



Clean Water Act Section 401 Water Quality Certification Application

Please refer to the "Clean Water Act Section 401 Water Quality Certification Application Guidance" document for assistance with completing this application.

A. Pre-Filing Meeting	
Please provide the date that a pre-filing meeting was requested from Nevada Division of Environmental Protection (NDEP) Bureau of Water Quality Planning (BWQP).	October 19, 2026
<i>Note: If a pre-filing meeting has not been requested, please schedule a pre-filing meeting with NDEP BWQP.</i>	

B. Contact Information	
Project Proponent Information	
Company Name: Clark County	Address: 500 S Grand Central Pkwy Suite 2091
Applicant Name: Rahel Shibeshi, P.E.	City: Las Vegas
Phone: (702) 455-6071	Fax:
	State: Nevada
Email: rahel.shibeshi@clarkcountynv.gov	Zip Code: 89155
Agent Information	
Company Name: CA Group	Address: 2785 South Rainbow Boulevard #100
Agent Name: Jeffrey Brown, P.E.	City: Las Vegas
Phone: (801) 230-8279	Fax:
	State: Nevada
Email: jeffrey.brown@c-agroup.com	Zip Code: 89146

C. Project General Information	
Project Location	
Project/Site Name: SUNSET PARK - DUCK CREEK WASH TO EASTERN AVE	Name of receiving waterbody: Duck Creek Wash
Address: Tobias Lane at the Duck Creek Wash	Type of waterbody present at project location (<i>select all that apply</i>): ☐ Perennial River or Stream ☐ Intermittent River or Stream ☐ Ephemeral River or Stream ☐ Lake/Pond/Reservoir ☐ Wetland ☒ Other: <u>Flood Control Facility</u>
City: Las Vegas	
County: Clark County	
State: Nevada	
Zip Code: 89120	
Latitude (UTM or Dec/Deg):	Longitude (UTM or Dec/Deg): -115.093083 W, 36.065022 N

Township: 22	Range: 62	Section: 6	¼ Section:
Project Details			
Project purpose:		The Sunset Park - Duck Creek Wash to Eastern Avenue Project will construct the Duck Creek – Sunset Park (DCSP0000) Clark County Regional Flood Control District (CCRFC) Master Plan facility to improve conveyance of stormwater and reduce flood risk to residents, businesses, the traveling public, and users of Sunset Park. This facility, known as the Sunset Park RCB, extends from Eastern Avenue through Sunset Park, east along Maule Avenue, north in Pecos Road, and east in Tobias Lane to Duck Creek Wash, as seen in Figure 1.1. This Section 401 application is limited to construction of the confluence with the Duck Creek Wash. At the confluence, the Sunset Park RCB is a 14-foot by 6-foot RCB that will connect to the existing concrete-lined channel by replacing a portion of the west trapezoidal channel wall with a rectangular wall/outfall section. A transition from trapezoidal to rectangular will be constructed upstream, and a taper and transition back to the trapezoidal wall configuration downstream of the connection.	
Describe current site conditions:		The Duck Creek Wash at the project site is fully improved concrete-lined trapezoidal flood-control channel within a dedicated 100-foot right-of-way. In the work area, Duck Creek Wash has a concrete bottom varying from approximately 30 to 35 feet wide and concrete side slopes ranging from approximately 1.5H:1V to 2H:1V. The proposed Sunset RCB connection is on the west side of the wash, approximately 220 feet east of the Tobias Lane cul-de-sac and approximately 1,900 feet upstream of the Sunfish Drive Bridge. The channel is mapped as FEMA Zone AE regulatory floodway. The surrounding area is urbanized and previously disturbed. No wetlands, wetland fringes, hydric soils, aquatic spawning, feeding, or nesting habitat were identified in the project-area environmental analysis. Duck Creek Wash functions as an ephemeral stormwater/flood-control facility.	
Describe the proposed activity including methodology of each project element:		The proposed activity is the construction of the Sunset Park RCB confluence with the Duck Creek Wash. This construction will consist of approximately 157 linear feet of removal of the existing Duck Creek Wash west channel wall, starting at the construction joint at the toe of the west channel slope. This west channel wall section will be reconstructed to accommodate the confluence as follows, described from upstream to downstream: (1) a 40-foot transition from the existing trapezoidal wall to a rectangular wall, increasing the channel bottom width by 5.8 feet; (2) a 52-foot continuous section of rectangular wall and widened channel bottom (increased by 5.8-feet; (3) a 15-foot rectangular wall section widened by 20.8 feet from the existing construction joint to accommodate the Sunset Park RCB connection; and (4) a 50-foot transition from the 20.8-foot widened rectangular section to the existing trapezoidal section downstream of the confluence (Figure 1.2, 2.1, and 2.2). The cross slope of the widened channel sections vary from 0.5 to 2.0 percent through the improved area. A variable-height pony wall (1-foot minimum to 3-foot maximum height) will be constructed along the transitions and rectangular wall to satisfy CCRFC freeboard criteria. Construction is anticipated to include saw-cut and removal of the existing concrete wall; excavation to place suitable materials (per geotechnical recommendations) behind the new vertical wall section and under the widened channel bottom; preparation and stabilization of subgrade as required by the geotechnical recommendations; placement and compaction of approved structural/backfill material; placement of the Sunset Park RCB; forming and pouring the Duck Creek Wash wall improvements described in the previous paragraph; and restoration/cleanup of the work area. At the confluence, the Duck Creek Wash is bordered by private properties, with no available area for material staging, storage or disposal. All materials removed from the wash will be hauled off-site and will not re-enter aquatic resources. The contractor will isolate the active work area from storm flows by placing a flow exclusionary device, such as water-filled coffer dam or K-Rails. A crane may be used from the Duck Creek Wash maintenance road, outside the wash, for placement of K-rails as an exclusionary BMP. The contractor may also choose to install water-filled coffer dams or other exclusionary BMP measures. Water filled coffer dams are very light prior to filling and can be transported using a laborers, rubber tire excavator (Cat M320) or a loader (Cat 950). The coffer dam can be placed and unrolled by laborers with assistance by a loader if required. A pump would be used to fill them with water from the wash. As seen on Figures 2.3a to 2.3f, the flow diversion device is placed at the approximate center of the wash to allow 15-feet of construction access along the channel, and approximately 31-feet upstream and downstream of the improvements. The placement of the diversionary device will isolate the construction area and cause the low flows to bypass around the construction area to the south-east side of the wash.	

	The flow diversionary device is anticipated to be 3-feet wide, 3-feet high, and 220-feet in length along the wash, and 22-feet in length perpendicular to the wash, for a total length of 264-feet that results in 88 cubic yards of temporary fill in the wash. Please note that this length is conservative, as it assumes the flow diversionary device will extend to the top of the channel walls. It is anticipated that the device will be in place for the duration of construction at the Sunset RCB and Duck Creek Wash confluence, approximately 120-days. Removal of these exclusionary BMP's is assumed to require the same equipment and generally follow the same process, in reverse. Post construction restoration of the Duck Creek Wash will include removal of all equipment and temporary BMPs. Sediment and debris will be removed from the work area by hand and hauled off-site for disposal. Removed materials will not be discharged into the Duck Creek Wash or any other aqueous environments. No dredged or fill material will be discharged into waters of the United States.
Estimate the nature, specific location, and number of discharge(s) expected to be authorized by the proposed activity:	One permanent stormwater discharge point is proposed: the terminal outfall of the Sunset Park RCB into the Duck Creek Wash at the new confluence structure, approximately 220 feet east of the Tobias Lane cul-de-sac. The discharge will consist of stormwater conveyed by CCRFCD facility DCSP0000. Based on the project-specific Groundwater Study, groundwater discharge to the Duck Creek Wash is anticipated during construction. The flow rates identified in the study indicate that a NDEP De Minimis General Permit is expected to be required. The contractor shall obtain all necessary permits, including the anticipated De Minimis Permit and any other applicable discharge permits, prior to initiating dewatering activities and discharging groundwater to the Duck Creek Wash.
Provide the date(s) on which the proposed activity is planned to begin and end and the approximate date(s) when any discharge(s) may commence:	The proposed activity (connection of the Sunset Park RCB to the Duck Creek Wash) is planned to begin in mid-2027 and be completed in approximately 4 months. Discharge is anticipated to commence as construction of the Sunset Park RCB continues over the following year. Project completion is anticipated in 2028.
Provide a list of the federal permit(s) or license(s) required to conduct the activity which may result in a discharge into regulated waters (see mandatory attachments):	404 Permit: U.S. Army Corps of Engineers (USACE) Nationwide Permit 3, Maintenance
Provide a list of all other federal, state, interstate, tribal, territorial, or local agency authorizations required for the proposed activity and the current status of each authorization:	Anticipated non-federal authorizations include: (1) NDEP Clean Water Act Section 401 Water Quality Certification - this application; (2) NDEP Working in Waterways permit - to be obtained before in-channel construction; (3) NDEP Construction Stormwater General Permit/NPDES coverage and project SWPPP - to be obtained before land disturbance; (4) NDEP construction dewatering/general discharge permit - to be obtained by the contractor if groundwater dewatering is required, with the application recommended at least six months before construction; (5) NDEP De Minimis Discharge General Permit - to be obtained before land disturbance by contractor; (6) Clark County Department of Environment and Sustainability dust-control/construction air-quality permit - to be obtained before applicable earth disturbance; and (7) Clark County/CCRFCD construction, right-of-way, flood-control facility, and floodplain approvals.
Total area of impact to regulated waterbodies (acres):	0.11-acres; measurement includes total area inside the anticipated construction area as shown on Figure 1.2
Total distance of impact to regulated waterbodies (linear feet):	220-feet; measurement includes total length inside the anticipated construction area as shown on Figure 1.2

Amount excavation and/or fill discharged within regulated waters (acres, linear feet, and cubic yards):	Temporary: 88.0 CUVD of temporary fill due to placement of temporary flow exclusion device, 220 feet total length along channel alignment. No material will be discharged into the wash.	Permanent: 523.0 CUVD of excavation and 382.6 CUVD of fill behind the existing channel, resulting in a net decrease of 140.4 CUVD in and adjacent to Duck Creek Wash. No material will be discharged into the wash.
Amount of dredge material discharged within regulated waters (acres, linear feet, and cubic yards):	Temporary: 0.0 CUVD of dredged material will be discharged in the Duck Creek Wash. All sediment, demolished concrete, and excavated material removed during construction will be contained and transported for lawful off-site disposal.	Permanent: 0.0 CUVD of dredged material will be discharged in the Duck Creek Wash. All sediment, demolished concrete, and excavated material removed during construction will be contained and transported for lawful off-site disposal.
Describe the reason(s) why avoidance of temporary fill in regulated waters is not practicable (if applicable):	Flow exclusionary BMP's, such as water-filled coffer dams, K-rails, or sand bags are anticipated to be used by contractor to isolate work area from Duck Creek Wash. These exclusionary BMPs will temporarily add volume to the Wash. Temporary fill material will not be discharged into waters of the United States.	
Describe the Best Management Practices (BMPs) to be implemented to avoid and/or minimize impacts to regulated waters: Examples include sediment and erosion control measures, habitat preservation, flow diversions, dewatering, hazardous materials management, water quality monitoring, equipment or plans to treat, control, or manage discharges, etc.	Construction site BMP implementation, notably temporary sediment control, flow exclusionary measures, and general housekeeping measures (including concrete and material stockpile management), will follow the "Las Vegas Valley Construction Site Best Management Practices Guidance Manual" (Las Vegas Valley Construction Site - Best Management Practices - Guidance Manual - January 2009). Control Measures will also be implemented in accordance with the Clark County Area Uniform Standard Specifications (https://rtcws.rtcnv.com/mpo/streets/streets_specifications.html) as amended by the Project's Special Provisions. Requirements and specific BMP's include: - Implement nonstructural BMPs such as weather monitoring via the national weather service, to prepare for runoff events and prevent material from entering the waterways. Construction equipment will be removed in preparation for precipitation events, site BMPs will be monitored before and after these events for structural integrity. - Concrete wash outs, equipment fueling, and equipment cleaning will be located a minimum of 100 ft from the Duck Creek Wash. - Protection of the regulated waters from the work area by isolating the construction area from the flowline of the channel with exclusionary BMPs such as a coffer dam, K-rail, or sandbags.	
Describe how the activity has been designed to avoid and/or minimize adverse effects, both temporary and permanent, to regulated waters:	The activity has been designed to confine permanent work to the already improved west side of the concrete-lined Duck Creek Wash. The channel base and east wall will remain in place, the existing longitudinal slope and central flowline will be maintained, and transitions will smoothly tie the new rectangular wall into the existing trapezoidal channel. The widened west-side base and wall increase flow capacity; hydraulic modeling concludes that the project will not raise the effective 100-year floodway elevation, will keep the 100-year flow within the channel, and will maintain at least one foot of freeboard. The FEMA Zone AE limits and base-flood elevations will not be changed. Temporary impacts will be minimized by performing in-channel work during dry weather, limiting demolition and excavation to the 157-foot construction footprint, maintaining storm-flow conveyance, using flow-exclusion and sediment-control BMPs, keeping staging and pollutant-generating activities outside the wash, and promptly removing temporary controls and debris.	
Describe any compensatory mitigation planned for this project (if applicable):	No compensatory mitigation is proposed. The work modifies an existing concrete-lined flood-control facility, is limited to the west wall and adjacent widened floor/confluence sections, maintains the channel flowline and capacity, and does not affect wetlands or identified aquatic habitat. Avoidance, minimization, temporary isolation, erosion/sediment control, and complete removal of temporary works are expected to reduce impacts to the minimum practicable level. Confirm with USACE and NDEP after jurisdictional and final impact quantities are accepted.	

D. Signature		
Name and Title (Print): Jeffrey Brown, P.E. Senior Engineer	Phone Number: (801) 230-8279	Date: 10/19/2026
X  Date: 2026.10.19 09:53:57-07'00' Signature of Responsible Official		

Mandatory Attachments:

- **Federal Permit or License Application** - A copy of the federal permit or license application and any readily available water quality-related materials that informed the development of the federal license or permit application.
- **Site Map** - A map or diagram of the proposed project site including project boundaries in relation to regulated waters, local streets, roads, and highways.
- **Engineered Drawings** - Engineered drawings are preferred to be submitted at the 70% design level. If only conceptual designs are available at the time of application, plans for construction should be submitted prior to the start of the project. Specific locations of the proposed activities and details of specific work elements planned for the project should be identified (e.g., staging areas, concrete washouts, perimeter controls, water diversions, or other BMPs).

Submit the completed application materials to NDEP (ndep401@ndep.nv.gov) with the appropriate U.S. Army Corps of Engineers Regulatory Office copied on the communication (<http://www.spk.usace.army.mil/Missions/Regulatory/Contacts/Contact-Your-Local-Office/>).

Figures

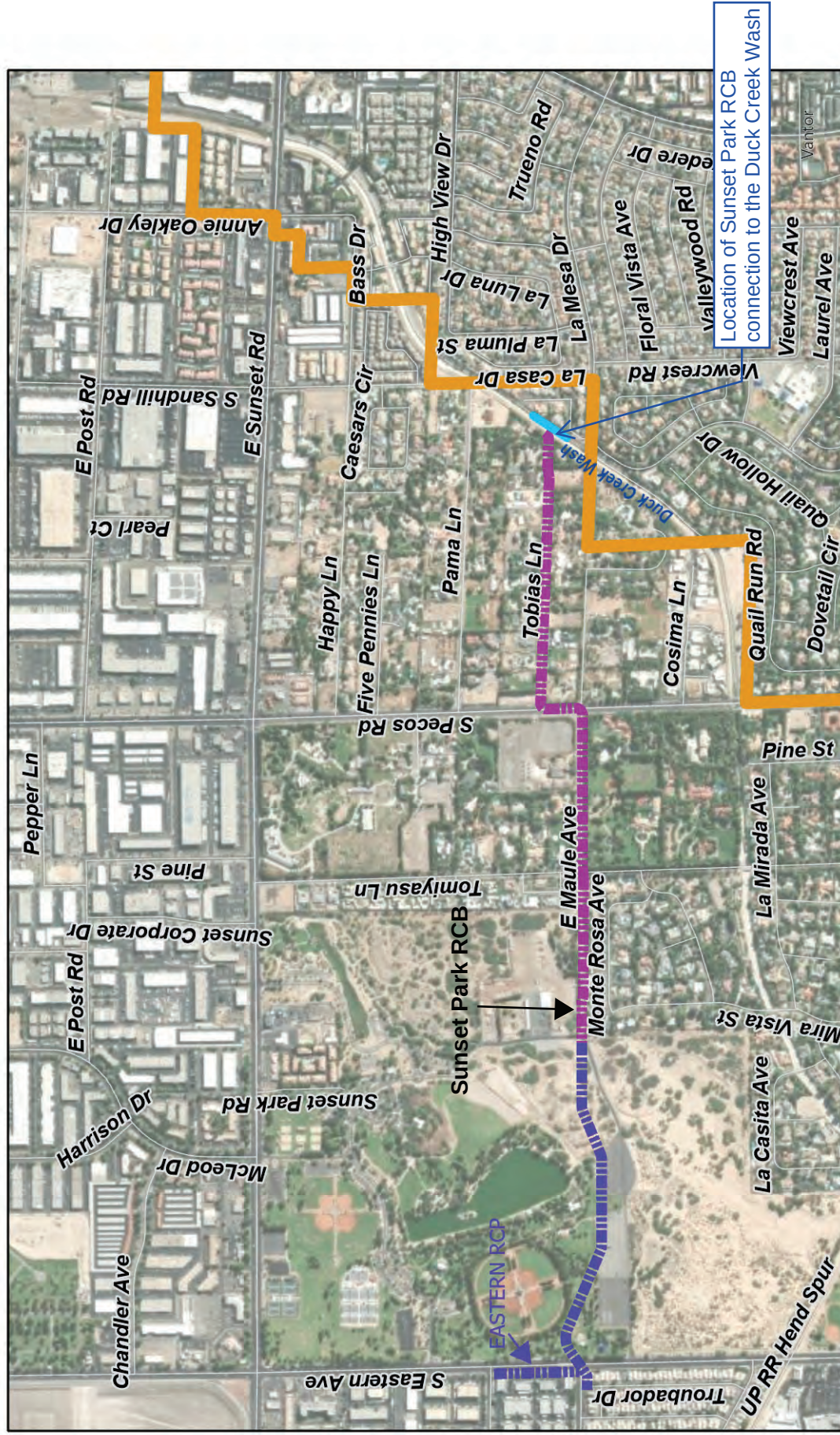


Figure 1.1: Vicinity Map

- CITY OF HENDERSON
- DUCK CREEK SUNSET PARK MPU (SUNSET PARK RCB)
- PHASE 1
- PHASE 2
- DUCK CREEK IMPROVEMENTS



Path: H:\0261_Sunset-DuckCreekToEastern\GIS\CA2261_SunsetDuckCreek\CA2261_SunsetDuckCreek.aprx
Date Saved: 6/11/2026

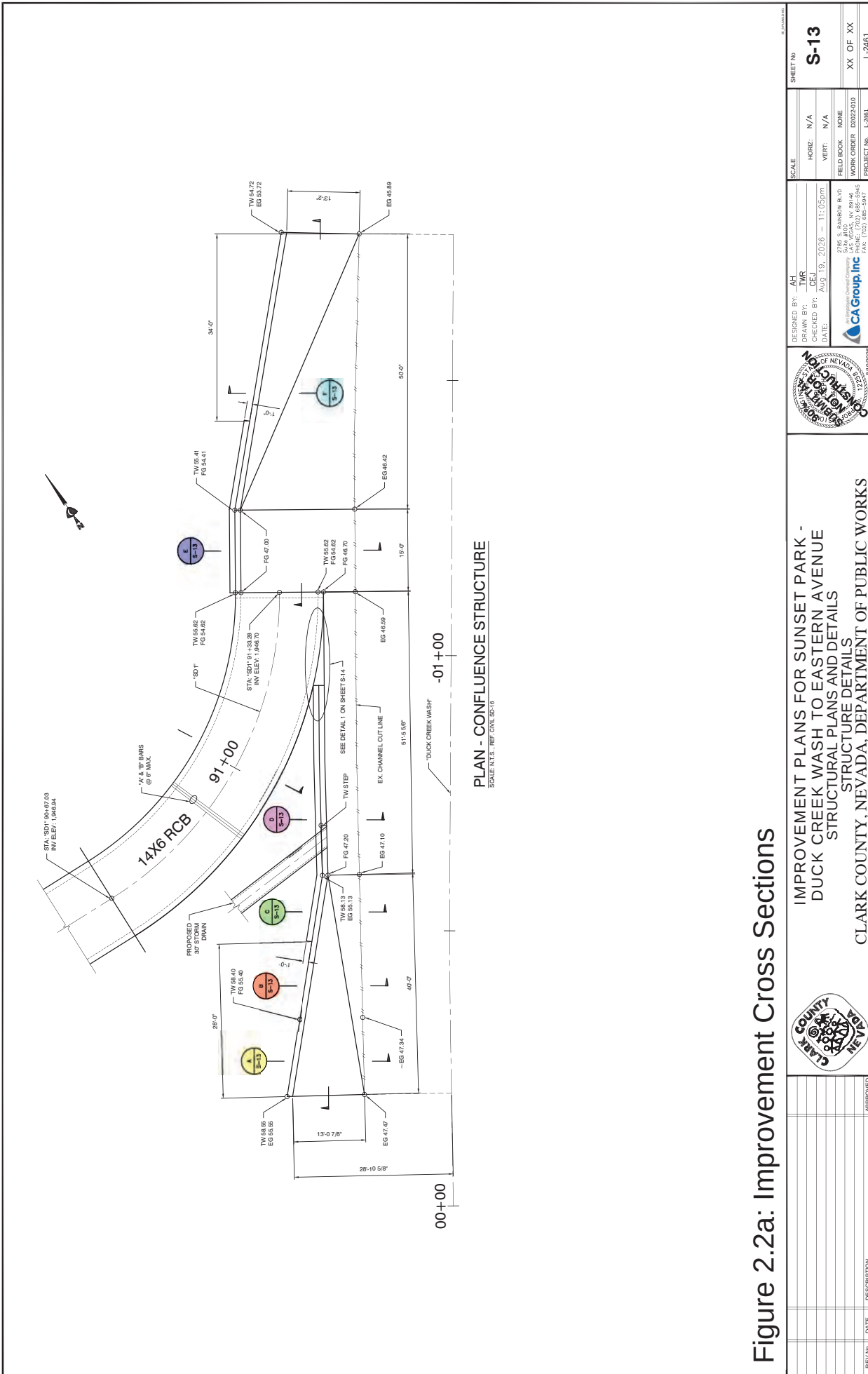


Figure 2.2a: Improvement Cross Sections

CLARK COUNTY SEAL		IMPROVEMENT PLANS FOR SUNSET PARK - DUCK CREEK WASH TO EASTERN AVENUE STRUCTURAL PLANS AND DETAILS STRUCTURE DETAILS CLARK COUNTY, NEVADA, DEPARTMENT OF PUBLIC WORKS		NOT FOR CONSTRUCTION 8/18/2028		DESIGNED BY: <u>AH</u> DRAWN BY: <u>TWR</u> CHECKED BY: <u>CEJ</u> DATE: <u>Aug 19, 2028</u> - <u>11:05pm</u>		SCALE: <u>N/A</u> HORIZ: <u>N/A</u> VERT: <u>N/A</u>		SHEET NO. S-13	
REV No		DATE		DESCRIPTION		APPROVED		FIELD BOOK: <u>NONE</u>		WORK ORDER: <u>0023010</u>	
								PROJECT No.: <u>L-2461</u>		XX OF XX L-2461	

2785 S. RAINBOW BLVD
LAS VEGAS, NV 89146
PHONE: (702) 655-5945
FAX: (702) 655-5407
CA Group, Inc.
Civil Engineering

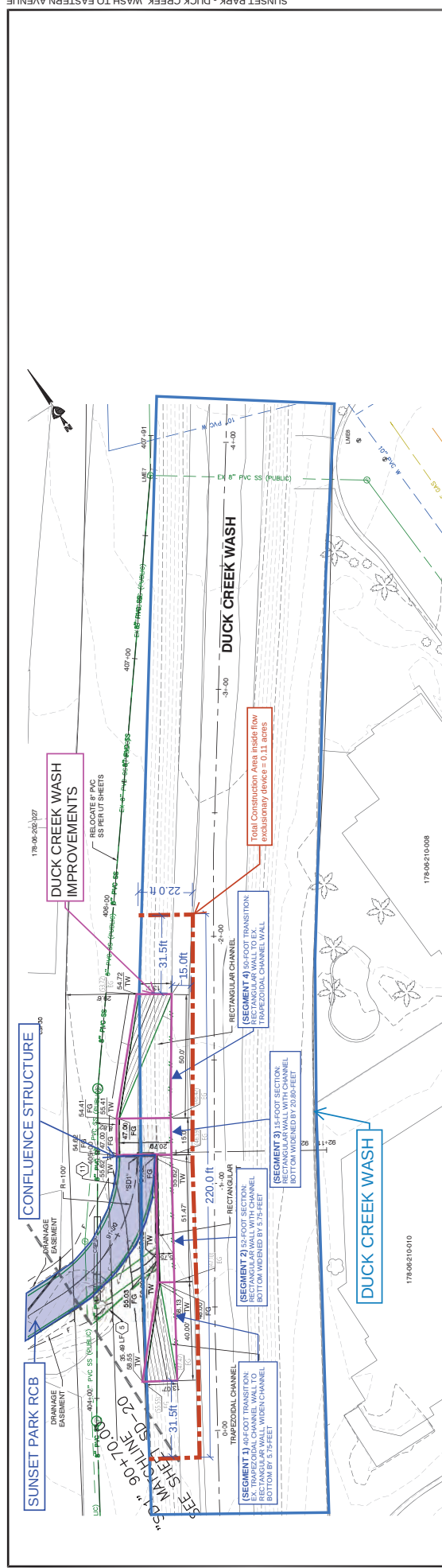
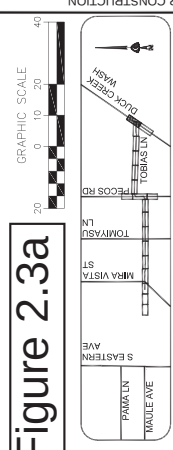
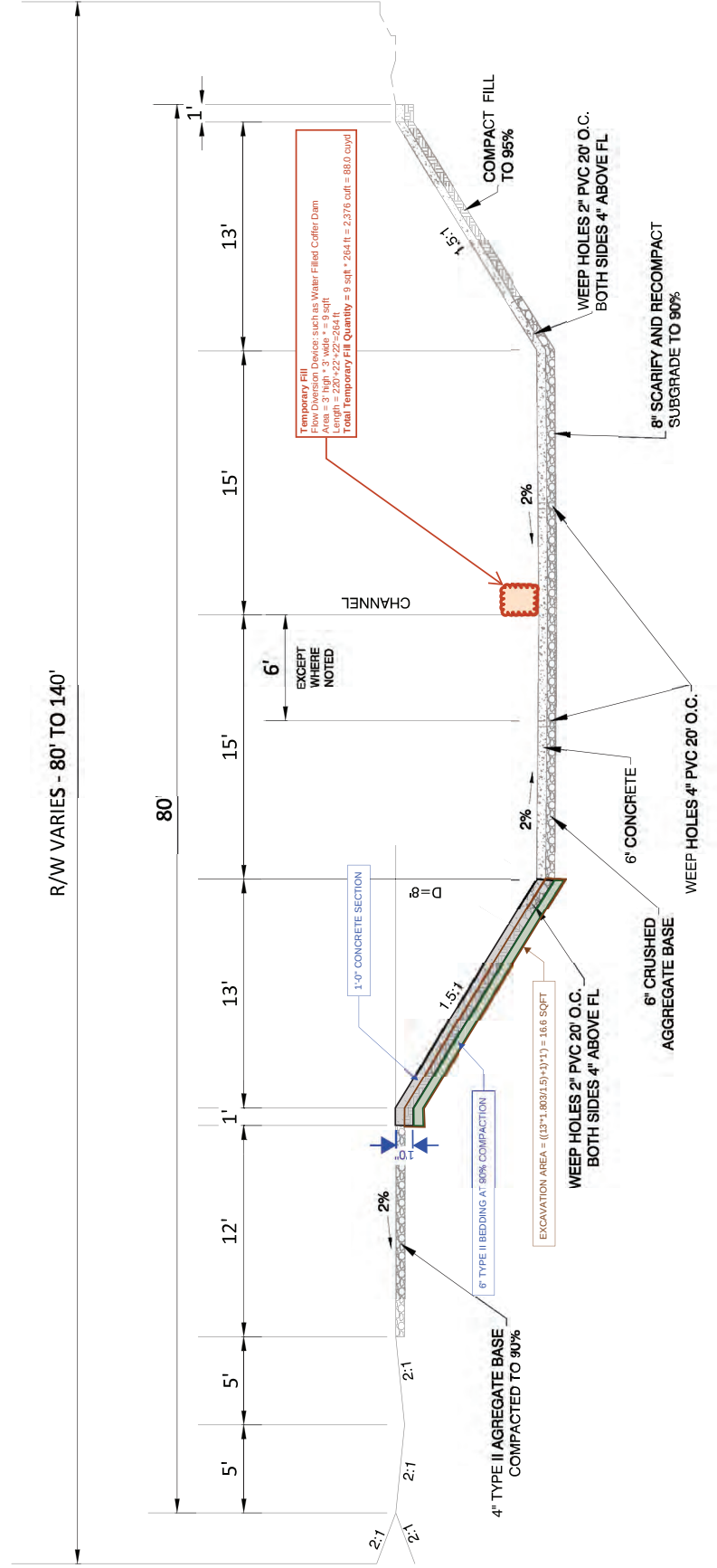


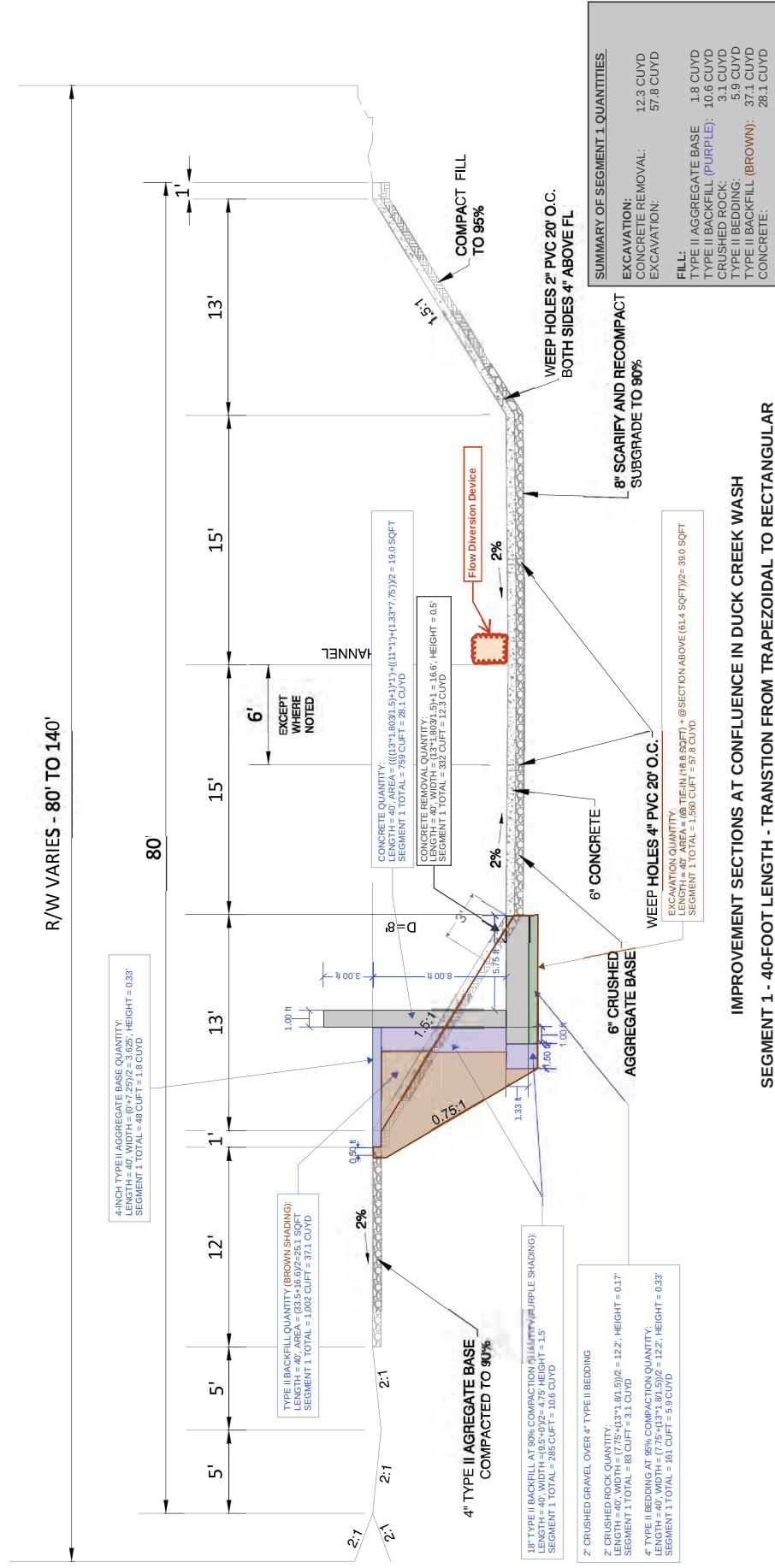
Figure 2.3a

[illegible]



IMPROVEMENT SECTIONS AT CONFLUENCE IN DUCK CREEK WASH
TIE-IN SECTIONS AT BEGINNING AND END OF CONFLUENCE IMPROVEMENTS





IMPROVEMENT SECTIONS AT CONFLUENCE IN DUCK CREEK WASH
 SEGMENT 1 - 40-FOOT LENGTH - TRANSITION FROM TRAPEZOIDAL TO RECTANGULAR

*Note: Areas and Widths in sections that are not constant are calculated using Average End Area Method



2785 S. HANCOCK BLVD
 SUITE #100
 LAS VEGAS, NV 89146
 CA GROUP, INC.
 PHONE: (702) 885-3845
 FAX: (702) 885-3847

Figure 2.3c



 **CA Group, Inc.**
An Employee Owned Company
2785 S. RAINBOW BLVD.
Suite #100
LAS VEGAS, NV 89146
PHONE: (702) 685-5947
FAX: (702) 685-5947

Figure 2.3d

SUMMARY OF SEGMENT 2 QUANTITIES	
EXCAVATION:	
CONCRETE REMOVAL:	16.0 CUYD
EXCAVATION:	119.0 CUYD
FILL:	
TYPE II AGGREGATE BASE	5.0 CUYD
TYPE II BACKFILL (PURPLE):	27.4 CUYD
CRUSHED ROCK:	2.5 CUYD
TYPE II BEDDING:	4.9 CUYD
TYPE II BACKFILL (BROWN):	64.5 CUYD
CONCRETE:	39.0 CUYD



H:\0261 Sunset-DuckCreekToEast

Figure 2.3f

Tables

Duck Creek Wash Construction Quantity Estimate

Project: **Sunset Park**
 Job no.: **CA2261**
 Prepared by : **CW**
 Date: **10/14/2026**

See Figures 2.3a-2.3f for calculations

Duck Wash Quantities (Permanent)

Construction Items (Fill)	Units	Segment 1 (40-feet)	Segment 2 (52-feet)	Segment 3 (15-feet)	Segment 4 (50-feet)	Total Quantity
Type II Agg. Base	CUYD	1.8	5.0	1.5	2.6	10.9
Type II Backfill (Purple)	CUYD	10.6	27.4	7.9	13.2	59.1
Crushed Rock	CUYD	3.1	2.5	2.2	6.3	14.1
Type II Bedding	CUYD	5.9	4.9	4.3	12.2	27.3
Type II Backfill (Brown)	CUYD	37.1	64.5	18.2	30.3	150.1
Concrete	CUYD	28.1	37.9	14.9	40.2	121.1
Total Fill =	CUYD					382.6

Demolition Items (Excavation)	Units	Segment 1 (40-feet)	Segment 2 (52-feet)	Segment 3 (15-feet)	Segment 4 (50-feet)	Total Quantity
Excavation	CUYD	57.8	119.0	106.0	191.9	474.7
Remove Concrete	CUYD	12.3	16.0	4.6	15.4	48.3
Total Excavation =	CUYD					523.0

Net Excavation/Fill ¹	CUYD	16.5	10.4 ²	-61.6	-102.5	-140.4
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¹ The Net Quantities is a sum of the demolition (removal) and construction (fill) items in and adjacent to the wash

A negative quantity indicates greater demolition (removal) than construction (fill).

² The flow area in the wash is increased; however, placement of materials behind rectangular wall footing And under flow line results in a positive fill quantity, even the though flow area is increased

Total Duck Wash Quantities (Temporary)

Temporary Construction Items (Fill)	Units	Total Quantity
Flow Diversion Device ³	CUYD	88.0
Total Temporary Fill =	CUYD	88.0

³ The flow diversion device is anticipated to be a water-filled coffer dam, K-rail, sandbags, or similar

Attachments

Attachment 1: Duck Creek Wash As-Built Plans

LIST OF DRAWINGS

1. QUANTITIES, COMST & GENERAL NOTES, BASIS OF BEARING & B.M.
2. DUCK CREEK CHANNEL IMPROVEMENTS- PLAN & PROFILE
3. STA. 26+50 TO STA. 32+00
4. STA. 32+00 TO STA. 38+00
5. STA. 38+00 TO STA. 44+00
6. STA. 44+00 TO STA. 49+00
7. STA. 49+00 TO STA. 54+00
8. STA. 54+00 TO STA. 60+00
9. STA. 60+00 TO STA. 66+13
10. SECTIONS & DETAILS (CHANNEL & ENERGY DISSIPATORS)
11. CROSS SECTIONS & DETAILS



DUCK CREEK CHANNEL
IMPROVEMENTS
FUNDED BY
1984 FLOOD CONTROL BOND REVENUE

County Commissioners

THALIA M. DONDERO, CHAIRMAN
MANUEL J. CORTEZ, VICE - CHAIRMAN
JAY BINGHAM
PAUL J. CHRISTENSEN
KAREN HAYES
WILLIAM U. PEARSON
BRUCE L. WOODBURY

County Manager
DONALD L. "PAT" SHALMY

Director of Public Works
APPROVED: *A. J. Manning*
M. J. MANNING

City Manager
GARY BLOOMQUIST
Director of Public Works
APPROVED:
Sgt. J. L. ...
GEORFFREY BILLINGSLEY RPE 35662

City Council
CHARLOTTE YAKUBIK
RONALD R. HUBEL
CARLTON D. LAWRENCE
MIKE HARRIS
Mayor
LORNA KESTERSON

MUNDHIR ELJUMAILY ASSOCIATES
1225 SOTOVA AVENUE PO BOX 4650
SANTA ROSA, CALIFORNIA 95402 (707) 544-0784
LOS ANGELES CONSULTING
300 E THOMPSON AVENUE SUITE 105
LAS VEGAS, NEVADA 89101 (702) 581-1027

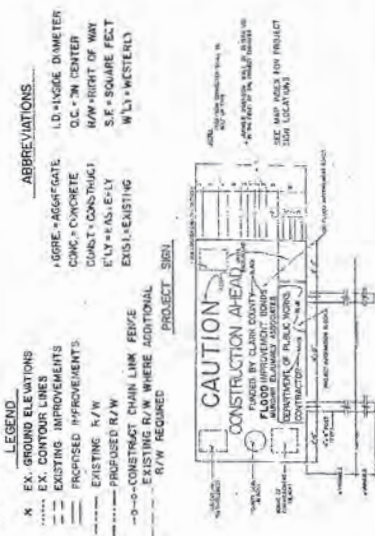
AGENCY	PLANS REVIEWED BY	DATE	CITY OR COUNTY PUBLIC WORKS	PLANS REVIEWED BY	DATE OF APPROVAL	ENGINEERING DIVISION
CENTRAL TELEPHONE COMPANY			ASSAULT SQUAD # 2 PUBLIC WORKS			COVER SHEET
LV VALLEY WATER DISTRICT			ASSAULT SQUAD # 2 PUBLIC WORKS			
SOUTHWEST GAS COMPANY			ASSAULT SQUAD # 2 PUBLIC WORKS			
NORTHWEST GAS COMPANY			ASSAULT SQUAD # 2 PUBLIC WORKS			
NEWCOM POWER COMPANY			ASSAULT SQUAD # 2 PUBLIC WORKS			
NEWCOM POWER COMPANY			ASSAULT SQUAD # 2 PUBLIC WORKS			
CCC SANITATION DISTRICT			ASSAULT SQUAD # 2 PUBLIC WORKS			
CCC FIRE DEPARTMENT			ASSAULT SQUAD # 2 PUBLIC WORKS			
CCC FIRE DEPARTMENT			ASSAULT SQUAD # 2 PUBLIC WORKS			
CCC FIRE DEPARTMENT			ASSAULT SQUAD # 2 PUBLIC WORKS			
						REVISIONS
						DATE
						DATE

RECORD DRAWINGS

1-1168

CONSTRUCTION NOTES

- ALL STATIONING IS BASED ON CENTERLINE STATIONING.
- ALL STANDARD DIMENSIONS REFERRED TO ON THESE PLANS ARE UNIFORM IMPROVEMENT STANDARDS FOR PUBLIC WORKS CONSTRUCTION PREPARED BY CLARK COUNTY PUBLIC WORKS, ENGINEERING DIVISION.
- ALL REINFORCED CONCRETE PIPES SHALL HAVE A MINIMUM STRENGTH OF 1500-P UNLESS NOTED OTHERWISE ON THE PLANS.
- EXISTING UNDERGROUND UTILITIES WILL BE LOCATED BY FIELD RECONNAISSANCE AND RESEARCH OF AVAILABLE PUBLIC RECORDS. THEIR EXACT HORIZONTAL AND VERTICAL LOCATIONS ARE UNKNOWABLE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT THESE UTILITIES AND ANY OTHER UTILITIES NOT SHOWN OR NOT OF RECORD.
- EXISTING UTILITIES ARE LOCATED ON PLANS FOR THE CONVENIENCE OF THE CONTRACTORS ONLY. THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR THE PROTECTION OF THESE UTILITIES.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING IMPROVEMENTS TO REMAIN.
- MODIFICATIONS TO EXISTING UTILITIES REQUIRED BY THIS CONSTRUCTION SHALL CONFORM TO THE UTILITY OWNERS STANDARDS AND SPECIFICATIONS TOGETHER WITH THE DETAILS SHOWN ON THE PLANS. IN ALL CASES THE DETAILS ON THE PLANS SHALL SUPERSEDE THE OTHER AND THE UTILITY OWNERS STANDARDS AND SPECIFICATIONS.
- ANY RELOCATION OF GAS LINES WILL BE DONE BY SOUTHWEST GAS CORPORATION. THE CONTRACTOR SHALL NOTIFY SOUTHWEST GAS CORPORATION WHEN ANY WORK IS BEING DONE IN CLOSE PROXIMITY TO ANY GAS LINE OR APPURTENANCE (C85-1234).
- THE CONTRACTOR OF THIS PROJECT SHALL NOTIFY THE LAS VEGAS VALLEY WATER DISTRICT PRIOR TO ANY WORK BEING DONE IN CLOSE PROXIMITY TO ANY WATER LINES OR APPURTENANCES AT WHICH TIME THEY WILL VERIFY THE EXACT LOCATION OF THE LINES AND/OR APPURTENANCES IN THE FIELD.
- AVAILABLE RECORDS INDICATE THAT ALL WATER LINES WITHIN THE LIMITS ON SOUP BELONG TO LAS VEGAS VALLEY WATER DISTRICT, OR THE CITY OF HENDERSON.
- OVERHEAD UTILITY POLES WILL BE RELOCATED BY THEIR OWNERS.
- ALL BARRICADES AND TEMPORARY CONTROL DEVICES OR METHODS TO BE USED DURING CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" AND "MANUAL TRAFFIC CONTROL MANUAL" CURRENT EDITION.
- ALL UTILITY COMPANIES SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO BEGINNING OF CONSTRUCTION.
- ALL ELEVATIONS SHOWN IN PARALLELS SUCH AS (15.15) ARE EXISTING ELEVATIONS.
- CONCRETE FOR GUTTER PAVING, AND TRANSITIONS SHALL BE TYPE III AS PER THE SPECIFICATIONS.
- THE DEPTH OF ALL EXCAVATIONS SHALL BE THE BOTTOM OF THE STRUCTURE BEING PLACED THEREIN AFTER THE FINISHING OF THE EXCAVATION. THE EXCAVATION SHALL BE FILL WITH THE EXISTING GROUND SURFACE. IF, IN THE OPINION OF THE ENGINEER, THE BOTTOM OF ANY EXCAVATION IS UNSUITABLE FOR PLACING THE STRUCTURE, THE ENGINEER MAY ORDER ADDITIONAL EXCAVATIONS AND PLACING THE SUITABLE MATERIAL. ALL EXCAVATIONS SHALL BE MADE IN ACCORDANCE WITH THE CONTRACTOR IN SUCH A MANNER AS WILL NOT CAUSE DAMAGE TO PROPERTY OR INCONVENIENCE OF ADJACENT PROPERTY TO THE GENERAL PUBLIC AND NEIGHBORS.



QUANTITIES

ITEM NO.	UNIT	DESCRIPTION	QUANTITY
201.01	L.S.	CLEARING AND GRUBBING	L.S.
203.02	C.Y.	CHANNEL EXCAVATION	4,157
209.01	C.Y.	CRUSHED AGGREGATE BASE	2,509
302.02	C.Y.	TYPE II GRAVEL BASE	475
402.01	TONS	ASPHALT PAVING	51
502.01A	C.Y.	ENERGY DISSIPATOR #1	159
502.01B	C.Y.	ENERGY DISSIPATOR #2	10
502.01C	C.Y.	ENERGY DISSIPATOR #3	91
502.01D	C.Y.	CONCRETE OVERFLOW APRN	5
502.01E	C.Y.	CONCRETE TRANSITION STRUCTURE	171
603.01A	L.F.	15" REINFORCED CONCRETE PIPE (D=1350)	180
603.01B	L.F.	30" REINFORCED CONCRETE PIPE (D=1350)	100
603.01C	E.A.	30" PRECAST CONCRETE FLARED END SECTION	4
703.01	E.A.	DRCP INLETS WITH GRATES	10
803.01	S.Y.	HEAVY RIPRAP	833
911.01	C.Y.	CONCRETE SLOPE TYPING	460
913.01	L.P.	TYPE "C" CURB AND GUTTER	54
913.03	S.F.	CONCRETE SIDEWALK (COMMERCIAL)	140
914.01A	L.F.	CHAIN LINK FENCE 10' HGT HIGH	542
914.01B	E.A.	CHAIN LINK GATES (16 FEET)	1
923.01	L.S.	INSTALL POWER DUCT	L.S.
929.01	L.S.	ADJUST SVC WATERLINE	L.S.



BENCHMARK

LEAD & TACK IN TOP OF CURB AT THE SOUTHEAST CORNER OF THE INTERSECTION OF WARM SPRINGS RD & PEDROS RD, AS PER DESIGN PLANS OF QUAIL RIDGE ESTATES UNIT NO. 2, VTN ENGINEERING DATED JUNE 2, 1980. ELEVATION = 2009.73

BASIS OF BEARING

N 0° 54' 45" WEST BEING THE WEST LINE OF THE SOUTH-WEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF SEC. 6 TO- WNSHIP 22 SOUTH, RANGE 62 EAST, TMD ALSO BEING THE CENTERLINE OF PECOS RD, AS SHOWN IN OFFICIAL RECORDS ON PARCEL MAPS OF FILE 28, PAGE 49 OF CLARK COUNTY, NEVADA.

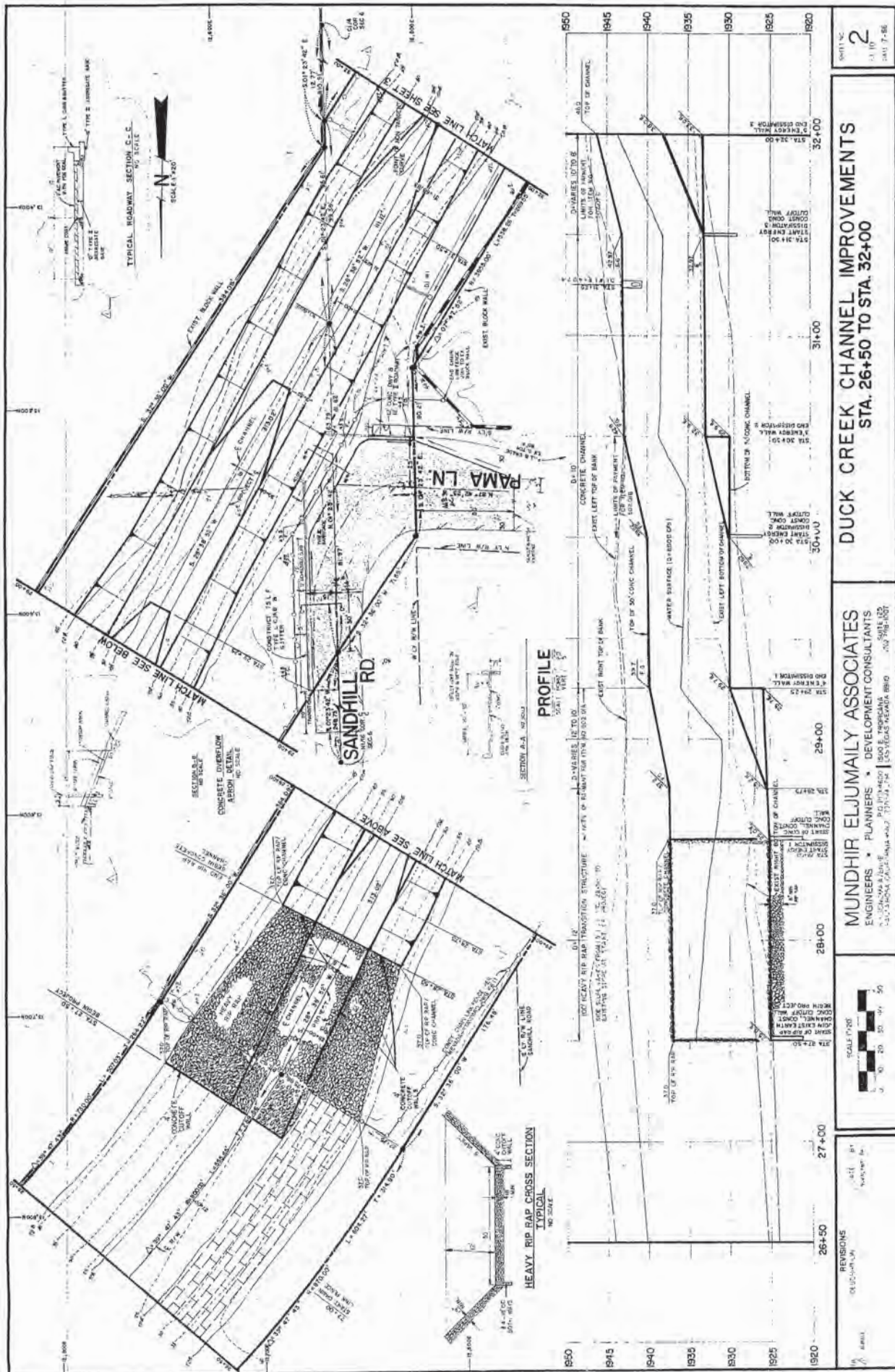
Avoid cutting underground utility lines. It's costly.

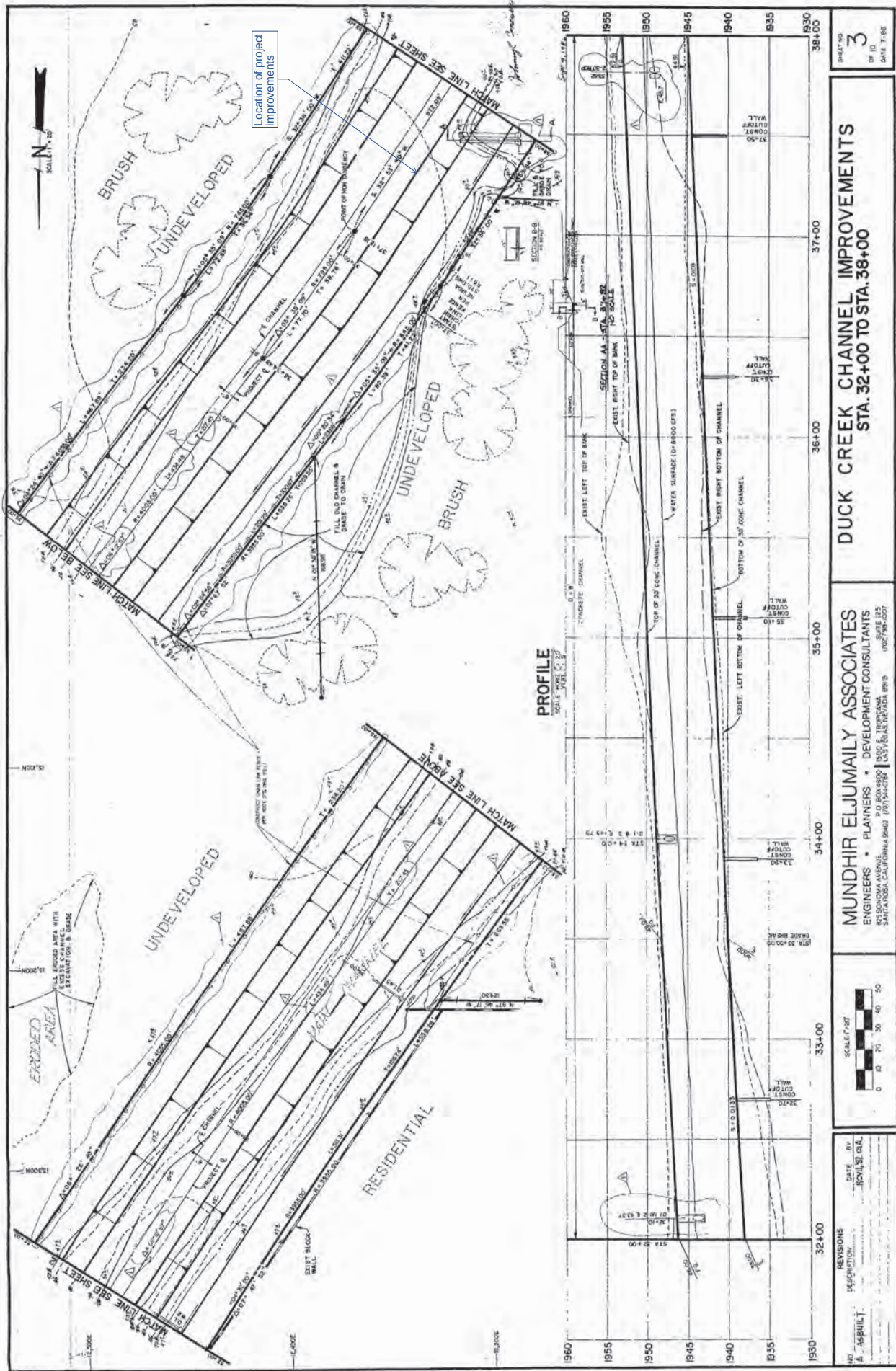
Call before you Dig.

1-800-227-2600

MUNDHIR ELJUMAILY ASSOCIATES
ENGINEERS • PLANNERS • DEVELOPMENT CONSULTANTS
850 SONOMA AVENUE
SUITE 105
SANTA ROSA, CA 95404
TEL: 707/546-1100 FAX: 707/546-1101

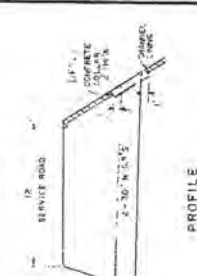
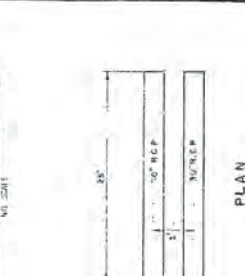
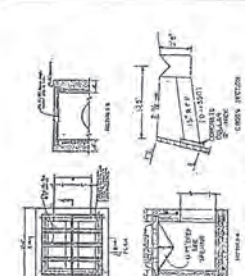
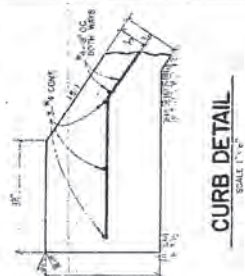
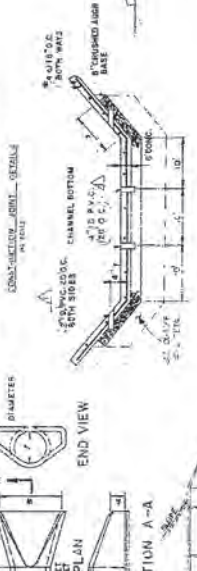
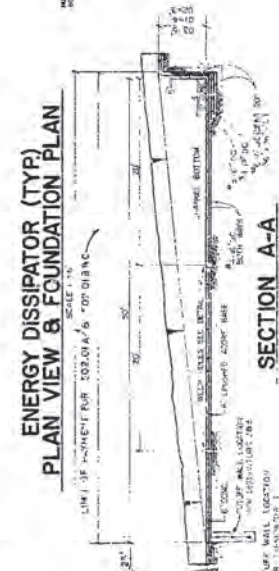
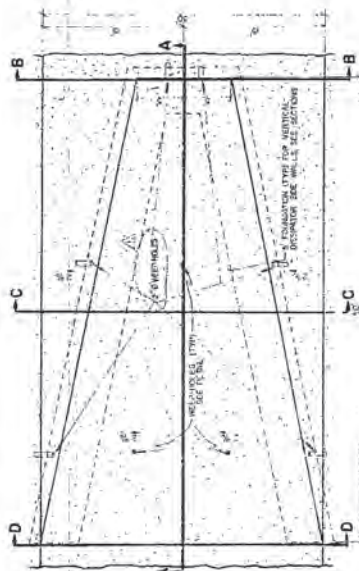
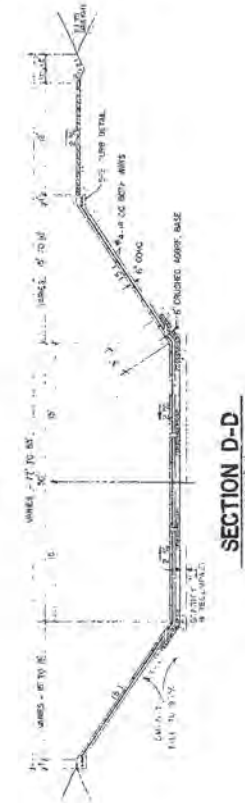
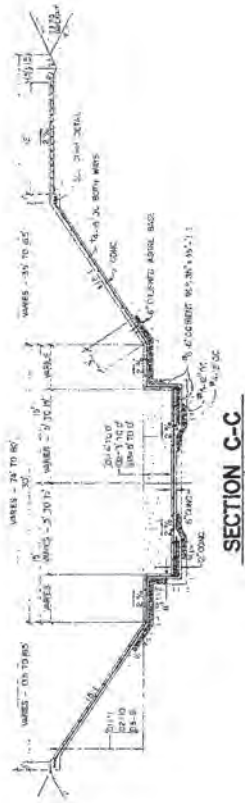
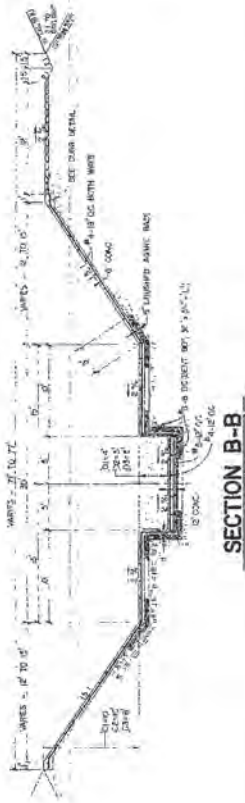
DUCK CREEK CHANNEL IMPROVEMENTS
QUANTITIES, CONSTRUCTION & GENERAL NOTES
BASIS OF BEARING & BENCHMARK





SHEET NO. 3 OF 10 DATE 7-86	
DUCK CREEK CHANNEL IMPROVEMENTS STA. 32+00 TO STA. 38+00	
MUNDHIR ELJUMAILY ASSOCIATES ENGINEERS • PLANNERS • DEVELOPMENT CONSULTANTS 8750 MONTE AVENUE, SUITE 103 SANTA ROSA, CALIFORNIA 95402 (707) 540-0781 FAX (707) 540-0781	
SCALE 1"=40' 0 20 40 60 80	
REVISIONS NO. DESCRIPTION DATE BY 1. AS SHOWN 7-86 JEL	

RECORD DRAWING
L-1168



CONCRETE PIPES W/ FLARED END SECTIONS

REVISIONS
DATE BY
NOV 1981 J.A.

DUCK CREEK CHANNEL IMPROVEMENTS
SECTIONS & DETAILS
(CHANNEL & ENERGY DISSIPATOR)

MUNDHIR ELJUMAILY ASSOCIATES
ENGINEERS • PLANNERS • DEVELOPMENT CONSULTANTS
152 SONOMA AVENUE
SANTA ROSA, CALIFORNIA 95402 (707) 541-0884

9
OF 10
DATE 7-88
L-1168

*Attachment 2: Excerpts from Sunset Park Project
Special Provisions*

BID No **XXXXXX-XX**



DEPARTMENT OF PUBLIC WORKS

Contract Documents and Special Provisions For

SUNSET PARK - DUCK CREEK WASH TO
EASTERN AVENUE, PHASE 1

FUNDED BY

CLARK COUNTY
REGIONAL FLOOD CONTROL DISTRICT

Denis Cederburg

DIRECTOR
CLARK COUNTY PUBLIC WORKS
500 S. GRAND CENTRAL PARKWAY
PO BOX 554000
LAS VEGAS, NEVADA 89155-4000

Andrew Trelease

GENERAL MANAGER & CHIEF ENGINEER
CLARK COUNTY REGIONAL
FLOOD CONTROL DISTRICT
600 S. GRAND CENTRAL PARKWAY
LAS VEGAS, NEVADA 89106

COMMISSIONERS

Chair – Michael Naft, Vice Chair - William McCurdy II,
April Becker, James B Gibson, Justin C Jones, Marilyn Kirkpatrick, Tick Segerblom

Kevin Schiller, County Manager

**CLARK COUNTY
DEPARTMENT OF PUBLIC WORKS**

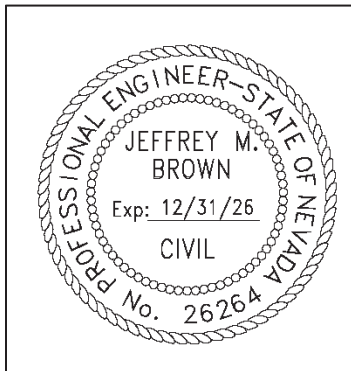
**SPECIAL PROVISIONS
PREPARED FOR**

**SUNSET PARK - DUCK CREEK WASH TO EASTERN
AVENUE, PHASE 1**

Funded by

**CLARK COUNTY
REGIONAL FLOOD CONTROL DISTRICT**

ENGINEERING STAMPS



SECTION 637**POLLUTION CONTROL****DESCRIPTION****637.01.01 GENERAL**

The following is added to this subsection:

The Clark County Department of Air Quality (DAQ) *Air Pollution Control Regulations Section 94*, and the *Construction Activities Dust Control Handbook* and those Best Management Practices (BMPs) described therein are hereby incorporated by reference as preconditions of this contract. The Contractor shall familiarize himself with these regulations and practices, and is advised that prior to engaging in any construction activities defined in Section 94.2 of these regulations, shall obtain a Dust Control Permit from the Clark County Department of Air Quality. As applicant, the Contractor is responsible for ensuring that all contractors, subcontractors, and all other persons abide by the conditions of the permit. As applicant, the Contractor is further responsible for supplying complete copies of the Dust Control Permit and Dust Mitigation Plan, if applicable, to all project subcontractors.

Temporary discharge permits are not recognized as being included in the Clean Water Act by the Environmental Protection Agency (EPA) for the removal and discharge of groundwater from a construction site to a surface water downstream (waterway). Consequently, the Nevada Division of Environmental Protection (NDEP) requires a National Pollutant Discharge Elimination System (NPDES) permit for construction sites where groundwater is to be discharged into waterways.

The Contractor must contact the NPDES to determine what permits are required for the construction of the project based on construction staging and techniques approved by Clark County. Current permits as determined by NPDES are required to be maintained by the Contractor.

CONSTRUCTION**637.03.01 GENERAL**

Change paragraph D to read as follows:

The total area of erodible earth material exposed by the Contractor's operation shall not exceed the respective requirements of DAQ and/or the Nevada Department of Environmental Protection (NDEP) before either temporary pollution control or temporary or permanent erosion control measures are accomplished.

The following subsections are added:

637.03.02 DUST CONTROL

Any contracts between the prime Contractor and applicable subcontractors must provide a monetary allowance for any dust control options specified in either the Dust Control Permit or, if applicable, the Dust Mitigation Plan.

In accordance with Section 94.7.5 of these regulations, if at any time the Contractor's operations cause more than 50 acres of disturbed soil to exist, the Contractor shall cause to have in place a person (dust control monitor) with full authority to ensure that dust control Measures are implemented, including inspections, record keeping, deployment of resources, and shut-down or modification of construction activities as needed.

Throughout the project area and for the duration of the project, all disturbed soil must be maintained to minimize wind erosion and particulate emissions. Best available control measures (BACM) are required 24 hours a day, 7 days a week, whether or not there is current construction activity on site. When any part of the project area is inactive for a period of 30 days or longer, long-term stabilization shall be implemented within 10 days following the cessation of active operations in that area. As permit holder, the Contractor shall notify the Department of Air Quality in writing within 10 days following the cessation of active operations on all or a part of the project area.

The Contractor's superintendent or other designated on-site representative shall be required to have successfully completed a Clark County Department of Air Quality Dust Control Class. All water truck drivers and water pull drivers on the project shall be required to have successfully completed a Clark County Department of Air Quality Dust Control Class.

As permit holder, the Contractor shall keep records of construction site self-inspections for the project duration in accordance with Section 94.7.8.1.

637.03.03 STORM WATER POLLUTION CONTROL

The Contractor shall perform its work so as to not discharge polluted storm water runoff into the waters of the United States, including municipal separate storm sewer systems, (MS4s), in violation of the laws, rules and regulations of all federal, state and local water pollution requirements.

Contractor shall:

1. Adhere to all Federal regulations under 40 CFR 122.26(b)(14);
2. Comply with the provisions of Nevada Revised Statutes, Chapter 445A: Water Pollution Control; and
3. Comply with the provisions of Clark County Code, Title 24, Chapter 24.40: Storm Water System Discharge.

All information and forms pertaining to Nevada's Storm Water Permitting Program can be found on the following website: <https://ndep.nv.gov/water/water-pollution-control/permitting/stormwater-discharge-permits>.

The federal, state and local regulations identified above are hereby incorporated by reference as preconditions of this contract. The Contractor shall familiarize itself with these regulations and practices, and is advised that prior to engaging in any construction activities, shall submit a Notice of Intent (NOI) to the Nevada Division of Environmental Protection. A Storm Water Pollution Prevention Plan (SWPPP) must be completed prior to submission of the NOI, and must remain on the project site and be updated as necessary for the duration of the project. As applicant, the Contractor is responsible for ensuring that all contractors, subcontractors, and all other persons abide by the conditions of the permit. As applicant, the Contractor is further responsible for supplying complete copies of the NOI and SWPPP to all project subcontractors.

Any contracts between the prime Contractor and applicable subcontractors must provide a monetary allowance for any storm water pollution control BMPs specified in the SWPPP.

The Contractor shall cause to have in place a qualified person with full authority to ensure that storm water control measures are implemented, including inspections, record keeping, deployment of resources, and shut-down or modification of construction activities as needed. All aspects of the SWPPP shall be addressed and included in the Contractor's QC Program including, but not limited to, filing inspection reports, completing activity cards, and auditing.

Throughout the project area and the duration of the project, all BMPs must be maintained to minimize erosion and prevent discharge of pollutants from the site. BMPs are required 24 hours a day, 7 days a week, whether or not there is construction activity on site.

As permit holder, the Contractor shall keep records of construction site inspections for up to 3 years after completion of the work.

As of January 31, 2005 NDEP will only accept the new Notice of Intent (NOI) "Section 8 – Certification" for an application of coverage under the Stormwater permit for Construction activities. Access to the NEW APPLICATION (Stormwater NOI) can be obtained through their web site at: <https://genpermits.ndep.nv.gov/>.

Nevada Division of Environmental Protection, Bureau of Water Pollution Control, has issued general permit NVR100000 that covers construction activities within the state of Nevada. In order to be covered by the permit, Contractor shall submit, at no extra cost to Owner, a Notice of Intent (NOI) with a Storm Water Pollution Prevention Plan (SWPPP) and the required filing fee to the Nevada Division of Environmental Protection, Bureau of Water Pollution Control, 901 South Stewart Street, Suite 4001, Carson City, Nevada 89701-5249. The contact phone number is 775-687-9429.

Copies of the SWPPP and the NOI shall be available on the job site throughout the duration of the project.

As part of the project closeout process, the Contractor shall obtain a Notice of Termination (NOT) from the Nevada Division of Environmental Protection and forward a copy of that Notice to the Engineer. Areas that are disturbed by the Contractor, his employees, subcontractors, or suppliers that are within or outside of the project limits shall be restored to comply with Federal Regulations regarding Final Stabilization as defined within the Notice of Termination (NOT) which can be found at <https://ndep.nv.gov/uploads/water-wpc-permitting-forms-docs/notice-termination-4-2015.pdf>. The Contractor is responsible for documenting the condition of the project site before construction. No additional compensation shall be provided for this work.

Further information and copies of the required (NOI) and Notice of Termination (NOT) may be obtained on the Internet at <https://ndep.nv.gov/water/water-pollution-control/permitting/stormwater-discharge-permits/construction-sites-greater-than-1-acre>.

637.03.04 STORM WATER POLLUTION PREVENTION PLAN (SWPPP) PERMIT FOR DUCK CREEK WASH, A WATER OF THE US (WOUS)

The Contractor shall comply with the requirements of the City provided 401 and 404 permits, the Contractor obtained Temporary Working in Water Ways permit, the general permit NVR100000

that covers construction activities within the state of Nevada, and any other applicable permits required for work in this WOUS.

The Contractor shall comply with additional requirements listed in this section and Section 107.02 at no extra cost to the Owner.

The Las Vegas Wash shall not be used as a staging, storage or stockpile area. Staging areas, stockpiles and storage sites within 100 feet of the Duck Creek Wash shall implement Stormwater Runoff Best Management Practices (BMPs).

Concrete wash outs shall be located a minimum of 100 ft from the WOUS.

The Contractor shall protect the regulated waters from the construction area by isolating the construction area from the flowline of the channel with a structural BMP. Excavated / dredged material shall not be discharged to this WOUS.

The Contractor shall monitor weather reports as described in Section 105.05 to prepare for runoff events and prevent material from entering the waterways.

Construction equipment shall be removed from the WOUS prior to an expected precipitation event or immediately after an unexpected event starts. BMPs shall be inspected before and after a storm event and repaired or replaced where needed to maintain structural integrity.

METHOD OF MEASUREMENT

637.04.01 MEASUREMENT

The following is added to this subsection:

Measurement and payment for Dust Control shall be contract calendar days for all dust control activities described in the general and special provisions and required to satisfy the requirements of Section 94.

The bid amount for Dust Control will be divided by the number of calendar days in the contract to establish a daily value for dust control. Each progress payment will reflect payment on the bid amount equal to this daily value times the number of days since the previous progress payment. The bid amount for this item shall not be increased. In the event compensable time is added to the contract, additional payment for dust control shall be included in the payment for Historical Owner Caused Delay Allowance Over \$1,500 Per Day.

The bid amount for Dust Control will be divided by the number of calendar days in the contract to establish a daily value for dust control. Each progress payment will reflect payment on the bid amount equal to this daily value times the number of days since the previous progress payment. The bid amount for this item shall not be increased.

Measurement and payment for Storm Water Pollution Control shall be considered incidental to the project for all work required to comply with all state and federal regulations, including but not limited to permit fees, plan preparation, required signage, monies paid to subcontractors, provision of storm water control monitor, record keeping, training, long-term stabilization, and all labor, equipment and materials required to employ BMPs as set forth in state and federal regulations to prevent pollutants from entering MS4s and the waters of the United States.

SECTION 704

BASE AGGREGATES

SCOPE

704.01.01 MATERIALS COVERED

- A. This specification covers the quality and size of mineral materials used in base courses, trench backfill, or other construction locations.
- B. The term Source shall mean any of the following:
 - 1. A permanent commercial location.
 - 2. Contractor manufactured material either commercial or on-site.

704.01.02 REFERENCE CODES AND STANDARDS:

- A. Related Interagency Quality Assurance Committee (IQAC) procedures at:
https://www.clarkcountynv.gov/government/departments/public_works_department/professional_services/iqac.php
 (IQAC website)

REQUIREMENTS

704.02.01 GENERAL

- A. The mineral aggregate shall be the crushed and screened product from approved aggregate deposits, except that Type I aggregate base need not be crushed. The Engineer reserves the right to prohibit the use of aggregates from any source when:
 - 1. The character of the material is such, in the opinion of the Engineer, as to make improbable the furnishing of aggregates conforming to the requirements of these specifications.
 - 2. The character of the material is such, in the opinion of the Engineer, that undue additional costs may be accrued by the Contracting Agency.
- B. The mineral aggregate shall be clean, hard, durable, free from any frozen lumps, deleterious matter, and harmful adherent coatings. Crushed Portland cement concrete and asphaltic concrete pavement will be permitted, subject to the requirements of these specifications. No materials subject to regulation as hazardous wastes as defined in the Nevada Administrative Code 444.8565 shall be allowed.
- C. The mineral aggregate used in the production of aggregate base shall be from a known in situ aggregate deposit located at the production location or at a designated source site.

704.02.02 IQAC SOURCE QUALIFICATION

- A. For expediting of material source and type approvals, a listing of qualified materials has been provided on the IQAC website.
- B. Any listed material is considered qualified for use without a material testing submittal. However, this does not relieve the Contractor of project testing of the material as required in these specifications.

- C. The IQAC posted materials indicated in Table 1 are subject to reapproval annually or as specified in table 1 for continued posting on the IQAC website. The procedure is annotated in **Subsection 704.04.02, "IQAC Annual Material Prequalification."**

Table 1 – IQAC Materials Qualification Periods

Type II Aggregate Base	1 Year
Type II Controlled Low Strength Material (CLSM)	1 Year
Type II w/ 30% Recycled Asphalt	6 Months
Type II w/ 50% Recycled Concrete	6 Months
Type II w/ 100% Recycled Materials*	3 Months

*This includes materials made with imported native materials

704.02.03 DEFICIENCIES

- A. If the product of a deposit is deficient in material passing the No. 16 sieve, filler from other approved deposits may be added at the crushing and screening plants. This is not to be construed as a waiver of any of the requirements contained herein.

PHYSICAL PROPERTIES AND TESTS

704.03.01 PLASTIC LIMITS

- A. When specified, aggregates shall conform to the applicable requirements of the following table:

Table 3 – Plastic Limits

Percentage by Weight Passing 200 Sieve	Plasticity Index Maximum
0.1 to 3.0	15
3.1 to 4.0	12
4.1 to 5.0	9
5.1 to 8.0	6
8.1 to 11.0	4
11.1 to 15.0	3

704.03.02 DRAIN BACKFILL

- A. This aggregate shall conform to the following requirements:

Table 4 – Drain Rock Gradation Acceptance Limits

Sieve Sizes	Percentage by Dry Weight Passing Sieve		
	3-Inch Size	2-Inch Size	3/4-Inch Size
3-Inch	100	--	--
2-Inch	90-100	100	--
1-1/2-Inch	70-100	95-100	--
3/4-Inch	0-50	50-100	100
1/2-Inch	--	--	95-100
3/8-Inch	0-10	0-55	70-100
No. 4	--	0-25	0-70
No. 8	0-5	0-15	--
No. 200	0-3	0-3	0-3

- B. Unless otherwise specified in the contract documents, the Contractor may use any of the sizes.

Table 5 – Drain Backfill Durability Acceptance Limits

Source Requirement Test	3-Inch Size	2-Inch Size	3/4-Inch Size
Percentage of Wear (500 Rev.)	45% Maximum	45% Maximum	45% Maximum

704.03.03 TYPE I AGGREGATE BASE

- A. This aggregate shall conform to the following requirements:

Table 6 – Type I Gradation Acceptance Limits

Sieve Sizes	Percentage by Dry Weight Passing Sieve	
	3-Inch Size	2-Inch Size
3-Inch	100	--
2-Inch	90-100	100
1-1/2-Inch	--	95-100
1-Inch	--	70-90
No. 4	30-65	30-65
No. 16	15-40	15-40
No. 200	2-12	2-12

Table 7 – Type I Acceptance Limits

Project Control Test	Test Method	Requirements
Sieve Analysis	AASHTO T27	Table 6
Sampling Aggregate from Calibrated Conveyor stream or belt cut ¹	AASHTO T2	--
Plasticity Index	AASHTO T90 ²	Table 3
Liquid Limit	AASHTO T89	35 Maximum
Resistance (R Value)	ASTM D2844	60 Minimum
Percentage of Wear (500 Rev.)	AASHTO T96	45% Maximum

704.03.04 TYPE II AGGREGATE BASE

- A. This aggregate shall conform to the following requirements:

Table 8 – Type II Gradation Acceptance Limits

Sieve Sizes	Percentage by Dry Weight Passing Sieve
1-Inch	100
3/4-Inch	90-100
No. 4	35-65
No. 16	15-40
No. 200	2-10

¹ Sampling from a stockpile permitted only after approval of the Engineer; the conveyor device shall be calibrated every 3 months and record attached to sample document.

² Test specimens shall be prepared following the dry preparation procedure AASHTO T87.

Table 9 – Type II Acceptance Limits

Quality Control Test	Test Method	Requirements
Sieve Analysis	AASHTO T27	Table 8
Sampling Aggregate from Calibrated Conveyor stream or belt cut ³	AASHTO T2	--
Fractured Faces	Nev. T230	70% Minimum
Plasticity Index	AASHTO T90 ⁴	Table 3
Liquid Limit	AASHTO T89	35 Maximum
Resistance (R Value) or Resilient Modulus	ASTM D2844	78 Minimum for road base
	AASHTO T307	35,000 psi minimum for road base
Percentage of Wear (500 Rev.)	AASHTO T96	45% Maximum
Total Available Water-Soluble Sulfates ⁵	ASTM D2791 AWWA 4550 E	Less than 0.3% by dry weight of soil.

- B. Type II Plantmix Aggregate as specified in **Subsection 705.03.01, "Plantmix and Roadmix Bituminous Base and Surface Aggregate, Types Two Fine and Coarse and Three,"** may be used in lieu of Type II Base Aggregate as specified above.

704.03.05 TYPE III AGGREGATE

- A. The soluble sulfate content shall not exceed 0.3 percent by dry weight of soil. The mineral shall be clean, hard, durable, free from any frozen lumps, deleterious matter, and harmful coatings. In addition thereto, the material shall conform to the gradation requirements of Type II aggregate base in accordance with **Subsection 704.03.04, "Type II Aggregate Base,"** with the following property testing:

Table 10 – Type III Acceptance Limits

Quality Control Test	Test Method	Requirements
Sieve Analysis	AASHTO T27	Table 8
Sampling Aggregate from Calibrated Conveyor stream of belt cut ⁶	AASHTO T2	--
Plasticity Index	AASHTO T 90 ⁷	Table 3
Liquid Limit	AASHTO T 89	35 Maximum
No. 200 Sieve	AASHTO T 27	2-15%
Total Available Water Soluble Sulfates ⁸	AWWA 3500-NaD AWWA 4550 E	Less than 0.3% by dry weight of soil

704.03.06 CRUSHED ROCK

- A. Crushed rock shall be the product from approved aggregate deposits and shall only be used as directed by the Contracting Agency. The mineral aggregate shall be clean, hard,

³ Sampling from a stockpile permitted only after approval of the Engineer; the conveyor device shall be calibrated every 3 months and record attached to sample document.

⁴ Test specimens shall be prepared following the dry preparation procedure AASHTO T87.

⁵ Required only for placement around waterline pipe.

⁶ Sampling from a stockpile permitted only after approval of the Engineer.

⁷ Test specimens shall be prepared following the dry preparation procedure AASHTO T87.

⁸ Required only for placement around waterline pipe.

durable, free from any frozen lumps, deleterious matter, and harmful coatings. In addition thereto, the material shall conform to the following gradation requirements:

Table 11 – Crushed Rock Gradation Acceptance Limits

Sieve Sizes	Percentage of Weight Passing
3/8-Inch	100
No. 4	20-80
No. 200	0-15

Table 12 – Crushed Rock Acceptance Limits

Quality Control Test	Test Method	Requirements
Sieve Analysis	AASHTO T 27	Table 11
Sampling Aggregate From Calibrated Conveyor stream of belt cut ⁹	AASHTO T 2	-----
Fractured Faces	Nev. T 230	90% Minimum
Plasticity Index	AASHTO T 90 ¹⁰	Table 3
Liquid Limit	AASHTO T 89	35 Maximum
Percentage of Wear (500 Rev.)	AASHTO T 96	45% Maximum
Total Available Water Soluble Sulfates ¹¹	AWWA 3500-NaD AWWA 4550 E	Less than 0.3% by dry weight of soil

704.03.07 CONTROLLED LOW STRENGTH MATERIAL (CLSM)

- A. CLSM shall consist of a low-strength, self-leveling concrete material composed of various combinations of cement, supplementary cementitious material (SCM), water, chemical admixtures, and aggregate. The aggregate shall be comprised of either of the following: fine aggregate, fine aggregate plus coarse aggregate, or a graded aggregate having coarse through fine sieve sizes. Crushed concrete, non-spec aggregate, or ASTM C33 materials are acceptable. Coarse aggregate only is not acceptable. CLSM shall have a design compressive strength at an age of 28 days within the ranges required below for the specified class:
1. Class I - (50 to 150 psi): Specified where the maximum strength is of primary concern due to the desire to have material that can be excavated in the future with relative ease.
 2. Class II – (100 to 300 psi): Specified where the minimum strength is of primary concern for pipe support.
 3. Class Special (as shown in project specifications or drawings): Specified where project unique criteria, such as erosion control, are the primary concern.
 4. Class I and Class II CLSM:
 - a. The mix shall result in a product having a slump in the range of 6 to 10 inches at the time of placement in the pipe zone. Above the pipe zone, a lesser slump is acceptable.

⁹ Sampling from a stockpile permitted only after approval of the Engineer; the conveyor device shall be calibrated every 3 months and record attached to sample document.

¹⁰ Test specimens shall be prepared following the dry preparation procedure AASHTO T87.

¹¹ Required only for placement around waterline pipe.

*Attachment 3: Section 8 - Facility-Specific
Environmental Analysis*

Sunset Park - Duck Creek Wash to Eastern Avenue

Las Vegas, Clark County, Nevada

Facility-Specific Environmental Analysis

October 2024



Prepared for:



CA Group
2785 S. Rainbow Blvd.
Las Vegas, NV 89146

Prepared by:



4480 West Hacienda Avenue, Suite 104
Las Vegas, NV 89118

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Acronyms and Abbreviations

APE	Area of Potential Effect
ASTM	American Society for Testing and Materials
BLM	Bureau of Land Management
BMP	Best Management Practices
DES	Clark County Department of Environmental and Sustainability
CCRFC	Clark County Regional Flood Control District
CFR	Code of Federal Regulations
CO	Carbon Monoxide
EA	Environmental Assessment
ESA	Endangered Species Act
MBTA	Migratory Bird Treaty Act
MPU	Master Plan Update
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOx	Nitrogen Oxides
NRCS	National Resource Conservation Service
PM10	Particulate Matter Of 10 Microns In Diameter Or Smaller
RCB	Reinforced Concrete Box
SEIS	Supplemental Environmental Impact Statement
USFWS	U.S. Fish And Wildlife Service
VOC	Volatile Organic Compound

1 Purpose and Need

1.1 Project Purpose and Need

This Site-Specific Environmental Analysis discloses potential environmental impacts related to the Sunset Park-Duck Creek Wash to Eastern Avenue Flood Control Project (Project). The Project is located at Sunset Park through to Maule Avenue, up Pecos Road and through Tobias Lane into Duck Creek Wash in Las Vegas, Nevada (Figures 1 and 2). This analysis was conducted pursuant to Chapter 8 of the Supplemental Programmatic Environmental Impact Statement, Clark County Regional Flood Control District (CCRFCD) 2002 Master Plan Update, Final September 2004 (Bureau of Land Management [BLM] 2004), hereafter referred to as the SEIS, which outlines the process necessary to determine the appropriate level of National Environmental Policy Act (NEPA) documentation for a particular facility.

The purpose of the proposed project is to fulfill the duties of the CCRFCD to improve the protection of life and property for existing and future Clark County residents from the impacts of flooding. Specifically, the proposed project's purpose would improve conveyance of storm water flows in the central part of the Las Vegas Valley.

2 Proposed Action and Description

2.1 Proposed Action

The Project facilities are described in the Clark County Regional Flood Control District's (CCRFCD) 2023 Flood Control Master Plan Update (2023 MPU) as Sunset Park-Duck Creek Wash to Eastern Avenue, identification number DCSP0000 and DCSP0115. Hereafter, the Project will be referred to as the Sunset Park facility.

2.2 Project Description

This project will convert the existing grass-lined swale that conveys flow from west to east through Sunset Park to a reinforced concrete box structure approximately 10' wide by 6' tall. This box will connect to the existing three, 6' by 3' RCBs crossing Eastern Avenue at Maule Avenue on the west side of the park. It will continue east through the park along the Maule Avenue alignment, then into Maule Avenue on the east side of the park. At Pecos Road, it will continue north to Tobias, then east in Tobias to Duck Creek Wash. The project also includes construction of a confluence structure at Duck Creek Wash, an existing concrete-lined trapezoidal channel.

An alternative alignment along Pama Lane was also investigated.

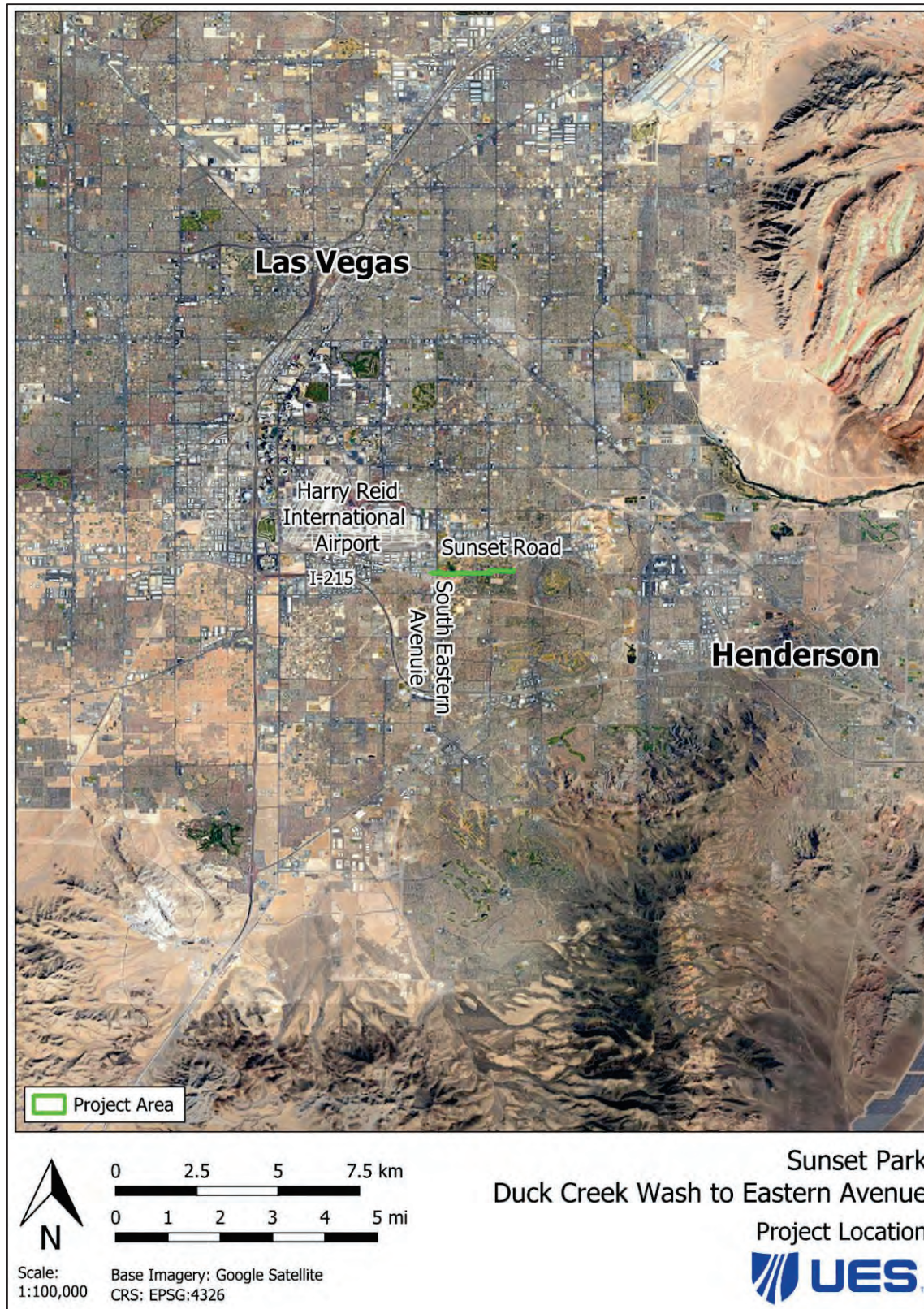


Figure 1 Sunset Park Flood Control Location Map



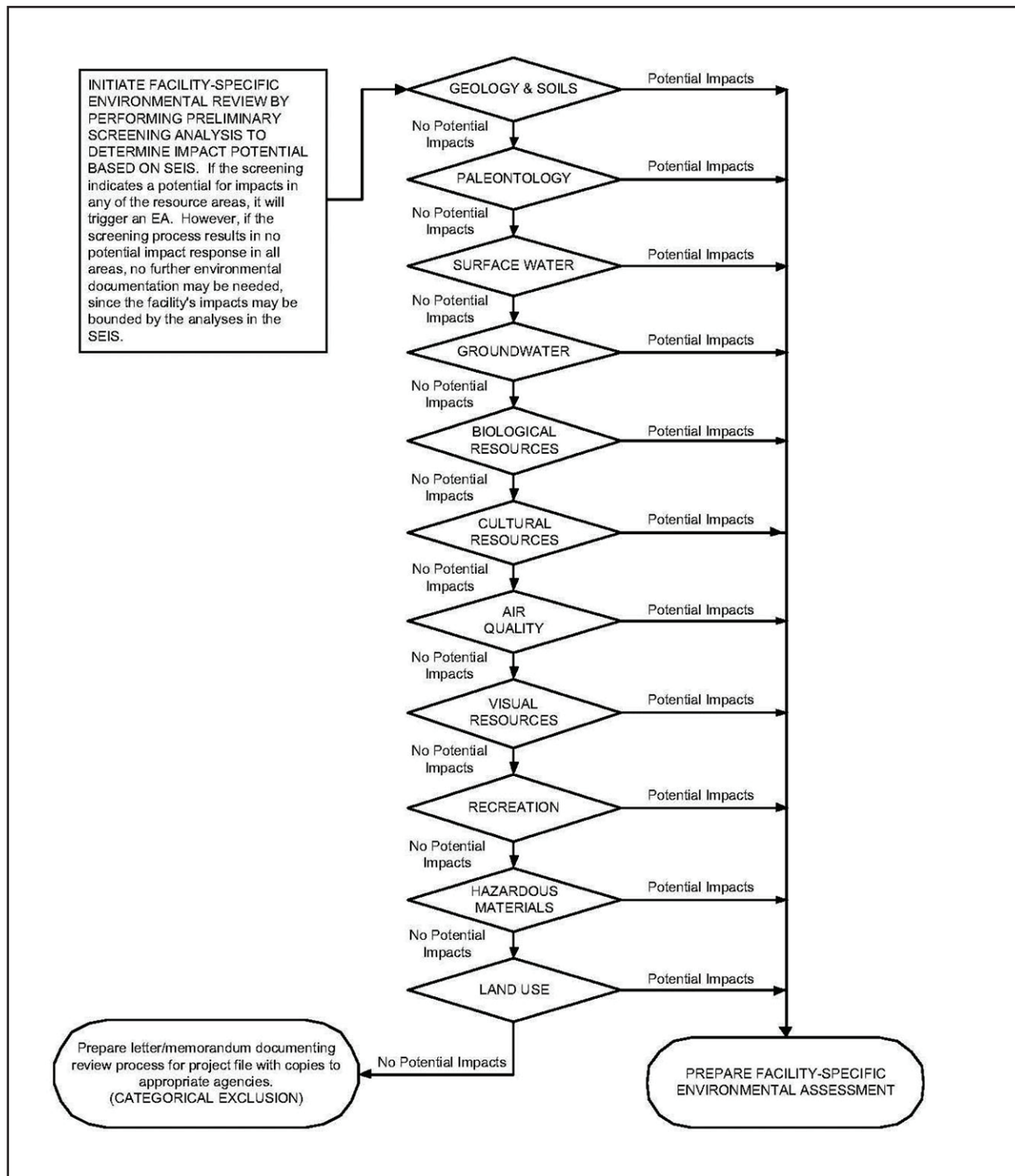
Figure 2 Sunset Park Flood Control Project Area Map

3 Description of Data Collection and Field Investigation Methods

The project-specific analysis process shown in Figure 3 specifies that preliminary screening analyses be conducted for a series of potentially affected resources. If no potential impacts are documented, the SEIS and associated Record of Decision directs that a letter or memorandum documenting the review process be prepared and submitted to the appropriate agencies. The project can then proceed without further analysis. This level of documentation meets or exceeds the BLM Categorical Exclusion level of NEPA documentation.

UES conducted such screening using existing documents and other resources such as, but not limited to, Phase I Environmental Site Assessment, SEIS, well log data, NVCRIS database, and the CCRFCD FloodView Advanced website. There were potential effects; therefore, further analysis was conducted to a level that meets the Environmental Assessment level of NEPA documentation.

Figure 3 Preliminary Project-specific Analysis Screening Process (BLM 2004: Figure 8.1-1)



4 Environmental Analysis of Resources

4.1 Resources Considered and Eliminated from Detailed Consideration

As part of the environmental analysis process, several resource categories were initially considered for detailed examination. However, based on preliminary screening and analysis, it was determined that these resources would not be significantly impacted by the proposed project. Consequently, they have been eliminated from further detailed consideration. This is in accordance with US Department of Interior Handbook on Procedures for Implementing the National Environmental Policy Act (July 2019) Section 8.9 Issue-Based Environmental Analysis which states: “...*insignificant issues may be eliminated from further detailed analysis.... Insignificant issues should be summarized within the NEPA document and an explanation provided as to why they were eliminated from further detailed analysis.* The following subsections describe these resources and provide the rationale for their exclusion.

4.1.1 Transportation

The programmatic analysis in the SEIS provides there would be either short-term, minor, or no impacts to traffic, and that screening evaluations are not necessary at the project-specific level.

The City of Henderson, Clark County Department of Public Works, and the RTC are key agencies responsible for coordinating with developers regarding the planning, design, and construction of improvements to roadway infrastructure. These agencies are responsible for maintenance and future additions, traffic management, and issuance of permits; as well as governing the use of ROWs and construction activities that parallel or cross existing roads and therefore traffic was eliminated from further detailed consideration.

4.1.2 Land Use

The proposed project would not substantially alter existing land use patterns, nor will it result in any significant changes to land use designations. The project is confined to existing public rights-of-way and will not introduce new land uses incompatible with the current zoning and land use plans. Thus, detailed analysis of land use impacts is not necessary.

4.1.3 Socioeconomics

The project is expected to have minimal to positive impacts on the local economy through the creation of temporary construction jobs and improved infrastructure. No long-term adverse socioeconomic impacts are anticipated, and therefore, a detailed socioeconomic analysis has been eliminated from consideration.

4.1.4 Environmental Justice

The SEIS analyzed the demographic data for the Las Vegas Valley and indicated that no minority or low-income populations would experience disproportionately high and adverse effects due to the project. The project is anticipated to benefit the entire community by improving flood control infrastructure,

with no adverse effects identified on any specific demographic group. Therefore, detailed environmental justice analysis is unnecessary.

4.1.5 Visual Resources

The project area is located within an urbanized environment with existing infrastructure. The introduction of flood control facilities will not significantly alter the visual character of the area. Therefore, a detailed visual resources analysis is not necessary.

4.1.6 Noise

Noise impacts from construction activities will be managed through adherence to local noise ordinances and implementation of standard noise mitigation measures. Given the short-term and temporary nature of these impacts, a detailed noise analysis has been excluded.

4.1.7 Paleontological Resources

Existing disturbances from prior development reduce the likelihood of encountering significant paleontological resources within the project area. Additionally, the SEIS described the area as having low potential for paleontological resources. It is recommended construction documents include a specification describing the protocol for handling inadvertent discoveries during construction. The low potential for fossils, the extent of previous disturbance, and the mitigation best management practice inherent in the project, eliminates the need for further detailed analysis.

5 Resources Evaluated in Detail

5.1 Geology and Soils

5.1.1 Geology and Soils Affected Environment

The Proposed Action area is situated within the Las Vegas Valley, which lies in the Basin and Range Geomorphic Province of North America. The Las Vegas Valley is a structural basin formed by bedrock ranging from Precambrian to Miocene in age. The deeper parts of the basin are filled with 3,000 – 5,000 feet of clastic sedimentary deposits dating from the Miocene to the Holocene, constituting the valley-fill aquifer that yields most of the water pumped in the valley. The upper 1,000 feet of this valley fill consists of coarse-grained, fine-grained, and heterogeneous deposits, with the coarse-grained deposits underlying the south and west sides of the valley and interfingering with fine-grained and heterogeneous deposits towards the center.

The soil within the Project area consisted of a dual soil map unit. Soil Map unit descriptions from the Natural Resource Conservation Service (NRCS) Web Soil Survey (WSS) provides a representation of the soils present in an area of interest and can be used to determine the composition and properties of the area.

Glencarb very fine sandy loam, saline, 0 to 2 percent slopes – This soil is comprised of very fine sandy loam within the first 0-6 inches and then stratified very fine sandy loam to silty clay loam for the remainder of the 60-inch soil profile. This soil profile is considered moderately saline to strongly saline, well drained, and has a moderately high to high capacity to transmit water (0.20 to 1.98 in/hr).

Land silt loam, drained, 0 to 2 percent slopes – This soil is comprised of silt loam within the first 0-6 inches and then stratified silt loam to silty clay for the remainder of the 60-inch soil profile. This soil profile is considered strongly saline, somewhat poorly drained, and has a moderately low to moderately high capacity to transmit water (0.14 to 0.57 in/hr).

5.1.2 Geology and Soils Environmental Consequences

Based on review of the CCRFCD SEIS (2004), no faults cross the proposed alignment. Review of the Clark County Soils Guidelines Map (2013) indicates that soils in the project cross two zones considered “Special geotechnical consideration areas.” One being “Potential drainage areas or recent sediment deposits. May also have solubility, clay swell, corrosion, gypsum salt, expansive or hydro-collapsible potential” and the other “Solubility, clay swell, corrosion, gypsum salt, expansive or hydro-collapsible potential.”

5.1.3 Geology and Soils Mitigation Measure Recommendations

A review of the Clark County Soils Guidelines Map (2013) indicates soils in the project area is located in two different consideration zones. The first guideline is “Special geotechnical consideration area. Potential drainage areas or recent sediment deposits. May also have solubility, clay swell, corrosion, gypsum salt, expansive or hydro-collapsible potential.” The second guideline being “Special geotechnical

consideration area. Solubility, clay swell, corrosion, gypsum salt, expansive or hydro-collapsible potential.” However, no environmental mitigation is required as potential impacts will be mitigated to a level of insignificance through engineering design and construction practices.

5.2 Surface Water Hydrology

5.2.1 Surface Water Hydrology Existing Conditions

The project is in the Duck Creek/Blue Diamond Watershed, as delineated within the SEIS. This watershed includes portions of unincorporated Clark County and the City of Henderson. The watershed extends from the Bird Spring Range on the west side of the Las Vegas Valley to where the Duck Creek Channel converges with Duck Creek (SEIS 2004).

The project area has been previously developed and does not contain: 1) wetlands, wetland fringes or adjacent wetlands, or 2) spawning, feeding, or nesting areas for fish or other important aquatic species. No hydric soil exists within the survey area, and habitat on the site does not meet the regulatory definition of a wetland.

5.2.2 Surface Water Hydrology Environmental Consequences

The Project is designed to improve surface water conditions in the area by controlling storm water flows, creating a beneficial impact on this resource. No adverse impacts to surface water are expected to occur because the Project will not divert water from downstream habitats that depend upon that water.

5.2.3 Surface Water Hydrology Mitigation Measures

Federal permits would not be necessary for most of the flood control alignment, which conveys an ephemeral flow regime; however, the project will need to obtain a Federal permit from the US Army Corps of Engineers for the outfall into Duck Creek. Additionally, the project is required to obtain state permits such as a 401 Permit, Working in the Waterway Permit, and a Construction Stormwater General Permit required pursuant to NDEP regulations. The construction contractor(s) will be required to implement standard best management practices (BMPs) to avoid potential impacts to stormwater quality.

5.3 Hydrogeology/Ground Water Hydrology

5.3.1 Hydrogeology/Ground Water Hydrology Existing Conditions

This section summarizes potential hazards or constraints on groundwater in the vicinity of the proposed facility. Generally, impacts to groundwater in the Las Vegas Valley have been through pumping of groundwater causing subsidence in some portions of the valley. The proposed project is located within an area that has been identified to contain shallow groundwater.

5.3.2 Hydrogeology/Ground Water Hydrology Environmental Consequences

A review of the Nevada Division of Water Resources Well Database and the most recent well logs of nearby sites indicates that static water levels in the area are between 17 and 25 feet below ground level.

5.3.3 Hydrogeology/Ground Water Hydrology Mitigation Measures

If site investigations find groundwater is deep enough not to impact construction, no mitigation will be required. However, as the potential to hit groundwater exists, the construction contractor should prepare a dewatering plan and anticipate groundwater barrier procurement to mitigate the impacts to a negligible level.

5.4 Biological Resources

5.4.1 Biological Resources Existing Conditions

Construction activities will be short-term, temporary, and will occur only during daylight hours. The surrounding land cover is largely impervious and consists of various forms of public and residential development. The surface of the project area supports little native or natural plant or animal habitat. What undeveloped habitat that does exist, would be unlikely to support the state and federally protected desert tortoise as it lacks typical vegetation and soils that support the species. Plants that are located within the disturbance area are almost entirely ornamental trees and shrubs used for landscaping.

5.4.2 Biological Resources Environmental Consequences

Construction activities will be short-term, temporary, and will occur only during daylight hours. The surrounding land cover is largely impervious or landscaped and consists of various forms of public and residential development.

5.4.3 Biological Resources Mitigation Measures

No mitigation required. The project area largely consists of a developed urban area, and applicable remuneration fees to address wildlife conservation and mitigation fees would have been paid during previous development. However, there is a small area within the alignment that is undeveloped/partially developed. The project should be aware of the potential to encounter and avoid wildlife such as small reptiles and mammals, as well as provide compliance with the Migratory Bird Treaty Act (MBTA) that protects birds and nests during breeding seasons.

5.5 Recreation

5.5.1 Recreation Existing Conditions

Approximately half of the project area is within Sunset Regional Park. This Clark County Parks and Recreation facility includes sports fields, splash pads, playgrounds, pond, trails, dog parks, among other amenities. Additionally, trails adjacent to portions of the alignment provide equestrian recreation opportunities.

5.5.2 Recreation Environmental Consequences

Construction activities will be short-term, temporary, and will occur only during daylight hours. The project's construction and operational activities would impact portions of the park, but not restrict public access to the whole facility. Recreation opportunities within Sunset Park that would be directly affected during construction consist of disc golf, baseball, certain picnic tables, and certain trail areas. The temporary nature of construction activities ensures minimal disruption to recreational use within the park as well as the equestrian trails.

5.5.3 Recreation Mitigation Measures

Despite short-term and temporary impacts to recreation opportunities associated with construction, long-term impacts provide beneficial use to public safety and recreational opportunities by controlling and directing flood events underground. As the impact would be short-term, temporary, and provide long-term benefit to recreation, no mitigation is warranted.

5.6 Cultural Resources

5.6.1 Cultural Resources Existing Conditions

The analysis procedure for addressing cultural resources involves the following procedures: (1) defining the area of potential effect, (2) identifying historic properties, (3) assessing effects, (4) developing mitigation (avoidance, recovery of significant information, etc.), and (5) implementing mitigation through consultations with the State Historic Preservation Officer, the Advisory Council (if an adverse effect is identified and they choose to participate), Native Americans, and other interested parties.

The area of potential effects (APE) is defined in 36 CFR 800.16(d) as the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking. The APE for the project includes the project footprint because the project and the area surrounding the proposed project has been previously developed.

5.6.2 Cultural Resources Environmental Consequences

The EIS (BLM 1990) and SEIS (BLM 2004) indicate that the Project is in an area of low to moderate archaeological and historical resources sensitivity. Most, if not all, of the land within the Project boundaries has previously been disturbed by development. The area is unlikely to contain any cultural resources.

A literature review of the site was conducted and a portion of the site, and surrounding areas, have been evaluated in previous surveys. These surveys detected resources considered eligible for listing by the State Historic Preservation Office (SHPO), but none within the APE. Most of the site has been previously disturbed and is highly unlikely to produce cultural resources. It is the opinion of UES's archeologists that additional investigations are not warranted at this time.

5.6.3 Cultural Resources Mitigation Measures

No mitigation is required as nearly the entire project would be conducted within previously disturbed areas. However, in the event of a discovery of cultural materials during construction, including human remains, work will stop immediately within the vicinity of the find. No work would resume within the area surrounding the discovery until consultation with the appropriate state and local entities has occurred.

5.7 Air Quality

5.7.1 Air Quality Existing Conditions

Pursuant to the Clean Air Act (42 U.S.C. 7401), Federal actions must include measures to control particulate matter resulting from activities such as excavating and grading. The Clark County Department of Environment and Sustainability (DES) regulates construction activities that disturb soil in Clark County.

The U.S. Environmental Protection Agency provides data regarding nonattainment areas within the United States (EPA 2005). The Las Vegas Valley is an area that is often on the nonattainment list (DES 2006). The main factors causing poor air quality in the Las Vegas Valley are particulate matter from numerous construction activities and carbon monoxide from gas powered vehicles. Air quality in the vicinity of the project area ranges from healthful to unhealthy throughout the year depending on various factors including wind speed, presence of inversion layers, and time of day.

The Project area is in Hydrographic Basin 212 (Las Vegas Valley) where emissions of concern include particulate matter of 10 microns in diameter or smaller (PM₁₀), carbon monoxide (CO) emissions, ozone precursors (nitrogen oxides [NO_x], and volatile organic compounds [VOC]). DES regulates and permits construction activities that generate air pollutants and fugitive dust within Clark County. In fulfilling this responsibility, DES requires implementation of mitigation measures such as application of water combined with other dust suppressants.

5.7.2 Air Quality Environmental Consequences

Dust and other airborne pollutants such as particulate matter are typically generated during earth moving and surface disturbing activities. These emissions would vary from day to day and activity to activity, with each activity having its own potential to release emissions. Because of the variability in timing and intensity of construction, estimating construction-related emissions is difficult. Nevertheless, it is assumed that during construction of the proposed facility there would be a short-term minor adverse impact to air quality during construction-related excavation and grading activities.

5.7.3 Air Quality Mitigation Measures

The construction contractor will be required to comply with mitigation measures stipulated in the construction air quality permits.

This project will require construction permits from the DES. As part of the permit, Clark County would require that airborne particulates be minimized through a series of control measures designed to control windblown fugitive dust. These include watering, and use of construction methods that will bring particulate levels to acceptable levels.

5.8 Hazardous Materials

The Phase I evaluation follows the ASTM Standard Practice for Environmental Site Assessments Process (Standard E 1527-21). The assessment is a two-track process involving: (1) a detailed investigation of past property usage at the project site and neighboring properties, and (2) an inspection of the project site, noting present usage of the site and surrounding properties. Investigation of past property usage typically involves review of available historical records, such as city directories, topographic maps and aerial photographs, interviews with knowledgeable individuals, and record searches of relevant state and federal databases. A determination that hazardous materials may be present on the project site can result from one or both tracks.

5.8.1 Hazardous Materials Existing Conditions

A Phase I Environmental Site Assessment was conducted of the project site in general accordance with ASTM E-1527-21. The study included a review of the site history, historical aerial photographs, and review of environmental databases. Based on a review of historical sources, the project site is developed. During site reconnaissance, Ninyo & Moore (N&M) documented the following findings:

- No recognized environmental conditions (RECs) were observed
- No historical recognized conditions (HRECs) were observed
- No controlled recognized conditions (CRECs) were observed
- De minimis conditions were not identified

5.8.2 Hazardous Materials Environmental Consequences

A Phase I Environmental Report was completed to identify recognized environmental conditions (N&M 2024). There was no evidence of Recognized Environmental Conditions, Controlled Recognized Environmental Conditions, or Historical Recognized Environmental Conditions identified in connection with the Subject Property. It is the opinion of N&M that additional environmental activities or investigations are not warranted at this time.

5.8.3 Hazardous Materials Mitigation Measures

The Phase I Environmental Site Assessment revealed no evidence of recognized environmental conditions. N&M (2024) concluded that no further investigation is warranted at this time. Standard hazardous waste and material management best management practices (BMPs) would be implemented during construction, as required by applicable state and federal regulations, to minimize the generation of hazardous waste and ensure its proper disposal.

6 Conclusion

This facility specific Environmental Assessment includes recommendations regarding implementation of mitigation measures designed to reduce impacts to a level of non-significance. The findings of this document are that construction of the proposed Sunset Park-Duck Creek Wash to Eastern Avenue Flood Control Project would have acceptable levels of impacts with implementation of applicable mitigation and BMPs.