STORMWATER RUNOFF MANAGEMENT

(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 ACCUMULATE IN, THE PUBLIC RIGHTS OF WAYS 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 TITLE 24.40 AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BEST MANAGEMENT PRACTICES 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 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 OR EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS AND ALL BMPS WEEKLY, AND WITHIN 24 HOURS AFTER ANY ACTUAL 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 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.

BASIS OF BEARINGS

NORTH 0259'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6

RIVET AND ROUND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF DESERT MOON RD. AND SKY MSTA DR.
ELEVATION = 1011.422 METERS (NAVD '88)
ELEVATION = 3318.31 US SURVEY FEET (NAVD '88)

LEGAL DESCRIPTION

A PORTION OF THE NORTHEAST QUARTER (NE ¼) OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, LCARK COUNTY, NEVADA DESCRIBED AS FOLLOWS:

LOTS L AND M OF "SUMMERLIN VILLAGE 24 – UNIT 4", AS SHOWN BY MAP THEREOF ON FILE IN BOOK 154 OF PLATS PAGE 83 IN THE OFFICE OF THE COUNTY RECORDER OF CLARK COUNTY, NEVADA

CONTAINING 37.56 ACRES

SOUTHERN NEVADA - SOUTHWEST GAS CORPORATION GENERAL NOTES

1. IN THE EVENT OF NATURAL GAS EMERGENCIES CALL 911 AND 1-877-860-6020
2. THERE SHALL BE A MINIMUM HORIZONTAL AND VERTICAL CLEARANCE OF 12-INCHES BETWEEN NATURAL GAS FACILITIES AND ANY UNDERGROUND FACILITIES AND/OR STRUCTURES, INCLUDING BUT NOT LIMITED TO WATER, SEWER, STORM DRAIN, COMMUNICATIONS, AND ELECTRIC
3. FOR VALVE ADJUSTMENT CONTACT 702-668-6107 48 HOURS PRIOR TO CONSTRUCTION.
4. IN THE EVENT OF NATURAL GAS CONFLICT WITH PROPOSED UTILITIES AND/OR STRUCTURES CONTACT 702-365-2099

CAUTION: HIGH PRESSURE GAS

CALL SOUTHWEST GAS AT 702-400-1789 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES 48 HOURS PRIOR TO CONSTRUCTION

SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORPORATION — DATE 5/9/19

2.2 CITY OF LAS VEGAS SEWER NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, AS AMENDED. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATIONS.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM CONSTRUCTION AS PER PLANS, ANY ADDITIONS, DELETIONS, OR CHANGES SHALL FIRST MEET WITH THE APPROVAL OF THE CITY ENGINEER.
3. CHISEL "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
4. POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II AGGREGATE BASE.
5. ALL MANHOLES PAVED IN STREETS EIGHTY (80') FOOT R/W AND LARGER SHALL HAVE CONCRETE COLLARS. STREETS LESS THAN EIGHTY (80') FOOT R/W WILL REQUIRE RETROFIT IF PAVING DOES NOT CONFORM TO CITY STANDARDS AT THE MANHOLE.
6. TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO TWELVE INCH (12") DIAMETER. CONNECTIONS TO FIFTEEN INCH (15") OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES. IN LINE "Y" 'S SHALL BE USED ON LINES TWELVE INCHES (12") OR ABOVE.
7. WATER MAINS SHALL BE PROTECTED IN ACCORDANCE WITH LVVWD STANDARDS WHENEVER A SEWER MAIN CROSSES OVER A WATER MAIN OR THE SEWER IS LESS THAN EIGHTEEN INCH (18") UNDER A WATER MAIN.
8. ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CITY OF LAS VEGAS MUST BE STATE OF NEVADA CLASS "A" CONTRACTORS.
9. THE CITY OF LAS VEGAS WILL NOT ACCEPT ANY SEWER MAINS WHICH HAVE A VERTICAL DEFLECTION OF MORE THAN ONE TENTH (0.1) OF A FOOT FROM THE APPROVED CONSTRUCTION PLANS AT ANY LOCATION. SEWER MAINS FOUND TO EXCEED THIS TOLERANCE WILL HAVE TO BE REPAIRED OR REMOVED OR REPLACED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO ACCEPTANCE BY THE CITY OF LAS VEGAS.
10. INSTALLATION OF CURVED SEWER REQUIRES THE USE OF C-900 PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS.

LAS VEGAS VALLEY WATER DISTRICT (LVVWD) STANDARD NOTES

LVVWD PROJECT # 136382 (REVISED 08/01/2017)

1. NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE LVVWD. FOLLOWING WATER PLAN APPROVAL, NOTICE SHALL BE GIVEN TO THE LVVWD COMMUNICATION SUPPORT CENTER (258-7171) TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION. FOR FUTURE INSPECTIONS, NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO THE REQUESTED LVVWD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT # IDENTIFIED ABOVE.
2. ALL WORK SHALL CONFORM TO LVVWD STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS, AND TO THE 2010 EDITION OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS). THE LATEST EDITION OF UDACS SHALL SUPERSEDE ANY CONFLICTS CONTAINED IN THE APPROVED DRAWINGS AND/OR SPECIFICATIONS.
3. ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2 ABOVE, SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENT, CLARK COUNTY AREA.
4. A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVVWD.
5. ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING WITH LVVWD APPROVED SERVICE SADDLES.
6. ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
7. ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB GUTTERS.
8. ALL WATER AND STORM DRAIN OR SANITARY SEWER CROSSINGS SHALL CONFORM TO SECTION 2.22 OF THE 2010 EDITION OF THE UDACS.
9. ALL WATER FACILITIES AND APPURTENANCES SHALL BE DISINFECTED, PRESSURE TESTED, AND HAVE AN ACCEPTABLE PASSING HEALTH WATER SAMPLE OBTAINED, PRIOR TO OPERATION AND USE.
10. THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 OR 258-3802, TWO (2) WORKING DAYS PRIOR TO METER PICKUP.
11. ANY INTERRUPTION OF SERVICE MUST BE PERFORMED IN ACCORDANCE WITH UDACS SECTION 3.14.01, AND APPROVED BY THE LVVWD INSPECTION DIVISION PRIOR TO SHUTDOWN. PROPER WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.
12. ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVVWD APPROVED PRODUCT'S LIST FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS BY SUBMITTING SHOP DRAWINGS.
13. TELEPHONE "CALL BEFORE YOU DIG" AT "811" OR 1-800-227-2600.
14. THE INSTALLATION OF LVVWD MUNICIPAL WATER FACILITIES WITHIN ALL STREETS IS ASSUMED TO BE IN COMPLIANCE WITH THE UNIFORM STANDARDS, INCLUDING THE PLACEMENT OF ASPHALT PAVING STREET SURFACES. ANY REPAIR WORK DONE BY THE LVVWD TO THE MUNICIPAL WATER FACILITIES WILL INCLUDE THE PLACEMENT OF AN APPROPRIATELY SIZED ASPHALT REPAIR PATCH ON THE STREET SURFACE.

    ANY DECORATIVE PAVING SURFACE WITHIN THE STREET IS THE RESPONSIBILITY OF THE OWNER'S ASSOCIATION, OR THE INDIVIDUAL PROPERTY OWNERS IF NO OWNER'S ASSOCIATION IS IN EXISTENCE, OR THE AGENCY HAVING JURISDICTION. DECORATIVE SURFACE MATERIALS PLACED WITHIN THE TEN FOOT EASEMENT ABUTTING A PUBLIC OR PRIVATE STREET, IF DISTURBED BY THE LVVWD DURING THE REPAIR OR OPERATION OF ITS FACILITIES, WILL BE REPLACED BY LVVWD WITH AN APPROPRIATELY SIZED PLAIN FINISH CONCRETE PATCH. THE LVVWD WILL NOT RESTORE, AND WILL NOT BE RESPONSIBLE FOR THE RESTORATION OF, ANY DECORATIVE PAVING SURFACE WITHIN THE STREET. THE LVVWD WILL NOT ATTEMPT TO MATCH COLOR OR FINISH OF ANY ADJACENT MATERIALS.

15. NO LEAD COMPLIANCE NOTE:
TO COMPLY WITH THE FEDERAL SAFE DRINKING WATER ACT, ALL WATER WORKS BRASS PRODUCTS PROPOSED TO BE RELOCATED, OR INSTALLED AS NEW MUST BE INSTALLED WITH THE LEAD FREE APPROVED PRODUCT. THE OLD LEADED PRODUCT MAY NOT BE REUSED.

GRADING NOTES

1. INDICATED GRADES OTHER THAN T.C., F.G. & GUTTER F.L. ARE ROUGH GRADES.
2. THE ROUGH GRADING PLANS SHALL BE ON THE JOB SITE AT ALL TIMES. THE ROUGH GRADING SHALL BE FINISHED IN CONFORMANCE WITH THE LINES AND GRADES SHOWN ON THE PLANS. THE GRADING QUANTITIES ARE BASED ON THE ELEVATION AND DETAILS SHOWN ON THE PLANS. ANY DEVIATIONS FROM THE PLANS WILL RESULT IN QUANTITY CHANGES.
3. CARE SHALL BE EXERCISED IN GRADING CORNER LOTS.
4. ROUGH PAD ELEVATIONS SHALL BE GRADED TO WITHIN 0.1' OF THE PAD ELEVATIONS SHOWN ON THE PLANS. WHEN GRADING IS COMPLETE PER THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE LOTS CAN BE INSPECTED. AT THAT TIME THE ENGINEER SHALL ALSO DECIDE IF ANY ADDITIONAL DITCHES OR BERMS ARE REQUIRED. THE CONTRACTOR IS REQUESTED NOT TO REMOVE ANY OF HIS ROUGH GRADING EQUIPMENT UNTIL HE RECEIVES GRADING APPROVAL FROM THE ENGINEER.
5. SOILS REPORT PREPARED BY SOUTHWEST GEOTECHNICAL, PROJECT NO. 182267, DATED 7/12/18.
6. EARTHWORK QUANTITIES (RAW):
   - CUT = 23,900 CUBIC YARDS.
   - FILL = 51,700 CUBIC YARDS.

   A) THE ABOVE QUANTITIES DO NOT REFLECT LOSSES DUE TO SUBSIDENCE OR SHRINKAGE.
   B) THE ABOVE QUANTITIES DO REFLECT USING NATIVE MATERIAL IN LIEU OF TYPE I GRAVEL BASE MATERIAL FOR STREET SECTIONS.
   C) THE ABOVE QUANTITIES DO NOT REFLECT ANY EARTHWORK WHICH MAY BE REQUIRED BY THE ENGINEER TO CONSTRUCT ADDITIONAL PROTECTIVE DITCHES OR BERMS NOT SHOWN ON THESE DRAWINGS.

CITY OF LAS VEGAS FIRE AND RESCUE GENERAL NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LAS VEGAS FIRE AND RESCUE ADOPTED FIRE CODE ORDINANCE # 6331, FOR HYDRANT SPECIFICATIONS, AND HYDRANT INSTALLATION SPECIFICATIONS.
2. ONLY FIRE HYDRANTS THAT ARE ON THE LAS VEGAS VALLEY WATER DISTRICT'S – APPROVED PRODUCTS LIST ARE ALLOWED TO BE INSTALLED.
3. A PERMIT IS REQUIRED FROM LAS VEGAS FIRE AND RESCUE FOR THE INSTALLATION OF ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTORS MATERIAL TEST CERTIFICATE FOR UNDERGROUND PIPING FOR SHALL BE OBTAIN FROM THE FIRE PROTECTION ENGINEER BEFORE COMMENCEMENT OF WORK [IFC 105.7.12]
4. ON ANY RESIDENTIAL OR COMMERCIAL INSTALLATIONS, FIRE HYDRANTS SHALL BE INSTALLED AND FIRE APPARATUS ACCESS ROADS SHALL BE MAINTAINED BEFORE COMMENCEMENT OF ANY COMBUSTIBLE CONSTRUCTION. ALL FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER AND SHALL BE CAPABLE OF DELIVERING THE REQUIRED FIRE FLOW. [IFC 3310, 3312]
5. TO IDENTIFY THE FIRE HYDRANT LOCATIONS, THE CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF THE STREET ADJACENT TO THE FIRE HYDRANTS. [IFC 507.5.7.3]
6. ALL UNDERGROUND INSPECTIONS, PRESSURE AND FLUSH VERIFICATIONS OF ALL FIRE HYDRANTS AND FIRE LINES, SHALL BE CONDUCTED BEFORE COVERING THE LINES. CENTER LOADING IS ACCEPTABLE FOR THE HYDRO TESTS WITH PRIOR FIRE PREVENTION APPROVAL. [IFC 106.3]
7. ALL ON-SITE UNDERGROUND WATER MAINS AND MATERIALS SHALL BE U.L. LISTED, A.W.W.A APPROVED AND SHALL BE RATED FOR THE APPROPRIATE WORKING PRESSURE. [IFC 507.2.1, NFPA 24]
8. PAINTING OF CURBS, FIRE HYDRANTS, PADS, PROTECTION OF FIRE HYDRANTS FROM PHYSICAL DAMAGE, AND ALL OTHER WORK NECESSARY PER PLANS SHALL BE COMPLETED BEFORE APPROVAL BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION. [IFC 507]
9. PRIVATE HYDRANTS SHALL BE PANTED RED. [IFC 507.5.7.1]
10. PRIOR TO THE FINAL OCCUPANCY, A FIRE FLOW TEST SHALL BE WITNESSED BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION TO VERIFY AVAILABILITY OF THE REQUIRED FIRE FLOW. [IFC 507]
11. FIRE HYDRANT SPACING SHALL BE AS FOLLOWS: [IFC C102]
    - RESIDENTIAL- 500 FT UNSPRINKLERED; 600 FT SPRINKLERED.
    - COMMERCIAL- 300 FT UNSPRINKLERED; 400 FT SPRINKLERED.
12. WHERE NEW WATER MAINS ARE EXTENDED ALONG STREETS OR NEW STREETS ARE INSTALLED WHERE FIRE HYDRANTS ARE NOT NEEDED FOR PROTECTION OF THE STRUCTURES, FIRE HYDRANTS SHALL BE INSTALLED AT A MAXIMUM OF 1,000 FT SPACING, TO PROVIDE FOR TRANSPORTATION HAZARDS. WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS OR HAVE FOUR (4) OR MORE TRAFFIC LANES AND HAVE A TRAFFIC COUNT OF MORE THAN 30,000 PER DAY, HYDRANTS ARE REQUIRED ON EACH SIDE OF THE STREET SPACED AT 500 FT ON AN ALTERNATING BASIS. [IFC C102.8]
13. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN THE RADIUS OF A CUL-DE-SAC OR WITHIN 20 FEET OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
14. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN 6 FT OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREETLIGHT OR ANY OTHER OBSTRUCTION. [IFC C102.12]
15. A MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A ONE-TWO FAMILY DWELLING SHALL NOT EXCEED 300 FT, AS MEASURED BY AN APPROVED ROUTE. [IFC C102.4]
16. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A FIRE DEPARTMENT CONNECTION (FDC) SHALL NOT EXCEED 100 FT, AS MEASURED BY AN APPROVED ROUTE. [IFC C102.7]
17. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FT. [IFC C102.6]
18. TWO (2) SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE ARE 4 OR MORE FIRE HYDRANTS/SPRINKLER LEAD-INS ARE INSTALLED ON A SINGLE SYSTEM. SECTIONAL CONTROL VALVES SHALL BE INSTALLED SO THAT NO MORE THAN 2 FIRE HYDRANTS CAN BE OUT OF SERVICE DUE TO A BREAK IN A WATER MAIN. [IFC C104]
19. ALL FIRE APPARATUS ACCESS ROADS SHALL BE PAVED TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES, AND SHALL BE DESIGNED AND MAINTAINED TO SUPPORT IMPOSED LOADS OF THE FIRE APPARATUS. [IFC 503.2.3]
20. THE GRADIENT FOR THE FIRE APPARATUS ACCESS ROADS SHALL NOT EXCEED 12%. ANGLES OF APPROACH AND ANGLES OF DEPARTURE SHALL NOT EXCEED 6% FOR 25 FEET PRIOR TO OR AFTER THE GRADE CHANGE. ADJACENT TO THE STRUCTURES GRADIENT SHALL NOT EXCEED 6%. [IFC 503.2.7, 503.2.8]
21. THE TURNING RADIUS OF THE FIRE APPARATUS ACCESS ROADS SHALL BE NO LESS THAN 52 FEET OUTSIDE AND 28 FEET INSIDE TURNING RADIUS. [IFC 503.2.4]
22. VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROADS SHALL NOT BE LESS THAN 13 FT 6 INS. [IFC 503.2.1]
23. FIRE DEPARTMENT ACCESS ROADS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS THAN 40 FT FLOW LINE TO FLOW LINE WITH PARALLEL PARKING PERMITTED ON BOTH SIDES. NOT LESS THAN 32 FT WIDE, FLOW LINE TO FLOW LINE, WHERE PARKING IS PERMITTED ONLY ON ONE SIDE OF THE FIRE APPARATUS ACCESS ROAD. NOT LESS THAN 24 FT WIDE, FLOW LINE TO FLOW LINE, WHERE PARKING IS PERMITTED ON EITHER SIDE. FIRE LANES THROUGH PARKING LOTS SHALL BE NOT LESS THAN 24 FT. [IFC 503.2.1.1]
24. A FIRE APPARATUS ACCESS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FT FROM A FIRE DEPARTMENT VEHICLE ACCESS. THE DISTANCE COULD BE INCREASED TO 250 FT IF THE BUILDING IS SPRINKLERED. [IFC 503.1.1]
25. APPROVED SECONDARY FIRE APPARATUS ACCESS SHALL BE PROVIDED FOR 100 OR MORE DWELLING UNITS, ROAD(S) WITH DEAD-ENDS OR WITH A SINGLE POINT OF ACCESS IN EXCESS OF 600 FT. COMMERCIAL AND INDUSTRIAL DEVELOPMENTS WHERE BUILDINGS EXCEED 2 STORIES OR 30 FEET IN HEIGHT, OR EXCEEDING 62,000 SQUARE FEET IN AREA. [IFC 503.1.2]
26. ALL DEAD-END FIRE APPARATUS ROADS AND/OR FIRE LANES, PUBLIC OR PRIVATE, IN EXCESS OF 150 FT IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND HAVING A MINIMUM DIAMETER OF 81 FT. [IFC 503.2.5]
27. ALL FIRE APPARATUS ACCESS ROADS SHALL BE MARKED BY PLACING APPROVED SIGNS AT THE START OF THE DESIGNATED FIRE LANE, ONE SIGN AT THE END OF THE FIRE LANE AND WITH SIGNS AT INTERVALS OF 100 FEET ALONG THE DESIGNATED FIRE LANES. SIGNS TO BE PLACED ON BOTH SIDES OF AN ACCESS ROADWAY IF NEEDED TO PREVENT PARKING ON EITHER SIDE. SIGNS TO BE INSTALLED NO HIGHER THAN 10 FT OR LESS THAN 6 FT FROM THE ROADWAY LEVEL. THE CURB ALONG OR ON THE PAVEMENT OR CEMENT (IF NO CURB IS PROVIDED) SHALL BE PAINTED WITH A RED WEATHER RESISTANT PAINT IN ADDITION TO THE SIGNS. [IFC 503.3]
28. ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. SAID SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE IFC 503.6 AND IFC APPENDIX M.

2.5 CITY OF LAS VEGAS GRADING NOTES

1. IN THE EVENT THAT ANY UNFORESEEN CONDITIONS NOT COVERED BY THESE NOTES ARE ENCOUNTERED DURING GRADING OPERATIONS, THE OWNER/ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTION.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ALL NECESSARY CUTS AND FILLS WITHIN THE LIMITS OF THIS PROJECT AND THE RELATED OFF-SITE WORK, SO AS TO GENERATE THE DESIRED SUBGRADE, FINISH GRADES AND SLOPES SHOWN.
3. CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ALL EXCAVATION. ADEQUATE SHORING SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR TO PREVENT UNDERMINING OF ANY ADJACENT FEATURES OR FACILITIES AND/OR CAVING OF THE EXCAVATION.
4. THE CONTRACTOR IS WARNED THAT AN EARTHWORK BALANCE WAS NOT NECESSARILY THE INTENT OF THIS PROJECT. ANY ADDITIONAL MATERIAL REQUIRED OR LEFTOVER MATERIAL FOLLOWING EARTHWORK OPERATIONS BECOMES THE RESPONSIBILITY OF THE CONTRACTOR.
5. THE GRADING CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE OWNER TO PROVIDE FOR THE REQUIREMENTS OF THE PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND ASSOCIATED PERMIT.
6. CONTRACTOR SHALL GRADE TO THE LINES AND ELEVATIONS SHOWN ON THE PLANS WITHIN THE FOLLOWING HORIZONTAL AND VERTICAL TOLERANCES AND DEGREES OF COMPACTION, IN THE AREAS INDICATED:

	HORIZONTAL	VERTICAL	COMPACTION
A. PAVEMENT AREA SUBGRADE	0.1'+	+0.0' TO -0.1'	SEE SOILS REPORT
B. ENGINEERED FILL	0.5'+	+0.1' TO -0.1'	SEE SOILS REPORT

COMPACTION TESTING WILL BE PERFORMED BY THE OWNER OR HIS REPRESENTATIVE.

7. ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNTIL EFFECTIVE EROSION CONTROL HAS BEEN ESTABLISHED.
8. THE USE OF POTABLE WATER WITHOUT A SPECIAL PERMIT FOR BUILDING OR CONSTRUCTION PURPOSES INCLUDING CONSOLIDATION OF BACKFILL OR DUST CONTROL IS PROHIBITED. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION WATER.
9. THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHT-OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE PUBLICLY OWNED PROPERTY DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE CONDITION.
10. IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED THAT 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 ENGINEER. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND BARRICADES, ETC.

UTILITY LOCATION NOTE TO CONTRACTOR

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: 1 (800) 227-2600; SOUTHWEST GAS CORPORATION: 702-400-1789 (STANDBY CONTACT NUMBER)

2.1 CITY OF LAS VEGAS GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA", LATEST ISSUE; THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST REVISED EDITION; THE "SUMMERLIN IMPROVEMENT STANDARDS" FOR WORK IN THE SUMMERLIN AREA; AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY; THE UNIFORM BUILDING CODE; AND ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE, EXCEPT AS NOTED ON THIS SHEET AS "DEVIATIONS FROM STANDARDS".
2. THE EXISTENCE AND LOCATION OF ANY OVERHEAD OR UNDERGROUND UTILITY LINES, PIPES, OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A RESEARCH OF THE AVAILABLE RECORDS. EXISTING UTILITIES AS SHOWN FROM CLV PLANS LIBRARY ARE APPROXIMATE AND FOR RECORD PURPOSES. EXISTING UTILITIES ARE LOCATED ON PLANS ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. EXISTING UTILITY SERVICE LATERALS MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, LOCATE ALL UNDERGROUND AND OVERHEAD INTERFERENCE'S WHICH MAY AFFECT HIS OPERATION DURING CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO SAME. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD UTILITIES SO AS TO SAFELY PROTECT ALL PERSONNEL AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR ALL COST AND LIABILITY IN CONNECTION THEREWITH.
3. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING UTILITY LINES, STRUCTURES AND STREET IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE, FROM DAMAGE, AND ALL SUCH IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED TO SATISFACTORY TO THE CITY ENGINEER AND OWNING UTILITY COMPANY AT THE EXPENSE OF THE CONTRACTOR.
4. ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS, ANY REVISIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER.
5. TYPE V CEMENT SHALL BE USED IN ALL OFF-SITE CONCRETE WORK. CONCRETE TO BE 3000 P.S.I. MINIMUM @ 28 DAYS. MIX DESIGNS TO BE APPROVED BY THE CITY, PRIOR TO THE USE ON THE PROJECT.
6. PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.
7. EXPANSION JOINTS REQUIRED, MAXIMUM EVERY 300' IN EXTRUDED-TYPE CURB.
8. AC PAVEMENT TO BE ONE-HALF INCH (½") ABOVE LIP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.
9. CURB AND GUTTER FOUND TO BE UNACCEPTABLE TO THE CITY OF LAS VEGAS SHALL BE REMOVED AND REPLACED PER STANDARD DRAWING 216.
10. SIDEWALK RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING 235. EXACT LOCATION OF RAMPS MAY BE ADJUSTED IN THE FIELD BY A CITY INSPECTOR.
11. CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITIONS BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND FOR INGRESS AND EGRESS TO NEW CONSTRUCTION. THE EXTENT OF THE TRANSITIONS TO BE AS SHOWN ON PLANS.
12. ALL GRADING WORK SHALL CONFORM TO THE SOILS RE

ABBREVIATIONS

AC	ASPHALTIC CONCRETE OR ACRE	FL	FLOWLINE	PVI	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	GV	GATE VALVE	RCP	REINFORCED CONCRETE PIPE
BC	BEGIN CURVE OR BACK OF CURB	HDPE	HIGH DENSITY POLYETHYLENE	RD	RD
BCR	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	HDWL OR HW	HEADWALL	RT OR R	
BVC	BEGIN VERTICAL CURVE	HYD	HYDRAULIC OR HYDRANT	R/W, ROW	RIGHT OF WAY
BWV	BACK WATER VALVE	ID	INSIDE DIAMETER	S	SLOPE
CC	CLARK COUNTY	IN	INCH	SCH	SCHEDULE
CCAUSD	CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS	INT	INTERSECTION	SD	STORM DRAIN
CCPW	CLARK COUNTY PUBLIC WORKS	INV	INVERT ELEVATION	SDDI	STORM DRAIN DROP INLET
CCRFCD	CLARK COUNTY REGIONAL FLOOD DISTRICT	IP	IRON PIPE	SDMH	STORM DRAIN MANHOLE
CCWRD	CLARK COUNTY WATER RECLAMATION DISTRICT	IRRG	IRRIGATION	SE	SEWER EASEMENT
CE	COMMON ELEMENT	LF	LINEAR FEET	SEC	SECTION
CL,C/,L,C	CENTERLINE	LMC	LANDSCAPE MAINTENANCE CORPORATION	SF	SQUARE FEET
CLR	CLEAR OR CLEARANCE	LP	LOW POINT	SHT	SHEET
CLSM	CONTROLLED LOW STRENGTH MATERIAL	LT OR L	LEFT	SLTC	STREET LIGHT & TRAFFIC CONTROL ESMT
CLV	CITY OF LAS VEGAS	LVVWD	LAS VEGAS VALLEY WATER DISTRICT	SNWA	SOUTHERN NEVADA WATER AUTHORITY
CML&C	CEMENT MORTAR LINED AND COATED	LWL	LOW WATER LEVEL	SPECS	SPECIFICATIONS
CMU	CONCRETE MASONRY UNIT	MAX	MAXIMUM	ST	STREET
CNLV	CITY OF NORTH LAS VEGAS	MECH	MECHANICAL	SSMH	SANITARY SEWER MANHOLE
COH	CITY OF HENDERSON	MH	MANHOLE	STA	STATION
CONC	CONCRETE	MIN	MINIMUM	STD	STANDARD
CT	COURT	MISC	MISCELLANEOUS	STL	STEEL
CY OR CU YD	CUBIC YARD	MUE	MUNICIPAL UTILITY EASEMENT	STLT	STREET LIGHT
DCWCS	DESIGN AND CONSTRUCTION FOR WASTEWATER COLLECTION SYSTEMS	NDOT	NEVADA DEPARTMENT OF TRANSPORTATION	SW	SIDEWALK
		NTS	NOT TO SCALE	SWG	SOUTHWEST GAS
DE	DRAINAGE EASEMENT	NUE	NONEXCLUSIVE UTILITY EASEMENT	SWR OR SS	SANITARY SEWER
DET	DETAIL	NVE	NV ENERGY	SY	SQUARE YARD
DI	DUCTILE IRON OR DRAIN INLET	OC	ON CENTER	TAN	TANGENT
DIA, ø	DIAMETER	OD	OUTSIDE DIAMETER OR OVERALL DIMENSION	TC	TOP OF CURB
DIP	DUCTILE IRON PIPE	OFF	OFFSET	TF	TOP OF FLOOR OR TOP OF FOOTING
DR	DRIVE	ORIG	ORIGINAL	TG	TOP OF GRATE
DWG(S)	DRAWING	PAE	PUBLIC OR PEDESTRIAN ACCESS EASEMENT	THRU	THROUGH
DWY	DRIVEWAY	PB	PULL BOX	THW	TOP OF HEADWALL
EA	EACH	PC	POINT OF CURVE	TP	TOP OF PIPE
ECR	END CURB RETURN	PCC	POINT OF COMPOUND CURVE	TW	TOP OF WALL
EG	EXISTING GROUND	PDE	PUBLIC DRAINAGE EASEMENT	TRW	TOP OF RETAINING WALL
ELEV	ELEVATION	℄ OR PL	PROPERTY LINE	TSW	TOP OF SCREEN WALL
ESMT	EASEMENT	POB	POINT OF BEGINNING	TYP	TYPICAL
EP	EDGE OF PAVEMENT	POC	POINT OF CURVATURE	UDACS	UNIFORM DESIGN AND CONSTRUCTION STANDARDS
ERU	EQUIVALENT RESIDENTIAL UNIT	POE	POINT OF ENDING		
EVC	END VERTICAL CURVE	PRC	POINT OF REVERSE CURVATURE	VC	VERTICAL CURVE
EX OR EXIST	EXISTING	PRELIM	PRELIMINARY	VERT	VERTICAL
FC	FACE OF CURB	PROP	PROPOSED	VG	VALLEY GUTTER
FF	FINISHED FLOOR	PRV	PRESSURE REDUCING VALVE	WI	WROUGHT IRON
FG	FINISHED GRADE	PUE	PUBLIC UTILITY EASEMENT	WL	WATER LINE
FGH	FINISHED GRADE, HIGH SIDE	PT	POINT OF TANGENT OR POINT	WPZ	WATER PRESSURE ZONE
FGL	FINISHED GRADE, LOW SIDE	PVC	POLYVINYL CHLORIDE	WT	WEIGHT
FH	FIRE HYDRANT			WTR	WATER LINE

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
(1900)	1900	5' CONTOUR
		1' CONTOUR
		STRIPING
		SEWER MANHOLE
		CURB AND GUTTER
EX 8" PVC SS	8" PVC SS	SANITARY SEWER PIPE AND FLOW ARROW
EX 8" PVC WTR	8" PVC WTR	WATER PIPE
		WATER GATE VALVE
		FIRE HYDRANT
		WATER BLOW-OFF
		WATER LATERAL W/ METER
		SANITARY SEWER LATERAL
		STREETLIGHT
		EDGE OF PAVEMENT
		TRAFFIC SIGN
PAD= XXX.X FF = XXX.X	PAD= XXX.X FF = XXX.X	PAD ELEVATION FINISHED FLOOR ELEVATION
(00.00) TC	00.00 TC	ELEVATION
		RETAINING WALL
		STORM DRAIN W/ MANHOLE

	EXISTING GAS GATE VALVE
GVM	EXISTING UNKNOWN MANHOLE
	EXISTING GAS, SIZE PER PLAN
	EXISTING POWER POLE
	EXISTING TRAFFIC SIGNAL
	EXISTING WALL
	WATER PIPE FITTING
POC	WATER POINT OF CONNECTION
POC	SEWER POINT OF CONNECTION
	DAYLIGHT LINE
	STREET CENTERLINE
	RIGHT-OF-WAY
	MATCHLINE
	BOUNDARY LINE
	PHASE LINE
	PROPERTY LINE
	FLOWLINE
	SAWCUT
FILL CUT	CUT/FILL TRANSITION LINE
	SIDEWALK
	EX STRIPING TO BE OBLITERATED
	GRADE BREAK LINE
	REFLECTIVE RAISED PAVEMENT MARKERS
BWV	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
	PROPOSED SCARP AREA
	DRIVEWAY
	PROPOSED RIP RAP
	SIGHT VISIBILITY ZONE PER STD DWG NO. 201.2
	HANDICAP RAMP

QUANTITIES

		PRIVATE	PUBLIC
DRAINAGE			
1. 48" TYPE III STORM DRAIN MANHOLE	EA	–	1
2. 12.5' TYPE "CM2" DROP INLET	EA	–	1
3. 20.0' TYPE "CM2" DROP INLET	EA	–	1
4. 30" RCP CLASS IV STORM DRAIN	LF	–	64
5. 42" RCP CLASS IV STORM DRAIN	LF	–	72
6. 8' WIDE CONCRETE VALLEY GUTTER W/10" TYPE I AGGREGATE BASE	SF	–	1,350
SEWER SYSTEM			
1. 4" PVC SEWER LATERAL (PRIVATE)	LF	2500	–
2. 8" PVC SEWER PIPE (PUBLIC)	LF	–	2,000
3. STANDARD 48" SEWER MANHOLE (PUBLIC)	EA	–	12
4. BACK WATER VALVE	EA	30	–
WATER SYSTEM			
1. FIRE HYDRANT ASSEMBLY W/6" GATE VALVE PER UDACS PLATE NO. 40	EA	–	5
2. 6" PVC WATER PIPE (CLASS 150)	LF	–	100
3. 8" PVC WATER PIPE (CLASS 150)	LF	–	2,300
4. 8" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30 & 39	EA	–	5
5. 8" X 6" TEE PER UDACS PLATE NO. 31	EA	–	5
6. 8" X 8" TEE PER UDACS PLATE NO. 31	EA	–	3
7. 8" 5 DEGREE BEND WITH THRUST BLOCK PER UDACS PLATE NO. 31	EA	–	13
8. 8" 11.25 DEGREE BEND PER UDACS PLATE NO. 31	EA	–	6
9. 8" 22.5 DEGREE BEND PER UDACS PLATE NO. 31	EA	–	2
10. 8" 45 DEGREE BEND PER UDACS PLATE NO. 31	EA	–	4
11. CAP AND 2" BLOW-OOF ASSEMBLY W/CAPPER UDACS PLATE NO. 36	EA	–	1
12. 1" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 1	EA	–	94
13. 1" COPPER SERVICE W/ 3/4" IRRIGATION METER & 1" RPPA PER UDACS PLATE NO. 4 & 8	EA	–	1
14. PRESSURE REDUCING VALVE	EA	–	85
STREET IMPROVEMENTS			
1. 2" A.C. PAVEMENT W/ 4" TYPE II OVER 6" TYPE I AGGREGATE BASE	SY	9,000	–
2. STANDARD 18" TYPE "L" ISLAND CURB & GUTTER W/6" TYPE I AGGREGATE BASE	LF	50	–
3. STANDARD 30" TYPE "ROLL" CURB & GUTTER W/6" TYPE I AGGREGATE BASE	LF	1,350	–
4. 4' WIDE CONCRETE SIDEWALK W/4" TYPE II AGGREGATE BASE	SF	10,000	–
TRAFFIC SIGNALS			
1. 30" STOP SIGN WITH POST (R1-1)	EA	3	–
2. 9" STREET NAME SIGN (D-3, BROWN W/ WHITE LETTERS)(6 POLES x 2 PER POLE=12)	EA	3	–
3. BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKER	EA	5	–
DRY UTILITIES			
1. 100W H.P.S. LUMINAIRE STREET LIGHT W/DECORATIVE POLE	EA	18	–
2. 1-1/4" PVC STREET LIGHT CONDUIT WITH (2) #4 AND (1) #8 CONDUCTORS	LF	2,270	–
3. NO. 3-1/2 PULLBOX	LF	2	–
4. 125 AMP SERVICE PEDESTAL (IRR)	EA	1	–
5. 200 AMP SERVICE PEDESTAL (STLT)	EA	1	–

SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORPORATION — DATE 5/9/19

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO.: 136382 FIRST APPROVED DATE: 5/13/19

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DO OVERHEAD
1-702-227-2929

FAST
Call before you UnderGround
1-702-432-5300
FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T.)

Call before you Dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811 OR
1-800-227-2600

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	APP.

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 2

LEGEND, ABBREVIATIONS, AND QUANTITIES

S 33 T 20S R 59E

DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP

PROJECT NO. KBH1804-000

ENGINEER TIMOTHY M. MULROONEY Exp. 12/31/2019 CIVIL No. 22938 STATE OF NEVADA 5/8/19

C-3
SHEET 3 OF 29

L19-00527
107Y5102-2

PRO.#:136382A QS:137-33-NE

I:\kbh1804-000 summerlin v24 parcel 16m\dwg\improv\phase 2\kbh1804-000 cvr e2.dwg 5/8/2019 3:08 PM Oscar Quiroz

SCALE - 1"=30' (0 30 60 FEET)

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 OBSCURED DURING CONSTRUCTION.

SOILS REPORT

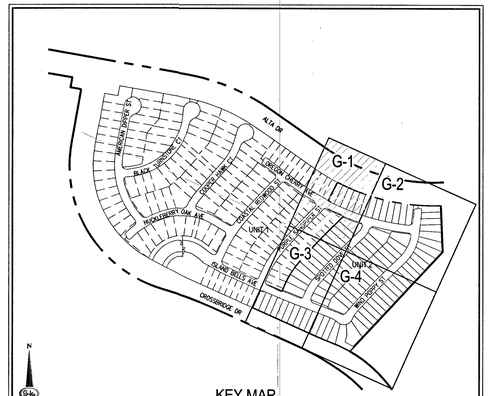
SOILS REPORT BY SOUTHWEST GEOTECHNICAL
PROJECT NO. 182267 DATED 7/12/18

EARTHWORKS

EARTHWORK QUANTITIES (RAW):
CUT= 23,900 CU YDS
FILL= 51,700 CU YDS

EXPORTED MATERIAL TO BE DISPOSED OF AT AN APPROVED LICENSED DISPOSAL FACILITY OR AT A SITE WITH AN APPROVED AND ACTIVE GRADING PERMIT.

DRAINAGE IMPROVEMENT QUANTITIES			
1.	30" RCP STORM DRAIN	LF	64
2.	42" RCP STORM DRAIN	LF	72
3.	12.5' TYPE "CM2" DROP INLET	EA	1
4.	20' TYPE "CM2" DROP INLET	EA	1
5.	48" TYPE III STORM DRAIN MANHOLE	EA	1
6.	8' WIDE CONCRETE VALLEY GUTTER	EA	2
7.	REMOVE 5'x2' NDOT TYPE 2A DROP INLET	EA	1



KEY MAP
NOT TO SCALE

LEGAL DESCRIPTION

LYING WITHIN THE NORTH EAST QUARTER (NE1/4) OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 59 EAST M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

EASEMENT NOTES

1. ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.
2. ALL COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

CONSTRUCTION NOTES

1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
2. CONSTRUCT 4' WIDE SIDEWALK PER CCAUSD NO. 234 (5" THICK W/ 5" TYPE II AGGREGATE BASE)
3. INSTALL MODIFIED ROLL TYPE CURB PER CCAUSD NO. 217.1
4. INSTALL 10' "L" TYPE CURB TO MODIFIED ROLL CURB TRANSITION PER DETAIL 29, SHEET D-2
5. CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER DETAIL 28, SHEET D-3
6. CONSTRUCT 8' CROSS GUTTER PER CCAUSD NO. 228
7. INSTALL 30" RCP STORM DRAIN PIPE
8. INSTALL 42" RCP STORM DRAIN PIPE
9. INSTALL 12.5' TYPE "CM2" DROP INLET PER CCAUSD NO. 412.1 AND STORM WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421
10. INSTALL 20' TYPE "CM2" DROP INLET WITH ALTERNATE CONNECTION PER CCAUSD NO. 412.1 AND STORM WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421
11. INSTALL 48" TYPE III SDMH CCAUSD NO. 401, 402 & 406
12. REMOVE EX 4.5'X6' NDOT TYPE 2A DROP INLET AND APRON
13. REMOVE AND REINSTALL 8" WIDE SIDEWALK PER CCAUSD NO. 234
14. INSTALL 10 STEPS @ 4.1"
15. INSTALL WROUGHT IRON MAN GATE
16. INSTALL WROUGHT FENCE PER CCAUSD NO. 425.51
17. INSTALL THROUGH WALL DRAIN BLOCK PER DETAIL 24, SHEET D-2
18. SAWCUT AND MATCH EXISTING IMPROVEMENTS (3" AC/6" TYPE I OR SCARIFY NATIVE) PER CCAUSD NO 500.2. EXISTING STRIPING TO BE REPLACED

SEE SHEET C-3 FOR LEGEND, ABBREVIATIONS, & QUANTITIES

GRADING NOTES

1. SEE SHEETS 16-19 FOR RETAINING WALL ELEVATIONS.
2. FINAL GRADES ADJACENT TO STRUCTURES SHALL BE IN CONFORMANCE WITH IBC 2012, SECTION 2304.11.2.2.
3. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
4. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
5. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
6. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
7. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
8. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
9. 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/REPLEPING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
10. 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.

FLOOD ZONE

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE X (UNSHADED) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 32003C2125E & 32003C2150E, DATED SEPTEMBER 27, 2002. A ZONE X (UNSHADED) IS DESCRIBED AS AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN.

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.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6

RIVET AND ROUND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF DESERT MOON RD. AND SKY VISTA DR.
ELEVATION = 1011.422 METERS (NAVD '88)
ELEVATION = 3318.31 US SURVEY FEET (NAVD '88)

BASIS OF BEARINGS

NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.

FLOOD CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED TECHNICAL DRAINAGE STUDY DS5039 ON FILE AT CITY OF LAS VEGAS FOR THE SUBJECT PROJECT.

TIMOTHY M. MULROONEY, P.E. 22938 — 5/8/19 DATE

FAST
Call before you UnderGround
1-702-432-5300
FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T.)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DO OVERHEAD
1-702-227-2929

Call before you Dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811 OR
1-800-227-2600

SLATER HANFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP DATE	APP

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 2
GRADING PLAN I

S 33
T 20S
R 59E

DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP

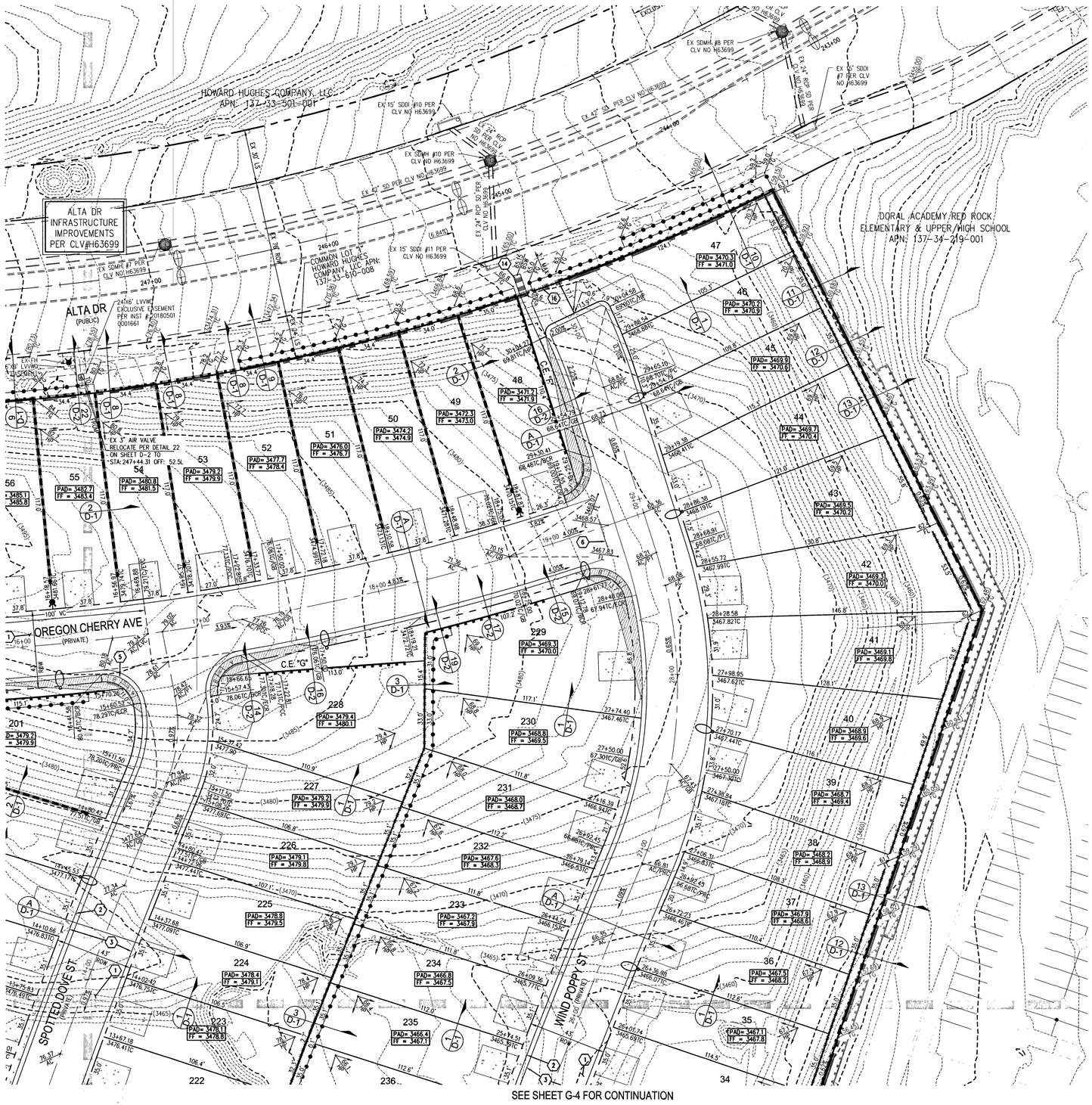
PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22938 — STATE OF NEVADA — 5/8/19

G-1
SHEET 4 OF 29

L19-00527
107Y5102-2

J:\kbh1804-000 summerlin v24 parcel (km\dwg\improv\phase 2\kbh1804-000 grd p2.dwg 5/8/2019 3:09 PM Oscar Quiroz



SCALE - 1"=30'

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 OBSCURED DURING CONSTRUCTION.

SOILS REPORT

SOILS REPORT BY SOUTHWEST GEOTECHNICAL
PROJECT NO. 182267 DATED 7/12/18

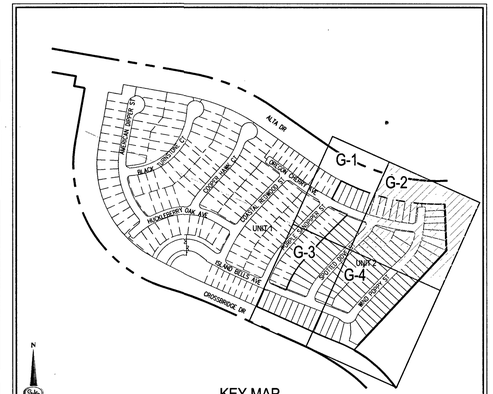
EARTHWORKS

EARTHWORK QUANTITIES (RAW):
CUT= 23,900 CU YDS
FILL= 51,700 CU YDS

EXPORTED MATERIAL TO BE DISPOSED OF AT AN APPROVED LICENSED DISPOSAL FACILITY OR AT A SITE WITH AN APPROVED AND ACTIVE GRADING PERMIT.

DRAINAGE IMPROVEMENT QUANTITIES

1.	30" RCP STORM DRAIN	LF	64
2.	42" RCP STORM DRAIN	LF	72
3.	12.5' TYPE "CM2" DROP INLET	EA	1
4.	20' TYPE "CM2" DROP INLET	EA	1
5.	48" TYPE III STORM DRAIN MANHOLE	EA	1
6.	8' WIDE CONCRETE VALLEY GUTTER	EA	2
7.	REMOVE 5'x2' NDOT TYPE 2A DROP INLET	EA	1



KEY MAP
NOT TO SCALE

LEGAL DESCRIPTION

LYING WITHIN THE NORTH EAST QUARTER (NE1/4) OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 59 EAST M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

EASEMENT NOTES

1. ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.
2. ALL COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

CONSTRUCTION NOTES

1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE.
2. CONSTRUCT 4' WIDE SIDEWALK PER CCAUSD NO. 234 (5" THICK W/ 5" TYPE II AGGREGATE BASE)
3. INSTALL MODIFIED ROLL TYPE CURB PER CCAUSD NO. 217.1
4. INSTALL 10' "L" TYPE CURB TO MODIFIED ROLL CURB TRANSITION PER DETAIL 29, SHEET D-3
5. CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER DETAIL 28, SHEET D-3
6. CONSTRUCT 8' CROSS GUTTER PER CCAUSD NO. 228
7. INSTALL 30" RCP STORM DRAIN PIPE
8. INSTALL 42" RCP STORM DRAIN PIPE
9. INSTALL 12.5' TYPE "CM2" DROP INLET PER CCAUSD NO. 412.1 AND STORM WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421
10. INSTALL 20' TYPE "CM2" DROP INLET WITH ALTERNATE CONNECTION PER CCAUSD NO. 412.1 AND STORM WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421
11. INSTALL 48" TYPE III SDMH CCAUSD NO. 401, 402 & 406
12. REMOVE EX 4.5'x6' NDOT TYPE 2A DROP INLET AND APRON
13. REMOVE AND REINSTALL 8" WIDE SIDEWALK PER CCAUSD NO. 234
14. INSTALL 10 STEPS @ 4.1"
15. INSTALL WROUGHT IRON MAN GATE
16. INSTALL WROUGHT FENCE PER CCAUSD NO. 425.51
17. INSTALL THROUGH WALL DRAIN BLOCK PER DETAIL 24, SHEET D-2
18. SAWCUT AND MATCH EXISTING IMPROVEMENTS (3" AC/6" TYPE I OR SCARIFY, MATCH) PER CCAUSD NO 500.2. EXISTING STRIPING TO BE REPLACED

SEE SHEET C-3 FOR LEGEND, ABBREVIATIONS, & QUANTITIES

GRADING NOTES

1. SEE SHEETS 16-19 FOR RETAINING WALL ELEVATIONS.
2. FINAL GRADES ADJACENT TO STRUCTURES SHALL BE IN CONFORMANCE WITH IBC 2012, SECTION 2304.11.2.2.
3. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
4. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
5. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
6. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
7. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
8. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
9. 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/REPLEPING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
10. 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.

FLOOD ZONE

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE X (UNSHADED) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 32003C2125E & 32003C2150E, DATED SEPTEMBER 27, 2002. A ZONE X (UNSHADED) IS DESCRIBED AS AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN.

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.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6

RIVET AND ROUND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF DESERT MOON RD. AND SKY VISTA DR.
ELEVATION = 1011.422 METERS (NAVD '88)
ELEVATION = 3318.31 US SURVEY FEET (NAVD '88)

BASIS OF BEARINGS

NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.

FLOOD CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED TECHNICAL DRAINAGE STUDY DS5039 ON FILE AT CITY OF LAS VEGAS FOR THE SUBJECT PROJECT.

TIMOTHY M. MULROONEY, P.E. 22938 — DATE 5/8/19

FAST Call before you UnderGround 1-702-432-5300 FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T.)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-227-2600

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5399 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

KB HOME
BRISTLE VALE - UNIT 2
GRADING PLAN II

S 33 T 20S R 59E

DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP

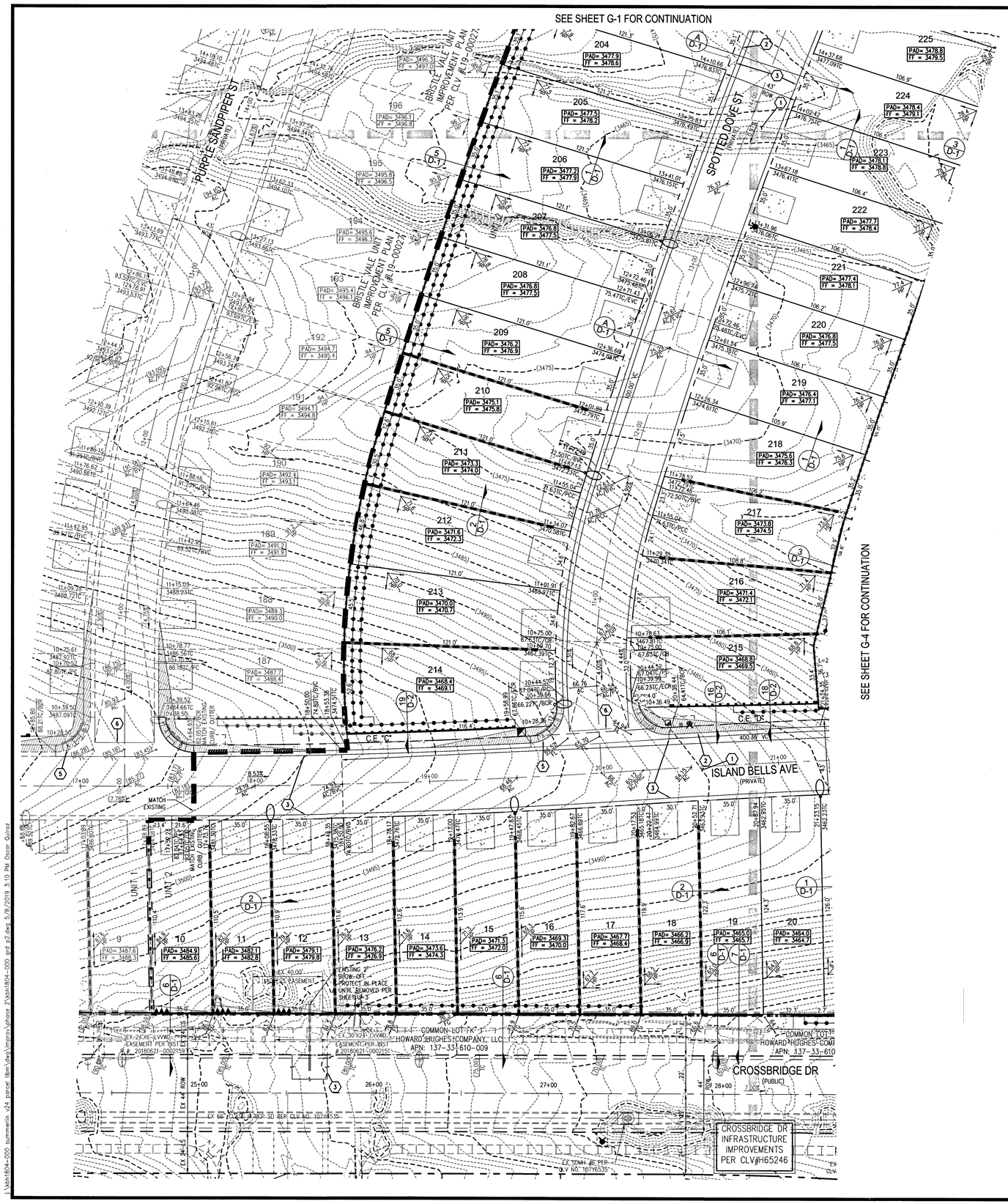
PROJECT NO. KBH1804-000

PROFESSIONAL ENGINEER — STATE OF NEVADA — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22938 — 5/8/19

G-2
SHEET 5 OF 29

L19-00527
107Y5102-2

i:\kbh1804-000 summerlin v24 parcel l&m\dwg\improv\phase 2\kbh1804-000 grd p2.dwg 5/8/2019 3:09 PM Oscar Quiroz



SCALE - 1"=30' FEET

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 OBSCURED DURING CONSTRUCTION.

SOILS REPORT

SOILS REPORT BY SOUTHWEST GEOTECHNICAL
PROJECT NO. 182267 DATED 7/12/18

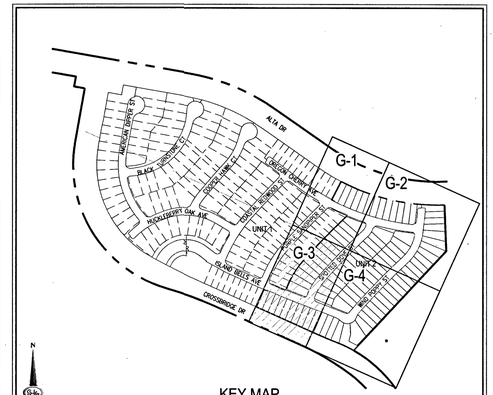
EARTHWORKS

EARTHWORK QUANTITIES (RAW):
CUT= 23,900 CU YDS
FILL= 51,700 CU YDS

EXPORTED MATERIAL TO BE DISPOSED OF AT AN APPROVED LICENSED DISPOSAL FACILITY OR AT A SITE WITH AN APPROVED AND ACTIVE GRADING PERMIT.

DRAINAGE IMPROVEMENT QUANTITIES

1.	30" RCP STORM DRAIN	LF	64
2.	42" RCP STORM DRAIN	LF	72
3.	12.5' TYPE "CM2" DROP INLET	EA	1
4.	20' TYPE "CM2" DROP INLET	EA	1
5.	48" TYPE III STORM DRAIN MANHOLE	EA	1
6.	8' WIDE CONCRETE VALLEY GUTTER	EA	2
7.	REMOVE 5'x2' NDOT TYPE 2A DROP INLET	EA	1



KEY MAP
NOT TO SCALE

LEGAL DESCRIPTION

LYING WITHIN THE NORTH EAST QUARTER (NE1/4) OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 59 EAST M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

EASEMENT NOTES

1. ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.
2. ALL COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

CONSTRUCTION NOTES

1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
2. CONSTRUCT 4' WIDE SIDEWALK PER CCAUSD NO. 234 (5" THICK W/ 5" TYPE II AGGREGATE BASE)
3. INSTALL MODIFIED ROLL TYPE CURB PER CCAUSD NO. 217.1
4. INSTALL 10' "L" TYPE CURB TO MODIFIED ROLL CURB TRANSITION PER DETAIL 29, SHEET D-3
5. CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER DETAIL 28, SHEET D-3
6. CONSTRUCT 8' CROSS GUTTER PER CCAUSD NO. 228
7. INSTALL 30" RCP STORM DRAIN PIPE
8. INSTALL 42" RCP STORM DRAIN PIPE
9. INSTALL 12.5' TYPE "CM2" DROP INLET PER CCAUSD NO. 412.1 AND STORM WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421
10. INSTALL 20' TYPE "CM2" DROP INLET WITH ALTERNATE CONNECTION PER CCAUSD NO. 412.1 AND STORM WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421
11. INSTALL 48" TYPE III SDMH CCAUSD NO. 401, 402 & 406
12. REMOVE EX 4.5'X6' NDOT TYPE 2A DROP INLET AND APRON
13. REMOVE AND REINSTALL 8" WIDE SIDEWALK PER CCAUSD NO. 234
14. INSTALL 10 STEPS @ 4.1"
15. INSTALL WROUGHT IRON MAN GATE
16. INSTALL WROUGHT FENCE PER CCAUSD NO. 425.S1
17. INSTALL THROUGH WALL DRAIN BLOCK PER DETAIL 24, SHEET D-2
18. SAWCUT AND MATCH EXISTING IMPROVEMENTS (3" AC/6" TYPE I, OR SCARIFY NATIVE) PER CCAUSD NO 500.2. EXISTING STRIPING TO BE REPLACED

SEE SHEET C-3 FOR LEGEND, ABBREVIATIONS, & QUANTITIES

GRADING NOTES

1. SEE SHEETS 16-19 FOR RETAINING WALL ELEVATIONS.
2. FINAL GRADES ADJACENT TO STRUCTURES SHALL BE IN CONFORMANCE WITH IBC 2012, SECTION 2304.11.2.2.
3. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
4. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
5. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
6. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
7. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
8. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
9. 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/REPLEPING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
10. 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.

FLOOD ZONE

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE X (UNSHADED) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 320032C2125E & 320032C2150E, DATED SEPTEMBER 27, 2002. A ZONE X (UNSHADED) IS DESCRIBED AS AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN.

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.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 345W6

RIVET AND ROUND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF DESERT MOON RD. AND SKY VISTA DR.
ELEVATION = 1011.422 METERS (NAVD '88)
ELEVATION = 3318.31 US SURVEY FEET (NAVD '88)

BASIS OF BEARINGS

NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.

FLOOD CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED TECHNICAL DRAINAGE STUDY DS5039 ON FILE AT CITY OF LAS VEGAS FOR THE SUBJECT PROJECT.

TIMOTHY M. MULROONEY, P.E. 22938 — DATE 5/8/19

FAST Call before you UnderGround 1-702-432-5300 FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-227-2600

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

KB HOME
BRISTLE VALE - UNIT 2
GRADING PLAN III

S 33
R 59E
T 20S

DATE: 5/8/19
DRAFTER: OO
DESIGNER: OO
CHECKED: DSP

PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22938 — STATE OF NEVADA — 5/8/19

G-3
SHEET 6 OF 29

L19-00527
107Y5102-2

J:\kbh1804-000 summerlin v24 parcel (km\dwg\improv\phase 2\kbh1804-000 grd p2.dwg 5/8/2019 3:10 PM Oscar Quiroz

SCALE - 1"=30' (0, 30, 60 FEET)

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 OBSCURED DURING CONSTRUCTION.

SOILS REPORT

SOILS REPORT BY SOUTHWEST GEOTECHNICAL
PROJECT NO. 182267 DATED 7/12/18

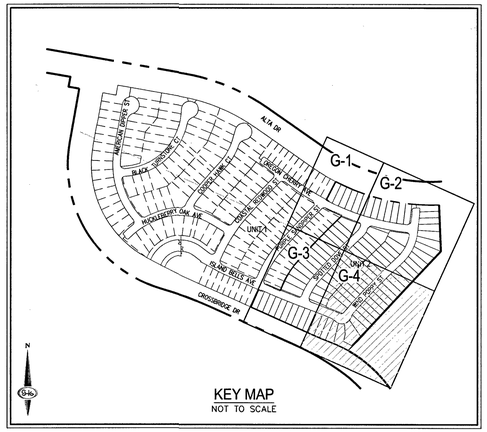
EARTHWORKS

EARTHWORK QUANTITIES (RAW):
CUT= 23,900 CU YDS
FILL= 51,700 CU YDS

EXPORTED MATERIAL TO BE DISPOSED OF AT AN APPROVED LICENSED DISPOSAL FACILITY OR AT A SITE WITH AN APPROVED AND ACTIVE GRADING PERMIT.

DRAINAGE IMPROVEMENT QUANTITIES

1.	30" RCP STORM DRAIN	LF	64
2.	42" RCP STORM DRAIN	LF	72
3.	12.5' TYPE "CM2" DROP INLET	EA	1
4.	20' TYPE "CM2" DROP INLET	EA	1
5.	48" TYPE III STORM DRAIN MANHOLE	EA	1
6.	8' WIDE CONCRETE VALLEY GUTTER	EA	2
7.	REMOVE 5'x2' NDOT TYPE 2A DROP INLET	EA	1



KEY MAP
NOT TO SCALE

LEGAL DESCRIPTION

LYING WITHIN THE NORTH EAST QUARTER (NE1/4) OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 59 EAST M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

EASEMENT NOTES

1. ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.
2. ALL COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

CONSTRUCTION NOTES

1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
2. CONSTRUCT 4' WIDE SIDEWALK PER CCAUSD NO. 234 (5" THICK W/ 5" TYPE II AGGREGATE BASE)
3. INSTALL MODIFIED ROLL TYPE CURB PER CCAUSD NO. 217.1
4. INSTALL 10' "L" TYPE CURB TO MODIFIED ROLL CURB TRANSITION PER DETAIL 29, SHEET D-3
5. CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER DETAIL 28, SHEET D-3
6. CONSTRUCT 8' CROSS GUTTER PER CCAUSD NO. 228
7. INSTALL 30" RCP STORM DRAIN PIPE
8. INSTALL 42" RCP STORM DRAIN PIPE
9. INSTALL 12.5' TYPE "CM2" DROP INLET PER CCAUSD NO. 412.1 AND STORM WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421
10. INSTALL 20' TYPE "CM2" DROP INLET WITH ALTERNATE CONNECTION PER CCAUSD NO. 412.1 AND STORM WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421
11. INSTALL 48" TYPE III SDMH CCAUSD NO. 401, 402 & 406
12. REMOVE EX 4.5'X6' NDOT TYPE 2A DROP INLET AND APRON
13. REMOVE AND REINSTALL 8" WIDE SIDEWALK PER CCAUSD NO. 234
14. INSTALL 10 STEPS @ 4.1"
15. INSTALL WROUGHT IRON MAN GATE
16. INSTALL WROUGHT FENCE PER CCAUSD NO. 425.S1
17. INSTALL THROUGH WALL DRAIN BLOCK PER DETAIL 24, SHEET D-2
18. SAWCUT AND MATCH EXISTING IMPROVEMENTS (3" AC/6" TYPE I OR SCARIFY NATIVE) PER CCAUSD NO 500.2. EXISTING STRIPING TO BE REPLACED

SEE SHEET C-3 FOR LEGEND, ABBREVIATIONS, & QUANTITIES

GRADING NOTES

1. SEE SHEETS 16-19 FOR RETAINING WALL ELEVATIONS.
2. FINAL GRADES ADJACENT TO STRUCTURES SHALL BE IN CONFORMANCE WITH IBC 2012, SECTION 2304.11.2.2.
3. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
4. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
5. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
6. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
7. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
8. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
9. 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/REPLEPING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
10. 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.

FLOOD ZONE

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE X (UNSHADED) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 32003C2125E & 32003C2150E, DATED SEPTEMBER 27, 2002. A ZONE X (UNSHADED) IS DESCRIBED AS AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN.

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.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 345W6

RIVET AND ROUND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF DESERT MOON RD. AND SKY VISTA DR.
ELEVATION = 1011.422 METERS (NAVD '88)
ELEVATION = 3318.31 US SURVEY FEET (NAVD '88)

BASIS OF BEARINGS

NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.

FLOOD CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED TECHNICAL DRAINAGE STUDY DS5039 ON FILE AT CITY OF LAS VEGAS FOR THE SUBJECT PROJECT.

TIMOTHY M. MULROONEY P.E. 22938 — 5/8/19 DATE

FAST — Call before you UnderGround 1-702-432-5300 FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

Call before you Dig. AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-227-2600

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 204-5300 FAX (702) 204-5399

NO.	DESCRIPTION	DATE	BY	APP DATE	APP

LAS VEGAS, NV

KB HOME
BRISTLE VALE - UNIT 2
GRADING PLAN IV

S 33
R 59E
T 20E

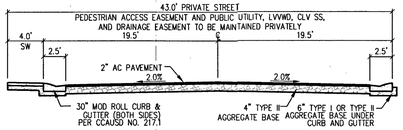
DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP
PROJECT NO. KBH1804-000

PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22938 — STATE OF NEVADA — 5/8/19

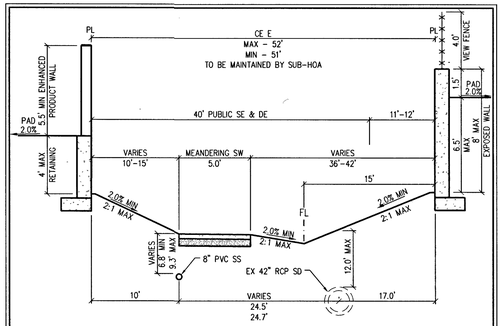
G-4
SHEET 7 OF 29

L19-00527
107Y5102-2

J:\kbh1804-000 summerlin v24 parcel 8\dwg\improv\phase 2\kbh1804-000 grd p2.dwg 5/8/2019 3:10 PM Oscar Quiroz

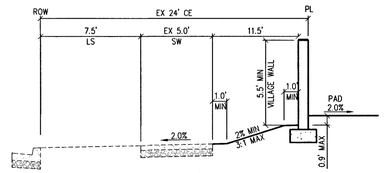


A. PRIVATE STREET SECTION
NOT TO SCALE
INTERIOR STREETS



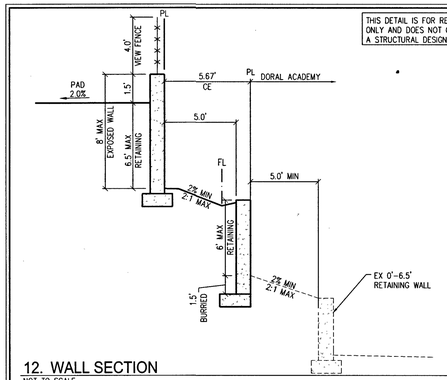
THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN

4. NOT USED
NOT TO SCALE



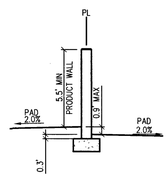
THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN

8. WALL SECTION
NOT TO SCALE



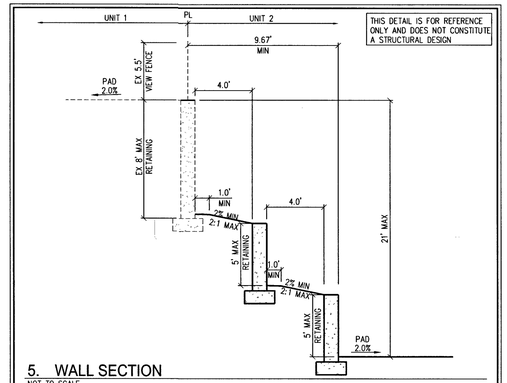
THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN

12. WALL SECTION
NOT TO SCALE



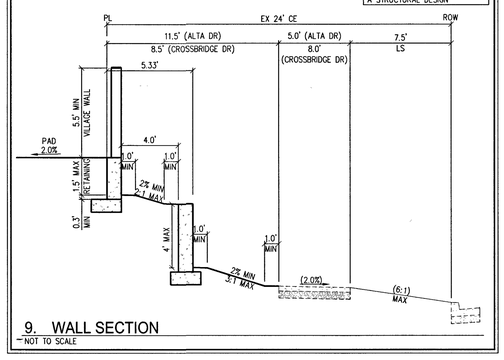
THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN

1. WALL SECTION
NOT TO SCALE



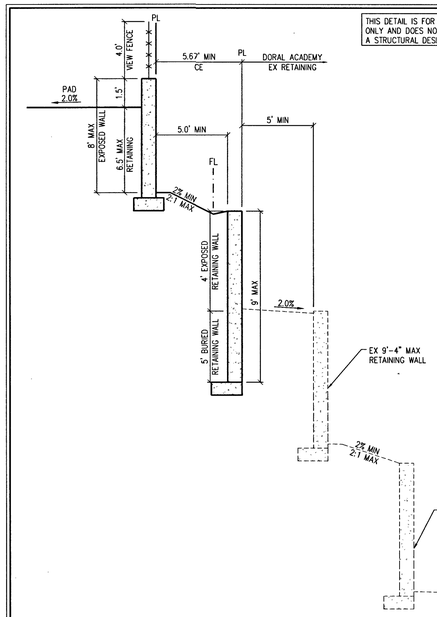
THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN

5. WALL SECTION
NOT TO SCALE



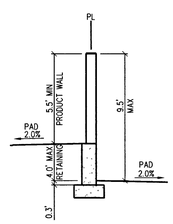
THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN

9. WALL SECTION
NOT TO SCALE



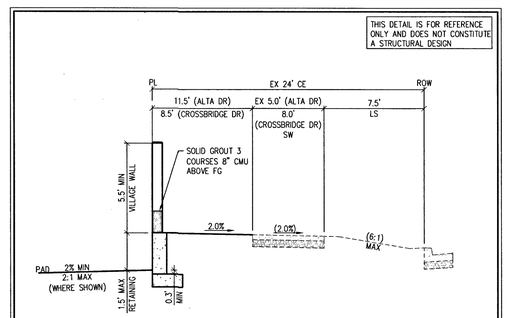
THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN

13. WALL SECTION
NOT TO SCALE



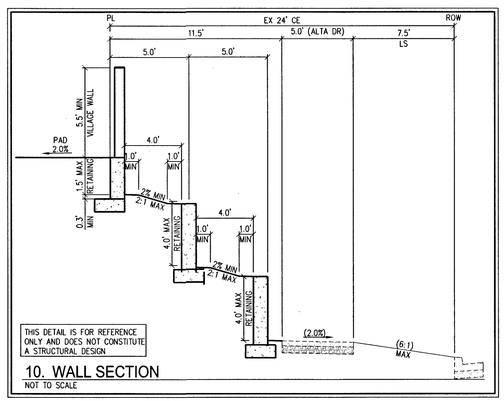
THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN

2. WALL SECTION
NOT TO SCALE



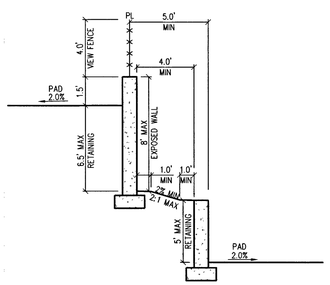
THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN

6. WALL SECTION
NOT TO SCALE



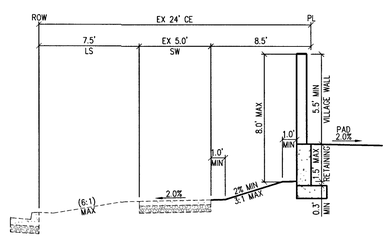
THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN

10. WALL SECTION
NOT TO SCALE



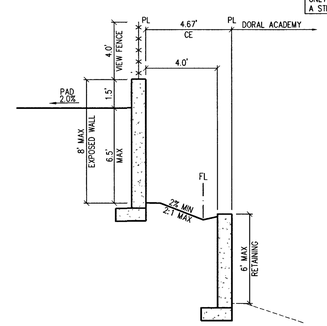
THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN

3. WALL SECTION
NOT TO SCALE



THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN

7. WALL SECTION
NOT TO SCALE



THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN

11. WALL SECTION
NOT TO SCALE

FAST
Call before you UnderGround
1-702-432-5300
FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T)

Call before you Dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811
OR
1-800-227-2600

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 2
DETAIL SHEET I

S 33
T 20S
R 59E

DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP

PROJECT NO.
KBH1804-000

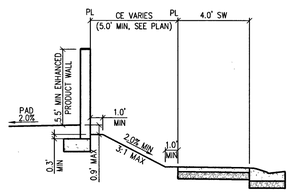
ENGINEER OF RECORD
TIMOTHY M. MULROONEY
Exp. 12/31/2019
CIVIL
No. 22938
PROFESSIONAL ENGINEER
STATE OF NEVADA
5/8/19

D-1
SHEET 8 OF 29

L19-00527
107Y5102-2

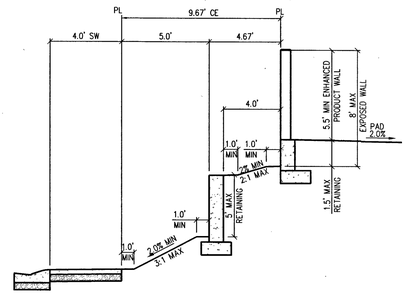
J:\kbh1804-000 summerlin v24 parcel l&m\dwg\improv\phase 2\kbh1804-000 dtl p2.dwg 5/8/2019 3:10 PM Oscar Quiroz

THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN

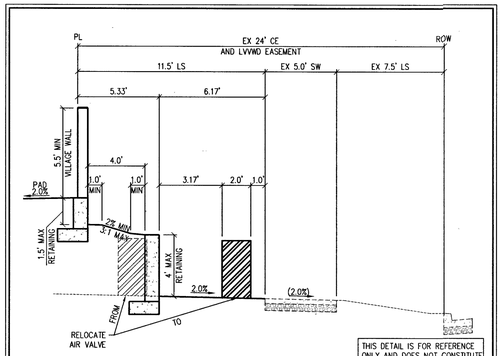


14. WALL SECTION
NOT TO SCALE

THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN



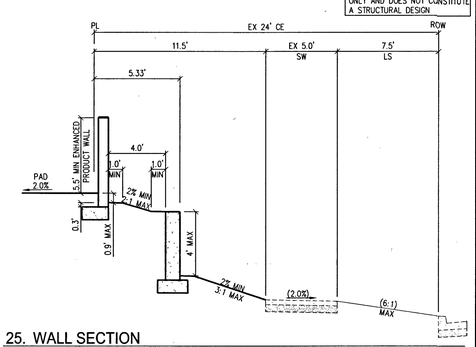
18. WALL SECTION
NOT TO SCALE



THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN

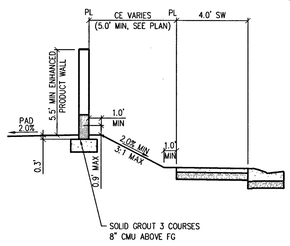
22. WALL SECTION & AIR VALVE RELOCATION
NOT TO SCALE

THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN



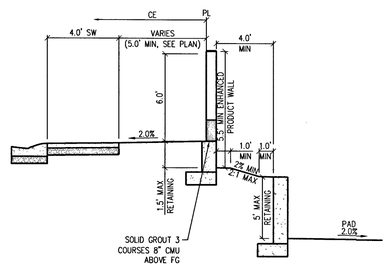
25. WALL SECTION
NOT TO SCALE

THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN

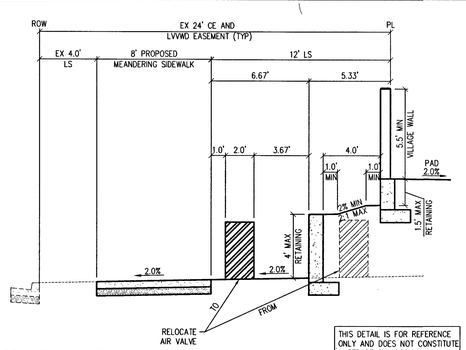


15. WALL SECTION
NOT TO SCALE

THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN



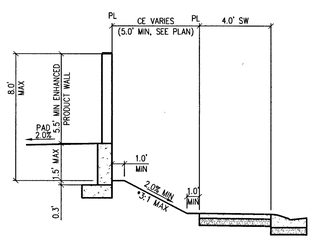
19. WALL SECTION
NOT TO SCALE



THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN

23. AIR VALVE RELOCATION
NOT TO SCALE

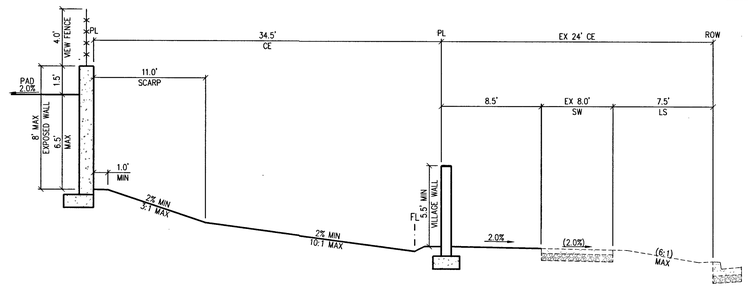
THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN



*2%-3% MAX IN LVVWD EASEMENT

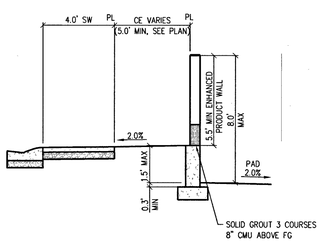
16. WALL SECTION
NOT TO SCALE

THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN



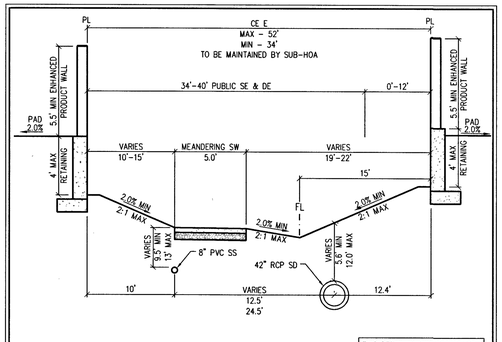
20. WALL SECTION
NOT TO SCALE

THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN



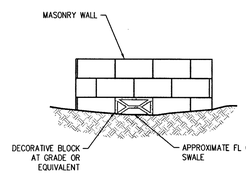
17. WALL SECTION
NOT TO SCALE

THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN

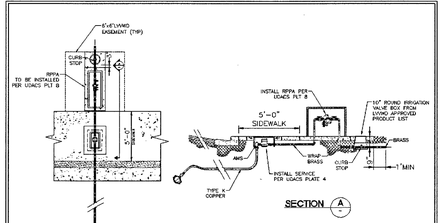


THIS DETAIL IS FOR REFERENCE ONLY AND DOES NOT CONSTITUTE A STRUCTURAL DESIGN

21. WALL SECTION
NOT TO SCALE



24. THROUGH WALL DRAIN
NOT TO SCALE



RPPA WITH CURB STOP
NOT TO SCALE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO.: 136382 FIRST APPROVED DATE: 5/13/19

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DO OVERHEAD
1-702-227-2929

FAST
Call before you UnderGround
1-702-432-5300
FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T)

Call before you Dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811
OR
1-800-227-2600

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 2

DETAIL SHEET II

S 35
T 20S
R 59E

DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP

PROJECT NO.
KBH1804-000

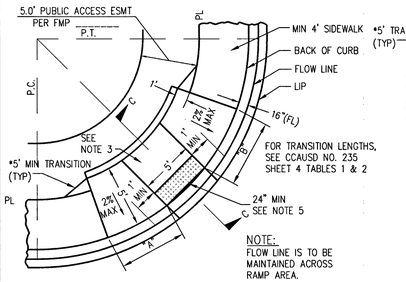
PROFESSIONAL ENGINEER TIMOTHY M. MULROONEY Exp. 12/31/2019 CIVIL No. 22938 STATE OF NEVADA
5/8/19

D-2
SHEET 9 OF 29

L19-00527
107Y5102-2

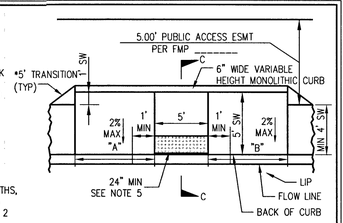
PROJ#:136382A QS:137-33-NE

J:\KBH1804-000 summerlin v24 parcel 16m\dwg\improv\phase 2\kbh1804-000 dtl p2.dwg 5/8/2019 3:11 PM Oscar Quirez



RAMP IN CURB RETURN

NOTE:
FLOW LINE IS TO BE MAINTAINED ACROSS RAMP AREA.



RAMP OUTSIDE CURB RETURN

NOTES:
1. SIDEWALK RAMPS WITHIN CURB RETURN SHALL BE LOCATED AT THE MIDPOINT OF CURB RETURN UNLESS OTHERWISE APPROVED.

2. SIDEWALK RAMPS OUTSIDE OF THE CURB RETURN SHALL BE LOCATED ADJACENT TO THE RETURN UNLESS OTHERWISE APPROVED.

3. RAMPS SHALL BE CONSTRUCTED WITH A ROUGH BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP.

4. WHEN CONSTRUCTING RAMP WHERE CURB & GUTTER EXISTS, COMPLETELY REMOVE INTERFERING PORTIONS OF EXISTING CURB & GUTTER.

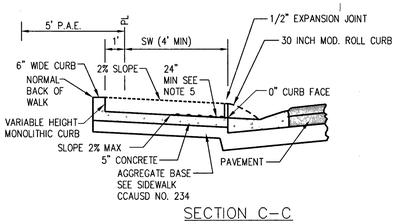
5. DETECTABLE WARNING CONSISTING OF RAISED TRUNCATED DOMES WHICH COMPLY WITH DETAILS ON SHEET 4 OF CCAUSD NO. 235 AND CONTRASTING VISUALLY WITH ADJOINING SURFACES SHALL BE PLACED ON BOTTOM PORTION OF RAMP EXTENDING THE FULL WIDTH OF THE RAMP AND EXTENDING A MINIMUM DISTANCE OF 24 INCHES UP THE RAMP. COLOR SHALL BE "FEDERAL YELLOW" UNLESS OTHERWISE APPROVED.

6. A 5' PAD AT 2% MAX SLOPE SHALL BE PROVIDED ON THE DOWNHILL SIDE WHEN STREET SLOPE EXCEEDS 2% SLOPE.

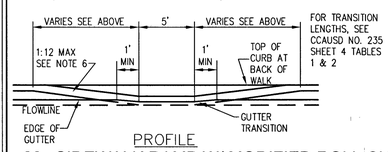
7. "A" AND "B" ARE EQUAL TO 8' WHEN FLOWLINE GRADES IS BETWEEN -2% AND +2% FOR ALL OTHER TRANSITION LENGTHS, SEE CCAUSD NO. 235 SHEET 4 TABLE 1.

8. ALL CURB FLOW LINES SHALL BE WATER TESTED. ANY CURB THAT DOES NOT FLOW SHALL BE REMOVED AND REPLACED AS DIRECTED BY AGENCY AT THE SOLE EXPENSE OF THE CONTRACTOR.

* TRANSITION ONLY WHEN LESS THAN 5' WIDE SIDEWALK



SECTION C-C

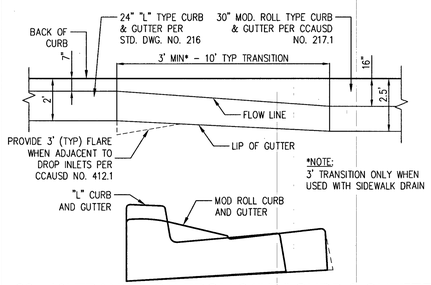


PROFILE

28. SIDEWALK RAMP W/ MODIFIED ROLL CURB

NOT TO SCALE

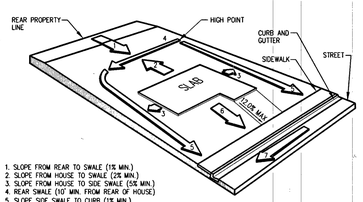
NOT TO SCALE



*NOTE:
3' TRANSITION ONLY WHEN USED WITH SIDEWALK DRAIN

29. 10' TRANSITION FROM 24" "L" CURB & GUTTER TO MODIFIED 30" ROLL CURB & GUTTER

NOT TO SCALE



1. SLOPE FROM REAR TO SWALE (1% MIN.)
2. SLOPE FROM HOUSE TO SWALE (2% MIN.)
3. SLOPE FROM HOUSE TO SIDE SWALE (5% MIN.)
4. REAR SWALE (10' MIN. FROM REAR OF HOUSE)
5. SLOPE SIDE SWALE TO CURB (1% MIN.)
6. SLOPE FROM HOUSE TO SIDEWALK (5% MIN.)
7. SLOPE OF STREET

PERSPECTIVE

TYPE "A" LOT GRADING

NOT TO SCALE

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DO OVERHEAD
1-702-227-2929

FAST
Call before you UnderGround
1-702-432-5300
FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T.)

Call before you Dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811
OR
1-800-227-2600

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 2
DETAIL SHEET III

S 33
T 20S
R 59E

DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP

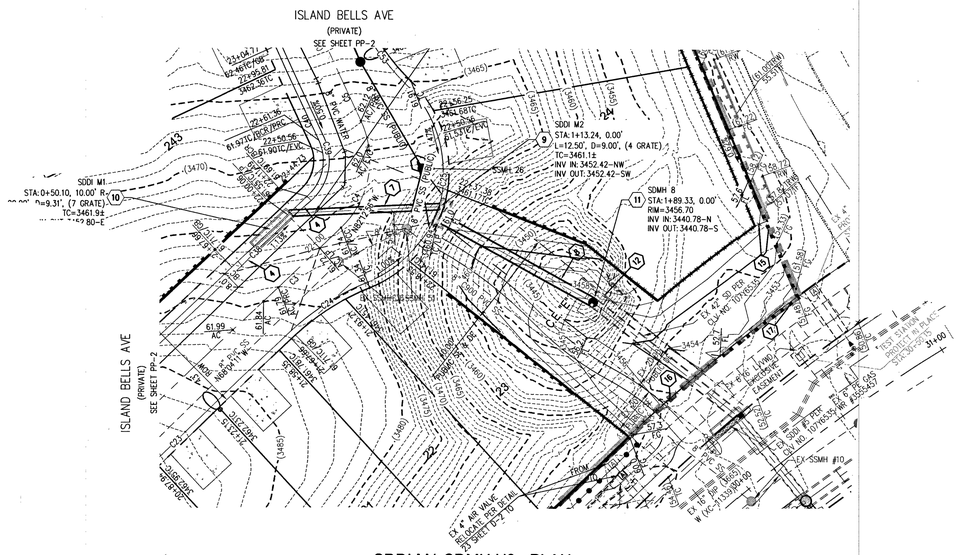
PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER STATE OF NEVADA
TIMOTHY M. MULROONEY
Exp. 12/31/2019
CIVIL
No. 22938
5/8/19

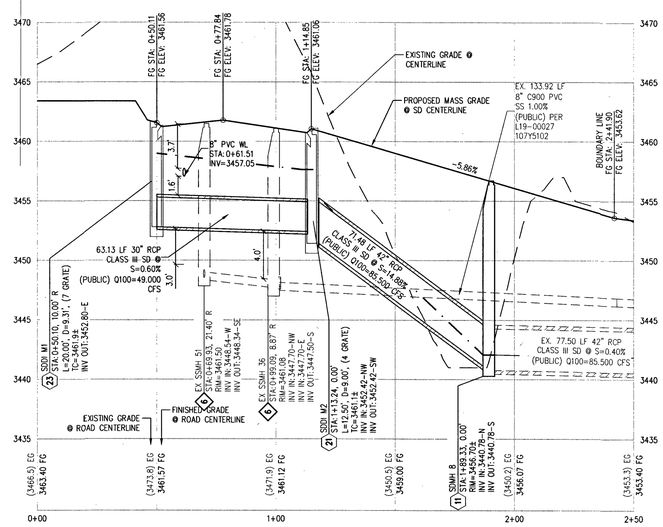
D-3
SHEET 10 OF 29

L19-00527
107Y5102-2

z:\kbh1804-000 summerlin v24 parcel l&m\dwg\improv\phase 2\kbh1804-000 dtl p2.dwg 5/8/2019 3:11 PM Oscar Quiroz



SDDI M1-SDMH H3 - PLAN



SDDI M1-M2 - PROFILE

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

SCALE = 1"=30' (0 30 60 FEET)

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

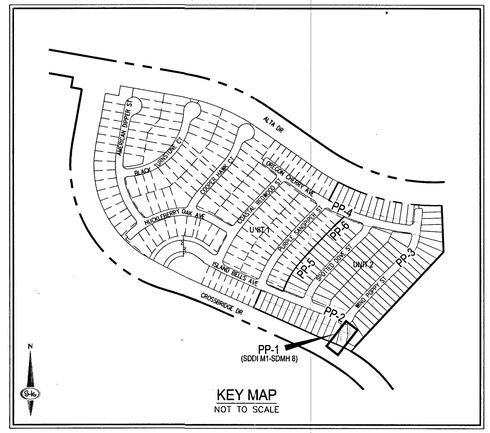
RAMP TRANSITION LENGTHS FOR 1:12 SIDE SLOPES

CASE NO.	GRADE % "B" TO "A"	"A" MIN.	"B" MIN.
1	-6 TO -5.01	4.5'	21.5'
2	-5 TO -4.01	4.5'	15.0'
3	-4 TO -3.01	4.5'	12.0'
4	-3 TO -2.01	4.5'	9.5'
5	-2 TO 2	8.0'	8.0'
6	2.01 TO 3	9.5'	4.5'
7	3.01 TO 4	12.0'	4.5'
8	4.01 TO 5	15.0'	4.5'
9	5.01 TO 6	21.5'	4.5'

SIDEWALK RAMPS USING AMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD NO. 235, CASE 1

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	TANGENT
C2	153.64'	3500.00'	2°30'54"	76.83'
C3	36.39'	1846.50'	1°07'45"	18.20'
C4	48.87'	39.50'	70°52'53"	28.11'
C5	431.08'	3805.00'	6°29'29"	215.77'
C23	144.38'	3480.50'	2°22'37"	72.20'
C24	37.15'	100.00'	21°17'10"	18.79'
C25	105.23'	53.00'	113°45'42"	81.24'
C26	37.09'	100.00'	21°14'55"	18.76'
C37	138.43'	3519.50'	2°15'13"	69.23'
C38	36.01'	1827.00'	1°07'45"	18.00'
C39	24.74'	20.00'	70°52'53"	14.23'
C40	433.29'	3824.50'	6°29'29"	216.88'



KEY MAP
NOT TO SCALE

LEGAL DESCRIPTION

LYING WITHIN THE NORTH EAST QUARTER (NE1/4) OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 59 EAST M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

EASEMENT NOTES

1. ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.
2. ALL COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

LVVWD NOTES

1. WATER PRESSURE ZONE 3665
2. MAINTAIN MINIMUM TWENTY-FOUR (24") INCH COVER PER UDACS SEC. 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION

DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:
CAST-IN-PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS. BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS, CENTER BULB, OR FLAT SRIP. (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL)

CONSTRUCTION NOTES

1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
2. CONSTRUCT 4' WIDE SIDEWALK PER CCAUSD NO. 234 (5" THICK W/ 5" TYPE II AGGREGATE BASE)
3. INSTALL MODIFIED ROLL TYPE CURB PER CCAUSD NO. 217.1
4. INSTALL 10" "L" TYPE CURB TO MODIFIED ROLL CURB TRANSITION PER DETAIL 29, SHEET D-3
5. CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER DETAIL 28, SHEET D-3
6. CONSTRUCT 8' CROSS GUTTER PER CCAUSD NO. 228
7. INSTALL 30" RCP STORM DRAIN PIPE
8. INSTALL 42" RCP STORM DRAIN PIPE
9. INSTALL 12.5' TYPE "CM2" DROP INLET PER CCAUSD NO. 412.1 AND STORM WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421
10. INSTALL 20' TYPE "CM2" DROP INLET WITH ALTERNATE CONNECTION PER CCAUSD NO. 412.1 AND STORM WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421
11. INSTALL 48" TYPE III SDMH CCAUSD NO. 401, 402 & 406
12. REMOVE EX 4.5'X6' NDOT TYPE 2A DROP INLET AND APRON
13. REMOVE AND REINSTALL 8" WIDE SIDEWALK PER CCAUSD NO. 234
14. INSTALL 10 STEPS @ 4.1"
15. INSTALL WROUGHT IRON MAN GATE
16. INSTALL WROUGHT FENCE PER CCAUSD NO. 425.S1
17. INSTALL THROUGH WALL DRAIN BLOCK PER DETAIL 24, SHEET D-2
18. SAWCUT AND MATCH EXISTING IMPROVEMENTS (3" AC/6" TYPE I (OR SCARIFY NATIVE) PER CCAUSD NO 500.2. EXISTING STRIPING TO BE REPLACED

SEE SHEET C-3 FOR LEGEND, ABBREVIATIONS, & QUANTITIES

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.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6
RIVET AND ROUND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF DESERT MOON RD. AND SKY WSTA DR.
ELEVATION = 1011.422 METERS (NAVD '88)
ELEVATION = 3318.31 US SURVEY FEET (NAVD '88)

BASIS OF BEARINGS

NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.

SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORPORATION — DATE 5/15/19

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
PROJECT NO.: 136382 DATE: 5/13/19

FAST — Call before you UnderGround 1-702-432-5300 FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

Call before you Dig — AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-227-2600

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 2

PLAN & PROFILE - SDDI M1- SDMH H3

S 33
T 20
R 59E

DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP
PROJECT NO. KBH1804-000

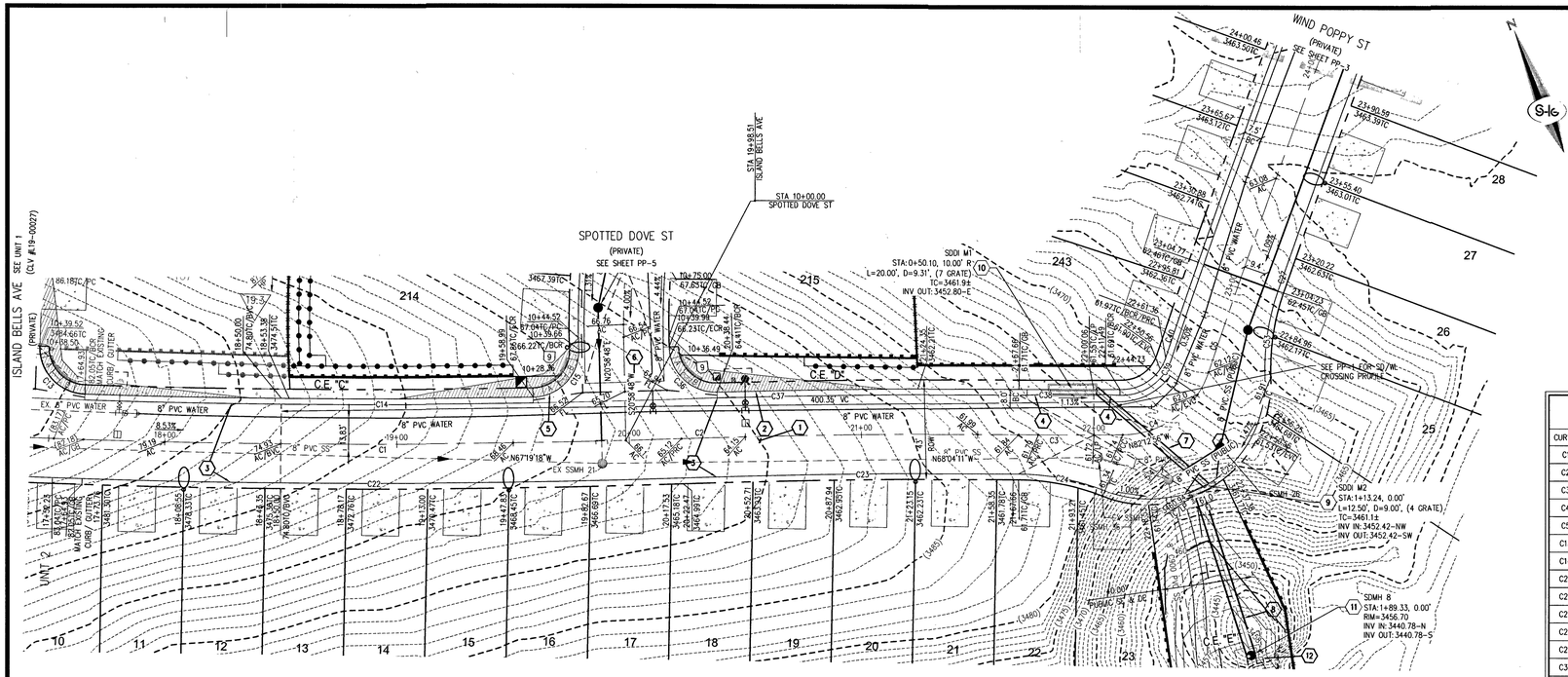
PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22938 — STATE OF NEVADA — 5/8/19

PP-1
SHEET 11 OF 29

L19-00527
107Y5102-2

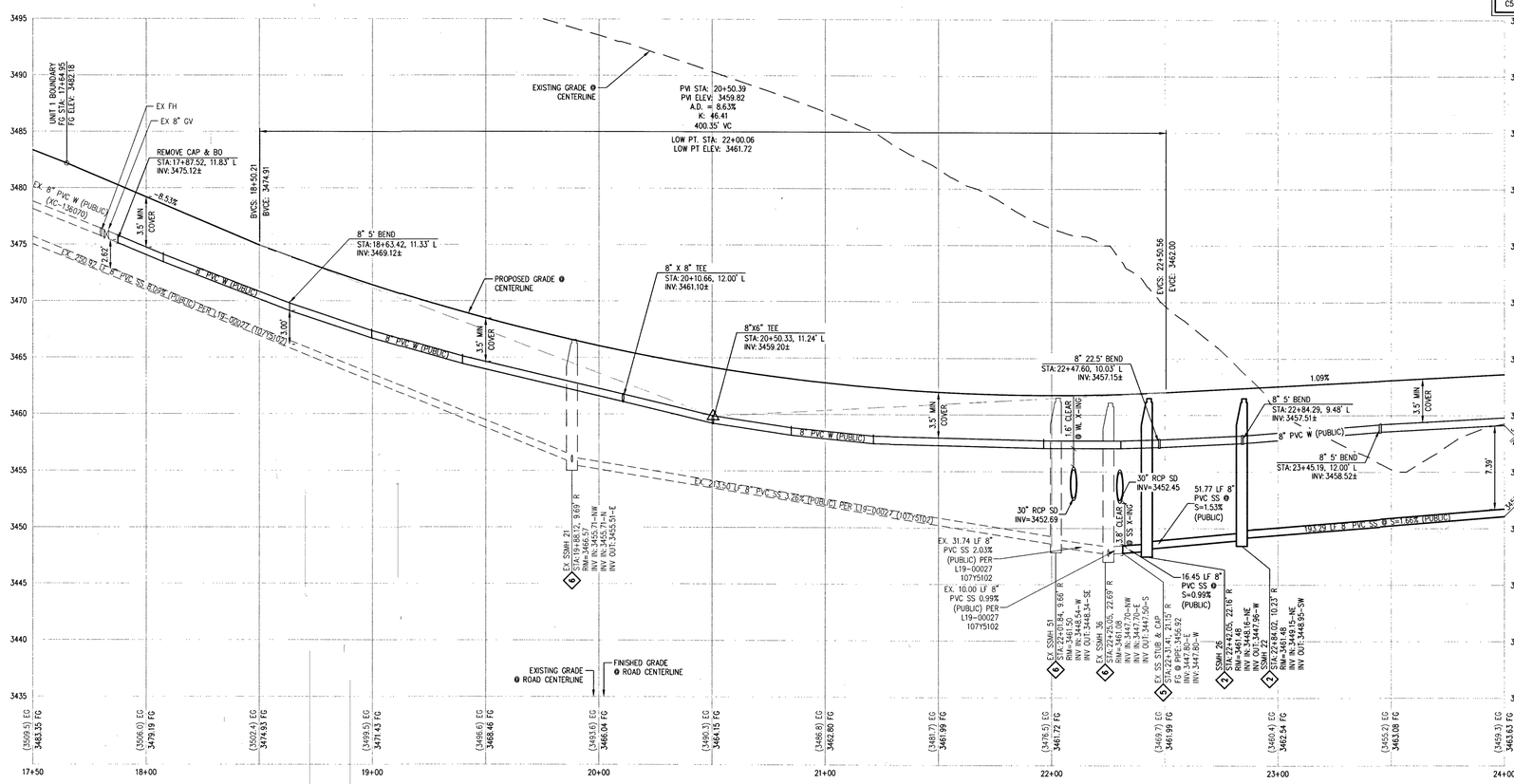
PRO.#:136382A QS:137-33-NE

z:\kbh1804-000 summerlin v24 parcel l&m\dwg\improv\phase 2\kbh1804-000 prp p2.dwg 5/8/2019 3:12 PM Oscar Quiroz



ISLAND BELLS AVE - PLAN

(PRIVATE)



ISLAND BELLS AVE - PROFILE

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

SCALE - 1"=30' (0 30 60 FEET)

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

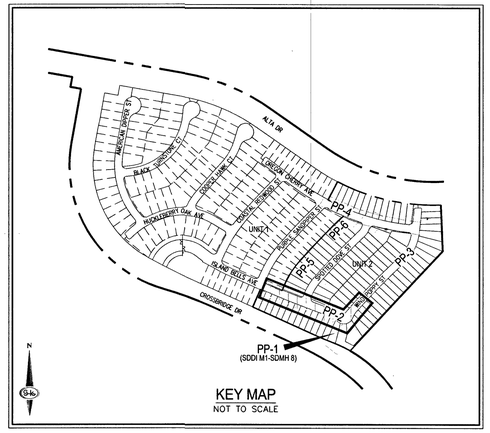
RAMP TRANSITION LENGTHS FOR 1:12 SIDE SLOPES

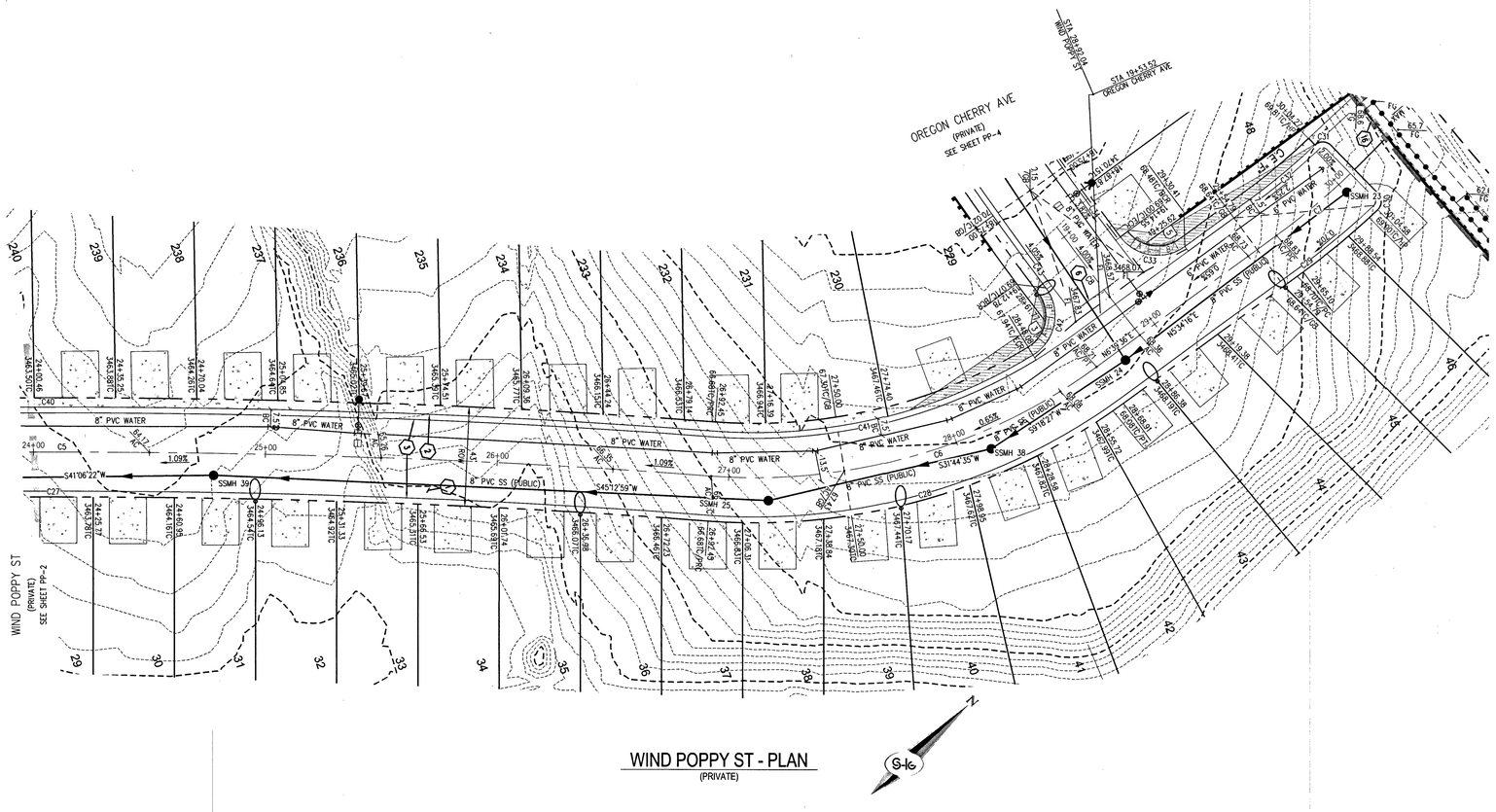
CASE NO.	GRADE % "B" TO "A"	"A" MIN.	"B" MIN.
1	-6 TO -5.01	4.5'	21.5'
2	-5 TO -4.01	4.5'	15.0'
3	-4 TO -3.01	4.5'	12.0'
4	-3 TO -2.01	4.5'	9.5'
5	-2 TO 2	8.0'	8.0'
6	2.01 TO 3	9.5'	4.5'
7	3.01 TO 4	12.0'	4.5'
8	4.01 TO 5	15.0'	4.5'
9	5.01 TO 6	21.5'	4.5'

SIDEWALK RAMPS USING AMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD NO. 235, CASE I

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	TANGENT
C1	257.52'	3750.00'	3°56'05"	128.81'
C2	153.64'	3500.00'	2°30'54"	76.83'
C3	36.39'	1846.50'	1°07'45"	18.20'
C4	48.87'	39.50'	70°52'53"	28.11'
C5	431.08'	3805.00'	6°29'29"	215.77'
C13	31.48'	20.00'	90°11'39"	20.07'
C14	193.04'	3730.50'	2°57'54"	96.54'
C22	271.65'	3769.50'	4°07'44"	135.88'
C23	144.38'	3480.50'	2°22'37"	72.20'
C24	37.15'	100.00'	21°17'10"	18.79'
C25	105.23'	53.00'	113°45'42"	81.24'
C27	386.23'	3785.50'	5°50'45"	193.28'
C37	138.43'	3519.50'	2°15'13"	69.23'
C38	36.01'	1827.00'	1°07'45"	18.00'
C39	24.74'	20.00'	70°52'53"	14.23'
C40	433.29'	3824.50'	6°29'29"	216.88'
C53	37.09'	100.00'	21°14'55"	18.76'


ALTA DR
WESTERN STAR DR
BLACK MOUNTAIN
COVE DR
LOMBARDY ALTA AVE
COVE SUMMIT
COVE SUMMIT
COVE SUMMIT
BELLAGIO COURT
BELLAGIO COURT
BELLAGIO COUR



WIND POPPY ST - PLAN
(PRIVATE)

SCALE - 1"=30' (0 30 60 FEET)

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

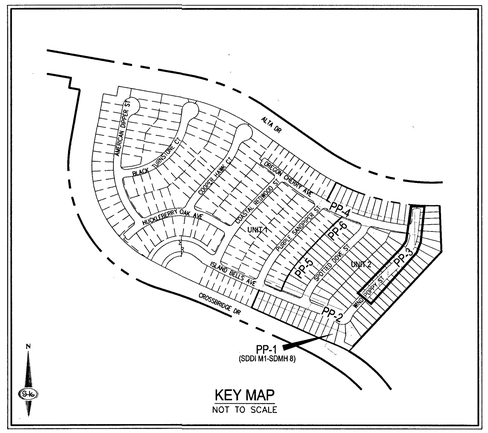
RAMP TRANSITION LENGTHS FOR 1:12 SIDE SLOPES

CASE NO.	GRADE % "B" TO "A"	"A" MIN.	"B" MIN.
1	-6 TO -5.01	4.5'	21.5'
2	-5 TO -4.01	4.5'	15.0'
3	-4 TO -3.01	4.5'	12.0'
4	-3 TO -2.01	4.5'	9.5'
5	-2 TO 2	8.0'	8.0'
6	2.01 TO 3	9.5'	4.5'
7	3.01 TO 4	12.0'	4.5'
8	4.01 TO 5	15.0'	4.5'
9	5.01 TO 6	21.5'	4.5'

SIDEWALK RAMPS USING AMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD NO. 235, CASE I

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	TANGENT
C5	431.08'	3805.00'	6°29'29"	215.77'
C6	176.46'	250.00'	40°26'30"	92.09'
C7	41.83'	300.00'	7°59'20"	20.95'
C27	386.23'	3785.50'	5°50'45"	193.28'
C28	190.22'	269.50'	40°26'30"	99.27'
C29	42.24'	319.50'	7°34'31"	21.15'
C30	7.91'	5.00'	90°35'40"	5.05'
C31	7.80'	5.00'	89°20'42"	4.94'
C32	36.62'	280.50'	7°28'47"	18.34'
C40	433.29'	3824.50'	6°29'29"	216.88'
C41	143.50'	230.50'	35°40'08"	74.16'



KEY MAP
NOT TO SCALE

LEGAL DESCRIPTION

LYING WITHIN THE NORTH EAST QUARTER (NE1/4) OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 59 EAST M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

EASEMENT NOTES

1. ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.
2. ALL COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

LVVWD NOTES

1. WATER PRESSURE ZONE 3665
2. MAINTAIN MINIMUM TWENTY-FOUR (24") INCH COVER PER UDACS SEC. 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION

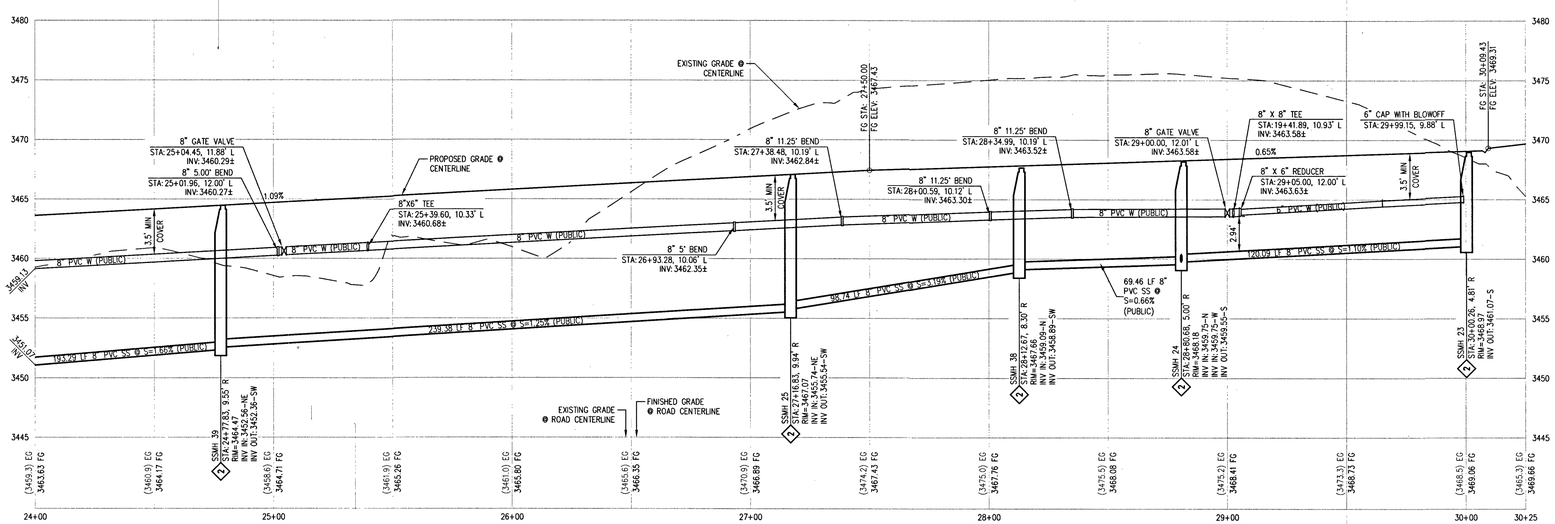
DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:
CAST-IN-PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS. BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS, CENTER BULB, OR FLAT SRIP. (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL)

CONSTRUCTION NOTES

1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
2. CONSTRUCT 4' WIDE SIDEWALK PER CCAUSD NO. 234 (5" THICK W/ 5" TYPE II AGGREGATE BASE)
3. INSTALL MODIFIED ROLL TYPE CURB PER CCAUSD NO. 217.1
4. INSTALL 10' "L" TYPE CURB TO MODIFIED ROLL CURB TRANSITION PER DETAIL 29, SHEET D-3
5. CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER DETAIL 28, SHEET D-3
6. CONSTRUCT 8' CROSS GUTTER PER CCAUSD NO. 228
7. INSTALL 30" RCP STORM DRAIN PIPE
8. INSTALL 42" RCP STORM DRAIN PIPE
9. INSTALL 12.5' TYPE "CM2" DROP INLET PER CCAUSD NO. 412.1 AND STORM WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421
10. INSTALL 20' TYPE "CM2" DROP INLET WITH ALTERNATE CONNECTION PER CCAUSD NO. 412.1 AND STORM WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421
11. INSTALL 48" TYPE III SDMH CCAUSD NO. 401, 402 & 406
12. REMOVE EX 4.5'X6' NDOT TYPE 2A DROP INLET AND APRON
13. REMOVE AND REINSTALL 8' WIDE SIDEWALK PER CCAUSD NO. 234
14. INSTALL 10 STEPS @ 4.1"
15. INSTALL WROUGHT IRON MAN GATE
16. INSTALL WROUGHT FENCE PER CCAUSD NO. 425.S1
17. INSTALL THROUGH WALL DRAIN BLOCK PER DETAIL 24, SHEET D-2
18. SAWCUT AND MATCH EXISTING IMPROVEMENTS (3" AC/6" TYPE L OR SCARIFY NATIVE) PER CCAUSD NO 500.2. EXISTING STRIPING TO BE REPLACED

SEE SHEET C-3 FOR LEGEND, ABBREVIATIONS, & QUANTITIES



WIND POPPY ST - PROFILE
HORIZ: 1" = 30'
VERT: 1" = 6'

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.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 345W6
RIVET AND ROUND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF DESERT MOON RD. AND SKY VISTA DR.
ELEVATION = 1011.422 METERS (NAVD '88)
ELEVATION = 3318.31 US SURVEY FEET (NAVD '88)

BASIS OF BEARINGS

NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
PROJECT NO.: 136382 DATE: 5/13/19

FAST Call before you UnderGround 1-702-432-5300 FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

Call before you Dig. AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-227-2600

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

KB HOME

BRISTLE VALE - WIND POPPY ST

PLAN & PROFILE - UNIT 2

WIND POPPY ST STA 24+00 TO 30+65

S 33
T 20S
R 59E

DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP

PROJECT NO.
KBH1804-000

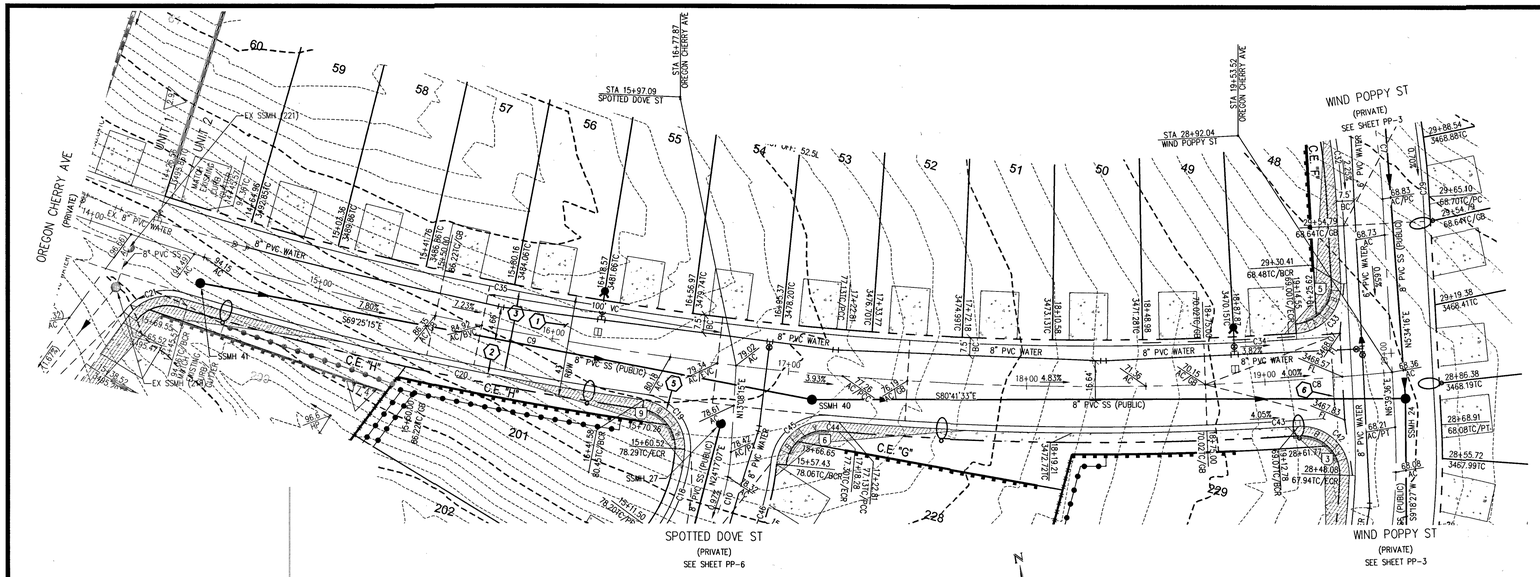
PROFESSIONAL ENGINEER TIMOTHY M. MULROONEY Exp. 12/31/2019 CIVIL No. 22938 STATE OF NEVADA
5/8/19

PP-3
SHEET 13 OF 29

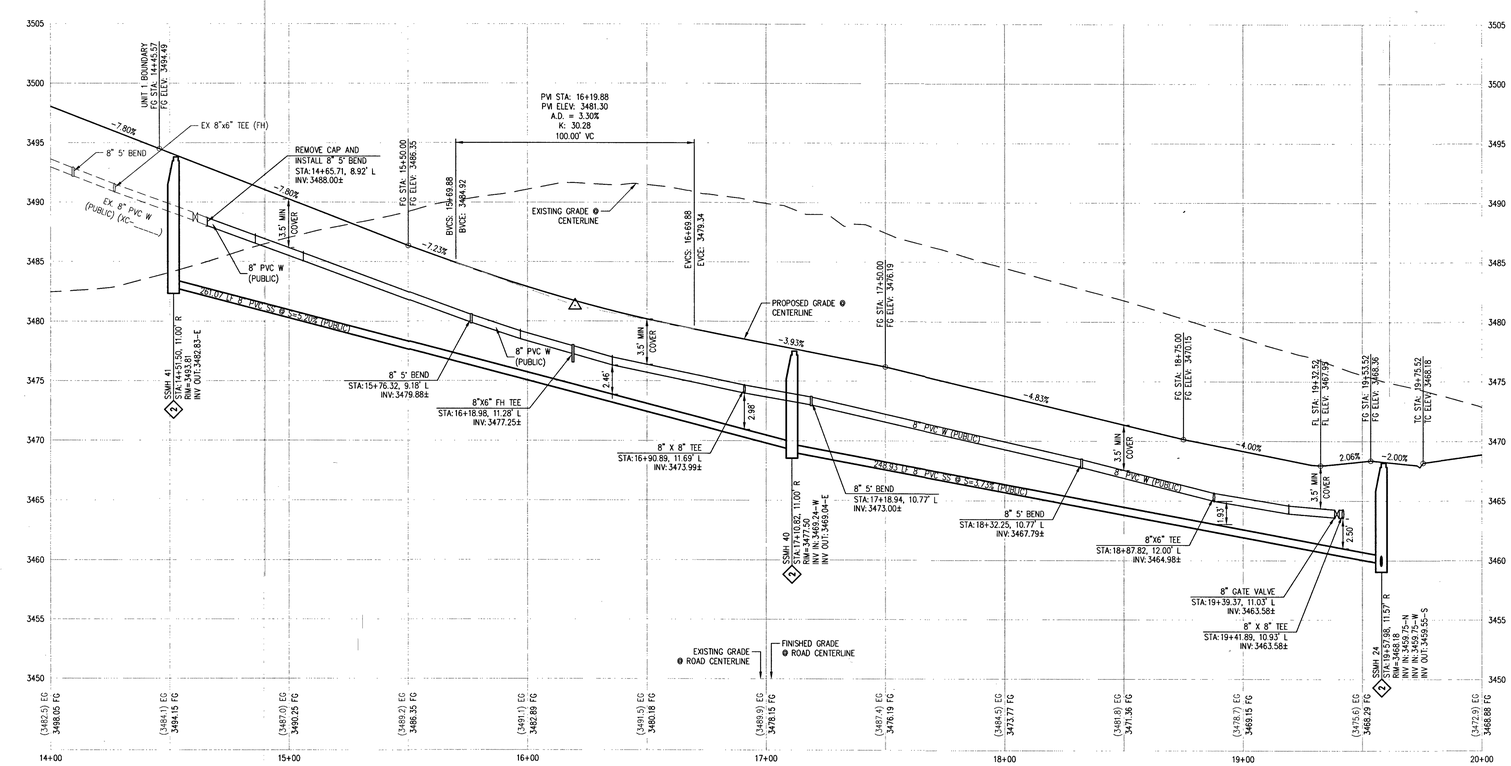
L19-00527
107Y5102-2

PRO.#:136382A QS:137-33-NE

I:\kbh1804-000 summerlin v24 parcel 16m\dwg\improv\phase 2\kbh1804-000 prp p2.dwg 5/8/2019 3:13 PM Oscar Quiroz



OREGON CHERRY AVE - PLAN
(PRIVATE)



OREGON CHERRY AVE - PROFILE
HORIZ: 1" = 30'
VERT: 1" = 6'

SCALE – 1"=30' (0 30 60 FEET)

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

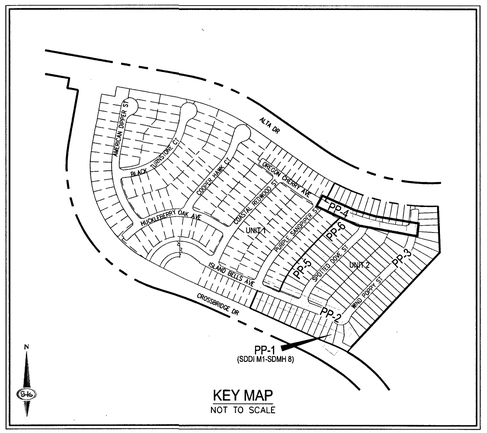
RAMP TRANSITION LENGTHS
FOR 1:12 SIDE SLOPES

CASE NO.	GRADE % "B" TO "A"	"A" MIN.	"B" MIN.
1	-6 TO -5.01	4.5'	21.5'
2	-5 TO -4.01	4.5'	15.0'
3	-4 TO -3.01	4.5'	12.0'
4	-3 TO -2.01	4.5'	9.5'
5	-2 TO 2	8.0'	8.0'
6	2.01 TO 3	9.5'	4.5'
7	3.01 TO 4	12.0'	4.5'
8	4.01 TO 5	15.0'	4.5'
9	5.01 TO 6	21.5'	4.5'

SIDEWALK RAMPS USING AMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD NO. 235, CASE 1

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	TANGENT
C8	230.71'	1298.50'	10°10'48"	115.66'
C9	277.23'	1298.50'	12°13'58"	139.14'
C20	198.95'	1318.00'	8°38'55"	99.66'
C21	24.63'	20.00'	70°34'13"	14.15'
C33	31.14'	20.00'	89°12'32"	19.73'
C34	188.86'	1279.00'	8°27'37"	94.60'
C35	291.80'	1279.00'	13°04'19"	146.54'
C42	33.33'	20.00'	95°29'10"	22.01'
C43	192.82'	1318.00'	8°22'57"	96.58'
C44	4.60'	1318.00'	0°12'00"	2.30'



KEY MAP
NOT TO SCALE

LEGAL DESCRIPTION
LYING WITHIN THE NORTH EAST QUARTER (NE1/4) OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 59 EAST M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

EASEMENT NOTES
1. ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.
2. ALL COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

LVVWD NOTES
1. WATER PRESSURE ZONE 3665
2. MAINTAIN MINIMUM TWENTY-FOUR (24") INCH COVER PER UDACS SEC. 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION

DROP INLET NOTE
WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:
CAST-IN-PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS. BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS, CENTER BULB, OR FLAT SRIP. (VYNYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL)

CONSTRUCTION NOTES
1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
2. CONSTRUCT 4' WIDE SIDEWALK PER CCAUSD NO. 234 (5" THICK W/ 5" TYPE II AGGREGATE BASE)
3. INSTALL MODIFIED ROLL TYPE CURB PER CCAUSD NO. 217.1
4. INSTALL 10' "L" TYPE CURB TO MODIFIED ROLL CURB TRANSITION PER DETAIL 29, SHEET D-3
5. CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER DETAIL 28, SHEET D-3
6. CONSTRUCT 8' CROSS GUTTER PER CCAUSD NO. 228
7. INSTALL 30" RCP STORM DRAIN PIPE
8. INSTALL 42" RCP STORM DRAIN PIPE
9. INSTALL 12.5' TYPE "CM2" DROP INLET PER CCAUSD NO. 412.1 AND STORM WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421
10. INSTALL 20' TYPE "CM2" DROP INLET WITH ALTERNATE CONNECTION PER CCAUSD NO. 412.1 AND STORM WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421
11. INSTALL 48" TYPE III SDMH CCAUSD NO. 401, 402 & 406
12. REMOVE EX 4.5'X6' NDOT TYPE 2A DROP INLET AND APRON
13. REMOVE AND REINSTALL 8" WIDE SIDEWALK PER CCAUSD NO. 234
14. INSTALL 10 STEPS @ 4.1"
15. INSTALL WROUGHT IRON MAN GATE
16. INSTALL WROUGHT FENCE PER CCAUSD NO. 425.S1
17. INSTALL THROUGH WALL DRAIN BLOCK PER DETAIL 24, SHEET D-2
18. SAWCUT AND MATCH EXISTING IMPROVEMENTS (3" AC/6" TYPE I OR SCARIFY NATIVE) PER CCAUSD NO 500.2. EXISTING STRIPING TO BE REPLACED

SEE SHEET C-3 FOR LEGEND, ABBREVIATIONS, & QUANTITIES

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.

BENCHMARK
CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6
RIVET AND ROUND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF DESERT MOON RD. AND SKY VISTA DR.
ELEVATION = 1011.422 METERS (NAVD '88)
ELEVATION = 3318.31 US SURVEY FEET (NAVD '88)

BASIS OF BEARINGS
NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
PROJECT NO.: 136382 DATE: 5/13/19

FAST Call before you UnderGround 1-702-432-5300 FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-227-2600

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

KB HOME
BRISTLE VALE - UNIT 2
PLAN & PROFILE - OREGON CHERRY AVE STA 14+00 TO 20+00

S 33
T 20S
R 59E

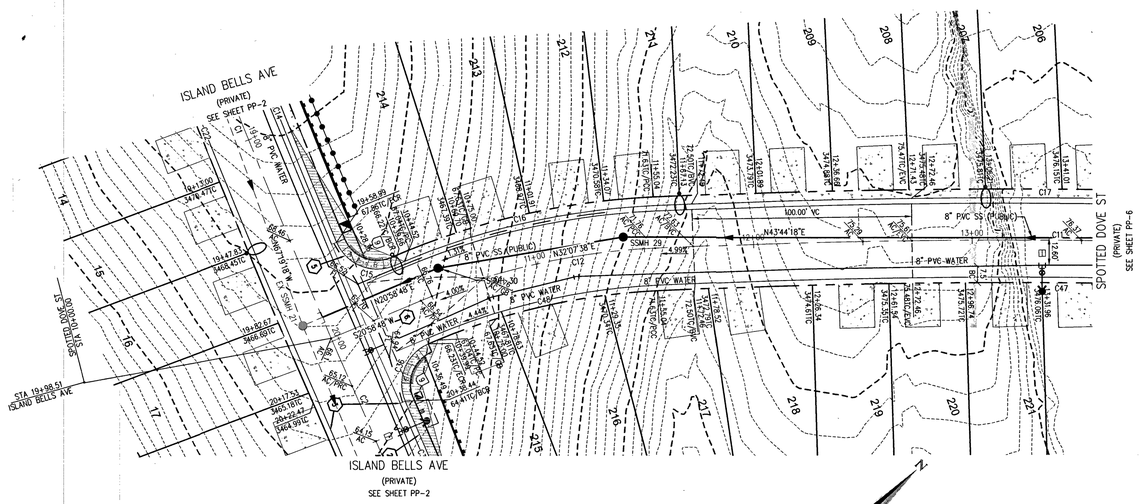
DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP
PROJECT NO. KBH1804-000

PROFESSIONAL ENGINEER TIMOTHY M. MULROONEY Exp. 12/31/2019 CIVIL No. 22938 STATE OF NEVADA 5/8/19

PP-4
SHEET 14 OF 29
L19-00527
107Y5102-2

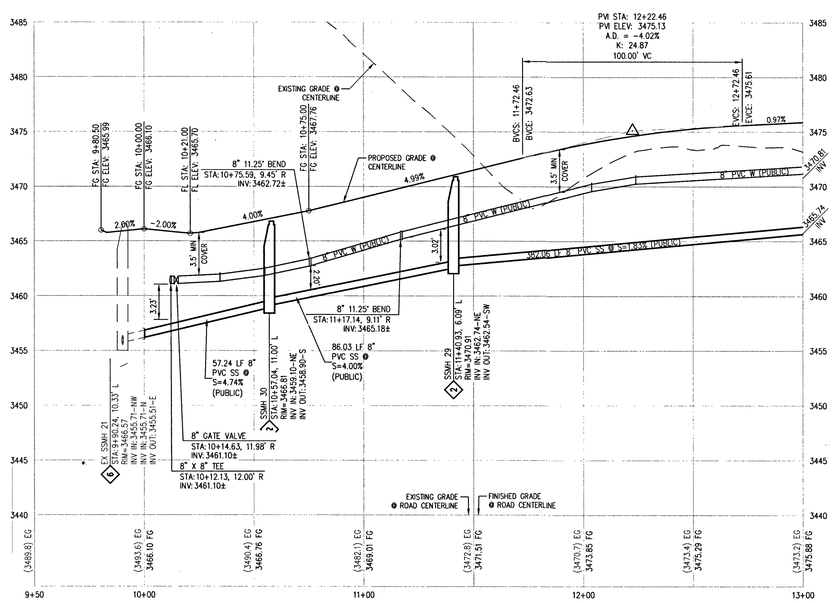
PROJ#:136382A QS:137-33-NE

z:\kbh1804-000 summerlin v24 parcel l&m\cfes\improv\phase 2\kbh1804-000 pnp p2.dwg 5/8/2019 3:13 PM Oscar Quiroz



SPOTTED DOVE ST - PLAN

(PRIVATE)



SPOTTED DOVE ST - PROFILE

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

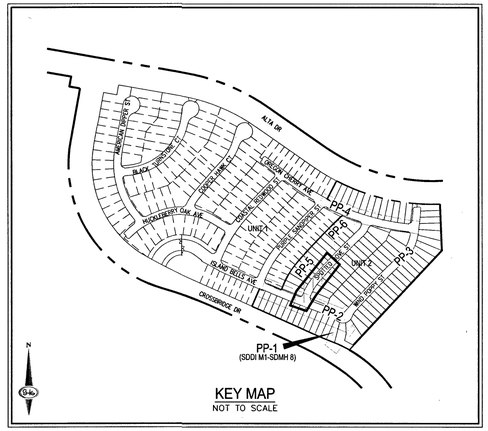
SCALE - 1"=30' (0, 30, 60 FEET)

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

RAMP TRANSITION LENGTHS FOR 1:12 SIDE SLOPES

CASE NO.	GRADE % "B" TO "A"	"A" MIN.	"B" MIN.
1	-6 TO -5.01	4.5'	21.5'
2	-5 TO -4.01	4.5'	15.0'
3	-4 TO -3.01	4.5'	12.0'
4	-3 TO -2.01	4.5'	9.5'
5	-2 TO 2	8.0'	8.0'
6	2.01 TO 3	9.5'	4.5'
7	3.01 TO 4	12.0'	4.5'
8	4.01 TO 5	15.0'	4.5'
9	5.01 TO 6	21.5'	4.5'

SIDEWALK RAMPS USING AMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD NO. 235, CASE 1



KEY MAP

NOT TO SCALE

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	TANGENT
C11	356.46'	3416.90'	5°58'38"	178.39'
C12	110.52'	316.90'	19°58'54"	55.83'
C15	31.74'	20.00'	90°55'32"	20.33'
C16	122.19'	336.40'	20°48'42"	61.78'
C17	358.49'	3436.40'	5°58'38"	179.41'
C36	31.63'	20.00'	90°36'46"	20.22'
C47	354.43'	3397.40'	5°58'38"	177.37'
C48	103.72'	297.40'	19°58'54"	52.39'

LEGAL DESCRIPTION

LYING WITHIN THE NORTH EAST QUARTER (NE1/4) OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 59 EAST M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

EASEMENT NOTES

1. ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.
2. ALL COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

LVVWD NOTES

1. WATER PRESSURE ZONE 3665
2. MAINTAIN MINIMUM TWENTY-FOUR (24") INCH COVER PER UDACS SEC. 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION

DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:
CAST-IN-PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS. BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS, CENTER BULB, OR FLAT STRIP. (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL)

CONSTRUCTION NOTES

1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
2. CONSTRUCT 4' WIDE SIDEWALK PER CCAUSD NO. 234 (5" THICK W/ 5" TYPE II AGGREGATE BASE)
3. INSTALL MODIFIED ROLL TYPE CURB PER CCAUSD NO. 217.1
4. INSTALL 10" "L" TYPE CURB TO MODIFIED ROLL CURB TRANSITION PER DETAIL 29, SHEET D-3
5. CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER DETAIL 28, SHEET D-3
6. CONSTRUCT 8' CROSS GUTTER PER CCAUSD NO. 228
7. INSTALL 30" RCP STORM DRAIN PIPE
8. INSTALL 42" RCP STORM DRAIN PIPE
9. INSTALL 12.5' TYPE "CM2" DROP INLET PER CCAUSD NO. 412.1 AND STORM WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421
10. INSTALL 20' TYPE "CM2" DROP INLET WITH ALTERNATE CONNECTION PER CCAUSD NO. 412.1 AND STORM WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421
11. INSTALL 48" TYPE III SDMH CCAUSD NO. 401, 402 & 406
12. REMOVE EX 4.5'X6' NDOT TYPE 2A DROP INLET AND APRON
13. REMOVE AND REINSTALL 8" WIDE SIDEWALK PER CCAUSD NO. 234
14. INSTALL 10 STEPS @ 4.1"
15. INSTALL WROUGHT IRON MAN GATE
16. INSTALL WROUGHT FENCE PER CCAUSD NO. 425.S1
17. INSTALL THROUGH WALL DRAIN BLOCK PER DETAIL 24, SHEET D-2
18. SAWCUT AND MATCH EXISTING IMPROVEMENTS (3" AC/6" TYPE I OR SCARIFY NATIVE) PER CCAUSD NO 500.2. EXISTING STRIPING TO BE REPLACED

SEE SHEET C-3 FOR LEGEND, ABBREVIATIONS, & QUANTITIES

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.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 345W6

RIVET AND ROUND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF DESERT MOON RD. AND SKY VISTA DR.
ELEVATION = 1011.422 METERS (NAVD '88)
ELEVATION = 3318.31 US SURVEY FEET (NAVD '88)

BASIS OF BEARINGS

NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO.: 136382 DATE: 5/13/19

FAST — Call before you UnderGround 1-702-432-5300 FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T.)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

Call before you Dig. AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-227-2600

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 2

PLAN & PROFILE - SPOTTED DOVE ST STA 9+50 TO 13+00

S 33 T 20S R 59E

DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP

PROJECT NO. KBH1804-000

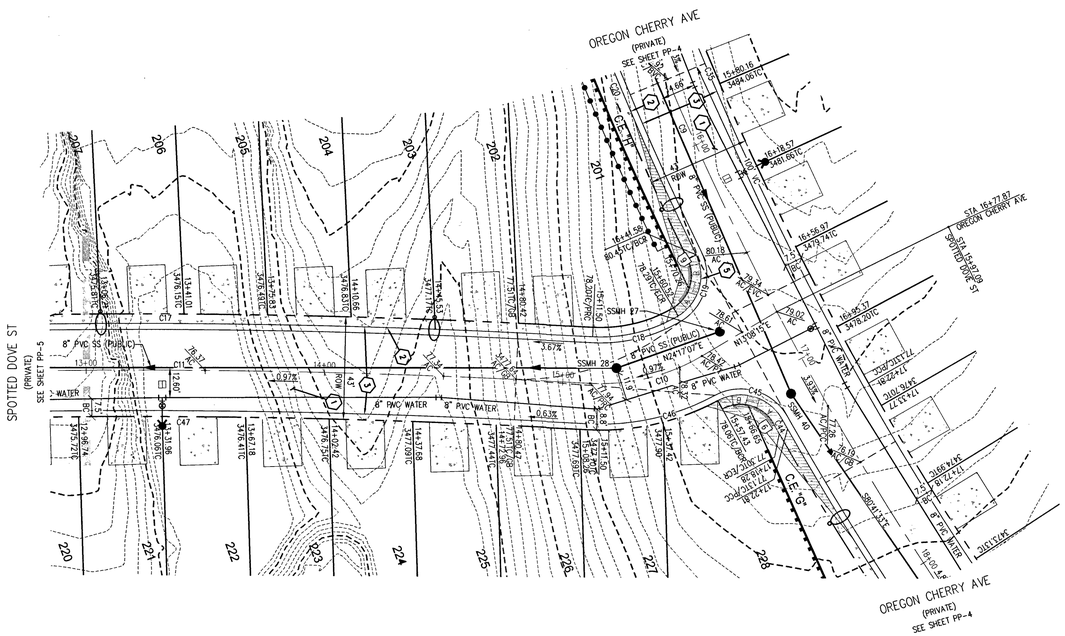
PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22938 — STATE OF NEVADA — 5/8/19

PP-5
SHEET 15 OF 29

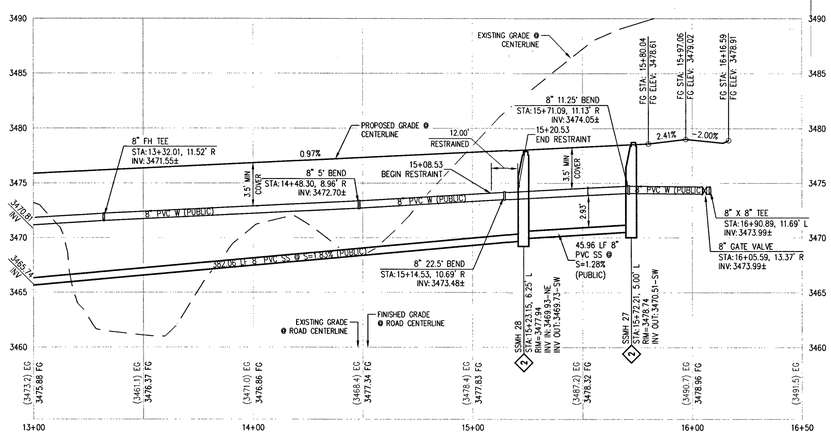
L19-00527
107Y5102-2

PROJ#:136382A QS:137-33-NE

k:\kbh1804-000 summerlin v24 parcel l&m\dwg\mmrov\phase 2\kbh1804-000 prop p2.dwg 5/8/2019 4:04 PM Oscar Quiroz



SPOTTED DOVE ST - PLAN
(PRIVATE)



SPOTTED DOVE ST - PROFILE
HORIZ: 1" = 30'
VERT: 1" = 6'

0 30 60
SCALE - 1"=30' FEET

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

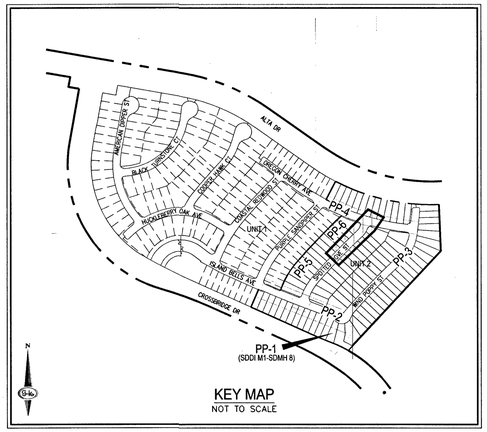
RAMP TRANSITION LENGTHS FOR 1:12 SIDE SLOPES

CASE NO.	GRADE %, "B" TO "A"	"A" MIN.	"B" MIN.
1	-6 TO -5.01	4.5'	21.5'
2	-5 TO -4.01	4.5'	15.0'
3	-4 TO -3.01	4.5'	12.0'
4	-3 TO -2.01	4.5'	9.5'
5	-2 TO 2	8.0'	8.0'
6	2.01 TO 3	9.5'	4.5'
7	3.01 TO 4	12.0'	4.5'
8	4.01 TO 5	15.0'	4.5'
9	5.01 TO 6	21.5'	4.5'

SIDEWALK RAMPS USING AMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD NO. 235, CASE I

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	TANGENT
C10	49.02'	83.10'	33°48'05"	25.25'
C11	356.46'	3416.90'	5°58'38"	178.39'
C17	358.49'	3436.40'	5°58'38"	179.41'
C18	37.72'	63.60'	33°58'55"	19.43'
C19	29.89'	20.00'	85°37'31"	18.53'
C45	31.16'	20.00'	89°15'40"	19.74'
C46	56.67'	102.60'	31°38'57"	29.08'
C47	354.43'	3397.40'	5°58'38"	177.37'



KEY MAP
NOT TO SCALE

LEGAL DESCRIPTION
LYING WITHIN THE NORTH EAST QUARTER (NE1/4) OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 59 EAST M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

EASEMENT NOTES
1. ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.
2. ALL COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

LVVWD NOTES
1. WATER PRESSURE ZONE 3665
2. MAINTAIN MINIMUM TWENTY-FOUR (24") INCH COVER PER UDACS SEC. 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION

DROP INLET NOTE
WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:
CAST-IN-PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS. BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS, CENTER BULB, OR FLAT GRIP. (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL)

CONSTRUCTION NOTES
1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
2. CONSTRUCT 4' WIDE SIDEWALK PER CCAUSD NO. 234 (5" THICK W/ 5" TYPE II AGGREGATE BASE)
3. INSTALL MODIFIED ROLL TYPE CURB PER CCAUSD NO. 217.1
4. INSTALL 10' "L" TYPE CURB TO MODIFIED ROLL CURB TRANSITION PER DETAIL 28, SHEET D-3
5. CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER DETAIL 28, SHEET D-3
6. CONSTRUCT 8' CROSS GUTTER PER CCAUSD NO. 228
7. INSTALL 30" RCP STORM DRAIN PIPE
8. INSTALL 42" RCP STORM DRAIN PIPE
9. INSTALL 12.5' TYPE "CM2" DROP INLET PER CCAUSD NO. 412.1 AND STORM WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421
10. INSTALL 20' TYPE "CM2" DROP INLET WITH ALTERNATE CONNECTION PER CCAUSD NO. 412.1 AND STORM WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421
11. INSTALL 48" TYPE III SDMH CCAUSD NO. 401, 402 & 406
12. REMOVE EX 4.5'X6' NDOT TYPE 2A DROP INLET AND APRON
13. REMOVE AND REINSTALL 8" WIDE SIDEWALK PER CCAUSD NO. 234
14. INSTALL 10 STEPS @ 4.1"
15. INSTALL WROUGHT IRON MAN GATE
16. INSTALL WROUGHT FENCE PER CCAUSD NO. 425.51
17. INSTALL THROUGH WALL DRAIN BLOCK PER DETAIL 24, SHEET D-2
18. SAWCUT AND MATCH EXISTING IMPROVEMENTS (3" AC/6" TYPE I OR SCARIFY NATIVE) PER CCAUSD NO 500.2. EXISTING STRIPING TO BE REPLACED

SEE SHEET C-3 FOR LEGEND, ABBREVIATIONS, & QUANTITIES

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.

BENCHMARK
CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6
RIVET AND ROUND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF DESERT MOON RD. AND SKY VISTA DR.
ELEVATION = 1011.422 METERS (NAVD '88)
ELEVATION = 3318.31 US SURVEY FEET (NAVD '88)

BASIS OF BEARINGS
NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
PROJECT NO.: 136382 DATE: 5/13/19

FAST
Call before you UnderGround
1-702-432-5300
FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T.)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DO OVERHEAD
1-702-227-2929

Call before you Dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811 OR
1-800-227-2600

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP DATE	APP

LAS VEGAS, NV

KB HOME
BRISTLE VALE - UNIT 2
PLAN & PROFILE - SPOTTED DOVE ST STA 13+00 TO 16+50

S 33
T 20S
R 59E

DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP

PROJECT NO.
KBH1804-000

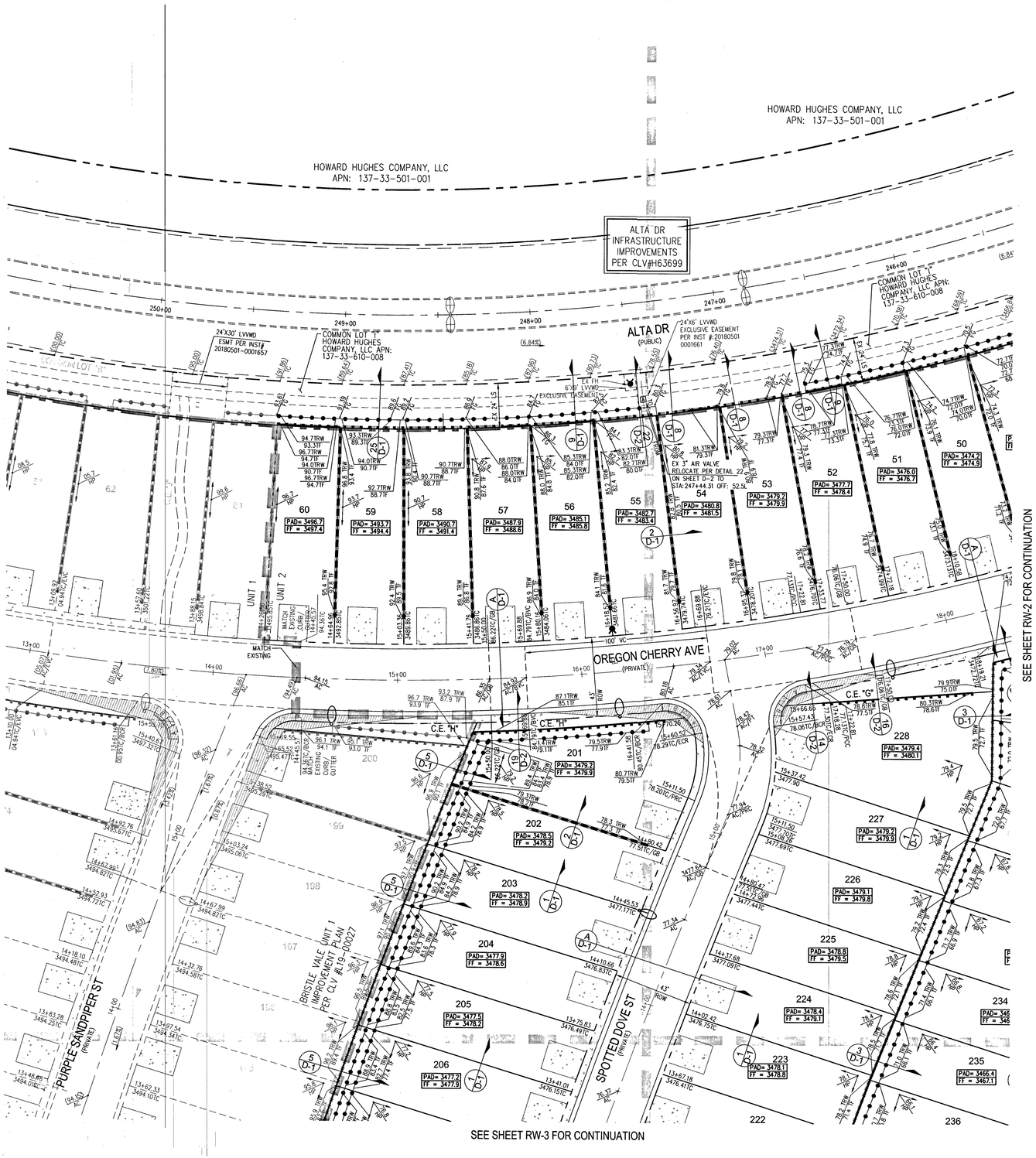
PROFESSIONAL ENGINEER STATE OF NEVADA TIMOTHY M. MULROONEY Exp. 12/31/2019 CIVIL No. 22938 5/8/19

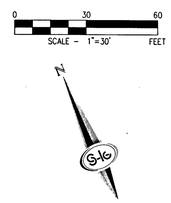
PP-6
SHEET 16 OF 29

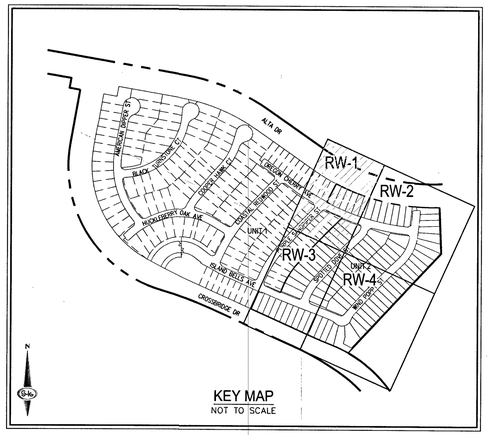
L19-00527
107Y5102-2

PROJ#:136382A QS:137-33-NE

i:\kbh1804-000 summerlin -24 parcel 18m\civil\improvs\phase 2\kbh1804-000 pp-p2.dwg 5/8/2019 3:14 PM Oscar Quiroz







KEY MAP
NOT TO SCALE

BASIS OF BEARINGS

NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6

RIVET AND ROUND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF DESERT MOON RD. AND SKY MESA DR.
ELEVATION = 1011.422 METERS (NAVD '88)
ELEVATION = 3318.31 US SURVEY FEET (NAVD '88)

FAST
Call before you
UnderGround
1-702-432-5300
FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T.)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DO OVERHEAD
1-702-227-2929

Call before you Dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call
811
OR
1-800-227-2600

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

KB HOME
BRISTLE VALE - UNIT 2
RETAINING WALL PLAN I

S 34
T 20S
R 59E

DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP

PROJECT NO.
KBH1804-000

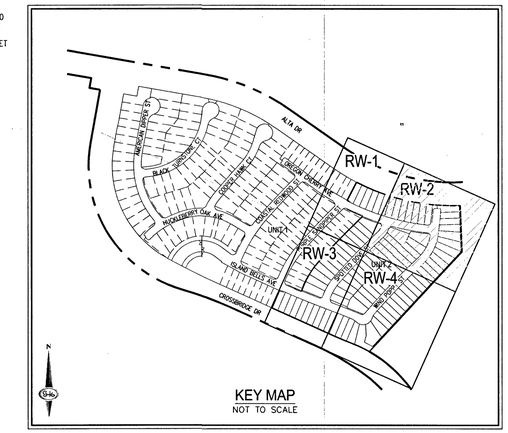
PROFESSIONAL ENGINEER
TIMOTHY M. MULROONEY
Exp. 12/31/2019
CIVIL
No. 22938
STATE OF NEVADA
5/8/19

RW-1
SHEET 17 OF 29

L19-00527
107Y5102-2

P:\kbh1804-000 summerlin 424 parcel 8\dwg\improv\phase 2\kbh1804-000 wall plan 5/8/2019 3:15 PM Oscar Quiroz

SCALE - 1"=30' (0, 30, 60 FEET)



KEY MAP
NOT TO SCALE

BASIS OF BEARINGS

NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6

RIVET AND ROUND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF DESERT MOON RD. AND SKY VISTA DR.
ELEVATION = 1011.422 METERS (NAVD '88)
ELEVATION = 3318.31 US SURVEY FEET (NAVD '88)

FAST Call before you UnderGround 1-702-432-5300 FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-227-2600

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

KB HOME
BRISTLE VALE - UNIT 2
RETAINING WALL PLAN II

S 33
T 20S
R 59E

DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP

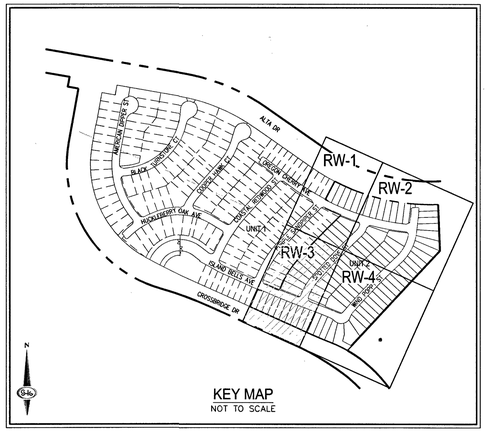
PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22938 — STATE OF NEVADA — 5/8/19

RW-2
SHEET 18 OF 29

L19-00527
107Y5102-2

J:\kbh1804-000 summerlin v24 parcel l&m\dwg\improv\phase 2\kbh1804-000 wsl p2.dwg 5/8/2019 3:16 PM Oscar Quiroz



BASIS OF BEARINGS

NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6

RIVET AND ROUND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF DESERT MOON RD. AND SKY VISTA DR.
ELEVATION = 1011.422 METERS (NAVD '88)
ELEVATION = 3318.31 US SURVEY FEET (NAVD '88)

FAST
Call before you UnderGround
1-702-432-5300
FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DO OVERHEAD
1-702-227-2929

Call before you Dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811
OR
1-800-227-2600

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 2
RETAINING WALL PLAN III

S 33
T 20S
R 59E

DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP

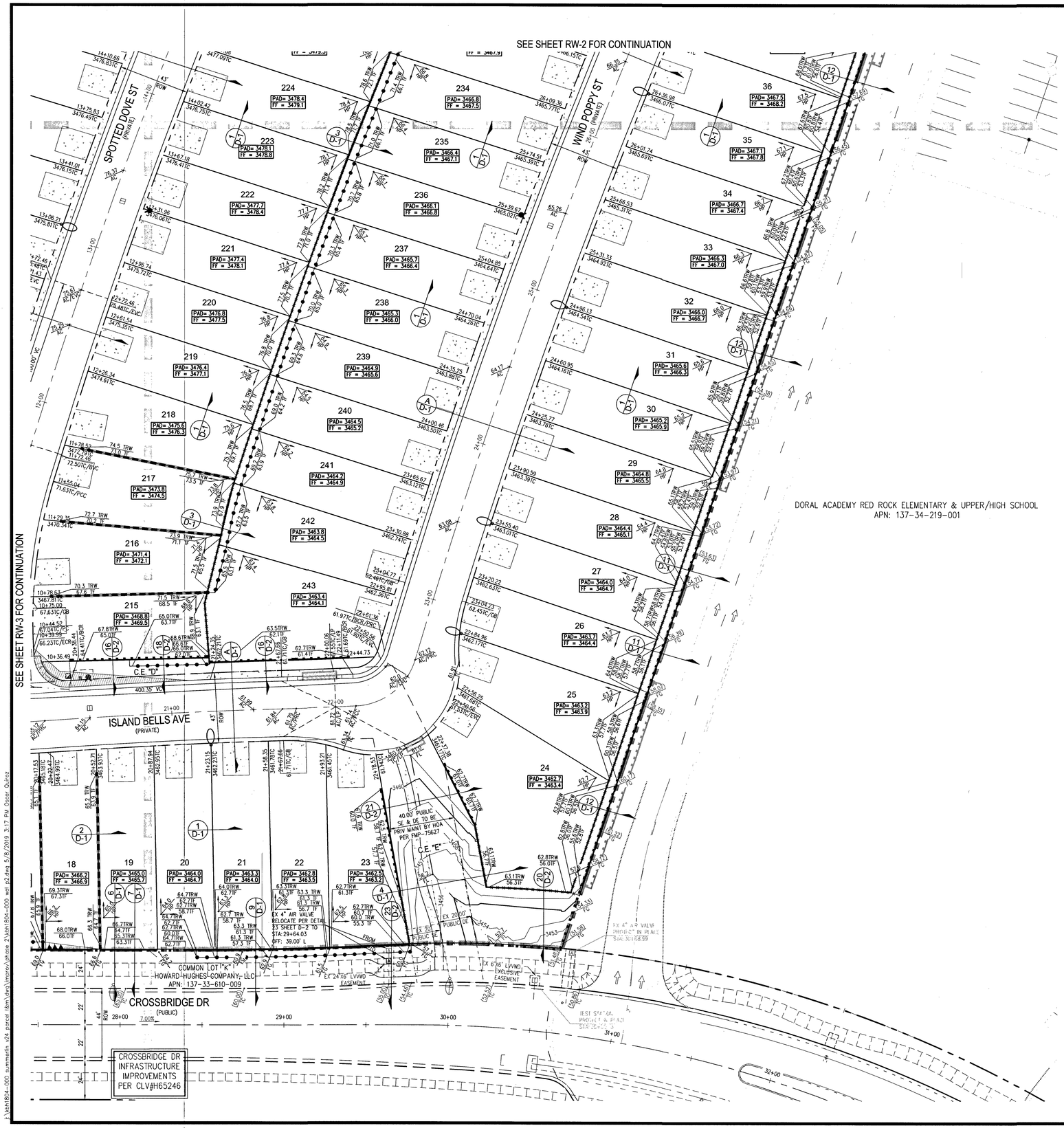
PROJECT NO.
KBH1804-000

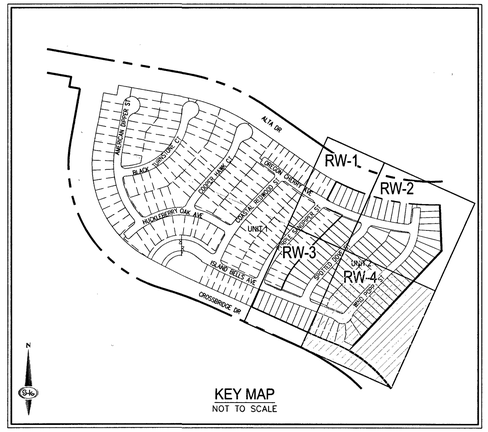
PROFESSIONAL ENGINEER
TIMOTHY M. MULROONEY
Exp. 12/31/2019
CIVIL
No. 22938
STATE OF NEVADA
5/8/19

RW-3
SHEET 19 OF 29

L19-00527
107Y5102-2

J:\kbh1804-000 summerlin_x24 parcel 18\dwg\improv\phase 2\kbh1804-000 wal p2.dwg 5/8/2019 3:16 PM Oscar Quiroz





BASIS OF BEARINGS

NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6

RIVET AND ROUND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF DESERT MOON RD. AND SKY VISTA DR.
ELEVATION = 1011.422 METERS (NAVD '88)
ELEVATION = 3318.31 US SURVEY FEET (NAVD '88)

FAST
Call before you UnderGround
1-702-432-5300
FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DO OVERHEAD
1-702-227-2929

Call before you Dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811
OR
1-800-227-2600

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 2
RETAINING WALL PLAN IV

S 33
T 20S
R 59E

DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP

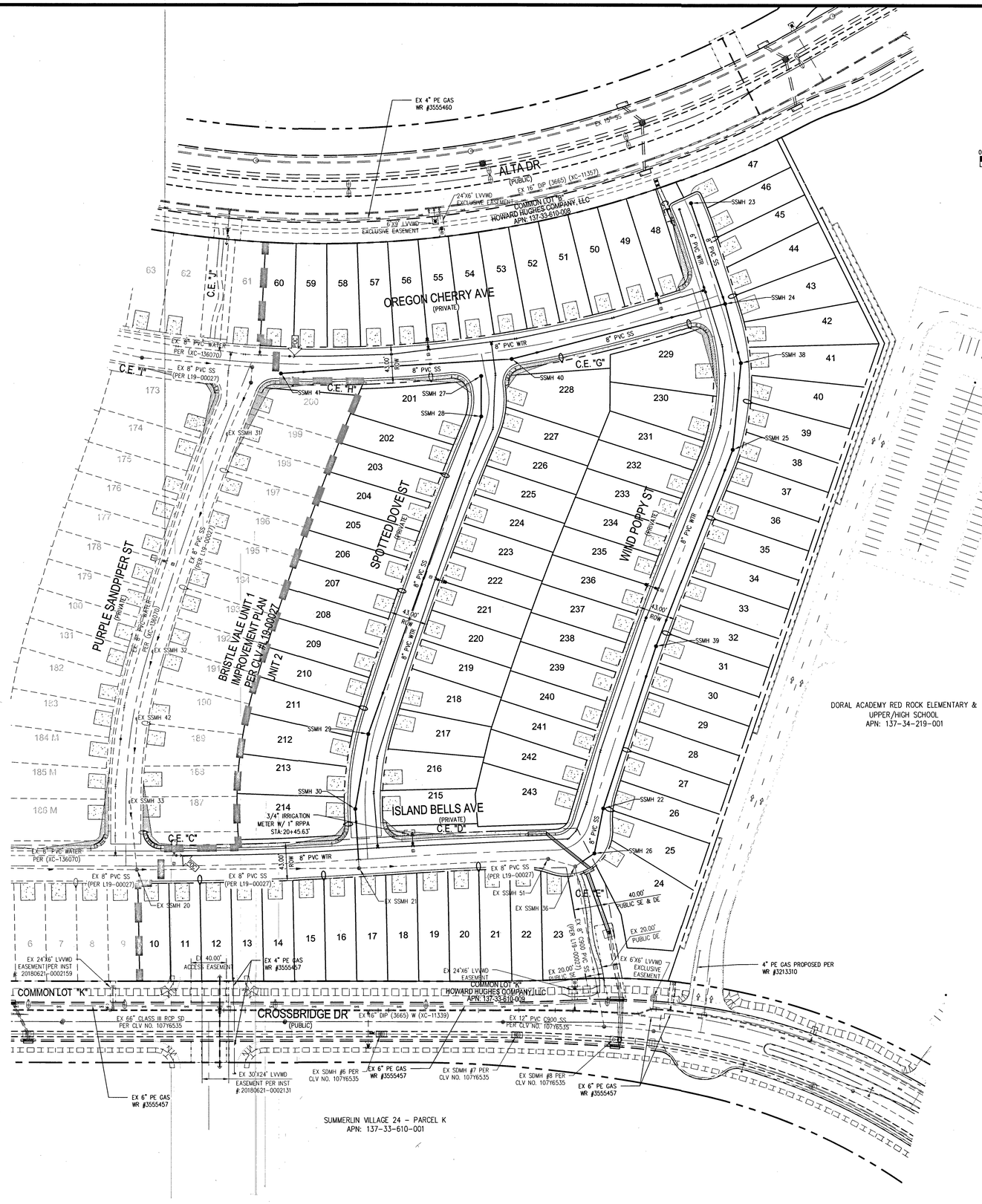
PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER
TIMOTHY M. MULROONEY
Exp. 12/31/2019
CIVIL
No. 22938
STATE OF NEVADA
5/8/19

RW-4
SHEET 20 OF 29

L19-00527
107Y5102-2

J:\kbh1804-000 summerlin -24 parcel 16m\dwg\tmpnrov\phase 2\kbh1804-000 wst p2.dwg 5/8/2019 3:17 PM Oscar Quiroz



NOTE

ALL PRIVATE STREETS ARE PUBLIC UTILITY, CLV SEWER & PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

DISCLAIMER NOTE

EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXCEPT 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.

EXISTING SERVICES

IF ANY OF THE EXISTING SERVICES ARE INCORRECTLY LOCATED OR NOT USED FOR ANY REASON, THE DEVELOPER SHALL ABANDON THE LATERALS AT THE CONNECTION TO THE ACTIVE MAIN IN ACCORDANCE WITH THE UDACS STANDARDS, & AT THE DEVELOPER'S EXPENSE.

ESTIMATED AVERAGE DAILY SEWER CONTRIBUTIONS

94 UNITS X 250 GPD/UNIT = 23,500 GPD = 0.02350 MGD
TOTAL PEAK FLOW = 0.03725 X 3.75 (PEAK FACTOR) = 0.1397 MGD

FIRE SPRINKLER SYSTEMS SHALL BE PLUMBED TO THE MASTER TOILET. NO EXCEPTIONS ALLOWED

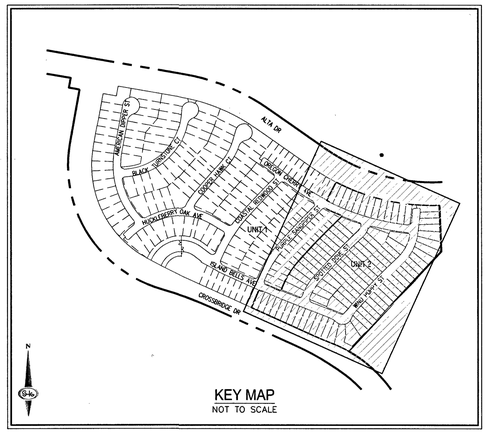
STATIC PRESSURE NOTE

EXCESS PRESSURE FOR LOTS 12-53 AND 201-243

THIS PROPERTY MAY HAVE STATIC WATER PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE-REDUCING VALVES BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRV'S ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVWD UTILITIES.

EASEMENT NOTES

1. ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.
2. ALL COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED.



FIRE FLOW CALCULATIONS

FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL.

USE/OCCUPANCY	SINGLE FAMILY
TYPE OF CONSTRUCTION (IBC)	TYPE V-B
SQUARE FOOTAGE	<3600
LARGEST AREA BETWEEN 4 HOUR WALLS	N/A
BUILDING HEIGHT	<35
NO OF STORIES INCLUDING BASEMENT	2
FIRE SPRINKLER	YES (130)
NO OF HYDRANTS INSTALLED	5

SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORPORATION — DATE 5/9/19

TO ENSURE LVVWD ACCESS WITHIN EASEMENT

ALL ABOVE GROUND OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO LANDSCAPE BOULDERS, FENCES/WALLS, AND SIGNS ARE STRICTLY PROHIBITED WITHIN EASEMENT.

APPROVAL

LAS VEGAS FIRE AND RESCUE — DATE 5/9/19

WATER NOTES

REDUCED PRESSURE PRINCIPLE ASSEMBLY (1) 1"
APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 8. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136382 FIRST APPROVED DATE: 5/13/19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

FAST — Call before you UnderGround 1-702-432-5300 FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD — 1-702-227-2929

Call before you Dig. AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-227-2600

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	APP.

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 2
MASTER UTILITY PLAN

S 33
T 20S
R 59E

DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP

PROJECT NO.
KBH1804-000

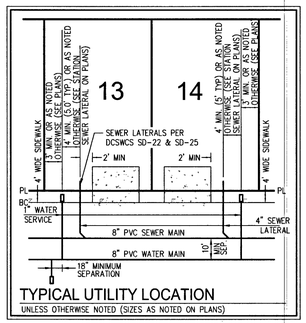
PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22938 — STATE OF NEVADA — 5/8/19

MU-1
SHEET 21 OF 29

L19-00527
107Y5102-2

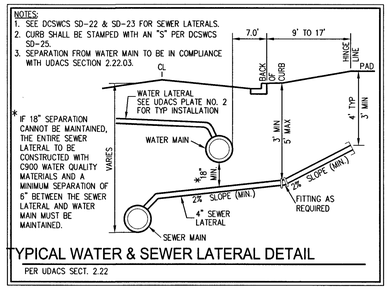
PROJ#:136382A QS:137-33-NE

E:\kbh1804-000 summerlin v24 parcel j&m\dwg\mpro\phase 2\kbh1804-000 mut p2.dwg 5/8/2019 4:05 PM Oscar Quiroz



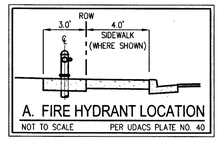
TYPICAL UTILITY LOCATION

UNLESS OTHERWISE NOTED (SIZES AS NOTED ON PLANS)



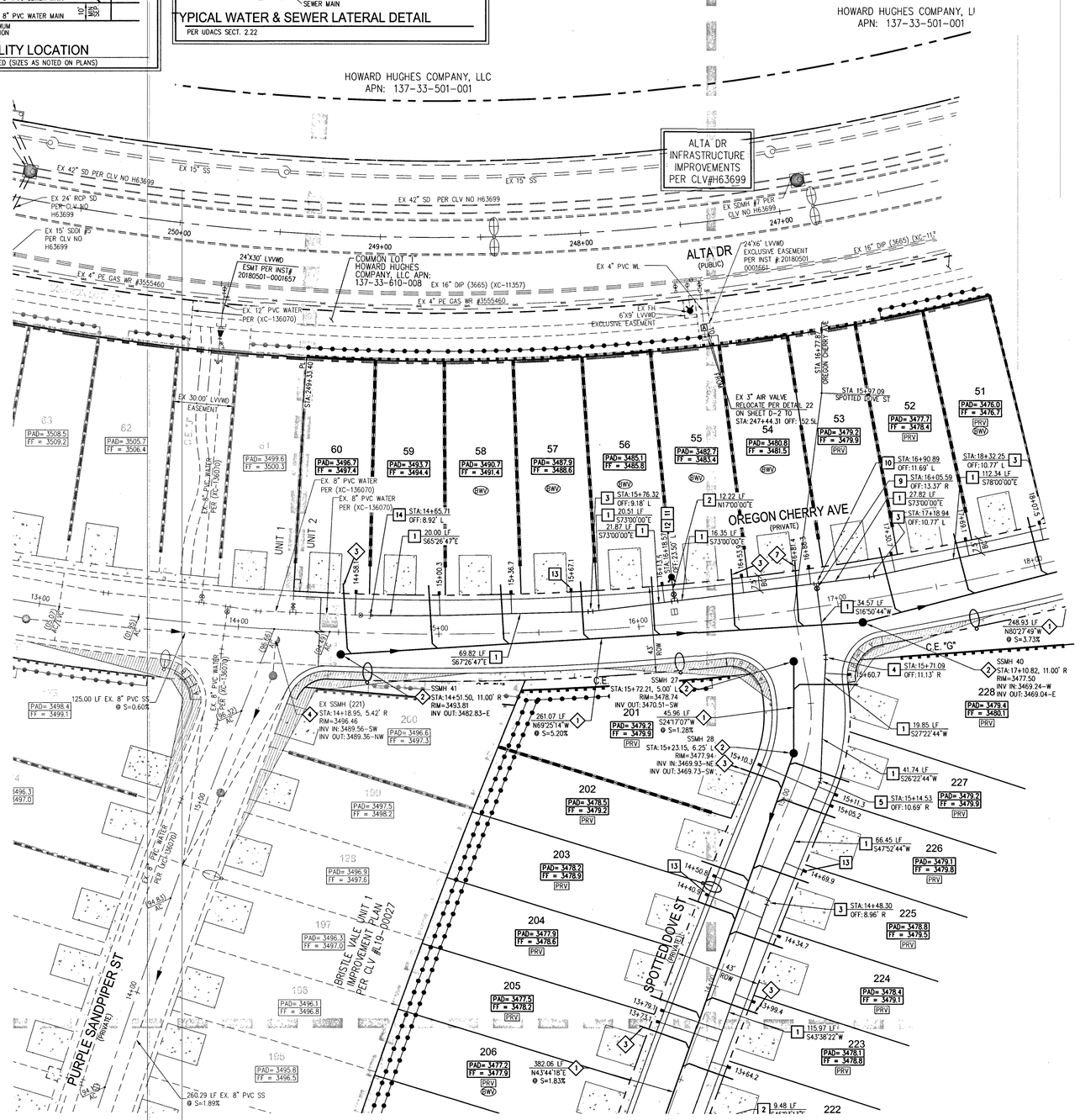
TYPICAL WATER & SEWER LATERAL DETAIL

PER UDACS SECT. 2.22



A. FIRE HYDRANT LOCATION

NOT TO SCALE — PER UDACS PLATE NO. 40



NOTE

ALL PRIVATE STREETS ARE PUBLIC UTILITY, CLV SEWER & PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

DISCLAIMER NOTE

EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXCEPT 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.

STATIC PRESSURE NOTE

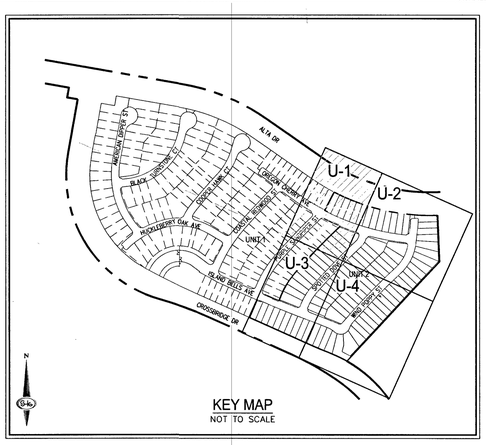
EXCESS PRESSURE FOR LOTS 12-53 AND 201-243

THIS PROPERTY MAY HAVE STATIC PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE REDUCING VALVES (PRV) BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRV'S ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVWD FACILITIES.

ABANDONED VAVLVES CUT AND CAP

ALL VALVES TO BE ABANDONED SHALL BE ABANDONED IN THE CLOSED POSITION, UNLESS SHOWN OTHERWISE, BY REMOVING A MINIMUM OF THE TOP TWENTY-FOUR (24) INCHES OF THE VALVE BOX, AND THEN FILLING THE BOTTOM OF THE BOX WITH A MINIMUM OF EIGHT (8) INCHES OF SAND OR TYPE II AGGREGATE BASE. THE REMAINING PORTION OF THE VALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF AT LEAST TWO THOUSAND (2000) PSI. THE LATERAL MUST BE CUT WITHIN ONE (1) FOOT OF THE ABANDONED VALVE, OR AS SHOWN ON PLANS, AND CAPPED, IN ACCORDANCE WITH THE PROVISION OF UDACS PLATE NO. 31.

SCALE – 1"=30' (0, 30, 60 FEET)



KEY MAP

NOT TO SCALE

EASEMENT NOTES

1. ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.
2. ALL COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED.

LVVWD NOTES

1. FIRE SPRINKLER SYSTEMS SHALL BE PLUMBED TO THE MASTER TOILET. NO EXCEPTIONS ALLOWED
2. SERVICE LATERALS FOR LOTS: 10 AND 60 WILL BE TAPPED ON EXISTING MAIN BY OWNER CONTRACTOR UNDER DIRECTION OF THE LVVWD
3. DROP INLET NOTE
WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE
CAST-IN-PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS. BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS, CENTER BULB, OR FLAT STRIP. (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL)
4. PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE PER UDACS. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES

FIRE FLOW CALCULATIONS

FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL.

USE/OCCUPANCY	SINGLE FAMILY
TYPE OF CONSTRUCTION (IBC)	TYPE V-B
SQUARE FOOTAGE	<3600
LARGEST AREA BETWEEN 4 HOUR WALLS	N/A
BUILDING HEIGHT	<35
NO OF STORIES INCLUDING BASEMENT	2
FIRE SPRINKLER	YES (13D)
NO OF HYDRANTS INSTALLED	5

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6

RIVET AND ROUND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF DESERT MOON RD. AND SKY VISTA DR.
ELEVATION = 1011.422 METERS (NAVD '88)
ELEVATION = 3318.31 US SURVEY FEET (NAVD '88)

BASIS OF BEARINGS

NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.

WATER NOTES

1. INSTALL 8" PVC WATER PIPE (3665 WPZ)
2. INSTALL 6" PVC WATER PIPE (3665 WPZ)
3. INSTALL 5° BEND PER UDACS PLATE NO. 31
4. INSTALL 11.25° BEND PER UDACS PLATE NO. 31
5. INSTALL 22.5° BEND PER UDACS PLATE NO. 31
6. INSTALL 45° BEND PER UDACS PLATE NO. 31
7. INSTALL CAP AND 2" BLOWOFF VALVE PER UDACS PLATE NO. 36
8. INSTALL 8"X6" REDUCER PER UDACS PLATE NO. 30
9. INSTALL 8" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30 & 39
10. INSTALL 8"X8" TEE PER UDACS PLATE NO. 31
11. INSTALL FIRE HYDRANT ASSEMBLY W/6" GATE VALVE PER UDACS PLATE NO. 40
12. INSTALL 8"X6" TEE PER UDACS PLATE NO. 31
13. INSTALL 1" COPPER SERVICE W/ 3/4" IRRIGATION METER AND 1" RPPA PER UDACS PLATE NO. 4 & 8. SEE DETAIL ON SHEET D-2
14. FIELD VERIFY LOCATION, REMOVE CAP AND BLOW OFF VALVE PER UDACS PLATE NO. 36 & CONNECT TO EX. 8" PVC WATER PIPE
15. NOT USED
16. INSTALL 1" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 1

SEWER NOTES

1. INSTALL 8" PVC SANITARY SEWER PER DCSWCS SD-15 & SD-17
2. INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH PRECAST BASE PER DCSWCS SD-1A, SD-1B, SD-4, SD-9, AND SINGLE LID (24")
3. INSTALL 4" PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25.
4. EXISTING 48" DIAMETER SANITARY SEWER MANHOLE PER PHASE 1 IMPROVEMENT PLANS CLV #L19-00027 (107Y5102)
5. REMOVE CAP AND CONNECT TO EXISTING 8" SS
6. INSTALL SANITARY SEWER CLEANOUT WITH TRAFFIC RATED LID IN DRIVEWAY PER DCSWCS SD-26
7. INSTALL 4" C900 PVC SEWER LATERAL PER DCSWCS SD-22& SD-25 FOR LOT 54 ONLY
8. CONNECT SS LATERAL TO BRISTLE VALE UNIT 1 (CLV# 107Y5102-2) WYE FITTING

SEE SHEET C-3 FOR QUANTITIES AND ABBREVIATIONS

GENERAL NOTES

1. FOR FIRE HYDRANT LOCATION, TYPICAL UTILITY LOCATION, AND TYPICAL SEWER LATERAL DETAIL SEE SHEET U-1
2. ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22
3. NOTE: INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO. 15
4. DEPTH OF COVER DURING CONSTRUCTION MAINTAIN MINIMUM TWENTY FOUR (24) INCH COVER PER UDACS SECTION 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.
5. ALL ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF TITLE 19.06 & 19.08.
6. THE LVVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE REMAINING WATER. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.
* WATER TIGHT MANHOLE

FOR ALL DRY UTILITIES CROSSINGS

8. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING FOR DRY UTILITIES
9. MAINTAIN MINIMUM 3' PARALLEL SEPARATION FOR DRY UTILITIES.
10. ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP FOR DRY UTILITIES.

TO ENSURE LVVWD ACCESS WITHIN EASEMENT

ALL ABOVE GROUND OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO LANDSCAPE BOULDERS, FENCES/WALLS, AND SIGNS ARE STRICTLY PROHIBITED WITHIN EASEMENT.

WATER NOTES

REDUCED PRESSURE PRINCIPLE ASSEMBLY (1) 1"
APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 8. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

WATER MAIN JOINT DEFLECTION (PVC, 4"-24")

PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.02.

FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORPORATION — DATE 5/9/19

APPROVAL

LAS VEGAS FIRE AND RESCUE — DATE 5/9/19

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136382 FIRST APPROVED DATE: 5/13/19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

FAST — Call before you UnderGround 1-702-432-5300 FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-227-2600

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 2

UTILITY PLAN I

33 22S 59E

DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP

PROJECT NO. KBH1804-000

PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22938 — STATE OF NEVADA — 5/8/19

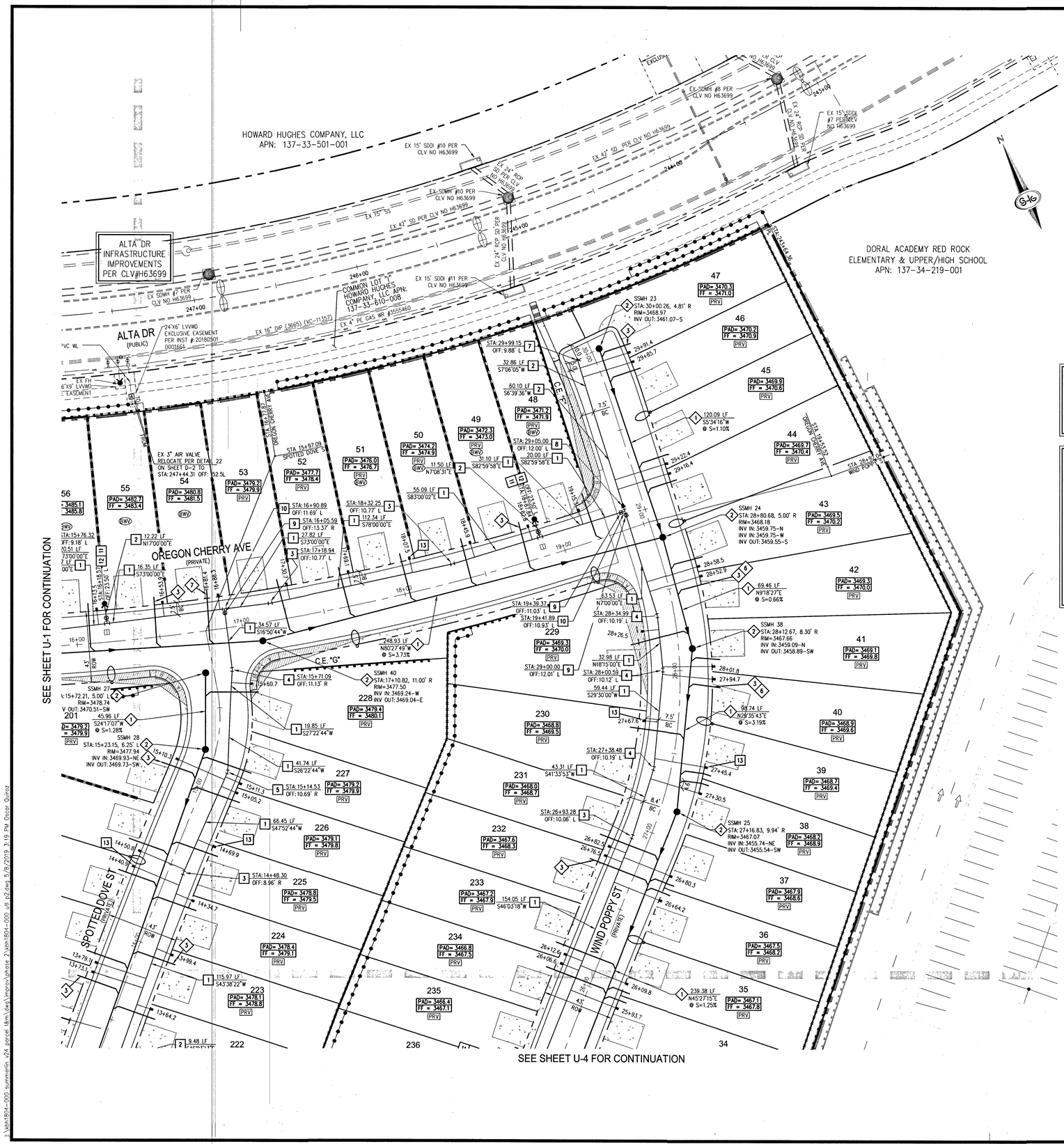
U-1

SHEET 22 OF 29

L19-00527
107Y5102-2

PROJ#:136382A QS:137-33-NE

J:\kbh1804-000 summerlin v24 parcel 18sm\dwg\improv\phase 2\kbh1804-000 utl p2.dwg 5/8/2019 3:18 PM Oscar Quiroz



NOTE

ALL PRIVATE STREETS ARE PUBLIC UTILITY, CLV SEWER & PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

DISCLAIMER NOTE

EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXCEPT 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.

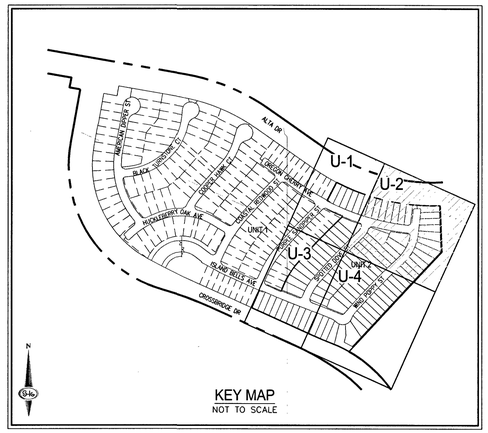
STATIC PRESSURE NOTE

EXCESS PRESSURE FOR LOTS 12-53 AND 201-243

THIS PROPERTY MAY HAVE STATIC PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE REDUCING VALVES (PRV) BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRV'S ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVWD FACILITIES.

ABANDONED VAVLVES CUT AND CAP

ALL VALVES TO BE ABANDONED SHALL BE ABANDONED IN THE CLOSED POSITION, UNLESS SHOWN OTHERWISE, BY REMOVING A MINIMUM OF THE TOP TWENTY-FOUR (24) INCHES OF THE VALVE BOX, AND THEN FILLING THE BOTTOM OF THE BOX WITH A MINIMUM OF EIGHT (8) INCHES OF SAND OR TYPE II AGGREGATE BASE, THE REMAINING PORTION OF THE VALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF AT LEAST TWO THOUSAND (2000) PSI. THE LATERAL MUST BE CUT WITHIN ONE (1) FOOT OF THE ABANDONED VALVE, OR AS SHOWN ON PLANS, AND CAPPED, IN ACCORDANCE WITH THE PROVISION OF UDACS PLATE NO. 31.



KEY MAP
NOT TO SCALE

FIRE FLOW CALCULATIONS

FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL.

USE/OCCUPANCY	SINGLE FAMILY
TYPE OF CONSTRUCTION (IBC)	TYPE V-B
SQUARE FOOTAGE	<3600
LARGEST AREA BETWEEN 4 HOUR WALLS	N/A
BUILDING HEIGHT	<35
NO OF STORIES INCLUDING BASEMENT	2
FIRE SPRINKLER	YES (13D)
NO OF HYDRANTS INSTALLED	5

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6

RIVET AND ROUND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF DESERT MOON RD. AND SKY VISTA DR.
ELEVATION = 1011.422 METERS (NAVD '88)
ELEVATION = 3318.31 US SURVEY FEET (NAVD '88)

BASIS OF BEARINGS

NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.

EASEMENT NOTES

1. ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.
2. ALL COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED.

LVVWD NOTES

1. FIRE SPRINKLER SYSTEMS SHALL BE PLUMBED TO THE MASTER TOILET. NO EXCEPTIONS ALLOWED
2. SERVICE LATERALS FOR LOTS: 10 AND 60 WILL BE TAPPED ON EXISTING MAIN BY OWNER CONTRACTOR UNDER DIRECTION OF THE LVVWD
3. DROP INLET NOTE
WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:

CAST-IN-PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS. BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS, CENTER BULB, OR FLAT STRIP. (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL)

4. PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE PER UDACS. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES

WATER NOTES

1. INSTALL 8" PVC WATER PIPE (3665 WP2)
2. INSTALL 6" PVC WATER PIPE (3665 WP2)
3. INSTALL 5' BEND PER UDACS PLATE NO. 31
4. INSTALL 11.25' BEND PER UDACS PLATE NO. 31
5. INSTALL 22.5' BEND PER UDACS PLATE NO. 31
6. INSTALL 45' BEND PER UDACS PLATE NO. 31
7. INSTALL CAP AND 2" BLOWOFF VALVE PER UDACS PLATE NO. 36
8. INSTALL 8"X6" REDUCER PER UDACS PLATE NO. 30
9. INSTALL 8" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30 & 39
10. INSTALL 8"X8" TEE PER UDACS PLATE NO. 31
11. INSTALL FIRE HYDRANT ASSEMBLY W/6" GATE VALVE PER UDACS PLATE NO. 40
12. INSTALL 8"X6" TEE PER UDACS PLATE NO. 31
13. INSTALL 1" COPPER SERVICE W/ 3/4" IRRIGATION METER AND 1" RPPA PER UDACS PLATE NO. 4 & 8. SEE DETAIL ON SHEET D-2
14. FIELD VERIFY LOCATION, REMOVE CAP AND BLOW OFF VALVE PER UDACS PLATE NO. 36 & CONNECT TO EX. 8" PVC WATER PIPE
15. NOT USED
16. INSTALL 1" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 1

SEWER NOTES

1. INSTALL 8" PVC SANITARY SEWER PER DCSWCS SD-15 & SD-17
2. INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH PRECAST BASE PER DCSWCS SD-1A, SD-1B, SD-4, SD-9, AND SINGLE LID (24")
3. INSTALL 4" PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25.
4. EXISTING 48" DIAMETER SANITARY SEWER MANHOLE PER PHASE 1 IMPROVEMENT PLANS CLV #L19-00027 (107Y5102)
5. REMOVE CAP AND CONNECT TO EXISTING 8" SS
6. INSTALL SANITARY SEWER CLEANOUT WITH TRAFFIC RATED LID IN DRIVEWAY PER DCSWCS SD-26
7. INSTALL 4" C900 PVC SEWER LATERAL PER DCSWCS SD-22& SD-25 FOR LOT 54 ONLY
8. CONNECT SS LATERAL TO BRISTLE VALE UNIT 1 (CLV# 107Y5102-2) WYE FITTING

SEE SHEET C-3 FOR QUANTITES AND ABBREVATIONS

GENERAL NOTES

1. FOR FIRE HYDRANT LOCATION, TYPICAL UTILITY LOCATION, AND TYPICAL SEWER LATERAL DETAIL SEE SHEET U-1
2. ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22
3. NOTE: INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO. 15
4. DEPTH OF COVER DURING CONSTRUCTION MAINTAIN MINIMUM TWENTY FOUR (24) INCH COVER PER UDACS SECTION 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.
5. ALL ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF TITLE 19.06 & 19.08.
6. THE LVVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE REMAINING WATER. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.
   - WATER TIGHT MANHOLE

FOR ALL DRY UTILITIES CROSSINGS

8. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING FOR DRY UTILITIES.
9. MAINTAIN MINIMUM 3' PARALLEL SEPARATION FOR DRY UTILITIES.
10. ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP FOR DRY UTILITIES.

TO ENSURE LVVWD ACCESS WITHIN EASEMENT

ALL ABOVE GROUND OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO LANDSCAPE BOULDERS, FENCES/WALLS, AND SIGNS ARE STRICTLY PROHIBITED WITHIN EASEMENT.

WATER NOTES

REDUCED PRESSURE PRINCIPLE ASSEMBLY (1) 1"
APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 8. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

APPROVAL

LAS VEGAS FIRE AND RESCUE — DATE 5/9/19

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136382 FIRST APPROVED DATE: 5/13/19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORPORATION — DATE 5/9/19

FAST
Call before you UnderGround
1-702-432-5300
FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T.)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DIG OVERHEAD
1-702-227-2929

Call before you Dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811 OR
1-800-227-2600

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP DATE	APP

LAS VEGAS, NV

KB HOME
BRISTLE VALE - UNIT 2
UTILITY SHEET II

33 20S 59E

DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP

PROJECT NO.
KBH1804-000

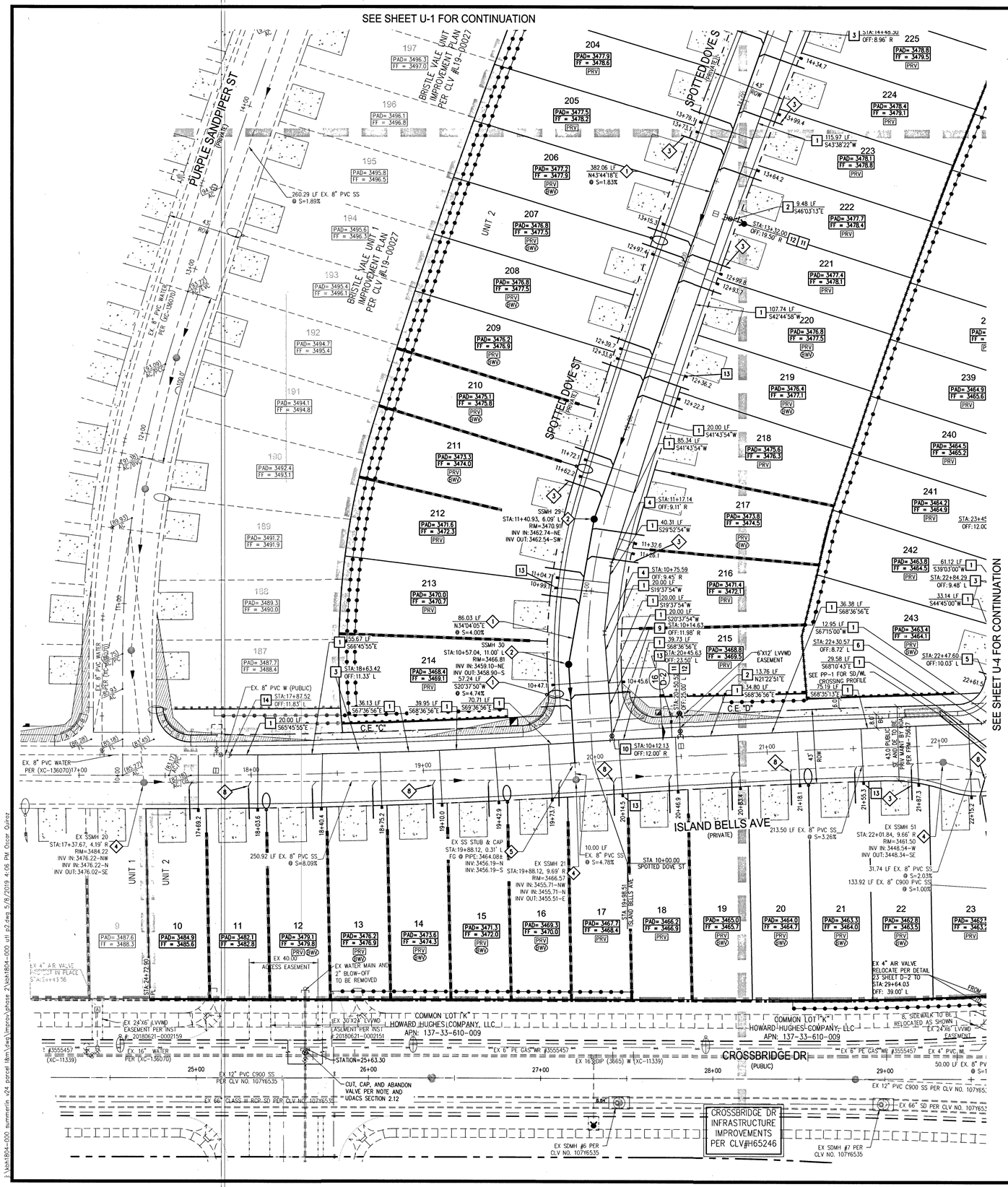
PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22938 — STATE OF NEVADA
5/8/19

U-2
SHEET 23 OF 29

L19-00527
107Y5102-2

PROJ.#:136382A QS:137-33-NE

k:\kbh1804-000 summerlin v2A parcel 18\mp\dwg\phase 2\kbh1804-000 utl p2.dwg 5/8/2019 3:19 PM Oscar Quiroz



NOTE

ALL PRIVATE STREETS ARE PUBLIC UTILITY, CLV SEWER & PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

DISCLAIMER NOTE

EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXCEPT 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.

STATIC PRESSURE NOTE

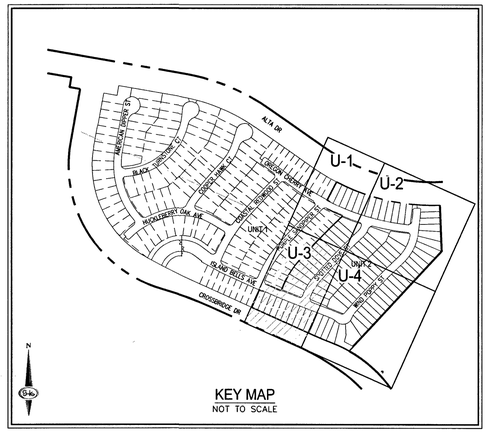
EXCESS PRESSURE FOR LOTS 12-53 AND 201-243

THIS PROPERTY MAY HAVE STATIC PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE REDUCING VALVES (PRV) BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRV'S ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVWD FACILITIES.

ABANDONED VAVLVES CUT AND CAP

ALL VALVES TO BE ABANDONED SHALL BE ABANDONED IN THE CLOSED POSITION, UNLESS SHOWN OTHERWISE, BY REMOVING A MINIMUM OF THE TOP TWENTY-FOUR (24) INCHES OF THE VALVE BOX, AND THEN FILLING THE BOTTOM OF THE BOX WITH A MINIMUM OF EIGHT (8) INCHES OF SAND OR TYPE II AGGREGATE BASE, THE REMAINING PORTION OF THE VALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF AT LEAST TWO THOUSAND (2000) PSI. THE LATERAL MUST BE CUT WITHIN ONE (1) FOOT OF THE ABANDONED VALVE, OR AS SHOWN ON PLANS, AND CAPPED, IN ACCORDANCE WITH THE PROVISION OF UDACS PLATE NO. 31.

0 30 60
SCALE - 1"=30' FEET



KEY MAP
NOT TO SCALE

EASEMENT NOTES

1. ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.
2. ALL COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED.

LVVWD NOTES

1. FIRE SPRINKLER SYSTEMS SHALL BE PLUMBED TO THE MASTER TOILET. NO EXCEPTIONS ALLOWED
2. SERVICE LATERALS FOR LOTS: 10 AND 60 WILL BE TAPPED ON EXISTING MAIN BY OWNER CONTRACTOR UNDER DIRECTION OF THE LVVWD
3. DROP INLET NOTE
WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE
CAST-IN-PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS. BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS, CENTER BULB, OR FLAT STRIP. (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL)
4. PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE PER UDACS. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES

FIRE FLOW CALCULATIONS

FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL.

USE/OCCUPANCY	SINGLE FAMILY
TYPE OF CONSTRUCTION (IBC)	TYPE V-B
SQUARE FOOTAGE	<3600
LARGEST AREA BETWEEN 4 HOUR WALLS	N/A
BUILDING HEIGHT	<35
NO OF STORIES INCLUDING BASEMENT	2
FIRE SPRINKLER	YES (13D)
NO OF HYDRANTS INSTALLED	5

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 345W6

RIVET AND ROUND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF DESERT MOON RD. AND SKY VISTA DR.
ELEVATION = 1011.422 METERS (NAVD '88)
ELEVATION = 3318.31 US SURVEY FEET (NAVD '88)

BASIS OF BEARINGS

NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.

WATER NOTES

1. INSTALL 8" PVC WATER PIPE (3665 WPZ)
2. INSTALL 6" PVC WATER PIPE (3665 WPZ)
3. INSTALL 5' BEND PER UDACS PLATE NO. 31
4. INSTALL 11.25' BEND PER UDACS PLATE NO. 31
5. INSTALL 22.5' BEND PER UDACS PLATE NO. 31
6. INSTALL 45' BEND PER UDACS PLATE NO. 31
7. INSTALL CAP AND 2" BLOWOFF VALVE PER UDACS PLATE NO. 36
8. INSTALL 8"x6" REDUCER PER UDACS PLATE NO. 30
9. INSTALL 8" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30 & 39
10. INSTALL 8"x8" TEE PER UDACS PLATE NO. 31
11. INSTALL FIRE HYDRANT ASSEMBLY W/6" GATE VALVE PER UDACS PLATE NO. 40
12. INSTALL 8"x6" TEE PER UDACS PLATE NO. 31
13. INSTALL 1" COPPER SERVICE W/ 3/4" IRRIGATION METER AND 1" RPPA PER UDACS PLATE NO. 4 & 8. SEE DETAIL ON SHEET D-2
14. FIELD VERIFY LOCATION, REMOVE CAP AND BLOW OFF VALVE PER UDACS PLATE NO. 36 & CONNECT TO EX. 8" PVC WATER PIPE
15. NOT USED
16. INSTALL 1" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 1

SEWER NOTES

1. INSTALL 8" PVC SANITARY SEWER PER DCSWCS SD-15 & SD-17
2. INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH PRECAST BASE PER DCSWCS SD-1A, SD-18, SD-4, SD-9, AND SINGLE LID (24")
3. INSTALL 4" PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25.
4. EXISTING 48" DIAMETER SANITARY SEWER MANHOLE PER PHASE 1 IMPROVEMENT PLANS CLV #L19-00027 (107YS102)
5. REMOVE CAP AND CONNECT TO EXISTING 8" SS
6. INSTALL SANITARY SEWER CLEANOUT WITH TRAFFIC RATED LID IN DRIVEWAY PER DCSWCS SD-26
7. INSTALL 4" C900 PVC SEWER LATERAL PER DCSWCS SD-22& SD-25 FOR LOT 54 ONLY
8. CONNECT SS LATERAL TO BRISTLE VALE UNIT 1 (CLV# 107YS102-2) WYE FITTING

SEE SHEET C-3 FOR QUANTITIES AND ABBREVIATIONS

GENERAL NOTES

1. FOR FIRE HYDRANT LOCATION, TYPICAL UTILITY LOCATION, AND TYPICAL SEWER LATERAL DETAIL SEE SHEET U-1
2. ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22
3. NOTE: INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO. 15
4. DEPTH OF COVER DURING CONSTRUCTION MAINTAIN MINIMUM TWENTY FOUR (24) INCH COVER PER UDACS SECTION 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.
5. ALL ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF TITLE 19.06 & 19.08.
6. THE LVVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE REMAINING WATER. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.
   * WATER TIGHT MANHOLE

FOR ALL DRY UTILITIES CROSSINGS

8. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING FOR DRY UTILITIES.
9. MAINTAIN MINIMUM 3' PARALLEL SEPARATION FOR DRY UTILITIES.
10. ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP FOR DRY UTILITIES.

TO ENSURE LVVWD ACCESS WITHIN EASEMENT

ALL ABOVE GROUND OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO LANDSCAPE BOULDERS, FENCES/WALLS, AND SIGNS ARE STRICTLY PROHIBITED WITHIN EASEMENT

WATER NOTES

REDUCED PRESSURE PRINCIPLE ASSEMBLY (1) 1"
APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 8. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

APPROVAL

LAS VEGAS FIRE AND RESCUE — DATE 5/9/19

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136382 FIRST APPROVED DATE: 5/13/19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORPORATION — DATE 5/9/19

FAST — Call before you UnderGround 1-702-432-5300 FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-227-2600

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

KB HOME
BRISTLE VALE - UNIT 2
UTILITY SHEET III

S 33
T 20S
R 59E

DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP

PROJECT NO.
KBH1804-000

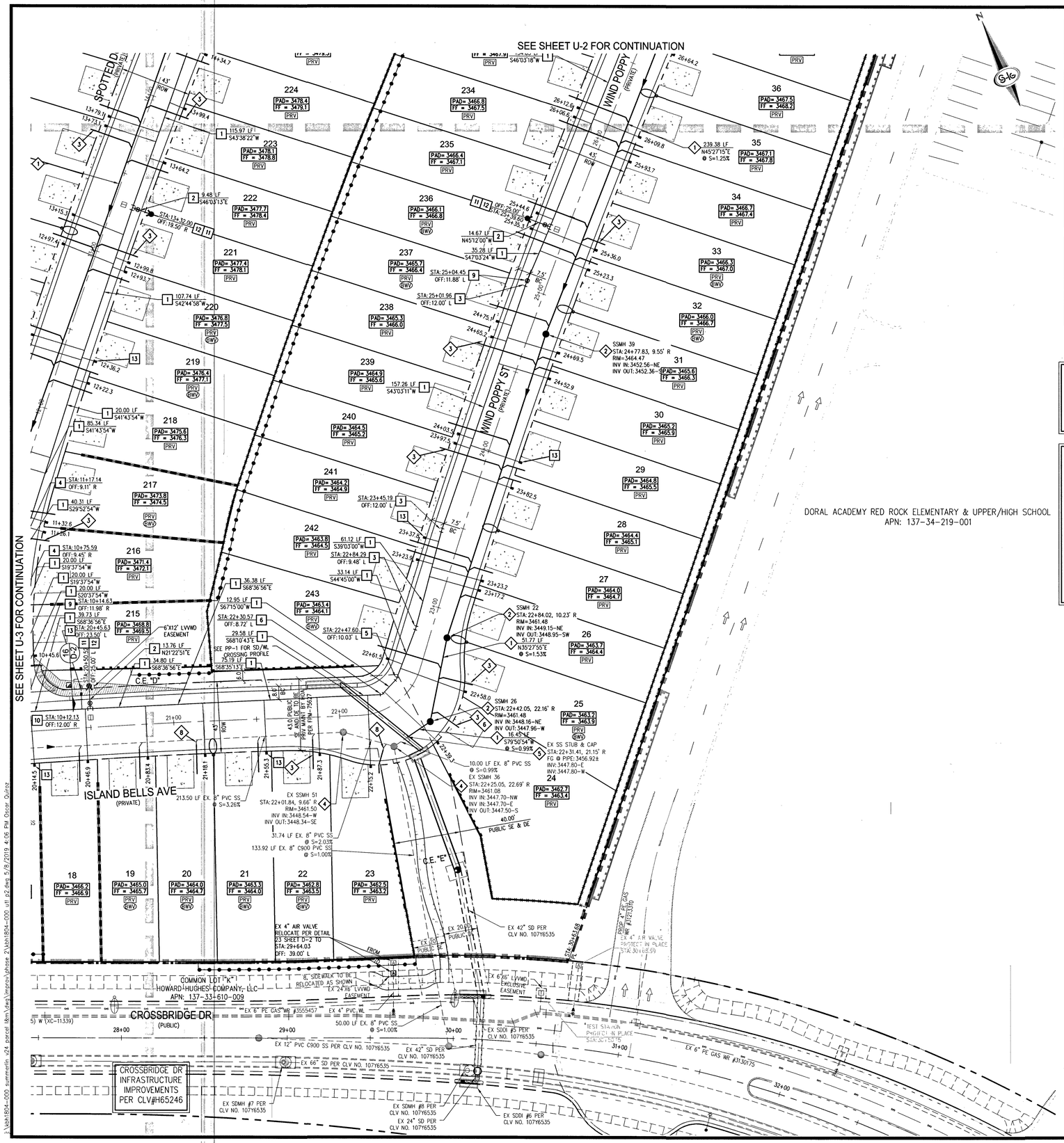
PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22958 — STATE OF NEVADA — 5/8/19

U-3
SHEET 24 OF 29

L19-00527
107YS102-2

PROJ.#:136382A QS:137-33-NE

J:\kbh1804-000 summerlin v24 parcel 16m\dwg\improv\phase 2\kbh1804-000 utl p2.dwg 5/8/2019 4:06 PM Oscar Quiroz



NOTE

ALL PRIVATE STREETS ARE PUBLIC UTILITY, CLV SEWER & PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

DISCLAIMER NOTE

EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXCEPT 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.

STATIC PRESSURE NOTE

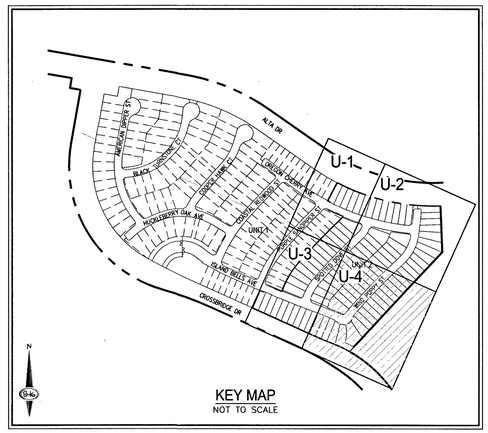
EXCESS PRESSURE FOR LOTS 12-53 AND 201-243

THIS PROPERTY MAY HAVE STATIC PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE REDUCING VALVES (PRV) BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRV'S ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVWD FACILITIES.

ABANDONED VAVLVES CUT AND CAP

ALL VALVES TO BE ABANDONED SHALL BE ABANDONED IN THE CLOSED POSITION, UNLESS SHOWN OTHERWISE, BY REMOVING A MINIMUM OF THE TOP TWENTY-FOUR (24) INCHES OF THE VALVE BOX, AND THEN FILLING THE BOTTOM OF THE BOX WITH A MINIMUM OF EIGHT (8) INCHES OF SAND OR TYPE II AGGREGATE BASE. THE REMAINING PORTION OF THE VALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF AT LEAST TWO THOUSAND (2000) PSI. THE LATERAL MUST BE CUT WITHIN ONE (1) FOOT OF THE ABANDONED VALVE, OR AS SHOWN ON PLANS, AND CAPPED, IN ACCORDANCE WITH THE PROVISION OF UDACS PLATE NO. 31.

0 30 60
SCALE - 1"=30' FEET



KEY MAP
NOT TO SCALE

EASEMENT NOTES

1. ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.
2. ALL COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED.

LVVWD NOTES

1. FIRE SPRINKLER SYSTEMS SHALL BE PLUMBED TO THE MASTER TOILET. NO EXCEPTIONS ALLOWED
2. SERVICE LATERALS FOR LOTS: 10 AND 60 WILL BE TAPPED ON EXISTING MAIN BY OWNER CONTRACTOR UNDER DIRECTION OF THE LVVWD
3. DROP INLET NOTE
WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:

CAST-IN-PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS. BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS. CENTER BULB, OR FLAT STRIP. (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL)

4. PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE PER UDACS. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES

FIRE FLOW CALCULATIONS

FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL.

USE/OCCUPANCY	SINGLE FAMILY
TYPE OF CONSTRUCTION (IBC)	TYPE V-B
SQUARE FOOTAGE	<3600
LARGEST AREA BETWEEN 4 HOUR WALLS	N/A
BUILDING HEIGHT	<35
NO OF STORIES INCLUDING BASEMENT	2
FIRE SPRINKLER	YES (13D)
NO OF HYDRANTS INSTALLED	5

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6

RIVET AND ROUND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF DESERT MOON RD. AND SKY VISTA DR.
ELEVATION = 1011.422 METERS (NAVD '88)
ELEVATION = 3318.31 US SURVEY FEET (NAVD '88)

BASIS OF BEARINGS

NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.

WATER NOTES

1. INSTALL 8" PVC WATER PIPE (3665 WPZ)
2. INSTALL 6" PVC WATER PIPE (3665 WPZ)
3. INSTALL 5" BEND PER UDACS PLATE NO. 31
4. INSTALL 11.25° BEND PER UDACS PLATE NO. 31
5. INSTALL 22.5° BEND PER UDACS PLATE NO. 31
6. INSTALL 45° BEND PER UDACS PLATE NO. 31
7. INSTALL CAP AND 2" BLOWOFF VALVE PER UDACS PLATE NO. 36
8. INSTALL 8"X6" REDUCER PER UDACS PLATE NO. 30
9. INSTALL 8" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30 & 39
10. INSTALL 8"X8" TEE PER UDACS PLATE NO. 31
11. INSTALL FIRE HYDRANT ASSEMBLY W/6" GATE VALVE PER UDACS PLATE NO. 40
12. INSTALL 8"X6" TEE PER UDACS PLATE NO. 31
13. INSTALL 1" COPPER SERVICE W/ 3/4" IRRIGATION METER AND 1" RPPA PER UDACS PLATE NO. 4 & 8. SEE DETAIL ON SHEET D-2
14. FIELD VERIFY LOCATION, REMOVE CAP AND BLOW OFF VALVE PER UDACS PLATE NO. 36 & CONNECT TO EX. 8" PVC WATER PIPE
15. NOT USED
16. INSTALL 1" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 1

SEWER NOTES

1. INSTALL 8" PVC SANITARY SEWER PER DCSWCS SD-15 & SD-17
2. INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH PRECAST BASE PER DCSWCS SD-1A, SD-1B, SD-4, SD-9, AND SINGLE LID (24")
3. INSTALL 4" PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25.
4. EXISTING 48" DIAMETER SANITARY SEWER MANHOLE PER PHASE 1 IMPROVEMENT PLANS CLV #L19-00027 (107Y5102)
5. REMOVE CAP AND CONNECT TO EXISTING 8" SS
6. INSTALL SANITARY SEWER CLEANOUT WITH TRAFFIC RATED LID IN DRIVEWAY PER DCSWCS SD-28
7. INSTALL 4" C900 PVC SEWER LATERAL PER DCSWCS SD-22& SD-25 FOR LOT 54 ONLY
8. CONNECT SS LATERAL TO BRISTLE VALE UNIT 1 (CLV# 107Y5102-2) WYE FITTING

SEE SHEET C-3 FOR QUANTITIES AND ABBREVIATIONS

GENERAL NOTES

1. FOR FIRE HYDRANT LOCATION, TYPICAL UTILITY LOCATION, AND TYPICAL SEWER LATERAL DETAIL SEE SHEET U-1
2. ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22
3. NOTE: INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO. 15
4. DEPTH OF COVER DURING CONSTRUCTION MAINTAIN MINIMUM TWENTY FOUR (24) INCH COVER PER UDACS SECTION 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.
5. ALL ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF TITLE 19.06 & 19.08.
6. THE LVVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE REMAINING WATER. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE. PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.
   * WATER TIGHT MANHOLE

FOR ALL DRY UTILITIES CROSSINGS

8. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING FOR DRY UTILITIES.
9. MAINTAIN MINIMUM 3' PARALLEL SEPARATION FOR DRY UTILITIES.
10. ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP FOR DRY UTILITIES.

TO ENSURE LVVWD ACCESS WITHIN EASEMENT

ALL ABOVE GROUND OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO LANDSCAPE BOULDERS, FENCES/WALLS, AND SIGNS ARE STRICTLY PROHIBITED WITHIN EASEMENT.

WATER NOTES

REDUCED PRESSURE PRINCIPLE ASSEMBLY (1) 1"
APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 8. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

APPROVAL

LAS VEGAS FIRE AND RESCUE — DATE 5/9/19

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136382 FIRST APPROVED DATE: 5/13/19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORPORATION — DATE 5/9/19

FAST — Call before you UnderGround 1-702-432-5300 FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

Call before you Dig. AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-227-2600

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

KB HOME
BRISTLE VALE - UNIT 2
UTILITY SHEET IV

S 33 T 20S R 59E

DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP

PROJECT NO. KBH1804-000

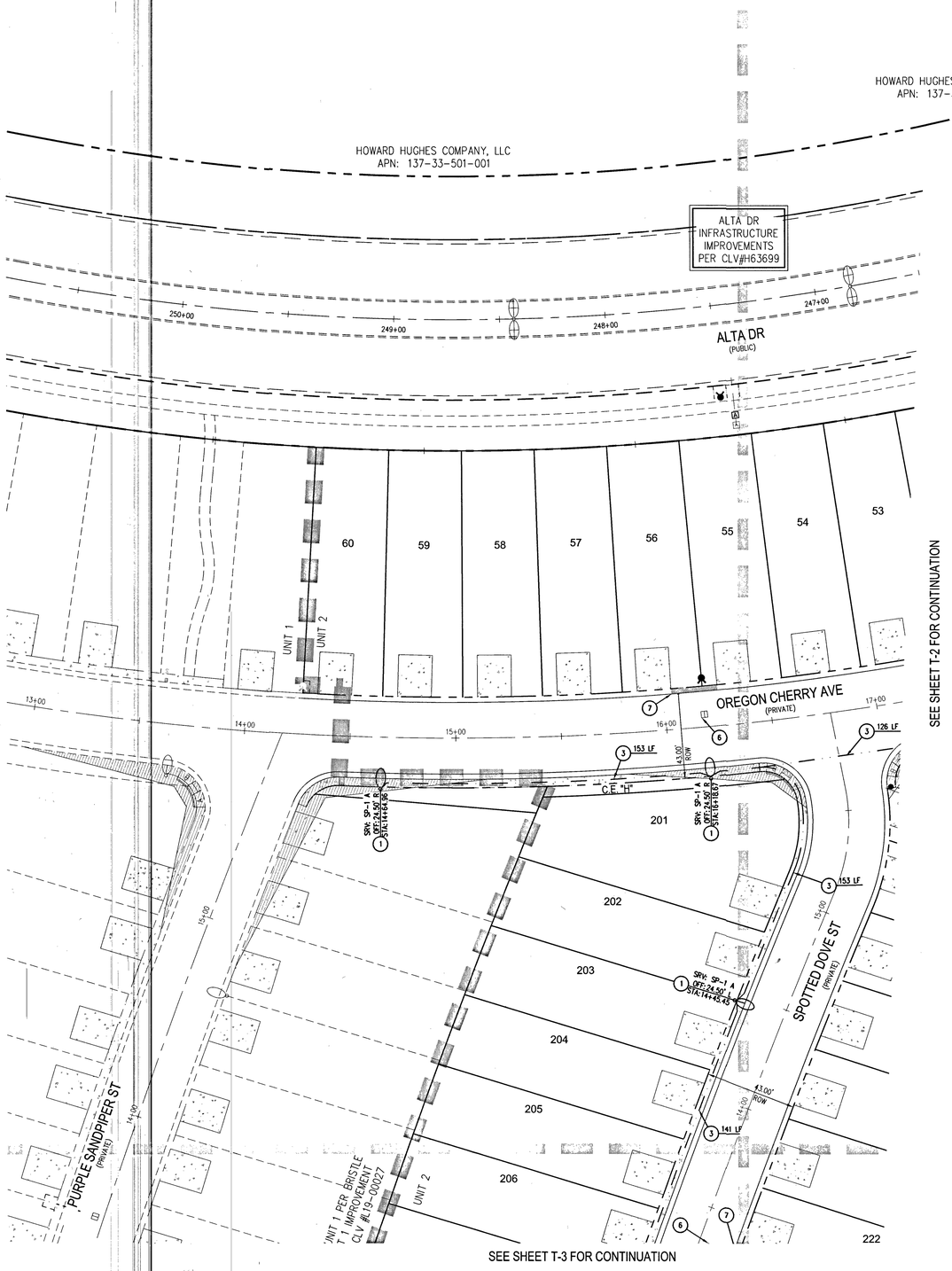
TIMOTHY M. MULROONEY, Exp. 12/31/2019, CIVIL, No. 22938, STATE OF NEVADA, PROFESSIONAL ENGINEER — 5/8/19

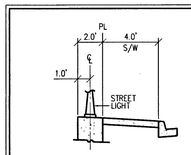
U-4
SHEET 25 OF 29

L19-00527
107Y5102-2

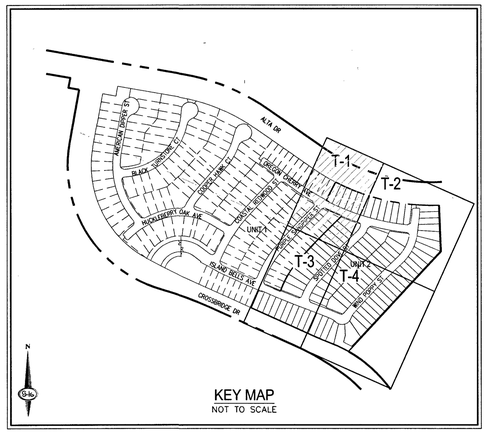
PROJ#:136382A QS:137-33-NE

J:\kbh1804-000 summerlin (24 parcel 16)\civil\dwg\improv\phase 2\kbh1804-000 utl p2.dwg 5/8/2019 4:06 PM Oscar Quiroz





A. TYPICAL STREETLIGHT LOCATION
NOT TO SCALE



KEY MAP
NOT TO SCALE

ELECTRICAL NOTES

1. ALL UNDERGROUND CONDUIT SHALL BE TYPE RNC (RIGID NONMETALLIC CONDUIT), SCHEDULE 40 PVC AND SHALL BE INSTALLED PER DETAIL THIS SHEET. ABOVE GRADE CONDUIT SHALL BE TYPE RMC (RIGID METALLIC CONDUIT). CONDUIT RISERS SHALL BE TYPE RMC WITH PVC COATING OR TAPE WRAP. ALL CONDUIT WHICH WOULD OTHERWISE BE EMPTY SHALL INCLUDE A NYLON PULLSTRING AND 1#8 FOR LOCATING PURPOSES.
2. ALL CONDUCTOR SHALL BE STRANDED, 600V, TYPE THW INSULATED COPPER.
3. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ELECTRICAL COMPONENTS AND HARDWARE AS REQUIRED BY THE NATIONAL ELECTRICAL CODE, LATEST EDITION, AND SHALL COMPLY WITH THE REQUIREMENTS OF THE INSPECTING AUTHORITY HAVING JURISDICTION.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6

RIVET AND ROUND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF DESERT MOON RD. AND SKY VISTA DR.
ELEVATION = 1011.422 METERS (NAVD '88)
ELEVATION = 3318.31 US SURVEY FEET (NAVD '88)

ELECTRICAL SERVICE NOTES

SP1: 200 AMP, SINGLE PHASE, 3 WIRE, 120/240V PAD MOUNTED SERVICE PEDESTAL. FEEDER FROM N.P.CO. POINT OF CONNECTION TO BE 2"C, 2#4/0 THW, 1#4/0 WHITE THW (COPPER). TRANSFORMER TO SERVICE PEDESTAL DISTANCES GREATER THAN 250 FEET FOR SPECIFIED CONDUCTORS MUST BE APPROVED BY ENGINEER. SERVICE PEDESTAL SHALL BE LOCATED A MINIMUM OF 30 FEET FROM THE TRANSFORMER. THE FOLLOWING SHALL BE INCLUDED IN THE SERVICE PEDESTAL:
(2) 60 AMP, 240V, 2-POLE CIRCUIT BREAKERS,
(2) 60 AMP, 240V, 2-POLE LIGHTING CONTACTORS,
(2) TEST SWITCHES (ONE FOR EACH CONTACTOR), PHOTOELECTRICAL CONTROL,
(1) 15 AMP, 120V, SINGLE POLE CIRCUIT BREAKER FOR LIGHTING CONTROLS.
CONTRACTOR TO PROVIDE (2) 1-1/4" CONDUITS FROM SERVICE PEDESTAL TO FIRST STREETLIGHTING PULLBOX. SERVICE PEDESTAL SHALL COMPLY WITH CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS 330, 331, 332.1 AND 335.1.

BASIS OF BEARINGS

NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.

GENERAL NOTES

1. REPLACE ALL TRAFFIC CONTROL DEVICES (SIGNS AND/OR PAVEMENT MARKINGS), UNDER CLARK COUNTY'S JURISDICTION, THAT ARE DISTURBED, DESTROYED, MOVED OR MODIFIED BY TRENCHING ACTIVITIES TO CLARK COUNTY'S SATISFACTION. ALL MATERIAL USED SHALL MEET CLARK COUNTY'S SPECIFICATIONS OR WILL WILL BE AN APPROVED EQUIVALENT.
2. IN THE EVENT THAT THE TRAFFIC SIGNAL CONDUITS, LOOP DETECTORS OR ASSOCIATED EQUIPMENT ARE DAMAGED BY CONTRACTOR, THE CONTRACTOR WILL HIRE AN IMSA LEVEL II ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 623.G.01.02
3. 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.
4. ALL ONSITE PRIVATE STREETS ARE P.U.E.S, CLV PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED.

SIGN LEGEND

	9" STREET NAME SIGN (D-3, BROWN WITH WHITE LETTERS, 2 PER POLE) PER SUMMERLIN IMPROVEMENT STANDARDS RS-1 (MAIN ST)
STOP	30" OR 36" STOP SIGN W/POST (R1-1) SIZE PER PLAN
R FIRE LANE	TYPE A SIGN PER "SOUTHERN NEVADA FIRE CODE AMENDMENTS" SECTION 503.3
SPEED LIMIT 25	SPEED LIMIT (R2-1) - 24"x30"
	REFLECTIVE RAISED PAVEMENT MARKERS
	100W STREETLIGHT
	EXISTING 250W STREETLIGHT
	NO. 3-1/2 PULL BOX (STREET LIGHT)
	P30 FIBER OPTIC PULL BOX (FAST)
	STREETLIGHT SERVICE PEDESTAL
	IRRIGATION SERVICE PEDESTAL
	TRAFFIC SIGN (AS INDICATED)
	TYPE IIIB BARRICADE PER CCAUSD NO. 601 FOR TEMPORARY USE
ER	18"X18" END OF ROAD MARKERS (OM4-1) (RED REFLECTIVE DIAMONDS) PER CCAUSD NO. 601
	SIGHT VISIBILITY ZONE

SEE SHEET C-3 FOR ABBREVIATIONS AND QUANTITIES

TRAFFIC NOTES

1. INSTALL 100W HPS STREET LIGHT WITH DECORATIVE POLE PER SUMMERLIN STANDARDS, FOUNDATION PER CCAUSD # 313, 314, 319, 320 & 321
2. INSTALL NO. 3-1/2 PULLBOX PER CCAUSD # 326
3. INSTALL 1-1/4" STREET LIGHT CONDUIT CONTAINING 2-#4, 1-#8 GND
4. INSTALL 125 AMP SERVICE PEDESTAL PER CCAUSD # 331 & 332.S2 (FOR IRRIGATION)
5. INSTALL SIGN PER PLAN (SEE LEGEND FOR SIGN DESCRIPTION)
6. INSTALL BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKER
7. PAINT CURB RED 15' BOTH DIRECTION OF FIRE HYDRANT FOR A TOTAL OF 30' (WHEN CURB LENGTH PERMITTED)
8. EXISTING NO. 3-1/2 PULLBOX PER CLV L19-00027 (BRISTLE VALE-UNIT 1)
9. INSTALL 200 AMP SERVICE PEDESTAL PER CCAUSD #331, 332.S2 AND SUMMERLIN IMPROVEMENT STANDARD DETAIL FOR SINGLE SERVICE PEDESTAL (E-17)

SEE SHEET C-3 FOR ABBREVIATIONS, QUANTITIES & ADDITIONAL LEGEND

APPROVAL
LAS VEGAS FIRE AND RESCUE — DATE 5/9/19

FAST — Call before you UnderGround 1-702-432-5300 FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T.)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

Call before you Dig. AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-227-2600

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	APP

LAS VEGAS, NV

KBHOME
BRISTLE VALE - UNIT 2
TRAFFIC PLAN I

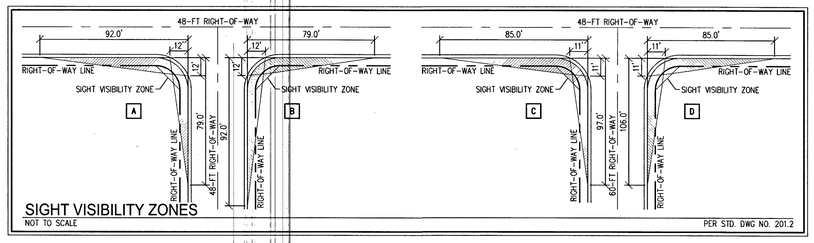
S 33 T 20S R 59E

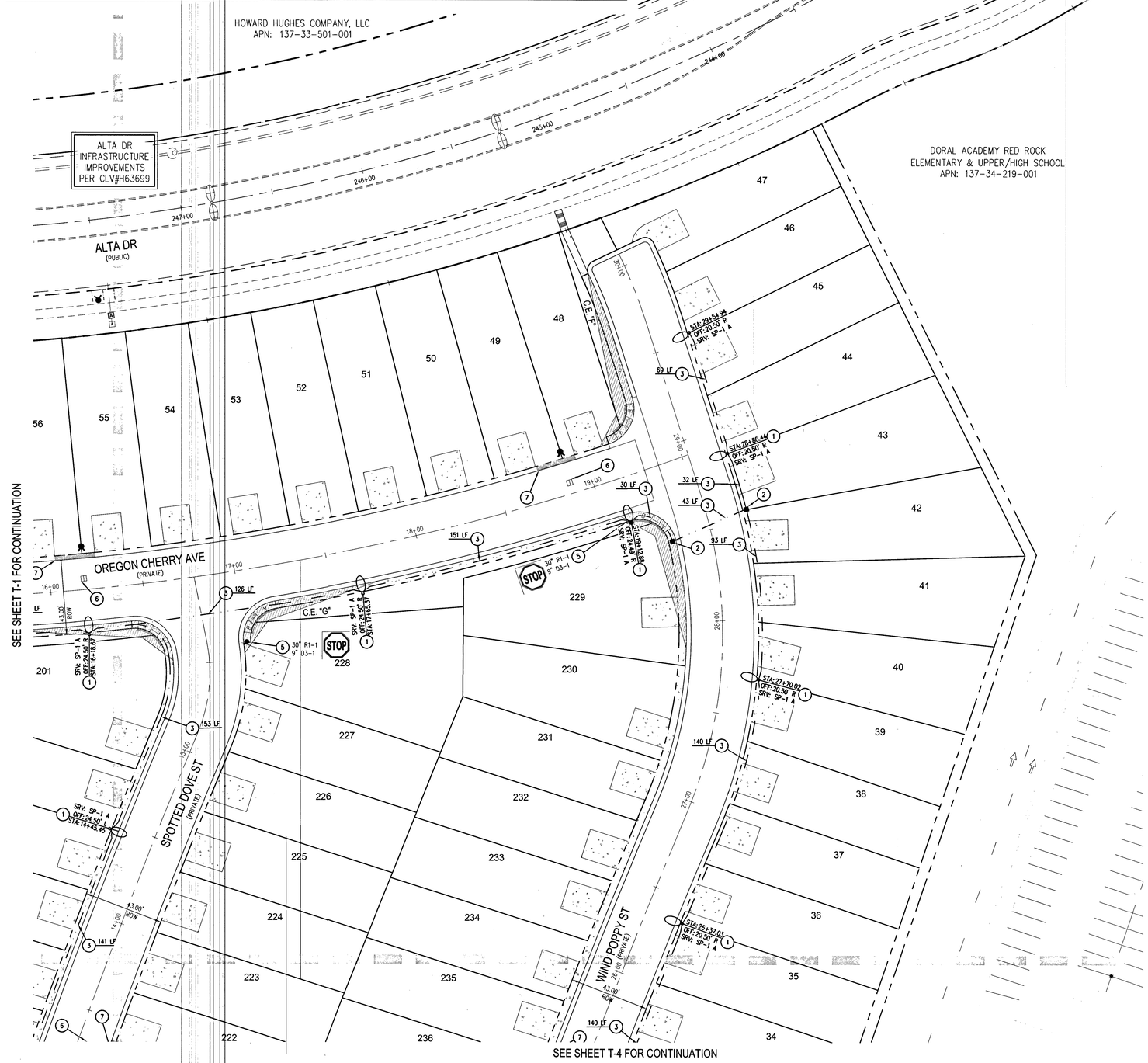
DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP
PROJECT NO. KBH1804-000

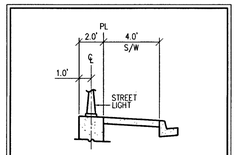
PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22938 — STATE OF NEVADA — 5/8/19

T-1
SHEET 26 OF 29
L19-00527
107Y5102-2

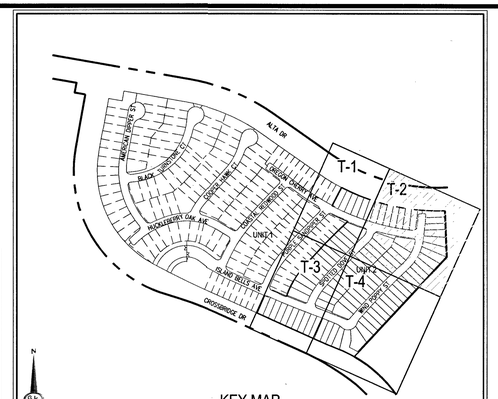
k:\kbh1804-000 summerlin v24 parcel l&m\dwg\plans\phase 2\kbh1804-000 tr1 p2.dwg 5/8/2019 3:20 PM Oscar Quiroz







A. TYPICAL STREETLIGHT LOCATION
NOT TO SCALE



KEY MAP
NOT TO SCALE

ELECTRICAL NOTES

1. ALL UNDERGROUND CONDUIT SHALL BE TYPE RNC (RIGID NONMETALLIC CONDUIT), SCHEDULE 40 PVC AND SHALL BE INSTALLED PER DETAIL THIS SHEET. ABOVE GRADE CONDUIT SHALL BE TYPE RMC (RIGID METALLIC CONDUIT). CONDUIT RISERS SHALL BE TYPE RMC WITH PVC COATING OR TAPE WRAP. ALL CONDUIT WHICH WOULD OTHERWISE BE EMPTY SHALL INCLUDE A NYLON PULLSTRING AND 1#8 FOR LOCATING PURPOSES.
2. ALL CONDUCTOR SHALL BE STRANDED, 600V, TYPE THW INSULATED COPPER.
3. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ELECTRICAL COMPONENTS AND HARDWARE AS REQUIRED BY THE NATIONAL ELECTRICAL CODE, LATEST EDITION, AND SHALL COMPLY WITH THE REQUIREMENTS OF THE INSPECTING AUTHORITY HAVING JURISDICTION.

ELECTRICAL SERVICE NOTES

SP1: 200 AMP, SINGLE PHASE, 3 WIRE, 120/240V PAD MOUNTED SERVICE PEDESTAL. FEEDER FROM N.P.CO. POINT OF CONNECTION TO BE 2"C, 2#4/0 THW, 1#4/0 WHITE THW (COPPER). TRANSFORMER TO SERVICE PEDESTAL DISTANCES GREATER THAN 250 FEET FOR SPECIFIED CONDUCTORS MUST BE APPROVED BY ENGINEER. SERVICE PEDESTAL SHALL BE LOCATED A MINIMUM OF 30 FEET FROM THE TRANSFORMER. THE FOLLOWING SHALL BE INCLUDED IN THE SERVICE PEDESTAL:
(2) 60 AMP, 240V, 2-POLE CIRCUIT BREAKERS,
(2) 60 AMP, 240V, 2-POLE LIGHTING CONTACTORS,
(2) TEST SWITCHES (ONE FOR EACH CONTACTOR), PHOTOELECTRICAL CONTROL,
(1) 15 AMP, 120V, SINGLE POLE CIRCUIT BREAKER FOR LIGHTING CONTROLS.
CONTRACTOR TO PROVIDE (2) 1-1/4" CONDUITS FROM SERVICE PEDESTAL TO FIRST STREETLIGHTING PULLBOX. SERVICE PEDESTAL SHALL COMPLY WITH CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS 330, 331, 332.1 AND 335.1.

GENERAL NOTES

1. REPLACE ALL TRAFFIC CONTROL DEVICES (SIGNS AND/OR PAVEMENT MARKINGS), UNDER CLARK COUNTY'S JURISDICTION, THAT ARE DISTURBED, DESTROYED, MOVED OR MODIFIED BY TRENCHING ACTIVITIES TO CLARK COUNTY'S SATISFACTION. ALL MATERIAL USED SHALL MEET CLARK COUNTY'S SPECIFICATIONS OR WILL WILL BE AN APPROVED EQUIVALENT.
2. IN THE EVENT THAT THE TRAFFIC SIGNAL CONDUITS, LOOP DETECTORS OR ASSOCIATED EQUIPMENT ARE DAMAGED BY CONTRACTOR, THE CONTRACTOR WILL HIRE AN IMSA LEVEL II ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 623.6.01.02
3. 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.
4. ALL ONSITE PRIVATE STREETS ARE P.U.E.S. CLV PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED.

TRAFFIC NOTES

1. INSTALL 100W HPS STREET LIGHT WITH DECORATIVE POLE PER SUMMERLIN STANDARDS, FOUNDATION PER CCAUSD # 313, 314, 319, 320 & 321
2. INSTALL NO. 3-1/2 PULLBOX PER CCAUSD # 326
3. INSTALL 1-1/4" STREET LIGHT CONDUIT CONTAINING 2-#4, 1-#8 GND
4. INSTALL 125 AMP SERVICE PEDESTAL PER CCAUSD # 331 & 332.S2 (FOR IRRIGATION)
5. INSTALL SIGN PER PLAN (SEE LEGEND FOR SIGN DESCRIPTION)
6. INSTALL BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKER
7. PAINT CURB RED 15' BOTH DIRECTION OF FIRE HYDRANT FOR A TOTAL OF 30' (WHEN CURB LENGTH PERMITTED)
8. EXISTING NO. 3-1/2 PULLBOX PER CLV L19-00027 (BRISTLE VALE-UNIT 1)
9. INSTALL 200 AMP SERVICE PEDESTAL PER CCAUSD #331, 332.S2 AND SUMMERLIN IMPROVEMENT STANDARD DETAIL FOR SINGLE SERVICE PEDESTAL (E-17)

SEE SHEET C-3 FOR ABBREVIATIONS, QUANTITIES & ADDITIONAL LEGEND

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6

RIVET AND ROUND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF DESERT MOON RD. AND SKY VISTA DR.
ELEVATION = 1011.422 METERS (NAVD '88)
ELEVATION = 3318.31 US SURVEY FEET (NAVD '88)

BASIS OF BEARINGS

NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.

SIGN LEGEND

- 9" STREET NAME SIGN (D-3, BROWN WITH WHITE LETTERS, 2 PER POLE) PER SUMMERLIN IMPROVEMENT STANDARDS RS-1 (MAIN ST)
- 30" OR 36" STOP SIGN W/POST (R1-1) SIZE PER PLAN
- TYPE A SIGN PER "SOUTHERN NEVADA FIRE CODE AMENDMENTS" SECTION 503.3
- SPEED LIMIT (R2-1) - 24"x30"
- REFLECTIVE RAISED PAVEMENT MARKERS
- 100W STREETLIGHT
- EXISTING 250W STREETLIGHT
- NO. 3-1/2 PULL BOX (STREET LIGHT)
- P.30 FIBER OPTIC PULL BOX (FAST)
- STREETLIGHT SERVICE PEDESTAL
- IRRIGATION SERVICE PEDESTAL
- TRAFFIC SIGN (AS INDICATED)
- TYPE IIIB BARRICADE PER CCAUSD NO. 601 FOR TEMPORARY USE
- 18"X18" END OF ROAD MARKERS (OM4-1) (RED REFLECTIVE DIAMONDS) PER CCAUSD NO. 601
- SIGHT VISIBILITY ZONE

SEE SHEET C-3 FOR ABBREVIATIONS AND QUANTITIES

APPROVAL
LAS VEGAS FIRE AND RESCUE — DATE 5/9/19

FAST — Call before you UnderGround 1-702-432-5300 — FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD — 1-702-227-2929

Call before you Dig — AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-227-2600

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	APP.

LAS VEGAS, NV

KB HOME
BRISTLE VALE - UNIT 2
TRAFFIC PLAN II

S 33
T 20S
R 59E

DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP

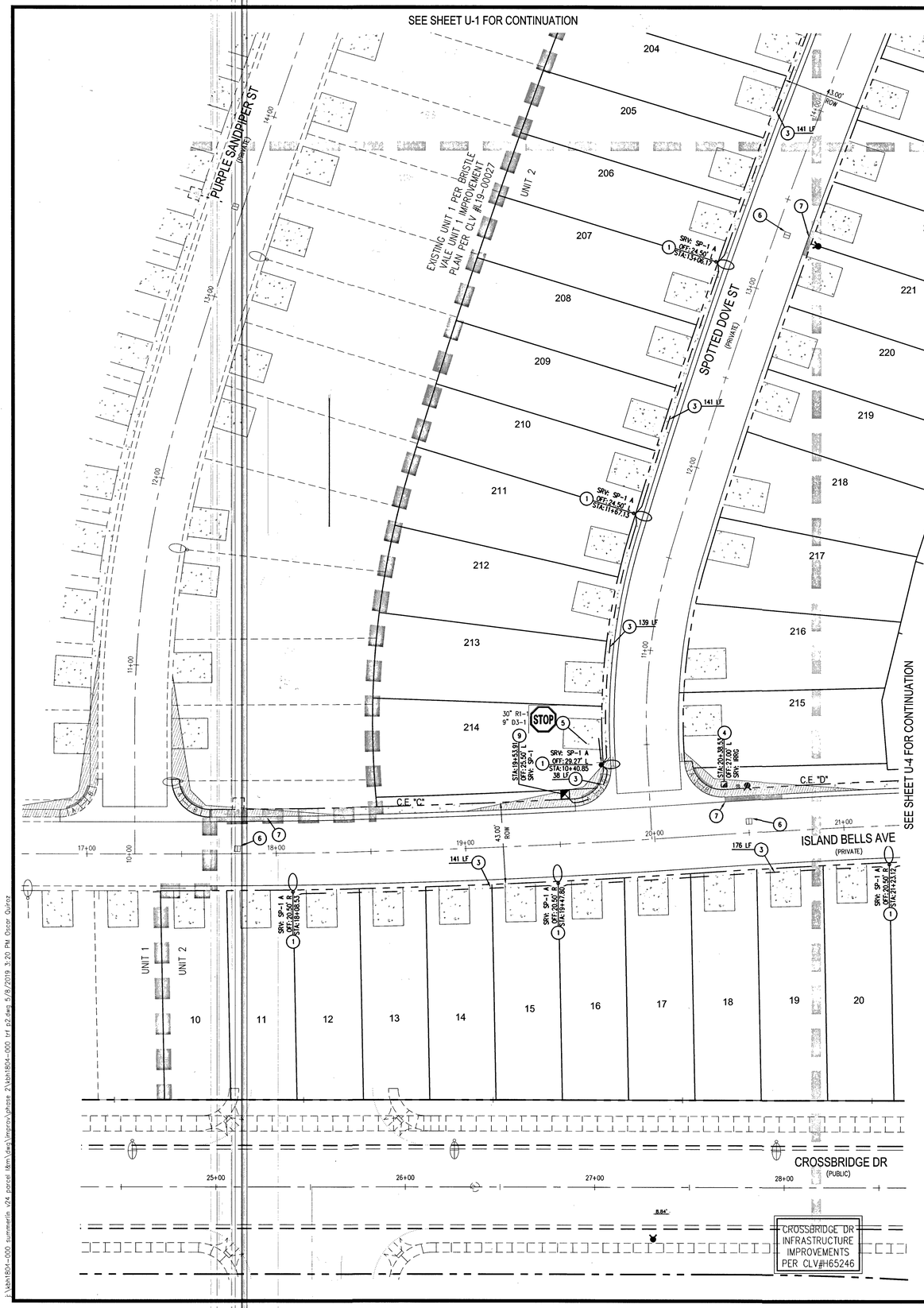
PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22958 — STATE OF NEVADA — 5/8/19

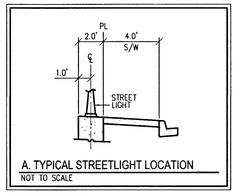
T-2
SHEET 27 OF 29

L19-00527
107Y5102-2

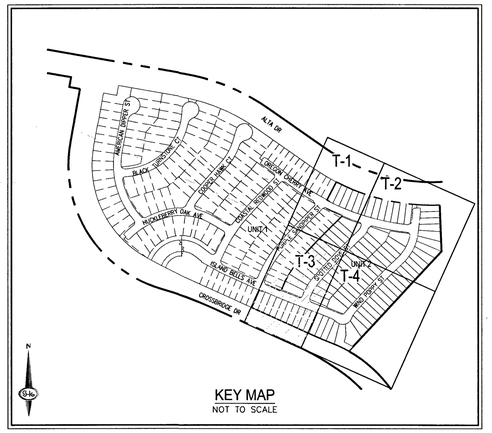
J:\kbh1804-000 summerlin v24 parcel 16\dwg\improv\phase 2\kbh1804-000 trf p2.dwg 5/8/2019 3:20 PM Oscar Quiroz



SCALE – 1"=30' (0, 30, 60 FEET)



A. TYPICAL STREETLIGHT LOCATION
NOT TO SCALE



KEY MAP
NOT TO SCALE

ELECTRICAL NOTES

1. ALL UNDERGROUND CONDUIT SHALL BE TYPE RNC (RIGID NONMETALLIC CONDUIT), SCHEDULE 40 PVC AND SHALL BE INSTALLED PER DETAIL THIS SHEET. ABOVE GRADE CONDUIT SHALL BE TYPE RMC (RIGID METALLIC CONDUIT). CONDUIT RISERS SHALL BE TYPE RMC WITH PVC COATING OR TAPE WRAP. ALL CONDUIT WHICH WOULD OTHERWISE BE EMPTY SHALL INCLUDE A NYLON PULLSTRING AND 1#8 FOR LOCATING PURPOSES.
2. ALL CONDUCTOR SHALL BE STRANDED, 600V, TYPE THW INSULATED COPPER.
3. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ELECTRICAL COMPONENTS AND HARDWARE AS REQUIRED BY THE NATIONAL ELECTRICAL CODE, LATEST EDITION, AND SHALL COMPLY WITH THE REQUIREMENTS OF THE INSPECTING AUTHORITY HAVING JURISDICTION.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6

RIVET AND ROUND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF DESERT MOON RD. AND SKY VISTA DR.
ELEVATION = 1011.422 METERS (NAVD '88)
ELEVATION = 3318.31 US SURVEY FEET (NAVD '88)

ELECTRICAL SERVICE NOTES

SP1: 200 AMP, SINGLE PHASE, 3 WIRE, 120/240V PAD MOUNTED SERVICE PEDESTAL. FEEDER FROM N.P.CO. POINT OF CONNECTION TO BE 2"C, 2#4/0 THW, 1#4/0 WHITE THW (COPPER). TRANSFORMER TO SERVICE PEDESTAL DISTANCES GREATER THAN 250 FEET FOR SPECIFIED CONDUCTORS MUST BE APPROVED BY ENGINEER. SERVICE PEDESTAL SHALL BE LOCATED A MINIMUM OF 30 FEET FROM THE TRANSFORMER. THE FOLLOWING SHALL BE INCLUDED IN THE SERVICE PEDESTAL:
(2) 60 AMP, 240V, 2-POLE CIRCUIT BREAKERS,
(2) 60 AMP, 240V, 2-POLE LIGHTING CONTACTORS,
(2) TEST SWITCHES (ONE FOR EACH CONTACTOR), PHOTOELECTRICAL CONTROL,
(1) 15 AMP, 120V, SINGLE POLE CIRCUIT BREAKER FOR LIGHTING CONTROLS.
CONTRACTOR TO PROVIDE (2) 1-1/4" CONDUITS FROM SERVICE PEDESTAL TO FIRST STREETLIGHTING PULLBOX. SERVICE PEDESTAL SHALL COMPLY WITH CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS 330, 331, 332.1 AND 335.1.

BASIS OF BEARINGS

NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.

GENERAL NOTES

1. REPLACE ALL TRAFFIC CONTROL DEVICES (SIGNS AND/OR PAVEMENT MARKINGS), UNDER CLARK COUNTY'S JURISDICTION, THAT ARE DISTURBED, DESTROYED, MOVED OR MODIFIED BY TRENCHING ACTIVITIES TO CLARK COUNTY'S SATISFACTION. ALL MATERIAL USED SHALL MEET CLARK COUNTY'S SPECIFICATIONS OR WILL WILL BE AN APPROVED EQUIVALENT.
2. IN THE EVENT THAT THE TRAFFIC SIGNAL CONDUITS, LOOP DETECTORS OR ASSOCIATED EQUIPMENT ARE DAMAGED BY CONTRACTOR, THE CONTRACTOR WILL HIRE AN IMSA LEVEL II ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 623.G.01.02
3. 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.
4. ALL ONSITE PRIVATE STREETS ARE P.U.E.S, CLV PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED.

SIGN LEGEND

- 9" STREET NAME SIGN (D-3, BROWN WITH WHITE LETTERS, 2 PER POLE) PER SUMMERLIN IMPROVEMENT STANDARDS RS-1 MAIN ST
- 30" OR 36" STOP SIGN W/POST (R1-1) SIZE PER PLAN
- TYPE A SIGN PER "SOUTHERN NEVADA FIRE CODE AMENDMENTS" SECTION 503.3
- SPEED LIMIT (R2-1) – 24"x30"
- REFLECTIVE RAISED PAVEMENT MARKERS
- 100W STREETLIGHT
- EXISTING 250W STREETLIGHT
- NO. 3-1/2 PULL BOX (STREET LIGHT)
- P30 FIBER OPTIC PULL BOX (FAST)
- STREETLIGHT SERVICE PEDESTAL
- IRRIGATION SERVICE PEDESTAL
- TRAFFIC SIGN (AS INDICATED)
- TYPE IIIB BARRICADE PER CCAUSD NO. 601 FOR TEMPORARY USE
- 18"X18" END OF ROAD MARKERS (OM4-1) (RED REFLECTIVE DIAMONDS) PER CCAUSD NO. 601
- SIGHT VISIBILITY ZONE

SEE SHEET C-3 FOR ABBREVIATIONS AND QUANTITIES

TRAFFIC NOTES

1. INSTALL 100W HPS STREET LIGHT WITH DECORATIVE POLE PER SUMMERLIN STANDARDS, FOUNDATION PER CCAUSD # 313, 314, 319, 320 & 321
2. INSTALL NO. 3-1/2 PULLBOX PER CCAUSD # 326
3. INSTALL 1-1/4" STREET LIGHT CONDUIT CONTAINING 2-#4, 1-#8 GND
4. INSTALL 125 AMP SERVICE PEDESTAL PER CCAUSD # 331 & 332.S2 (FOR IRRIGATION)
5. INSTALL SIGN PER PLAN (SEE LEGEND FOR SIGN DESCRIPTION)
6. INSTALL BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKER
7. PAINT CURB RED 15' BOTH DIRECTION OF FIRE HYDRANT FOR A TOTAL OF 30' (WHEN CURB LENGTH PERMITTED)
8. EXISTING NO. 3-1/2 PULLBOX PER CLV L19-00027 (BRISTLE VALE-UNIT 1)
9. INSTALL 200 AMP SERVICE PEDESTAL PER CCAUSD #331, 332.S2 AND SUMMERLIN IMPROVEMENT STANDARD DETAIL FOR SINGLE SERVICE PEDESTAL (E-17)

SEE SHEET C-3 FOR ABBREVIATIONS, QUANTITIES & ADDITIONAL LEGEND

APPROVAL
LAS VEGAS FIRE AND RESCUE — DATE 5/9/19

FAST — Call before you UnderGround 1-702-432-5300 — FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD — 1-702-227-2929

Call before you Dig — AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-227-2600

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	APP.

LAS VEGAS, NV

KB HOME
BRISTLE VALE - UNIT 2
TRAFFIC PLAN III

S 33
T 20S
R 59E

DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP

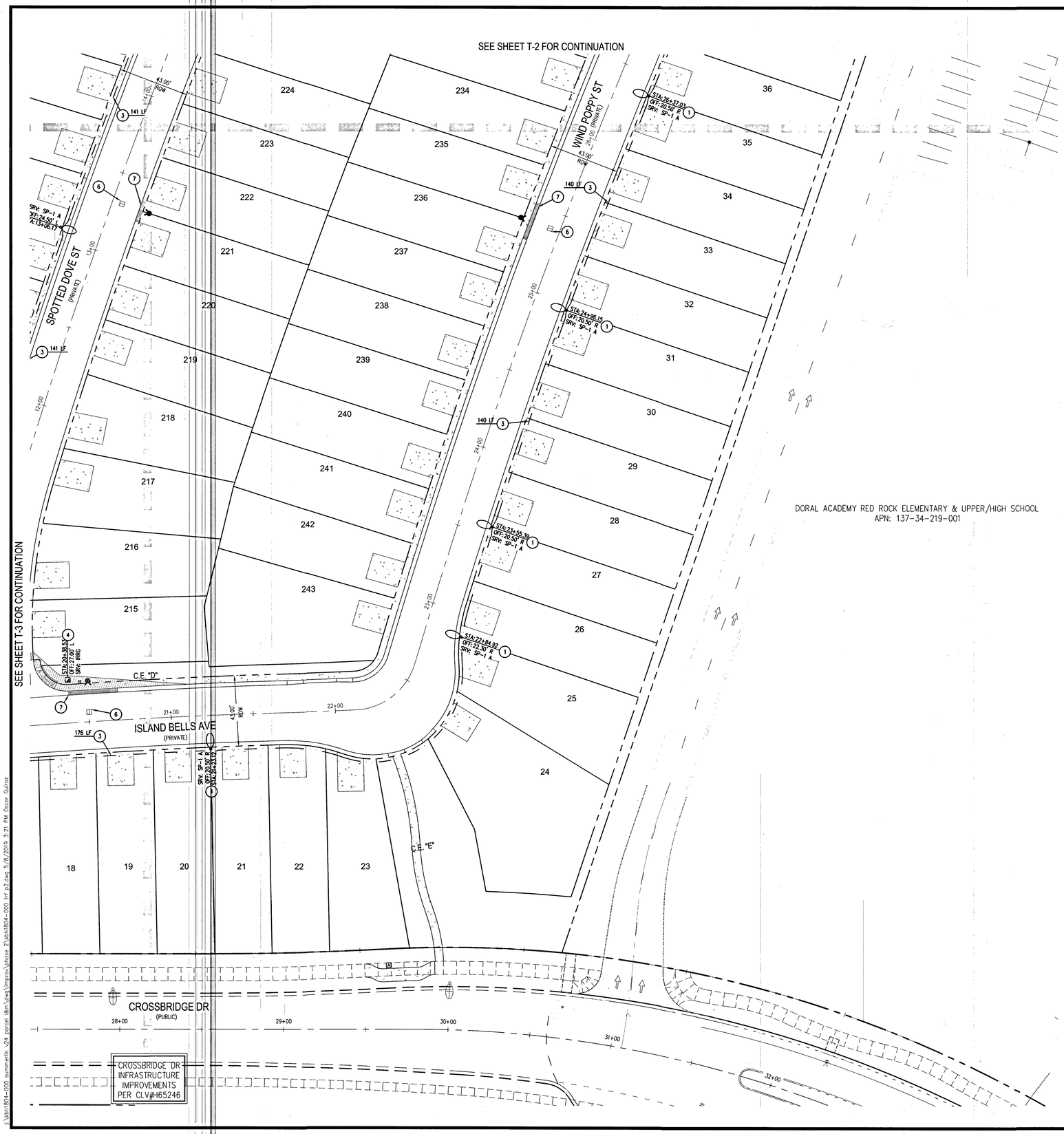
PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22938 — STATE OF NEVADA — 5/8/19

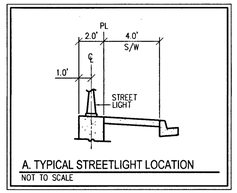
T-3
SHEET 28 OF 29

L19-00527
107Y5102-2

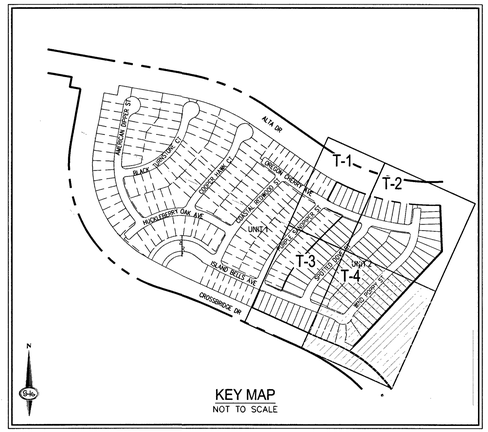
I:\kbh1804-000 summerlin v24 parcel l&m\dwg\mprov\phase 2\kbh1804-000 trf p2.dwg 5/8/2019 3:20 PM Oscar Quiroz



SCALE - 1"=30' (0, 30, 60 FEET)



A. TYPICAL STREETLIGHT LOCATION
NOT TO SCALE



KEY MAP
NOT TO SCALE

ELECTRICAL NOTES

1. ALL UNDERGROUND CONDUIT SHALL BE TYPE RNC (RIGID NONMETALLIC CONDUIT), SCHEDULE 40 PVC AND SHALL BE INSTALLED PER DETAIL THIS SHEET. ABOVE GRADE CONDUIT SHALL BE TYPE RMC (RIGID METALLIC CONDUIT). CONDUIT RISERS SHALL BE TYPE RMC WITH PVC COATING OR TAPE WRAP. ALL CONDUIT WHICH WOULD OTHERWISE BE EMPTY SHALL INCLUDE A NYLON PULLSTRING AND 1/8 FOR LOCATING PURPOSES.
2. ALL CONDUCTOR SHALL BE STRANDED, 600V, TYPE THW INSULATED COPPER.
3. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ELECTRICAL COMPONENTS AND HARDWARE AS REQUIRED BY THE NATIONAL ELECTRICAL CODE, LATEST EDITION, AND SHALL COMPLY WITH THE REQUIREMENTS OF THE INSPECTING AUTHORITY HAVING JURISDICTION.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6

RIVET AND ROUND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF DESERT MOON RD. AND SKY VISTA DR.

ELEVATION = 1011.422 METERS (NAVD '88)
ELEVATION = 3318.31 US SURVEY FEET (NAVD '88)

ELECTRICAL SERVICE NOTES

SP1: 200 AMP, SINGLE PHASE, 3 WIRE, 120/240V PAD MOUNTED SERVICE PEDESTAL. FEEDER FROM N.P.C.O. POINT OF CONNECTION TO BE 2"C, 2#4/0 THW, 1#4/0 WHITE THW (COPPER). TRANSFORMER TO SERVICE PEDESTAL DISTANCES GREATER THAN 250 FEET FOR SPECIFIED CONDUCTORS MUST BE APPROVED BY ENGINEER. SERVICE PEDESTAL SHALL BE LOCATED A MINIMUM OF 30 FEET FROM THE TRANSFORMER. THE FOLLOWING SHALL BE INCLUDED IN THE SERVICE PEDESTAL:
(2) 60 AMP, 240V, 2-POLE CIRCUIT BREAKERS,
(2) 60 AMP, 240V, 2-POLE LIGHTING CONTACTORS,
(2) TEST SWITCHES (ONE FOR EACH CONTACTOR), PHOTOELECTRICAL CONTROL,
(1) 15 AMP, 120V, SINGLE POLE CIRCUIT BREAKER FOR LIGHTING CONTROLS.
CONTRACTOR TO PROVIDE (2) 1-1/4" CONDUITS FROM SERVICE PEDESTAL TO FIRST STREETLIGHTING PULLBOX. SERVICE PEDESTAL SHALL COMPLY WITH CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS 330, 331, 332.1 AND 335.1.

BASIS OF BEARINGS

NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.

GENERAL NOTES

1. REPLACE ALL TRAFFIC CONTROL DEVICES (SIGNS AND/OR PAVEMENT MARKINGS), UNDER CLARK COUNTY'S JURISDICTION, THAT ARE DISTURBED, DESTROYED, MOVED OR MODIFIED BY TRENCHING ACTIVITIES TO CLARK COUNTY'S SATISFACTION. ALL MATERIAL USED SHALL MEET CLARK COUNTY'S SPECIFICATIONS OR WILL WILL BE AN APPROVED EQUIVALENT.
2. IN THE EVENT THAT THE TRAFFIC SIGNAL CONDUITS, LOOP DETECTORS OR ASSOCIATED EQUIPMENT ARE DAMAGED BY CONTRACTOR, THE CONTRACTOR WILL HIRE AN IMSA LEVEL II ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 62.3.G.01.02
3. 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.
4. ALL ONSITE PRIVATE STREETS ARE P.U.E.S, CLV PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED.

SIGN LEGEND

- 9" STREET NAME SIGN (D-3, BROWN WITH WHITE LETTERS, 2 PER POLE) PER SUMMERLIN IMPROVEMENT STANDARDS RS-1 (MAIN ST)
- 30" OR 36" STOP SIGN W/POST (R1-1) SIZE PER PLAN
- TYPE A SIGN PER "SOUTHERN NEVADA FIRE CODE AMENDMENTS" SECTION 503.3
- SPEED LIMIT (R2-1) - 24"x30"
- REFLECTIVE RAISED PAVEMENT MARKERS
- 100W STREETLIGHT
- EXISTING 250W STREETLIGHT
- NO. 3-1/2 PULL BOX (STREET LIGHT)
- P30 FIBER OPTIC PULL BOX (FAST)
- STREETLIGHT SERVICE PEDESTAL
- IRRIGATION SERVICE PEDESTAL
- TRAFFIC SIGN (AS INDICATED)
- TYPE IIIB BARRICADE PER CCAUSD NO. 601 FOR TEMPORARY USE
- 18"X18" END OF ROAD MARKERS (OM4-1) (RED REFLECTIVE DIAMONDS) PER CCAUSD NO. 601
- SIGHT VISIBILITY ZONE

SEE SHEET C-3 FOR ABBREVIATIONS AND QUANTITIES

TRAFFIC NOTES

1. INSTALL 100W HPS STREET LIGHT WITH DECORATIVE POLE PER SUMMERLIN STANDARDS, FOUNDATION PER CCAUSD # 313, 314, 319, 320 & 321
2. INSTALL NO. 3-1/2 PULLBOX PER CCAUSD # 326
3. INSTALL 1-1/4" STREET LIGHT CONDUIT CONTAINING 2-#4, 1-#8 GND
4. INSTALL 125 AMP SERVICE PEDESTAL PER CCAUSD # 331 & 332.S2 (FOR IRRIGATION)
5. INSTALL SIGN PER PLAN (SEE LEGEND FOR SIGN DESCRIPTION)
6. INSTALL BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKER
7. PAINT CURB RED 15' BOTH DIRECTION OF FIRE HYDRANT FOR A TOTAL OF 30' (WHEN CURB LENGTH PERMITTED)
8. EXISTING NO. 3-1/2 PULLBOX PER CLV L19-00027 (BRISTLE VALE-UNIT 1)
9. INSTALL 200 AMP SERVICE PEDESTAL PER CCAUSD #331, 332.S2 AND SUMMERLIN IMPROVEMENT STANDARD DETAIL FOR SINGLE SERVICE PEDESTAL (E-17)

SEE SHEET C-3 FOR ABBREVIATIONS, QUANTITIES & ADDITIONAL LEGEND

APPROVAL
LAS VEGAS FIRE AND RESCUE — DATE 5/9/19

FAST — Call before you UnderGround 1-702-432-5300 — FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD — 1-702-227-2929

Call before you Dig — AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-227-2600

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	APP.

LAS VEGAS, NV

KB HOME
BRISTLE VALE - UNIT 2
TRAFFIC PLAN IV

S 33
T 20S
R 59E

DATE: 5/8/19
DRAFTER: OQ
DESIGNER: OQ
CHECKED: DSP
PROJECT NO. KBH1804-000

PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22938 — STATE OF NEVADA — 5/8/19

T-4
SHEET 29 OF 29

L19-00527
107Y5102-2

J:\kbh1804-000 summerlin v24 parcel 6&7\dwg\improv\phase 2\kbh1804-000 trf p2.dwg 5/8/2019 3:21 PM Oscar Quiroz