2764 is contained in Appendix D.

Recommendations

- Design and construct a permanent access ramp per the Reno Design Manual. This location does not have a hardened access ramp.
- The riprap apron is not grouted. It is not recommended that the apron be grouted, however, it is not apparent that the riprap apron was constructed per standards associated with loose rock riprap aprons, i.e. could not verify thickness of rock layer or verify underlayment or bedding.

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Estimate of Conceptual Probable Cost of Recommended Improvements

- The total conceptual cost for Site 18 improvements is \$ 13,000.

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Appendix A



RCB outlet under Steamboat Parkway



RCB inlet

Site 19

Description of Site

The series of detention basins and wetlands flow from west to east. This culvert bridge is located under Steamboat Parkway just west of the intersection with Rio Wrangler Parkway. This wetland DE1 accepts storm water runoff from the Damonte Ranch High School, the upstream wetlands, flood channels, regional detention basin and nearby residential housing. The RCB culverts under Steamboat Parkway mark the end of the permitted dam coverage per the NDWR J-545. The design of the DE1 wetland (Pond 4 in Nimbus plans) was done by Nimbus Engineers and the RCB culvert and road crossing were done by Odyssey Engineering.

Problematic Findings

- The NDOT bridge inspection report for B-2732 documents some issues of concern relating to:
 - Rooted vegetation at RCB inlets
 - Cracks as large as 3/8 inch at the wingwall/headwall junctures
 - Scour at end of PCC apron exposing the cut off wall
 - Exposed rebar in wingwall near inlet
- The downstream channel has not been formed and the erosion and scour from the culvert and temporary construction haul road will likely continue to have an impact to the RCB outlet apron until the downstream channel or other stabilization is constructed.

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- The storm drain outlet PCC headwall located at the northwest corner of the intersection of Steamboat Parkway and Rio Wrangler was very poorly constructed.
 - There are large voids where the PCC was not formed or poured.
 - There is no riprap or other form of energy dissipation constructed.



Positive Findings

- The bridge structure received good ratings for the deck.

Design and Construction Compliance

- The as-built plans by Odyssey Engineering (Odyssey, 2003) reference the following:
 - Standard Specifications/Details for Public Works Construction
 - County Ordinances, Standards, and County Code are prevailing.
 - For maintenance, the plans reference City of Reno Public Works Design Manual effective November 1, 2000 for maintenance of storm drain mains and sanitary sewer stubs.
- Design generally appears to meet County standards.
 - An access road would need to be constructed per the Reno Design Manual for access to culvert and storm drain outfalls. The County standards would possibly over ride the Reno Design Manual per the Engineers Certificate on the title sheet of the plans. The County Policy does require that the owner "...include maintenance access to the entire drainage facility. A minimum 15 foot wide drainage easement shall be provided for all publicly and privately maintained drainage facilities."
- The construction of the 24 inch RCP headwall does not meet the Standard Specifications.
- The plans include the NDOT Standard Plans construction of the RCB's.
- NDOT bridge inspection for the crossing under Rio Wrangler B-2732 is contained in Appendix D.



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Recommendations

- Remove and replace the 24 inch RCP storm drain headwall at the intersection of Steamboat Parkway and Rio Wrangler.
- Design and construct a permanent access ramp per the Reno Public Works Design Manual. This location does not have a hardened access ramp.
- Implement the recommended maintenance per the NDOT inspection report for B-2732
 - Repair scour at outlet concrete apron. Additionally, Kennedy/Jenks Consultants recommends scour protection be constructed at this location as well.
 - Finish downstream channel
 - Remove vegetation from inlet and in RCB barrel #2
 - Repair exposed rebar in inlet wingwall

Estimate of Conceptual Probable Cost of Recommended Improvements

- The total conceptual cost for Site 19 improvements is \$ 41,000.

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Appendix A

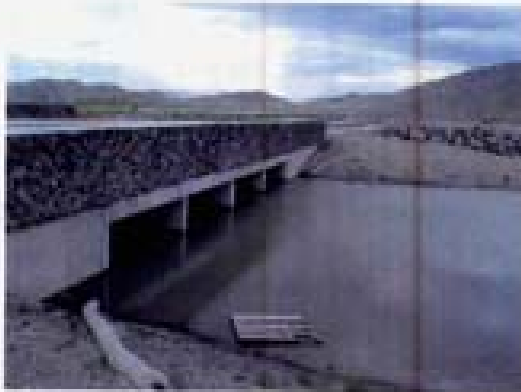


Figure 12A) Culvert inlet



Figure 12B) Downstream channel

Site 20

Description of Site

The culvert bridge is has been designated as structure number B-2891 by NDOT and is located under Rio Wrangler Parkway one third of a mile to the north of the Steamboat Parkway intersection. This structure is part of a flood control channel that intercepts stormwater from the Damonte Ranch Foothills and is currently being extended to intercept and convey storm flows from development in the Damonte Ranch Foothills. This channel is currently earthen, trapezoidal, abuts a rockery wall on the north bank, and has very sparse vegetation.

Problematic Findings

- Random construction debris and dirt
- The rockery wall encroaches into the north side of the channel. Rockery walls are not an approved flood channel improvement per Reno Standards.
- The NDOT bridge inspection report for structure B-2891 reports cracks up to 1/8 inch on all four corners of the headwalls. See Appendix D for NDOT inspection reports.

Positive Findings

- The RCB and bridge structure received good ratings for deck, channel, and RCB barrels.
- The channel and bridge structure appear to have handled the New Years Flood which was not a 100-year flood.

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Design and Construction Compliance

- Design drawings were not reviewed. Portions of the channel are still being constructed on both sides of the bridge structure.

Recommendations

Kennedy/Jenks Consultants recommends further review regarding the design plans, in particular the disturbing trend of rockery walls encroaching into flood channels.

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Appendix A



PVC storm drain outlet

Site 21

Description of Site

This is a storm drain outlet to the portion of DE1 just north of Steamboat Parkway.

Problematic Findings

- The storm drain outlet is not complete.
- It appears that there is not enough room for a culvert headwall without moving the fence, constructing the headwall in the bank.
 - Needs storm drain outlet protection

Positive Findings

Design and Construction Compliance

- Construction drawings not reviewed.

Recommendations

The storm drain is PVC and will need a headwall and outlet protection designed and constructed.

Appendix B

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Appendix B

Appendix B
SITE PHOTOGRAPHS



Title:	Site 2 at SE corner - Detention Basin	File:	HPIM2179.JPG	Date:	8/15/2008 15:09
Desc:	Facing Westerly; rill and gully erosion along top of berm. Top of berm not stabilized for access.				



Title:	Site 2 at SE corner - Detention Basin	File:	HPIM2180.JPG	Date:	8/15/2008 15:10
Desc:	Facing Westerly; rill and gully erosion along side of berm. Sparse vegetation with bare patches of soil exposed.				



Title	Site 2 at SE corner - Detention Basin	File	HPM02181.JPG	Date	8/15/2006 15:10
Desc:					
Facing Westerly, fill and gully erosion along side of berm. Sparse vegetation with bare patches of soil exposed. Persists along entire length.					



Title	Site 2	File	HPM02182.JPG	Date	8/15/2006 15:13
Desc:					
Facing Westerly, Tall White top obscuring irrigation return flow ditch that parallels the detention basin flowing west to east.					



Title:	Site 2	File:	HPM2183.JPG	Date:	8/15/2006 15:13
Desc:					
Facing Northerly, small gully erosion. Sediment ends up in bottom of detention basin.					



Title:	Site 2 halfway up southern berm	File:	HPM2184.JPG	Date:	8/15/2006 15:15
Desc:					
Facing southerly, large gully erosion where irrigation return flow ditch breached into the detention basin.					



Title:	Site 2 halfway up southern berm	File:	HP-MJ185.JPG	Date:	8/15/2008 15:18
Desc:					
Facing Westwaly, top of erosion gully. Irrigation return flow ditch is visible in left center of photo.					



Title:	Site 2 halfway up southern berm	File:	HP-MJ186.JPG	Date:	8/15/2008 15:18
Desc:					
Facing Northwaly, large gully erosion shows going into detention basin. Sediment from gully ends up in detention basin.					



Title:	Site 2 halfway up southern berm	File:	HPIM2187.JPG	Date:	8/15/2008 15:18	
Desc:					Slide:	2187
Facing Westerly; irrigation return flow ponding adjacent to detention basin access road/berm. This irrigation return flow comes from the fields to the south before flowing Easterly in the return flow ditch that has breached into the detention basin.						



Title:	Site 1 - Detention basin diversion structure	File:	HPIM2188.JPG	Date:	8/15/2008 15:22	
Desc:					Slide:	2188
Facing Westerly; Access road into bottom of basin. Access road is not stabilized. Sparse vegetation on slope adjacent to the basin access road.						



Title:	Site 1 - Detention basin diversion structure	File:	HPM02189.JPG	Date:	8/15/2008 15:23
Desc:					
Facing Easterly; same location as Photo 2188; vegetation has encroached onto access road at to of berm. Access road not stabilized.					



Title:	Site 1 - Detention basin diversion structure	File:	HPM02190.JPG	Date:	8/15/2008 15:26
Desc:					
Facing SEasterly; Soil cement adjacent to diversion structure. Soil cement appears to be sand, non-cohesive down to a depth of about 6 inches.					



Title:	Site 1 - Detention basin diversion structure	File:	HP0M2191.JPG	Date:	8/15/2006 15:26
Desc:	Facing Southerly; same location as Photo 2191 at south end of diversion structure. Note where non-cohesive sand erosion has exposed the cohesive layer of soil cement in upper right center of photo.				



Title:	Site 1 - Detention basin diversion structure	File:	HP0M2192.JPG	Date:	8/15/2006 15:27
Desc:	Facing Westerly; South corner of diversion structure. Sand/soil cement has eroded away from end of PCC diversion structure. No cutoff wall constructed at ends of PCC diversion structure.				



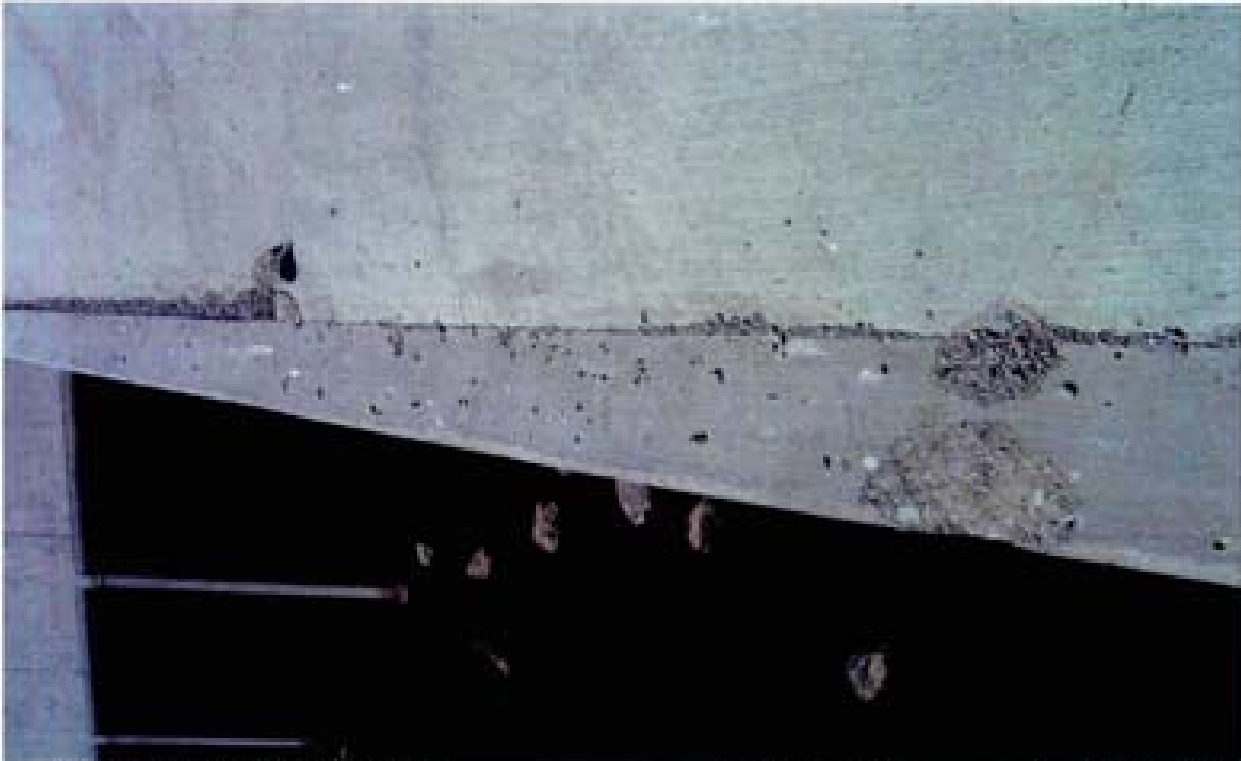
Title:	Site 1 - Detention basin diversion structure	File:	HPM2193.JPG	Date:	8/15/2006 15:28	
Desc:						
					Slide:	2193

Facing West/erly at northerly corner of diversion structure with box culverts in background. Steamboat Creek runs directly along the diversion structure. Note lack of cut off wall at bottom of PCC slope.



Title:	Site 1 - Detention basin diversion structure	File:	HPM2194.JPG	Date:	8/15/2006 15:30	
Desc:						
					Slide:	2194

looking down at interface of flared wing wall and sloping PCC apron of diversion structure. No cut off wall constructed.



Title:	Site 1 - Detention basin diversion structure	File:	HPM02196.JPG	Date:	8/15/2008 15:31	
Desc:					Slide:	2196
Facing Southerly; interface of flared wing wall and sloping PCC apron. Spalled concrete on both the wing wall and the sloping PCC apron.						



Title:	Site 1 - Detention basin diversion structure	File:	HPM02196.JPG	Date:	8/15/2008 15:33	
Desc:					Slide:	2196
Facing Westerly; inlet to RCB culverts. Note spalled concrete of sloping PCC apron in left foreground.						



Title	Site 1 - Detention basin diversion structure	File	HPM2197.JPG	Date	8/15/2008 15:36
Desc:					
Facing Easterly, same location as Photo 2196. Note spalled PCC on wing wall and air void from improper vibration of concrete during pour.					



Title	Site 1 - Detention basin diversion structure	File	HPM2198.JPG	Date	8/15/2008 15:36
Desc:					
Same as Photo 2197					



Title:	Site 1 - Detention basin diversion structure	File:	HPIM2199.JPG	Date:	8/15/2006 15:38
Desc:	Facing Southerly; at North end of diversion structure. Note same non-cohesive sand layer. Riprap at end of structure is single layer of rock with no bedding or geotextile.				



Title:	Site 2 - Detention Basin	File:	HPIM2200.JPG	Date:	8/15/2006 15:48
Desc:	Facing Westerly; access road into the NEast corner of detention basin. Access road is not stabilized. Note sparse vegetation in background along berm slope. Debris pile located at bottom of access road.				



Title:	Site 3 - Detention Basin	File:	HPM2201.JPG	Date:	8/15/2006 15:50
Desc:	Same location as Photo 2200; rip rap at inlet to headwall/RCP detention low flow outlet. Steel construction stake in center of rip rap is potential tripping hazard.				



Title:	Site 3 - Detention basin RCB culvert outlet	File:	HPM2202.JPG	Date:	8/15/2006 15:52
Desc:	Inside the footpath located in RCB at North end of outlet structure. These cracks appear in every panel of the cast in place RCB culverts.				



Title	Site 3 - Detention basin RCB culvert outlet	File	HPM2203.JPG	Date	8/15/2006 15:54	
Desc:					Slide	2203
Facing Northerly, outlet of RCB culverts from detention basin. Riprap and outlet appear to be stable. Could not determine depth of riprap or type of underlayment/bedding.						



Title	Site 3 - Detention basin RCB culvert outlet	File	HPM2204.JPG	Date	8/15/2006 15:54	
Desc:					Slide	2204
Facing northerly, portion of pedestrian/bike path.						



Title	Site 4 - DES Wetland	File	HPM2205.JPG	Date	8/15/2008 16:00
Desc:					
Facing NEasterly; outlet of Crane & Clog into DES wetland. Convent headwall is poorly formed and had flaked away from headwall/RCP interface. End of RCP should be mitered and flush with face of headwall.					



Title	Site 4 - DES Wetland	File	HPM2206.JPG	Date	8/15/2008 16:00
Desc:					
Facing Westerly; left corner of headwall shown in Photo 2205. Water is seeping out of the ground under the headwall... beneath rock in center of photo. See Photo 2207.					



Title	Site 4 - DE5 Wetland	File	HPM2207.JPG	Date	8/15/2006 16:01
Desc:					
Facing Westerly; same as Photo 2206. Close up of water seeping out from beneath headwall.					



Title	Site 4 - DE5 Wetland	File	HPM2208.JPG	Date	8/15/2006 16:04
Desc:					
Facing NEasterly. Portion of landscaping and adjacent development that will drain to the DE5 wetland.					



Title:	Site 2 - Detention Basin	File:	HPMG209.JPG	Date:	8/15/2008 16:08
Desc:	Facing Westerly; temporary basin for irrigation return flow from fields located south of the detention basin. Located in the center of the photo is the outlet of the irrigation return flow ditch that has breached and is flowing into the detention basin as shown in Photo's 2182 to 2186.				
				Slide:	2209



Title:	Site 2 - Detention Basin	File:	HPMG210.JPG	Date:	8/15/2008 16:07
Desc:	Facing Easterly; same location as Photo 2208. Outlet PVC pipe from temporary equalization pond. This pipe appears to connect to the SDMH located to left of picture that connects to the piped portion of the Crane & Clow Ditch prior to its discharge into DES wetland at Site 4.				
				Slide:	2213



Title:	Site 5 - Crane & Clow Ditch	File:	HPM2211.JPG	Date:	8/15/2006 16:12	
Desc:					Slide:	2211
Facing Southerly; intersection of Crane & Clow Ditch with unnamed agricultural ditch.						



Title:	Site 5 - Crane & Clow Ditch	File:	HPM2212.JPG	Date:	8/15/2006 16:13	
Desc:					Slide:	2212
Facing Northerly; same location as Photo 2211. This is the Crane & Clow Ditch down gradient of the intersection with the unnamed agricultural ditch.						



Title:	Site 5 - Crane & Clow Ditch	File:	HPIM2213.JPG	Date:	8/15/2008 16:15	
Desc:					Slide:	2213
Facing Northerly; Crane & Clow Ditch rerouting. This is where the developer diverted the traditional route of the Crane & Clow. The ditch has been plugged with riprap and earth and now flows to the East (see below Photo 2214).						



Title:	Site 5 - Crane & Clow Ditch	File:	HPIM2214.JPG	Date:	8/15/2008 16:15	
Desc:					Slide:	2214
Facing Easterly; same location as Photo 2213. This is the portion of ditch constructed as part of the development to supply water to D65. This ditch shows signs of being very unstable. Highly erodible layer of soil ~3 feet thick overlays a more stable, cohesive layer underneath as seen in left of photo.						



Title	Site 5 - Crane & Clow Ditch	File	HP1M2215.JPG	Date	8/15/2006 16:16
Desc:					
Facing Northerly; portion of rerouted ditch after the 90 degree turn shown in the background of Photo 2214. This portion also show signs of being very unstable and the developer has attempted to stabilize in the past with a layer of riprap visible in the right foreground. The sidewalls are near vertical and have collapsed from a probable combination of undercutting and pore pressure. The culvert appears to be undersized, lacks a headwall and has eroded significantly.					



Title	Site 5 - Crane & Clow Ditch	File	HP1M2216.JPG	Date	8/15/2006 16:16
Desc:					
Facing Northerly; same location as Photo 2215. Close up showing erosion from eddies created by lack of headwall and high entrance velocities to culvert.					



Title:	Site 7 - Channel C-5	File:	HPM2217.JPG	Date:	8/15/2008 16:27
Desc:					
Facing NEasterly; crossing under rio Wrangler. Earthen channel with little or no vegetation. No grouted riprap protection of access ramp.					



Title:	Site 7 - Channel C-5	File:	HPM2218.JPG	Date:	8/15/2008 16:29
Desc:					
Facing Easterly; close up of end protection on PCC grade control sill. Riprap is placed poorly with inadequate thickness and no bedding or underlayment.					



Title	Site 7 - Channel C-5	File	HPIM2219.JPG	Date:	8/15/2006 16:29	
Desc:					Slide:	2219
Facing SEasterly, close up of first grade control all up gradient of Rio Wrangler. Contractor had formed the notch too narrow and came back and saw cut to proper notch width. Large crack in structure will be subject to freeze/thaw. Some air pockets in PCC are visible.						



Title	Site 7 - Channel C-5	File	HPIM2220.JPG	Date:	8/15/2006 16:31	
Desc:					Slide:	2220
Facing NEasterly, left bank of channel. This material had been pushed into the channel and is loose/uncompacted.						



Title:	Site 7 - Channel C-5	File:	HPM2221.JPG	Date:	8/15/2006 14:35	
Desc:					Slide:	2221

Facing NWesterly; grade control sill up gradient of Rio Wangler. Poorly placed riprap with no apparent underlayment or bedding. The riprap in the background has been placed after the silt fence was installed and appears to have just been dumped as opposed to placed. Typical situation in this channel was the pushing of adjacent construction material into the channel. Silt fence has been crushed by riprap.



Title:	Site 9 - Channel C5-B	File:	HPM2222.JPG	Date:	8/15/2006 16:42	
Desc:					Slide:	2222

Facing Northerly; Culvert headwall/wing wall for pair of 36 inch RCP's. Form plugs have not been removed and filled.



Title	Site 9 - Channel C5-B	File	HP1M2223.JPG	Date:	8/15/2006 16:42
Desc:					
Facing Northerly; inlet of twin RCP's. This headwall has been very poorly formed and has PCC flaking away from the RCP/headwall interface from both pipes. Large slumps of PCC blew out from the form and are obstructions to the entrance to the pipes as can be seen in the lower left of each pipe. There are no nuts on the bolts securing the trash rack.					



Title	Site 9 - Channel C5-B	File	HP1M2224.JPG	Date:	8/15/2006 16:45
Desc:					
Facing Northerly; close up of RCP inlet on right. Note the bell end of the pipe was formed in the headwall with about a 15 degree skew. The right side of the pipe is flush with the front face of the headwall and the left side of the pipe is approximately flush with the back of the headwall...6' from the front face. Note PCC "blowout" in lower left of pipe impedes on flow area of pipe inlet.					



Title:	Site 9 - Channel C3-B	File:	HPM0225.JPG	Date:	8/15/2006 16:47
Desc:					
Facing SEasterly; facing upstream from headwall in Photo 2224. Riprap channel has large cut adjacent to channel.				Slide:	2225



Title:	Site 9 - Channel W1-B	File:	HPM0226.JPG	Date:	8/15/2006 16:50
Desc:					
Facing southerly; Downstream end of twin 36 inch RCP's under Rio Wrangler. Poorly constructed RCP/headwall interface. PCC has flaked away from RCP pipe on left. Form rod holes not filled. Safety grates no longer applicable to current Reno Standard Details.					



Title:	Site 9 - Channel W1-B	File:	HPM2227.JPG	Date:	6/15/2006 16:53
Desc:	Facing southerly; Downstream end of twin 36 inch RCP's under Rio Wrangler. Poorly constructed RCP/headwall interface. PCC has flaked away from RCP pipe on left. Form rod holes not filled. Safety grates no longer applicable to current Reno Standard Details.				
				Slide:	2227



Title:	Site 9 - Channel W1-B	File:	HPM2228.JPG	Date:	6/15/2006 16:52
Desc:	Facing Southerly; portion of W1-B channel downstream of Rio Wrangler. Temporary channel crossing with steel pipe. This pipe apparently overtopped during the new year's Day Flood as a channel has been cut in the road to direct overtopping.				
				Slide:	2228



Title:	Site 9 - Channel W1-B	File:	HPM2229.JPG	Date:	8/15/2008 16:54	
Desc:					Slide:	2229
Facing Westery, portion of channel downstream of Rio Wrangler... below temporary crossing. Storm flow from adjacent undeveloped parcel has eroded, contributing sediment to the channel and undermined the riprap.						



Title:	Site 9 - Channel W1-B	File:	HPM2230.JPG	Date:	8/15/2008 16:54	
Desc:					Slide:	2230
Facing NWesterly, portion of channel directly below the temporary crossing. Poodly constructed riprap channel has collapsed at left bank. There is no underlayment apparent in this portion of collapsed bank.						



Title	Site 2 - Detention Basin	File	HPIM2231.JPG	Date	8/22/2006 8:26	
Desc:					Slide	2231

Facing Easterly, inlet of 18" PVC. This is a pipe that the developer put in that connects the irrigation return flow ditch into the detention basin. This was the same site as recorded on the 08/15/06 visit and documented in Photo's 2184 to 2188.



Title	Site 2 - Detention Basin	File	HPIM2232.JPG	Date	8/22/2006 8:27	
Desc:					Slide	2232

Facing SEasterly, same location as Photo 2231. Developer has backfilled and ripraped the erosion gully that was documented on 08/15/06 site walk (see description for Photo 2231).



Title:	Site 2 - Detention Basin	File:	HPM02233.JPG	Date:	8/22/2006 8:27
Desc:	Facing Easterly; riprapped and regraded slopes of detention basin on south side. Detention basin slopes have been regraded and riprapped along the entire length of the south side of the detention basin. The access road has also been regraded. No visible signs of underlayment or riprap bedding.				
				Slide:	2233



Title:	Site 2 - Detention Basin	File:	HPM02234.JPG	Date:	8/22/2006 8:27
Desc:	Facing NEasterly; same location as Photo 2233. A drainage channel has been cut into the drainage basin from the irrigation return flow. Note that water from this source flows out the low flow outlet of the detention basin.				
				Slide:	2234



Title	Site 1 - Diversion Structure	File	HPM02235.JPG	Date	8/22/2008 8:40
Desc:	Facing NWesterly; rock on slope at North end of diversion structure.				



Title	Site 1 - Diversion Structure	File	HPM02236.JPG	Date	8/22/2008 8:43
Desc:	Facing Southerly; hot spring at bottom of diversion structure. The spring appears to be coming from underneath the PCC diversion structure. Spring discharges to Steamboat Creek.				



Title:	Site 1 - Diversion Structure	File:	HPM2231.JPG	Date:	8/22/2008 8:43
Desc:					
Facing Southerly; bottom of diversion structure on the Steamboat Creek side.					



Title:	Site 1 - Diversion Structure	File:	HPM2234.JPG	Date:	8/22/2008 8:45
Desc:					
Facing Northerly; interface of sloping PCC apron of diversion structure and flared wingwall. Note degradation of PCC apron.					



Title:	Site 1 - Diversion Structure	File:	HPIM2238.JPG	Date:	8/22/2008 8:53
Desc:	Facing NWesterly; top corner of diversion structure at the North end on the detention basin side. Corner of PCC has broken.				



Title:	Site 1 - Diversion Structure	File:	HPIM2240.JPG	Date:	8/22/2008 8:55
Desc:	Facing Southerly; South end of the soil cement where it meets the natural grade on upstream, eastern bank of Steamboat Creek. Note coarse sandy, non-cohesive material.				



Title:	Site 2 - Detention Basin	File:	HPM2241.JPG	Date:	8/22/2006 9:09	
Desc:					Slide:	2241

Facing Westwely; taken from the SE corner of the detention basin. Shows the regraded and rgrapped side slopes and the regraded access road. Access road is not stabilized.



Title:	Site 3 - Detention basin outlet structure	File:	HPM2242.JPG	Date:	8/22/2006 9:26	
Desc:					Slide:	2242

Facing Westwely; water seepage from behind wall. This water appears to be associated with the irrigation of the greenspace on the bridge.



Title	Site 7 - Channel C-7	File	HPIM2244.JPG	Date	8/22/2008 9:44
Desc:					
Facing Westerly; downstream outlet of RCB's under Rio Wrangler. Safety grate on SD outlet no longer applicable per Reno Standard Details. Channel is earthen with no vegetation. No riprap stabilization of accessramp in bottom foreground of photo.					



Title	Site 7 - Channel C-7	File	HPIM2245.JPG	Date	8/22/2008 9:46
Desc:					
Facing Easterly; from opposite bank of channel in Photo 2243. Flow from SD and eastern RCB will directly impact the access road ramp. No riprap stabilization.					



Title:	Site 7 - Channel C-7	File:	HPM0246.JPG	Date:	8/22/2006 9:48	
Desc:					Slide:	2245
Facing Northerly; construction in channel C-7 downstream of Rio Vista.						



Title:	Site 11 - Channel SE-4A	File:	HPM0247.JPG	Date:	8/22/2006 10:03	
Desc:					Slide:	2246
Facing NEasterly; channel C-5 and inlet to RCB's under Rio Wrangler. Riprap stabilization of box culvert inlets. Access ramp in foreground of photo. Riprap protection of side slopes.						



Title	Site 11 - Channel SE-8A	File	HPM2248.JPG	Date	8/23/2008 10:05	
Desc:					Slide	2247

Facing Southerly; first grade control sill up gradient of Rio Wrangler. Riprap is discontinuous at the end of the control sill. Rocker wall encroaches into channel.



Title	Site 11 - Channel SE-8A	File	HPM2249.JPG	Date	8/23/2008 10:05	
Desc:					Slide	2248

Facing SEasterly; looking up gradient. Series of grade control sills. Note no riprap protection at southern ends of control sills and rocky wall encroaches into channel for the entire length. Vegetation density is moderate.



Title:	Site 11 - Channel SE-8A	File:	HPM0250.JPG	Date:	8/22/2006 10:09	
Desc:					Slide:	2249

Facing SEasterly; exposed end of grade control sill along south side of channel. Note that the PCC control sill ends -1.5 feet from the bottom of the rocky wall.



Title:	Site 11 - Channel SE-8A	File:	HPM0251.JPG	Date:	8/22/2006 10:10	
Desc:					Slide:	2250

Facing SEasterly; exposed end of grade control sill along south side of channel. Note that the PCC control sill ends -2 feet from the bottom of the rocky wall. No riprap protection.



Title	Site 11 - Channel SE-8A	File	HPIM0252.JPG	Date	8/23/2008 10:11	
Desc					Slide	2251

Facing SEasterly, exposed end of grade control sill along south side of channel. Note that the PCC control sill ends ~1 feet from the bottom of the rocky wall. No riprap protection.



Title	Site 11 - Channel SE-8A	File	HPIM0253.JPG	Date	8/23/2008 10:13	
Desc					Slide	2252

Facing SEasterly, exposed end of grade control sill along south side of channel. Note that the PCC control sill ends right at the bottom of the rocky wall. Rockery wall encroaches into flood channel.



Title:	Site 11 - Channel SE-8A	File:	HPM2254.JPG	Date:	8/22/2008 10:12
Desc:					
Facing Easterly; poorly constructed riprap and protection of control sill. No sign of riprap underlayment or bedding.					



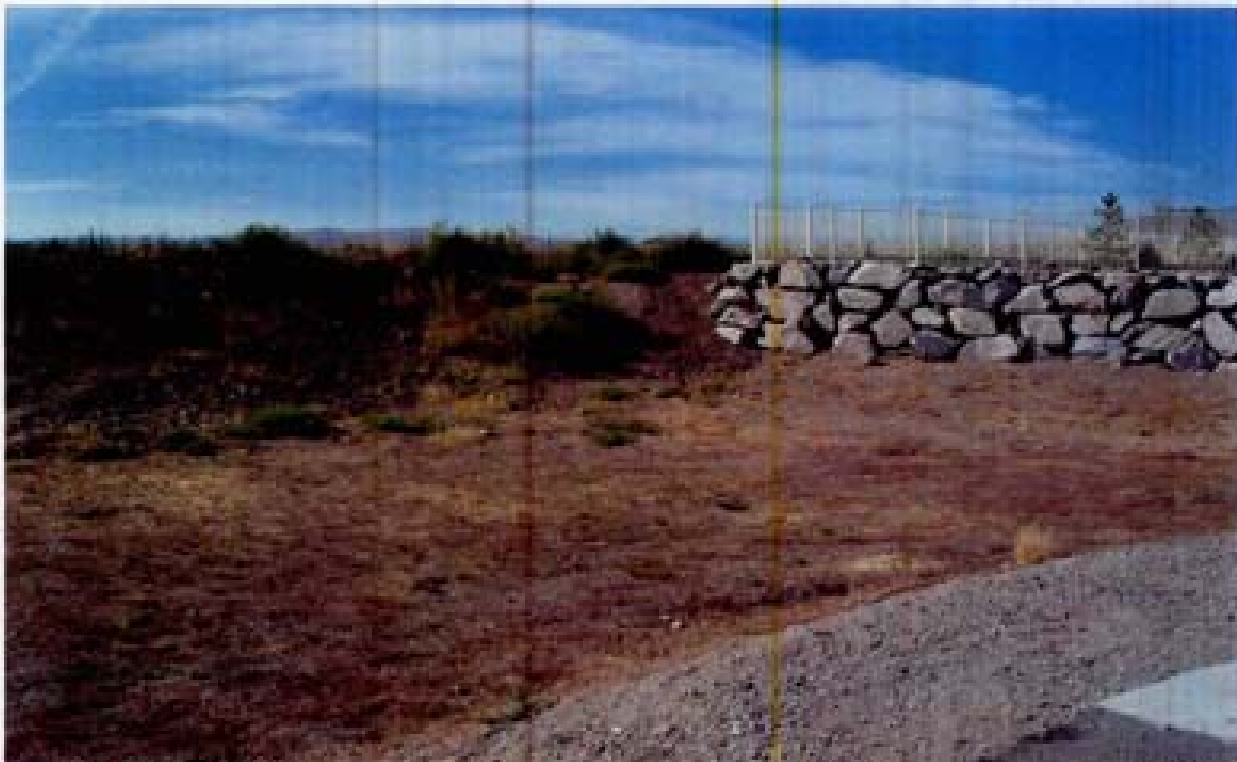
Title:	Site 11 - Channel SE-8A	File:	HPM2255.JPG	Date:	8/22/2008 10:13
Desc:					
Facing SEasterly; grade control sills. No riprap protection of end of control sills. Rockery wall encroaches into flood channel.					



Title:	Site 11 - Channel SE-8A	File:	HPIM2256.JPG	Date:	8/22/2008 10:15	
Desc:					Slide:	2255
Facing Northerly; intersection of channel SE-8A and South boundary collection channel. Pedestrian path too sharp for a vic truck to make the turn. Vegetation is sparse to moderate density.						



Title:	Site 11 - Channel SE-8A	File:	HPIM2257.JPG	Date:	8/22/2008 10:15	
Desc:					Slide:	2256
Facing Northerly; facing down gradient. Rockery wall encroaches into channel for the entire length.						



Title:	Site 11 - Channel SE-8A	File:	HPM2258.JPG	Date:	8/22/2008 10:17
Desc:	Facing Southerly; intersection of South boundary channel and channel SE-8A. Channel makes a sharp 90 degree turn. Flood flow in this picture would be from left to right and would be pointed directly at the rocky wall. No riprap protection of steep 2:1 slope of south boundary channel.				
				Slide:	2257



Title:	Site 11 - Channel W-3	File:	HPM2259.JPG	Date:	8/22/2008 10:24
Desc:	Facing SEasterly; downstream side of RCB culverts under Rio Wrangler. Small gully erosion from the SD outlet. Vegetation is sparse. Safety grate on outlet of SD is no longer applicable per current Reno Standard Details.				
				Slide:	2258



Title	Site 11 - Channel W-3	File	HPIM2260.JPG	Date	8/23/2006 10:24	
Desc:					Slide	2259
Facing SEasterly; same as Photo 2258. Riprap on slope of access ramp.						



Title	Site 11 - Channel W-3	File	HPIM2261.JPG	Date	8/23/2006 10:26	
Desc:					Slide	2260
Facing Easterly; inside RCB under rio Wrangler.						



Title	Site 11 - Channel W-3	File	HPM2263.JPG	Date	8/23/2006 15:33	
Desc:					Slide	2261
Facing Easterly; access ramp AC. Gravel shoulder not compacted to grade of edge of AC. AC is 2 inches thick.						



Title	Site 10 - Channel W-3	File	HPM2264.JPG	Date	8/23/2006 16:45	
Desc:					Slide	2262
Facing NWesterly; downstream end of channel W-3. New riprap end protection where channel outlets to pedestrian path. New PVC low flow culverts installed in saw cut section of PCC pedestrian path. Geotextile under riprap. Note no thickened end at upstream side of riprap/earthen channel intersection. Riprap is placed on bottom of channel only.						



Title:	Site 10 - Channel W-3	File:	HPIM2265.JPG	Date:	8/22/2006 10:45
Desc:				Slide:	2263
Facing Northerly; same as Photo 2262.					



Title:	Site 10 - Channel W-3	File:	HPIM2266.JPG	Date:	8/22/2006 10:45
Desc:				Slide:	2264
Facing Westerly; same as photo 2263. Side of channel denuded of vegetation from construction access. Note sawcut portion of PCC in right of picture.					



Title	Site 10 - Channel W-3	File	HPM2267.JPG	Date	8/22/2006 10:46	
Desc					Slide	2265
Facing NWesterly, same as photo 2264.						



Title	Site 10 - Channel W-3	File	HPM2268.JPG	Date	8/22/2006 10:48	
Desc					Slide	2266
Facing Southerly, outlet of low flow culverts at end of channel W-3. Poorly placed riprap with no visible signs of underlayment or bedding. The PVC culvert will develop tailwater from riprap, is very shallow slope and will likely be prone to sedimentation and clogging during frequent storms.						



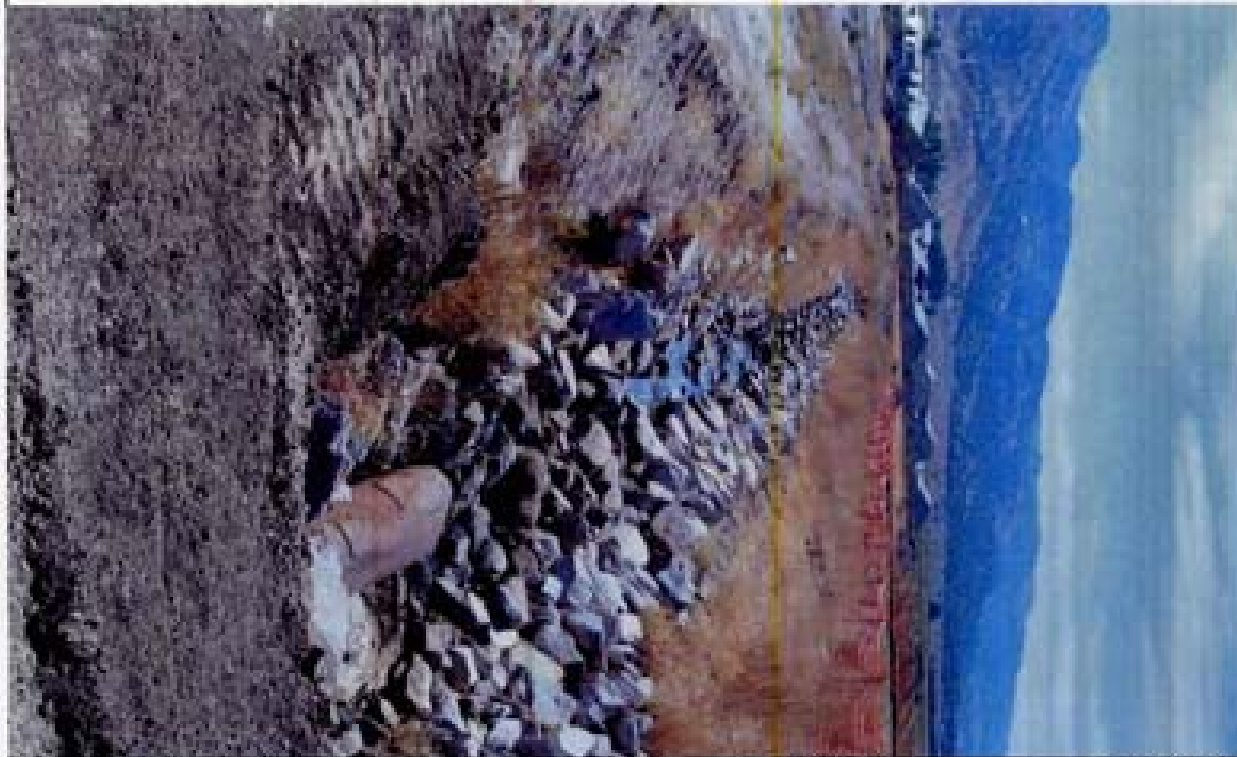
Title:	Site 8 - Channel W1-B	File:	HPIM0260.JPG	Date:	8/22/2006 10:54	
Desc:					Slide:	2267
Facing Easterly; end of channel W1-B. Newly constructed low flow PVC culverts under sawcut portion of pedestrian path.						



Title:	Site 8 - Channel W1-B	File:	HPIM0270.JPG	Date:	8/22/2006 10:55	
Desc:					Slide:	2268
Facing SEasterly; portion of channel W1-B just up gradient of pedestrian path. Temporary crossing with steel pipe visible in center of photo.						



Title:	Site B - Channel W1-B	File:	HPM2271.JPG	Date:	8/22/2006 10:56	
Desc:					Slide:	2269
Facing NEasterly; inlet of low flow PVC pipes with FES. Same location as Photo 2268.						



Title:	Site B - Channel W1-B	File:	HPM2272.JPG	Date:	8/22/2006 10:56	
Desc:					Slide:	2270
Facing SWesterly; channel to the south of the temporary access road crossing shown in photo 2268. Note exposed geotextile in bottom of channel in center of photo. Some channel degradation of riprap on left channel slope. Riprap does not extend completely up sides of channel slope.						



Title:	Site 13 - SD out of Village 16	File:	HPIM2273.JPG	Date:	8/22/2006 12:45	
Desc:					Slide:	2271

Facing Easterly, outlet of SD and headwall. Heavy growth at culvert outlet. Riprap around headwall is intermittent and geotextile is exposed. Some degradation to corner and side of headwall is visible.



Title:	Site 13 - SD out of Village 16	File:	HPIM2274.JPG	Date:	8/22/2006 12:45	
Desc:					Slide:	2272

Facing Easterly, outlet of RCP and headwall. The RCP/headwall interface has been refinished. Air voids are visible from inadequate vibration during forming. Form rod spacers have not been removed. Some repatching of headwall is visible in top left of photo.



Title	Site 13 - SD out of Village 16	File	HP1M0275.JPG	Date	8/22/2006 12:46
Desc	Facing Northerly; outlet of SD. Some riprap is visible. Flowpath is relatively free of vegetation.				



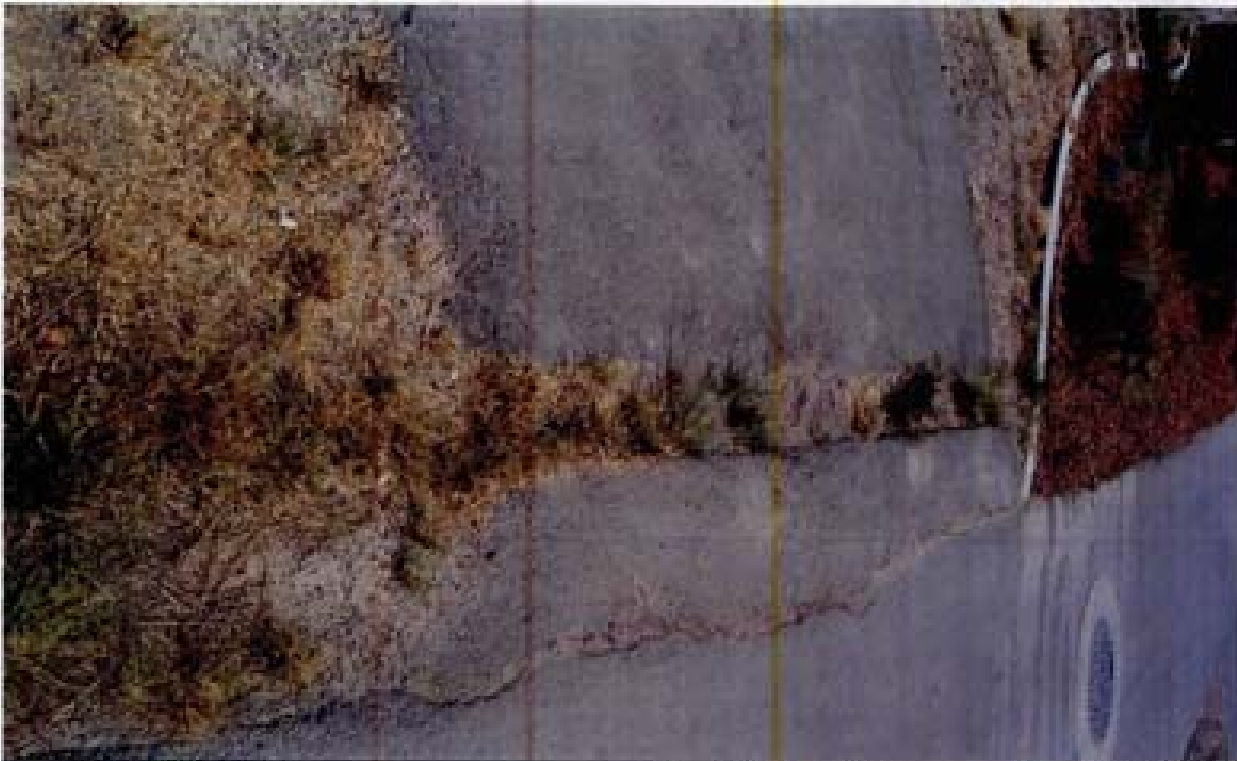
Title	Site 14 - SD out of Village 15	File	HP1M0276.JPG	Date	8/22/2006 12:52
Desc	Facing Westerly; headwall at outlet of SD. Heavy vegetation and safety gate are visible.				



Title	Site 14 - SD out of Village 15	File	HPM2277.JPG	Date	8/22/2008 12:53
Desc:					
	Facing down from top of headwall at SD outlet. Some PCC has been washed away from the RCP/headwall interface. End safety grate has trapped some debris/trash inside the RCP SD.				



Title	Site 14 - SD out of Village 15	File	HPM2278.JPG	Date	8/22/2008 12:53
Desc:					
	Same as above. Photo 2275. Close up.				



Title	Site 14 - SD out of 15	File	HPM2275.JPG	Date	8/22/2006 12:56	
Desc:					Slide	2277

Facing Westerly; top of access ramp to headwall and SD outlet. AC access ramp has been sawcut at the top and not patched.



Title	Site 14 - SD out of 15	File	HPM2280.JPG	Date	8/22/2006 12:57	
Desc:					Slide	2278

Facing Northerly; same location as photo 2277; AC sawcut in foreground. Heavy vegetation at culvert outlet. Headwall/wingwall visible. AC access ramp is not paved to the extent of the wingwall. Access ramp is open to public.



Title	Site 16 - SD out of Village 14	File	HPIM0281.JPG	Date	8/22/2006 13:05
Desc:	Facing Northerly; outlet of PVC SD. Headwall and safety grate are visible. Riprap ed protection is visible. The riprap is non-fractured face and uniform in width to length ratio.				
				Slide	2279



Title	Site 16 - SD out of Village 14	File	HPIM0282.JPG	Date	8/22/2006 13:06
Desc:	Facing Westerly; outlet of PVC SD. Headwall/PVC interface is not flush. There are lots of air voids on the face of the headwall.				
				Slide	2280



Title	Site 16 - SD out of Village 14	File	HPM2283.JPG	Date	8/22/2006 13:06	
Desc:					Slide	2281
Facing Westerly. Outer face of headwall. More air voids in face of headwall. Note the poor finishing of the PCC along the top of the headwall.						



Title	Site 17 - SD out of Village 14	File	HPM2284.JPG	Date	8/22/2006 13:21	
Desc:					Slide	2282
Facing straight down at top of headwall. Heavy vegetation growth. Top of safety grate is barely visible.						



Title:	Site 18 - RCB outlet across from Damonite High School	File:	HPIM0285.JPG	Date:	8/22/2008 13:33	
Desc:					Slide:	2283
Facing SEasterly; wingwall of twin RCB's and RCP SD. Face of headwall/wingwall has been refinished. Riprap is non-fractured face and some are of uniform length/width ratio.						



Title:	Site 18 - RCB outlet across from Damonite High School	File:	HPIM0286.JPG	Date:	8/22/2008 13:33	
Desc:					Slide:	2284
Facing SEasterly; outlet of twin RCB's. Heavy vegetation growth at outlet.						



Title:	Site 18 - RCB outlet across from Damonte High School	File:	HPM2287.JPG	Date:	8/22/2008 13:34	
Desc:					Slide:	2285
Facing SEasterly; intersection of headwall/wingwall. This is a crack that runs from top to bottom and appears to run from front to back of the wingwall.						



Title:	Site 18 - RCB outlet across from Damonte High School	File:	HPM2288.JPG	Date:	8/22/2008 13:36	
Desc:					Slide:	2286
Facing Northerly; south side of the headwall/wingwall. The RCP is visible in the center of the photo.						



Title:	Site 18 - RCB outlet across from Damonite High School	File:	HPM02289.JPG	Date:	8/22/2008 13:37	
Desc:					Slide:	2287
Facing NEasterly; Outlet of sd. The face has been refinished at the SD/headwall interface.						



Title:	Site 18 - RCB outlet across from Damonite High School	File:	HPM02290.JPG	Date:	8/22/2008 13:37	
Desc:					Slide:	2288
Facing Northerly; front face of the headwall/wingwall intersection. Large crack at the section where the headwall is formed with the wingwall. This crack is large (can fit a nickel) and appears to go through the thickness of the wingwall.						



Title:	Site 19 - Intersection of Rio Wrangler and Steamboat Parkway	File:	HPM2291.JPG	Date:	6/22/2006 13:47
Desc:					
Facing East; outlet of RCP. This headwall is poorly formed or was constructed from some sort of pre-cast material.					



Title:	Site 19 - Intersection of Rio Wrangler and Steamboat Parkway	File:	HPM2293.JPG	Date:	6/22/2006 13:47
Desc:					
Same as Photo 2289.					



Title:	Site 19 - Intersection of Rio Wrangler and Steamboat Parkway	File:	HPIM2294.JPG	Date:	8/22/2006 13:49	
Desc:					Slide:	2291

Facing Southerly, outlet of five RCB's under Steamboat Parkway. The designation B-2732 is an NDOT numbering indication that this bridge has been inspected by NDOT and added to the national Register of Bridges.



Title:	Site 19 - Intersection of Rio Wrangler and Steamboat Parkway	File:	HPIM2295.JPG	Date:	8/22/2006 13:51	
Desc:					Slide:	2292

Facing Easterly, downstream outlet of RCB's. The riprap apron at the end of the PCC wingwall apron appears to be highly disturbed or poorly constructed. The vegetation in the left background is masking an earthen berm that forms a channel that the RCP SD pictured in photo 2290 discharges into.



Title:	Site 19 - Intersection of Rio Wraspler and Steamboat Parkway	File:	HPM2296.JPG	Date:	8/22/2008 13:53	
Desc:					Slide:	2293
Facing Westery; upstream apron, wingwall, and headwall of the 5 RCOT's.						



Title:	Site 20 - bridge crossing under Rio Wraspler South of Steamboat Parkway	File:	HPM2297.JPG	Date:	8/22/2008 13:59	
Desc:					Slide:	2294
Facing NWestery; upstream inlet of 4 RCOT's. Channel is eaten with water ~0.5 feet deep.						



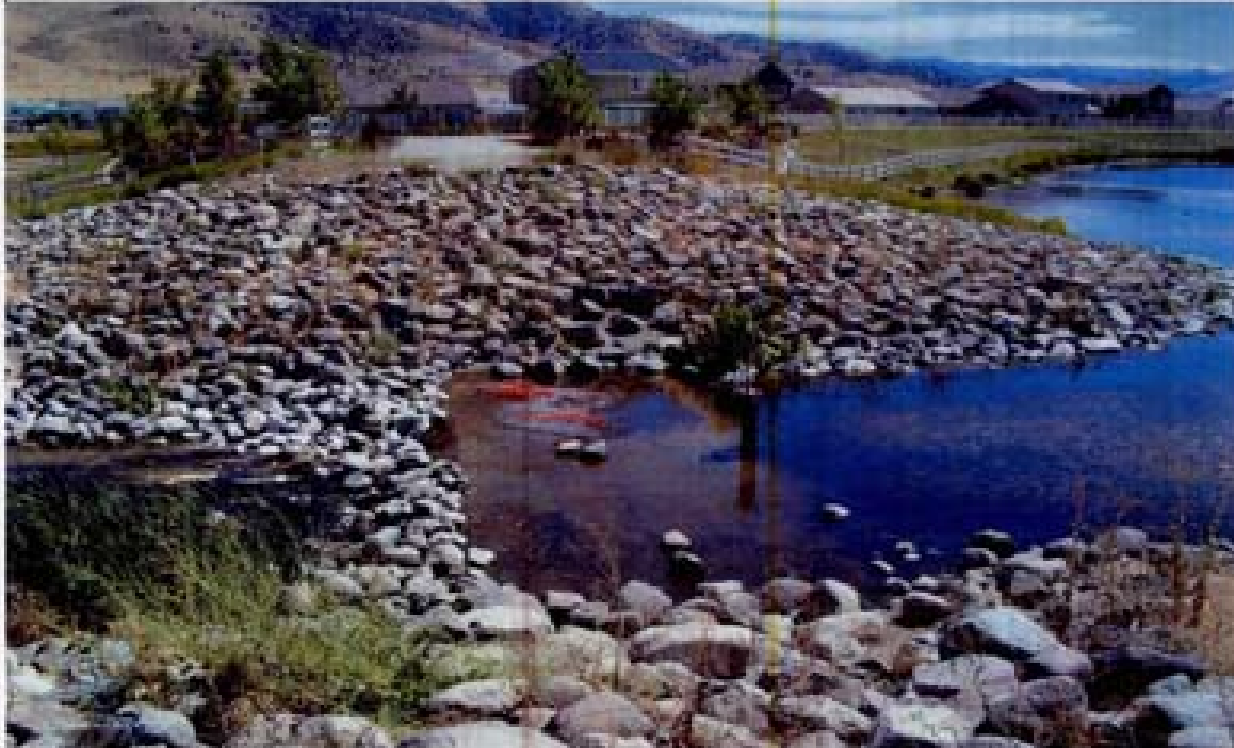
Title:	Site 20 - bridge crossing under the Winder South of Steamboat Parkway	File:	HP1M2298.JPG	Date:	8/22/2008 14:01
Desc:	Facing Northerly; outlet of 4 RCB's. Riprap stabilization at outlet. Riprap is angular with fractured faces and good length/width ratios of ~ 2:1. There is no visible signs of bedding or geotextile underlayment. End of channel has a fiber roll installed that is causing the backwater and appears to have been installed as an sediment control BMP. The riprap extends about ~12 feet down from the outlet.				



Title:	Site 20 - bridge crossing under the Winder South of Steamboat Parkway	File:	HP1M2299.JPG	Date:	8/22/2008 14:01
Desc:	Facing NWesterly; same as above photo 2298.				



Title:	Site 21 - PVC SD outlet	File:	HP1M2301.JPG	Date:	8/23/2006 14:03
Desc:				Slide:	2297
Facing Northerly; outlet of PCV SD (?). Outlet of PVC pipe. Source of pipe not apparent in field walk.					



Title:	Site 15 - weir from DE3 to DE1 pond	File:	HP1M2302.JPG	Date:	8/23/2006 14:13
Desc:				Slide:	2298
Facing SEasterly; PCC/riprap broadcrested weir. Construction debris on PCC weir. Riprap is no fractured face, shows poor length to width ratio, and appears to have been placed in single layer. Some riprap has been moved around.					



Title:	Site 15 - weir from DEJ to DE1 pond	File:	HPIM2303.JPG	Date:	8/22/2006 14:13
Desc:	Facing NWesterly; access road/ramp. Same location as Photo 2298. Access road/ramp is not stabilized.				



Title:	Site 15 - weir from DEJ to DE1 pond	File:	HPIM2304.JPG	Date:	8/22/2006 14:13
Desc:	Facing Westerly; side slope of overflow weir. Same comments as Photo 2298. The rock has been displaced, exposing the gravel bedding.				



Title:	Site 15 - weir from DE3 to DE1 pond	File:	HPM2305.JPG	Date:	8/23/2008 14:14	
Desc:					Slide:	2301

Facing NWesterly; low flow gate valve in PCC weir. The valve handle lock/chain appears to be broken. The low flow inlet is blocked with rock. Masonry blocks/tetons in upper left of photo.



Title:	Site 15 - weir from DE3 to DE1 pond	File:	HPM2306.JPG	Date:	8/23/2008 14:15	
Desc:					Slide:	2302

Facing SEasterly; southern side slope of overflow weir. The rock has been displaced exposing the gravel bedding underlayment. Rock in this section appears to be only one layer thick with the apparent median rock size ~12 inches. Same comments as Photo 2308 apply.



Title:	Site 15 - weir from DE3 to DE1 pond	File:	HP0M2308.JPG	Date:	8/22/2006 14:23	
Desc:					Slide:	2303

Facing Southerly; western side slope of weir. Rock has been displaced exposing the gravel underlayment. This is a different portion of the weir than those shown in Photo's 2302 and 2300. Same comments as Photo 2298 and 2302.



Title:	Site 20 - bridge crossing under Rio Wrenler South of Steamboat Panel	File:	HP0M2309.JPG	Date:	8/22/2006 14:34	
Desc:					Slide:	2304

Facing Easterly; earthen channel upstream of the bridge. Source of water is likely from SD outlet. New reinforced channel is being connected to earthen channel in center background of photo. Side slope of earthen channel are virtually bare of vegetation.



Title:	Site 20 - bridge crossing under Rio Grande South of Steamboat Parkway	File:	HPM2310.JPG	Date:	8/22/2006 14:34
Desc:					
Facing Northerly; north bank of earthen channel. Note the encroachment of the rocky wall into the channel. Side slopes bare of vegetation except for a few bushes.					



Title:	Site 20 - bridge crossing under Rio Grande South of Steamboat Parkway	File:	HPM2311.JPG	Date:	8/22/2006 14:34
Desc:					
Facing NWesterly; same location and comments as Photo's 2305 and 2304					



Title:	File:	HPM0312.JPG	Date:	8/23/2006 14:34	
Desc:				Slide:	2307

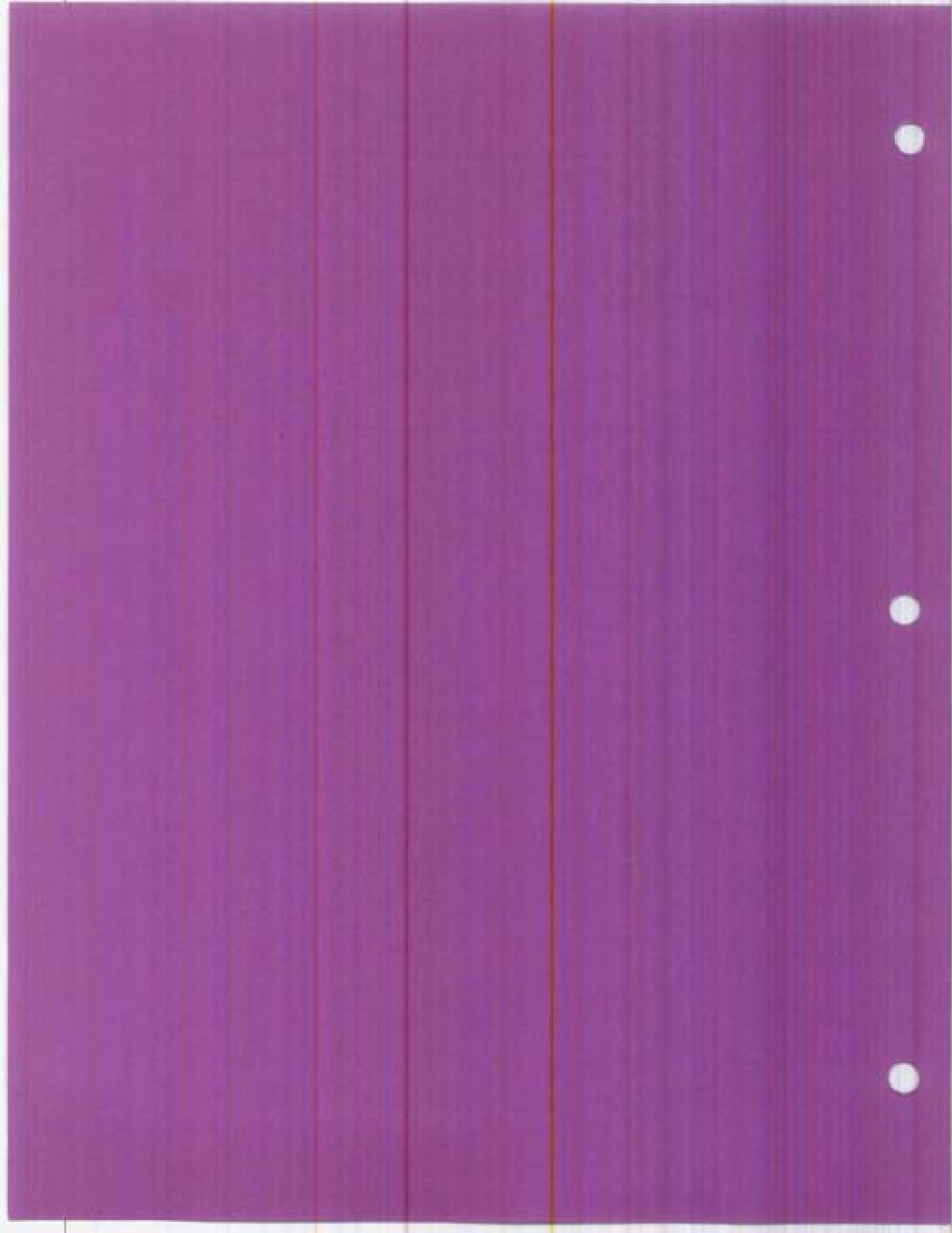


Title:	File:	HPM0313.JPG	Date:	8/23/2006 14:54	
Desc:				Slide:	2308



Title		File	HPM2314.JPG	Date	8/23/2006 14:56
Desc:				Slide	2309



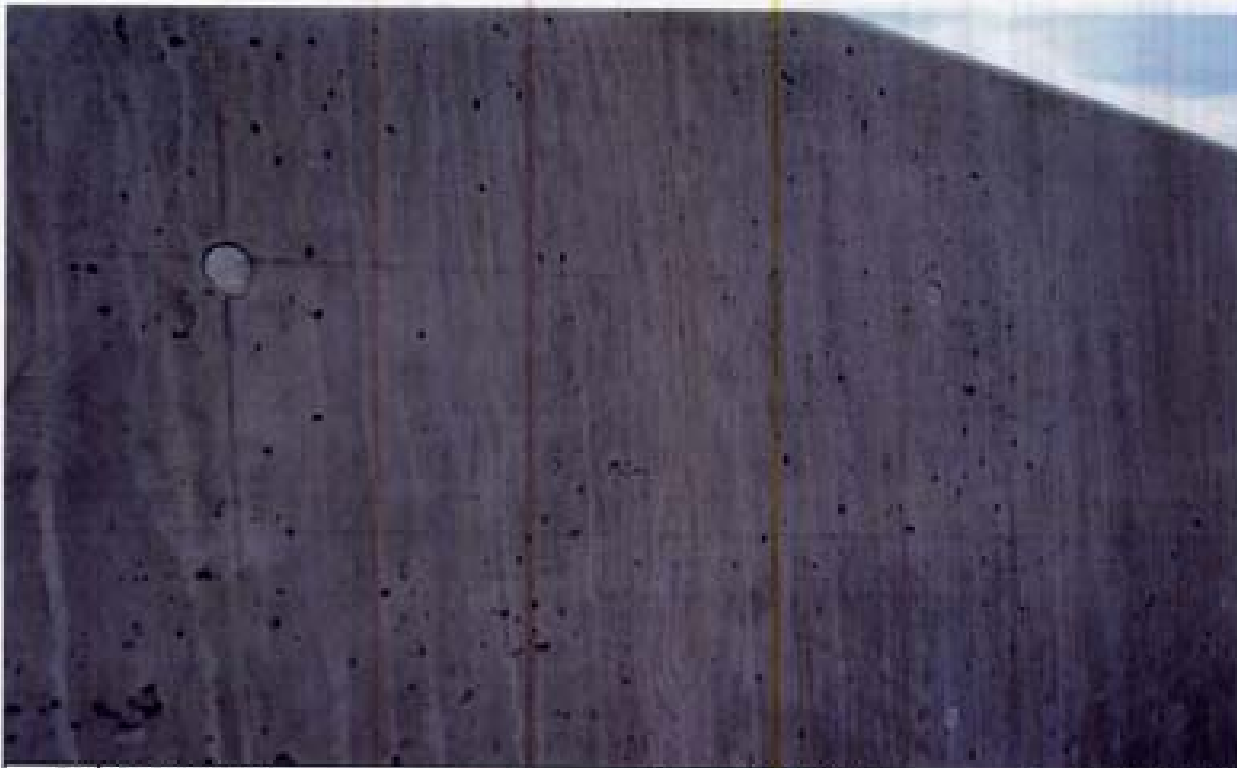




Title	Site 7 - C-5 Channel	File	P1010155.JPG	Date	9/18/2006 15:17	
Desc					Slide	1010155
Facing Northeast; beginning of C-5 Channel. Note the riprap piled in front of the grade control sill does not appear to be excavated into the channel. Vegetation is of moderate density on the side slopes and sparse to non-existent in the channel. Construction stockpile in center left of channel is spilling into the channel. Top of grade control sill is well above the channel bottom on the upstream side.						



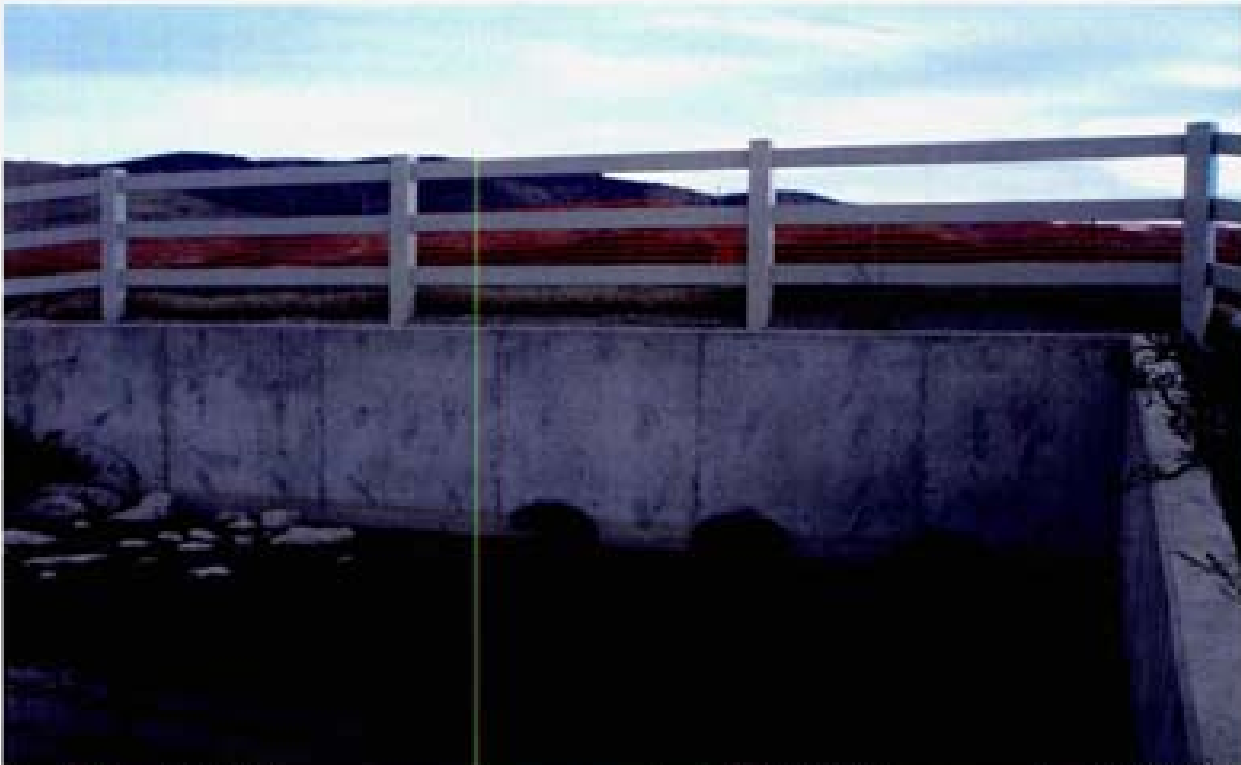
Title	Site 7 - C-5 Channel	File	P1010156.JPG	Date	9/18/2006 15:17	
Desc					Slide	1010156
Facing SWesterly; outlet of RCB into c-5 channel. Same location as Photo 1010155. Safety grate on RCP on SD outlet from headwall. There is no riprap outlet velocity protection at the outlet of the RCB.						



Title:	Site 7 - C-5 Channel	File:	P1010157.JPG	Date:	9/18/2006 15:17
Desc:					
Facing SWesterly; close up of headwall at same location as Photo 1010156. Some air voids in the headwall.					



Title:	Site 7 - C-5 Channel	File:	P1010158.JPG	Date:	9/18/2006 15:17
Desc:					
Facing Westerly; second grade control sill downstream of RCB outlet. The grade upstream of the sill appears to be the same as downstream of the sill. This is consistent with what is observed at the first grade control sill in Photo 1010150. There are no visible signs of riprap underlayment.					



Title:	Site 6 - Channel C-7	File:	P1010171.JPG	Date:	9/18/2006 15:17
Desc:	Facing SEasterly; outlet of C-7 channel into mitigation wetland B.				



Title:	Site 6 - Channel C-7	File:	P1010172.JPG	Date:	9/18/2006 15:17
Desc:	Facing Southerly; looking up gradient of C-7 just above the outlet into Detention Basin DES. Channel appears to have been recently regraded and has no vegetation.				



Title:	Site 8 - Channel C-7	File:	P1010173.JPG	Date:	9/15/2006 15:17	
Desc:					Slide:	1010173
Facing Easterly, outlet of C-7 channel. No sign of underlayment or riprap bedding is visible. The riprap is not excavated into the channel and is not symmetrical with the trapezoidal cross-section of the channel.						



Title:	Site 8 - Channel C-7	File:	P1010174.JPG	Date:	9/15/2006 15:17	
Desc:					Slide:	1010174
Same as Photo 1010174. Close up of PVC culvert inlets.						



Title:	Site 6 - Channel C-7	File:	P1010175.JPG	Date:	9/18/2006 15:17	
Desc:					Slide:	1010175
Facing Southerly; outlet of PVC culverts from Photo 1010174.						



Title:	Site 6 - Channel C-7	File:	P1010176.JPG	Date:	9/18/2006 15:17	
Desc:					Slide:	1010176
Facing Easterly; straw bales placed for sediment control at end of C-7 channel. These hay bales are not embedded into the sub-grade and do not appear to be staked in.						



Title:	Site 6 - Channel C-7	File:	F1010177.JPG	Date:	9/18/2006 15:17	
Desc:					Slide:	1010177
Facing Easterly; same as photo 1010177.						

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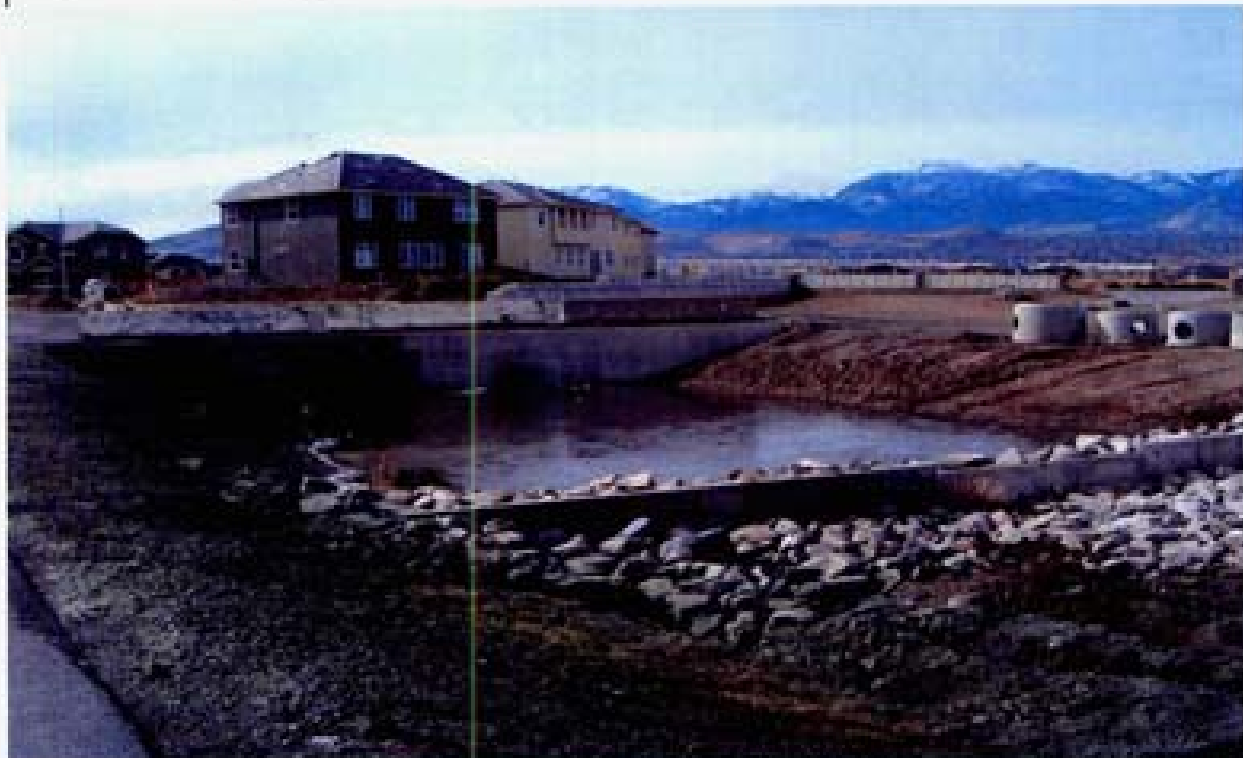
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Title:	Site 7 Channel C-5	File:	HPM02582.JPG	Date:	11/12/2006 10:59	
Desc:					Slide:	2582
Facing Northerly; outlet from RCB into beginning of C-5 Channel. Grade control sill has been constructed improperly and grading of channel is questionable and is causing water to be blocked/ponded by grade control sill.						



Title:	Site 7 Channel C-5	File:	HPM02583.JPG	Date:	11/12/2006 11:00	
Desc:					Slide:	2583
Facing Westerly; Same as above but facing the RCB outlet. Ponded water behind the grade control sill.						



Title:	Site 7 Channel C-5	File:	HPMG584.JPG	Date:	11/12/2008 11:01	
Desc:					Slide:	2584
Facing Southerly; below the first grade control sill shown in the previous slides. Rockmarks/honeycombing on PCC grade sill.						



Title:	Site 7 Channel C-5	File:	HPMG585.JPG	Date:	11/12/2008 11:01	
Desc:					Slide:	2585
Facing South; same as above slide 2584 panning right. Honeycombing and sebacks not filled in. This photo taken ~ level; note the difference in grade between the top of the grade control sill and RCB invert in background.						



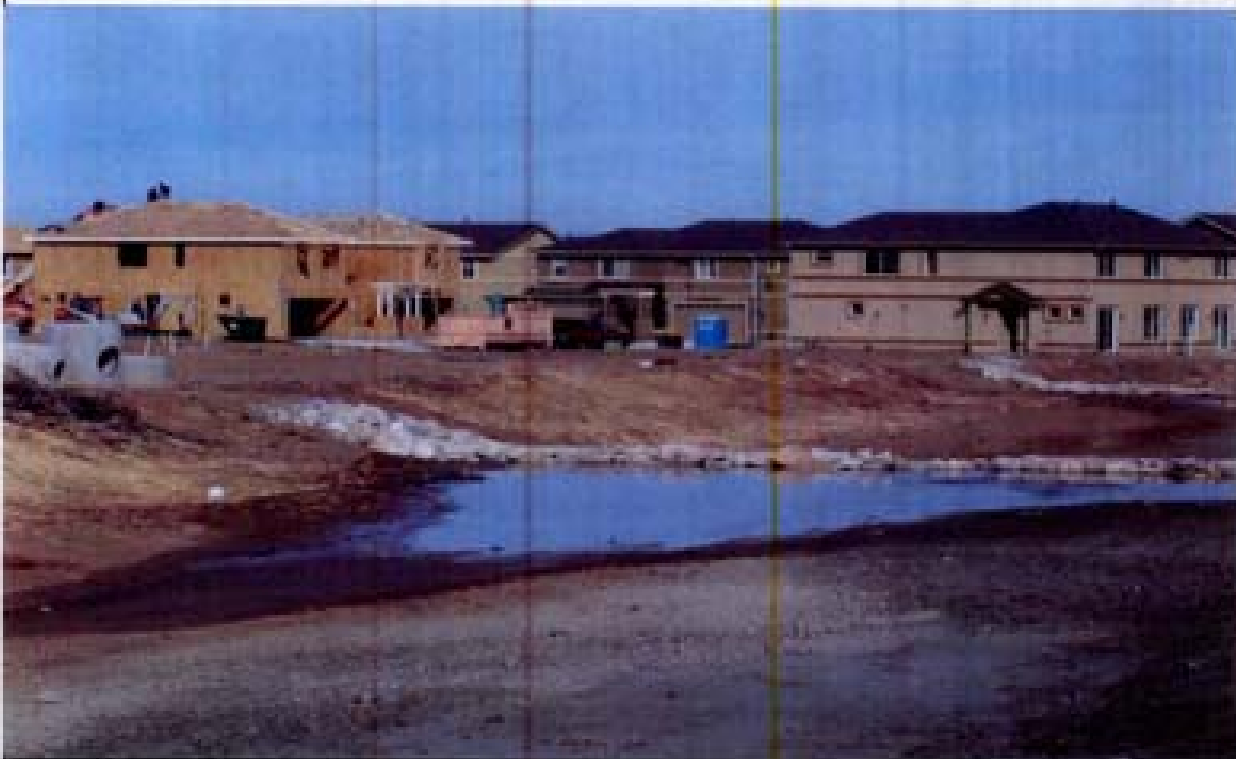
Title:	Site 7 Channel C-4	File:	HPIM2586.JPG	Date:	11/12/2006 11:01
Desc:	Facing Westerly, same as slides 2584 and 2585 panning right.				



Title:	Site 7 Channel C-5	File:	HPIM2587.JPG	Date:	11/12/2006 11:03
Desc:	Facing Easterly, riprap at end of first grade control sill. Some hydroseed on the bank.				



Title	Site 7 Channel C-5	File	HPM02588.JPG	Date	11/13/2008 11:03	
Desc:					Slide	2588
Facing Northerly, Second grade sill from beginning of channel is also constructed above channel invert and is causing water to pond. Channel bottom and right side slope has been hydroseeded.						



Title	Site 7 Channel C-5	File	HPM02588.JPG	Date	11/13/2008 11:03	
Desc:					Slide	2589
Same as above zoomed in. Note top of grade control sill spillway notch is above the channel invert on the upstream side.						



Title:	Site 7 Channel C-6	File:	HPM2390.JPG	Date:	11/12/2008 11:04	
Desc:					Slide:	2590
Facing Westerly: outlet of RCB at beginning of channel. Garbage/debris in ponded water. The headwall shows no extensive signs of honeycombing and appears to have been finished surface.						



Title:	Site 10 W-3 Channel	File:	HPM2591.JPG	Date:	11/12/2008 11:11	
Desc:					Slide:	2591
Facing Southerly: access ramp into beginning of W-3 channel. AC is cracking.						



Title:	Site 10 W-3 Channel	File:	HPM2592.JPG	Date:	11/12/2008 11:11	
Desc:					Slide:	2592
Same as slide 2591. Loose riprap has been applied to slope. Note erosion from low flows out of the 30" RCP SD (see next slide)						



Title:	Site 10 W-3 Channel	File:	HPM2593.JPG	Date:	11/12/2008 11:11	
Desc:					Slide:	2593
Facing SEasterly; outlet of RCB's under Rio Wrangler. Very little vegetation. Low flow erosion channel from 30" RCP SD.						



Title:	Site 10 W-3 Channel	File:	HPM2594.JPG	Date:	11/12/2008 11:11	
Desc:					Slide:	2594
Facing Easterly; close up of riprap and wingwall of RCB headwall. The riprap does not appear to have been "toed" into the channel bottom.						



Title:	Site 10 W-3 Channel	File:	HPM2595.JPG	Date:	11/12/2008 11:11	
Desc:					Slide:	2595
Facing Easterly; riprap appears to be of good quality with angular faces and good length to width characteristics. Hard to verify riprap layer thickness.						



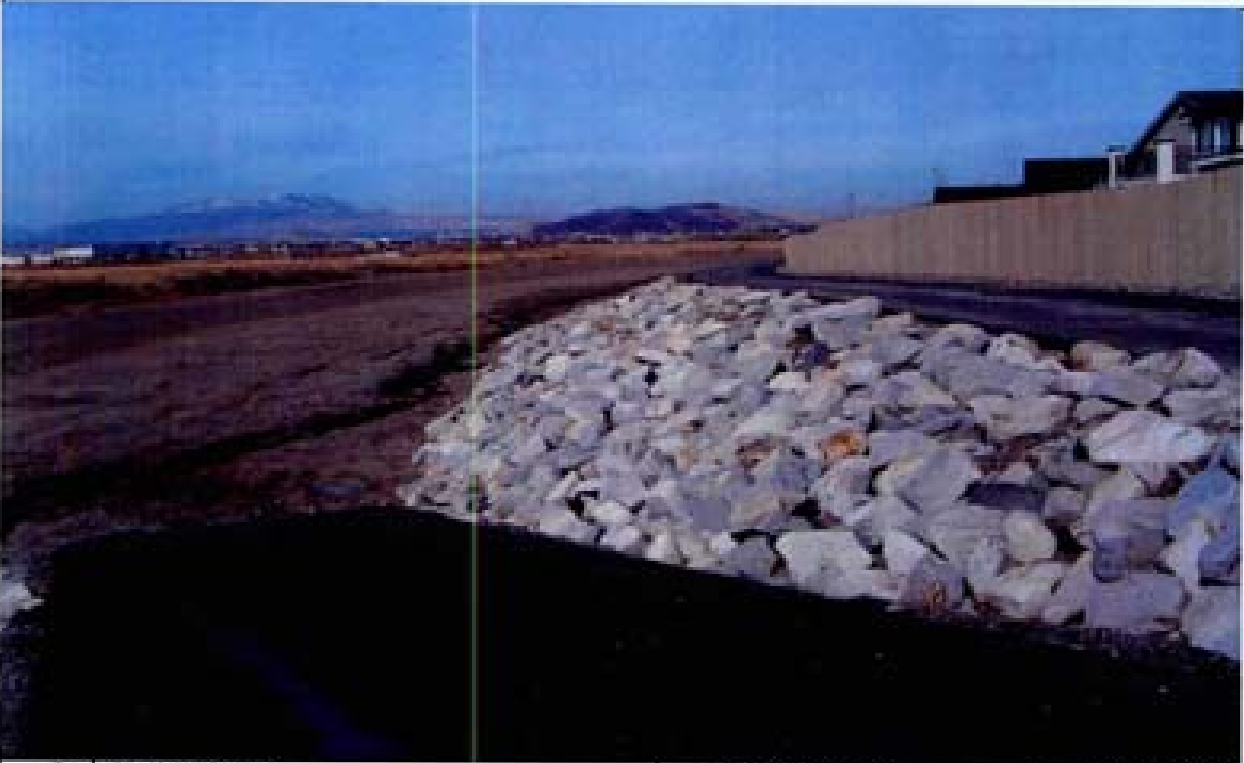
Title	Site 10 W-3 Channel	File	HPM2566.JPG	Date	11/12/2006 11:11	
Desc:					Slide	2566
Facing Northerly, same as above.						



Title	Site 10 W-3 Channel	File	HPM2567.JPG	Date	11/12/2006 11:12	
Desc:					Slide	2567
Same as above. Can see the fabric underlayment inbetween the riprap. This layer appears to be too thin.						



Title:	Site 10 W-3 Channel	File:	HPM2598.JPG	Date:	11/13/2006 11:12
Desc:					
Facing Northerly; from the access ramp pictured above. Riprap on slope downstream of the access ramp.					



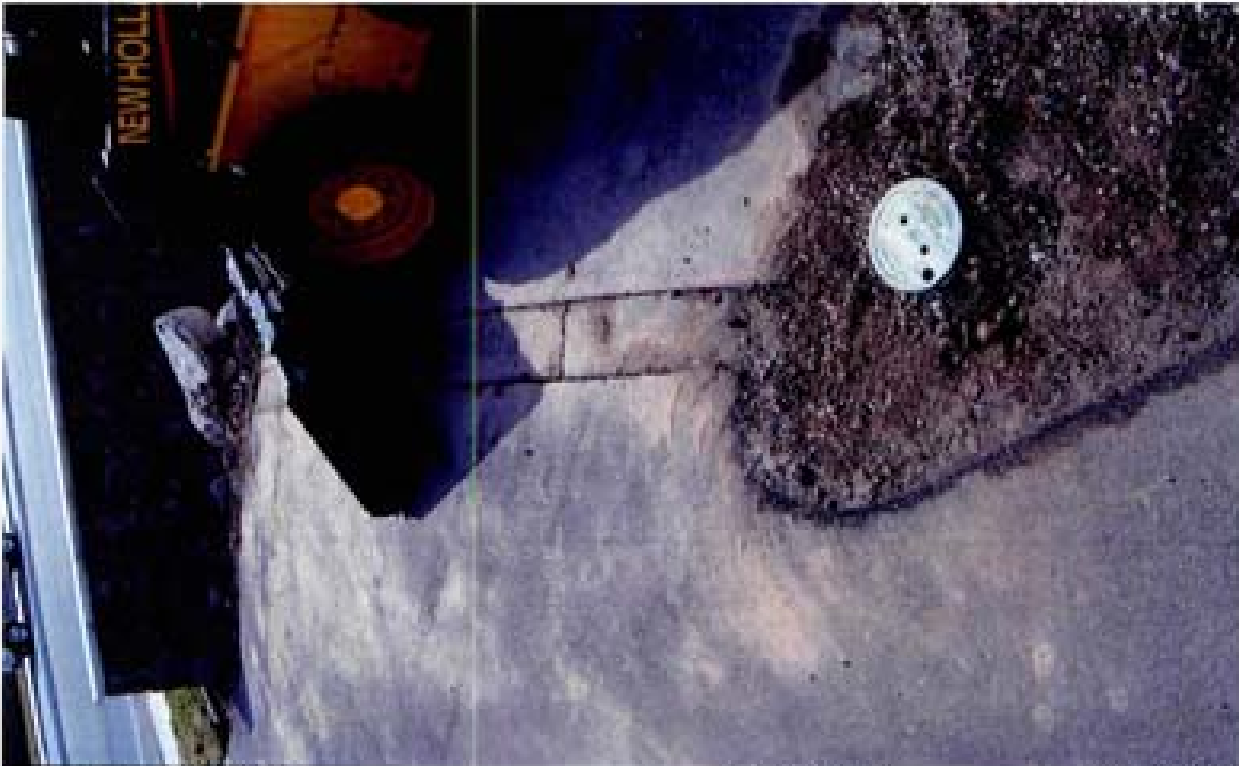
Title:	Site 10 W-3 Channel	File:	HPM2599.JPG	Date:	11/13/2006 11:12
Desc:					
Same as slide 2598. low flow erosion channel from SD extends downstream from outlet.					



Title:	Site 10 W-3 Channel	File:	HPM2600.JPG	Date:	11/12/2006 11:13
Desc:				Slide:	2600



Title:	Site 10 W-3 Channel	File:	HPM2601.JPG	Date:	11/12/2006 11:13
Desc:				Slide:	2601
Facing East: bottom of riprap slope as seen in slide 2599. Can see the fabric underlayment; this riprap layer is thin.					



Title	Site 11 SE-8A Channel	File	HPIM0602.JPG	Date:	11/12/2008 11:13	
Desc:					Slide	2602
Facing Westery; top of access ramp into W-3 channel. Sawcut across ramp appears to not have been patched; i.e. sawcut portions put back into cut.						



Title	Site 11 SE-8A Channel	File	HPIM0603.JPG	Date:	11/12/2008 11:14	
Desc:					Slide	2603
Facing Westery; top of access road into SE-8A channel. Sawcut AC appears to have the cut portions put back into the cut, i.e. inadequate AC patch.						



Title:	Site 11 SE-8A Channel	File:	HPM2604.JPG	Date:	11/12/2008 11:14
Desc:				Slide:	2604

Facing Easterly; top of access road into end of SE-8A channel. Sawcut AC appears to have the cut portions put back into the cut, i.e. inadequate AC patch.



Title:	Site 11 SE-8A Channel	File:	HPM2605.JPG	Date:	11/12/2008 11:15
Desc:				Slide:	2605

Facing Northwely; riprap on slope of access road is being constructed.



Title	Site 11 SE-8A Channel	File	HPM2606.JPG	Date	11/12/2006 11:15
Desc					
	Facing Northerly, same as above.				



Title	Site 11 SE-8A Channel	File	HPM2607.JPG	Date	11/12/2006 11:16
Desc					



Title:	Site 11 SE-8A Channel	File:	HPM2608.JPG	Date:	11/12/2009 11:16	
Desc:					Slide:	2608



Title:	Site 11 SE-8A Channel	File:	HPM2609.JPG	Date:	11/12/2009 11:16	
Desc:					Slide:	2609



Title	Site 18 Damonte High School Boundary Channel	File	HP1M0810.JPG	Date	11/12/2006 11:21	
Desc					Slide	2610
Facing southerly; close up of riprap used to line the damonte High School Boundary Channel. Riprap appears to be a very small rock with poor gradation; i.e. large amounts of small rock.						



Title	Site 18 Damonte High School Boundary Channel	File	HP1M0811.JPG	Date	11/12/2006 11:26	
Desc					Slide	2611
Facing Easterly; same location as slide 2611. Looking upstream of the boundary channel.						



Title	Site 18 Damonte High School Boundary Channel	File	HPM2612.JPG	Date	11/12/2006 11:26	
Desc:					Side:	2612
Facing Westerly, end of boundary channel into RCB culverts that discharge to the DE1 at Site 18.						



Title	Site 18 Damonte High School Boundary Channel	File	HPM2613.JPG	Date	11/12/2006 11:27	
Desc:					Side:	2613
Facing Southerly, 90 degree bend in boundary channel and PCC section below the high gradient riprap channel in background.						



Title:	Site 18 Damonte High School Boundary Channel	File:	HPIM2614.JPG	Date:	11/12/2008 11:28
Desc:	Facing Seasterly; sam location as slide 2613. 90 degree bend in channel.				



Title:	Site 18 Damonte High School Boundary Channel	File:	HPIM2615.JPG	Date:	11/12/2008 11:28
Desc:	Facing southerly; close up of portion of channel from slide 2613.				

Appendix C

Kennedy/Jenks Consultants

Technical Memorandum No. 3

Greg Dennis, P.E. and Kerri Williams-Lanza, P.E., City of Reno

25 April 2007

Appendix C

Appendix C
NEVADA DIVISION OF WATER RESOURCES
LETTER TO DILORETO CONSTRUCTION AND
DEVELOPMENT

KENNY C. GUINN
Governor

STATE OF NEVADA

ALLEN BIAGGI
Director

TRACY TAYLOR, P.E.
State Engineer



DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF WATER RESOURCES

901 S. Stewart Street, Suite 2002
Carson City, Nevada 89701
(775) 684-2800 • Fax (775) 684-2811
<http://water.nv.gov>

August 18, 2006

Perry Diloreto
Diloreto Construction and Development, Inc.
500 Damonte Ranch Parkway # 703
Reno, Nevada 89521

Re: Damonte Ranch Diversion and Storm Dams (J-545).

Dear Mr. Diloreto:

On April 27, 2006, and various dates prior, Michael J. Anderson, P.E., inspected the above listed dams. The purpose of the inspections was to determine the condition of the four (4) structures with respect to dam safety. The listed dams are classified as high hazard dams due to downstream development or activity.

Based on the engineer's observations (copy enclosed), the following corrective actions should be taken.

IMMEDIATE

The "as-built" documentation is still incomplete with only the February 2004 Black Eagle Consulting, Inc. report for the diversion structure on file. The remainder of the "as-built" documentation, proof of completion form, request for approval to impound and filing fee must be submitted as soon as possible. The weir installed upstream of the detention basin spillway was not in the approved plan set and was not otherwise authorized. Documentation must be provided showing the need for the weir and the effect on the basin hydraulics by its incorporation.

SHORT TERM (1 YEAR)

The structure has suffered significant damage in the last flood event and in the last four years. The margin between the soil-cement and weir apron must be repaired. The disturbed soil

August 18, 2006, J-545.

Page 2

must be removed and an effective cut-off placed prior to back-filling foundation material and replacing the soil cement. Extra care must be taken at the margin to achieve adequate compaction of the soil cement. The heel area between the weir and the box culverts must have an adequate cut-off installed. The downstream invert of the hot spring drain must be located and marked for inspection and future maintenance.

The riprap in the detention basin should be extended at least two feet (2') above the spillway weir elevation.

The adverse gradient below the detention basin spillway (in the "wetlands" area) must be eliminated such that water is not ponded in the spillway.

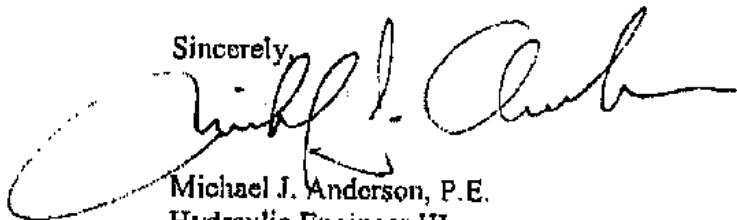
A means should be provided to monitor the structures and remove debris accumulated in the spillways and culverts.

LONG TERM (3 YEARS)

If any part of the storm water detention system is to function as a "wetlands" separate authorization is necessary. The design water depth, area of inundation and means of water control must be submitted to the State Engineer for approval. The structures were permitted as "dry" facilities with no impoundment longer than 48 hours. Any detention of water for greater lengths of time or spreading of water outside of defined drainage channels requires that an appropriation of the public waters of the state of Nevada (water right) be established for the use.

If you have any questions, please feel free to call Robert Martinez or the undersigned at (775) 684-2800.

Sincerely,



Michael J. Anderson, P.E.
Hydraulic Engineer III

MJA/sg

enc.

c.c. NATDAM
Denny Peters, City of Reno
Charles Carter, Nevada Tri Partners

August 18, 2006, J-545.

Page 3

July 18, 2002. partly cloudy day with a 20% chance of thundershowers. Warm but not over 85 degrees (yet).

Damonte Diversion and Detention Dams. A crew was placing riprap downstream of the diversion structure. Box culverts were in place with enough fill to act as an access road. Embankment did not appear to be at final elevation yet. Steamboat Creek was being diverted through the culverts via a corrugated PE pipe. Two dewatering sumps were in the area of the hot springs and were pumping into the creek. One sump was immediately downstream of the structure and to the right. "Burrito" drain was in place and daylighting at a sump below the rip-rap area with another pump lifting the water into the stream channel.

Very large riprap was being placed on the filter fabric by a front-end loader (mixed with material down to soil size, mostly +1 foot).

Concrete had been placed on left edge of the rip-rap to act as key for soil cement to be placed later.

Place to watch is a gap in the cutoff wall noted at the upstream right end of the culvert slab under the u/s invert at the end of the right wing-wall.

Met Bill ?? of Lumos who was the on-site inspector and discussed observations/deficiencies.

March 6, 2003, Windy day... going to be over 50 degrees F. High clouds.

0930 hrs. @ CDB facility, J-175 & Damonte Diversion and Detention Dams, J-465. CDB facility has been obliterated; equipment was busily making pads for houses and roads and installing utilities. No obvious evidence of new Damonte storm water diversion and detention facility. Detention Pond #2 should be in the general area.

April 1, 2004. partly cloudy, chilly, breezy and precipitation on the horizon, forecast to be in the mid 50's today.

1030 hrs. @ Damonte Diversion and Detention Dams, J-545.

Diversion dam and weir were not entirely complete. No soil-cement was in evidence anywhere in the project; Riprap was incomplete and poorly installed (1-2 foot diameter boulders directly over fabric). Filter fabric was discontinuous and tattered from indiscriminate placement of riprap and improperly prepared substrate. Detention basin had about 1-2 feet of water due to improperly installed sediment control devices at the drain. Impounded water had caused a 2-foot vertical scarp above a beached area at the heel of the embankment at the east end. Siphon and pump were installed in spillway area for truck filling. "Road" embankment was incomplete so spillway area was rendered ineffective and embankment in area was oversteep and narrow. Did not inspect downstream basins further than 100' where trees have been planted in the "levcc" section between the #1 basin spillway and #2 basin.

Geothermal expressions at heel of diversion weir, near left (north) end appeared to be washing material away from the concrete armoring and its vertical key/cutoff. Could not detect downstream invert of the drainpipe from the foundation drain.

August 18, 2006, J-545.

Page 4

June 30, 2005, clear and warm with light winds.

Karl Eitenmiller and I inspected the diversion dam and upper detention dam. The project did not appear to be complete but box culverts had been constructed at the detention basin outlet in place of the open spillway.

The detention basin embankment had suffered significant beaching on the north to northeast upstream heel area. Nuisance water has collected across nearly the entire surface of the basin to an average depth of less than a foot due to sediment control barriers and sandbags placed around the drain inlet.

The embankment for the "wetland" area had been landscaped with a path, benches, trees and other plantings. The path passes under the road through the northern-most box culvert.

The diversion structure also appeared to be unfinished, especially at the weir to embankment interface that is supposed to be covered with soil-cement. The upstream heel of the concrete weir was undercut by flow in Steamboat Creek and upwelling from local hot springs. It appeared that no cutoff wall was constructed per the plan. No downstream invert or pipe could be located for the relief drains for the hot springs. The riprap appeared to have been placed haphazardly on the filter fabric without adequate bedding material. The filter fabric was placed over improperly prepared sub grade, judging by the tears and areas where sharp stones were straining the fabric.

April 27, 2006, nice day, cool (so far), breezy and partly cloudy. Predicted to have 80-degree F temps.

J-545, Damonte Diversion and Detention Dams.

Finally got a good look at the entire system.

Brief interlude: "haul road" across east-side drain for Peavine Construction for housing development... "Ultimate" status will be as a causeway for a sewer or water main with a 12' width. Grade unknown.

Embankment was 60+ feet wide and used for large construction equipment (belly-dump scrapers, etc.). Height is about 6' high with three outlets and a secondary outlet to the west of the siphon berm (for truck filling).

East to west the outlets are 24" steel pipe (3/4 full), 36" Iron Pipe (about 1' deep) and another 24" steel pipe (perhaps 2/3 full).

100' or so east of the east outlet is a seep flowing about 20 gpm. It is flagged with a post so it is unknown if it is being monitored or just lucky enough to be at a slope stake.

Whole thing cambered noticeably to the upstream side.

Damonte Detention Dam #3 in good condition and the water impounded is minimal. Flow through box culverts is not quite enough to fill a 48" RCP "culvert" installed downstream (apparently temporary). Less nice diversion for a siphon is at the left downstream corner of the outlet.

August 18, 2006, J-545.

Page 5

Damonte Detention Dam #2 in equally good condition with a well riprapped spillway, concrete "weir" and a low-level outlet gate. Gate appears to have been fully opened. Flow through weir about 0.8' deep. Plenty of rocks and cinder blocks placed in weir area as a crossing.

Damonte Detention Dam #1 in excellent condition and reservoir area appears to have been finally finished with riprap around the "embankment" side up to about the spillway invert. Unfortunately, several trees have been planted on the embankment. Middle Reservoir not properly graded and water is backing up into the box culverts of the Upper Dam about 0.6' deep.

A strange concrete sill had been installed upstream of the box culverts about 0.5' above the culvert invert... in the plans? Riprap only extends up to this sill elevation. Outlet (drain) finally operating! No significant trouble at the outlet observed.

Damonte Diversion Dam in poor condition. Water appeared to have "just" crested the weir, perhaps 0.3' deep at the north end and maybe 0.1' deep at the south end. Concrete weir revetment not properly keyed at right and presumably left edges and was undercut in several places both upstream and downstream. Worst upstream damage in the "watch" area previously identified in 2002 inspection.

Soil cement poorly placed, not keyed in properly and of either a very weak mix or inadequate compaction. Being undercut at all margins.

The riprap downstream of the diversion structure's box culvert was already starting to ravel... no huge damage...yet. Still cannot find a drain invert.

Appendix D

Kennedy/Jenks Consultants

Technical Memorandum No. 3

Greg Dennis, P.E. and Kerri Williams-Lanza, P.E., City of Reno

25 April 2007

Appendix D

Appendix D
NDOT BRIDGE INSPECTIONS



STATE OF NEVADA
 DEPARTMENT OF TRANSPORTATION
 1263 S. Stewart Street
 Carson City, Nevada 89712

KENNY C. GUINN
 Governor

August 25, 2006

JEFFREY FONTAINE, RE., Director

In Reply Refer to:

Christopher R. Anderson, PE
 Project Manager
 Kennedy/Jenks Consultants
 5190 Neil Rd, Suite 210
 Reno, NV 89502

B2732 & B2764 - Damonte
 Ranch Subdivision Bridges

Dear Mr. Anderson:

Attached are the inspection reports for the subject bridges in the Damonte Ranch subdivision. The "Inspection Report" ratings are on a scale of 0-9 with 0 being worst condition possible and 9 being best. Comments are generally provided for items rated 7 or lower.

The "Element Condition Values" are used in PONTIS software, which is our bridge management system software. This information may not have a lot of meaning to you, but it will provide a general breakdown of how much of the structure has begun to deteriorate. Quantities of each "Element" of the structure are assigned to "Condition States" where higher-numbered states represent greater degrees of deterioration.

The "Maintenance Report" to some degree "numerically" represents the maintenance recommendations from the comments section of the Inspection Report. I would suggest you call me to discuss this information if it becomes a concern.

Should you have questions concerning the information in these reports, I can be reached at (775) 888-7545.

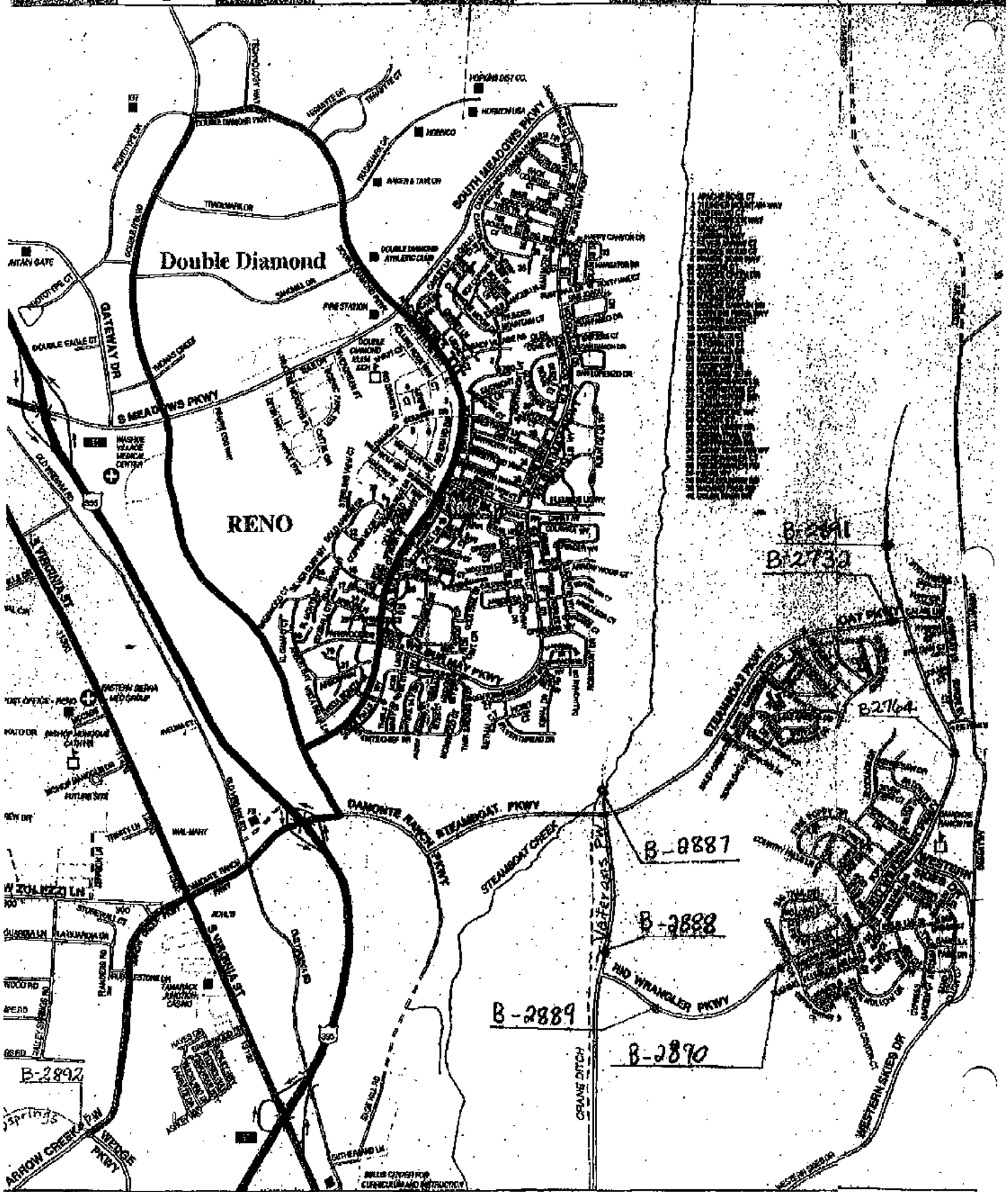
Sincerely,


 Marc S. Grunert
 Asst. Chief Bridge Engineer

Attachments

2006 AUG 28 PM 2:20

KENNEDY JENKS
 CONSULTANTS



Double Diamond

RENO

B-2891
B-2732

B-2764

B-2887

B-2888

B-2889

B-2870

B-2892



Nevada DOT Bridge Inspection Report

B2732

4/22/2006

8: Structure Number

B2732

5: Inventory Route

16000000

Inspector

MILLER/RICKSON

District

District 2

208: Structure Name

STEAMBOAT PKWY/CHANNE

219: Inspection Date

4/22/2006

Reviewer

BOSTICK

County

Washoe

58: Deck Rating N

- Wearing Surface
- Deck Struc Condition
- Curbs
- Median
- Sidewalks
- Parapet
- Railing
- Paint or Finish
- Drains
- Lighting Standard
- Utility
- Joint Leakage
- Expansion Joint/Devices

59: Superstructure Rating N

- Bearing Devices
- Stringers
- Girders or Beams
- Diaphragms or Floor Beams
- Trusses: General
- Portals
- Bracing
- Paint or Finish
- Rivets or Bolts
- Welds-Cracks
- Rust
- Timber Decay
- Concrete Cracking

59: Superstructure

- Collision Damage
- Deflection under Load
- Alignment of Members
- Vibrations under Load

Record Last Updated

5/28/2006 @ 17:58:27

60: Substructure Rating N

- Abutments
- Wings
- Backwall
- Footing
- Piles
- Erosion
- Settlement
- Piers or Bents
- Caps
- Column
- Footing
- Piles
- Scour
- Settlement

60: Substructure

- Pile Bents
- Cracking/Spalling
- Steel Corrosion
- Timber Decay, etc
- Debris on Soles
- Paint or Finish
- Collision Damages

61: Channel Rating 6

- Channel Scour
- Embankment Erosion
- Drift
- Vegetation
- Channel Change

61: Channel and Protection

- Fender System
- Sput Dikes and Jettyes
- Riprap or Slope Paving
- Adequacy of Opening

62: Culvert Rating 7

- Barrel
- Concrete (enter just one value)
- Steel
- Timber
- Headwall
- Cutoff Wall
- Adequacy
- Debris



Nevada DOT Bridge Inspection Report

B2732

4/22/2006

8: Structure Number

B2732

9: Inventory Route

160000000

Inspector

MILLER/ERICKSON

District

District 2

208: Structure Name

STEAMBOAT PKWY/CHANNE

210: Inspection Date

4/22/2006

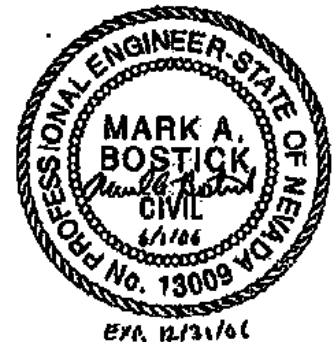
Reviewer

BOSTICK

County

Washoe

Approach Alignment	Type of Inspection
Alignment <input type="checkbox"/>	Bridgemaster <input type="checkbox"/>
Approach Slab <input type="checkbox"/>	Special <input type="checkbox"/>
Relief Joint <input type="checkbox"/>	Routine <input checked="" type="checkbox"/>
Approach:	Estimated Remaining Life <input type="text" value="48"/> years
Guardrail <input type="checkbox"/>	NBI Information:
Pavement <input type="text" value="8"/>	29: ADT <input type="text" value="750"/>
Embankment <input type="text" value="8"/>	30: Year of ADT <input type="text" value="2004"/>
Reserved <input type="checkbox"/>	36: Safety Features <input type="text" value="0000"/>
Load Rating <input type="checkbox"/>	54: Min Vert Underclearance <input type="text" value="N"/> <input type="text" value="0"/> m
Posted Load <input type="checkbox"/>	228: Next Insp Due Date (Mth Year) <input type="text" value="Apr 2008"/>
Legibility <input type="checkbox"/>	Owner <input type="text" value="City/Municipal Hwy Agenc"/>
Visibility <input type="checkbox"/>	Maintenance Responsibility <input type="text" value="City/Municipal Hwy Agenc"/>



EX. 12/31/06



Nevada DOT Bridge Inspection Report

B2732

4/22/2008

S: Structure Number	6: Inventory Route	Inspector	District
B2732	150000000	MILLER/ERICKSON	District 2
209: Structure Name	210: Inspection Date	Reviewer	County
STEAMBOAT PKWY/CHANNE	4/22/2008	BOSTICK	Washoe

Comments and Notes

Use <Control-Enter> to enter paragraph breaks

B2732

4/22/2008 ROUTINE INSPECTION COMMENTS:

INSPECTION REPORT:

CULVERT INVENTORIED WEST TO EAST.

NOTE: THE NORTH CHANNEL IS UNFINISHED.

CHANNEL SCOUR/ CHANNEL CHANGE (BOTH RATED 6): A FLUME HAS BEEN PLACED AT THE END OF THE NORTH APRON AND SAND BAGS HAVE BEEN PLACED ON THE NORTH CONCRETE APRON TO DIRECT THE CHANNEL FLOW TO THE CENTER OF THE DOWNSTREAM CHANNEL. THIS CONDITION HAS RESULTED IN SCOUR AT THE DOWNSTREAM END OF THE CONCRETE APRON EXPOSING THE VERTICAL FACE UP TO 7.6M L x 0.6M H (25' L x 2' H), WITH NO UNDERMINING. (REFER TO FILE PHOTO).

DRIFT/ VEGETATION (BOTH RATED 5) DEBRIS (RATED 6): VEGETATION ROOTED IN SEDIMENT IS OBSTRUCTING THE INLET END OF BARREL 2 AND EXTENDS INTO BARREL 2 APPROXIMATELY 2.1M (7'). THERE IS MODERATE TO HEAVY VEGETATION IN THE INLET CHANNEL.

OPENING ADEQUACY (RATED 4): THE DOWNSTREAM CHANNEL IS CONSTRICTED INTO A 0.9M (3') DIAMETER PIPE WHICH EXTENDS UNDER A GRAVEL ROADWAY USED FOR CONSTRUCTION. (REFER TO FILE PHOTO).

WATERWAY MEASUREMENTS:

WATERWAY MEASUREMENTS WERE TAKEN ALONG THE UPSTREAM (SOUTH) SIDE OF THE CULVERT AND REFERENCED TO THE TOP OF THE PARAPET.

DATE	4/22/08	4/24/04	4/22/06
LOCATION	WATERLINE	MUDLINE	MUDLINE
SIDEWALL 1	2.71M (8.9')	2.77M (9.1)'	2.77M (9.1)'
MID-SPAN 1	DRY	2.77M (9.1)'	2.44M (7.9')
DIV. WALL 1	2.71M (8.8')	2.77M (9.1)'	2.71M (8.8')
MID-SPAN 2	DRY	2.77M (9.1)'	2.88M (9.5')
DIV. WALL 2	2.71M (8.8')	2.77M (9.1)'	2.77M (9.1)'
MID-SPAN 3	2.71M (8.8')	2.77M (9.1)'	2.77M (9.1)'
DIV. WALL 3	2.71M (8.8')	2.77M (9.1)'	2.77M (9.1)'
MID-SPAN 4	2.71M (8.8')	2.77M (9.1)'	2.77M (9.1)'
DIV. WALL 4	2.71M (8.8')	2.77M (9.1)'	2.77M (9.1)'
MID-SPAN 5	2.71M (8.8')	2.77M (9.1)'	2.77M (9.1)'
SIDEWALL 2	2.71M (8.8')	2.77M (9.1)'	2.77M (9.1)'

* - MEASUREMENTS TAKEN TO THE TOP OF THE CONCRETE LINING.

BARREL CONCRETE (RATED 7): THE BARREL CONCRETE EXHIBITS CRACKING UP TO 0.4mm (1/64") WIDE AND ISOLATED CRACKS IN THE SIDEWALLS UP TO 0.8mm (1/32") WIDE. SIDEWALL 2 HAS 76mm (3") OF EXPOSED REBAR AT THE CEILING NEAR THE INLET END. THERE IS A 1.6mm (1/16") WIDE VERTICAL CRACK BETWEEN SIDEWALL 2 AND THE SOUTHEAST WINGWALL.

HEADWALL (RATED 6): THE HEADWALLS HAVE MINOR HAIRLINE WIDTH CRACKS IN THE TOP FACE. THERE IS CRACKING AT ALL FOUR CORNERS OF WINGWALL/HEADWALL JUNCTURES UP TO 0.5mm (3/16") WIDE.



Nevada DOT Bridge Inspection Report

B2732

4/22/2008

8: Structure Number	5: Inventory Route	Inspector	District
B2732	15000000	MILLER/ERICKSON	District 2
209: Structure Name	210: Inspection Date	Reviewer	County
STEAMBOAT PKWY/CHANNE	4/22/2008	BOSTICK	Washoe

MAINTENANCE REPORT:

- >REPAIR SCOUR AT OUTLET CONCRETE APRON.
- >FINISH DOWNSTREAM CHANNEL.
- >REMOVE VEGETATION FROM INLET CHANNEL, INLET END OF BARREL 2, AND FROM WITHIN BARREL 2.
- >MONITOR CRACKS IN BARREL CONCRETE, HEADWALLS AND WINGWALLS.
- >PATCH EXPOSED REBAR IN SIDEWALL 2 NEAR INLET.

Element Condition Values

Bridge: B2732 / Inspection Date: 4/22/2006 (DUMK)

Key: 0 Structure Unit ID: 0

Type: M Main

Elem / Env	Element Description	Quantity	UOM	Qty1	Qty2	Qty3	Qty4	Qty5
333 / 2	Other Bridge Railing	38.00	m.	38	0	0	0	0
241 / 2	Concrete Culvert	168.00	m.	78	89	1	0	0
361 / 2	Scour Smart Flag (ea)	1.00	ea.	1	0	0	0	0

User Maintenance Report

Structure No:
B2732
Bridge Name:
STEAMBOAT PKWY/CHANI

Inventory Route:
15000000
Inspection Date:
04/22/2006

District:
02
County:
Washoe

Deck Maintenance

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Structural Deck Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>
Wearing Surface Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>
Expansion Joint Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>
Drain Cleaning/Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>
Parapet/Rail Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>
Curbs, Median, Sidewalk:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>

Superstructure Maintenance

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Girder, Floorbeam, Stringer:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>
Truss Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>
Bearing Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>
Diaphragm Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>
Paint/Finish Maintenance:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>

Substructure Maintenance

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Wingwall/Backwall Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>
Cap Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>
Column/Pier Wall Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>
Foundation Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>
Erosion/Scour Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>
Settlement Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>
Paint/Finish Maintenance:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>
Clean Abutment/Pier Seats:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>

Channel Protection

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Erosion/Scour Repairs:	<input type="checkbox" value="2"/>	<input type="checkbox" value="2"/>	<input type="text" value="X"/>	<input type="checkbox" value="1"/>	<input type="checkbox" value="3"/>	<input text"="" type="text" value="1"/>	
Drift Removal:	<input type="checkbox" value="3"/>	<input type="checkbox" value="1"/>	<input type="text" value="X"/>	<input type="checkbox" value="0"/>	<input type="checkbox" value="2"/>	<input text"="" type="text" value="20"/>	
Vegetation Removal:	<input type="checkbox" value="3"/>	<input type="checkbox" value="1"/>	<input type="text" value="X"/>	<input type="checkbox" value="0"/>	<input type="checkbox" value="2"/>	<input text"="" type="text" value="20"/>	
Spur Dike/Jetty Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>
Riprap/Slope Paving Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>

Culvert Repairs

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Barrel Repairs:	<input type="checkbox" value="4"/>	<input type="checkbox" value="1"/>	<input type="text" value="X"/>	<input type="checkbox" value="1"/>	<input type="checkbox" value="3"/>	<input text"="" type="text" value="1"/>	
Headwall Repairs:	<input type="checkbox" value="5"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>
Barrel Debris Removal:	<input type="checkbox" value="3"/>	<input type="checkbox" value="1"/>	<input type="text" value="XX"/>	<input type="checkbox" value="0"/>	<input type="checkbox" value="2"/>	<input text"="" type="text" value="2"/>	

Approach Repairs

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Approach Slab Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>
Pavement Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>
Embankment Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>
Guardrail Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>
Relief Joint Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0"/>



Nevada DOT Bridge Inspection Report

B2764

4/22/2006

8: Structure Number
B2764

8: Inventory Route
15000000

Inspector *[Signature]*
ERICKSON/MILLER

District
District 2

109: Structure Name
RIO WRANGLER PKWY /CHA

210: Inspection Date
4/22/2006

Reviewer
BOSTICK *[Signature]*

County
Washoe

58: Deck Rating	59: Superstructure Rating	59: Superstructure
Wearing Surface	Bearing Devices	Collision Damage
Deck Struc Condition	Stringers	Deflection under Load
Curbs	Girders or Beams	Alignment of Members
Median	Diaphragms or Floor Beams	Vibrations under Load
Sidewalks	Trusses: General	
Parapet	Portals	
Railing	Bracing	
Paint or Finish	Paint or Finish	
Drains	Rivets or Bolts	
Lighting Standard	Welds-Cracks	
Utility	Rust	
Joint Leakage	Timber Decay	
Expansion Joint/Devices	Concrete Cracking	
		Record Last Updated 5/26/2006 @ 18:26:28

60: Substructure Rating	60: Substructure	61: Channel and Protection
Abutments	Pile Bents	Fender System
Wings	Cracking/Spalling	Spur Dikes and Jetties
Backwall	Steel Corrosion	Riprap or Slope Paving
Footing	Timber Decay, etc	Adequacy of Opening
Piles	Debris on Seats	
Erosion	Paint or Finish	
Settlement	Collision Damages	
Piers or Bents		
Caps		
Column		
Footing		
Piles		
Scour		
Settlement		
	61: Channel Rating	62: Culvert Rating
	Channel Scour	Barrel
	Embankment Erosion	Concrete (enter just one value)
	Drift	Steel
	Vegetation	Timber
	Channel Change	Headwall
		Cutoff Wall
		Adequacy
		Debris



Nevada DOT Bridge Inspection Report

B2764

4/22/2006

5: Structure Number B2764	6: Inventory Route 15000000	Inspector ERICKSON/MILLER	District District 2
208: Structure Name RIO WRANGLER PKWY /CHA	210: Inspection Date 4/22/2006	Reviewer BOSTICK	County Washoe

Approach Alignment	Type of Inspection
Alignment <input type="checkbox"/>	Bridgmaster <input type="checkbox"/>
Approach Slab <input type="checkbox"/>	Special <input type="checkbox"/>
Relief Joint <input type="checkbox"/>	Routine <input checked="" type="checkbox"/>
Approach:	Estimated Remaining Life <input type="text" value="47"/> years
Guardrail <input type="checkbox"/>	NBI Information:
Pavement <input checked="" type="checkbox"/>	29: ADT <input type="text" value="760"/>
Embankment <input type="checkbox"/>	30: Year of ADT <input type="text" value="2004"/>
Reserved <input type="checkbox"/>	36: Safety Features <input type="text" value="0 0 0 0"/>
Load Rating <input type="checkbox"/>	54: Min Vert Underclearance <input type="text" value="N"/> m
Posted Load <input type="checkbox"/>	228: Next Insp Due Date (Mth Year) <input type="text" value="Apr 2008"/>
Logibility <input type="checkbox"/>	Owner <input type="text" value="City/Municipal Hwy Agency"/>
Visibility <input type="checkbox"/>	Maintenance Responsibility <input type="text" value="City/Municipal Hwy Agency"/>

Comments and Notes

Use <Control+Enter> to enter paragraph breaks

B2764

04/22/2006 ROUTINE INSPECTION COMMENTS:

INSPECTION REPORT:
CULVERT INVENTORIED SOUTH TO NORTH.

NOTE: THE UPSTREAM END OF THE CULVERT HAS BEEN EXTENDED TO THE EAST AND CARRIES A LONGITUDINAL PORTION OF McCAULEY RANCH ROAD. ONLY THE PORTION UNDER RIO WRANGLER PARKWAY WAS INSPECTED DURING THE CURRENT INSPECTION.

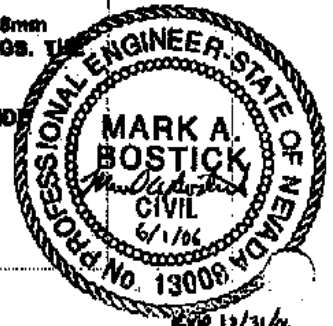
VEGETATION (RATED 7): THE DOWNSTREAM CHANNEL EXHIBITS MODERATE TO HEAVY VEGETATION.

WATERWAY MEASUREMENTS:
WATERWAY MEASUREMENTS COULD NOT BE TAKEN DUE TO THE EXTENSION OF THE UPSTREAM END OF THE CULVERT.

BARREL CONCRETE (RATED 7): THE BARREL CONCRETE EXHIBITS VERTICAL CRACKS UP TO 0.8mm (1/32") WIDE IN THE WALLS AND TRANSVERSE CRACKS UP TO 0.4mm (1/64") WIDE IN THE CEILINGS. THE CRACKS IN THE CEILINGS EXHIBIT MODERATE EFFLORESCENCE.

HEADWALL (RATED 7): THE WEST HEADWALL AND WINGWALLS EXHIBIT UP TO 1.6mm (1/16") WIDE VERTICAL CRACKS AT THE JUNCTURE WITH SIDEWALLS 1 AND 2.

MAINTENANCE REPORT:
-MONITOR VEGETATION WITHIN THE DOWNSTREAM CHANNEL.
-MONITOR THE CRACKS IN THE BARREL CONCRETE, WEST HEADWALL AND WINGWALLS.



Element Condition Values

Bridge: B2764 / Inspection Date: 4/22/2006 (XDQA)

Key: 0		Structure Unit ID: 0		Type: M Main				
Elem / Env	Element Description	Quantity	UOM	Qty1	Qty2	Qty3	Qty4	Qty5
241 / 2	Concrete Culvert	76.00	m.	56	20	0	0	0

User Maintenance Report

Structure No:
B2764
Bridge Name:
RIO WRANGLER PKWY /CI

Inventory Route:
150000000
Inspection Date:
04/22/2008

District:
02
County:
Washoe

Deck Maintenance

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Structural Deck Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Wearing Surface Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Expansion Joint Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Drain Cleaning/Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Parapet/Rail Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Curbs, Median, Sidewalk:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0

Superstructure Maintenance

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Girder, Floorbeam, Stringer:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Truss Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Bearing Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Diaphragm Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Paint/Finish Maintenance:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0

Substructure Maintenance

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Wingwall/Backwall Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Cap Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Column/Pier Wall Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Foundation Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Erosion/Scour Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Settlement Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Paint/Finish Maintenance:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Clean Abutment/Pier Seats:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0

Channel Protection

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Erosion/Scour Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Drift Removal:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Vegetation Removal:	5	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Spur Dike/Jetty Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Riprap/Slope Paving Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0

Culvert Repairs

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Barrel Repairs:	5	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Headwall Repairs:	5	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Barrel Debris Removal:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0

Approach Repairs

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Approach Slab Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Pavement Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Embankment Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Guardrail Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0
Relief Joint Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	0



Nevada DOT Bridge Inspection Report

B2888

9/18/2006

8: Structure Number	6: Inventory Route	Inspector	District
B2888	151000000	PATRONI/HUFFMAN	District 2
209: Structure Name	210: Inspection Date	Reviewer	County
VETERANS PW/DRAINAGE	9/18/2006	-1	Washoe

59: Deck Rating	N	59: Superstructure Rating	N	59: Superstructure	
Wearing Surface	<input type="checkbox"/>	Bearing Devices	<input type="checkbox"/>	Collision Damage	<input type="checkbox"/>
Deck Struc Condition	<input type="checkbox"/>	Stringers	<input type="checkbox"/>	Deflection under Load	<input type="checkbox"/>
Curbs	8	Girders or Beams	<input type="checkbox"/>	Alignment of Members	<input type="checkbox"/>
Median	8	Diaphragms or Floor Beams	<input type="checkbox"/>	Vibrations under Load	<input type="checkbox"/>
Sidewalks	8	Trusses: General	<input type="checkbox"/>		
Parapet	8	Portals	<input type="checkbox"/>		
Railing	<input type="checkbox"/>	Bracing	<input type="checkbox"/>		
Paint or Finish	8	Paint or Finish	<input type="checkbox"/>		
Drains	<input type="checkbox"/>	Rivets or Bolts	<input type="checkbox"/>		
Lighting Standard	<input type="checkbox"/>	Welds-Cracks	<input type="checkbox"/>		
Utility	<input type="checkbox"/>	Rust	<input type="checkbox"/>		
Joint Leakage	<input type="checkbox"/>	Timber Decay	<input type="checkbox"/>	Record Last Updated	
Expansion Joint/Devices	<input type="checkbox"/>	Concrete Cracking	<input type="checkbox"/>	10/2/2008 @ 10:25:44	

60: Substructure Rating	N	60: Substructure	61: Channel and Protection	
Abutments	<input type="checkbox"/>	Pile Bents	Fender System	<input type="checkbox"/>
Wings	<input type="checkbox"/>	Cracking/Spalling	Spur Dikes and Jetties	<input type="checkbox"/>
Backwall	<input type="checkbox"/>	Steel Corrosion	Riprap or Slope Paving	8
Footing	<input type="checkbox"/>	Timber Decay, etc	Adequacy of Opening	8
Piles	<input type="checkbox"/>	Debris on Seats		
Erosion	<input type="checkbox"/>	Paint or Finish	62: Culvert Rating	8
Settlement	<input type="checkbox"/>	Collision Damages	Barrel	
Piers or Bents	<input type="checkbox"/>		Concrete (enter just one value)	8
Caps	<input type="checkbox"/>	61: Channel Rating	Steel	<input type="checkbox"/>
Column	<input type="checkbox"/>	Channel Scour	Timber	<input type="checkbox"/>
Footing	<input type="checkbox"/>	Embankment Erosion	Headwall	8
Piles	<input type="checkbox"/>	Drift	Cutoff Wall	<input type="checkbox"/>
Scour	<input type="checkbox"/>	Vegetation	Adequacy	8
Settlement	<input type="checkbox"/>	Channel Change	Debris	7



Nevada DOT Bridge Inspection Report

B2888

9/18/2006

8: Structure Number	5: Inventory Route	Inspector	District
B2888	151000000	PATRON/HUFFMAN	District 2
208: Structure Name	218: Inspection Date	Reviewer	County
VETERANS PW/DRAINAGE	9/18/2006	-1	Washoe

<u>Approach Alignment</u>	<u>Type of Inspection</u>
Alignment <input type="checkbox"/>	Bridgemaester <input type="checkbox"/>
Approach Slab <input type="checkbox"/>	Special <input type="checkbox"/>
Relief Joint <input type="checkbox"/>	Routine <input checked="" type="checkbox"/>
Approach:	Estimated Remaining Life <input type="text" value="50"/> years
Guardrail <input type="checkbox"/>	NBI Information:
Pavement <input type="text" value="8"/>	29: ADT <input type="text" value="1000"/>
Embankment <input type="text" value="8"/>	30: Year of ADT <input type="text" value="2008"/>
Reserved <input type="checkbox"/>	36: Safety Features <input type="text" value="1"/> <input type="text" value="N"/> <input type="text" value="N"/> <input type="text" value="N"/>
Load Rating	54: Min Vert Underclearance <input type="text" value="N"/> <input type="text" value="0"/> m
Posted Load <input type="text" value="-1"/>	228: Next Insp Due Date (Mth Year) <input type="text" value="Mar 2008"/>
Legibility <input type="checkbox"/>	Owner <input type="text" value="City/Municipal Hwy Agenc"/>
Visibility <input type="checkbox"/>	Maintenance Responsibility <input type="text" value="City/Municipal Hwy Agenc"/>



Nevada DOT Bridge Inspection Report

B2888

9/18/2006

8: Structure Number	5: Inventory Route	Inspector	District
B2888	151000000	PATRON/HUFFMAN	District 2
209: Structure Name	210: Inspection Date	Reviewer	County
VETERANS PW/DRAINAGE	9/18/2006	-1	Washoe

Comments and Notes

Use <Control-Enter> to enter paragraph breaks

B2888

INSPECTION REPORT
GULVERT INVENTORIED SOUTH TO NORTH.

09-18-2006 INITIAL INSPECTION COMMENTS:

ITEM #2.1.1 CULVERT BARREL (RATED 8): BARREL 7 (PEDESTRIAN PATH) HAS 20 CRACKS WITH EFFLORESCENSE ON THE CEILING AND 14 CRACKS WITH EFFLORESCENSE ON THE WALLS, SEVERAL CRACKS HAVE ACTIVE LEAKAGE. THE OTHER 6 BARRELS HAVE FROM 3 TO 8 CRACKS ON EACH OF THE CEILINGS WITH EFFLORESCENSE. ADDITIONALLY, THERE ARE CRACKS WITH EFFLORESCENSE AND ACTIVE LEAKAGE AT THE INNER FACE OF THE HEADWALL WITH BARRELS 1 AND 7. TWO BARRELS HAVE GRAFFITY ON WALLS. THERE IS 0.15M x 20M MUD IN BARREL 7.

WATERWAY MEASUREMENTS:

WATERWAY MEASUREMENTS TAKEN ON UPSTREAM WEST SIDE OF CULVERT REFERENCED TO TOP OF CULVERT FLOOR.

LOCATION	WATERLINE	MUDLINE
S ABUT 1	4.69M (15.39')	4.69M (16.04')
MIDSPAN 1	4.70M (15.42')	5.06M (16.67')
DIVIDER 1	4.70M (15.42')	5.00M (16.40')
MIDSPAN 2	4.70M (15.42')	5.13M (16.83')
DIVIDER 2	4.70M (15.42')	5.08M (16.67')
MIDSPAN 3	4.70M (15.42')	5.06M (16.67')
DIVIDER 3	4.70M (15.42')	5.07M (16.83')
MIDSPAN 4	4.70M (15.42')	5.09M (16.70')
DIVIDER 4	4.70M (15.42')	5.01M (16.44')
MIDSPAN 5	4.70M (15.42')	5.00M (16.40')
DIVIDER 5	4.70M (15.42')	5.08M (16.70')
MIDSPAN 6	4.70M (15.42')	5.01M (16.44')
DIVIDER 6	4.70M (15.42')	4.89M (16.04')
MIDSPAN 7	4.69M (15.39')	4.69M (15.39')
N ABUT 2	4.69M (15.39')	4.69M (15.39')

MAINTENANCE REPORT:

MONITOR CRACKING ON CEILINGS AND WALLS.
REMOVE GRAFFITY FROM BARRELS. REMOVE MUD FROM BARREL 7.

Element Condition Values

Bridge: B2888 / Inspection Date: 9/18/2006 (DNSD)

Key: 1		Structure Unit ID: Structure Unit 1		Type: M Main				
Elem / Env	Element Description	Quantity	UOM	Qty1	Qty2	Qty3	Qty4	Qty5
331 / 2	Conc Bridge Railing	247.40 m.		230	17	0	0	0
241 / 2	Concrete Culvert	247.40 m.		247	0	0	0	0

User Maintenance Report

Structure No:
B2888
Bridge Name:
VETERANS PW /DRAINAGE

Inventory Route:
151000000
Inspection Date:
09/18/2006

District:
02
County:
Washoe

Deck Maintenance

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Structural Deck Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Wearing Surface Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Expansion Joint Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Drain Cleaning/Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Parapet/Rail Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Curbs, Median, Sidewalk:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0

Superstructure Maintenance

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Girder, Floorbeam, Stringer:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Truss Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Bearing Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Diaphragm Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Paint/Finish Maintenance:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0

Substructure Maintenance

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Wingwall/Backwall Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Cap Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Column/Pier Wall Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Foundation Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Erosion/Scour Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Settlement Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Paint/Finish Maintenance:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Clean Abutment/Pier Seats:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0

Channel Protection

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Erosion/Scour Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Drift Removal:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Vegetation Removal:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Spur Dike/Jetty Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Riprap/Slope Paving Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0

Culvert Repairs

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Barrel Repairs:	5	<input type="checkbox"/>	XXXXXXXXXX	<input type="checkbox"/>	<input type="checkbox"/>		0
Headwall Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Barrel Debris Removal:	3	1	XXXXXX	1	1	M	20

Approach Repairs

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Approach Slab Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Pavement Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Embankment Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Guardrail Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0
Relief Joint Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		0



Nevada DOT Bridge Inspection Report

B2889

9/18/2006

8: Structure Number B2889	5: Inventory Route 150_0	Inspector PATRON/HUFFMAN	District District 2
209: Structure Name RIO WRANGLER PW /DRAIN/	210: Inspection Date 9/18/2006	Reviewer -1	County Washoe

58: Deck Rating N		59: Superstructure Rating N		59: Superstructure	
Wearing Surface	<input type="checkbox"/>	Bearing Devices	<input type="checkbox"/>	Collision Damage	<input type="checkbox"/>
Deck Struc Condition	<input type="checkbox"/>	Stringers	<input type="checkbox"/>	Deflection under Load	<input type="checkbox"/>
Curbs	<input type="checkbox"/> 8	Girders or Beams	<input type="checkbox"/>	Alignment of Members	<input type="checkbox"/>
Median	<input type="checkbox"/> 8	Diaphragms or Floor Beams	<input type="checkbox"/>	Vibrations under Load	<input type="checkbox"/>
Sidewalks	<input type="checkbox"/> 8	Trusses: General	<input type="checkbox"/>		
Parapet	<input type="checkbox"/> 8	Portals	<input type="checkbox"/>		
Railing	<input type="checkbox"/>	Bracing	<input type="checkbox"/>		
Paint or Finish	<input type="checkbox"/> 8	Paint or Finish	<input type="checkbox"/>		
Drains	<input type="checkbox"/>	Rivets or Bolts	<input type="checkbox"/>		
Lighting Standard	<input type="checkbox"/>	Welds/Gracks	<input type="checkbox"/>		
Utility	<input type="checkbox"/>	Rust	<input type="checkbox"/>		
Joint Leakage	<input type="checkbox"/>	Timber Decay	<input type="checkbox"/>	Record Last Updated	
Expansion Joint/Devices	<input type="checkbox"/>	Concrete Cracking	<input type="checkbox"/>	10/2/2006 @ 10:31:42	
60: Substructure Rating N		60: Substructure		61: Channel and Protection	
Abutments	<input type="checkbox"/>	Pile Bents	<input type="checkbox"/>	Fender System	<input type="checkbox"/>
Wings	<input type="checkbox"/>	Cracking/Spalling	<input type="checkbox"/>	Spur Dikes and Jetties	<input type="checkbox"/>
Backwall	<input type="checkbox"/>	Steel Corrosion	<input type="checkbox"/>	Riprap or Slope Paving	<input type="checkbox"/> 8
Footing	<input type="checkbox"/>	Timber Decay, etc	<input type="checkbox"/>	Adequacy of Opening	<input type="checkbox"/> 8
Piles	<input type="checkbox"/>	Debris on Seats	<input type="checkbox"/>		
Erosion	<input type="checkbox"/>	Paint or Finish	<input type="checkbox"/>	62: Culvert Rating 8	
Settlement	<input type="checkbox"/>	Collision Damages	<input type="checkbox"/>	Barrel	
Piers or Bents	<input type="checkbox"/>			Concrete (enter just one value)	<input type="checkbox"/> 8
Caps	<input type="checkbox"/>	61: Channel Rating 8		Steel	<input type="checkbox"/>
Column	<input type="checkbox"/>	Channel Scour	<input type="checkbox"/> 7	Timber	<input type="checkbox"/>
Footing	<input type="checkbox"/>	Embankment Erosion	<input type="checkbox"/> 8	Headwall	<input type="checkbox"/> 8
Piles	<input type="checkbox"/>	Drift	<input type="checkbox"/> 8	Cutoff Wall	<input type="checkbox"/> 8
Scour	<input type="checkbox"/>	Vegetation	<input type="checkbox"/> 8	Adequacy	<input type="checkbox"/> 8
Settlement	<input type="checkbox"/>	Channel Change	<input type="checkbox"/> 7	Debris	<input type="checkbox"/> 7



Nevada DOT Bridge Inspection Report

B2889

9/18/2006

8: Structure Number	8: Inventory Route	Inspector	District
B2869	150_0	PATRONI/HUFFMAN	District 2
209: Structure Name	210: Inspection Date	Reviewer	County
RIO WRANGLER PW /DRAIN/	9/18/2006	-1	Washoe

Approach Allignment	Type of Inspection
Alignment <input type="checkbox"/>	Bridgemaater <input type="checkbox"/>
Approach Slab <input type="checkbox"/>	Special <input type="checkbox"/>
Relief Joint <input type="checkbox"/>	Routine <input checked="" type="checkbox"/>
Approach:	Estimated Remaining Life <input type="text" value="50"/> years
Guardrail <input type="checkbox"/>	NBI Information:
Pavement <input type="checkbox" value="B"/>	29: ADT <input type="text" value="500"/>
Embankment <input type="checkbox" value="B"/>	30: Year of ADT <input type="text" value="2006"/>
Reserved <input type="checkbox"/>	35: Safety Features <input type="text" value="1"/> <input type="text" value="N"/> <input type="text" value="N"/> <input type="text" value="N"/>
Load Rating	54: Min Vert Underclearance <input type="text" value="N"/> <input type="text" value="0"/> m
Posted Load <input type="checkbox" value="-1"/>	228: Next Insp Due Date (Mth Year) <input type="text" value="Mar 2008"/>
Legibility <input type="checkbox"/>	Owner <input type="text" value="City/Municipal Hwy Agenc"/>
Visibility <input type="checkbox"/>	Maintenance Responsibility <input type="text" value="City/Municipal Hwy Agenc"/>

Comments and Notes

Use <Control-Enter> to enter paragraph breaks

B2889

**INSPECTION REPORT
CULVERT INVENTORIED WEST TO EAST.**

09-18-2006 INITIAL INSPECTION COMMENTS.

62.1.1 CULVERT BARREL CONCRETE (RATED 6): BARREL 1 CEILING HAS 12 CRACKS WITH EFFLORESCENCE, BARREL 2 CEILING HAS 17 CRACKS WITH EFFLORESCENCE, BARREL 3 CEILING HAS 10 CRACKS WITH EFFLORESCENCE. WALL ON BARREL 1 HAS CRACK WITH EFFLORESCENCE.

WATERWAY MEASUREMENTS:

WATERWAY MEASUREMENTS TAKEN ON UPSTREAM SOUTH SIDE REFERENCED TO TOP OF PARAPET. NO WATER ON CHANNEL.

LOCATION	MUDLINE (M)
WEST ABUT 1	3.05M (10.0')
MIDSPAN 1	2.99M (9.8')
DIVIDER 1	2.97M (9.74')
MIDSPAN 2	2.94M (9.66')
DIVIDER 2	2.94M (9.66')
MIDSPAN 3	2.91M (9.56')
EAST ABUT 2	3.00M (9.84')

**MAINTENANCE REPORT:
MONITOR CRACKING ON BARRELS.**

Element Condition Values
Bridge: B2889 / Inspection Date: 9/18/2006 (CZDO)

Key: 1		Structure Unit ID: Structure Unit 1		Type: M Main				
Elem / Env	Element Description	Quantity	UOM	Qty1	Qty2	Qty3	Qty4	Qty5
331 / 2	Conc Bridge Railing	45.00	m.	45	0	0	0	0
241 / 2	Concrete Culvert	98.00	m.	86	12	0	0	0

User Maintenance Report

Structure No:
B2889
Bridge Name:
RIO WRANGLER FW /DRAI

Inventory Route:
150_0
Inspection Date:
09/18/2006

District:
02
County:
Washoe

Deck Maintenance

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Structural Deck Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Wearing Surface Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Expansion Joint Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Drain Cleaning/Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Parapet/Rail Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Curbs, Median, Sidewalk:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0

Superstructure Maintenance

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Girder, Floorbeam, Stringer:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Truss Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Bearing Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Diaphragm Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Paint/Finish Maintenance:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0

Substructure Maintenance

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Wingwall/Backwall Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Cap Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Column/Pier Wall Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Foundation Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Erosion/Scour Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Settlement Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Paint/Finish Maintenance:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Clean Abutment/Pier Seats:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0

Channel Protection

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Erosion/Scour Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Drift Removal:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Vegetation Removal:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Spur Dike/Jetty Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Riprap/Slope Paving Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0

Culvert Repairs

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Barrel Repairs:	<input checked="" type="checkbox"/> 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Headwall Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Barrel Debris Removal:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0

Approach Repairs

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Approach Slab Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Pavement Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Embankment Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Guardrail Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Relief Joint Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0



Nevada DOT Bridge Inspection Report

B2890

9/18/2006

8: Structure Number	5: Inventory Route	Inspector	District
B2890	15100000	PATRON/HUFFMAN	District 2
200: Structure Name	210: Inspection Date	Reviewer	County
RIO WRANGLER PW /DRAIN/	9/18/2006	-1	Washoe

58: Deck Rating N		59: Superstructure Rating N		59: Superstructure	
Wearing Surface	<input type="checkbox"/>	Bearing Devices	<input type="checkbox"/>	Collision Damage	<input type="checkbox"/>
Deck Struc Condition	<input type="checkbox"/>	Stringers	<input type="checkbox"/>	Deflection under Load	<input type="checkbox"/>
Curbs	8	Girders or Beams	<input type="checkbox"/>	Alignment of Members	<input type="checkbox"/>
Median	8	Diaphragms or Floor Beams	<input type="checkbox"/>	Vibrations under Load	<input type="checkbox"/>
Sidewalks	8	Trusses: General	<input type="checkbox"/>		
Parapet	8	Portals	<input type="checkbox"/>		
Railing	<input type="checkbox"/>	Bracing	<input type="checkbox"/>		
Paint or Finish	8	Paint or Finish	<input type="checkbox"/>		
Drains	<input type="checkbox"/>	Rivets or Bolts	<input type="checkbox"/>		
Lighting Standard	<input type="checkbox"/>	Welds-Cracks	<input type="checkbox"/>		
Utility	<input type="checkbox"/>	Rust	<input type="checkbox"/>		
Joint Leakage	<input type="checkbox"/>	Timber Decay	<input type="checkbox"/>	Record Last Updated	
Expansion Joint/Devices	<input type="checkbox"/>	Concrete Cracking	<input type="checkbox"/>	10/2/2006 @ 10:34:29	

60: Substructure Rating N		60: Substructure		61: Channel and Protection	
Abutments	<input type="checkbox"/>	Pile Bents	<input type="checkbox"/>	Fender System	<input type="checkbox"/>
Wings	<input type="checkbox"/>	Cracking/Spalling	<input type="checkbox"/>	Spur Dikes and Jetties	<input type="checkbox"/>
Backwall	<input type="checkbox"/>	Steel Corrosion	<input type="checkbox"/>	Riprap or Slope Paving	8
Footing	<input type="checkbox"/>	Timber Decay, etc	<input type="checkbox"/>	Adequacy of Opening	8
Piles	<input type="checkbox"/>	Debris on Seats	<input type="checkbox"/>		
Erosion	<input type="checkbox"/>	Paint or Finish	<input type="checkbox"/>		
Settlement	<input type="checkbox"/>	Collision Damages	<input type="checkbox"/>	62: Culvert Rating	7
Piers or Bents	<input type="checkbox"/>			Barrel	
Caps	<input type="checkbox"/>	61: Channel Rating	8	Concrete (enter just one value)	8
Column	<input type="checkbox"/>	Channel Scour	7	Steel	<input type="checkbox"/>
Footing	<input type="checkbox"/>	Embankment Erosion	8	Timber	<input type="checkbox"/>
Piles	<input type="checkbox"/>	Drift	8	Headwall	8
Scour	<input type="checkbox"/>	Vegetation	7	Cutoff Wall	8
Settlement	<input type="checkbox"/>	Channel Change	7	Adequacy	8
				Debris	8



Nevada DOT Bridge Inspection Report

B2890

9/18/2006

8: Structure Number	5: Inventory Route	Inspector	District
B2890	161000000	PATRONI/HUFFMAN	District 2
209: Structure Name	210: Inspection Date	Reviewer	County
RIO WRANGLER FW /DRAIN	9/18/2006	-1	Washoe

Approach Alignment	Type of Inspection
Alignment <input type="checkbox"/>	Bridgmaster <input type="checkbox"/>
Approach Slab <input type="checkbox"/>	Special <input type="checkbox"/>
Relief Joint <input type="checkbox"/>	Routine <input checked="" type="checkbox"/>
Approach:	Estimated Remaining Life <input type="text" value="50 years"/>
Guardrail <input type="checkbox"/>	NBI Information:
Pavement <input type="text" value="8"/>	29: ADT <input type="text" value="500"/>
Embankment <input type="text" value="8"/>	30: Year of ADT <input type="text" value="2008"/>
Reserved <input type="checkbox"/>	36: Safety Features <input type="text" value="1 N N N"/>
Load Rating	54: Min Vert Underclearance <input type="text" value="N"/> <input type="text" value="0"/> m
Posted Load <input type="text" value="-1"/>	228: Next Insp Due Date (Mth Year) <input type="text" value="Mar 2008"/>
Legibility <input type="checkbox"/>	Owner <input type="text" value="City/Municipal Hwy Agenc"/>
Visibility <input type="checkbox"/>	Maintenance Responsibility <input type="text" value="City/Municipal Hwy Agenc"/>

Comments and Notes

Use <Control-Enter> to enter paragraph breaks

B2890

INSPECTION REPORT
CULVERT INVENTORIED WEST TO EAST.

09-18-2006 INITIAL INSPECTION COMMENTS:

52.1.1 CULVERT BARREL CONCRETE (RATED 8): BARREL 1 CEILING HAS 6 CRACKS WITH EFFLORESCENSE; BARREL 2 CEILING HAS 15 CRACKS WITH EFFLORESCENSE, 2 CRACKS WITH ACTIVE LEAKAGE; BARREL 3 CEILING HAS 7 CRACKS WITH EFFLORESCENSE, 2 CRACKS WITH ACTIVE LEAKAGE.

WATERWAY MEASUREMENTS:
WATERWAY MEASUREMENTS TAKEN ON UPSTREAM SOUTH SIDE REFERENCED TO TOP OF PARAPET. NO WATER ON CHANNEL.

LOCATION	MUDLINE (M)
WEST ABUT 1	3.20M (10.49')
MIDSPAN 1	3.22M (10.58')
DIVIDER 1	3.32M (10.89')
MIDSPAN 2	3.39M (11.11')
DIVIDER 2	3.47M (11.38')
MIDSPAN 3	3.28M (10.76')
EAST ABUT 2	3.06M (10.00')

MAINTENANCE REPORT:
MONITOR CRACKING ON BARRELS.

Element Condition Values
Bridge: B2890 / Inspection Date: 9/18/2006 (KQLL)

Key: 1		Structure Unit ID: Structure Unit 1		Type: M Main				
Elem / Env	Element Description	Quantity	UOM	Qty1	Qty2	Qty3	Qty4	Qty5
331 / 2	Conc Bridge Railing	48.00	m.	48	0	0	0	0
241 / 2	Concrete Culvert	95.00	m.	86	9	0	0	0

User Maintenance Report

Structure No:
B2890
Bridge Name:
RIO WRANGLER FW /DRAI

Inventory Route:
151000000
Inspection Date:
09/19/2008

District:
02
County:
Washoe

Deck Maintenance

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Structural Deck Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Wearing Surface Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Expansion Joint Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Drain Cleaning/Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Parapet/Rail Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Curbs, Median, Sidewalk:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0

Superstructure Maintenance

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Girder, Floorbeam, Stringer:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Truss Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Bearing Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Diaphragm Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Paint/Finish Maintenance:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0

Substructure Maintenance

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Wingwall/Backwall Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Cap Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Column/Pier Wall Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Foundation Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Erosion/Scour Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Settlement Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Paint/Finish Maintenance:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Clean Abutment/Pier Seats:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0

Channel Protection

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Erosion/Scour Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Drift Removal:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Vegetation Removal:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Spur Dike/Jetty Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Riprap/Slope Paving Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0

Culvert Repairs

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Barrel Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Headwall Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Barrel Debris Removal:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0

Approach Repairs

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Approach Slab Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Pavement Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Embankment Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Guardrail Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Relief Joint Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0



Nevada DOT Bridge Inspection Report

B2891

9/18/2008

8: Structure Number B2891	6: Inventory Route 15000000	Inspector PATRONI/HUFFMAN	District District 2
208: Structure Name RIO WRANGLER FW (DRAIN)	210: Inspection Date 9/18/2008	Reviewer -1	County Washoe

58: Deck Rating N	59: Superstructure Rating N	59: Superstructure
Wearing Surface <input type="checkbox"/>	Bearing Devices <input type="checkbox"/>	Collision Damage <input type="checkbox"/>
Deck Struc Condition <input type="checkbox"/>	Stringers <input type="checkbox"/>	Deflection under Load <input type="checkbox"/>
Curbs <input type="checkbox"/> 8	Girders or Beams <input type="checkbox"/>	Alignment of Members <input type="checkbox"/>
Median <input type="checkbox"/>	Diaphragms or Floor Beams <input type="checkbox"/>	Vibrations under Load <input type="checkbox"/>
Sidewalks <input type="checkbox"/> 8	Trusses: General <input type="checkbox"/>	
Parapet <input type="checkbox"/> 8	Portals <input type="checkbox"/>	
Railing <input type="checkbox"/>	Bracing <input type="checkbox"/>	
Paint or Finish <input type="checkbox"/> 8	Paint or Finish <input type="checkbox"/>	
Drains <input type="checkbox"/>	Rivets or Bolts <input type="checkbox"/>	
Lighting Standard <input type="checkbox"/>	Welds-Cracks <input type="checkbox"/>	
Utility <input type="checkbox"/>	Rust <input type="checkbox"/>	
Joint Leakage <input type="checkbox"/>	Timber Decay <input type="checkbox"/>	
Expansion Joint/Devices <input type="checkbox"/>	Concrete Cracking <input type="checkbox"/>	
		Record Last Updated 10/2/2008 @ 10:37:13

60: Substructure Rating N	60: Substructure	61: Channel and Protection
Abutments <input type="checkbox"/>	Pile Bents <input type="checkbox"/>	Fender System <input type="checkbox"/>
Wings <input type="checkbox"/>	Cracking/Spalling <input type="checkbox"/>	Spur Dikes and Jetties <input type="checkbox"/>
Backwall <input type="checkbox"/>	Steel Corrosion <input type="checkbox"/>	Riprap or Slope Paving <input type="checkbox"/> 8
Footing <input type="checkbox"/>	Timber Decay, etc <input type="checkbox"/>	Adequacy of Opening <input type="checkbox"/> 8
Piles <input type="checkbox"/>	Debris on Seats <input type="checkbox"/>	
Erosion <input type="checkbox"/>	Paint or Finish <input type="checkbox"/>	62: Culvert Rating <input type="checkbox"/> 8
Settlement <input type="checkbox"/>	Collision Damages <input type="checkbox"/>	Barrel
Piers or Bents <input type="checkbox"/>		Concrete (enter just one value) <input type="checkbox"/> 8
Cape <input type="checkbox"/>	61: Channel Rating <input type="checkbox"/> 8	Steel <input type="checkbox"/>
Column <input type="checkbox"/>	Channel Scour <input type="checkbox"/> 8	Timber <input type="checkbox"/>
Footing <input type="checkbox"/>	Embankment Erosion <input type="checkbox"/> 8	Headwall <input type="checkbox"/> 8
Piles <input type="checkbox"/>	Drift <input type="checkbox"/> 8	Cutoff Wall <input type="checkbox"/>
Scour <input type="checkbox"/>	Vegetation <input type="checkbox"/> 8	Adequacy <input type="checkbox"/> 8
Settlement <input type="checkbox"/>	Channel Change <input type="checkbox"/> 8	Debris <input type="checkbox"/> 8



Nevada DOT Bridge Inspection Report

B2891

9/18/2006

6: Structure Number	6: Inventory Route	Inspector	District
B2891	160000000	PATRONI/HUFFMAN	District 2
209: Structure Name	210: Inspection Date	Reviewer	County
RIO WRANGLER PW /DRAIN	9/18/2006	-1	Washoe

Approach Alignment	Type of Inspection
Alignment <input type="checkbox"/>	Bridgmaster <input type="checkbox"/>
Approach Slab <input type="checkbox"/>	Special <input type="checkbox"/>
Relief Joint <input type="checkbox"/>	Routine <input checked="" type="checkbox"/>
Approach:	Estimated Remaining Life <input type="text" value="50"/> years
Guardrail <input type="checkbox"/>	NBI Information:
Pavement <input type="checkbox" value="8"/>	29: ADT <input type="text" value="300"/>
Embankment <input type="checkbox" value="8"/>	30: Year of ADT <input type="text" value="2006"/>
Reserved <input type="checkbox"/>	36: Safety Features <input type="checkbox" value="1"/> <input type="checkbox" value="N"/> <input type="checkbox" value="N"/> <input type="checkbox" value="N"/>
Load Rating	54: Min Vert Underclearance <input type="checkbox" value="N"/> <input type="text" value="0"/> m
Posted Load <input type="checkbox" value="-1"/>	228: Next Insp Due Date (Mth Year) <input type="text" value="Mar 2006"/>
Legibility <input type="checkbox"/>	Owner <input type="text" value="City/Municipal Hwy Agenc"/>
Visibility <input type="checkbox"/>	Maintenance Responsibility <input type="text" value="City/Municipal Hwy Agenc"/>



Nevada DOT Bridge Inspection Report

B2891

9/18/2006

8: Structure Number	5: Inventory Route	Inspector	District
B2891	150000000	PATRONI/HUFFMAN	District 2
209: Structure Name	210: Inspection Date	Reviewer	County
RIO WRANGLER FW /DRAIN/	9/18/2006	-1	Washoe

Comments and Notes

Use <Control-Enter> to enter paragraph breaks

B2891

**INSPECTION REPORT
CULVERT INVENTORIED SOUTH TO NORTH.**

09-19-2006 INITIAL INSPECTION COMMENTS:

§2.2 CULVERT HEADWALL (RATED 5): CRACKS RANGING FROM 2MM TO 4 MM (1/16" TO 1/8") ON ALL 4 CORNERS OF HEADWALLS, TO OR FROM THE WINGWALLS EXTENDING TO THE CULVERT OUTSIDE WALLS (PHOTOS B2891_05 AND 06).

WATERWAY MEASUREMENTS:

WATERWAY MEASUREMENTS TAKEN ON UPSTREAM EAST SIDE REFERENCED TO TOP OF PARAPET.

LOCATION	WATERLINE (M)	MUDLINE (M)
SOUTH ABUT 1	2.83M (9.29')	3.18M (10.45')
MIDSPAN 1	2.84M (9.32')	3.18M (10.45')
DIVIDER	2.84M (9.32')	3.26M (10.76')
MIDSPAN 2	2.84M (9.32')	3.22M (10.59')
DIVIDER 2	2.83M (9.29')	3.23M (10.60')
MIDSPAN 3	2.83M (9.29')	3.26M (10.66')
DIVIDER 3	2.86M (9.38')	3.24M (10.63')
MIDSPAN 4	2.84M (9.33')	3.28M (10.69')
NORTH ABUT 2	2.84M (9.33')	3.27M (10.72')

MAINTENANCE REPORT:

MONITOR CRACKING ON HEADWALLS AND WINGWALLS.

Element Condition Values

Bridge: B2891 / Inspection Date: 9/18/2006 (TWJC)

Key: 1		Structure Unit ID: Structure Unit 1		Type: M Main				
Elem / Env	Element Description	Quantity	UOM	Qty1	Qty2	Qty3	Qty4	Qty5
331 / 2	Conc Bridge Railing	69.00 m.		69	0	0	0	0
241 / 2	Concrete Culvert	75.00 m.		75	0	0	0	0

User Maintenance Report

Structure No:
B2891
Bridge Name:
RIO WRANGLER PW /DRAI

Inventory Route:
150000000
Inspection Date:
08/18/2006

District:
02
County:
Washoe

Deck Maintenance

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Structural Deck Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Wearing Surface Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Expansion Joint Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Drain Cleaning/Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Parapet/Rail Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Curbs, Median, Sidewalk:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0

Superstructure Maintenance

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Girder, Floorbeam, Stringer:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Truss Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Bearing Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Diaphragm Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Paint/Finish Maintenance:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0

Substructure Maintenance

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Wingwall/Backwall Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Cap Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Column/Pier Wall Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Foundation Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Erosion/Scour Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Settlement Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Paint/Finish Maintenance:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Clean Abutment/Pier Seats:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0

Channel Protection

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Erosion/Scour Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Drift Removal:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Vegetation Removal:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Spur Dike/Jetty Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Riprap/Slope Paving Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0

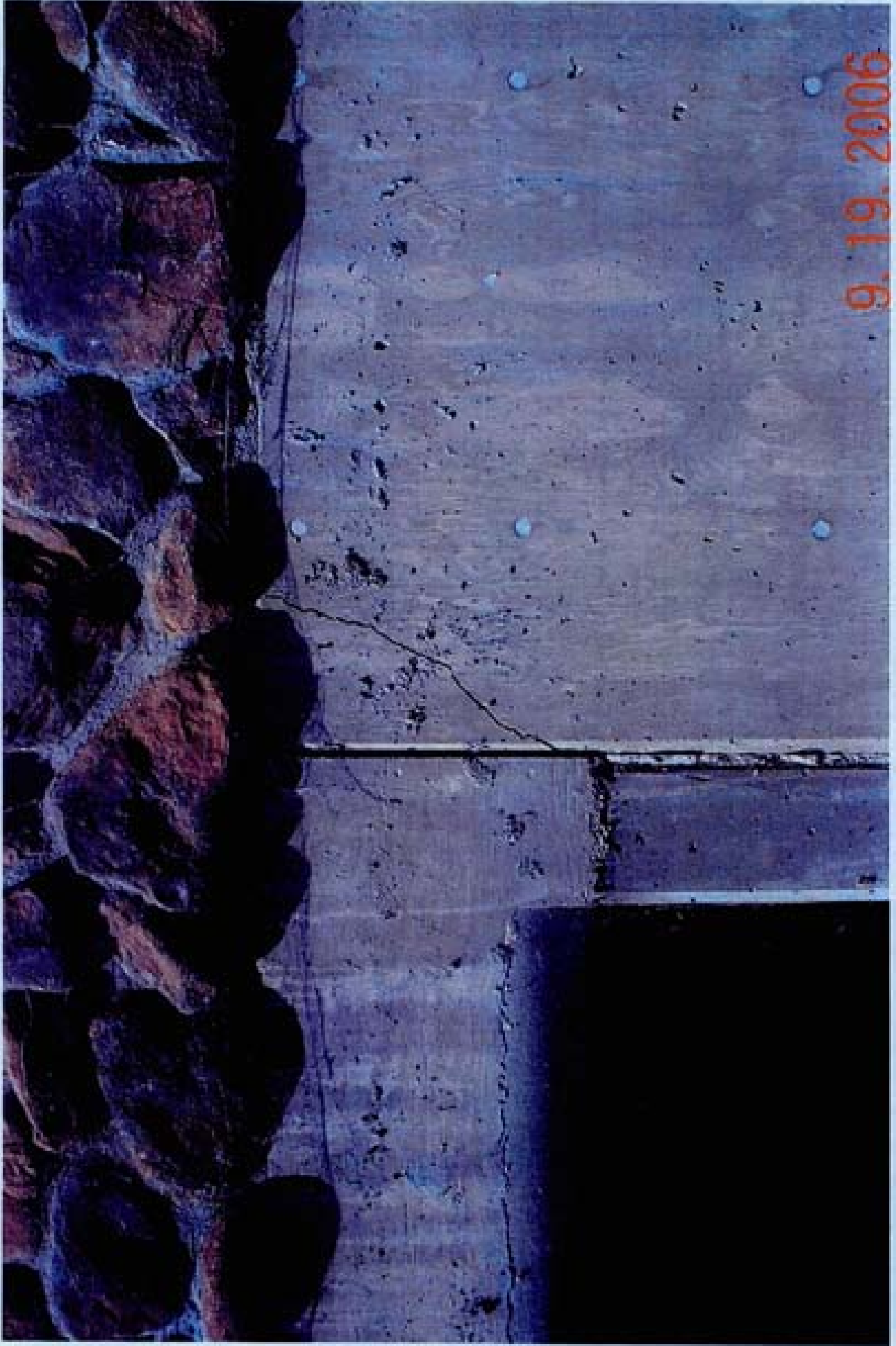
Culvert Repairs

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Barrel Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Headwall Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Barrel Debris Removal:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0

Approach Repairs

	Timing	Status	Tenths	ERL	Critical	Unit	Quantity
Approach Slab Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Pavement Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Embankment Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Guardrail Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Relief Joint Repairs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0

B-2891



B-2891



9.19.2006

Appendix E

Kennedy/Jenks Consultants

Technical Memorandum No. 3

Greg Dennis, P.E. and Kerri Williams-Lanza, P.E., City of Reno

25 April 2007

Appendix E

Appendix E

**Excerpts from “As-Built Construction Documentation
Steamboat Creek Diversion Structure and Detention
Basin Weir Structure” by Black Eagle Consulting,
2004**

J-545

J-545

AS-BUILT CONSTRUCTION DOCUMENTATION

STEAMBOAT CREEK ~~IMPROVEMENTS~~
STRUCTURE AND DETENTION BASIN ~~WEIR~~
STRUCTURE ONLY

RENO, NEVADA

FEBRUARY 2004

Prepared for:
Nevada Tri Partners





Mr. Charlie Carter
Nevada Tri Partners
P.O. Box 70280
Reno, NV 89570

February 23, 2004
Project No.: 0044-10-1

**RE: As-Built Construction Documentation
Steamboat Creek Diversion Structure and Detention Basin Weir Structure
Damonte Ranch
Reno, Nevada**

Dear Mr. Carter:

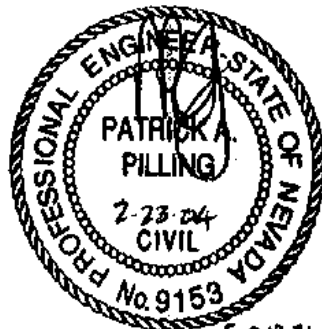
As requested, the attached information provides as-built construction documentation for the referenced structures that are a part of the wetlands detention facility at the Damonte Ranch in Reno, Nevada. During construction, Black Eagle Consulting, Inc. personnel observed construction operations and tested materials in accordance with project requirements. With the exception of two low compressive strength test results associated with soil cement placed on the south side of the weir at the Steamboat Creek Diversion structure, all materials tested satisfied project requirements. In the area of the low compressive strengths, additional core samples were obtained and examined in the laboratory. Although compressive strengths were higher for the re-cores (440 and 375 pounds per square inch [psi]), they were still below the target value of 500 psi; however, the cores exhibited minimal loss when scratched with a knife and wire brush, a strong indication that the materials in place should not be subject to significant erosion during flood events. Based on this examination and conversations with Mr. Michael Anderson of the State of Nevada, Division of Water Resources, it was agreed that the materials in place should perform as intended and could remain in place with no further remediation necessary. As a result, it is our opinion that construction methods used and materials placed during construction of the referenced structures satisfies the intent of the design and project specifications.

We appreciate being of service to you on this project. If you have any questions, or require any additional information, please contact me.

Sincerely,

Black Eagle Consulting, Inc.

Patrick A. Pilling, Ph.D., P.E.
Executive Vice President



Exp 12-31-05

Encl: Correspondence
Daily Field Reports
Concrete Compressive Strength Test Results

cc: Mr. Michael Anderson, State of Nevada DWR
Mr. Alan Felker, City of Reno
Mr. Brett Hammond, Odyssey Engineering
Mr. Jeff Paddock, Peavine Construction
Ms. Peggy Bowker, Nimbus Engineers

PAP:ded

Appendix F

Kennedy/Jenks Consultants

Technical Memorandum No. 3

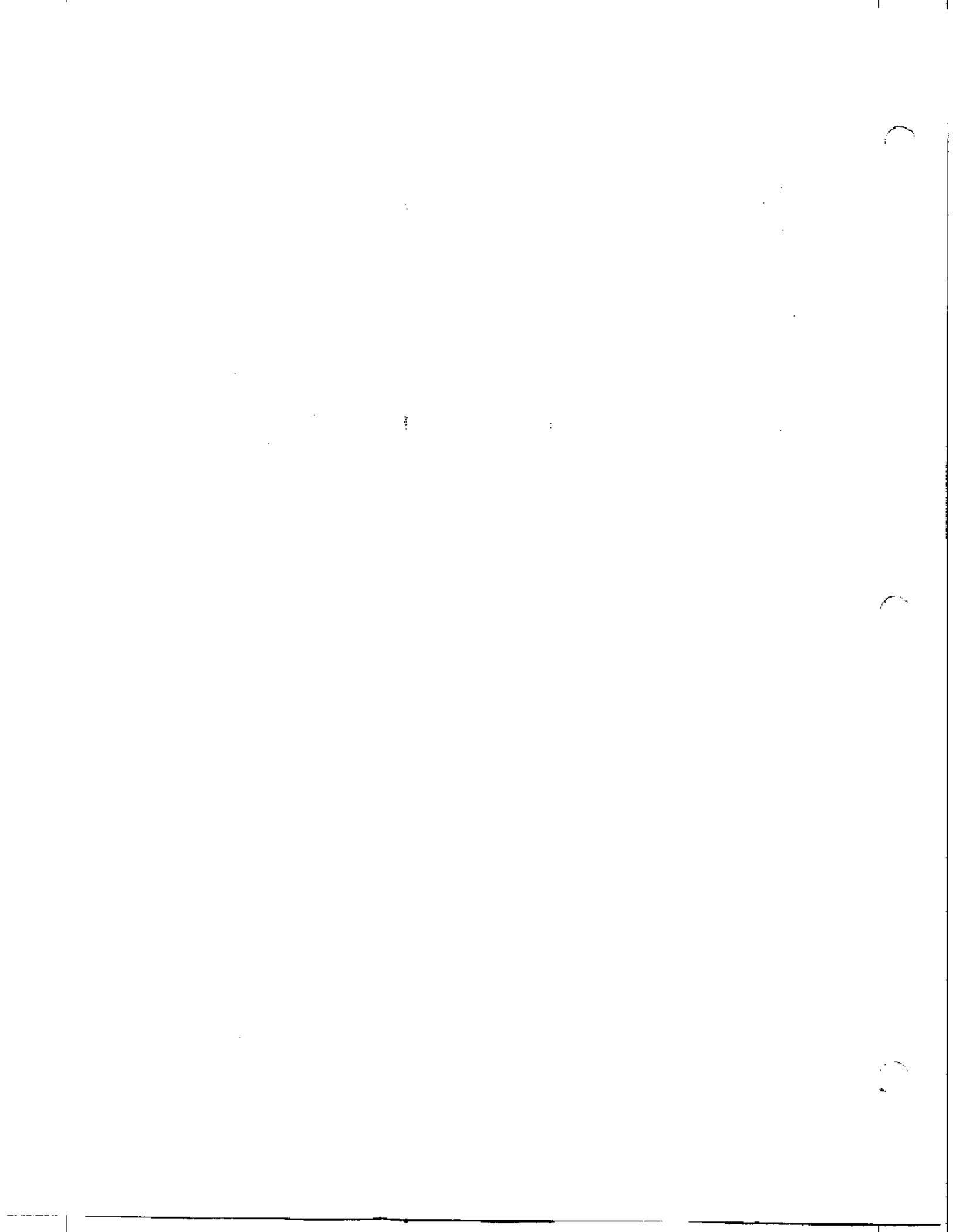
Greg Dennis, P.E. and Kerri Williams-Lanza, P.E., City of Reno

25 April 2007

Appendix F

Appendix F

**Estimates of Conceptual Probable Site Improvement
Costs**



ESTIMATE OF CONCEPTUAL PROBABLE IMPROVEMENT COSTS

KENNEDY/JENKS CONSULTANTS

Project: Flood Control and Storm Drain Facilities Assessments

Prepared By: CRS
 Checked By: CRA
 Date Checked: Feb. 28, 2007
 KJJ Proj. No.: KJ 0595008

SUMMARY OF SITES

SITE NO.	ITEM DESCRIPTION	MATERIALS	INSTALLATION	TOTAL
1	Steamboat Creek Diversion Structure			\$ 134,000
2	Regional Detention Basin Upgrades			\$ 327,000
3	Regional Detention Basin Outlet at Veterans Parkway			\$ 7,000
4	Outlet of Crane and Clough Ditch at DE5			\$ 100
5	Crane and Clough Ditch Repair			\$ 40,000
6	Channel C-7			\$ 25,000
7	Channel C-5			\$ 24,000
8	Channel W1-B			\$ 262,000
9	Channel C5-B			\$ 84,000
10	Channel W-3			\$ 69,000
11	Channel SE-8A			\$ 860,000
12	Detention Basin DE4 Storm Drain Culvert Outlet			\$ 6,400
13	Detention Basin DE3 Storm Drain Culvert Outlet			\$ 6,400
14	Detention Basin DE3 Storm Drain Culvert Outlet			\$ 8,000
15	Detention Basin DE3 Weir Outlet to DE1			\$ 92,000
16	Detention Basin DE1 Storm Drain Culvert Outlet			\$ 3,100
17	Detention Basin DE1 Storm Drain Culvert Outlet			\$ 2,900
18	Detention Basin DE1 Storm Drain Box Culvert Outlet			\$ 13,000
19	Detention Basin DE Outlet at Steamboat Parkway			\$ 41,000
20	Damonte Ranch Foothills Boundary Channel			\$ -
21	Detention Basin DE1 Storm Drain Culvert Outlet			\$ 10,000
	Total Conceptual Estimate of Project Cost			\$ 2,004,900

ESTIMATE OF CONCEPTUAL PROBABLE IMPROVEMENT COSTS

KENNEDY/JENKS CONSULTANTS

Project: Flood Control and Storm Drain Facilities Assesments

Prepared By: CRS

Checked By: CRA

Location: Site 2 - Detention Basin Upgrades

Date Checked: Feb. 28th, 2007

K/J Proj. No.: KJ 0595008

SUMMARY BY DIVISION

ITEM No.	ITEM DESCRIPTION	MATERIALS	QUANTITY	UNIT	UNIT PRICE	TOTAL
2030516	Clear Sediment from erosion in the Detention Basin	Drainage Excavation	17,917.00	CY	10.00	\$179,170.00
2120000	Reseed Embankments and berms to prevent further erosion in the detention basin	Site Prep	1.00	LS	7,500.00	\$7,500.00
2110500	Topsoil for embankments and berms	Topsoil	2,756.00	CY	22.00	\$60,632.00
2110508	Hydroseeding to prevent further erosion	Hydroseeding	3.50	Acre	3,500.00	\$12,250.00
2020366	Riprap for removal of culverts associated with irrigation flow	Remove & Reset Riprap	1.00	LS	2,000.00	\$2,000.00
2021080	Removal of Culverts	Removal of Culvert Pipe	100.00	Lin. Ft	40.00	\$4,000.00
2032008	Grade and Construct access road along south rim of detention basin	Roadway Excavation	530.00	CY	25.00	\$13,250.00
3022032	Grade and Construct access road	Type 2 Class B Agg Base	530.00	CY	35.00	\$18,550.00
	Subtotals					\$297,352.00
	Engineering @ 10%					29,735.20
	Estimate Contingency @ 10%					29,735.20
	Total Estimate					327,087.20
	Total Estimate (Nearest \$1000)					327,000.00

ESTIMATE OF CONCEPTUAL PROBABLE IMPROVEMENT COSTS

KENNEDY/JENKS CONSULTANTS

Project: Flood Control and Storm Drain Facilities Assesments

Prepared By: CRS

Checked By: CRA

Location: Site 3 - Flow Structure between Detention Basins

Date Checked: Feb. 28th, 2007

K/J Proj. No.: KJ 0595008

SUMMARY BY DIVISION

ITEM No.	ITEM DESCRIPTION	MATERIALS	QUANTITY	UNIT	UNIT PRICE	TOTAL
2030520	Restore Gradient Sloping	Channel Excavation	250.00	CY	22.00	\$5,500.00
	Subtotals					\$5,500.00
	Engineering @ 10%					550.00
	Contingency @ 10%					550.00
	Total Estimate					6,600.00
	Total Estimate (Nearest \$1000)					7,000.00

ESTIMATE OF CONCEPTUAL PROBABLE IMPROVEMENT COSTS

KENNEDY/JENKS CONSULTANTS

Project: Flood Control and Storm Drain Facilities Assesments

Prepared By: CRS

Checked By: CRA

Location: Site 4 - Outlet of Crane and Clough Ditch

Date Checked: Feb. 28th, 2007

K/J Proj. No.: KJ 0595008

SUMMARY BY DIVISION

ITEM No.	ITEM DESCRIPTION	MATERIALS	QUANTITY	UNIT	UNIT PRICE	TOTAL
5020880	Refinish face of headwall	Fine Surface Finish	1.00	SqYd	76.00	\$76.00
	Subtotals					\$ 76.00
	Engineering @ 10%					\$ 7.60
	Total Estimate					\$ 83.60
	Total Estimate (Nearest \$100)					\$ 100.00

ESTIMATE OF CONCEPTUAL PROBABLE IMPROVEMENT COSTS

KENNEDY/JENKS CONSULTANTS

Project: Flood Control and Storm Drain Facilities Assesments

Prepared By: CRS

Checked By: CRA

Location: Site 5 - Crane and Clow Ditch

Date Checked: Feb. 28th, 2007

K/J Proj. No.: KJ 0595008

SUMMARY BY DIVISION

ITEM No.	ITEM DESCRIPTION	MATERIALS	QUANTITY	UNIT	UNIT PRICE	TOTAL
2030516	Design & Construct a Stabilized Ditch for the Crane and Clough drainage	Drainage Excavation	270.00	CY	20.00	\$5,400.00
6100501	Reinforce Stabilized Ditch	Riprap (class 150)	220.00	CY	80.00	\$17,600.00
6100601	Reinforce Stabilized Ditch	Riprap Bedding (class 150)	74.00	CY	50.00	\$3,700.00
2030516	Remove Sediment from Inlet of DE5	Drainage Excavation	92.00	CY	40.00	\$3,680.00
5020516	Headwall for Crane and Clough Ditch	Class AA Concrete	1.14	CY	2,500.00	\$2,850.00
5050500	Reinforcing Steel for Headwall	Reinforcing Steel	48.00	Lbs	3.00	\$144.00
2070500	Backfill for Stabilization of Headwall	Backfill	1.50	CY	25.00	\$37.50
	Subtotals					\$33,411.50
	Engineering @ 10%					3,341.15
	Contingency @ 10%					3,341.15
	Total Estimate					40,093.80
	Total Estimate (Nearest \$1000)					40,000.00

ESTIMATE OF CONCEPTUAL PROBABLE IMPROVEMENT COSTS

KENNEDY/JENKS CONSULTANTS

Project: Flood Control and Storm Drain Facilities Assessments

Prepared By: CRS

Checked By: CRA

Location: Site 6 - Channel C - 7

Date Checked: Feb. 28th, 2007

K/J Proj. No.: KJ 0595008

SUMMARY BY DIVISION

ITEM No.	ITEM DESCRIPTION	MATERIALS	QUANTITY	UNIT	UNIT PRICE	TOTAL
6100524	Grouted Riprap at the Maintenance Ramp	Grouted Riprap	4.20	CY	125.00	\$525.00
2030516	Grouted Riprap at the Maintenance Ramp	Drainage Excavation	4.20	CY	25.00	\$105.00
	Clear Riprap Obstructing outlet of PVC	Labor	1.00	LS	500.00	\$500.00
2030516	Remove Sediment from DE5	Drainage Excavation	138.00	CY	40.00	\$5,520.00
2030516	Excavation of channel for riprap	Drainage Excavation	200.00	CY	35.00	\$7,000.00
6100501	Additional riprap needed for channel	Riprap (class 150)	40.00	CY	75.00	\$3,000.00
6100601	Riprap Bedding for channel	Riprap Bedding (class 150)	67.00	CY	60.00	\$4,020.00
	Subtotals					\$20,670.00
	Engineering @ 10%					\$2,067.00
	Estimate Contingency @ 10%					2,067.00
	Total Estimate					24,804.00
	Total Estimate (Nearest \$1000)					25,000.00

ESTIMATE OF CONCEPTUAL PROBABLE IMPROVEMENT COSTS

KENNEDY/JENKS CONSULTANTS

Project: Flood Control and Storm Drain Facilities Assessments

Prepared By: CRS

Checked By: CRA

Location: Site 7 - Channel C - 5

Date Checked: Feb. 28th, 2007

K/J Proj. No.: KJ 0595008

SUMMARY BY DIVISION

ITEM No.	ITEM DESCRIPTION	MATERIALS	QUANTITY	UNIT	UNIT PRICE	TOTAL
2060000	Reconstruct 2 Grade Control Sills	Structure Excavation	8.00	CY	50.00	\$400.00
5020516	Reconstruct 2 Grade Control Sills	Class AA Concrete (minor)	8.00	CY	1,500.00	\$12,000.00
5050500	Reinforcing Steel for the replacement of 2 Grade control sills	Reinforcing Steel	600.00	Lbs	2.50	\$1,500.00
2020366	Remove & Reset Riprap for reconstructed 2 sills	Remove & Reset Riprap	1.00	LS	1,000.00	\$1,000.00
6100601	Remove & Place Riprap at end of all sills	Riprap Bedding (class 150)	36.00	CY	50.00	\$1,800.00
2020366	Remove & Reset Riprap at bottom of sills	Remove & Reset Riprap	1.00	LS	1,500.00	\$1,500.00
61005243	Maintenance Ramp Construction	Grouted Riprap	10.00	CY	125.00	\$1,250.00
2030516	Maintenance Ramp Excavation	Drainage Excavation	20.00	CY	25.00	\$500.00
	Subtotals					\$19,950.00
	Engineering @ 10%					1,995.00
	Estimate Contingency @ 10%					1,995.00
	Total Estimate					23,940.00
	Total Estimate (Nearest \$1000)					24,000.00

ESTIMATE OF CONCEPTUAL PROBABLE IMPROVEMENT COSTS

KENNEDY/JENKS CONSULTANTS

Project: Flood Control and Storm Drain Facilities Assesments

Prepared By: CRS

Checked By: CRA

Location: Site 8 - Channel W1-B

Date Checked: Feb. 28th, 2007

K/J Proj. No.: KJ 0595008

SUMMARY BY DIVISION

ITEM No.	ITEM DESCRIPTION	MATERIALS	QUANTITY	UNIT	UNIT PRICE	TOTAL
5020880	Repair Culvert Outlet	Fine Surface Finish Class 1	1.00	Sq. Yd	100.00	\$100.00
2021080	Remove Temporary Culverts	Removal of Culvert Pipe	100.00	Lin. Ft	40.00	\$4,000.00
6100601	Reconstruct Channel	Riprap Bedding	940.00	CY	50.00	\$47,000.00
2020366	Reconstruct Channel	Remove and Reset Riprap	1.00	LS	15,000.00	\$15,000.00
6100502	Excess Riprap needed	Riprap (Class300)	320.00	CY	120.00	\$38,400.00
2030516	Drainage Excavation for rebuilt channel	Drainage Excavation	2,500.00	CY	50.00	\$125,000.00
	Subtotals					\$229,500.00
	Engineering @ 10%					22,950.00
	Estimate Contingency @ 10%					22,950.00
	Total Estimate					252,450.00
	Total Estimate (Nearest \$1000)					252,000.00

ESTIMATE OF CONCEPTUAL PROBABLE IMPROVEMENT COSTS

KENNEDY/JENKS CONSULTANTS

Project: Flood Control and Storm Drain Facilities Assessments

Prepared By: CRS

Checked By: CRA

Location: Site 9 - Channel C5-B

Date Checked: Feb. 28th, 2007

K/J Proj. No.: KJ 0595008

SUMMARY BY DIVISION

ITEM No.	ITEM DESCRIPTION	MATERIALS	QUANTITY	UNIT	UNIT PRICE	TOTAL
5020516	Remove & Reconstruct Culvert Headwall	Class AA Concrete	6.00	CY	800.00	\$4,800.00
2020356	Remove old headwall	Remove headwall	1.00	Each	1,000.00	\$1,000.00
5050500	Reconstruct Culvert Headwall	Reinforcing Steel	90.00	LBS	3.00	\$270.00
6100601	Riprap bedding for channel reconstruction	Riprap Bedding	340.00	CY	55.00	\$18,700.00
2020366	Reconstruct Channel C5-B	Remove & Reset Riprap	1.00	LS	7,500.00	\$7,500.00
6100502	Reconstruct Channel riprap	Riprap (class 300)	354.00	CY	100.00	\$35,400.00
2030516	Drainage Excavation for channel reconstruction	Drainage Excavation	354.00	CY	25.00	\$8,850.00
	Subtotals					\$76,520.00
	Engineering @ 10%					7,652.00
	Estimate Contingency @ 10%					7,652.00
	Total Estimate					84,172.00
	Total Estimate (Nearest \$1000)					84,000.00

ESTIMATE OF CONCEPTUAL PROBABLE IMPROVEMENT COSTS

KENNEDY/JENKS CONSULTANTS

Project: Flood Control and Storm Drain Facilities Assesments

Prepared By: CRS

Checked By: CRA

Location: Site 10 - Channel W-3

Date Checked: Feb. 28th, 2007

K/J Proj. No.: KJ 0595008

SUMMARY BY DIVISION

ITEM No.	ITEM DESCRIPTION	MATERIALS	QUANTITY	UNIT	UNIT PRICE	TOTAL
6100524	Construct Grouted Riprap at Maintenance Ramp	Grouted Riprap	122.00	CY	100.00	\$12,200.00
2030516	Construct Grouted Riprap at Maintenance Ramp	Drainage Excavation	122.00	CY	25.00	\$3,050.00
2030520	Channel Excavation for the end of channel W-3	Channel Excavation	320.00	CY	25.00	\$8,000.00
6100501	Additional riprap needed for end of channel	Riprap (class 150)	64.00	CY	70.00	\$4,480.00
6100601	Install riprap bedding	Riprap Bedding (class 150)	80.00	CY	50.00	\$4,000.00
2020366	Remove & Reinstall Riprap @ end of Channel	Remove & Reset Riprap	1.00	LS	8,000.00	\$8,000.00
2120000	Vegetated Channel Stabilization	Site Prep	1.00	LS	9,500.00	\$9,500.00
2110500	Vegetated Channel Stabilization	Topsoil	280.00	CY	23.00	\$6,440.00
2110508	Vegetated Channel Stabilization	Hydroseeding	0.50	Acre	4,000.00	\$2,000.00
	Subtotals					\$57,670.00
	Engineering @ 10%					5,767.00
	Estimate Contingency @ 10%					5,767.00
	Total Estimate					69,204.00
	Total Estimate (Nearest \$1000)					69,000.00

ESTIMATE OF CONCEPTUAL PROBABLE IMPROVEMENT COSTS

KENNEDY/JENKS CONSULTANTS

Project: Flood Control and Storm Drain Facilities Assessments

Prepared By: CRS

Checked By: CRA

Location: Site 11 - Channel SE-8A

Date Checked: Feb. 28th, 2007

K/J Proj. No.: KJ 0595008

SUMMARY BY DIVISION

ITEM No.	ITEM DESCRIPTION	MATERIALS	QUANTITY	UNIT	UNIT PRICE	TOTAL
6100601	Riprap Bedding for Grade Control Sill Ends	Riprap Bedding (class 150)	38.00	CY	50.00	\$1,900.00
2020366	Remove & Reconstruct Riprap at Grade Control Sills	Remove & Reset Riprap	1.00	LS	8,000.00	\$8,000.00
6100501	Riprap at Grade Control Sill Ends	Riprap (class 150)	125.00	CY	80.00	\$10,000.00
6100524	Construct Grouted Riprap at Maintenance Ramp	Grouted Riprap	140.00	CY	100.00	\$14,000.00
2030516	Excavation for Maintenance Ramp	Drainage Excavation	140.00	CY	30.00	\$4,200.00
2060000	Remove Rockery Wall	Structure Excavation	611.00	CY	35.00	\$21,385.00
5020516	Construct PCC Retaining Wall	Class AA Concrete	380.00	CY	1,300.00	\$494,000.00
5050500	PCC Wall Steel	Reinforcing Steel	27,500.00	Lbs	1.50	\$41,250.00
6100601	Install Riprap on Boundary Channel	Riprap Bedding (class 150)	140.00	CY	50.00	\$7,000.00
2030516	Install Riprap on Boundary Channel	Drainage Excavation	950.00	CY	25.00	\$23,750.00
6100501	Install Riprap on Boundary Channel	Riprap (class 150)	550.00	CY	65.00	\$35,750.00
						\$661,235.00
	Subtotals					
	Engineering @ 20%					132,247.00
	Estimate Contingency @ 10%					66,123.50
	Total Estimate					859,605.50
	Total Estimate (Nearest \$1000)					860,000.00

ESTIMATE OF CONCEPTUAL PROBABLE IMPROVEMENT COSTS

KENNEDY/JENKS CONSULTANTS

Project: Flood Control and Storm Drain Facilities Assesments

Prepared By: CRS

Checked By: CRA

Location: Site 12 - Detention Basin DE4 Storm Drain Culvert Repair

Date Checked: Feb. 28th, 2007

K/J Proj. No.: KJ 0595008

SUMMARY BY DIVISION

ITEM No.	ITEM DESCRIPTION	MATERIALS	QUANTITY	UNIT	UNIT PRICE	TOTAL
2032008	Construct Access Ramp	Roadway Excavation	20.00	CY	80.00	\$1,600.00
3022032	Construct Access Ramp	Type 2 Class B AGG base	6.00	CY	50.00	\$300.00
4022132	Construct Access Ramp	Asphalt Cement	3.00	TON	250.00	\$750.00
5020880	Refinish Culvert Headwall	Fine Surface Finish	1.00	Sq. Yd	100.00	\$100.00
6100601	Construct Riprap Apron	Riprap Bedding (class 150)	5.00	CY	100.00	\$500.00
2030516	Construct Riprap Apron	Drainage Excavation	20.00	CY	45.00	\$900.00
6100501	Construct Riprap Apron	Riprap (Class 150)	15.00	CY	80.00	\$1,200.00
	Subtotals					\$5,350.00
	Engineering @ 10%					535.00
	Estimate Contingency @ 10%					535.00
	Total Estimate					6,420.00
	Total Estimate (Nearest \$100)					6,400.00

ESTIMATE OF CONCEPTUAL PROBABLE IMPROVEMENT COSTS

KENNEDY/JENKS CONSULTANTS

Project: Flood Control and Storm Drain Facilities Assessments

Prepared By: CRS

Checked By: CRA

Location: Site 13 - Detention Basin DE3 Storm Drain Culvert Repair

Date Checked: Feb. 28th, 2007

K/J Proj. No.: KJ 0595008

SUMMARY BY DIVISION

ITEM No.	ITEM DESCRIPTION	MATERIALS	QUANTITY	UNIT	UNIT PRICE	TOTAL
2032008	Construct Permanent Access Ramp	Roadway Excavation	10.00	CY	100.00	\$1,000.00
3022032	Construct Permanent Access Ramp	Type 2 Class B AGG Base	5.00	CY	50.00	\$250.00
4022132	Construct Permanent Access Ramp	Asphalt Cement, Grade AC-20P	5.00	TON	250.00	\$1,250.00
5020880	Refinish Face of Culvert Wall	Fine Surface Finish	1.00	CY	100.00	\$100.00
6100601	Remove Rock Culvert Apron	Riprap Bedding (class 150)	9.00	CY	75.00	\$675.00
2030516	Remove Rock Culvert Apron	Drainage Excavation	30.00	CY	35.00	\$1,050.00
6100501	Remove Rock Culvert Apron	Riprap (class 150)	20.00	CY	75.00	\$1,500.00
	Subtotals					\$5,825.00
	Engineering @ 10%					582.50
	Estimate Contingency @ 10%					582.50
	Total Estimate					6,407.50
	Total Estimate (Nearest \$100)					6,400.00

ESTIMATE OF CONCEPTUAL PROBABLE IMPROVEMENT COSTS

KENNEDY/JENKS CONSULTANTS

Project: Flood Control and Storm Drain Facilities Assesments

Prepared By: CRS

Checked By: CRA

Location: Site 14 - Detention Basin DE3 Storm Drain Culvert Repair

Date Checked: Feb. 28th, 2007

K/J Proj. No.: KJ 0595008

SUMMARY BY DIVISION

ITEM No.	ITEM DESCRIPTION	MATERIALS	QUANTITY	UNIT	UNIT PRICE	TOTAL
2032008	Construct Permanent Access Ramp	Roadway Excavation	10.00	CY	100.00	\$1,000.00
3022032	Construct Permanent Access Ramp	Type 2 Class B AGG Base	5.00	CY	50.00	\$250.00
4022132	Construct Permanent Access Ramp	Asphalt Cement, Grade AC-20P	5.00	TON	250.00	\$1,250.00
5020880	Refinish Face of Culvert Wall	Fine Surface Finish	10.00	Sq YD	100.00	\$1,000.00
6100601	Remove Rock Culvert Apron	Riprap Bedding (class 150)	9.00	CY	75.00	\$675.00
2030516	Remove Rock Culvert Apron	Drainage Excavation	30.00	CY	35.00	\$1,050.00
6100501	Remove Rock Culvert Apron	Riprap (class 150)	20.00	CY	75.00	\$1,500.00
	Subtotals					\$6,725.00
	Engineering @ 10%					672.50
	Estimat Contingency @ 10%					672.50
	Total Estimate					8,070.00
	Total Estimate (Nearest \$100)					8,000.00

ESTIMATE OF CONCEPTUAL PROBABLE IMPROVEMENT COSTS

KENNEDY/JENKS CONSULTANTS

Project: Flood Control and Storm Drain Facilities Assessments

Prepared By: CRS

Checked By: CRA

Location: Site 15 - Flow Structure between Detention Basins DE3 & DE1

Date Checked: Feb. 28th, 2007

K/J Proj. No.: KJ 0595008

SUMMARY BY DIVISION

ITEM No.	ITEM DESCRIPTION	MATERIALS	QUANTITY	UNIT	UNIT PRICE	TOTAL
6161001	Install Fencing to Deter Public use	Split Rail Fence	150.00	Lin. Ft	22.00	\$3,300.00
2030516	Remove Existing Rock Riprap	Channel Excavation	375.00	CY	15.00	\$5,625.00
6100502	Excess Riprap needed for weir structure	Riprap (class 300)	50.00	CY	90.00	\$4,500.00
6100602	Riprap Bedding	Riprap Bedding (class 300)	62.00	CY	100.00	\$6,200.00
6110504	New Weir Configuration	Concrete Slope Pavement	12.00	CY	600.00	\$7,200.00
5020516	Weir Configuration	Class AA Concrete	35.00	CY	1,300.00	\$45,500.00
5050500	Weir Configuration	Reinforcing Steel	700.00	Lbs	2.00	\$1,400.00
2062000	Old Weir Excavation	Structure Excavation	40.00	CY	75.00	\$3,000.00
	Subtotals					\$76,725.00
	Engineering @ 10%					7,672.50
	Estimate Contingency @ 10%					7,672.50
	Total Estimate					92,070.00
	Total Estimate (Nearest \$1000)					92,000.00

ESTIMATE OF CONCEPTUAL PROBABLE IMPROVEMENT COSTS

KENNEDY/JENKS CONSULTANTS

Project: Flood Control and Storm Drain Facilities Assesments

Prepared By: CRS

Checked By: CRA

Location: Site 16 Detention Basin DE1 Storm Drain Culvert Repair

Date Checked: Feb. 28th, 2007

K/J Proj. No.: KJ 0595008

SUMMARY BY DIVISION

ITEM No.	ITEM DESCRIPTION	MATERIALS	QUANTITY	UNIT	UNIT PRICE	TOTAL
2032008	Construct Permanent Access Ramp	Roadway Excavation	10.00	CY	100.00	\$1,000.00
3022032	Construct Permanent Access Ramp	Type 2 Class B AGG Base	4.00	CY	50.00	\$200.00
4022132	Construct Permanent Access Ramp	Asphalt Cement, Grade AC-20P	5.00	TON	250.00	\$1,250.00
5020880	Refinish Face of Culvert Wall	Fine Surface Finish	1.00	Sq YD	100.00	\$100.00
	Subtotals					\$2,550.00
	Engineering @ 10%					255.00
	Estimate Contingency @ 10%					255.00
	Total Estimate					3,060.00
	Total Estimate (Nearest \$100)					3,100.00

ESTIMATE OF CONCEPTUAL PROBABLE IMPROVEMENT COSTS

KENNEDY/JENKS CONSULTANTS

Project: Flood Control and Storm Drain Facilities Assessments

Prepared By: CRS

Checked By: CRA

Location: Site 17 - Detention Basin DE1 Storm Drain Culvert Repair

Date Checked: Feb. 28th, 2007

K/J Proj. No.: KJ 0595008

SUMMARY BY DIVISION

ITEM No.	ITEM DESCRIPTION	MATERIALS	QUANTITY	UNIT	UNIT PRICE	TOTAL
2032008	Construct Permanent Access Ramp	Roadway Excavation	10.00	CY	100.00	\$1,000.00
3022032	Construct Permanent Access Ramp	Type 2 Class B AGG Base	4.00	CY	50.00	\$200.00
4022132	Construct Permanent Access Ramp	Asphalt Cement, Grade AC-20P	5.00	TON	250.00	\$1,250.00
	Subtotals					\$2,450.00
	Engineering @ 10%					245.00
	Estimate Contingency @ 10%					245.00
	Total Estimate					2,940.00
	Total Estimate (Nearest \$100)					2,900.00

ESTIMATE OF CONCEPTUAL PROBABLE IMPROVEMENT COSTS

KENNEDY/JENKS CONSULTANTS

Project: Flood Control and Storm Drain Facilities Assesments

Prepared By: CRS

Checked By: CRA

Location: Site 18 - Detention Basin DE1 Storm Drain Culvert Repair

Date Checked: Feb. 28th, 2007

K/J Proj. No.: KJ 0595008

SUMMARY BY DIVISION

ITEM No.	ITEM DESCRIPTION	MATERIALS	QUANTITY	UNIT	UNIT PRICE	TOTAL
2032008	Construct Permanent Access Ramp	Roadway Excavation	10.00	CY	100.00	\$1,000.00
3022032	Construct Permanent Access Ramp	Type 2 Class B AGG Base	4.00	CY	50.00	\$200.00
4022132	Construct Permanent Access Ramp	Asphalt Cement, Grade AC-20P	5.00	TON	250.00	\$1,250.00
6100524	Grouted Riprap Apron	Grouted Riprap	60.00	CY	100.00	\$6,000.00
2030516	Grouted Riprap Apron	Drainage Excavation	75.00	CY	35.00	\$2,625.00
	Subtotals					\$11,075.00
	Engineering @ 10%					1,107.50
	Estimate Contingency @ 10%					1,107.50
	Total Estimate					13,290.00
	Total Estimate (Nearest \$1000)					13,000.00

ESTIMATE OF CONCEPTUAL PROBABLE IMPROVEMENT COSTS

KENNEDY/JENKS CONSULTANTS

Project: Flood Control and Storm Drain Facilities Assessments

Prepared By: CRS

Checked By: CRA

Location: Site 19 - Storm Drain Box Culvert Repair Underneath Steamboat Pkway

Date Checked: Feb. 28th, 2007

K/J Proj. No.: KJ 0595008

SUMMARY BY DIVISION

ITEM No.	ITEM DESCRIPTION	MATERIALS	QUANTITY	UNIT	UNIT PRICE	TOTAL
2020356	Remove Existing 36" Headwall	Remove Headwall	1.00	Each	700.00	\$700.00
5020516	Replace 24" RCP Headwall	Class AA Concrete	1.15	CY	2,000.00	\$2,300.00
5050500	Headwall Steel	Reinforcing Steel	48.00	LBS	4.00	\$192.00
2032008	Construct Permanent Access Ramp	Roadway Excavation	10.00	CY	100.00	\$1,000.00
3022032	Construct Permanent Access Ramp	Type 2 Class B AGG Base	4.00	CY	40.00	\$160.00
4022132	Construct Permanent Access Ramp	Asphalt Cement, Grade AC-20P	5.00	TON	200.00	\$1,000.00
	Repair Exposed Rebar in Inlet Wingwall	Labor	1.00	LS	5,000.00	\$5,000.00
6100502	Riprap Outlet	Riprap (class 300)	185.00	CY	65.00	\$12,025.00
6100602	Riprap Outlet	Riprap Bedding (class 300)	93.00	CY	55.00	\$5,115.00
2030516	Riprap Excavation	Drainage Excavation	280.00	CY	25.00	\$7,000.00
	Subtotals					\$34,492.00
	Engineering @ 10%					3,449.20
	Estimate Contingency @ 10%					3,449.20
	Total Estimate					41,390.40
	Total Estimate (Nearest \$1000)					41,000.00

ESTIMATE OF CONCEPTUAL PROBABLE IMPROVEMENT COSTS

KENNEDY/JENKS CONSULTANTS

Project: Flood Control and Storm Drain Facilities Assesments

Prepared By: CRS

Checked By: CRA

Location: Site 21 - Detention Basin DE1 Storm Drain Outlet

Date Checked: Feb. 28th, 2007

K/J Proj. No.: KJ 0595008

SUMMARY BY DIVISION

ITEM No.	ITEM DESCRIPTION	MATERIALS	QUANTITY	UNIT	UNIT PRICE	TOTAL
5020516	24" RCP Headwall	Class AA Concrete	1.15	CY	2,000.00	\$2,300.00
5050500	Headwall Steel	Reinforcing Steel	48.00	LBS	4.00	\$192.00
2032008	Construct Permanent Access Ramp	Roadway Excavation	20.00	CY	80.00	\$1,600.00
3022032	Construct Permanent Access Ramp	Type 2 Class B AGG Base	6.00	CY	50.00	\$300.00
4022132	Construct Permanent Access Ramp	Asphalt Cement, Grade AC-20P	3.00	TON	250.00	\$750.00
6100502	Riprap Outlet	Riprap (class 300)	5.00	CY	15.00	\$75.00
6100602	Riprap Outlet	Riprap Bedding (class 300)	20.00	CY	100.00	\$2,000.00
2030516	Riprap Excavation	Drainage Excavation	20.00	CY	45.00	\$900.00
	Subtotals					\$8,117.00
	Engineering @ 10%					811.70
	Estimate Contingency @ 10%					811.70
	Total Estimate					9,740.40
	Total Estimate (Nearest \$1000)					10,000.00