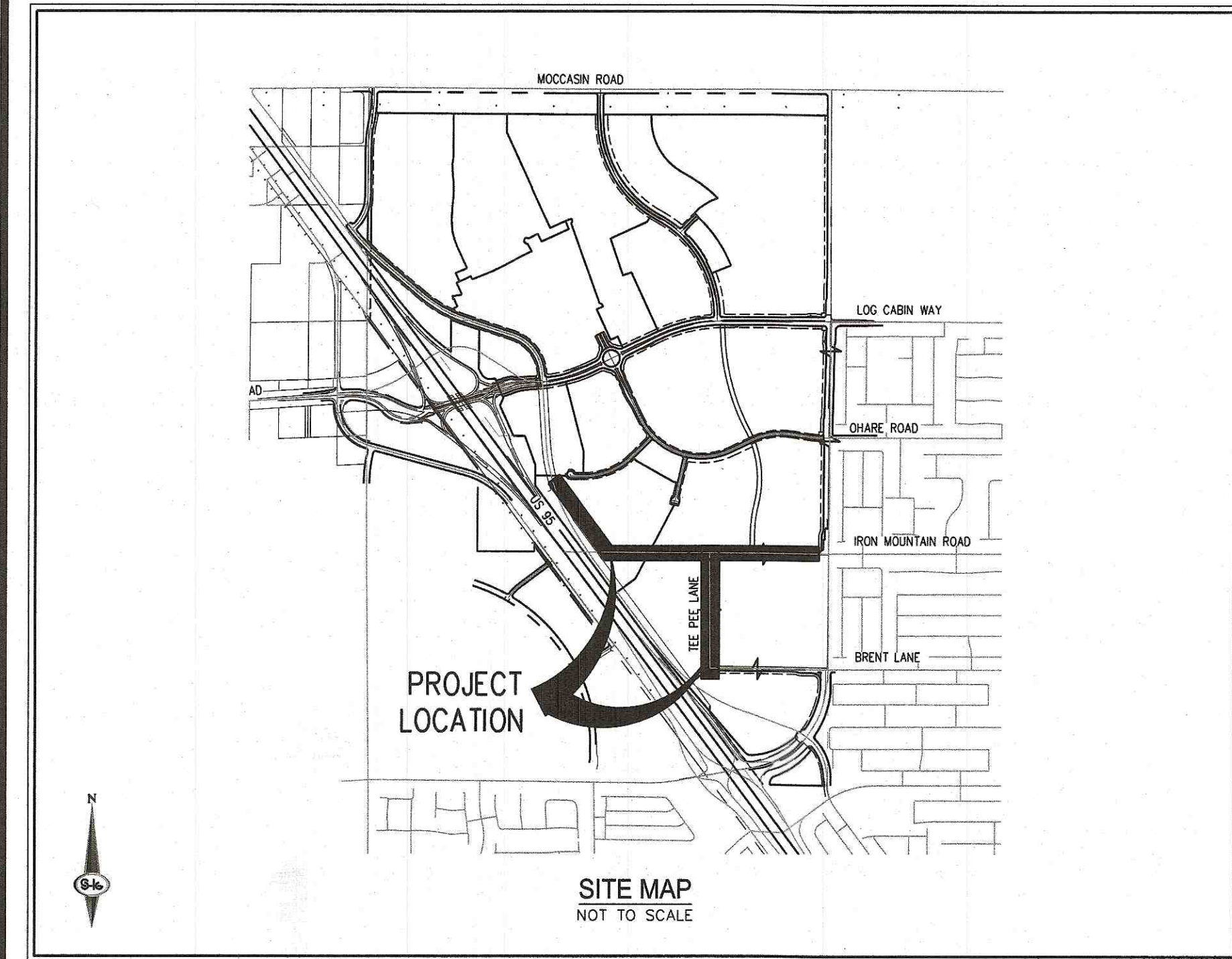
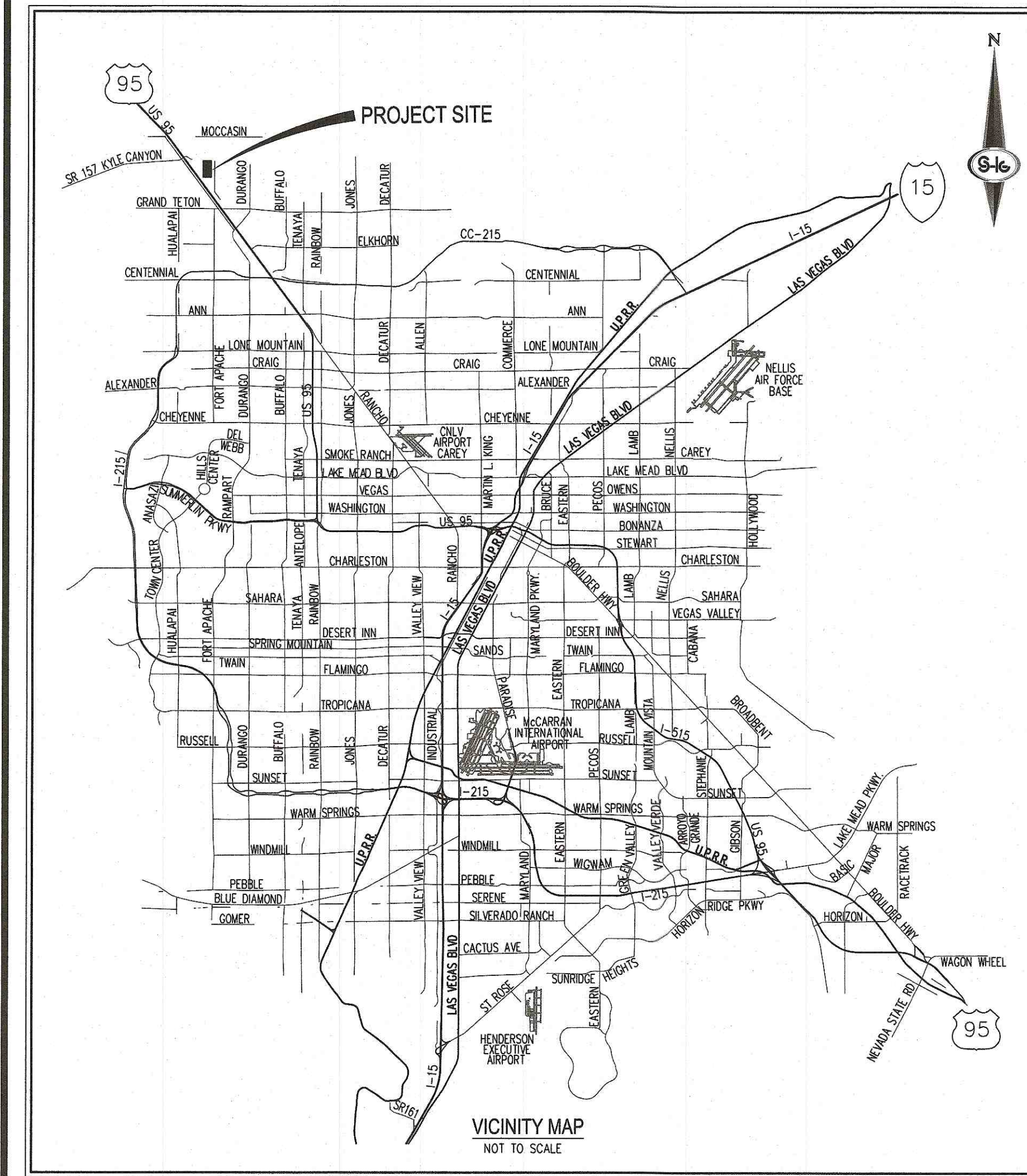




IMPROVEMENT PLANS FOR SUNSTONE PHASE 1 IRON MOUNTAIN ROAD AND TEE PEE LANE

CITY OF LAS VEGAS, NEVADA

APN: 125-06-701-001, 125-07-501-005, 125-07-602-001,
125-07-602-005, 125-07-501-003, 125-07-501-004



SHEET INDEX		
NO.	SHEET	TITLE
1	CS-1	COVER SHEET
2	CS-2	GENERAL NOTES
3	CS-3	ABBREVIATIONS, LEGEND, AND QUANTITIES
4	PP-1	PLAN & PROFILE I - "MR" 10+00.00 TO "MR" 15+50.00
5	PP-2	PLAN & PROFILE II - "MR" 15+50.00 TO "MR" 22+00.00
6	PP-3	PLAN & PROFILE III - "MR" 22+00.00 TO "MR" 28+50.00
7	PP-4	PLAN & PROFILE IV - "TPI" 9+00.00 TO "TPI" 13+50.00
8	PP-5	PLAN & PROFILE V - "TPI" 13+50.00 TO "TPI" 20+00.00
9	PP-6	PLAN & PROFILE VI - "TPI" 20+00.00 TO "TPI" 24+00.00
10	PP-7	PLAN & PROFILE VII - "BL" 9+00.00 TO "BL" 13+00.00
11	MU	MASTER UTILITY PLAN
12	UT-1	UTILITY PLAN I - "MR" 22+00.00 TO "MR" 28+50.00
13	UT-2	UTILITY PLAN II - "TPI" 9+00.00 TO "TPI" 13+50.00
14	UT-3	UTILITY PLAN III - "TPI" 13+50.00 TO "TPI" 20+00.00
15	UT-4	UTILITY PLAN IV - "TPI" 20+00.00 TO "TPI" 24+00.00
16	UT-5	UTILITY LATERAL I
17	UT-6	WATER EASEMENT I
18	DT-1	DETAIL SHEET I
19	DT-2	DETAIL SHEET II
20	ST-1	SIGNING & STRIPING I - "MR" 9+50 TO "MR" 22+00
21	ST-2	SIGNING & STRIPING II - "MR" 22+00 TO "MR" 26+62
22	ST-3	SIGNING & STRIPING III - "TPI" 9+00 TO "TPI" 22+00
23	LL-1	LIGHTING & ITS I - "MR" 9+50 TO "MR" 22+00
24	LL-2	LIGHTING & ITS II - "MR" 22+00 TO "MR" 26+62
25	LL-3	LIGHTING & ITS III - "TPI" 9+00 TO "TPI" 22+00
26	TS-1	PEDESTRIAN FLASHER PLAN 1
27	TS-2	PEDESTRIAN FLASHER PLAN 2
28	S-1	MODIFIED TYPE CM2 DROP INLET DETAILS
29	HC-1	HORIZONTAL CONTROL PLAN
30	HC-2	HORIZONTAL CONTROL PLAN
31	HC-3	HORIZONTAL CONTROL PLAN
32	HC-4	HORIZONTAL CONTROL PLAN
33	HC-5	HORIZONTAL CONTROL PLAN
34	HC-6	HORIZONTAL CONTROL PLAN
35	HC-7	HORIZONTAL CONTROL PLAN
36	HC-8	HORIZONTAL CONTROL PLAN
37	HC-9	HORIZONTAL CONTROL PLAN
38	HC-10	HORIZONTAL CONTROL PLAN
39	HC-11	HORIZONTAL CONTROL PLAN
40	HC-12	HORIZONTAL CONTROL PLAN
41	HC-13	HORIZONTAL CONTROL PLAN
42	HC-14	HORIZONTAL CONTROL PLAN
43	HC-15	HORIZONTAL CONTROL PLAN
44	HC-16	HORIZONTAL CONTROL PLAN
45	HC-17	HORIZONTAL CONTROL PLAN
46	HC-18	HORIZONTAL CONTROL PLAN
47	HC-19	HORIZONTAL CONTROL PLAN
48	HC-20	HORIZONTAL CONTROL PLAN
49	HC-21	HORIZONTAL CONTROL PLAN
50	HC-22	HORIZONTAL CONTROL PLAN
51	HC-23	HORIZONTAL CONTROL PLAN

NV ENERGY SHEET INDEX ADDENDUM 1		
NO.	SHEET	TITLE
1	---	SHEET 1
2	---	SHEET 2
3	---	SHEET 3
4	---	SHEET 4
5	---	SHEET 5
6	---	SHEET 6
7	---	SHEET 7
8	---	SHEET 8
9	---	SHEET 9
10	---	SHEET 10
11	---	SHEET 11
12	---	SHEET 12
13	---	SHEET 13

OFF-SITE STORM DRAIN SHEET INDEX		
NO.	SHEET	TITLE
1	OS-1	OFF-SITE STORM DRAIN 1
2	OS-2	OFF-SITE STORM DRAIN 2
3	OS-3	OFF-SITE STORM DRAIN 3
4	OS-4	OFF-SITE STORM DRAIN 4
5	OS-5	OFF-SITE STORM DRAIN 5
6	OS-6	OFF-SITE STORM DRAIN 6

BENCHMARK
MONUMENT ID: USDA (1934) 19
U.S. DEPARTMENT OF AGRICULTURE BRASS DISC AT SOUTHWEST CORNER
OF U.S. 95 AND KYLE CANYON ROAD
ELEVATION = 2817.61 FEET, 858.810 METERS
NAVD 88 DATUM
PER THE CITY OF LAS VEGAS BENCHMARK BOOK -
2008 ADJUSTMENT (UPDATED 05/24/2010)

BASIS OF BEARINGS
NORTH 00°01'50" WEST, BEING THE BEARING OF THE EAST LINE OF THE
NORTHEAST QUARTER (NE1/4) OF SECTION 6, TOWNSHIP 19 SOUTH, RANGE 60
EAST, 1/4, CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY
MAP THEREOF IN FILE 151, PAGE 14 OF SURVEYS IN THE CLARK COUNTY
RECORDER'S OFFICE, NEVADA.

FEMA FLOOD ZONE INFORMATION
THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE "X" (OUTSIDE THE 0.2%
ANNUAL CHANCE FLOODPLAIN) ON THE FLOOD INSURANCE RATE MAP (FIRM)
PANELS: 32003C1735E AND 32003C1750E BOTH DATED SEPTEMBER 27, 2002

APPROVALS

CLV ENGINEERING OFFICE

CLV FIRE & RESCUE

CLV PLANNING DEPARTMENT

CENTRAL TELEPHONE CO. DBA CENTURYLINK
DATE
THE AFFIRED CENTURYLINK APPROVAL DOES NOT ASSUME OR GUARANTEE LIABILITY
FOR KNOWN OR UNKNOWN CONFLICTS WITH EXISTING OR PROPOSED IMPROVEMENTS.
RESOLUTION OF ANY CONFLICT WILL BE ACCOMPLISHED PURSUANT TO LOCAL
ORDINANCES, NEVADA REVISED STATUTES AND / OR PUBLIC UTILITY COMMISSION
RULES AND REGULATIONS.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 137259 FIRST APPROVED DATE:
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 0 GPM
SHEETS: 11, 12, 13, 14

NV ENERGY
DATE

NV ENERGY ACKNOWLEDGES THAT WE HAVE RECEIVED YOUR PLANS AND WILL
PROVIDE SERVICE TO ALL ELECTRICAL NEEDS ASSOCIATED WITH THIS PROJECT. NV
ENERGY RESERVES THE RIGHT TO ADDRESS ANY EXISTING OR FUTURE CONFLICTS
ONCE THE FINAL DESIGN IS COMPLETED. THE NEW SERVICE AND THE RESOLUTION
OF ANY CONFLICTS WILL BE ACCOMPLISHED PURSUANT TO THE NEVADA PUBLIC
UTILITY COMMISSION'S RULES AND REGULATIONS.

SOUTHWEST GAS CORPORATION
SWG UID
DATE

COX COMMUNICATIONS LAS VEGAS, INC.
DATE

OWNER
NORTHLAND LLC, EASTLAND LLC, EAST OF
95 L.L. 5/6 NINETY FIVE MANAGEMENT, LLC 9275 RUSSELL ROAD, SUITE 400
11411 SOUTHERN HIGHLANDS, SUITE 300 LAS VEGAS, NV 89148
LAS VEGAS, NV 89141 PH: 702-284-5300
PH: 702-220-6565

DEVELOPER
SC EAST LANDCO, LLC
400 WESTWOOD TEAM
LAS VEGAS, NV 89148
PH: 702-821-4808

ENGINEER
SLATER HANIFAN GROUP, INC.
5740 S. ARVILLE STREET, SUITE 216
LAS VEGAS, NV 89118
PH: 702-284-5300
CONTACT: JOSH JOHNSON

M.O.U. ITEMS
TMP-76718, JULY 23, 2019
NONE

DEVIATIONS FROM STANDARDS
NONE

SWPPP NOTE
NOTE: ALL LAND SURFACE AREA DISTURBANCES OVER 1 ACRE REQUIRE A
STORMWATER DISCHARGE PERMIT ISSUED BY THE NEVADA DIVISION OF ENVIRONMENTAL
PROTECTION (NDEP). A PHASED CONSTRUCTION UNIT IN A CONTIGUOUS SUBDIVISION IS
CONSIDERED UNDER CONSTRUCTION UNTIL ALL STRIPPED SURFACE AREAS HAVE BEEN
COVERED BY PAVING, BUILDING CONSTRUCTION OR PLANTING. A STORMWATER
DISCHARGE PERMIT APPLICATION AND ASSOCIATED INFORMATION MAY BE DOWNLOADED
FROM THE WEB SITE: <http://www.state.nv.us/bwpc/storm1.htm> PROJECTS THAT
DISTURB MORE THAN ONE ACRE OF LAND MUST SUBMIT TO NDEP A "NOTICE OF
INTENT" FOR INCLUSION UNDER STORMWATER PERMIT NO. NV1000000 ALONG WITH THE
APPROPRIATE FILLING FEE.

GEOTECHNICAL ENGINEER

PREPARED BY: FIRM
ADDRESS: ADDRESS
PHONE: PHONE #
PROJECT NO. PROJECT NUMBER
DATED: DATE



SLATER
HANIFAN
GROUP
a Westwood team

DATE: 09/26/19
DRAFTER: SB/JR
DESIGNER: BC
CHECKED: JJ
PROJECT NO. EST1911-000

DATE: 09/26/19
DRAFTER: SB/JR
DESIGNER: BC
CHECKED: JJ
PROJECT NO. EST1911-000

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DESIGNER: BC
CHECKED: JJ
PROJECT NO. EST1911-000

ABBREVIATIONS

AC	ASPHALTIC CONCRETE OR ACRE	FL	FLOWLINE	PV	POINT OF VERTICAL INTERSECTION
AGG	AGGREGATE BASE	FT	FEET OR FOOT	QTY	QUANTITY
APN	ASSESSORS PARCEL NUMBER	FUT	FUTURE	R	RADIUS
APPROX OR ~	APPROXIMATE	GRD	GRADE OR GROUND	RCA	REINFORCED CONCRETE ARCH
AVE	AVENUE	GB	GRADE BREAK OR GRADE CHANGE	RCB	REINFORCED CONCRETE BOX
AT	AT	GV	GATE VALVE	RCP	REINFORCED CONCRETE PIPE
BC	BEGIN CURVE OR BACK OF CURB	HDPE	HIGH DENSITY POLYETHYLENE	RD	ROAD
BCK	BEGINNING OF CURB RETURN	HOA	HOME OWNERS ASSOCIATION	RDWY ESMT	ROADWAY EASEMENT
BHW	BOTTOM OF HEADWALL	HORZ	HORIZONTAL	REQD	REQUIRED
BLDG	BUILDING	HP	HIGH POINT	REV	REVISION
BLVD	BOULEVARD	HWL	HIGH WATER LEVEL	RG	ROUGH GRADE
BM	BENCHMARK	HOWL OR HW	HEADWALL OR HYDRANT	RT OR R	RIGHT
BW	BOTTOM OF HEADWALL	HYD	HYDRAULIC OR HYDRANT	RK, ROW	RIGHT OF WAY
BVC	BEGIN VERTICAL CURVE	ID	INSIDE DIAMETER	S	SLOPE
BWV	BACK WATER VALVE	IN	INCH	SCH	SCHEDULE
CC	CLARK COUNTY	INT	INTERSECTION	SD	STORM DRAIN
CCUSD	CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS	INV	INVERT ELEVATION	SDOI	STORM DRAIN DROP INLET
CCRFCD	CLARK COUNTY REGIONAL FLOOD DISTRICT	IP	IRON PIPE	SDMH	STORM DRAIN MANHOLE
CCWRD	CLARK COUNTY WATER RECLAMATION DISTRICT	IRRIG	IRRIGATION	SEC	SECTION
CE	COMMON ELEMENT	LF	LINEAR FEET	SF	SQUARE FEET
CLC/LC	CENTERLINE	LMC	LANDSCAPE MAINTENANCE CORPORATION	SH	SHEET
CLR	CLEAR OR CLEARANCE	LP	LOW POINT	SLTC	STREET LIGHT & TRAFFIC CONTROL ESMT
CLSM	CONTROLLED LOW STRENGTH MATERIAL	LT OR L	LEFT	SNWA	SOUTHERN NEVADA WATER AUTHORITY
CLV	CITY OF LAS VEGAS	LWVD	LAS VEGAS VALLEY WATER DISTRICT	SPECS	SPECIFICATIONS
CM&C	CEMENT MORTAR LINED AND COATED	LWL	LOW WATER LEVEL	ST	STREET
CMU	CONCRETE MASONRY UNIT	MAX	MAXIMUM	SSMH	SANITARY SEWER MANHOLE
CONV	CITY OF NORTH LAS VEGAS	MECH	MECHANICAL	STA	STATION
COH	CITY OF HENDERSON	MH	MANHOLE	STD	STANDARD
CONC	CONCRETE	MIN	MINIMUM	STL	STEEL
CT	COURT	MISC	MISCELLANEOUS	STLT	STREET LIGHT
CY OR CU YD	CUBIC YARD	MUE	MUNICIPAL UTILITY EASEMENT	SW	SIDEWALK
DCWCS	DESIGN AND CONSTRUCTION FOR WASTEWATER	NDOT	NEVADA DEPARTMENT OF TRANSPORTATION	SWG	SOUTHWEST GAS
DE	DETAIL	NTS	NOT TO SCALE	SWR OR SS	SANITARY SEWER
DET	DUCTILE IRON OR DRAIN INLET	NUE	NONEXCLUSIVE UTILITY EASEMENT	SY	SQUARE YARD
DI	DIAMETER	NVE	NAV ENERGY	TAN	TANGENT
DIA	DIAMETER	OC	ON CENTER	TC	TOP OF CURB
DIP	DUCTILE IRON PIPE	OD	OUTSIDE DIAMETER OR OVERALL DIMENSION	TF	TOP OF FLOOR OR TOP OF FOOTING
DR	DRAWING	OFF	OFFSET	TG	TOP OF GRAVE
DWG(S)	DRAWING	ORIG	ORIGINAL	THRU	THROUGH
DWY	DRIVEWAY	PAE	PUBLIC OR PEDESTRIAN ACCESS EASEMENT	THW	TOP OF HEADWALL
EA	EACH	PB	PULL BOX	TP	TOP OF PIPE
ECR	END CURB RETURN	PC	POINT OF CURVE	TW	TOP OF WALL
EG	EXISTING GROUND	PCC	POINT OF COMPOUND CURVE	TRW	TOP OF RETAINING WALL
ELEV	ELEVATION	PDE	PUBLIC DRAINAGE EASEMENT	TSW	TOP OF SCREEN WALL
ESMT	EASEMENT	P OR PL	PROPERTY LINE	TYP	TYPICAL
EP	EDGE OF PAVEMENT	POB	POINT OF BEGINNING	UDACS	UNIFORM DESIGN AND CONSTRUCTION STANDARDS
ERU	EQUIVALENT RESIDENTIAL UNIT	POC	POINT OF CURVATURE	UE	UTILITY EASEMENT
EVC	END VERTICAL CURVE	PDE	POINT OF ENDING	VC	VERTICAL CURVE
EX OR EXIST	EXISTING	PRC	POINT OF REVERSE CURVATURE	VERT	VERTICAL
FC	FACE OF CURB	PRELIM	PRELIMINARY	VG	VALLEY GUTTER
FF	FINISHED FLOOR	PROP	PROPOSED	W	WROUGHT IRON
FG	FINISHED GRADE	PRV	PRESSURE REDUCING VALVE	WL	WATER LINE
FGH	FINISHED GRADE, HIGH SIDE	PUE	PUBLIC UTILITY EASEMENT	WPZ	WATER PRESSURE ZONE
FL	FINISHED GRADE, LOW SIDE	PT	POINT OF TANGENT OR POINT	WT	WEIGHT
FHL	FIRE HYDRANT	PVC	POLYVINYL CHLORIDE	WTR	WATER LINE

ALIGNMENT ABBREVIATIONS

"IMR"	IRON MOUNTAIN ROAD
"IPL"	TEE PEE LANE
"BL"	BRENT LANE

SPECIAL NOTE

IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED WHICH IS NOT SHOWN ON THESE DRAWINGS, THE OWNER AGREES TO PROVIDE AND INSTALL SUCH ITEM AT HIS OWN EXPENSE AND AT THE DIRECTION OF THE CITY OF LAS VEGAS DEPT. OF PUBLIC WORKS. TEMPORARY CONSTRUCTION ITEMS INCLUDE: PAVEMENT TRANSITIONS, PROTECTIVE DITCHES AND BERMS, ROAD SIGNS AND BARRICADES, ETC.

NOTICE TO CONTRACTOR

-QUANTITIES SHOWN ARE ESTIMATES ONLY AND ARE INTENDED TO ILLUSTRATE SCOPE OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT QUANTITIES INVOLVED.

-EXISTING UTILITY LOCATIONS SHOWN HEREIN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATIONS. CALL BEFORE YOU DIG: (800) 227-2600

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		5' CONTOUR
		1' CONTOUR
		STRIPING
		SEWER MANHOLE
		CURB AND GUTTER
		SANITARY SEWER PIPE AND FLOW ARROW
		WATER PIPE
		WATER GATE VALVE
		FIRE HYDRANT
		WATER BLOW-OFF
		WATER LATERAL W/ METER
		SANITARY SEWER LATERAL
		STREETLIGHT
		EDGE OF PAVEMENT
		TRAFFIC SIGN
		PAD ELEVATION
		FINISHED FLOOR ELEVATION
		ELEVATION
		RETAINING WALL
		STORM DRAIN W/ MANHOLE
		EXISTING GAS GATE VALVE
		EXISTING UNKNOWN MANHOLE
		EXISTING GAS, SIZE PER PLAN
		EXISTING POWER POLE
		EXISTING TRAFFIC SIGNAL
		EXISTING WALL
		WATER PIPE FITTING
		WATER POINT OF CONNECTION
		SEWER POINT OF CONNECTION
		DAYLIGHT LINE
		STREET CENTERLINE
		RIGHT-OF-WAY
		MATCHLINE
		BOUNDARY LINE
		PHASE LINE
		PROPERTY LINE
		FLOWLINE
		SAWCUT
		CUT/FILL TRANSITION LINE
		SIDEWALK
		EX STRIPING TO BE OBLITERATED
		GRADE BREAK LINE
		REFLECTIVE RAISED PAVEMENT MARKERS
		BACK WATER VALVE
		WROUGHT IRON FENCE
		PONY WALL
		DECORATIVE PERIMETER WALL
		DECORATIVE PERIMETER RETAINING WALL
		PROPOSED CURB AND GUTTER WITH RIGHT-OF-WAY AT BACK OF CURB
		EXISTING CURB AND GUTTER WITH RIGHT-OF-WAY AT BACK OF CURB
		FUTURE CURB AND GUTTER WITH RIGHT-OF-WAY AT BACK OF CURB

QUANTITIES

	PRIVATE	PUBLIC
DRAINAGE		
1. 60" TYPE II STORM DRAIN MANHOLE	EA	3
2. 24" RCP CLASS IV STORM DRAIN	LF	198
3. 30" RCP CLASS IV STORM DRAIN	LF	2,229
4. 36" RCP CLASS IV STORM DRAIN	LF	230
5. BRICK AND MORTAR PLUG	EA	2
6. RIPRAP D50=8", T=16"	SF	-
7. 480" TYPE I MANHOLE	EA	-
8. 48" TYPE II SDMH	EA	2
9. 60" TYPE III SDMH	EA	5
10. 60" TYPE II-SD SDMH	EA	1
11. NDOT TYPE 2 DROP INLET (4"x4")	EA	1
12. NDOT CULVERT HEADWALL	EA	2
13.		
SEWER SYSTEM		
1. 8" PVC SEWER PIPE (PUBLIC)	LF	107
2. STANDARD 48" SEWER MANHOLE (PUBLIC)	EA	1
3. 8" SEWER PIPE CAP	EA	2
4.		
5.		
6.		
7.		
WATER SYSTEM		
1. FIRE HYDRANT ASSEMBLY W/6" GATE VALVE PER UDACS PLATE NO. 40	EA	2
2. 6" PVC WATER PIPE (CLASS 150)	LF	23
3. 12" PVC WATER PIPE (CLASS 150)	LF	1,403
4. 8" DIP WATER PIPE (CLASS 53)	LF	175
5. 8" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30 & 39	EA	3
6. 12" X 8" TEE PER UDACS PLATE NO. 31	EA	1
7. 12" X 12" TEE PER UDACS PLATE NO. 31	EA	1
8. 12" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30 & 39	EA	3
9. 8" 45 DEGREE BEND PER UDACS PLATE NO. 31	EA	6
10. 12" 45 DEGREE BEND PER UDACS PLATE NO. 31	EA	6
11. 12" X 8" REDUCER PER UDACS PLATE NO. 30	EA	1
12. 18" STEEL CASING	LF	20
13. CAP AND 2" BLOW-OFF ASSEMBLY W/CAP PER UDACS PLATE NO. 36	EA	3
14. 12" X 8" WET TAP PER UDACS PLATE NO. 30, 34, AND 39	EA	1
15.		
16.		
STREET IMPROVEMENTS		
1. 3" A.C. PAVEMENT W/ 4" TYPE II OVER 6" TYPE I AGGREGATE BASE	SY	8,424
2. STANDARD 18" TYPE "L" ISLAND CURB & GUTTER W/6" TYPE I AGGREGATE BASE	LF	2,770
3. STANDARD 8" TYPE "A" ISLAND CURB W/6" TYPE I AGGREGATE BASE	LF	397
4. 8" WIDE CONCRETE SIDEWALK W/4" TYPE II AGGREGATE BASE	SF	22,379
5.		
6.		
7.		
TRAFFIC SIGNAGE & STRIPING		
1. STREET/STOP SIGNS	EA	13
2. BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKER	EA	2
3. CROSSWALK MARKINGS	LF	1
4.		
5.		
6.		
7.		
8.		
STREET LIGHTS & SIGNALS		
1. CONCRETE POLE STREETLIGHT W/ FOUNDATION	EA	2
2. 1-2" PVC STREET LIGHT CONDUIT WITH (2) #4 AND (1) #8 CONDUCTORS	LF	2,658
3. NO. 3-1/2 PULL BOX W/ METAL COVER	EA	5
4. REPLACE EXISTING FIXTURE WITH ERL1009C340DRAL8011L	EA	16
5. MOUNT LED FIXTURE ERL2021C340AGRAYL ON EXISTING POLE	EA	1
6. NOT USED	EA	-
OFF-SITE QUANTITIES		
DRAINAGE		
1. EARTHWORK QUANTITY (NET CUT)	CY	2,489
2. RIP-RAP (D ₅₀ =8")	CY	31

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES
PROJECT NO. 137259 FIRST APPROVED DATE: 11/21/23



DATE	BY	APP

DATE	DESCRIPTION	NO.

DATE	DESCRIPTION	NO.

DATE	DESCRIPTION	NO.

DATE	DESCRIPTION	NO.

DATE	DESCRIPTION	NO.

DATE	DESCRIPTION	NO.

DATE	DESCRIPTION	NO.

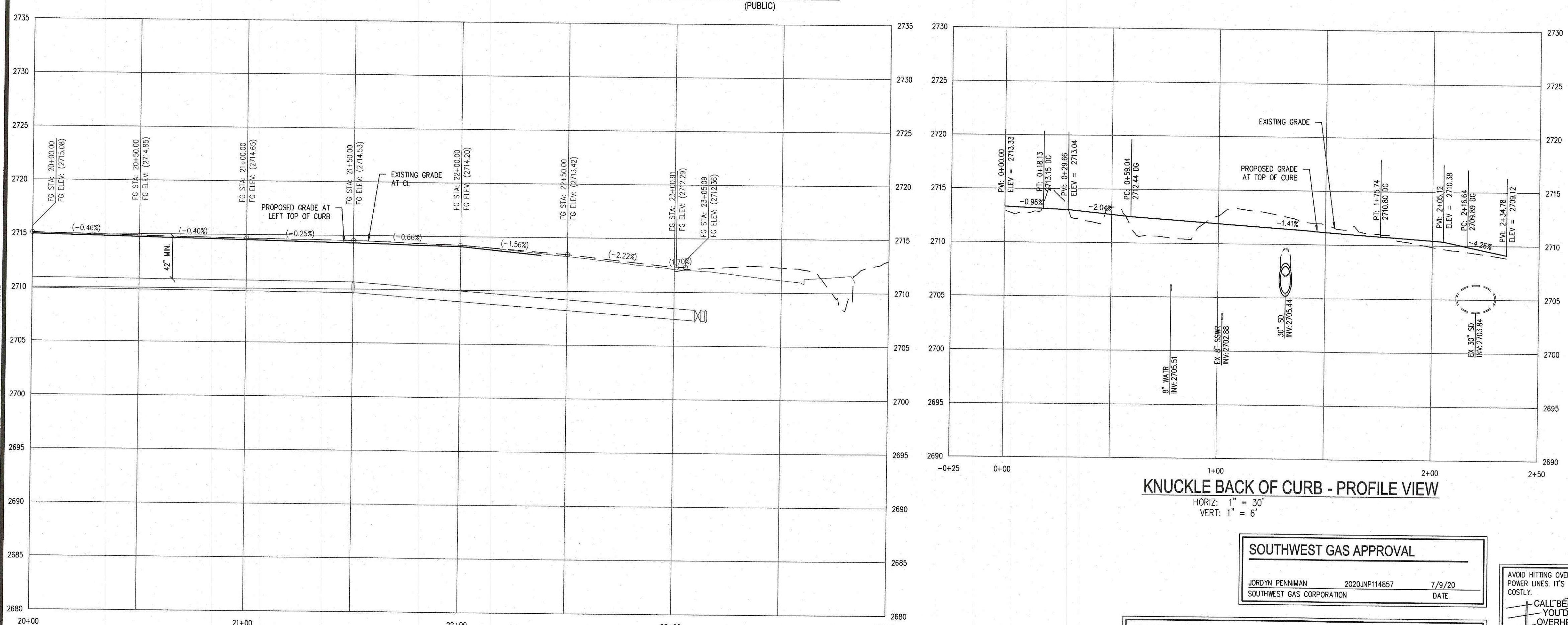
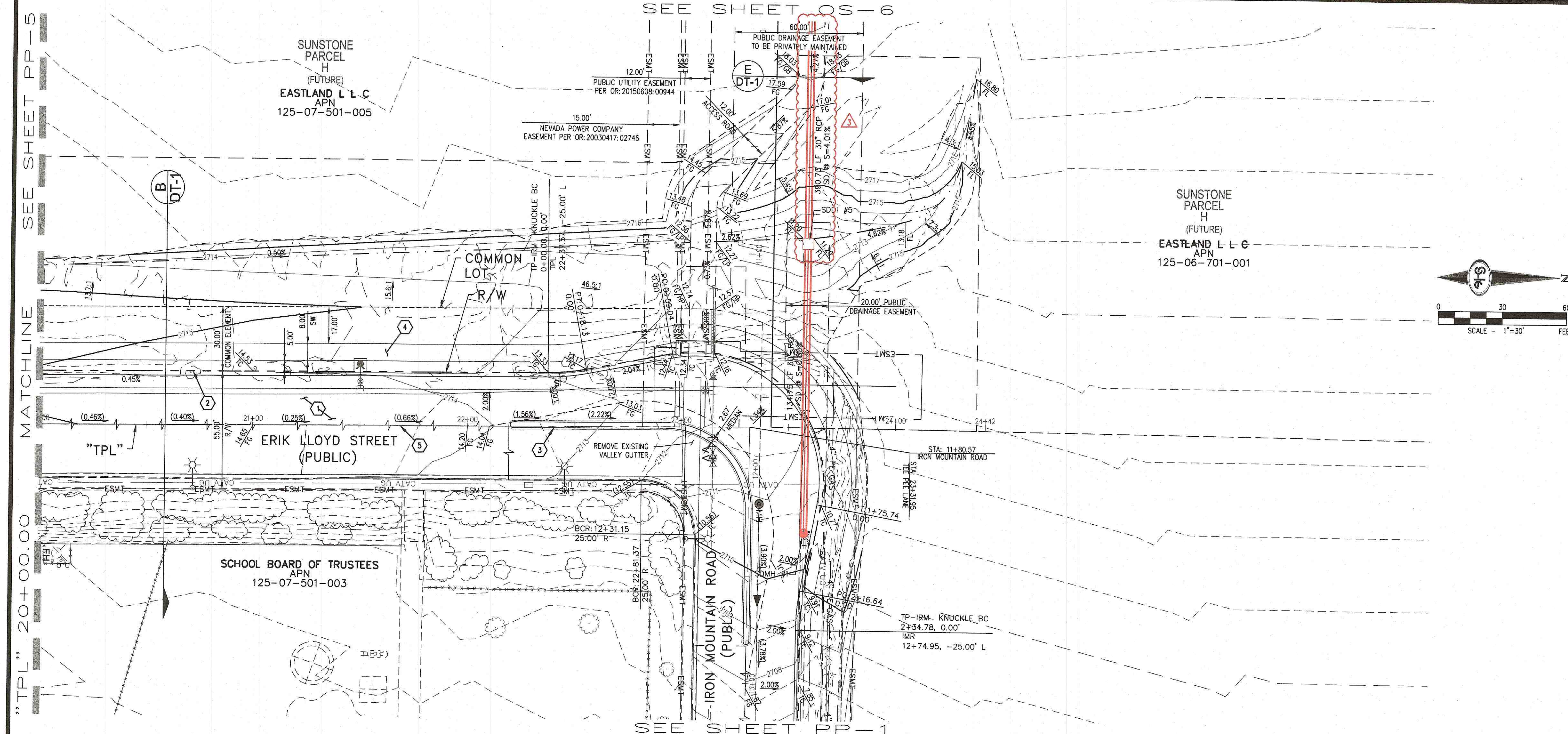
DATE	DESCRIPTION	NO.

DATE	DESCRIPTION	NO.

DATE	DESCRIPTION	NO.

DATE	DESCRIPTION	NO.

SEE SHEET PP-5
MATCHLINE
"TPL" 20+00.00
SEE SHEET PP-1



TEE PEE LANE - PROFILE VIEW
HORIZ: 1" = 30'
VERT: 1" = 6'

CALL SOUTHWEST GAS AT 702-651-2111 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES

SURVEY NOTE
OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS SHOWN AND TO REPLACE ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED, OR OBLISCURED DURING CONSTRUCTION.

ELEVATION NOTE
ADD 2600 TO ALL SPOT GRADES WHERE THE HUNDREDS AND THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E. 01.00 REPRESENTS 1801.00)

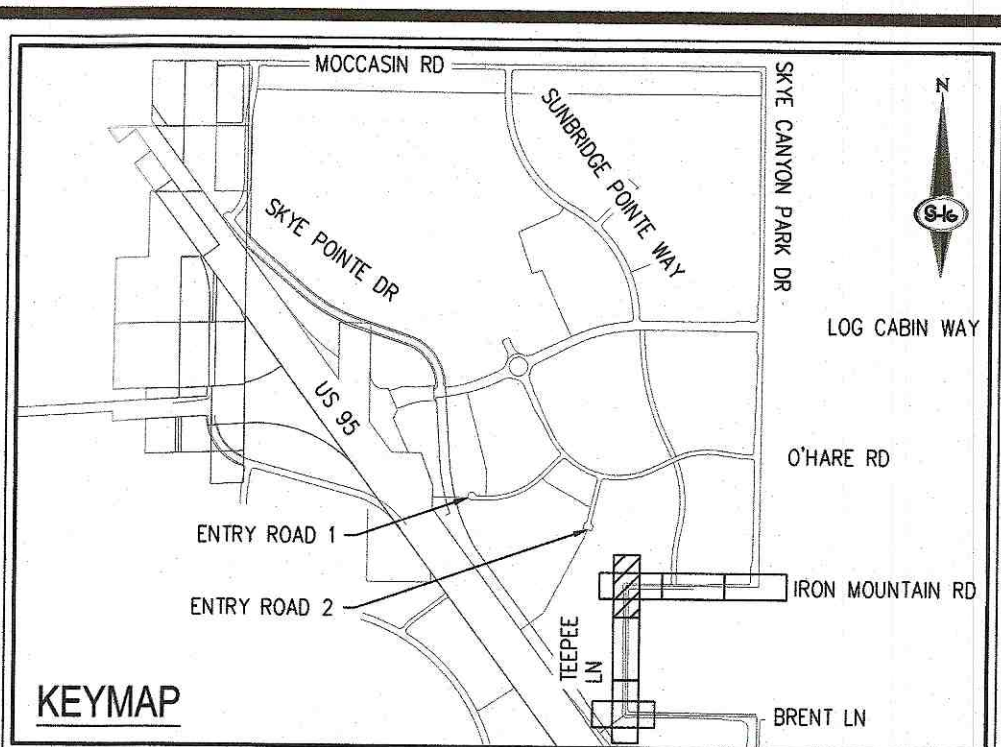
DISCLAIMER NOTE
1) EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
2) FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF PAVEMENT OR PROJECTED LIP OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

GRADING NOTES
1. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
2. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
3. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
4. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
5. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
6. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
7. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLENISHING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
8. NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXIST) WITHIN THE SIGHT VISIBILITY ZONES.

LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES
(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))
1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN CLARK COUNTY TITLE 24.40 AND IN THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVRI00000, SECTION III.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER A RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVRI00000, SECTION III.A.12.
5. ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

SOUTHWEST GAS APPROVAL
JORDYN PENNIMAN 2020JNP114857 7/9/20
SOUTHWEST GAS CORPORATION DATE

FLOOD ZONE
THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE X (OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 32003C1735E AND 32003C1750E, BOTH DATED SEPTEMBER 27, 2002.



- CONSTRUCTION NOTES**
- 1) INSTALL 3" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
 - 2) CONSTRUCT "L" TYPE CURB PER CCAUSD NO. 216
 - 3) CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD NO. 219
 - 4) CONSTRUCT 8" WIDE SIDEWALK PER CCAUSD NO. 234
 - 5) SAWCUT AND MATCH EXISTING PAVEMENT PER CCAUSD NO. 500.1 AND 503
 - 6) CONSTRUCT MODIFIED TYPE "CM2" DROP INLET PER STRUCTURAL DETAILS ON SHEET S-1 & CCAUSD STD. DWG. NO. 421
 - 7) CONSTRUCT 60" TYPE II MANHOLE PER CCAUSD STD. DWG. NO. 405
 - 8) INSTALL BRICK AND MORTAR PLUG PER DETAIL C ON SHEET DT-1
 - 9) CONSTRUCT NDOT TYPE 4 MANHOLE PER DETAIL NUMBER DS-48
 - 10) CONSTRUCT 60" TYPE II-SD MANHOLE PER CCAUSD STD. DWG. NO. 405.2
 - 11) CONSTRUCT 60" TYPE III MANHOLE PER CCAUSD STD. DWG. NO. 406
 - 12) CONSTRUCT 48" TYPE II MANHOLE PER CCAUSD STD. DWG. NO. 405
 - 13) CONSTRUCT NDOT TYPE 2 DROP INLET (4"x4") PER NDOT STD. DWG. DS-32, SEE DETAIL D ON SHEET DT-1

- EXISTING EASEMENTS**
- E1 RIGHT-OF-WAY GRANTED BY DECISION, DATED JANUARY 16, 2003 BY THE BUREAU OF LAND MANAGEMENT UNDER SERIAL NUMBER N-75502 TO LAS VEGAS VALLEY WATER DISTRICT FOR WATER PIPELINE UNDER RIGHT-OF-WAY GRANT FILED IN THE OFFICE OF THE BUREAU OF LAND MANAGEMENT OVER A PORTION OF SAID LAND, AS RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF CLARK COUNTY, NEVADA ON FEBRUARY 10, 2003 IN BOOK 20030210, AS INSTRUMENT NO. 00538 OF OFFICIAL RECORDS.
 - E2 RIGHT-OF-WAY GRANTED BY DECISION, DATED JANUARY 16, 2003 BY THE BUREAU OF LAND MANAGEMENT UNDER SERIAL NUMBER N-75502-01 TO LAS VEGAS VALLEY WATER DISTRICT FOR TEMPORARY WORK AREAS FOR A 42" UNDERGROUND WATER PIPELINE UNDER RIGHT-OF-WAY GRANT FILED IN THE OFFICE OF THE BUREAU OF LAND MANAGEMENT OVER A PORTION OF SAID LAND, AS RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF CLARK COUNTY, NEVADA ON FEBRUARY 10, 2003 IN BOOK 20030210, AS INSTRUMENT NO. 00541 OF OFFICIAL RECORDS.
 - E3 EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED JUNE 8, 2015 IN BOOK 20150608 AS INSTRUMENT NO. 00948 OF OFFICIAL RECORDS.
 - E4 COVENANTS, CONDITIONS, EASEMENTS AND RESTRICTIONS IN A FINAL ORDER OF CONDEMNATION RECORDED OCTOBER 2, 2015, IN BOOK 20151002 AS INSTRUMENT NO. 03396 OF OFFICIAL RECORDS.
 - E5 RIGHT-OF-WAY GRANTED BY DECISION, DATED APRIL 04, 2003, BY THE BUREAU OF LAND MANAGEMENT UNDER SERIAL NUMBER N-75702 TO NEVADA POWER COMPANY FOR UNDERGROUND ELECTRICAL DISTRIBUTION LINE UNDER RIGHT-OF-WAY GRANT FILED IN THE OFFICE OF THE BUREAU OF LAND MANAGEMENT OVER A PORTION OF SAID LAND, AS RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF CLARK COUNTY, NEVADA ON APRIL 17, 2003 IN BOOK 20030417, AS INSTRUMENT NO. 02746 OF OFFICIAL RECORDS.
 - E6 A RIGHT-OF-WAY GRANTED BY DECISION, DATED AUGUST 21, 1970, BY THE BUREAU OF LAND MANAGEMENT UNDER SERIAL NUMBER NEV013376 ET (N-121) TO STATE OF NEVADA, DEPARTMENT OF HIGHWAYS FOR HIGHWAY (U.S. 95) INCLUDING ACCESS RIGHTS UNDER RIGHT-OF-WAY GRANT FILED IN THE OFFICE OF THE BUREAU OF LAND MANAGEMENT OVER A PORTION OF SAID LAND, AS RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF CLARK COUNTY, NEVADA ON DECEMBER 22, 1972 IN BOOK 288, AS INSTRUMENT NO. 247599 OF OFFICIAL RECORDS.
 - E7 AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED JUNE 8, 2015 IN BOOK 20150608 AS INSTRUMENT NO. 00947 OF OFFICIAL RECORDS.
 - E8 NDOT EASEMENT PER NEV-043376, N-43063, CC-018234, CC-018136, CC-018191
- RESERVATIONS, PROVISIONS AND EASEMENTS AS CONTAINED IN PATENT FROM THE UNITED STATES OF AMERICA, RECORDED AUGUST 03, 2005, IN BOOK 20050803 OF OFFICIAL RECORDS, AS INSTRUMENT NO. 01359.

FLOOD CERTIFICATION
I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED TECHNICAL DRAINAGE STUDY DS-5192 ON FILE AT CITY OF LAS VEGAS.
JOSH JOHNSON, P.E. 15789 DATE

SLATER HANIFAN GROUP
a Westwood team
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5389

NO.	DESCRIPTION	DATE	BY	APP.
1	17/07/21	CS		

CITY OF LAS VEGAS

SC EAST LANDCO, LLC

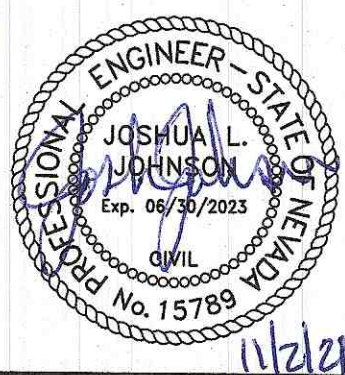
SUNSTONE PHASE 1

IRON MOUNTAIN ROAD AND TEE PEE LANE

PLAN & PROFILE VI - "TPL" 20+00.00 TO "TPL" 24+00.00

DATE: 09/26/19
DRAFTER: SB/JR
DESIGNER: BC
CHECKED: JW
PROJECT NO. **EST1911-000**

PP-6
SHEET 9 OF 51
L20-00626
107V8289



Profile view of a sewer line. The vertical axis represents elevation in feet, ranging from 2645 to 2685. The horizontal axis represents stationing along the sewer line.

Key features and data points:

- EXISTING GRADE AT CL OF PIPE:** Indicated by a dashed line at the top of the profile.
- PROPOSED GRADE AT CL OF PIPE:** Indicated by a solid line below the existing grade.
- EX 30" SD:** Existing 30-inch standard depth pipe. Invert elevation: 2670.23.
- 7.0%:** Slope of the existing pipe.
- 52.63 LF 8" PVC SS @ S=1.00% (PUBLIC):** Proposed 52.63 feet of 8-inch PVC sewer pipe with a slope of 1.00%.
- SS STRUCT & CAP:** Sewer structure and cover at station 2663.00. Invert elevation: 2666.91.
- STR: 24+37.05, 12.37' L:** Sewer structure at station 24+37.05, with a length of 12.37 feet.
- RM=2675.19 (D=33.04):** Right-of-way elevation and width.
- INV IN: 2662.38-N:** Invert elevation at the north end of the structure.
- INV OUT: 2662.18-E:** Invert elevation at the east end of the structure.
- SMH FI:** Sewer manhole feature at station 24+37.05.

[illegible]

2720

EXISTING GRADE
AT CL. OF PIPE

2715

PROPOSED GRADE
AT CL. OF PIPE

2710

REMOVE 10 LF. OF
EXISTING 12" WL.

18" STEEL CASING

8" DIP W/ (PUBLIC)

6" MIN.

12" PVC W/ (PUBLIC)

42" MIN.

EX 12" PVC W/ (PUBLIC)

2705

8" CAP WITH BLOWOFF
25#14.82, -64.58' L
INV.2705.51±

8" GATE VALVE
11-56.35, 17.43' R
INV.2707.44±

8" 45° BEND
11-50.35, 17.50' R
INV.2705.91±

8" 45° ELBOW
11-52.28, 17.48' R
INV.2707.44±

12" x 12" TEE
11-58.77, 17.41' R
INV.2707.71±

8" x 4" REDUCER
11-58.77, 17.41' R
INV.2707.71±

EX 12" GATE VALVE
11-55.57, 17.03' R
INV.2707.31±

2700

2695

RESTRAIN ALL JOINTS
COMMON ELEMENT AREA TO
BE BACKFILLED WITH CLS#-1
TO WITHIN 18" OF FG

2690

Profile view of the proposed sewer line. The vertical axis represents elevation in feet, ranging from 2655 to 2690. The horizontal axis represents stationing, ranging from 2+25.05 to 2+72.50.

Key features and data points:

- Existing Grade:** Shown as a dashed line.
- Proposed Grade:** Shown as a solid line.
- SD Plug #2:** Located at station 2+25.05, invert 2671.62.
- SD Plug #3:** Located at station 2+50.00, invert 2670.50.
- Proposed Sewer Line:** A 39.00 LF 24" RCP pipe with a 1% slope (S=1.00%). The invert at station 2+72.50 is 2670.50.
- Manhole:** Located at station 2+50.00, invert 2670.50.
- Flow Capacity:** (PUBLIC) Q10=10.0 CFS.

Diagram illustrating a cross-section of a sewer line installation. The vertical axis shows elevations from 2690 to 2720 feet. Key components and labels include:

- EXISTING GRADE AT CL OF PIPE**: Indicated at the top left.
- RESTRAIN ALL JOINTS**: A horizontal line across the top of the pipe section.
- PROPOSED GRADE AT CL OF PIPE**: Indicated at the top right.
- 8" DIP W (PUBLIC)**: Two labels indicating the dip of the pipe.
- 18" STEEL CASING**: A horizontal section of the pipe.
- 6" MIN**: A vertical dimension indicating the minimum depth of the casing.
- 8" CAP WITH BLOWOFF**: A vertical pipe section on the left.
- 14+47.50 - 65.00' L**: A horizontal dimension line.
- INV.2708.91±**: Invert elevation.
- 8" 45° BEND**: A bend in the pipe.
- 14+47.50 - 22.00' L**: A horizontal dimension line.
- 8" 45° BEND**: Another bend in the pipe.
- 14+47.50 - 19.30' L**: A horizontal dimension line.
- INV.2708.91±**: Invert elevation.
- 8" 45° BEND**: A third bend in the pipe.
- 14+47.50 - 18.30' L**: A horizontal dimension line.
- INV.2711.01±**: Invert elevation.
- 8" GATE VALVE**: A valve in the pipe.
- 14+47.50 - 18.30' L**: A horizontal dimension line.
- INV.2711.01±**: Invert elevation.
- 12" X 8" TEE**: A tee fitting.
- 14+47.50 - 17.00' L**: A horizontal dimension line.
- INV.2710.84±**: Invert elevation.
- RESTRAIN ALL JOINTS**: A horizontal line across the bottom of the pipe section.
- COMMON ELEMENT AREA TO BE BACKFILLED WITH CL-SH-1 TO WITHIN 18" OF FG**: A note at the bottom.

S-I-G **SLATER HANIFAN GROUP**
a Westwood team

5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE
A	OFF-SITE STORM DRAIN REVISION	7/12/21	C.S.	

SC EAST LANDCO, LLC

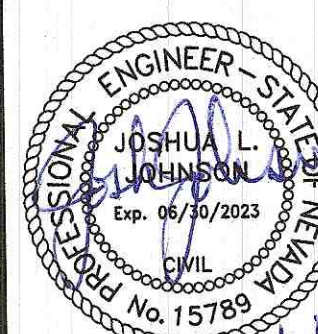
SUNSTONE PHASE 1

IRON MOUNTAIN ROAD AND TEE PEE LANE

UTILITY LATERAL 1

CITY OF LAS VEGAS

DATE:	09/26/19
DRAFTER:	SB/JR
DESIGNER:	BC
CHECKED:	JJ
PROJECT NO.	EST1911-000



UT-5
SHEET 16 OF 51
L20-00626
107V8289



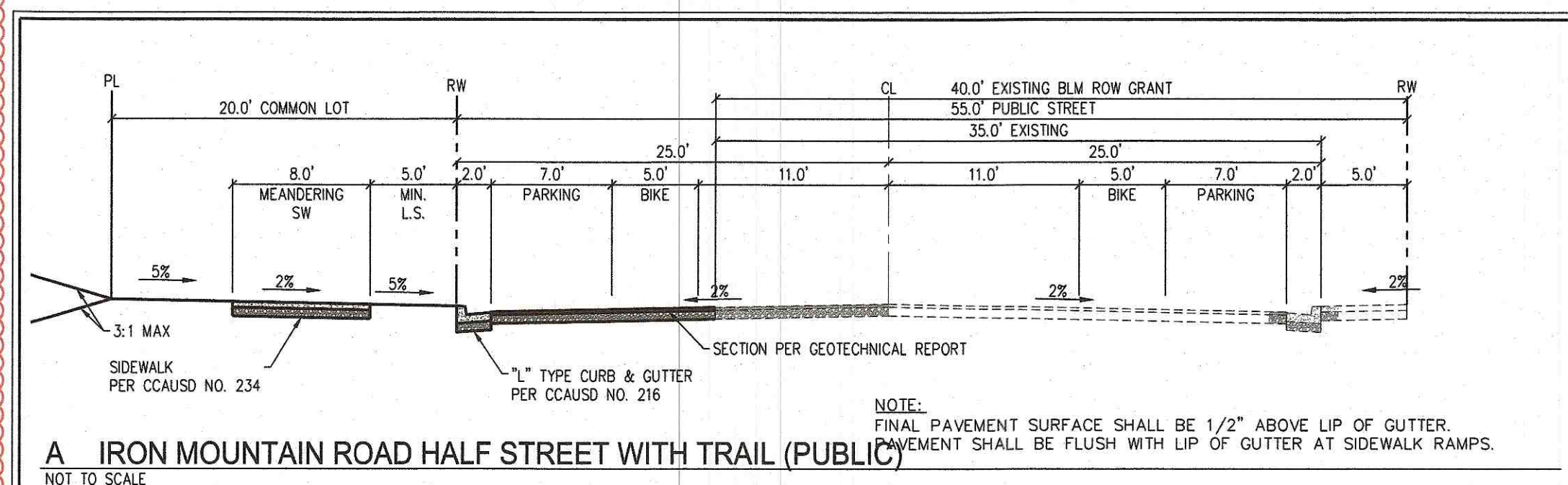
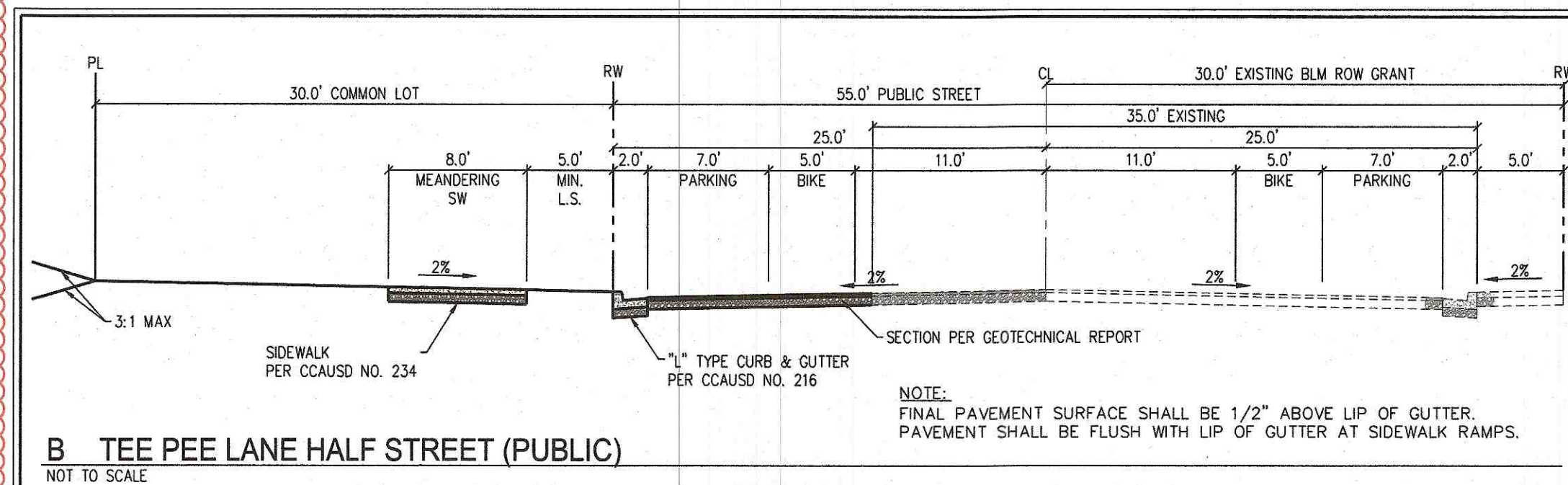
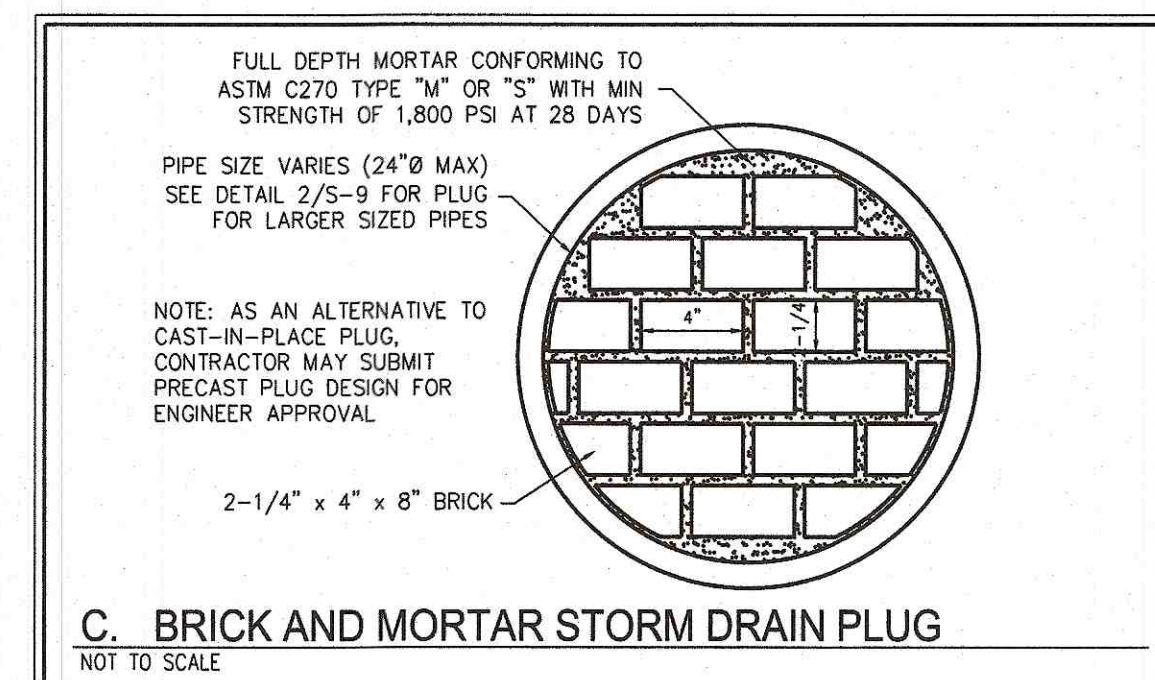
PIPE SIZE INCH	H MIN. FT.	SINGLE, ONE GRATE					DOUBLE, TWO GRATES					TRIPLE, THREE GRATES				
		★ CONCRETE CU. YD.		★ REINF. LB.		STR. STEEL LB.	★ CONCRETE CU. YD.		★ REINF. LB.		STR. STEEL LB.	★ CONCRETE CU. YD.		★ REINF. LB.		STR. STEEL LB.
		BASE QUAN. H MIN.	ADD RATE C.Y./FT.	BASE QUAN. H MIN.	ADD RATE LB./FT.		BASE QUAN. H MIN.	ADD RATE C.Y./FT.	BASE QUAN. H MIN.	ADD RATE C.Y./FT.		BASE QUAN. H MIN.	ADD RATE LB./FT.			
≤ 15	2.50	0.71	0.19	36	10	211	1.06	0.26	50	13	397	1.41	0.33	70	17	583
18	3.00	0.89	0.20	40	10	306	1.31	0.28	56	13	574	1.72	0.35	77	18	842
24	3.50	1.08	0.22	58	12	349	1.56	0.30	80	15	652	2.04	0.37	105	20	956
30	4.00	1.28	0.24	63	12	390	1.83	0.31	86	16	729	2.38	0.39	113	20	1068
36	4.50	1.50	0.26	67	13	524	2.11	0.33	92	16	980	2.72	0.41	120	21	1435
42	5.00	1.71	0.28	90	15	575	2.39	0.35	120	18	1073	3.07	0.43	154	22	1571
48	5.50	1.94	0.30	95	15	707	2.68	0.37	127	18	1329	3.42	0.44	163	23	1951

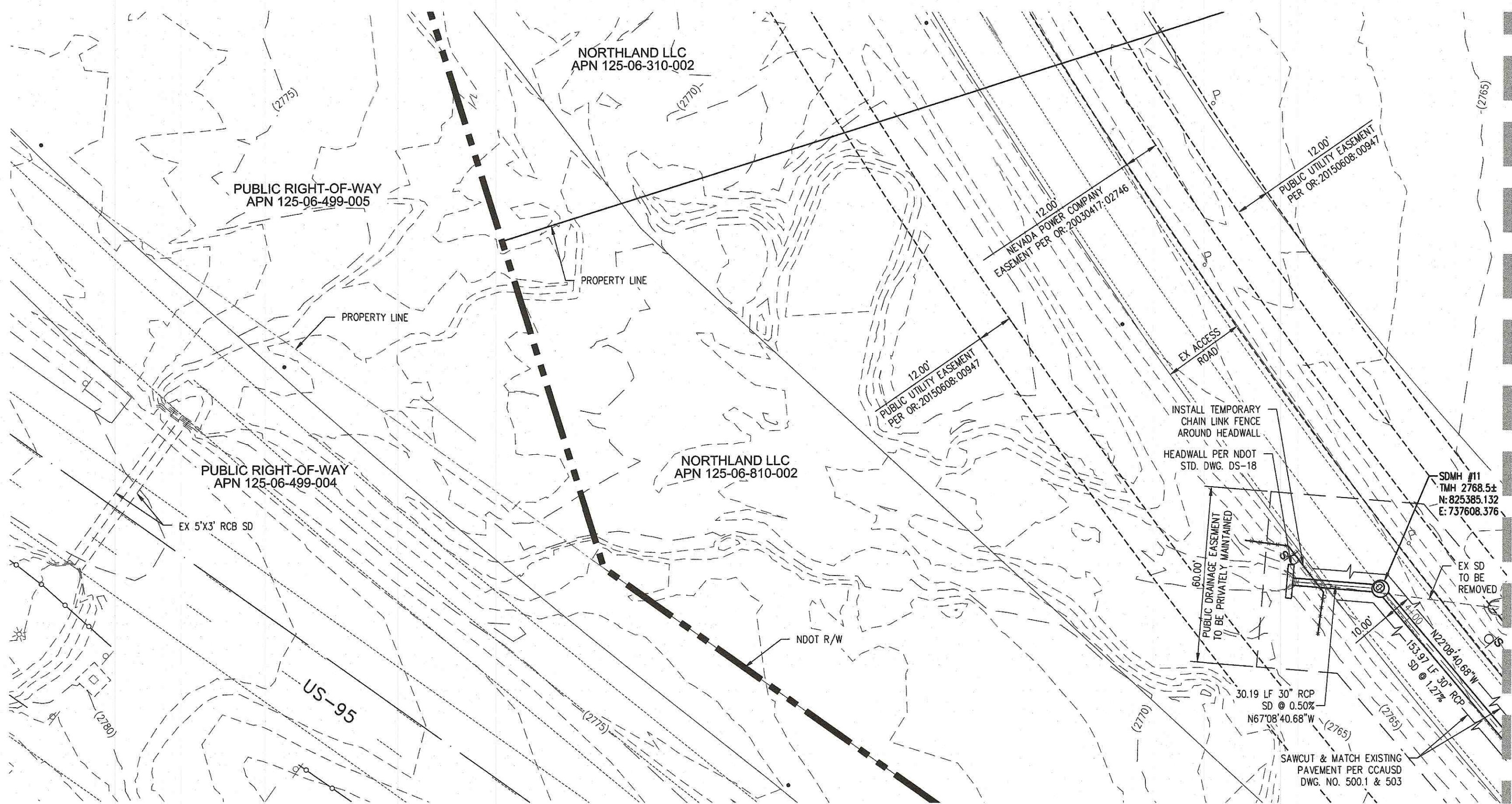
* THE CONCRETE AND REINFORCING QUANTITIES ARE BASED ON THE H MIN. SHOWN. INCREASE THE CONCRETE AND REINFORCING BASE QUANTITY BY THE CORRESPONDING ADD RATE, PER FOOT OF INCREASED H, IF THE H SPECIFIED IS LARGER THAN H MIN

PIPE SIZE INCH	A	MAIN BARS INCH	FRAME ANGLES INCH	FRAME BARS INCH	L, FEET TYP.		
					SINGLE GRATE	DOUBLE GRATE	TRIPLE GRATE
≤ 15	2'	3 ½ x ¾	4 x 3 x ¾	4 x ¾	2	4	6
18	2' - 6"	4 ½ x ¾	5 x 3 x ¾	5 x ¾	2	4	6
24	3'	4 ½ x ¾	5 x 3 x ¾	5 x ¾	2	4	6
30	3' - 6"	4 ½ x ¾	5 x 3 x ¾	5 x ¾	2	4	6
36	4'	5 ½ x ¾	6 x 3 ½ x ¾	6 x ¾	2	4	6
42	4' - 6"	5 ½ x ¾	6 x 3 ½ x ¾	6 x ¾	2	4	6
48	5'	5 ½ x 7/8	6 x 3 ½ x ¾	6 x ¾	2	4	6

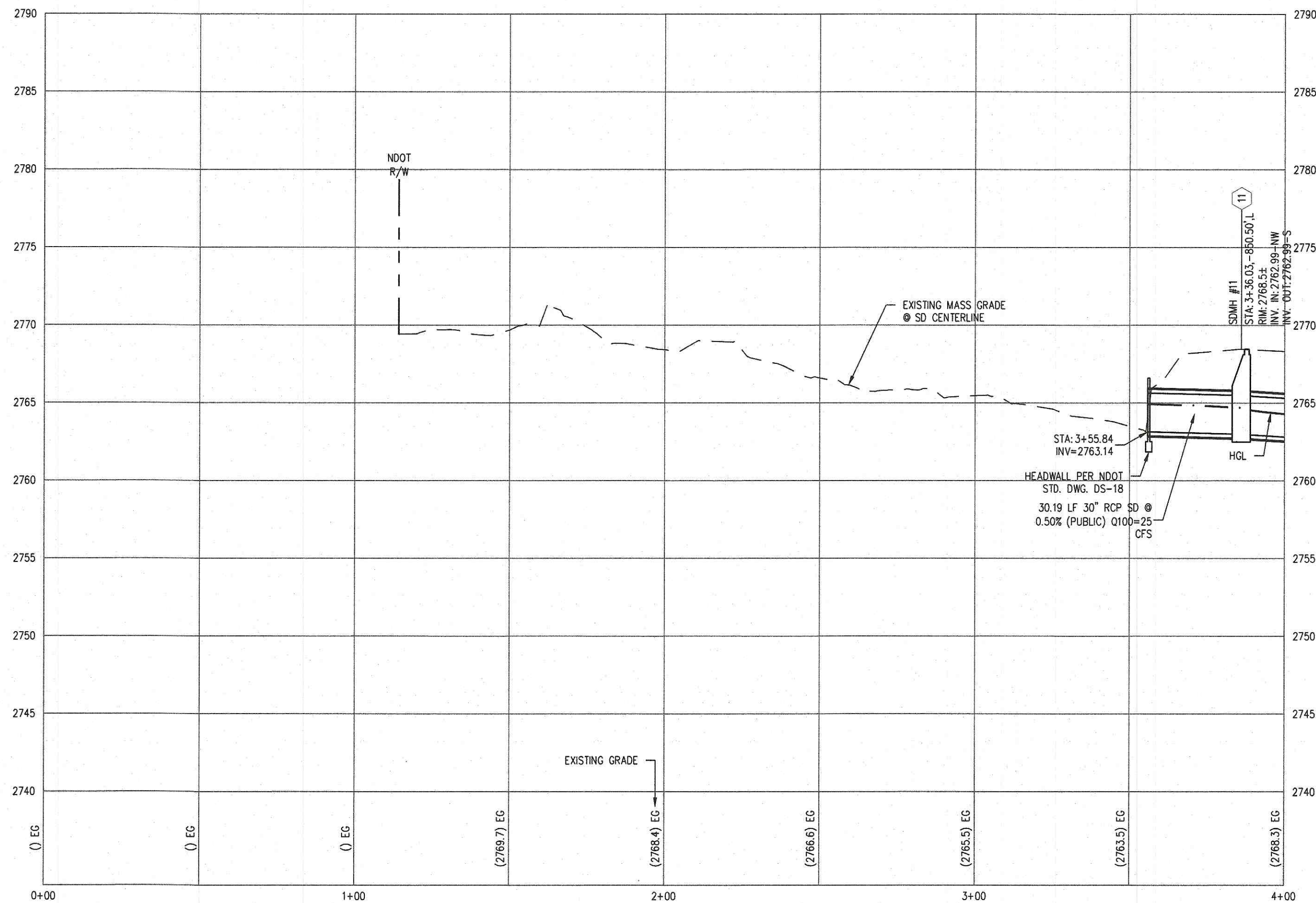


1. All concrete shall be class A or AA.
2. Reinforcing steel shall be No. 4 bars with maximum spacing at 18-inches on center, wired tightly at all intersections and embedded 2-inches clear of all concrete surfaces.
3. Exposed edges of concrete shall be chamfered 1-inch.
4. Dimensions may be varied to fit local conditions if ordered by the Engineer. If a D.I. is to be precast, contractor shall verify actual "H" value prior to casting, to account for varying field conditions. This will then be approved by the Engineer.
5. Commercial prefabricated gratings approved by the bridge division may be used in lieu of the field-welded grating shown.
6. Extreme low cover situations to be reviewed by hydraulics engineer.
7. Slope catch basin floors 10:1 from all directions toward outlet pipe. If basin is used as a junction, shape flow line(s) to outlet pipe and provide a 10:1 slope to flow line(s).
8. See detail DS-27 for details if connecting HDPE pipe.
9. A single Type 2 drop inlet shall be constructed unless a double or triple is specified.
10. Single grate configuration shown for clarity. Outside dimensions of each grate shall measure 2-feet by $4 + \frac{3}{4}$ -inches.
11. Run rebar continuously through construction joint. Joint must be a minimum of 3-inches from horizontal bars.
12. Weld one tab on $\frac{1}{4}$ " of grate and remaining two tabs 6-inches from edge of frame. Six tabs per inlet, three tabs on each side.
13. Weld tabs 6-inches from edge of frame. Four tabs per grate, two on each side.
14. For multiple grate installations, the station/offset is to the center of the concrete drop inlet structure.
15. Grate is to fit in the frame and be easily removed. If the gap between the grate and frame is greater than $\frac{1}{4}$ -inches on each side of the grate, the grate and frame shall be removed and reconstructed to the tolerances specified, or with approval of the Engineer, a filler strip up to $\frac{1}{4}$ -inches in thickness may be welded flush to the top of the frame to reduce the gap to a maximum of $\frac{1}{4}$ -inches.
16. Additional pipe penetrations may be placed in any wall. Pipe penetrations are to be to the center of the structure wall unless specified otherwise.
17. "A" dimension is parallel to the flow or edge of pavement/shoulder dike or barrier rail, and "L" is perpendicular to the flow or edge of pavement/shoulder dike or barrier rail.
18. "L" dimension can be less than 2-feet. If less than 2-feet, bar spacing shall not exceed $2 \frac{1}{2}$ -inches.





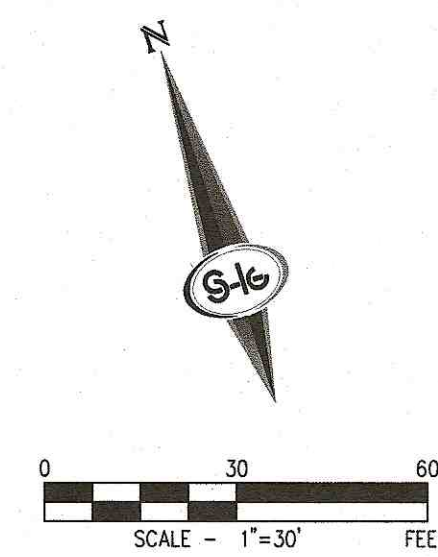
OFF-SITE STORM DRAIN - PLAN VIEW
(PUBLIC)



OFF-SITE STORM DRAIN - PROFILE VIEW

HORIZ: 1" = 30'
VERT: 1" = 6'

SEE SHEET OS-2



CALL SOUTHWEST GAS AT 702-651-2111 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES

SURVEY NOTE
OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS SHOWN AND TO REPLACE ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED, OR OBLISCURED DURING CONSTRUCTION.

ELEVATION NOTE
ADD 2600 TO ALL SPOT GRADES WHERE THE HUNDREDS AND THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E. 01.00 REPRESENTS 1801.00)

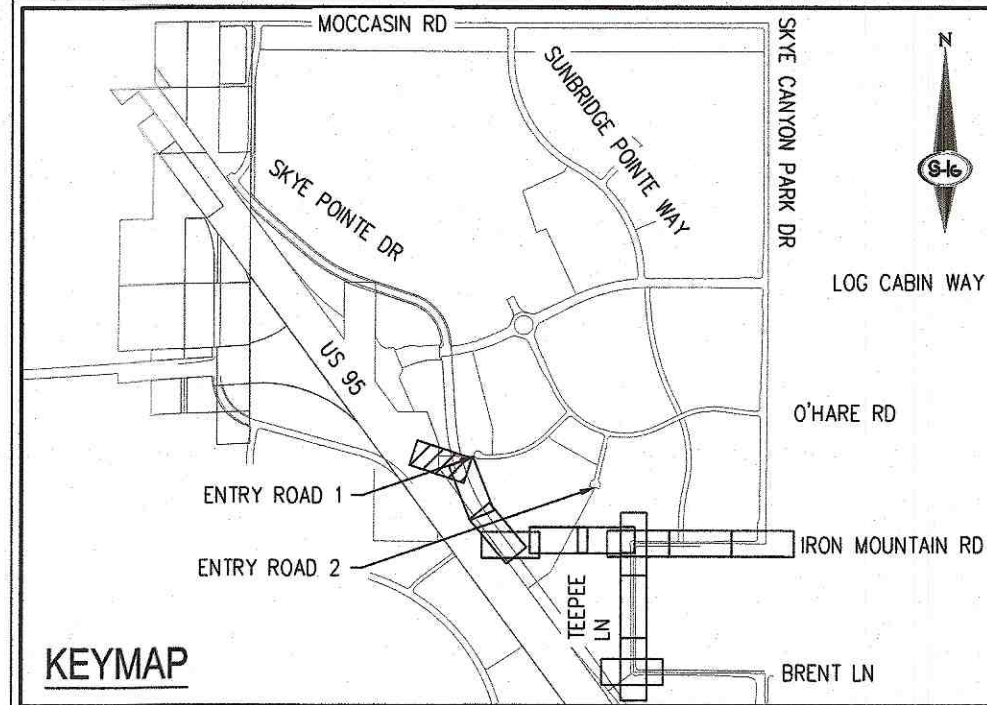
DISCLAIMER NOTE
1) EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
2) FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF PAVEMENT OR PROJECTED TOP OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

GRADING NOTES
1. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
2. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
3. MAXIMUM/ANNUAL SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
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8. NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES

(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))

1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN CLARK COUNTY TITLE 24.40 AND IN THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER A RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.12.
5. ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.



CONSTRUCTION NOTES

1. INSTALL 3" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
2. CONSTRUCT "L" TYPE CURB PER CCAUSD NO. 216
3. CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD NO. 219
4. CONSTRUCT 8" WIDE SIDEWALK PER CCAUSD NO. 234
5. SAWCUT AND MATCH EXISTING PAVEMENT PER CCAUSD NO. 500.1 AND 503
6. CONSTRUCT MODIFIED TYPE "CM2" DROP INLET PER STRUCTURAL DETAILS ON SHEET S-1 & CCAUSD STD. DWG. NO. 421
7. CONSTRUCT 60" TYPE I MANHOLE PER CCAUSD STD. DWG. NO. 405
8. INSTALL BRICK AND MORTAR PLUG PER DETAIL C ON SHEET DT-1
9. CONSTRUCT NDOT TYPE 4 MANHOLE PER DETAIL NUMBER DS-48
10. CONSTRUCT 60" TYPE I MANHOLE PER CCAUSD STD. DWG. NO. 405.2
11. CONSTRUCT 60" TYPE II MANHOLE PER CCAUSD STD. DWG. NO. 405
12. CONSTRUCT 48" TYPE I MANHOLE PER CCAUSD STD. DWG. NO. 405
13. CONSTRUCT NDOT TYPE 2 DROP INLET (4"x4") PER NDOT STD. DWG. DS-32, SEE DETAIL D ON SHEET DT-1

EXISTING EASEMENTS

- E1 RIGHT-OF-WAY GRANTED BY DECISION, DATED JANUARY 16, 2003 BY THE BUREAU OF LAND MANAGEMENT UNDER SERIAL NUMBER N-75502 TO LAS VEGAS VALLEY WATER DISTRICT FOR WATER PIPELINE UNDER RIGHT-OF-WAY GRANT FILED IN THE OFFICE OF THE BUREAU OF LAND MANAGEMENT OVER A PORTION OF SAID LAND, AS RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF CLARK COUNTY, NEVADA ON FEBRUARY 10, 2003 IN BOOK 20030210, AS INSTRUMENT N. 00538 OF OFFICIAL RECORDS.
- E2 RIGHT-OF-WAY GRANTED BY DECISION, DATED JANUARY 16, 2003 BY THE BUREAU OF LAND MANAGEMENT UNDER SERIAL NUMBER N-75502-01 TO LAS VEGAS VALLEY WATER DISTRICT FOR TEMPORARY WORK AREAS FOR A 42" UNDERGROUND WATER PIPELINE UNDER RIGHT-OF-WAY GRANT FILED IN THE OFFICE OF THE BUREAU OF LAND MANAGEMENT OVER A PORTION OF SAID LAND, AS RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF CLARK COUNTY, NEVADA ON FEBRUARY 10, 2003 IN BOOK 20030210, AS INSTRUMENT NO. 00541 OF OFFICIAL RECORDS.
- E3 EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED JUNE 8, 2015 IN BOOK 20150608 AS INSTRUMENT NO. 00948 OF OFFICIAL RECORDS.
- E4 COVENANTS, CONDITIONS, EASEMENTS AND RESTRICTIONS IN A FINAL ORDER OF CONDEMNATION RECORDED OCTOBER 2, 2015, IN BOOK 20151002 AS INSTRUMENT NO. 03298 OF OFFICIAL RECORDS.
- E5 RIGHT-OF-WAY GRANTED BY DECISION, DATED APRIL 04, 2003, BY THE BUREAU OF LAND MANAGEMENT UNDER SERIAL NUMBER N-75702 TO NEVADA POWER COMPANY FOR UNDERGROUND ELECTRICAL DISTRIBUTION LINE UNDER RIGHT-OF-WAY GRANT FILED IN THE OFFICE OF THE BUREAU OF LAND MANAGEMENT OVER A PORTION OF SAID LAND, AS RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF CLARK COUNTY, NEVADA ON APRIL 17, 2003 IN BOOK 20030417, AS INSTRUMENT NO. 02746 OF OFFICIAL RECORDS.
- E6 A RIGHT-OF-WAY GRANTED BY DECISION, DATED AUGUST 21, 1970, BY THE BUREAU OF LAND MANAGEMENT UNDER SERIAL NUMBER NEV013376 ET (N-121) TO STATE OF NEVADA, DEPARTMENT OF HIGHWAYS FOR HIGHWAY (U.S. 95) INCLUDING ACCESS RIGHTS UNDER RIGHT-OF-WAY GRANT FILED IN THE OFFICE OF THE BUREAU OF LAND MANAGEMENT OVER A PORTION OF SAID LAND, AS RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF CLARK COUNTY, NEVADA ON DECEMBER 22, 1972 IN BOOK 288, AS INSTRUMENT NO. 247599 OF OFFICIAL RECORDS.
- E7 AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED JUNE 8, 2015 IN BOOK 20150608 AS INSTRUMENT NO. 00947 OF OFFICIAL RECORDS.
- E8 NDOT EASEMENT PER NEV-043376, N-43063, CC-018234, CC-018138, CC-018191

FLOOD CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED TECHNICAL DRAINAGE STUDY DS-5199 ON FILE AT CITY OF LAS VEGAS.

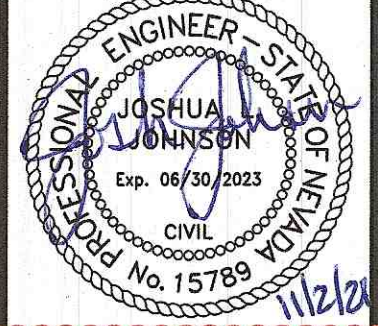
JOSH JOHNSON, P.E. 15789 DATE

SLATER HANIFAN GROUP
a Westwood team
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

DATE	BY	APP.	DATE	DESCRIPTION	NO.
7/1/21	CS			OFF-SITE STORM DRAIN REVISION	

CITY OF LAS VEGAS
SC EAST LANDCO, LLC
SUNSTONE PHASE 1
IRON MOUNTAIN ROAD AND TEE PEE LANE
OFF-SITE STORM DRAIN 1

DATE: 09/26/19
DRAFTER: SB/JR
DESIGNER: BC
CHECKED: JJ
PROJECT NO.
EST1911-000

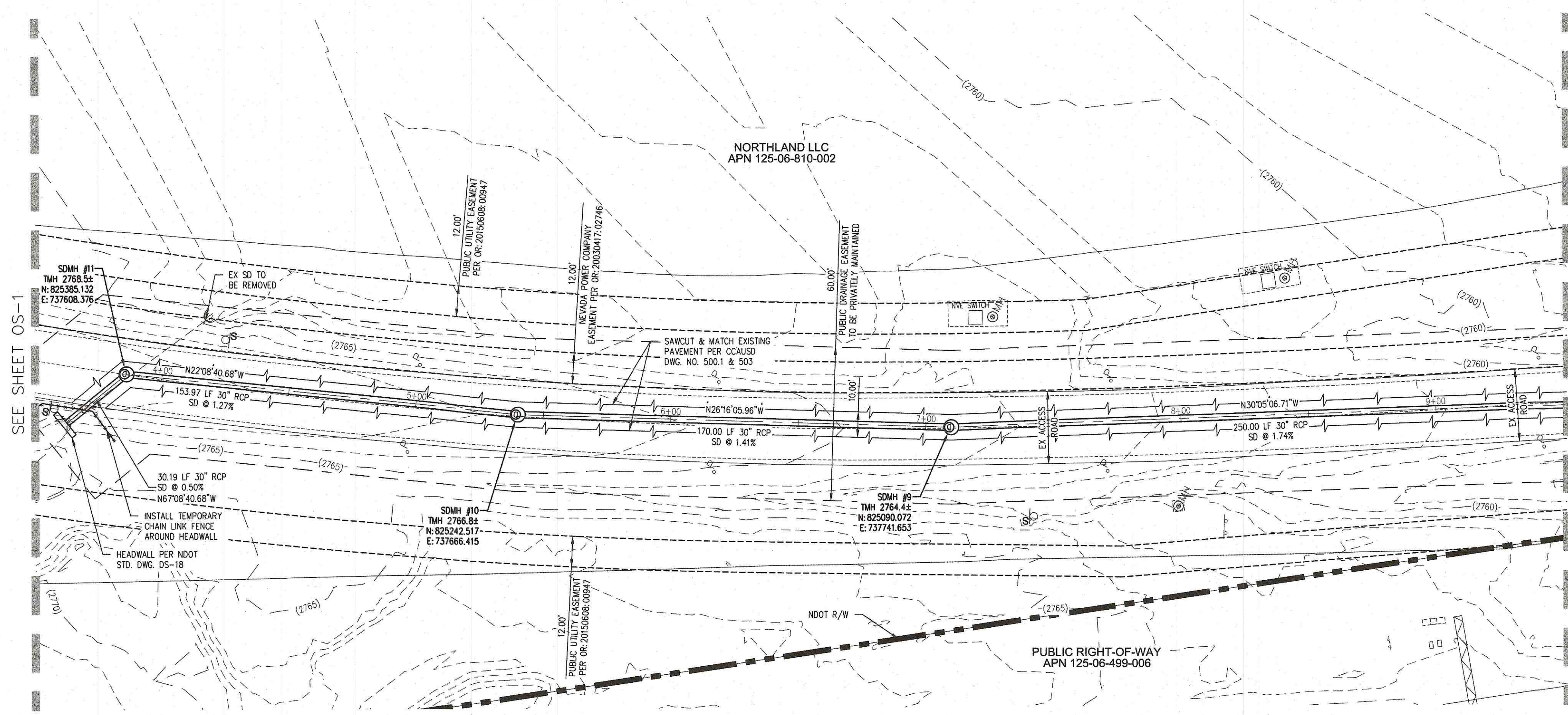


OS-1
SHEET 1 OF 6
L20-00626
107V8289

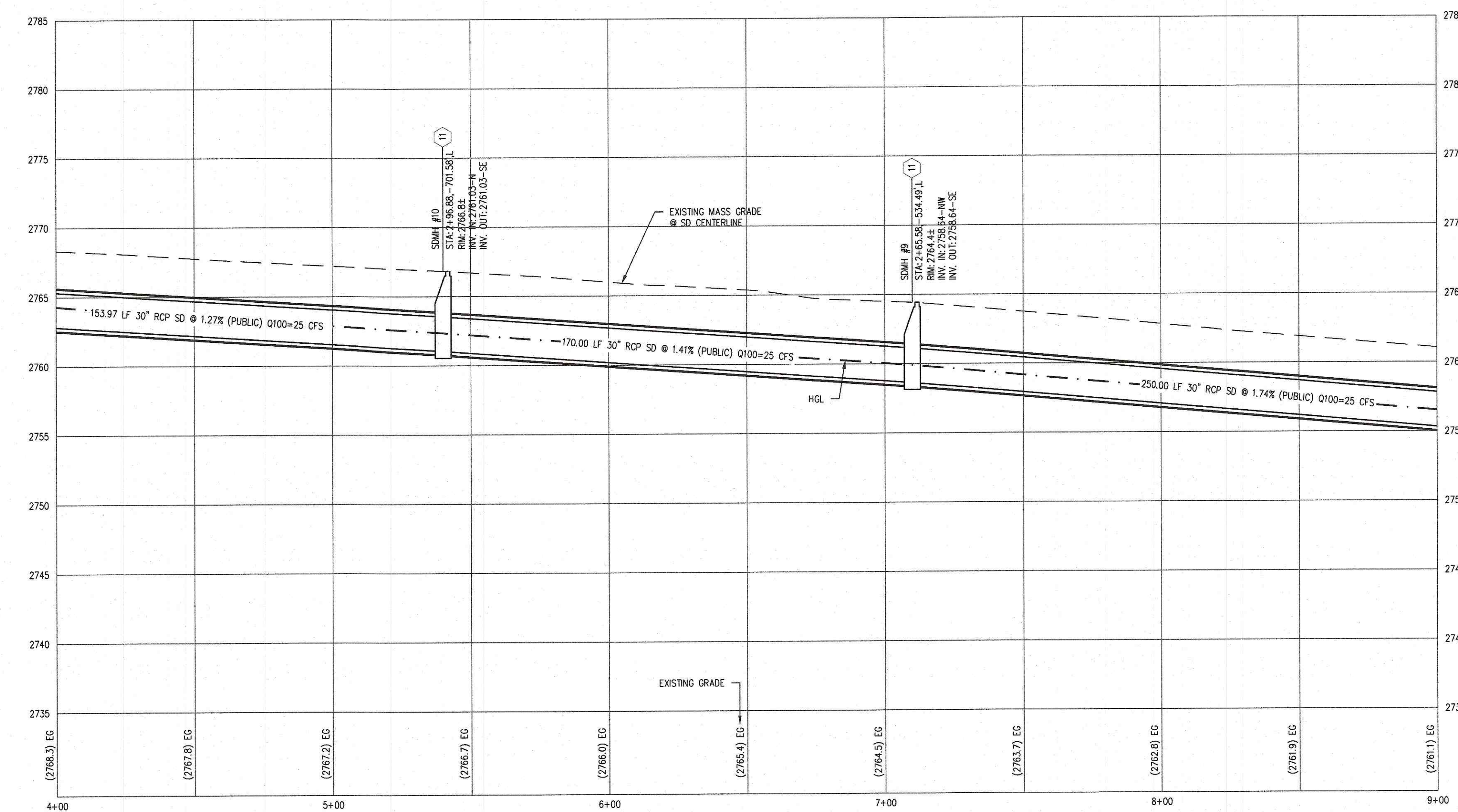


FLOOD ZONE
THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE X (OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 32003C1750E AND 32003C1750E, BOTH DATED SEPTEMBER 27, 2002.

I:\ent1911-000\sunstone\im and to\dwg\improvements\im\ent1911.dwg 10/25/2021 11:18 AM Cole Stubbitz

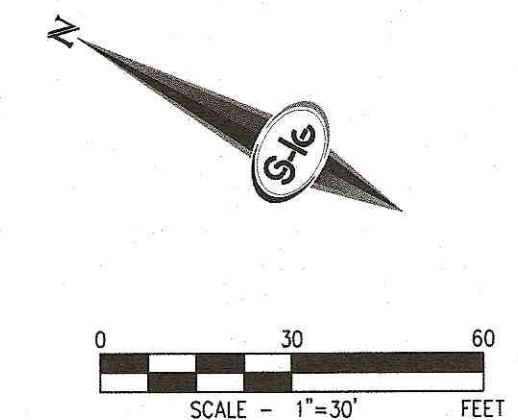


OFF-SITE STORM DRAIN - PLAN VIEW (PUBLIC)



OFF-SITE STORM DRAIN - PROFILE VIEW

HORIZ: 1" = 30'
VERT: 1" = 6'



CALL SOUTHWEST GAS AT 702-651-2111 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES

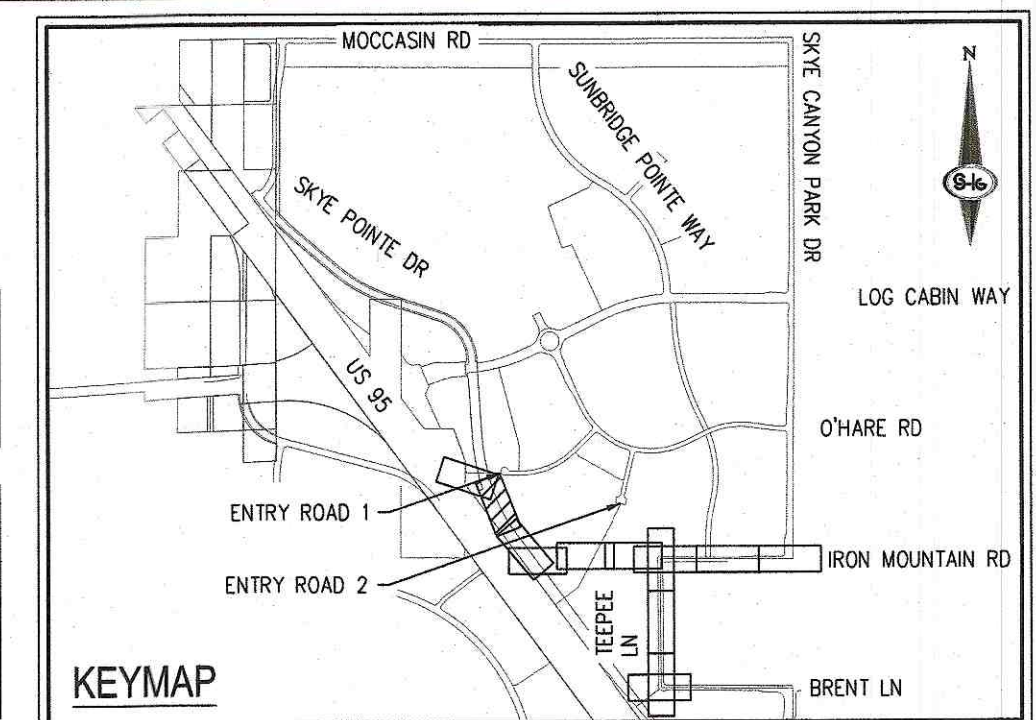
SURVEY NOTE
OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS SHOWN AND TO REPLACE ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED, OR OBSOLETE DURING CONSTRUCTION.

ELEVATION NOTE
ADD 2600 TO ALL SPOT GRADES WHERE THE HUNDREDS AND THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E. 01.00 REPRESENTS 1801.00)

DISCLAIMER NOTE
1) EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
2) FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF PAVEMENT OR PROJECTED LIP OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

GRADING NOTES
1. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
2. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
3. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOLOGICAL REPORT.
4. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
5. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
6. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
7. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLETING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
8. NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES
(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))
1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN CLARK COUNTY TITLE 24.40 AND IN THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVRI00000, SECTION III.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER A RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVRI00000, SECTION III.A.12.
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- CONSTRUCTION NOTES**
- 1) INSTALL 3" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
 - 2) CONSTRUCT "A" TYPE CURB PER CCAUSD NO. 216
 - 3) CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD NO. 219
 - 4) CONSTRUCT 6" WIDE SIDEWALK PER CCAUSD NO. 234
 - 5) SAWCUT AND MATCH EXISTING PAVEMENT PER CCAUSD NO. 500.1 AND 503
 - 6) CONSTRUCT MODIFIED TYPE "CWD" DROP INLET PER SHEET DT-1
 - 7) CONSTRUCT 60" TYPE II MANHOLE PER CCAUSD STD. DWG. NO. 405
 - 8) INSTALL BRICK AND MORTAR PLUG PER DETAIL C ON SHEET DT-1
 - 9) CONSTRUCT NDOT TYPE 4 MANHOLE PER DETAIL NUMBER DS-48
 - 10) CONSTRUCT 60" TYPE II-SD MANHOLE PER CCAUSD STD. DWG. NO. 405.2
 - 11) CONSTRUCT 60" TYPE III MANHOLE PER CCAUSD STD. DWG. NO. 406
 - 12) CONSTRUCT 48" TYPE II MANHOLE PER CCAUSD STD. DWG. NO. 405
 - 13) CONSTRUCT NDOT TYPE 2 DROP INLET (4"x4") PER NDOT STD. DWG. DS-32, SEE DETAIL D ON SHEET DT-1

- EXISTING EASEMENTS**
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 - E8 NDOT EASEMENT PER NEV-043376, N-43063, CC-018234, CC-018138, CC-018191

FLOOD CERTIFICATION
I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED TECHNICAL DRAINAGE STUDY DS-5192 ON FILE AT CITY OF LAS VEGAS.
JOSH JOHNSON, P.E. 15789 DATE



FLOOD ZONE
THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE X (OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 32003C1735E AND 32003C1750E, BOTH DATED SEPTEMBER 27, 2002.

SLATER HANIFAN GROUP
a Westwood team
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5309

DATE	BY	APP.	DESCRIPTION
10/26/21	CS		OFF-SITE STORM DRAIN DESIGN

CITY OF LAS VEGAS

SC EAST LANDCO, LLC

SUNSTONE PHASE 1

IRON MOUNTAIN ROAD AND TEE PEE LANE

OFF-SITE STORM DRAIN 2

DATE: 09/26/19

DRAWN: SB/JR

DESIGNED: BC

CHECKED: JJ

PROJECT NO. EST1911-000

OS-2

SHEET 2 OF 6

L20-00626

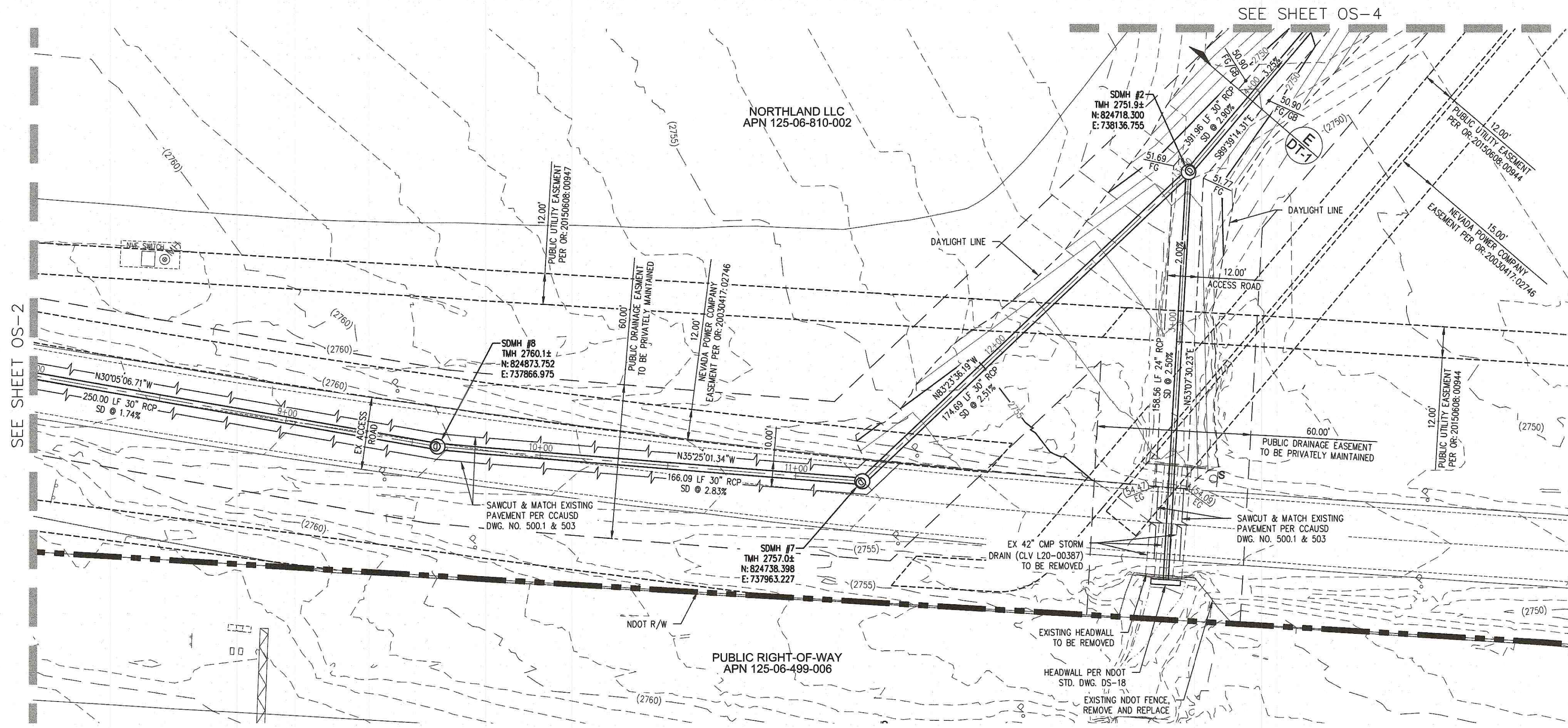
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PROFESSIONAL ENGINEER - STATE OF NEVADA

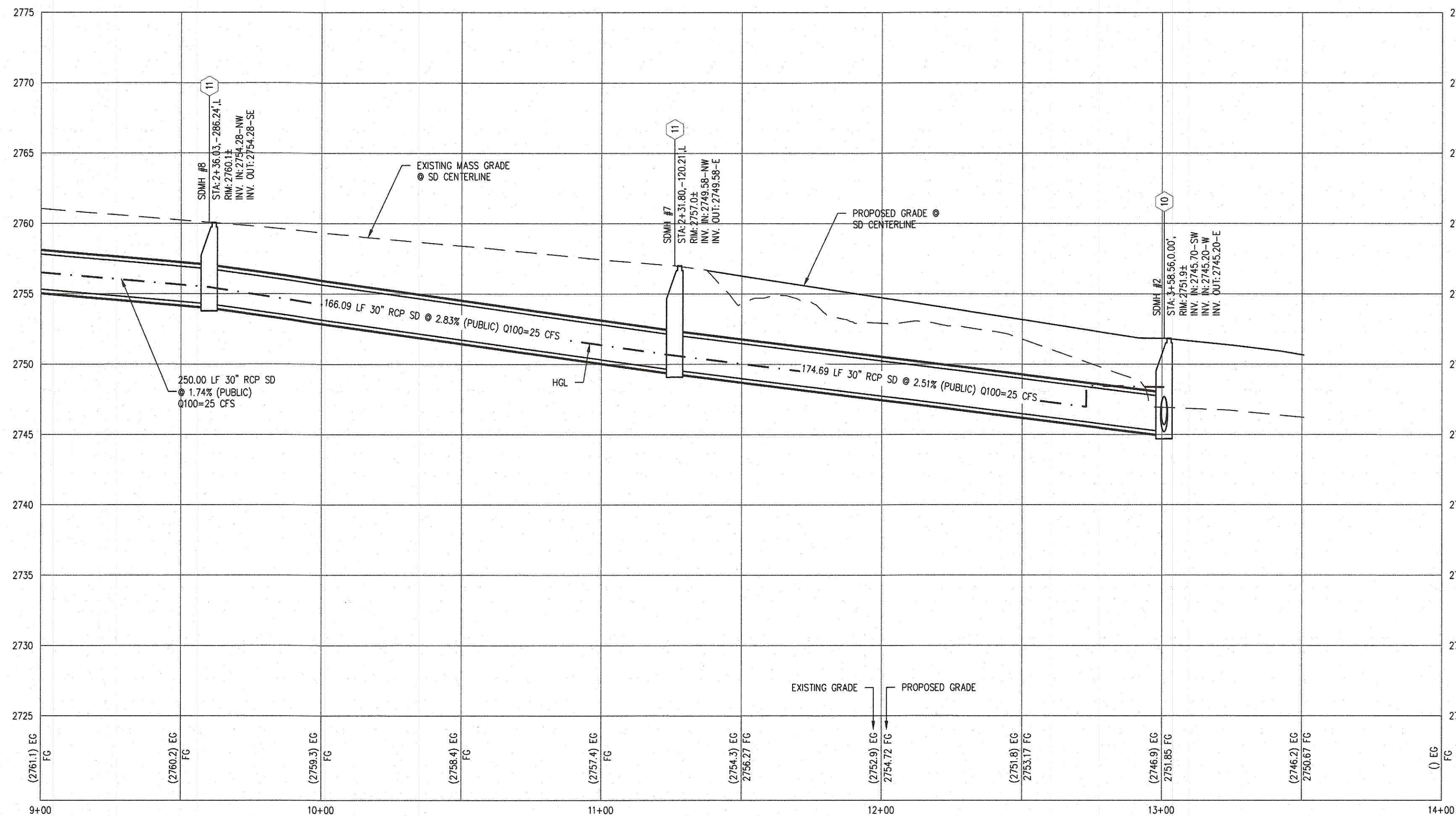
JOSHUA L. JOHNSON

Exp. 06/30/2023

No. 15789



OFF-SITE STORM DRAIN - PLAN VIEW
(PUBLIC)



OFF-SITE STORM DRAIN - PROFILE VIEW

HORIZ: 1" = 30'
VERT: 1" = 6'

FLOOD ZONE

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CALL SOUTHWEST GAS AT 702-651-2111 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES

SURVEY NOTE

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ELEVATION NOTE

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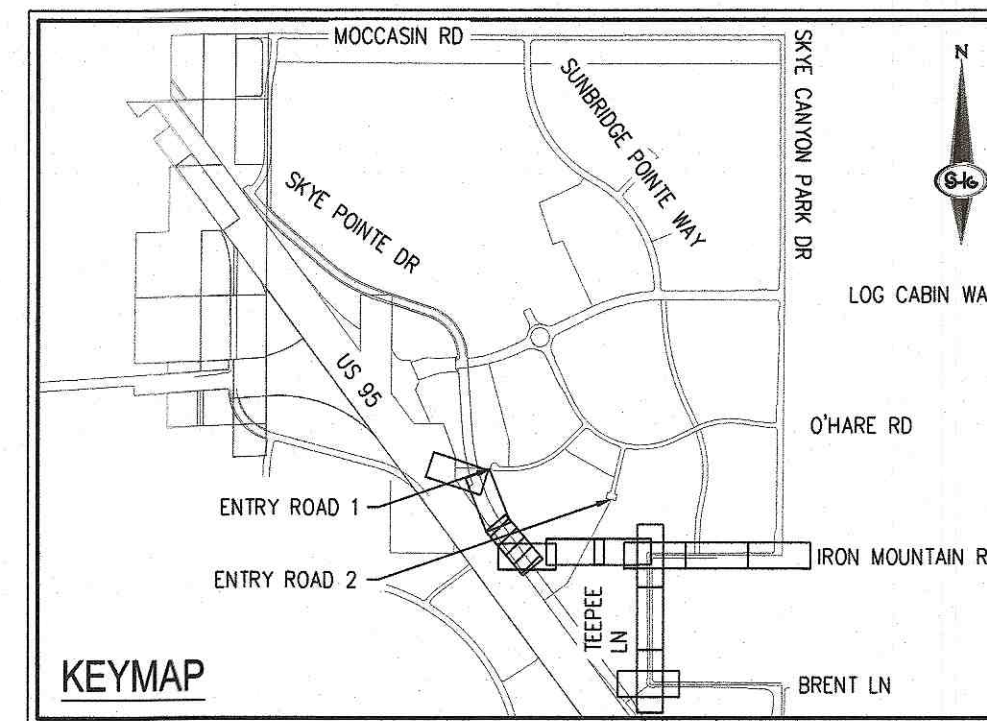
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LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES

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CONSTRUCTION NOTES

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- CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD NO. 219
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- CONSTRUCT MODIFIED TYPE "CM2" DROP INLET PER STRUCTURAL DETAILS ON SHEET S-1 & CCAUSD STD. DWG. NO. 421
- CONSTRUCT 60" TYPE II MANHOLE PER CCAUSD STD. DWG. NO. 405
- INSTALL BRICK AND MORTAR PLUG PER DETAIL C ON SHEET DT-1
- CONSTRUCT NOTOT TYPE 4 MANHOLE PER DETAIL NUMBER DS-48
- CONSTRUCT 60" TYPE II-SD MANHOLE PER CCAUSD STD. DWG. NO. 405.2
- CONSTRUCT 60" TYPE III MANHOLE PER CCAUSD STD. DWG. NO. 406
- CONSTRUCT 48" TYPE II MANHOLE PER CCAUSD STD. DWG. NO. 405
- CONSTRUCT NOTOT TYPE 2 DROP INLET (4"x4") PER NOTOT STD. DWG. DS-32, SEE DETAIL D ON SHEET DT-1

EXISTING EASEMENTS

- RIGHT-OF-WAY GRANTED BY DECISION, DATED JANUARY 16, 2003 BY THE BUREAU OF LAND MANAGEMENT UNDER SERIAL NUMBER N-75502 TO LAS VEGAS VALLEY WATER DISTRICT FOR WATER PIPELINE UNDER RIGHT-OF-WAY GRANT FILED IN THE OFFICE OF THE BUREAU OF LAND MANAGEMENT OVER A PORTION OF SAID LAND, AS RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF CLARK COUNTY, NEVADA ON FEBRUARY 10, 2003 IN BOOK 20030210, AS INSTRUMENT N. 00538 OF OFFICIAL RECORDS.
- RIGHT-OF-WAY GRANTED BY DECISION, DATED JANUARY 16, 2003 BY THE BUREAU OF LAND MANAGEMENT UNDER SERIAL NUMBER N-75502-01 TO LAS VEGAS VALLEY WATER DISTRICT FOR TEMPORARY WORK AREAS FOR A 42" UNDERGROUND WATER PIPELINE UNDER RIGHT-OF-WAY GRANT FILED IN THE OFFICE OF THE BUREAU OF LAND MANAGEMENT OVER A PORTION OF SAID LAND, AS RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF CLARK COUNTY, NEVADA ON FEBRUARY 10, 2003 IN BOOK 20030210, AS INSTRUMENT N. 00541 OF OFFICIAL RECORDS.
- EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED JUNE 8, 2015 IN BOOK 20150608 AS INSTRUMENT NO. 00948 OF OFFICIAL RECORDS.
- COVENANTS, CONDITIONS, EASEMENTS AND RESTRICTIONS IN A FINAL ORDER OF CONDEMNATION RECORDED OCTOBER 2, 2015, IN BOOK 20150022 AS INSTRUMENT NO. 03298 OF OFFICIAL RECORDS.
- RIGHT-OF-WAY GRANTED BY DECISION, DATED APRIL 04, 2003, BY THE BUREAU OF LAND MANAGEMENT UNDER SERIAL NUMBER N-75702 TO NEVADA POWER COMPANY FOR UNDERGROUND ELECTRICAL DISTRIBUTION LINE UNDER RIGHT-OF-WAY GRANT FILED IN THE OFFICE OF THE BUREAU OF LAND MANAGEMENT OVER A PORTION OF SAID LAND, AS RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF CLARK COUNTY, NEVADA ON APRIL 17, 2003 IN BOOK 20030417, AS INSTRUMENT NO. 02746 OF OFFICIAL RECORDS.
- A RIGHT-OF-WAY GRANTED BY DECISION, DATED AUGUST 21, 1970, BY THE BUREAU OF LAND MANAGEMENT UNDER SERIAL NUMBER NEV013376 ET (N-121) TO STATE OF NEVADA, DEPARTMENT OF HIGHWAYS FOR HIGHWAY (U.S. 95) INCLUDING ACCESS RIGHTS UNDER RIGHT-OF-WAY GRANT FILED IN THE OFFICE OF THE BUREAU OF LAND MANAGEMENT OVER A PORTION OF SAID LAND, AS RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF CLARK COUNTY, NEVADA ON DECEMBER 22, 1972 IN BOOK 288, AS INSTRUMENT NO. 247599 OF OFFICIAL RECORDS.
- AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED JUNE 8, 2015 IN BOOK 20150608 AS INSTRUMENT NO. 00947 OF OFFICIAL RECORDS.
- NOT EASEMENT PER NEV-043376, N-43063, CC-018234, CC-018138, CC-018191

FLOOD CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED TECHNICAL DRAINAGE STUDY DS-5192 ON FILE AT CITY OF LAS VEGAS.

JOSH JOHNSON, P.E. 15789

DATE

DATE: 09/26/19

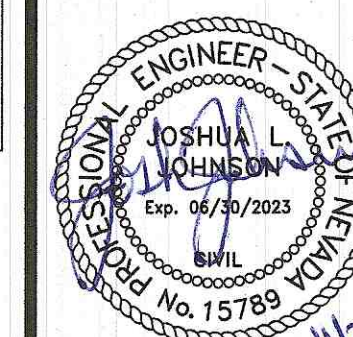
DRAFTER: SB/JR

DESIGNER: BC

CHECKED: JJ

PROJECT NO.

EST1911-000

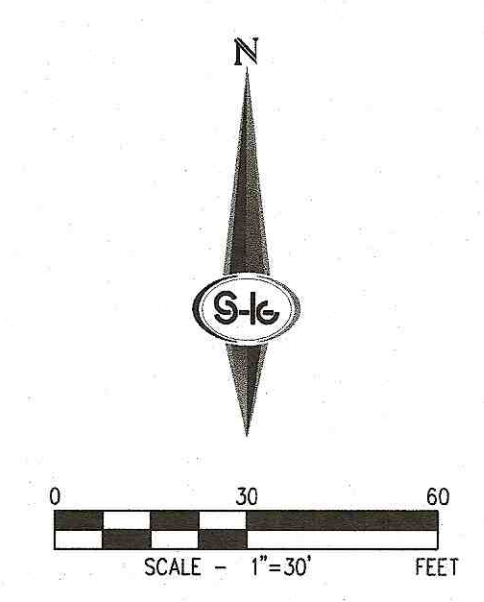


OS-3

SHEET 3 OF 6

L20-00626
107V8289

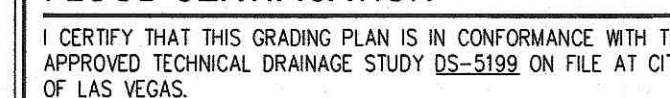




HORIZ: 1" = 30'
VERT: 1" = 6'

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE X (OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 32003C1735E AND 32003C1750E, BOTH DATED SEPTEMBER 27, 2002.

1. THE OWNERS, SITE DEVELOPER, CONTRACTOR, AND/OR THE AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE RIVER OR RIVER CHANNELS OF LAS VEGAS COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MUD OR DEBRIS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED BY THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN THE NVR1000000 CONSTRUCTION SITE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE, AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY THAT PRODUCED THE DISTURBANCE HAS COMPLETED OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY, REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR1000000, SECTION III.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND AREAS USED FOR CONSTRUCTION OF THE PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AN ALL BMPS WEEKLY, AND WITHIN 24 HOURS AFTER A RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE THE CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS THE STORAGE OF LAND FILL OR OTHER CONSTRUCTION MATERIALS. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR1000000, SECTION III.A.12.
5. ACCUMULATED SEDIMENT IN STORMWATER SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.



Call before you Dig
AVOID CUTTING UNDERGROUND
UTILITY LINES. IT'S COSTLY

Call
811
OR
1-800-222-2600

107V8289

L20-00626
107V8289

SEE SHEET OS-4

SEE SHEET OS-6

OFF-SITE STORM DRAIN - PLAN VIEW (PUBLIC)

OFF-SITE STORM DRAIN - PROFILE VIEW

HORIZ: 1" = 30'
VERT: 1" = 6'

FLOOD ZONE

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE X (OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 32003C1735E AND 32003C1750E, BOTH DATED SEPTEMBER 27, 2002.

CALL SOUTHWEST GAS AT 702-651-2111 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES.

SURVEY NOTE

OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS SHOWN AND TO REPLACE ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED, OR OBLISCURED DURING CONSTRUCTION.

ELEVATION NOTE

ADD 2600 TO ALL SPOT GRADES WHERE THE HUNDREDS AND THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E. 01.00 REPRESENTS 1801.00).

DISCLAIMER NOTE

- EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
- FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF PAVEMENT OR PROPOSED TOP OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

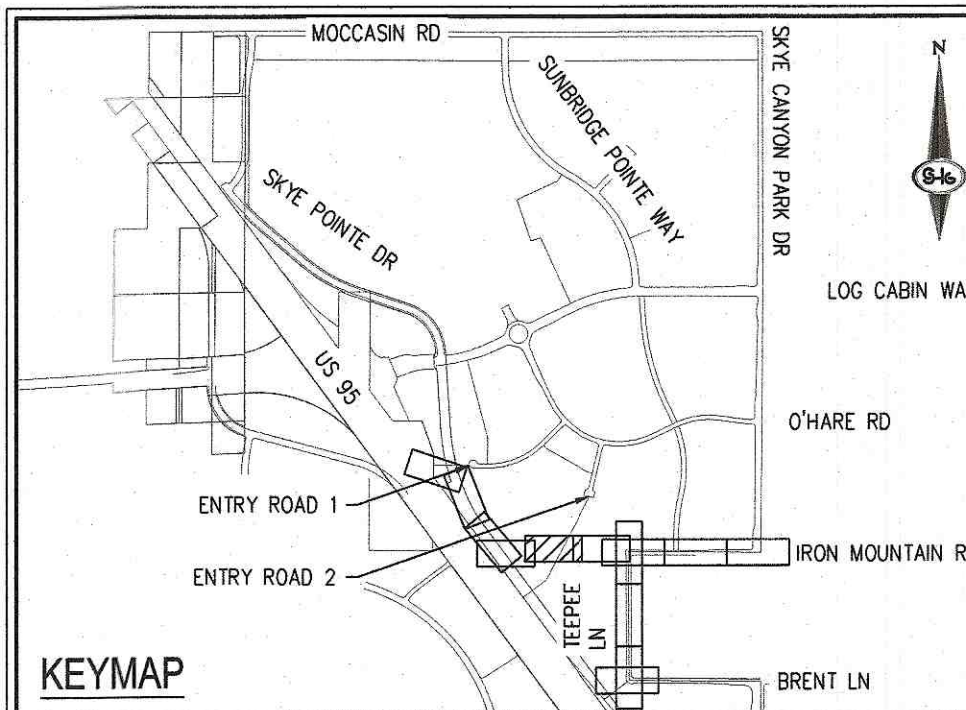
GRADING NOTES

- THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
- ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
- MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
- SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
- ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
- CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
- CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLETING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
- NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES

(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))

- THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
- ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN CLARK COUNTY TITLE 24.40 AND IN THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
- TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND, NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NWR100000, SECTION III.A.5.
- AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS, AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER A RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NWR100000, SECTION III.A.12.
- ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.



CONSTRUCTION NOTES

- INSTALL 3" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE.
- CONSTRUCT "L" TYPE CURB PER CCAUSD NO. 216.
- CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD NO. 219.
- CONSTRUCT 6" WIDE SIDEWALK PER CCAUSD NO. 234.
- SAWCUT AND MATCH EXISTING PAVEMENT PER CCAUSD NO. SHEET DT-1.
- CONSTRUCT MODIFIED TYPE "CM2" DROP INLET PER STRUCTURAL DETAILS ON SHEET S-1 & CCAUSD STD. DWG. NO. 421.
- CONSTRUCT 60" TYPE II MANHOLE PER CCAUSD STD. DWG. NO. 405.
- INSTALL BRICK AND MORTAR PLUG PER DETAIL C ON SHEET DT-1.
- CONSTRUCT NDOT TYPE 4 MANHOLE PER DETAIL NUMBER DS-48.
- CONSTRUCT 60" TYPE II-S MANHOLE PER CCAUSD STD. DWG. NO. 405.2.
- CONSTRUCT 60" TYPE III MANHOLE PER CCAUSD STD. DWG. NO. 406.
- CONSTRUCT 48" TYPE II MANHOLE PER CCAUSD STD. DWG. NO. 405.
- CONSTRUCT NDOT TYPE 2 DROP INLET (4"x4") PER NDOT STD. DWG. DS-32, SEE DETAIL D ON SHEET DT-1.

EXISTING EASEMENTS

- RIGHT-OF-WAY GRANTED BY DECISION, DATED JANUARY 16, 2003 BY THE BUREAU OF LAND MANAGEMENT UNDER SERIAL NUMBER N-75502 TO LAS VEGAS VALLEY WATER DISTRICT FOR WATER PIPELINE UNDER RIGHT-OF-WAY GRANT FILED IN THE OFFICE OF THE BUREAU OF LAND MANAGEMENT OVER A PORTION OF SAID LAND, AS RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF CLARK COUNTY, NEVADA ON FEBRUARY 10, 2003 IN BOOK 20030210, AS INSTRUMENT N. 00538 OF OFFICIAL RECORDS.
- RIGHT-OF-WAY GRANTED BY DECISION, DATED JANUARY 16, 2003 BY THE BUREAU OF LAND MANAGEMENT UNDER SERIAL NUMBER N-75502-01 TO LAS VEGAS VALLEY WATER DISTRICT FOR TEMPORARY WORK AREAS FOR A 42" UNDERGROUND WATER PIPELINE UNDER RIGHT-OF-WAY GRANT FILED IN THE OFFICE OF THE BUREAU OF LAND MANAGEMENT OVER A PORTION OF SAID LAND, AS RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF CLARK COUNTY, NEVADA ON FEBRUARY 10, 2003 IN BOOK 20030210, AS INSTRUMENT N. 00541 OF OFFICIAL RECORDS.
- EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED JUNE 8, 2015 IN BOOK 20150608 AS INSTRUMENT NO. 03948 OF OFFICIAL RECORDS.
- COVENANTS, CONDITIONS, EASEMENTS AND RESTRICTIONS IN A FINAL ORDER OF CONDEMNATION RECORDED OCTOBER 2, 2015, IN BOOK 20151002 AS INSTRUMENT NO. 03298 OF OFFICIAL RECORDS.
- RIGHT-OF-WAY GRANTED BY DECISION, DATED APRIL 04, 2003, BY THE BUREAU OF LAND MANAGEMENT UNDER SERIAL NUMBER N-75702 TO NEVADA POWER COMPANY FOR UNDERGROUND ELECTRICAL DISTRIBUTION LINE UNDER RIGHT-OF-WAY GRANT FILED IN THE OFFICE OF THE BUREAU OF LAND MANAGEMENT OVER A PORTION OF SAID LAND, AS RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF CLARK COUNTY, NEVADA ON APRIL 17, 2003 IN BOOK 20030417, AS INSTRUMENT NO. 02746 OF OFFICIAL RECORDS.
- A RIGHT-OF-WAY GRANTED BY DECISION, DATED AUGUST 21, 1970, BY THE BUREAU OF LAND MANAGEMENT UNDER SERIAL NUMBER NEV013376 E1 (N-121) TO STATE OF NEVADA, DEPARTMENT OF HIGHWAYS FOR HIGHWAY (U.S. 95) INCLUDING ACCESS RIGHTS UNDER RIGHT-OF-WAY GRANT FILED IN THE OFFICE OF THE BUREAU OF LAND MANAGEMENT OVER A PORTION OF SAID LAND, AS RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF CLARK COUNTY, NEVADA ON DECEMBER 22, 1972 IN BOOK 288, AS INSTRUMENT NO. 247599 OF OFFICIAL RECORDS.
- AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED JUNE 8, 2015 IN BOOK 20150608 AS INSTRUMENT NO. 03947 OF OFFICIAL RECORDS.
- NDOT EASEMENT PER NEV-043376, N-43063, CC-018234, CC-018138, CC-018191.

FLOOD CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED TECHNICAL DRAINAGE STUDY DS-3182 ON FILE AT CITY OF LAS VEGAS.

JOSH JOHNSON, P.E. 15789

DATE

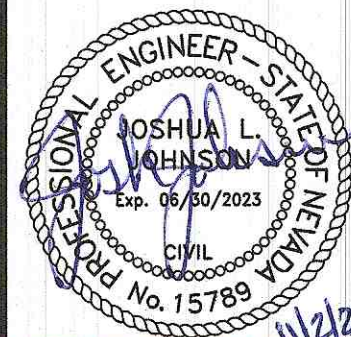
DATE: 09/26/19

DRAFTER: SB/JR

DESIGNER: BC

CHECKED: JJ

PROJECT NO.
EST1911-000

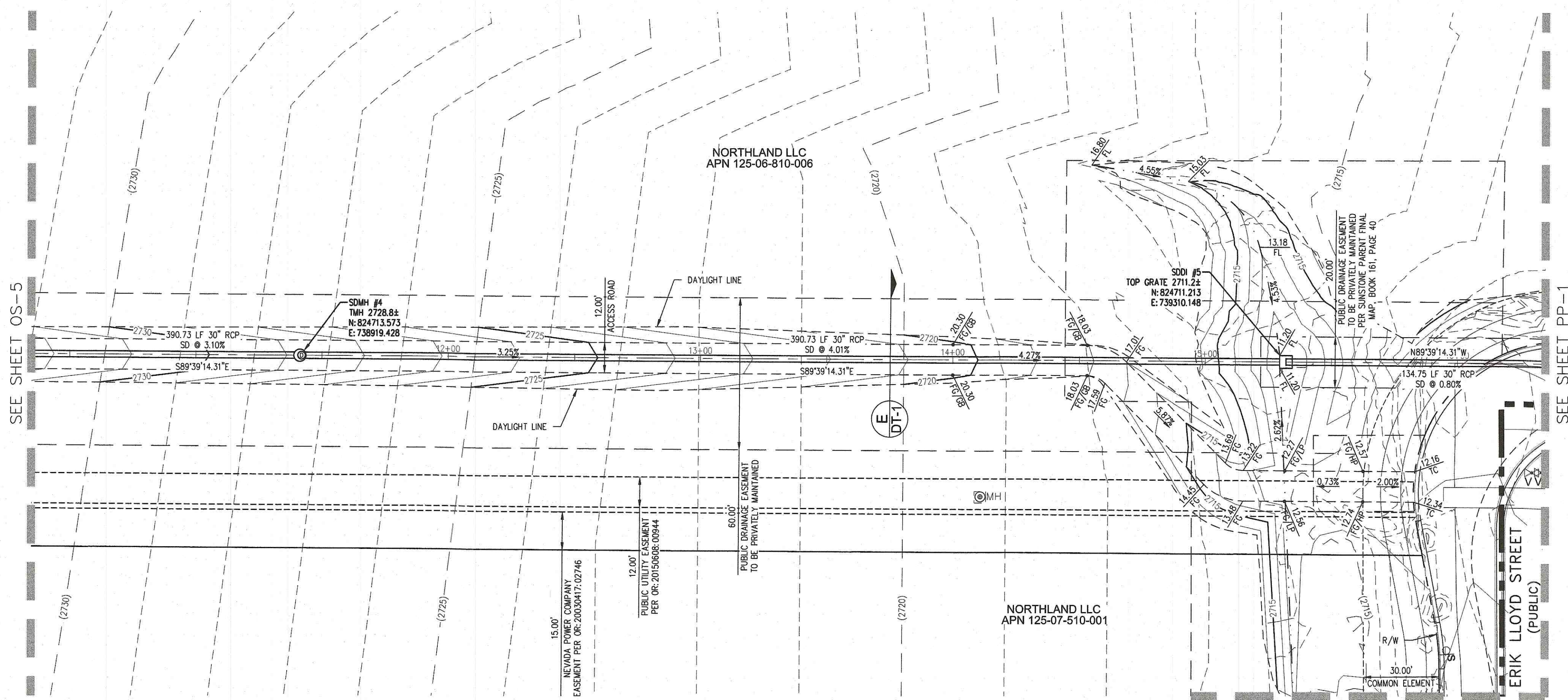


OS-5

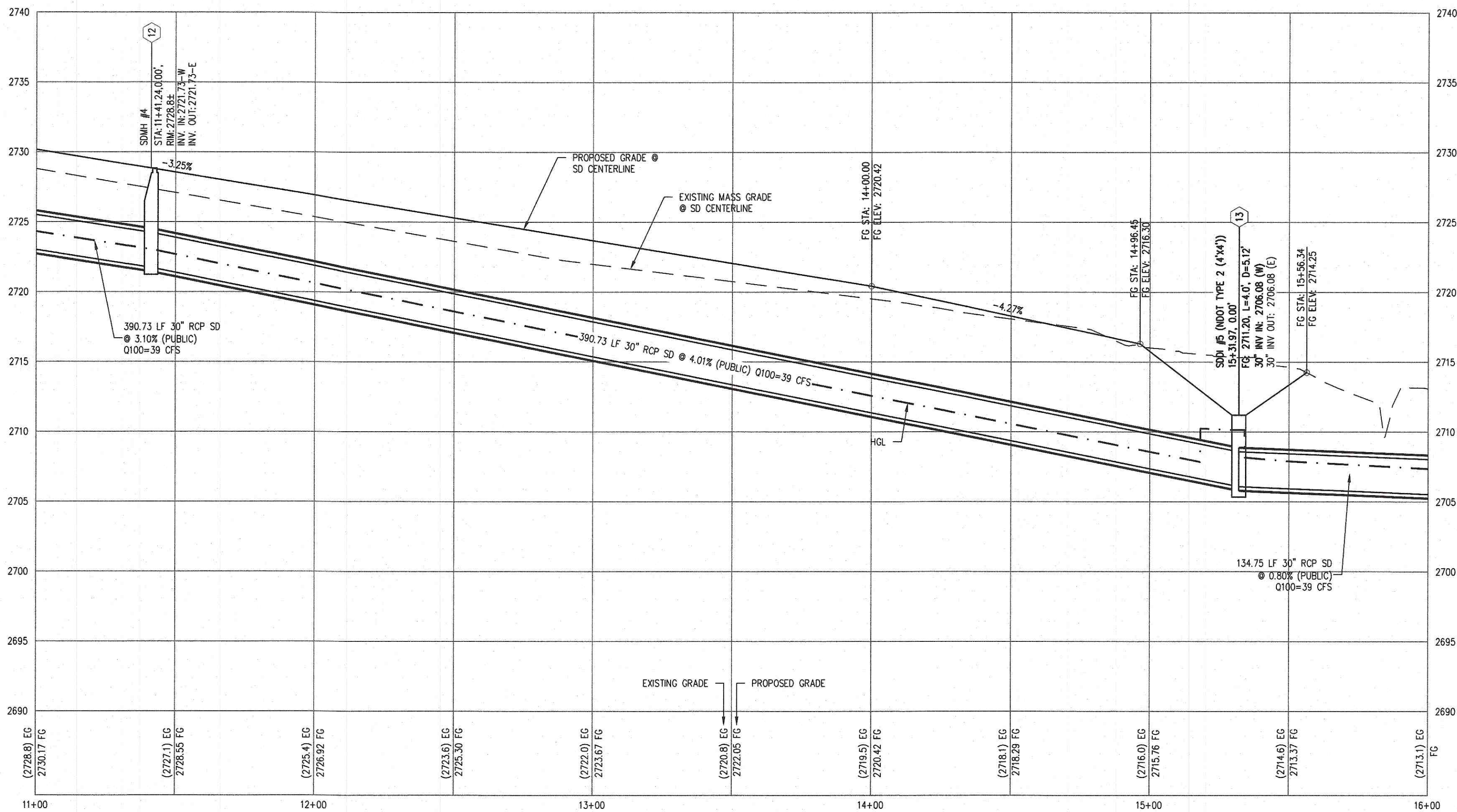
SHEET 5 OF 6

L20-00626
107V8289





OFF-SITE STORM DRAIN - PLAN VIEW
(PUBLIC)



OFF-SITE STORM DRAIN - PROFILE VIEW

HORIZ: 1" = 30'
VERT: 1" = 6'

CALL SOUTHWEST GAS AT
702-651-2111 FOR STANDBY
WHEN EXCAVATING OVER OR
NEAR HIGH PRESSURE GAS
LINES

SURVEY NOTE

OWNER RESPONSIBLE TO PROVIDE
SURVEY MONUMENTATION AS SHOWN
AND TO REPLACE ALL SURVEY
MONUMENTATION DAMAGED,
DISTURBED, DESTROYED, OR
OBSERVED DURING CONSTRUCTION.

ELEVATION NOTE

ADD 2800 TO ALL SPOT GRADES WHERE THE HUNDREDS AND
THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E.
01.00 REPRESENTS 1801.00)

DISCLAIMER NOTE

- EXISTING UTILITY LOCATIONS SHOWN HEREON ARE
APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S
RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND
HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND
UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO
REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE
SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY
FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
- FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS
THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM
EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF
PAVEMENT OR PROJECTED TOP OF CURB PRIOR TO SUBGRADE
PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE.
IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET
AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE
ENGINEER.

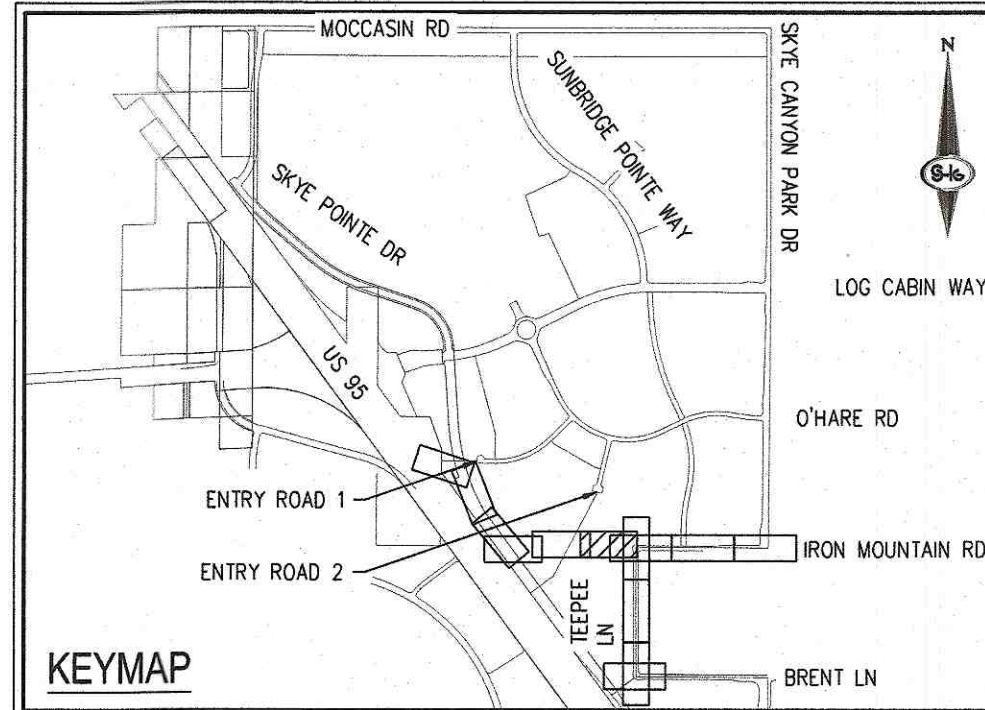
GRADING NOTES

- THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND
DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE
ENGINEER.
- ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY
SWPPP.
- MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS
NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
- SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
- ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE
BONDED FOR AND INSPECTED.
- CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE
BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS
BUILDING DEPARTMENT.
- CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING
UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF
ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO
PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER
SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES
PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE
FOR REPAIR/REPLETING FACILITIES IF ENGINEER/OWNER IS NOT
NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION
COMMENCING.
- NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS
PERMITTED OVER TWENTY-FOUR (24) INCHES FROM THE
(MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB
EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES

(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560
SQ.FT.))

- THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR
AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT,
MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL
POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR
ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF CLARK
COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES
ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION
PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM
ENTERING THE STORM SEWER SYSTEM.
- ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT
PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER
AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE
SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE
STANDARDS SPECIFIED IN CLARK COUNTY TITLE 24.40 AND IN
THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE
MANUAL.
- TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE
INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE
AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION
ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR
PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER
TO THE NEVADA STORMWATER GENERAL PERMIT FOR
CONSTRUCTION ACTIVITY NVRI00000, SECTION III.A.5.
- AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL
INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE
OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO
PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND
ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER A RAIN
EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS
AGENT SHALL UPDATE OR MODIFY THE STORMWATER
POLLUTION PREVENTION PLAN AS NECESSARY. SOME
EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS
SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE
NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION
ACTIVITY NVRI00000, SECTION III.A.12.
- ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN
SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR
TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS
EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN
CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.



CONSTRUCTION NOTES

- INSTALL 3" ASPHALT PAVEMENT OVER 4" TYPE II
AGGREGATE BASE
- CONSTRUCT "L" TYPE CURB PER CCAUSD NO. 216
- CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD NO. 219
- CONSTRUCT 8' WIDE SIDEWALK PER CCAUSD NO. 234
- SAWCUT AND WATCH EXISTING PAVEMENT PER CCAUSD NO.
500.1 AND 503
- CONSTRUCT MODIFIED TYPE "CM2" DROP INLET PER
STRUCTURAL DETAILS ON SHEET S-1 & CCAUSD STD.
DWG. NO. 421
- CONSTRUCT 60" TYPE II MANHOLE PER CCAUSD STD. DWG.
NO. 405
- INSTALL BRICK AND MORTAR PLUG PER DETAIL C ON
SHEET DT-1
- CONSTRUCT NDOT TYPE 4 MANHOLE PER DETAIL NUMBER
DS-48
- CONSTRUCT 60" TYPE II MANHOLE PER CCAUSD STD. DWG.
NO. 405.2
- CONSTRUCT 60" TYPE II MANHOLE PER CCAUSD STD. DWG.
NO. 405
- CONSTRUCT 48" TYPE II MANHOLE PER CCAUSD STD. DWG.
NO. 405
- CONSTRUCT NDOT TYPE 2 DROP INLET (4'x4') PER NDOT
STD. DWG. DS-32, SEE DETAIL D ON SHEET DT-1

EXISTING EASEMENTS

- RIGHT-OF-WAY GRANTED BY DECISION, DATED JANUARY
16, 2003 BY THE BUREAU OF LAND MANAGEMENT UNDER
SERIAL NUMBER N-75502 TO LAS VEGAS VALLEY WATER
DISTRICT FOR WATER PIPELINE UNDER RIGHT-OF-WAY
GRANT FILED IN THE OFFICE OF THE BUREAU OF LAND
MANAGEMENT OVER A PORTION OF SAID LAND, AS
RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF
CLARK COUNTY, NEVADA ON FEBRUARY 10, 2003 IN BOOK
20030210, AS INSTRUMENT N. 00538 OF OFFICIAL
RECORDS.
- RIGHT-OF-WAY GRANTED BY DECISION, DATED JANUARY
16, 2003 BY THE BUREAU OF LAND MANAGEMENT UNDER
SERIAL NUMBER N-75502-01 TO LAS VEGAS VALLEY
WATER DISTRICT FOR TEMPORARY WORK AREAS FOR A
42" UNDERGROUND WATER PIPELINE UNDER RIGHT-OF-WAY
GRANT FILED IN THE OFFICE OF THE BUREAU OF LAND
MANAGEMENT OVER A PORTION OF SAID LAND, AS
RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF
CLARK COUNTY, NEVADA ON FEBRUARY 10, 2003 IN BOOK
20030210, AS INSTRUMENT NO. 00541 OF OFFICIAL
RECORDS.
- EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL X
PURPOSES IN THE DOCUMENT RECORDED JUNE 8, 2015 IN
BOOK 20150608 AS INSTRUMENT NO. 00948 OF OFFICIAL
RECORDS.
- COVENANTS, CONDITIONS, EASEMENTS AND RESTRICTIONS X
IN A FINAL ORDER OF CONDEMNATION RECORDED OCTOBER
2, 2015, IN BOOK 2015002 AS INSTRUMENT NO. 03299
OF OFFICIAL RECORDS.
- RIGHT-OF-WAY GRANTED BY DECISION, DATED APRIL 04,
2003, BY THE BUREAU OF LAND MANAGEMENT UNDER
SERIAL NUMBER N-75702 TO NEVADA POWER COMPANY
FOR UNDERGROUND ELECTRICAL DISTRIBUTION LINE UNDER
RIGHT-OF-WAY GRANT FILED IN THE OFFICE OF THE
BUREAU OF LAND MANAGEMENT OVER A PORTION OF SAID
LAND, AS RECORDED IN THE OFFICE OF THE COUNTY
RECORDER OF CLARK COUNTY, NEVADA ON APRIL 17, 2003
IN BOOK 20030417, AS INSTRUMENT NO. 02746 OF
OFFICIAL RECORDS.
- A RIGHT-OF-WAY GRANTED BY DECISION, DATED AUGUST
21, 1970, BY THE BUREAU OF LAND MANAGEMENT UNDER
SERIAL NUMBER NEV013376 ET AL (N-121) TO STATE OF
NEVADA, DEPARTMENT OF HIGHWAYS FOR HIGHWAY (U.S.
95) INCLUDING ACCESS RIGHTS UNDER RIGHT-OF-WAY
GRANT FILED IN THE OFFICE OF THE BUREAU OF LAND
MANAGEMENT OVER A PORTION OF SAID LAND, AS
RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF
CLARK COUNTY, NEVADA ON DECEMBER 22, 1972 IN BOOK
288, AS INSTRUMENT NO. 247599 OF OFFICIAL RECORDS.
- AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL
PURPOSES IN THE DOCUMENT RECORDED JUNE 8, 2015 IN
BOOK 20150608 AS INSTRUMENT NO. 00947 OF OFFICIAL
RECORDS.
- NDOT EASEMENT PER NEV-043376, N-43063, CC-018234,
CC-018138, CC-018191

FLOOD CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE
APPROVED TECHNICAL DRAINAGE STUDY DS-5189 ON FILE AT CITY
OF LAS VEGAS.

JOSH JOHNSON, P.E. 15789

DATE

DATE: 09/26/19

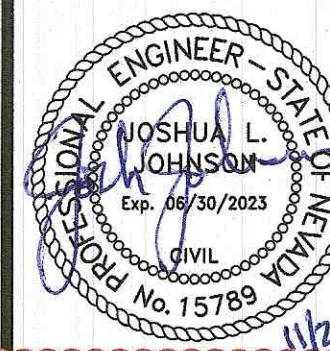
DRAFTER: SB/JR

DESIGNER: BC

CHECKED: JJ

PROJECT NO.

EST1911-000



OS-6

SHEET 6 OF 6

L20-00626
107V8289



FLOOD ZONE

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE X (OUTSIDE THE 0.2% ANNUAL CHANCE
FLOOD PLAIN) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 32003C1735E AND
32003C1750E, BOTH DATED SEPTEMBER 27, 2002.