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 AND 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.

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

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 # 136070 (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. <u>NO LEAD COMPLIANCE NOTE:</u>
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.

LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES

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

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

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 # 6325, 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 ALL INSTALLATION OF ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTORS MATERIAL TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER <u>BEFORE</u> COMMENCEMENT OF WORK [IFC 105.7.12]
4. ON ANT RESIDENTIAL OR COMMERCIAL INSTALLATIONS, FIRE HYDRANTS SHALL BE INSTALLED AND FIRE APPARATUS ACCESS ROADS SHALL BE MAINTAINED <u>BEFORE</u> 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 <u>BEFORE</u> 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 THE 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 NO 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 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 REPORT AS PREPARED BY <u>SOUTHWEST GEOTECHNICAL</u>, REPORT #<u>182267</u>, <u>7/12/18</u> APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.
13. EXACT LOCATION OF ALL SAWCUT LINES MAY BE ADJUSTED OR DETERMINED IN THE FIELD BY A CITY OF LAS VEGAS ENGINEER IF LOCATION ON PLANS IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRES RELOCATIONS.
14. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH N.R.S. STATUTE NO. 625.380 & CITY OF LAS VEGAS TITLE 18, APPENDIX D.
15. UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC., SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY APRONS, FLOWLINES, AND CROSS GUTTERS UNLESS WRITTEN APPROVAL IS GRANTED BY THE UTILITY COMPANY AND THE CITY ENGINEER.

<u>WALL NOTES:</u>

16. ALL WALLS, NEW OR EXISTING, ARE ONLY SHOWN ON CIVIL PLANS FOR THE PURPOSE OF REVIEWING GRADING RELATIONSHIPS; FLOOD CONTROL AND SIGHT DISTANCE AT INTERSECTIONS. NEW WALLS REQUIRE A SEPARATE PERMIT AND INSPECTION BY THE BUILDING DEPARTMENT.
17. ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT WITHIN CITY RIGHT OF WAY.
18. CONTRACTOR SHALL ADJUST ALL NEW AND EXISTING INLETS, VALVE BOXES, MANHOLE RIMS, AND SEWER CLEAN OUTS, ETC. TO FINISH GRADE AS APPLICABLE WHETHER OR NOT THEY ARE SHOWN ON THE PLANS.
19. MATERIALS, HANDLING AND PLACEMENT OF PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF NDOT OR THE CLARK COUNTY AREA SPECIFICATIONS (AS APPLICABLE) AND THE PLANS AND DETAILS SHOWN HEREON.
20. WHEN INSTALLING UNDERGROUND FACILITIES THAT REQUIRE UNDERGROUND LOCATING DEVICES SUCH AS MARKER BALLS, LOCATING RIBBON, ETC, THE CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION TO OFFSITE INSPECTION AND TESTING CERTIFYING THAT ALL DEVICES HAVE BEEN PLACED AND VERIFIED TO BE IN GOOD WORKING CONDITION PRIOR TO THE CONSTRUCTION OF ANY ROAD BASE.
21. SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S) SHALL BE PROVIDED TO THE CITY AND APPROVED PRIOR TO ACCEPTANCE OF FACILITY VIDEO INSPECTION. THE MAP(S) SHALL INCLUDE THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF THE PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES AND TRANSITION STRUCTURES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND THE CONNECTION TO A DROP INLET, THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIT THE PUBLIC RIGHT-OF-WAY, SEWER AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS. THE LOCATION SHALL BE DESCRIBED BY COORDINATES WHICH SHALL BE BASED ON THE OFFICIAL HORIZONTAL AND VERTICAL CONTROL NETWORKS OF THE CITY OF LAS VEGAS. FINAL LOCATION MAP(S) MUST BE SEALED AND CERTIFIED BY A NEVADA PROFESSIONAL LAND SURVEYOR TO HAVE POSITIONAL CERTAINTIES OF ± 0.09 METERS (± 0.3 FEET) HORIZONTALLY AND VERTICALLY. A SEPARATION ELECTRONIC COMMA DELIMITED FILE FOR THE SANITARY SEWER AND STORM DRAIN COORDINATES SHALL ALSO ACCOMPANY THE SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S).
22. CCTV VIDEO INSPECTION IS REQUIRED FOR ALL SEWER AND STORM DRAINS. THE CCTV VIDEO INSPECTIONS NEED TO BE PERFORMED PER THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS LATEST ADDITION.
23. A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.

2.3 CITY OF LAS VEGAS TRAFFIC NOTES

1. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
2. THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT PRIOR TO CONSTRUCTION.
3. BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION ZONE. THE CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING CITY STREETS WHERE WARRANTED IMMEDIATELY AFTER FIRST GRADING WORK IS ACCOMPLISHED, AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.
4. WHEN A DESIGNATED "SAFE ROUTE TO SCHOOL" IS ENCROACHED UPON BY A CONSTRUCTION WORK ZONE AND PUBLIC WORKS STAFF IDENTIFIES A NEED FOR STUDENTS TO BE ASSISTED IN THE SAFE CROSSING THROUGH THAT WORK ZONE, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A QUALIFIED "CROSSING GUARD". THE GUARD SHALL BE PRESENT FOR THE FULL DURATION OF TIME THAT CHILDREN ARE LIKELY TO BE PRESENT.
5. IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY OBSTRUCTION, TEMPORARY REMOVAL OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED WITH LIKE MATERIALS TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. ALL NEW TRAFFIC SIGNS SHALL BE FABRICATED WITH DIAMOND GRADE VIP CLASS 6 REFLECTIVE SHEETING OR APPROVED EQUAL. ALL NEW TRAFFIC SIGNS, EXCEPT STREET NAME AND SCHOOL SPEED LIMIT SIGNS, SHALL HAVE 3M SERIES 1160 OR APPROVED EQUIVALENT ANTI-GRAFFITI PROTECTIVE OVERLAY FILM; SCHOOL ZONE SIGNS SHALL HAVE 3M SERIES 1150 ANTI-GRAFFITI PROTECTIVE OVERLAY FILM. STREET NAME SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CURRENT CITY STANDARDS. ALL OTHER SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY STANDARDS.
7. WHEN A PROPOSED STREET LIGHT STANDARD IS LOCATED WITHIN FIVE (5') FEET OF ANY PROPOSED SIGN SHOWN ON THE PLANS TO BE MOUNTED ON A SIGNPOST, THE SIGN SHALL BE MOUNTED ON THE STREET LIGHT STANDARD AND THE SIGNPOST SHALL BE ELIMINATED.
8. ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE PORTIONS OF THE ROAD(S) BEING IMPROVED HERE UNDER, REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.
9. STREET SIGNS AND STOPS SIGNS SHALL BE INSTALLED PER CITY STANDARD SPECIFICATIONS FOR PLACEMENT OF STREET NAME SIGNS.
10. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL DEVICES AND FLAGGERS TO INSURE THE SAFETY OF THE PUBLIC IN OR AROUND THE WORK AREA. THE CONTRACTOR SHALL HAVE A CERTIFIED ATSSA TRAFFIC CONTROL TECHNICIAN OR IMSA WORK ZONE SAFETY SPECIALIST SET UP, MAINTAIN AND/OR REMOVE ALL TRAFFIC CONTROL DEVICES IN THE CITY OF LAS VEGAS RIGHT OF WAY.
11. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE EXPEDITED TO COMPLETION SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING CITIZENS AREA TRANSIT (C.A.T.) IF THE CONSTRUCTION INTERRUPTS OR RELOCATES A BUS STOP OR HAS AN ADVERSE EFFECT ON BUS SERVICE ON THAT STREET TO ARRANGE FOR TEMPORARY RELOCATION OF STOP.
13. GUARDS SHALL BE OBTAINED BY CONTACTING THE METROPOLITAN POLICE DEPARTMENT SPECIAL EVENTS UNIT (PHONE # 828-3442) WHO WILL PROVIDE OFFICERS PROPERLY TRAINED IN TRAFFIC CONTROL. FEES FOR THE USE OF THESE OFFICERS SHALL BE SET BY METRO AND WILL BE PAID BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL ARRANGEMENTS WITH METRO.
14. ANY WORK WITHIN 300' OF A SIGNALIZED INTERSECTION WILL BE NIGHT WORK, UNLESS OTHERWISE DIRECTED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.
15. THE CONTRACTOR SHALL CONTACT THE TRAFFIC ENGINEERING DIVISION (TRANSPORTATION SECTION) THROUGH THE PROJECT'S OFFSITE INSPECTOR PRIOR TO INITIATING PAVING TO RECEIVE DIRECTION FOR ANY PERMANENT OR TEMPORARY MODIFICATIONS TO THE APPROVED DRAWINGS REGARDING FINAL PAVEMENT TRANSITIONS, MARKINGS AND SIGNING THAT ARE REQUIRED TO MATCH ADJACENT ROADWAY SEGMENTS. THE CONTRACTOR SHALL PROVIDE A DRAWING FOR APPROVAL BY THE TRAFFIC ENGINEERING DIVISION DEPICTING ANY ADJUSTMENTS TO THE FINAL PAVEMENT MARKINGS AND SIGNAGE, WHICH MAY INCLUDE OMITTING, ADDING OR MODIFYING PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS SUCH THAT ADEQUATE TRANSITIONS AND LANE TERMINATIONS BETWEEN ADJACENT ROADWAY SEGMENTS ARE CONSTRUCTED.

2.4 CITY OF LAS VEGAS STREETLIGHT NOTES

1. ALL STREET LIGHTING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STREET LIGHTING PLANS, THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION (USS), AND THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA" (USD), LATEST REVISION.
2. DESIGN PROFESSIONAL AND CONTRACTOR SHALL VERIFY CITY'S LATEST LED FIXTURE SPECIFICATIONS AND APPROVED FIXTURES PER CLV WEBSITE, UNDER BUILDING AND SAFETY FORMS, PRIOR TO ORDERING MATERIALS.
3. NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS ETC., LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF TRAFFIC AND CITY ENGINEER. ANY DEVIATION FROM THE PLAN LOCATION WILL REQUIRE COMPLIANCE WITH SECTION 623 OF THE USS.
4. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 623 G.03.01 OF THE USS.
5. ALL EMPTY CONDUIT SHALL HAVE AT LEAST ONE GREEN NO. #8 AWG WIRE INSTALLED AS TRACER WIRE IN ACCORDANCE WITH SECTION 623 G.02.01 OF THE USS PRIOR TO BACKFILLING AND FINAL INSPECTION.
6. ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE IN ACCORDANCE WITH THE USD NO. 320A. WHEN POLE IS INSTALLED BEHIND SIDEWALK, AND SHALL AT NO TIME COMPLETELY ENCLOSE THE STREET LIGHTING POLE.
7. AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE TRAFFIC ENGINEERING DIVISION PRIOR TO ANY PRE-FINAL INSPECTION. THE ASBUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.
8. SERVICE POINT SHALL BE COORDINATED WITH NV ENERGY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CIRCUIT. SERVICE POINTS SHALL BE SHOWN ON THE PLANS.
9. WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREET LIGHTING CIRCUITS AND/OR POLES, THESE CONFLICTS MUST BE RESOLVED BETWEEN THE DEVELOPER AND THE UTILITIES INVOLVED BEFORE STREETLIGHT BASES ARE INSTALLED. AT NO EXPENSE TO THE CITY OF LAS VEGAS.
10. THE CONTRACTOR SHALL FURNISH COMPLETE CONDUIT, WIRE, ETC. FROM SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON THE PLANS.

DEVIATIONS FROM STANDARDS

NONE

SOUTHWEST GAS APPROVAL

[signature] 3/18/19
SOUTHWEST GAS CORPORATION — DATE

APPROVED FOR CONSTRUCTION

[signature]
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO.: 136070 FIRST APPROVED DATE: 3-20-19

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

1-702-227-2929

FAST
Call before you UnderGround
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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 1
GENERAL NOTES

S 33
T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER - STATE OF NEVADA
TIMOTHY M. MULROONEY
Exp. 12/31/2019
CIVIL
No. 22938
3/14/19

C-2
SHEET 2 OF 54
L19-00027
10745102

PROJ#:136070A QS:137-33-NE

j:\kbh1804-000 summerlin v24 parcel l&m\dwg\improv\phase 1\kbh1804-000 cvr p1.dwg 3/14/2019 11:10 AM Oscar Quiroz

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

QUANTITIES

			PRIVATE	PUBLIC
DRAINAGE				
1.	48" TYPE II STORM DRAIN MANHOLE	EA	4	–
2.	48" TYPE III STORM DRAIN MANHOLE	EA	2	–
3.	5' TYPE "CM2" DROP INLET	EA	1	–
4.	7.5' TYPE "CM2" DROP INLET	EA	3	–
5.	10' TYPE "CM2" DROP INLET	EA	1	–
6.	20' TYPE "CM2" DROP INLET	EA	1	–
7.	18" RCP CLASS III STORM DRAIN	LF	560	–
8.	24" RCP CLASS III STORM DRAIN	LF	84	–
9.	36" RCP CLASS III STORM DRAIN	LF	290	–
10.	18" C-900 PVC STORM DRAIN	LF	21	–
11.	36" C-900 PVC STORM DRAIN	LF	80	–
12.	8' WIDE CONCRETE VALLEY GUTTER W/10" TYPE I AGGREGATE BASE	EA	8	–
13.	NDOT TYPE II DROP INLET	EA	1	–
14.	SIDEWALK DRAIN	EA	2	–
15.	RIPRAP D50=6", THK=12"	SF	780	–
16.	RIPRAP D50=12", THK=24"	SF	1,900	–
			–	–
SEWER SYSTEM				
1.	4" PVC SEWER LATERAL (PRIVATE)	LF	4,300	–
2.	8" PVC SEWER PIPE (PUBLIC)	LF	–	4,840
3.	STANDARD 48" SEWER MANHOLE (PUBLIC)	EA	–	35
4.	BACK WATER VALVE (PRIVATE)	EA	45	–
5.	8" C-900 SEWER (PUBLIC)	LF	–	360
6.	8" C-900 SEWER LATERAL (PRIVATE)	LF	300	–
7.	ABANDON 8" SEWER	LF	–	50
8.	MODIFY MANHOLE BASE (PUBLIC)	EA	–	1
WATER SYSTEM				
1.	FIRE HYDRANT ASSEMBLY W/6" GATE VALVE PER UDACS PLATE NO. 40	EA	–	12
2.	6" PVC WATER PIPE (CLASS 150)	LF	–	400
3.	8" PVC WATER PIPE (CLASS 150)	LF	–	4,700
4.	8" DIP WATER PIPE (CLASS 350)	LF	–	120
5.	8" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30 & 39	EA	–	18
6.	8" X 6" TEE PER UDACS PLATE NO. 31	EA	–	9
7.	8" X 8" TEE PER UDACS PLATE NO. 31	EA	–	6
8.	6" 5 DEGREE BEND WITH RESTRAINED JOINTS	EA	–	1
9.	6" 11.25 DEGREE BEND PER UDACS PLATE NO. 31	EA	–	1
10.	6" 22.5 DEGREE BEND PER UDACS PLATE NO. 31	EA	–	–
11.	6" 45 DEGREE BEND PER UDACS PLATE NO. 31	EA	–	2
12.	8" 5 DEGREE BEND WITH RESTRAINED JOINTS	EA	–	18
13.	8" 11.25 DEGREE BEND PER UDACS PLATE NO. 31	EA	–	20
14.	8" 22.5 DEGREE BEND PER UDACS PLATE NO. 31	EA	–	6
15.	8" 45 DEGREE BEND PER UDACS PLATE NO. 31	EA	–	5
16.	8" 90 DEGREE BEND PER UDACS PLATE NO. 31	EA	–	–
17.	CAP AND 2" BLOW-OFF ASSEMBLY W/CAP PER UDACS PLATE NO. 36	EA	–	6
18.	1" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 1	EA	–	102
19.	1.5" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 1	EA	–	47
20.	1" COPPER SERVICE W/ 3/4" METER & 1" RPPA PER UDACS PLATE NO. 4 & 8	EA	–	3
21.			–	–
22.			–	–
STREET IMPROVEMENTS				
1.	2" A.C. PAVEMENT W/ 4" TYPE II OVER 6" TYPE I AGGREGATE BASE	SY	20,100	–
2.	STANDARD 18" TYPE "L" ISLAND CURB & GUTTER W/6" TYPE I AGGREGATE BASE	LF	700	–
3.	STANDARD 8" TYPE "A" ISLAND CURB W/6" TYPE I AGGREGATE BASE	LF	600	–
4.	STANDARD 30" TYPE "ROLL" CURB & GUTTER W/6" TYPE I AGGREGATE BASE	LF	8,500	–
5.	4' WIDE CONCRETE SIDEWALK W/4" TYPE II AGGREGATE BASE	SF	18,400	–
6.	5' WIDE CONCRETE SIDEWALK W/4" TYPE II AGGREGATE BASE	SF	3,400	–
7.	8' WIDE CONCRETE VALLEY GUTTER W/10" TYPE II AGGREGATE BASE	SF	3,000	–
8.	SIDEWALK RAMP	EA	10	–
			–	–
TRAFFIC SIGNS				
1.	36" STOP SIGN WITH POST (R1-1)	EA	–	1
2.	12" STREET NAME SIGN (D-3, BROWN W/ WHITE LETTERS) (2 PER POLE)	EA	–	2
3.	30" STOP SIGN WITH POST (R1-1)	EA	–	9
4.	9" STREET NAME SIGN (D-3, BROWN W/ WHITE LETTERS)(6 POLES x 2 PER POLE=12)	EA	–	20
5.	BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKER	EA	–	9
6.	TYPE III BARRICADE	EA	–	2
7.			–	–
8.			–	–
DRY UTILITIES				
1.	100W H.P.S. LUMINAIRE STREET LIGHT W/DECORATIVE POLE	EA	34	–
2.	1-1/4" PVC STREET LIGHT CONDUIT WITH (2) #4 AND (1) #8 CONDUCTORS	LF	4,700	–
3.	NO. 3-1/2 PULL BOX W/METAL COVER	EA	8	–
4.	150 AMP SERVICE PEDESTAL (IRR)	EA	1	–
5.	200 AMP SERVICE PEDESTAL (STLT)	EA	2	–

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO.: 136070 FIRST APPROVED DATE: 3-20-19

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 1

LEGEND, ABBREVIATIONS, AND QUANTITIES

S 33
T 20S
R 59E

DATE: 3/14/19

DRAFTER: OIQ

DESIGNER: OIQ

CHECKED: DP

PROJECT NO.
KBH1804-000

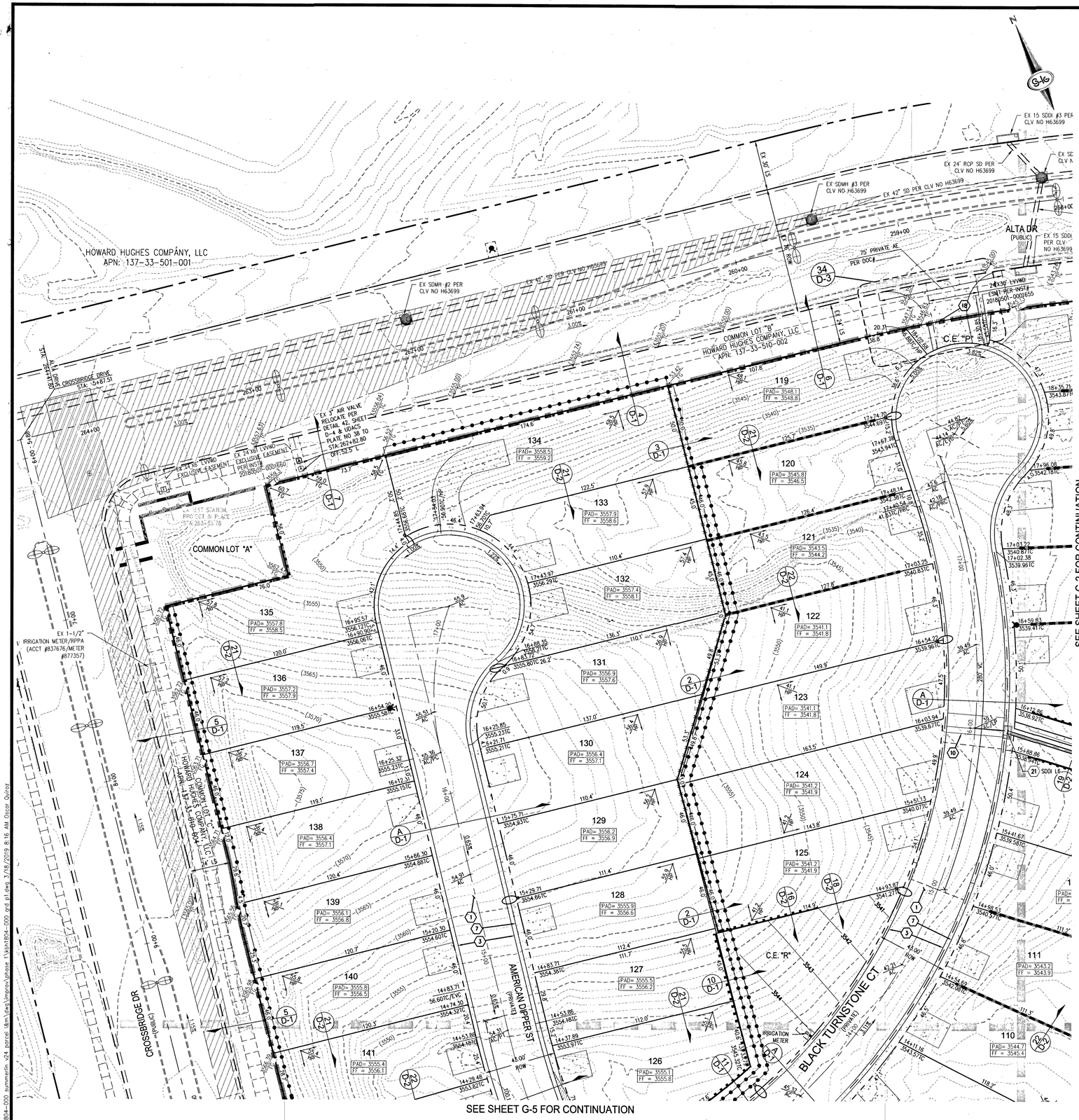
PROFESSIONAL ENGINEER – STATE OF NEVADA
TIMOTHY M. MULROONEY
Exp. 12/31/2019
CIVIL
No. 22938
3/14/19

C-3
SHEET 3 OF 54

L19-00027
10745302

PRO.J#:136070A QS:137-33-NE

J:\Kbh1804-000 summerlin v24 parcel 18m\dwg\improv\phase 1\kbh1804-000 cvr p1.dwg 3/14/2019 11:10 AM Oscar Quiroz



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

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= 278,300 CU YDS
FILL= 309,400 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. 18" RCP STORM DRAIN	LF	560
2. 24" RCP STORM DRAIN	LF	84
3. 36" RCP STORM DRAIN	LF	290
4. 18" C-900 PVC STORM DRAIN	LF	21
5. 36" C-900 PVC STORM DRAIN	LF	80
6. 5' TYPE "CM2" DROP INLET	EA	1
7. 7.5' TYPE "CM2" DROP INLET	EA	3
8. 10' TYPE "CM2" DROP INLET	EA	1
9. 20' TYPE "CM2" DROP INLET	EA	1
10. NDOT TYPE II INLET	EA	1
11. 48" TYPE II STORM DRAIN MANHOLE	EA	4
12. 48" TYPE III STORM DRAIN MANHOLE	EA	2
13. 8' WIDE CONCRETE VALLEY GUTTER	EA	8
14. SIDEWALK DRAIN	EA	2
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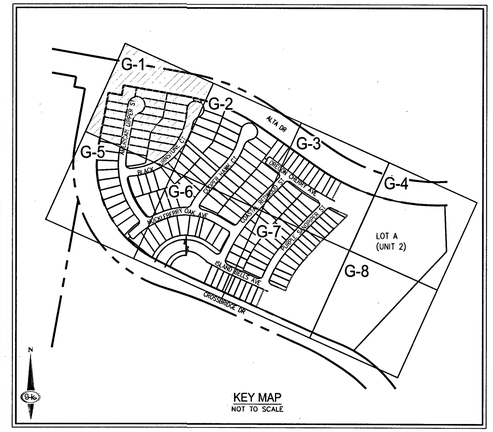

KEY MAP
NOT TO SCALE

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

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CONSTRUCTION NOTES

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3. INSTALL MODIFIED ROLL TYPE CURB PER CCAUSD NO. 217.1
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5. INSTALL "A" TYPE ISLAND CURB PER CCAUSD NO 219
6. INSTALL 10' "L" TYPE CURB TO MODIFIED ROLL CURB TRANSITION PER DETAIL 31, SHEET D-3
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11. CONSTRUCT SIDEWALK DRAIN PER CCAUSD NO. 236
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18. INSTALL WROUGHT IRON FENCE WITH VEHICLE ACCESS GATE AND EMERGENCY KNOX PADLOCK PER CCAUSD NO 425.51
19. INSTALL DROP INLET CONCRETE APRON PER DETAIL R-4.2.7, SHEET D-4 & CCAUSD NO. 421
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22. INSTALL 10' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
23. INSTALL 20' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
24. INSTALL 48" TYPE II SDMH PER CCAUSD NO. 401, 402 & 405.2
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GRADING NOTES

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7. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
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9. 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.

* WATER TIGHT MANHOLE

FLOOD ZONE

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE X (UNSHADED) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 32003C2125E & 32003C2150, DATED SEPTEMBER 27, 2002. A ZONE X (UNSHADED) IS DESCRIBED AS AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN.

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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 — 3/18/19 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) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP	APP DATE

LAS VEGAS, NV

S 33
T 20S
R 59E

KB HOME
BRISTLE VALE - UNIT 1
GRADING PLAN I

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — STATE OF NEVADA — No. 22938 — 3/18/19

G-1
SHEET 4 OF 54

L19-00027
10745102

J:\KBH1804-000 summerlin V24 parcel 34m\dwg\improv\phase 1\KBH1804-000 grd pl.dwg 3/18/2019 8:16 AM Oscar Quiroz

0 30 60
SCALE – 1"=30' FEET

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PROJECT NO. 182267 DATED 7/12/18

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8.	10' TYPE "CM2" DROP INLET	EA	1
9.	20' TYPE "CM2" DROP INLET	EA	1
10.	NDOT TYPE II INLET	EA	1
11.	48" TYPE II STORM DRAIN MANHOLE	EA	4
12.	48" TYPE III STORM DRAIN MANHOLE	EA	2
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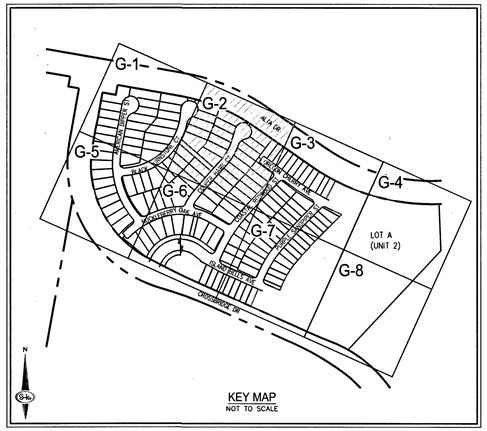

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BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 345W6

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TIMOTHY M. MULROONEY P.E. 22935 — 3/18/19 DATE

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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	APP DATE

KB HOME
LAS VEGAS, NV
BRISTLE VALE - UNIT 1
GRADING PLAN II
S 33
T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — STATE OF NEVADA — No. 22935 — 3/18/19

G-2
SHEET 5 OF 54

L19-00027
10745102

J:\kbh1804-000 summerlin v24 parcel 4\civil\dwg\xmproj\xhose 1\kbh1804-000 grd pl.dwg 3/18/2019 8:52 AM Oscar Quiroz

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

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

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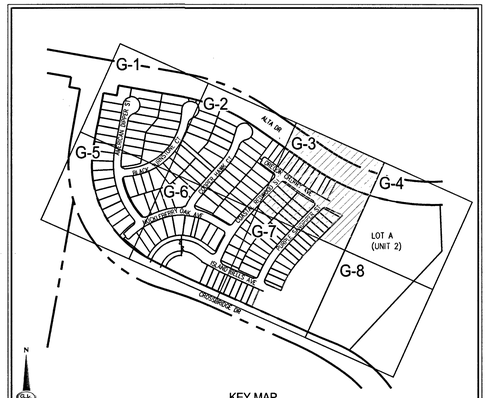

KEY MAP
NOT TO SCALE

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.

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

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* WATER TIGHT MANHOLE

FLOOD ZONE

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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.

TIM M. MULROONEY, P.E. 22938 — 3/18/19 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) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

KB HOME
BRISTLE VALE - UNIT 1
GRADING PLAN III

S 33
T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

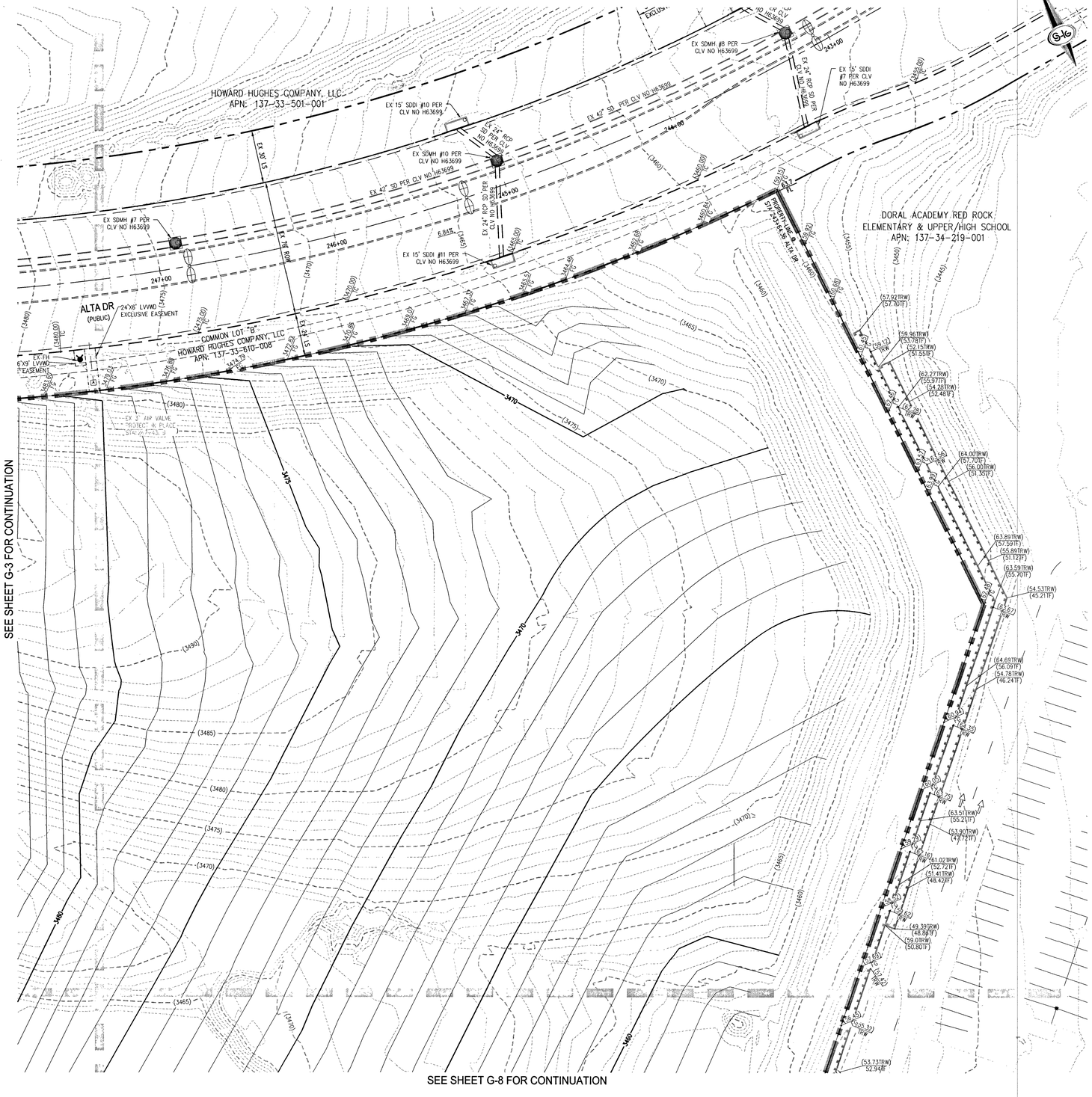
PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22938 — STATE OF NEVADA — 3/18/19

G-3
SHEET 6 OF 54

L19-00027
10745102

J:\kbh1804-000 summerlin x24 parcel I\dwg\engrov\phase 1\kbh1804-000 grd pl.dwg 3/18/2019 8:52 AM Oscar Quiroz



0 30 60
SCALE – 1"=30' FEET

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SOILS REPORT

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

EARTHWORKS

EARTHWORK QUANTITIES (RAW):
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EXPORTED MATERIAL TO BE DISPOSED OF AT AN APPROVED LICENSED DISPOSAL FACILITY OR AT A SITE WITH AN APPROVED AND ACTIVE GRADING PERMIT.

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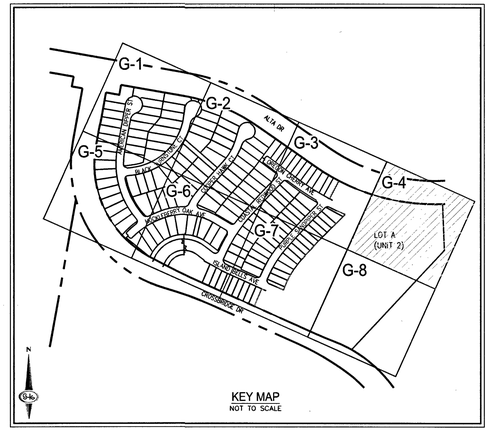

KEY MAP
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CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6

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TIMOTHY M. MULROONEY, P.E. 22938 — 3/18/19 DATE

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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.	APP. DATE

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 1
GRADING PLAN IV

9 33 59 E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22938 — STATE OF NEVADA — 3/18/19

G-4
SHEET 7 OF 54

L19-00027
10745102

J:\kbh1804-000 summerlin v24 parcel 18\m\dwg\improv\phase 1\kbh1804-000 grd p1.dwg 3/18/2019 8:17 AM Oscar Quiroz

SEE SHEET G-1 FOR CONTINUATION

SEE SHEET G-6 FOR CONTINUATION

0 30 60
SCALE - 1"=30' FEET

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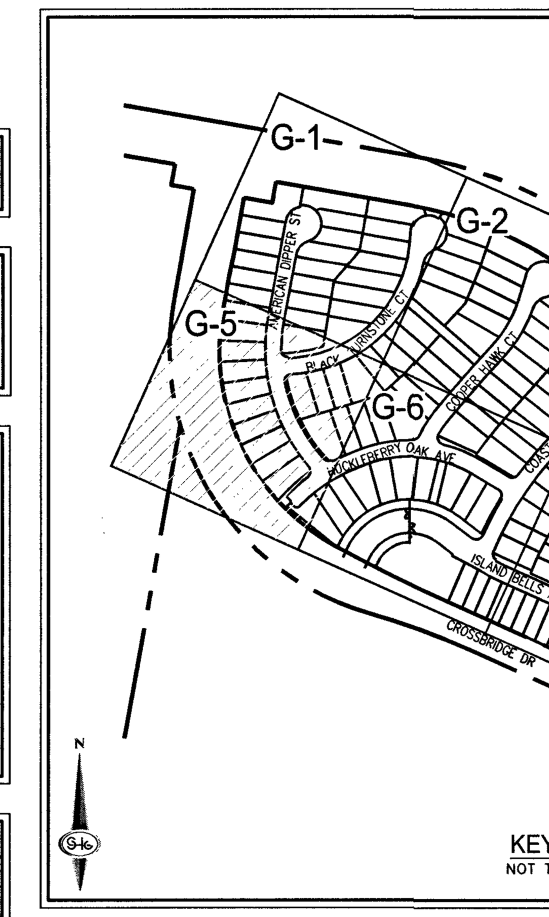

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* WATER TIGHT MANHOLE

FLOOD ZONE

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE X (UNSHADED) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 320032C2125E & 320032C2150, 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

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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 — 3/18/19 — DATE

FAST
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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
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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

S 33
T 20S
R 59E

KB HOME
BRISTLE VALE - UNIT 1
GRADING PLAN V

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER — STATE OF NEVADA
TIMOTHY M. MULROONEY
Exp. 12/31/2019
CIVIL
No. 22938
3/18/19

G-5
SHEET 8 OF 54

L19-00027
107Y5102

j:\kbh1804-000 summerlin v24 parcel l&m\dwg\improv\phase 1\kbh1804-000 grd p1.dwg 3/18/2019 8:17 AM Oscar Quiroz

SEE SHEET G-2 FOR CONTINUATION

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

SURVEY NOTE

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SOILS REPORT

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

EARTHWORKS

EARTHWORK QUANTITIES (RAW):
CUT= 278,300 CU YDS
FILL= 309,400 CU YDS

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DRAINAGE IMPROVEMENT QUANTITIES

1.	18" RCP STORM DRAIN	LF	560
2.	24" RCP STORM DRAIN	LF	84
3.	36" RCP STORM DRAIN	LF	290
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5.	36" C-900 PVC STORM DRAIN	LF	80
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7.	7.5' TYPE "CM2" DROP INLET	EA	3
8.	10' TYPE "CM2" DROP INLET	EA	1
9.	20' TYPE "CM2" DROP INLET	EA	1
10.	NDOT TYPE II INLET	EA	1
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4. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
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6. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
7. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
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CITY OF LAS VEGAS BENCHMARK 7LV09 345W6

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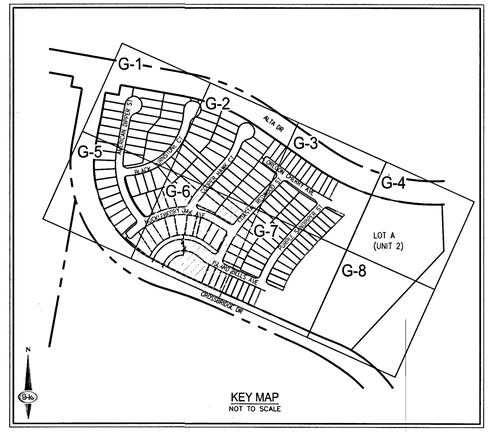
NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN BOOK 135, PAGE 71 OF PLATS.



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.

CONSTRUCTION NOTES

1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
2. INSTALL "L" TYPE CURB PER CCAUSD NO. 216
3. INSTALL MODIFIED ROLL TYPE CURB PER CCAUSD NO. 217.1
4. INSTALL "L" TYPE ISLAND CURB PER CCAUSD NO 219
5. INSTALL "A" TYPE ISLAND CURB PER CCAUSD NO 219
6. INSTALL 10' "L" TYPE CURB TO MODIFIED ROLL CURB TRANSITION PER DETAIL 31, SHEET D-3
7. CONSTRUCT 4' WIDE SIDEWALK PER CCAUSD NO. 234
8. CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234
9. CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER DETAIL 33, SHEET D-3
10. CONSTRUCT 8' CROSS GUTTER PER CCAUSD NO. 228
11. CONSTRUCT SIDEWALK DRAIN PER CCAUSD NO. 236
12. INSTALL 18" RCP STORM DRAIN PIPE
13. INSTALL 24" RCP STORM DRAIN PIPE
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18. INSTALL WROUGHT IRON FENCE WITH VEHICLE ACCESS GATE AND EMERGENCY KNOX PADLOCK PER CCAUSD NO 425.51
19. INSTALL DROP INLET CONCRETE APRON PER DETAIL R-4.2.7, SHEET D-4 & CCAUSD NO. 421
20. CUT EXISTING SD PIPE WHERE SHOWN ON PLANS
21. INSTALL 7.5' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
22. INSTALL 10' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
23. INSTALL 20' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
24. INSTALL 48" TYPE II SDMH PER CCAUSD NO. 401, 402 & 405.2
25. INSTALL 5' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
26. INSTALL 48" TYPE III SDMH CCAUSD NO. 401, 402 & 406
27. INSTALL 48" TYPE I SDMH CCAUSD NO. 401, 402 & 403
28. INSTALL D50=6" RIPRAP THICKNESS=12" OVER 6" TYPE II AGGREGATE BASE
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SEE SHEET C-3 FOR LEGEND, ABBREVIATIONS, & QUANTITIES

FLOOD CERTIFICATION

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TIMOTHY M. MULROONEY, P.E. 22935 — 3/18/19 DATE

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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'D	APP'D DATE

LAS VEGAS, NV

KB HOME
BRISTLE VALE - UNIT 1
GRADING PLAN VI

S-23
T-20S
R-59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

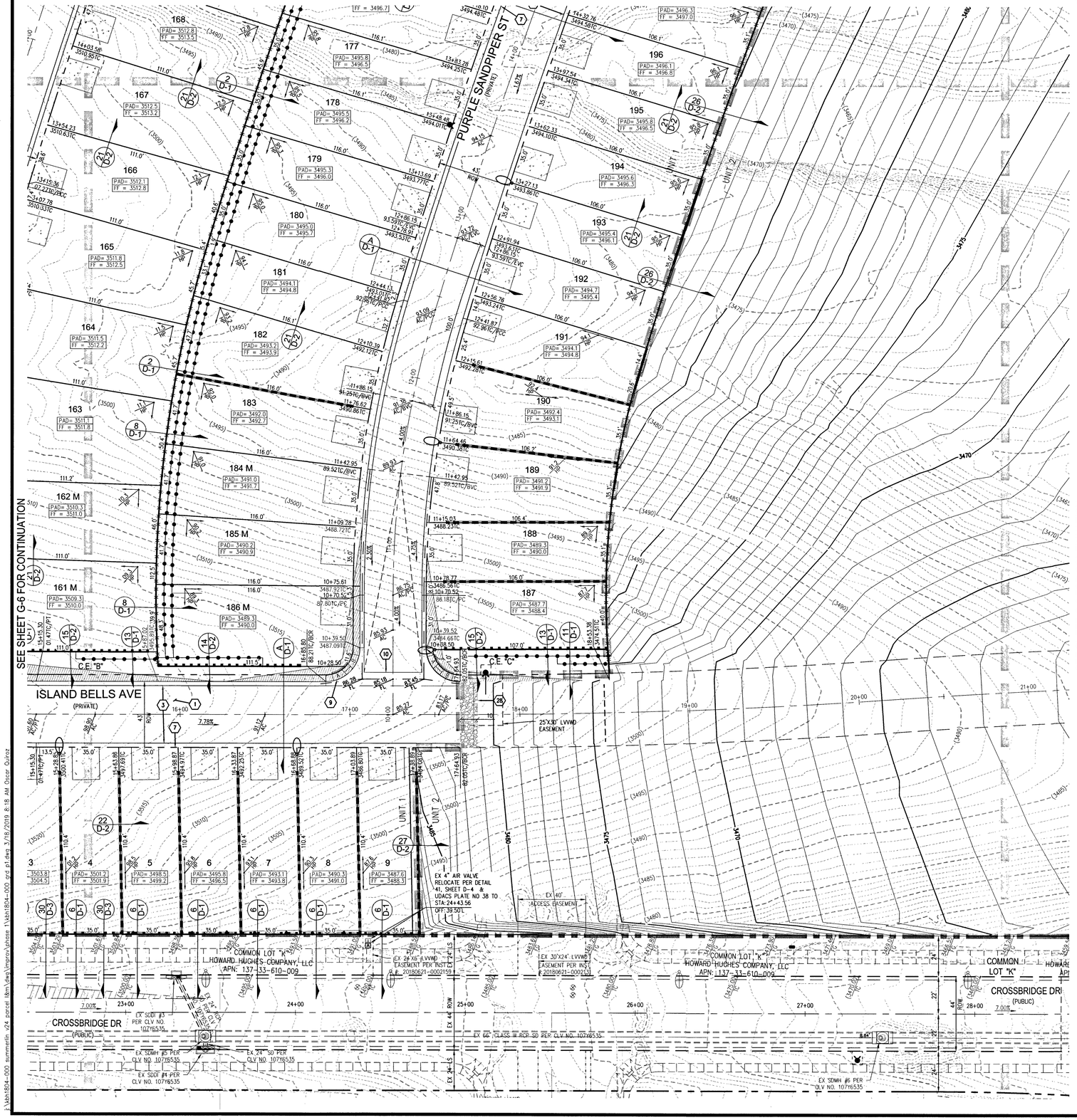
PROJECT NO.
KBH1804-000

TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22935 — STATE OF NEVADA — PROFESSIONAL ENGINEER — 3/18/19

G-6
SHEET 9 OF 54

L19-00027
10745102

J:\KBH1804-000 summerlin v24 parcel I\dwg\vsprov\phase 1\KBH1804-000 grd pl.dwg 3/18/2019 8:17 AM Oscar Quiroz



SCALE – 1"=30' (0, 30, 60 FEET)

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SOILS REPORT

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

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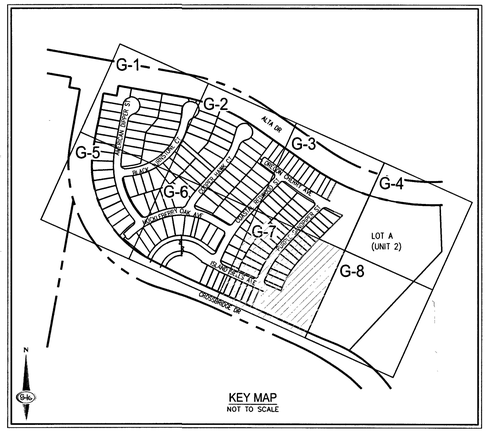

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CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6

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TIMOTHY MULROONEY, P.E. 22938 — 3/18/19 DATE

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

KB HOME
BRISTLE VALE - UNIT 1
GRADING PLAN VII

LAS VEGAS, NV

NO.	DESCRIPTION	DATE	BY	APP	APP. DATE

S:33 T:20S R:59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO. KBH1804-000

ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22938 — PROFESSIONAL — 3/18/19

G-7
SHEET 10 OF 54

L19-00027
107Y5102

J:\kbh1804-000 summerlin v24 parcel 18m\dwg\improv\phase 1\kbh1804-000 grd p1.dwg 3/18/2019 8:18 AM Oscar Quiroz

SEE SHEET G-4 FOR CONTINUATION

0 30 60
SCALE - 1"=30' FEET

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SOILS REPORT

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

EARTHWORKS

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FILL= 309,400 CU YDS

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10.	NDOT TYPE II INLET	EA	1
11.	48" TYPE II STORM DRAIN MANHOLE	EA	4
12.	48" TYPE III STORM DRAIN MANHOLE	EA	2
13.	8' WIDE CONCRETE VALLEY GUTTER	EA	8
14.	SIDEWALK DRAIN	EA	2
15.	D50=6" RIP-RAP	SF	780
16.	D50=12" RIP-RAP	SF	1,900

GRADING NOTES

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

* WATER TIGHT MANHOLE

FLOOD ZONE

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE X (UNSHADED) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 32003C2125F & 32003C2150, DATED SEPTEMBER 27, 2002. A ZONE X (UNSHADED) IS DESORBED 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.

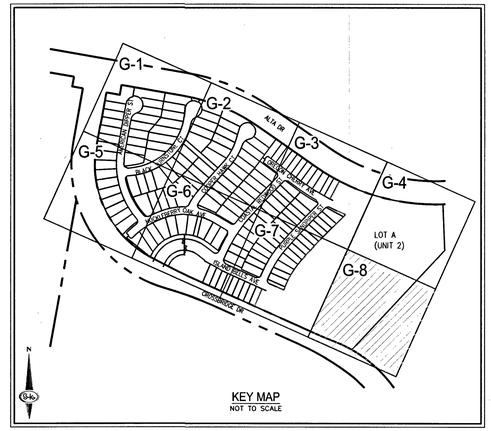
BENCHMARK

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.



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.

CONSTRUCTION NOTES

1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
2. INSTALL "L" TYPE CURB PER CCAUSD NO. 216
3. INSTALL MODIFIED ROLL TYPE CURB PER CCAUSD NO. 217.1
4. INSTALL "L" TYPE ISLAND CURB PER CCAUSD NO 219
5. INSTALL "A" TYPE ISLAND CURB PER CCAUSD NO 219
6. INSTALL 10' "L" TYPE CURB TO MODIFIED ROLL CURB TRANSITION PER DETAIL 31, SHEET D-3
7. CONSTRUCT 4' WIDE SIDEWALK PER CCAUSD NO. 234
8. CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234
9. CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER DETAIL 33, SHEET D-3
10. CONSTRUCT 8' CROSS GUTTER PER CCAUSD NO. 228
11. CONSTRUCT SIDEWALK DRAIN PER CCAUSD NO. 236
12. INSTALL 18" RCP STORM DRAIN PIPE
13. INSTALL 24" RCP STORM DRAIN PIPE
14. INSTALL 30" RCP STORM DRAIN PIPE
15. INSTALL 36" RCP STORM DRAIN PIPE
16. INSTALL 48" RCP STORM DRAIN PIPE
17. INSTALL 4.5'X6' NDOT TYPE 2A DROP INLET PER DETAIL R-4.2.11, SHEET D-4, CCAUSD NO. 421
18. INSTALL WROUGHT IRON FENCE WITH VEHICLE ACCESS GATE AND EMERGENCY KNOX PADLOCK PER CCAUSD NO 425.51
19. INSTALL DROP INLET CONCRETE APRON PER DETAIL R-4.2.7, SHEET D-4 & CCAUSD NO. 421
20. CUT EXISTING SD PIPE WHERE SHOWN ON PLANS
21. INSTALL 7.5' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
22. INSTALL 10' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
23. INSTALL 20' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
24. INSTALL 48" TYPE II SDMH PER CCAUSD NO. 401, 402 & 405.2
25. INSTALL 5' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
26. INSTALL 48" TYPE III SDMH CCAUSD NO. 401, 402 & 406
27. INSTALL 48" TYPE I SDMH CCAUSD NO. 401, 402 & 403
28. INSTALL D50=6" RIPRAP THICKNESS=12" OVER 6" TYPE II AGGREGATE BASE
29. INSTALL RIPRAP D50=12" THICKNESS=24" OVER 6" TYPE II AGGREGATE BASE

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

FLOOD CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED TECHNICAL DRAINAGE STUDY DS5038 ON FILE AT CITY OF LAS VEGAS FOR THE SUBJECT PROJECT.

TIMOTHY M. MULROONEY, P.E. 22938 — 3/18/19 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) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 1
GRADING PLAN VIII

T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

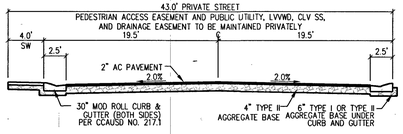
PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY Exp. 12/31/2019 CIVIL No. 22938 — 3/18/19

G-8
SHEET 11 OF 54

L19-00027
10745102

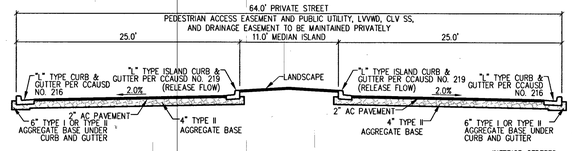
I:\kbh1804-000 summerlin -24 parcel 1&2\dwg\improv\phase 1\kbh1804-000 grd p1.dwg 3/18/2019 8:18 AM Oscar Quiroz



A. PRIVATE STREET SECTION

NOT TO SCALE

INTERIOR STREETS



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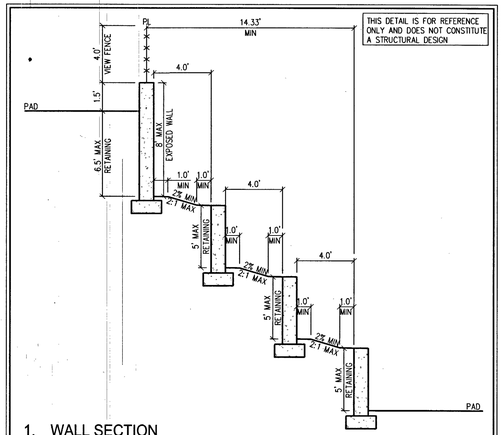

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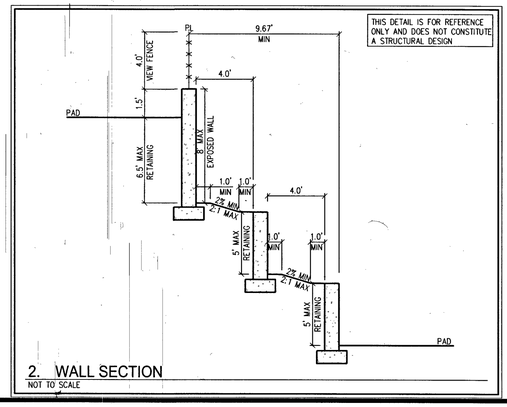

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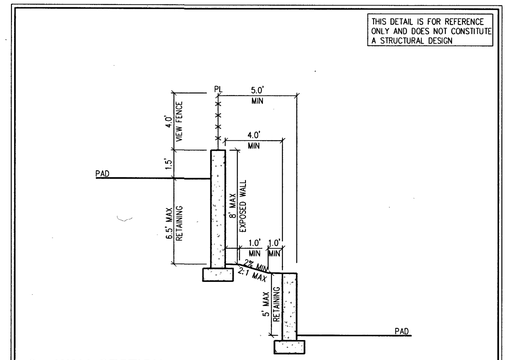

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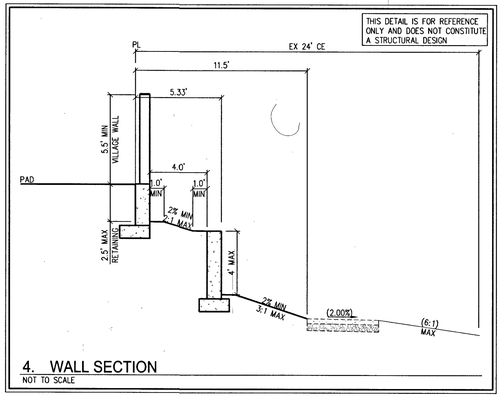

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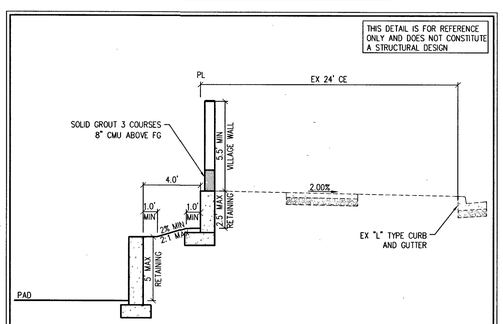

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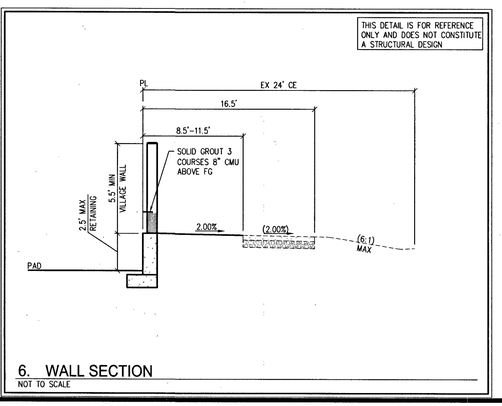

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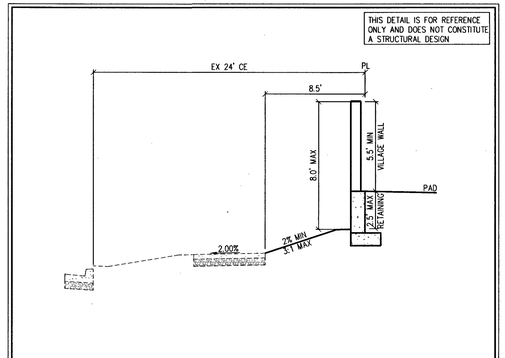

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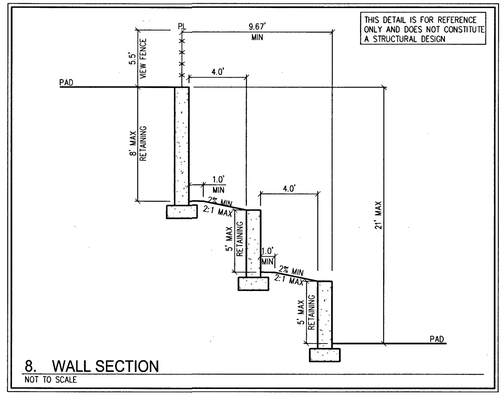

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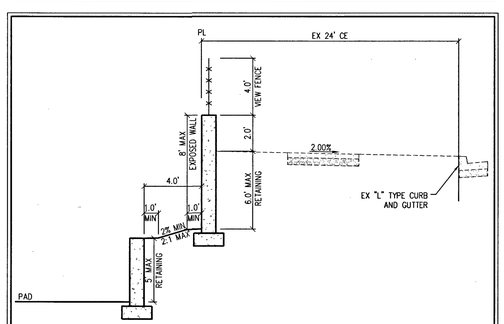

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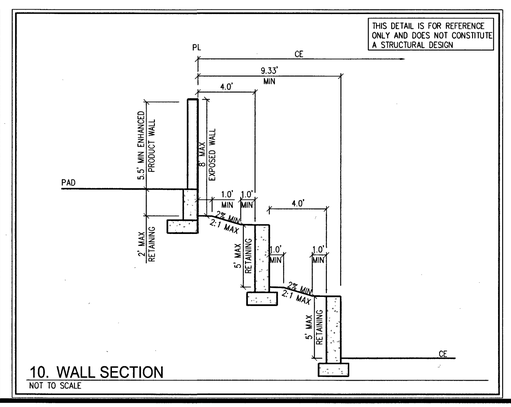

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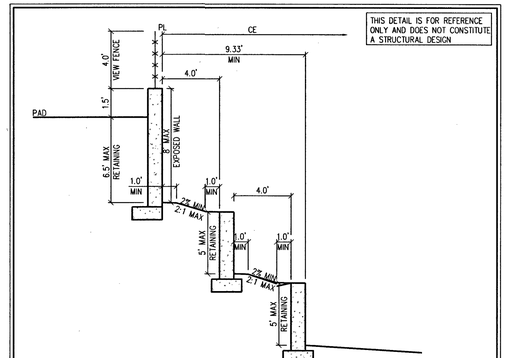

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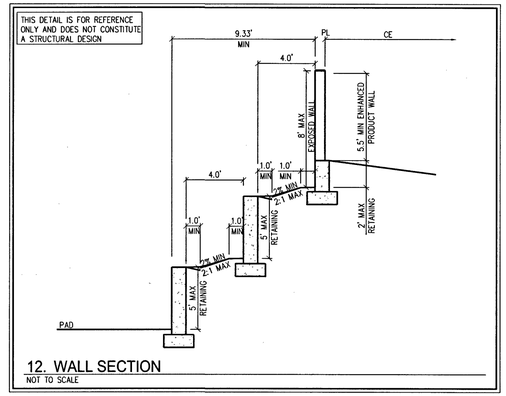

12. WALL SECTION

NOT TO SCALE

13. WALL SECTION

NOT TO SCALE

Call before you Dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call
811
OR
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APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO.: 136070 FIRST APPROVED DATE: 3-20-19

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

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.	APP. DATE

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 1

DETAIL SHEET I

S 33
T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22958 — STATE OF NEVADA
3/18/19

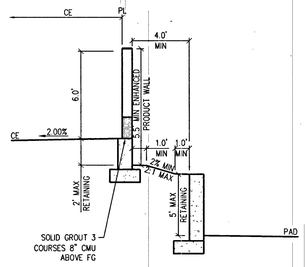
D-1
SHEET 12 OF 54

L19-00027
10745102

PROJ#:136070A QS:137.33-NE

J:\kbh1804-000 summerlin v24 parcel 4\rm\dwg\improv\phase 1\kbh1804-000 dtl pl.dwg 3/18/2019 8:19 AM Oscar Cuitzo

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



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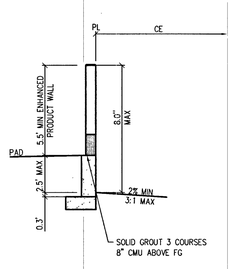

15. WALL SECTION
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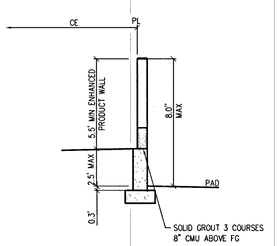
2%-3% MAX IN LVVWD EASEMENT

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



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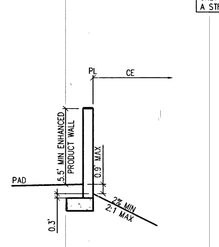

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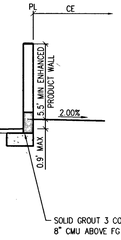

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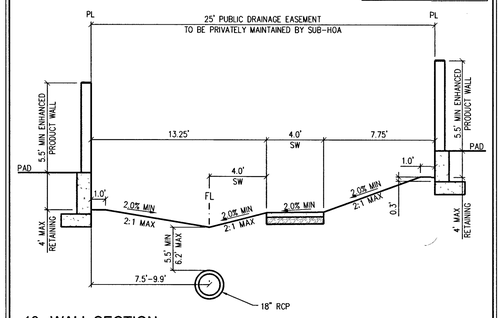

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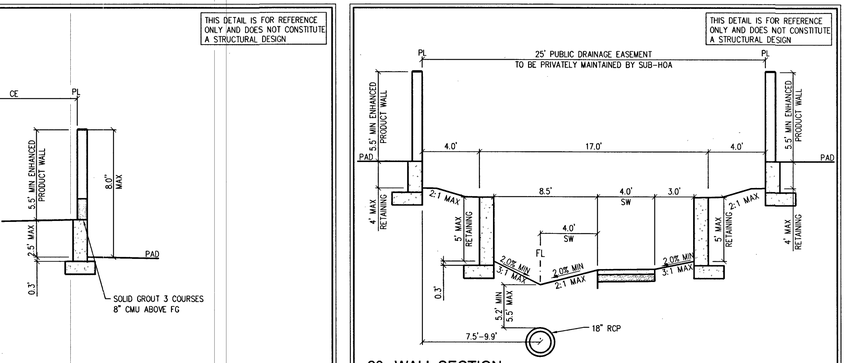

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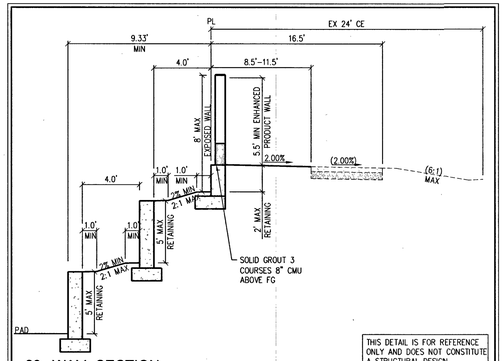

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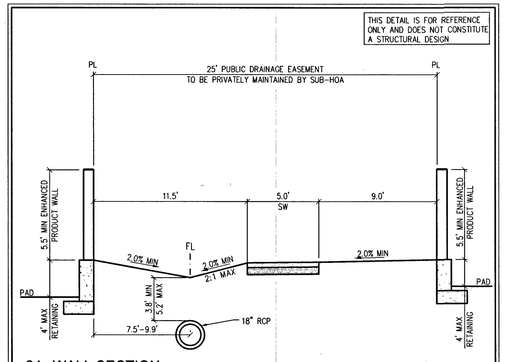

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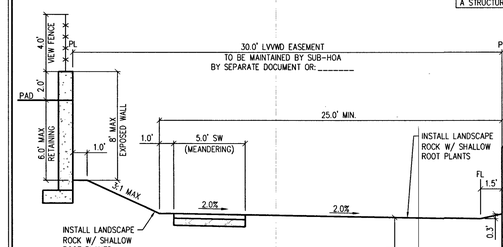

25. WALL & LVVWD EASEMENT SECTION
NOT TO SCALE

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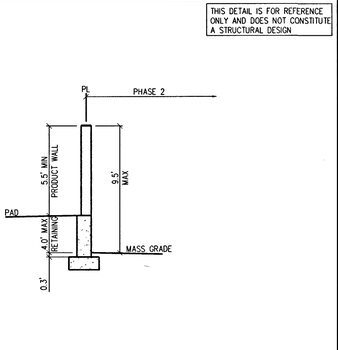

26. WALL SECTION
NOT TO SCALE

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27. WALL SECTION
NOT TO SCALE

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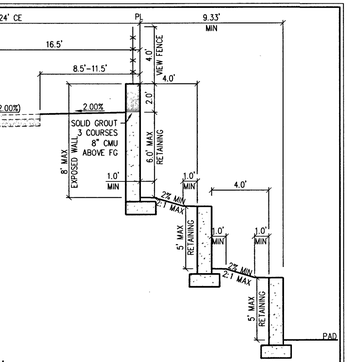

28. WALL SECTION
NOT TO SCALE

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APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO.: 136070 FIRST APPROVED DATE: 3-20-19

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FAST

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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 1

DETAIL SHEET II

S 33 T 20S R 59E

DATE: 3/14/19

DRAFTER: OIQ

DESIGNER: OIQ

CHECKED: DP

PROJECT NO.
KBH1804-000

ENGINEER'S CERTIFICATE OF RESPONSIBLE CHARGE
TIMOTHY M. MULROONEY
Exp. 12/31/2019
CIVIL
No. 22938
STATE OF NEVADA
3/18/19

D-2

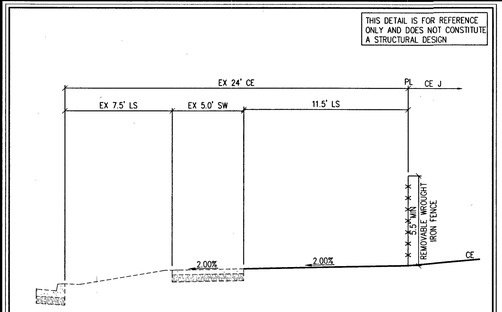
SHEET 13 OF 54

L19-00027

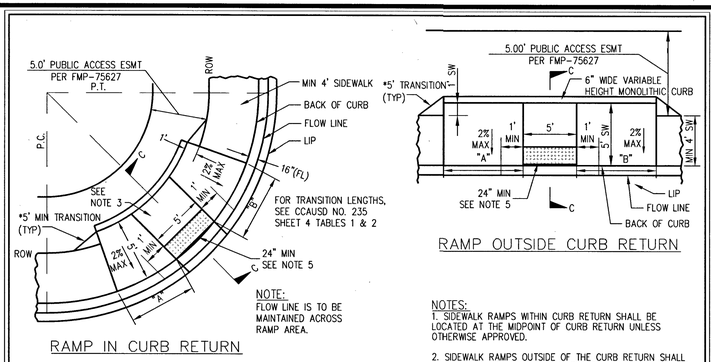
10745102

PRO.#:136070A QS:137-33-NE

J:\Kbh1804-000 summerlin \24 parcel 1&m\dwg\improv\phase 1\kbh1804-000 dtl p1.dwg 3/18/2019 8:19 AM Oscar Quiroz



29. WALL SECTION
NOT TO SCALE



RAMP IN CURB RETURN

RAMP OUTSIDE CURB RETURN

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

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.

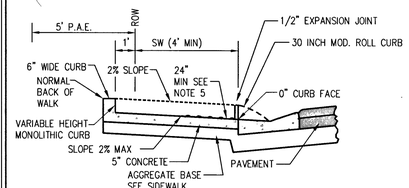
5. DETECTABLE WARNING CONSISTING OF RAISED TRUNCATED DOMES WHICH COMPLY WITH DETAILS ON SHEET 4 OF CCAUSD NO. 235 AND CONTRASTING VISUALLY WITH ADJOINING SURFACES SHALL BE PLACED ON BOTTOM PORTION OF RAMP EXTENDING THE FULL WIDTH OF THE RAMP AND EXTENDING A MINIMUM DISTANCE OF 24 INCHES UP THE RAMP.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

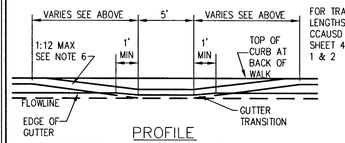
7. "A" AND "B" ARE EQUAL TO 8' WHEN FLOWLINE GRADES IS BETWEEN -2% AND +2% FOR ALL OTHER TRANSITION LENGTHS, SEE CCAUSD NO. 235 SHEET 4 TABLE 1.

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



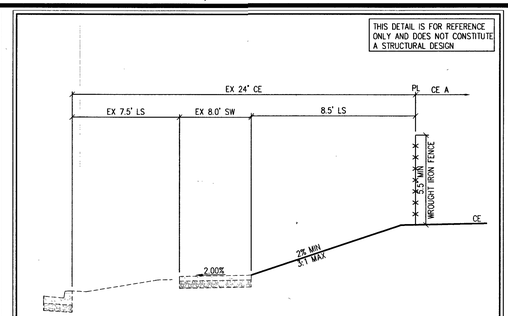
SECTION C-C



PROFILE

33. SIDEWALK RAMP W/ MODIFIED ROLL CURB
NOT TO SCALE

NOT TO SCALE



35. WALL SECTION
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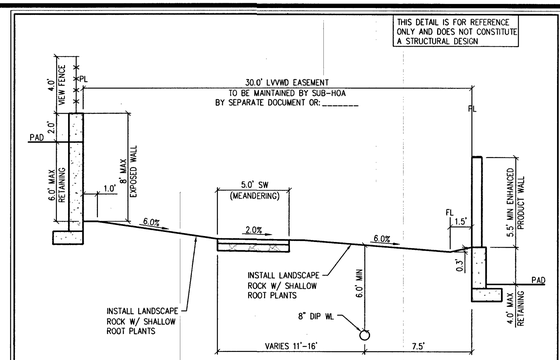
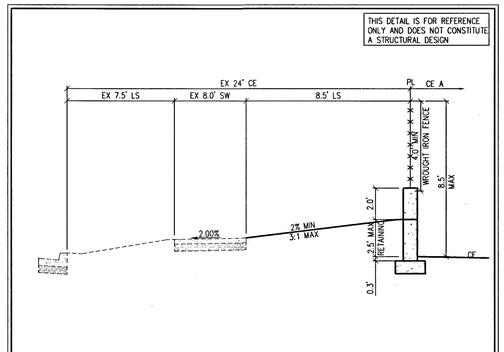


39. WALL & LVVWD EASEMENT SECTION
NOT TO SCALE



36. WALL SECTION
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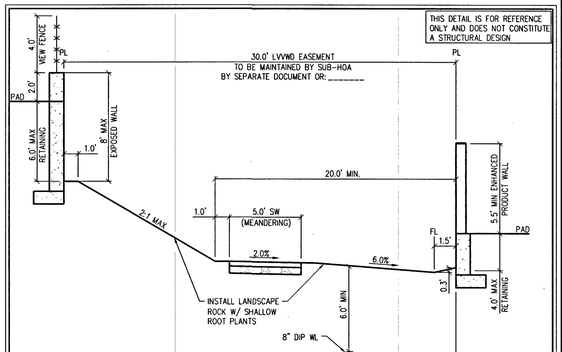
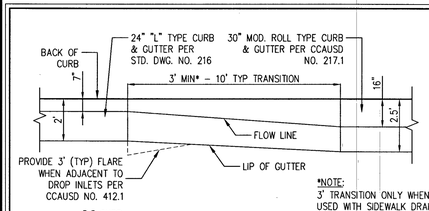
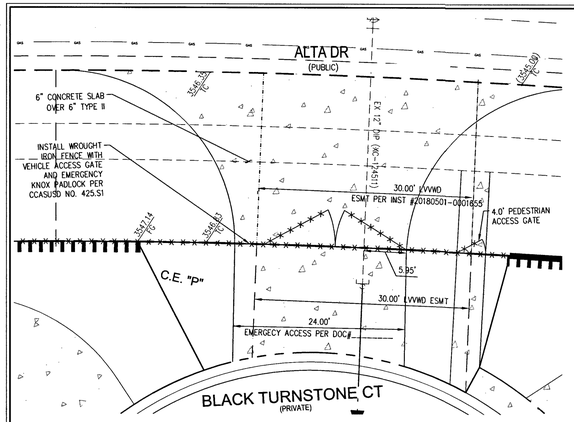
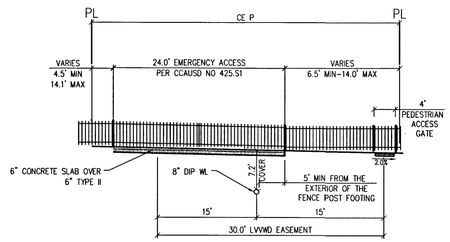


40. WALL & LVVWD EASEMENT SECTION
NOT TO SCALE

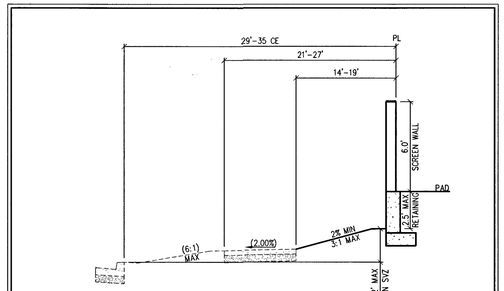


31. 10' TRANSITION FROM 24" "L" CURB & GUTTER TO MODIFIED 30" ROLL CURB & GUTTER
NOT TO SCALE





34. LVVWD EASEMENT/EMERGENCY ACCESS SECTION
NOT TO SCALE



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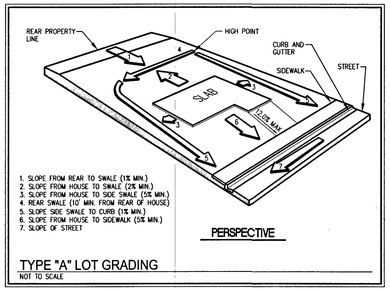
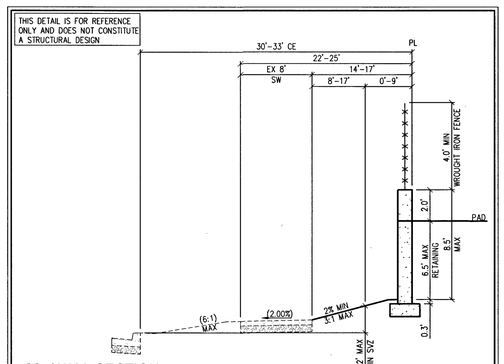


PERSPECTIVE

TYPE "A" LOT GRADING
NOT TO SCALE



38. WALL SECTION
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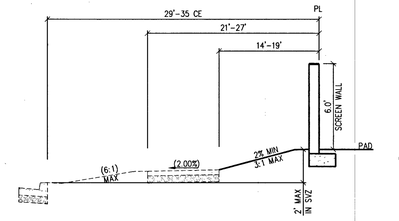

32. WALL SECTION
NOT TO SCALE

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DIG OVERHEAD
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APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO.: 136070 FIRST APPROVED DATE: 3-20-19

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

Call before you Dig
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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	APP DATE

LAS VEGAS, NV

KB HOME
BRISTLE VALE - UNIT 1
DETAIL SHEET III

S 23
T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

PROJECT NO.
KBH1804-000

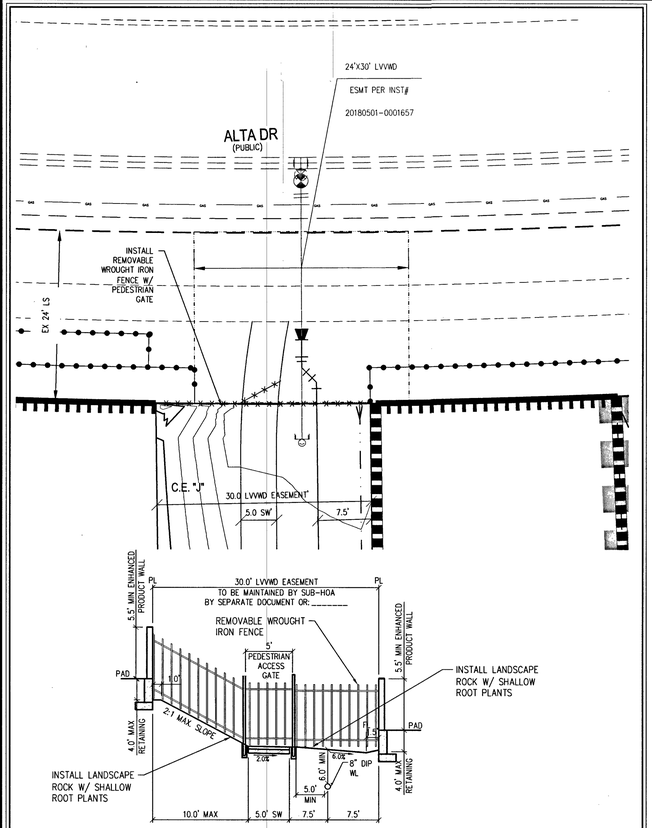
PROFESSIONAL ENGINEER TIMOTHY M. MULROONEY Exp. 12/31/2019 CIVIL No. 22958 STATE OF NEVADA
3/18/19

D-3
SHEET 14 OF 54

L19-00027
10715102

PROJ#:136070A QS:137-33-NE

J:\Kbh1804-000 summerlin v24 parcel 8pm \dwg\improv\phase 1\Kbh1804-000 dtl p1.dwg 3/18/2019 8:19 AM Oscar Quiroz



41. LVVWD EASEMENT/EMERGENCY ACCESS SECTION

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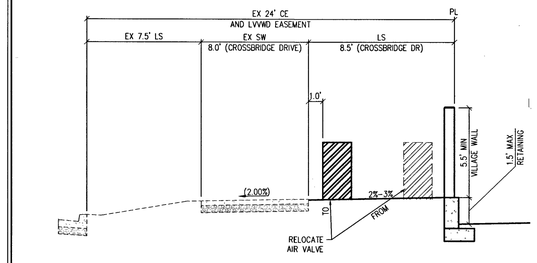

43. AIR VALVE RELOCATION

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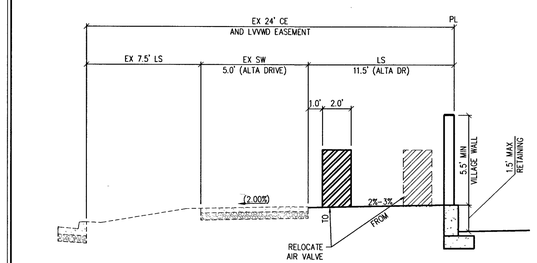

44. AIR VALVE RELOCATION

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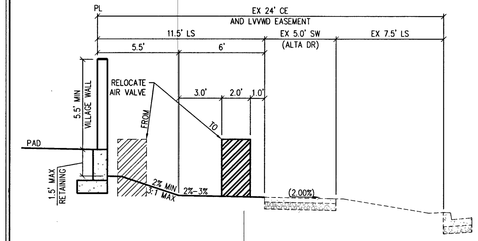

42. AIR VALVE RELOCATION

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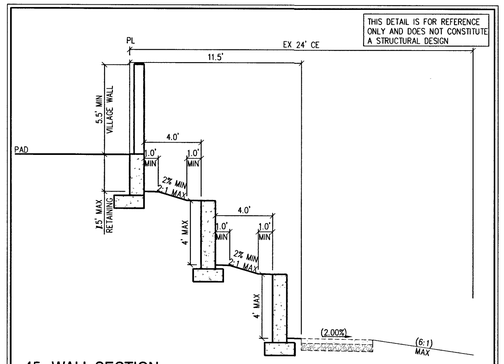

45. WALL SECTION

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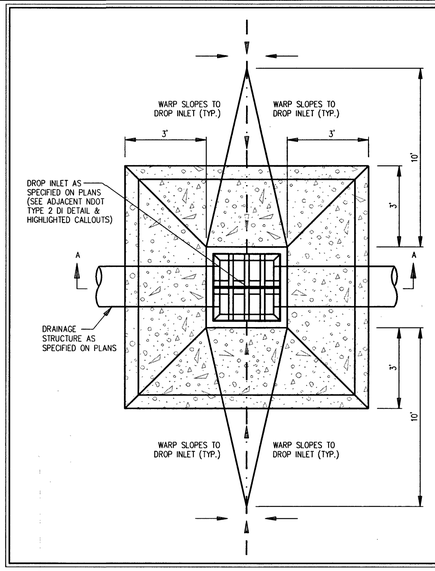
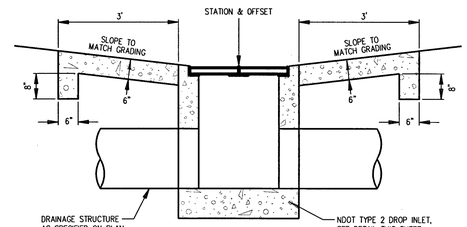


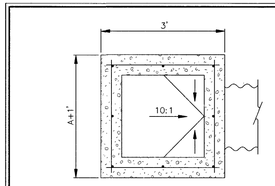


SECTION A-A

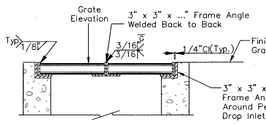
NEVADA DEPARTMENT OF TRANSPORTATION

DROP INLET CONCRETE APRON

Signed Original On File	R-4.2.7	(609)
CHIEF HYDRAULICS ENGINEER	ADOPTED 5/09	REVISION



SECTION C-C



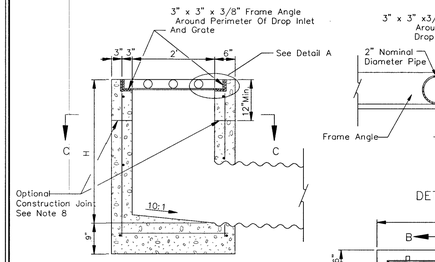
SECTION B-B

NOTES:

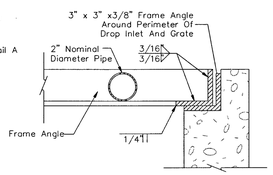
1. ALL CONCRETE SHALL BE CLASS A OR AA.
2. REINFORCING STEEL SHALL BE NO. 4 BARS WITH MAXIMUN SPACING AT 18" CENTERS, WIRED TIGHTLY AT ALL INTERSECTIONS AND EMBEDDED 2" CLEAR OF ALL CONCRETE SURFACES.
3. EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1".
4. STRUCTURAL STEEL WEIGHT INCLUDES THE 2" NORMAL DIAMETER PIPE STANDARD WEIGHT AND 3"X3"X3/8" FRAME ANGLES.
5. FOR 2" NOMINAL DIAMETER PIPE SEE ASTM A53.
6. SEE SHEET R-2.9.1 FOR DETAILS IF CONNECTING HDPE PIPE.
7. SLOPE CATCH BASIN FLOORS 10:1 FROM ALL DIRECTIONS TOWARD OUTLET PIPE. IF BASIN IS USED AS A JUNCTION, SHAPE FLOW LINE(S) TO OUTLET PIPE AND PROVIDE A 10:1 SLOPE TO FLOW LINE(S).
8. RUN REBAR CONTINUOUS THRU CONSTRUCTION JOINT. JOINT MUST BE A MIN. 3" FROM HORIZONTAL BARS.

DESIGN NOTES:

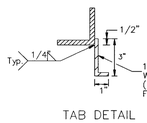
D1. ADDITIONAL PIPE PENETRATIONS MAY BE PLACED IN ANY WALL.



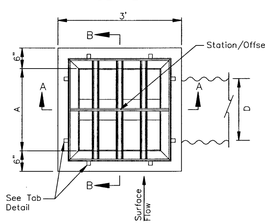
SECTION A-A



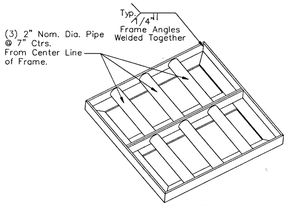
DETAIL A



TAB DETAIL



PLAN



GRATE DETAIL

PIPE SIZE (INCH)	A	H Min. (FT)	CONCRETE (CU. YD.) BASE QUAN. (H Min.)	CONCRETE (CU. YD.) ADD RATE (CU. YD./FT)	REINFORCING (LB) BASE QUAN. (H Min.)	REINFORCING (LB) ADD RATE (LB/FT)	STRUCTURAL STEEL (LB)
15"	2'	2.50	0.71	0.19	36	10	200
18"	2' 6"	3.00	0.89	0.20	40	10	220
24"	3'	3.50	1.08	0.22	58	12	240
30"	3' 6"	4.00	1.28	0.24	63	12	260
36"	4'	4.50	1.50	0.26	67	13	280
42"	4' 6"	5.00	1.71	0.28	90	15	300
48"	5'	5.50	1.94	0.30	95	15	319

The Concrete And Reinforcing Quantities Are Based On The H Min. Shown. Increase The Concrete And Reinforcing Base Quantity By The Corresponding Add Rate (Per Foot Of Increased H) If The H Specified Is Larger Than H Min.

NEVADA DEPARTMENT OF TRANSPORTATION

TYPE 2A DROP INLET

Signed Original On File	R-4.2.1.1	(609)
CHIEF HYDRAULICS ENGINEER	ADOPTED 11/70	REVISION 5/09

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136070 FIRST APPROVED DATE: 3-20-19

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CALL BEFORE YOU DO OVERHEAD
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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.	APP. DATE

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 1

DETAIL SHEET IV

S33 T20S R59E

DATE: 3/14/19

DRAFTER: OIQ

DESIGNER: OIQ

CHECKED: DP

PROJECT NO. KBH1804-000

TIMOTHY M. MULROONEY Exp. 12/31/2019 CIVIL No. 22938 STATE OF NEVADA PROFESSIONAL ENGINEER 3/18/19

D-4

SHEET 15 OF 54

L19-00027

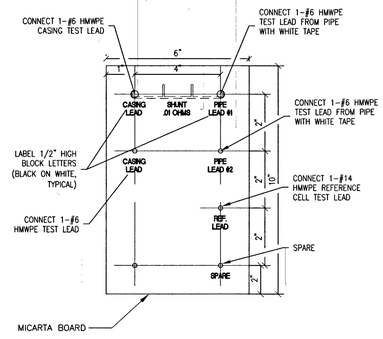
10745102

PROJ#:136070A QS:137-33-NE

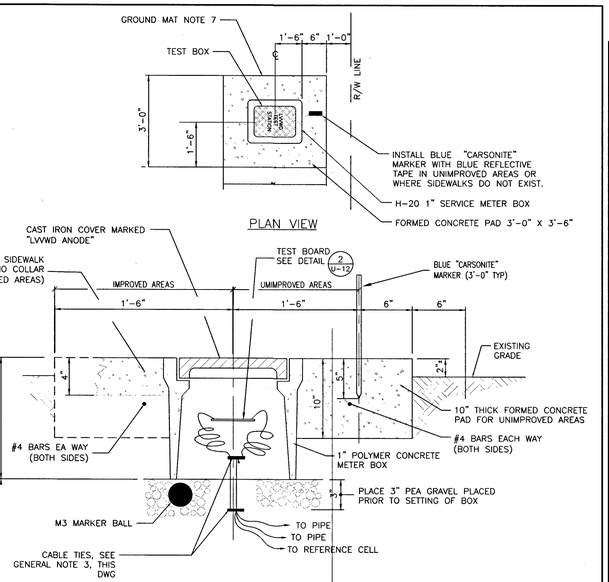
J:\Kbh1804-000 summerlin v24 parcel 18\m\dwg\improv\phase 1\kbh1804-000 det pl.dwg 3/18/2019 8:19 AM Oscar Quiroz

PROCEDURES TO RELOCATE A CORROSION TEST STATION

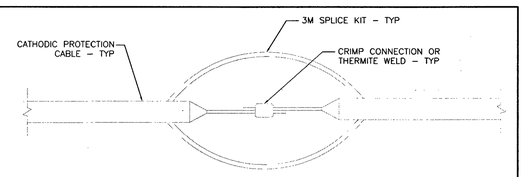
1. CONTACT LVVWD INSPECTIONS AT 702-258-7171, PRIOR TO START FOR PRE-TEST.
2. THE LEADS THAT ARE CONNECTED TO THE PIPE REQUIRE #6 COPPER WIRE WITH A HMWPE JACKET SUCH AS RAYCHEM PERMARAD.
3. THE LEAD THAT IS CONNECTED TO THE REFERENCE CELL REQUIRES #14 COPPER WIRE WITH A HMWPE JACKET SUCH AS RAYCHEM PERMARAD.
4. CONNECT THE TWO WIRES TO BE SPLICED WITH A COPPER BUTT CONNECTION USING THE PROPER CRIMPING TOOL.
5. MAKE EACH SPLICE USING A 3M SCOTCHCAST RESIN SPLICING KIT.
6. RECONNECT THE TEST BOARD TO PROPER LEADS, AND PLACE THE TEST BOX AT THE NEW SITE.
7. THE TEST BOX AT THE NEW SITE WILL BE INSTALLED ACCORDING TO THE TYPICAL TEST BOX DETAILS.
8. ALL TEST LEADS AND ANODE LEADS INSIDE THE TEST BOX SHALL BE BUNDLED TOGETHER AT 8 INCH INTERVALS WITH NYLON TIES AND SHALL BE PROVIDED WITH A MINIMUM OF 4 FEET OF SLACK.
9. ALL TEST LEADS AND ANODE LEADS SHALL BE COLOR CODED WITH COLORED TAPE AT EACH END, AND AT 4 FEET INTERVALS.
9. SCHEDULE FINAL TEST WITH LVVWD INSPECTIONS.



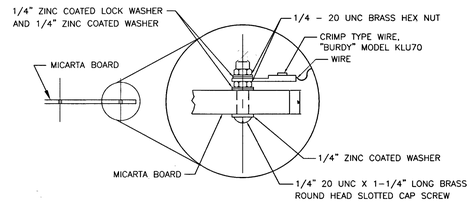
STANDARD TEST BOARD INSTALLATION (1 / D-5)
NOT TO SCALE PL12-3A 062007



CATHODIC PROTECTION TEST STATION BOX + MARKER (2 / D-5)
NOT TO SCALE



INLINE SPICE DETAIL (3 / D-5)
NOT TO SCALE



TEST BOARD DETAIL - TYPICAL LUG AND STUD CONNECTION (4 / D-5)
NOT TO SCALE

TEST STATION RELOCATION DETAILS
NOT TO SCALE

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PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 1
DETAIL SHEET V

S 33
T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

PROJECT NO.
KBH1804-000

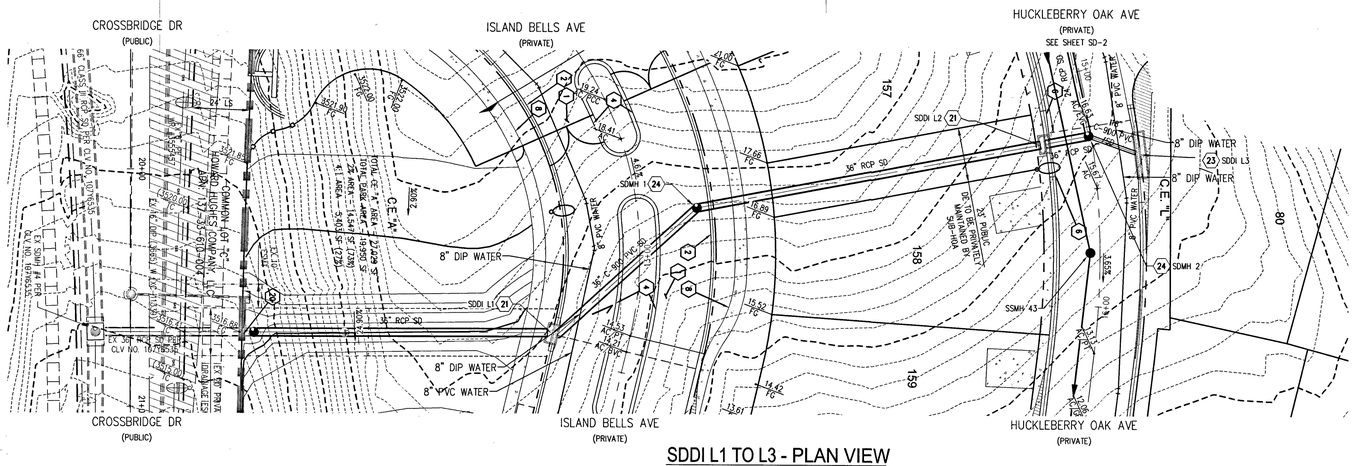
ENGINEER'S CERTIFICATE OF NEVADA
TIMOTHY M. MULROONEY
Exp. 12/31/2019
CIVIL
No. 22935
3/14/19

D-5
SHEET 16 OF 54

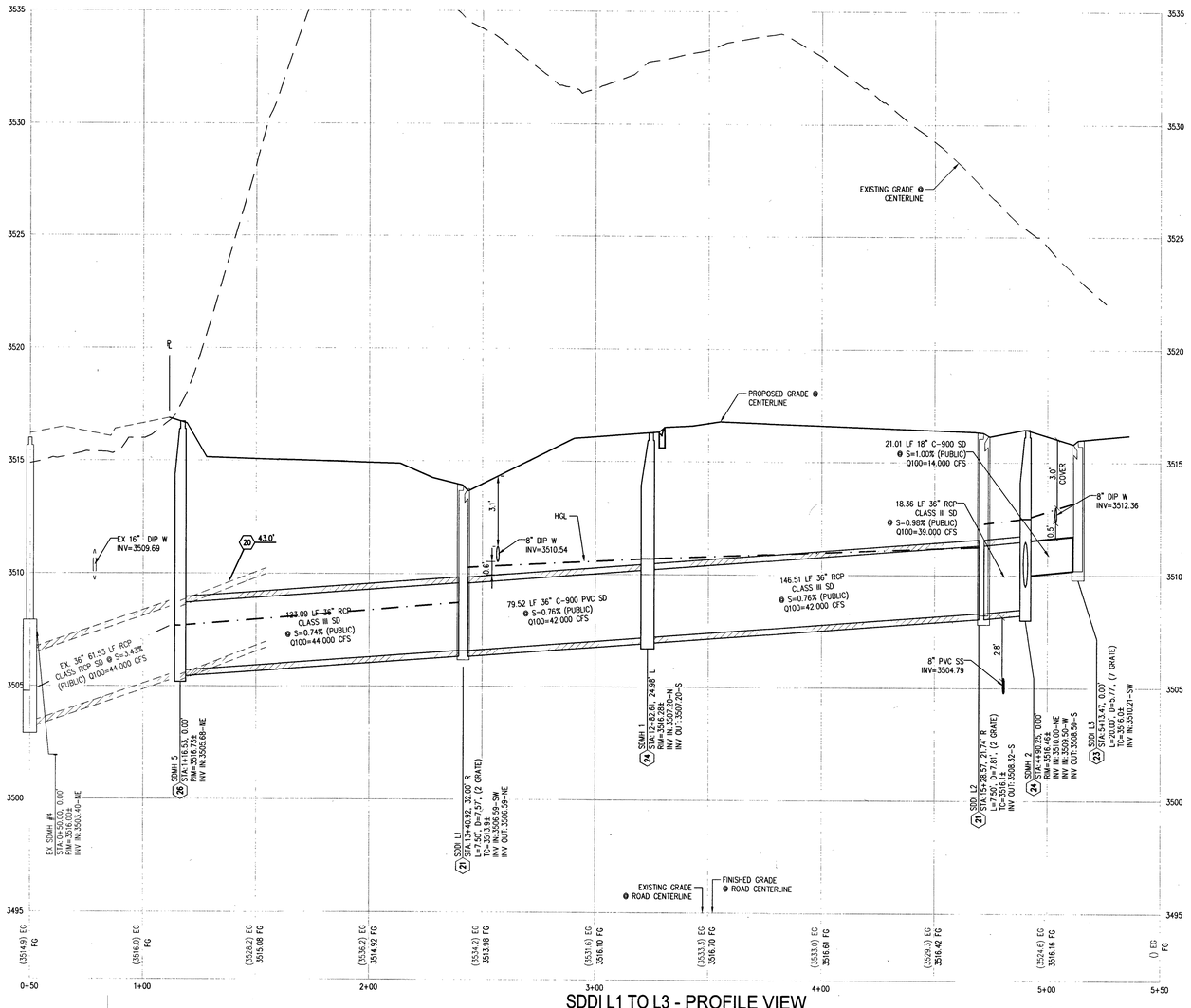
L19-00027
10745102

PRO.#:136070A QS:137-33-NE

J:\kbh1804-000 summerlin v24 parcel l&m\dwg\improv\phase 1\kbh1804-000 dtl pl.dwg 3/18/2019 8:19 AM Oscar Quiroz



SDDI L1 TO L3 - PLAN VIEW

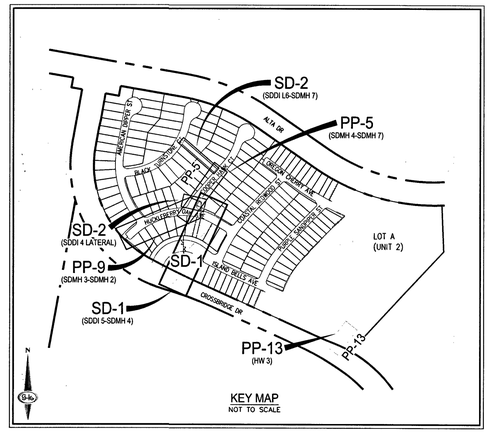


SDDI L1 TO L3 - PROFILE VIEW

HORIZ: 1" = 30'
VERT: 1" = 3'

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



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.

STORM DRAIN NOTES

- WATER TIGHT MANHOLE

DIP WATER LINE

ALL DUCTILE IRON PIPE (DIP) TO BE CLASS 350 DIP UNLESS OTHERWISE SPECIFIED.

CONSTRUCTION NOTES

1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
2. INSTALL "L" TYPE CURB PER CCAUSD NO. 216
3. INSTALL MODIFIED ROLL TYPE CURB PER CCAUSD NO. 217.1
4. INSTALL "L" TYPE ISLAND CURB PER CCAUSD NO 219
5. INSTALL "A" TYPE ISLAND CURB PER CCAUSD NO 219
6. INSTALL 10' "L" TYPE CURB TO MODIFIED ROLL CURB TRANSITION PER DETAIL 31, SHEET D-3
7. CONSTRUCT 4' WIDE SIDEWALK PER CCAUSD NO. 234
8. CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234
9. CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER DETAIL 33, SHEET D-3
10. CONSTRUCT 8' CROSS GUTTER PER CCAUSD NO. 228
11. CONSTRUCT SIDEWALK DRAIN PER CCAUSD NO. 236
12. INSTALL 18" RCP STORM DRAIN PIPE
13. INSTALL 24" RCP STORM DRAIN PIPE
14. INSTALL 30" RCP STORM DRAIN PIPE
15. INSTALL 36" RCP STORM DRAIN PIPE
16. INSTALL 48" RCP STORM DRAIN PIPE
17. INSTALL 4.5'X6' NOOT TYPE 2A DROP INLET PER DETAIL R-4.2.1.1, SHEET D-4, CCAUSD NO. 421
18. INSTALL WROUGHT IRON FENCE WITH VEHICLE ACCESS GATE AND EMERGENCY KNOX PADLOCK PER CCAUSD NO 425.51
19. INSTALL DROP INLET CONCRETE APRON PER DETAIL R-4.2.7, SHEET D-4 & CCAUSD NO. 421
20. CUT EXISTING SD PIPE WHERE SHOWN ON PLANS
21. INSTALL 7.5' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
22. INSTALL 10' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
23. INSTALL 20' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
24. INSTALL 48" TYPE II SDMH PER CCAUSD NO. 401, 402 & 405.2
25. INSTALL 5' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
26. INSTALL 48" TYPE III SDMH CCAUSD NO. 401, 402 & 406
27. INSTALL 48" TYPE I SDMH CCAUSD NO. 401, 402 & 403
28. INSTALL D50=6" RIPRAP THICKNESS=12" OVER 6" TYPE II AGGREGATE BASE
29. INSTALL RIPRAP D50=12" THICKNESS=24" OVER 6" TYPE II AGGREGATE BASE

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

DISCLAIMER NOTE

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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.

SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORPORATION — DATE 3/18/19

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO.: 136070 FIRST APPROVED DATE: 3-20-19

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 1

SD PLAN & PROFILE - SDDI L1 TO L3

S 33
T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO.
KBH1804-000

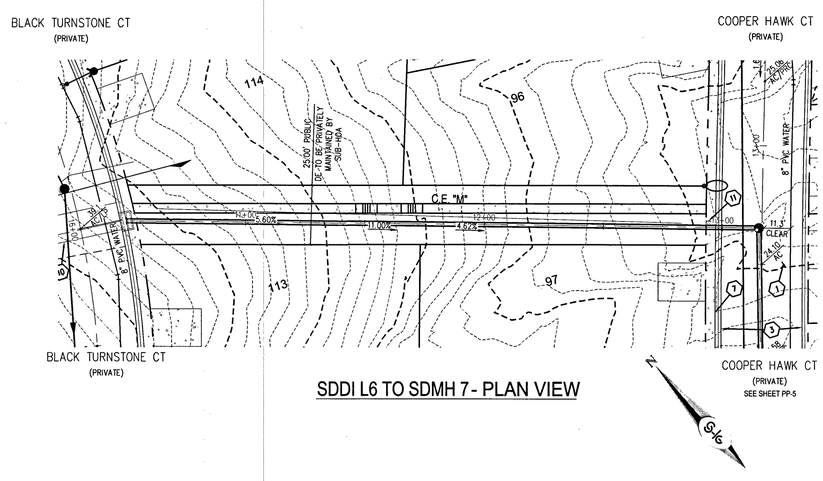
PROFESSIONAL ENGINEER — STATE OF NEVADA — TIMOTHY M. MULROONEY — No. 22938 — Exp. 12/31/2019 — CIVIL — 3/19

SD-1
SHEET 17 OF 54

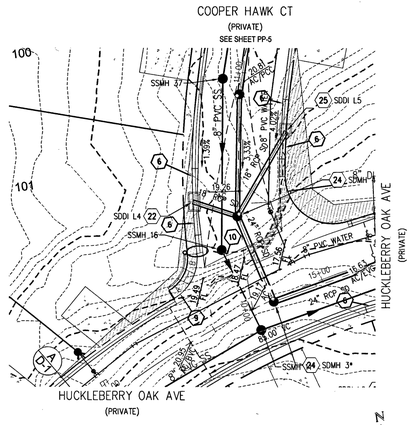
L19-00027
10745102

PRO.#:136070A QS:137-33-NE

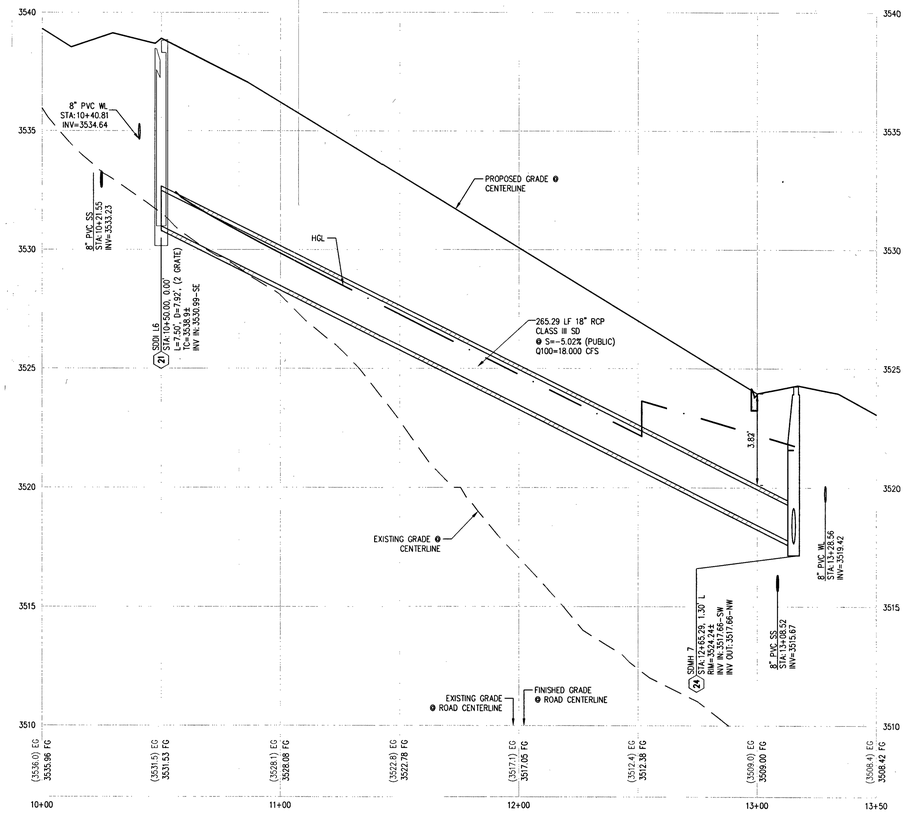
I:\kbh1804-000 summerlin v24 pgrcel I&m\dwg\mprov\phase 1\kbh1804-000 prop p1.dwg 3/14/2019 11:15 AM Oscar Quiroz



SDDI L6 TO SDMH 7 - PLAN VIEW



SDDI L4 TO SDDI L5 - PLAN VIEW



SDDI L6 TO SDMH 7 - PROFILE VIEW
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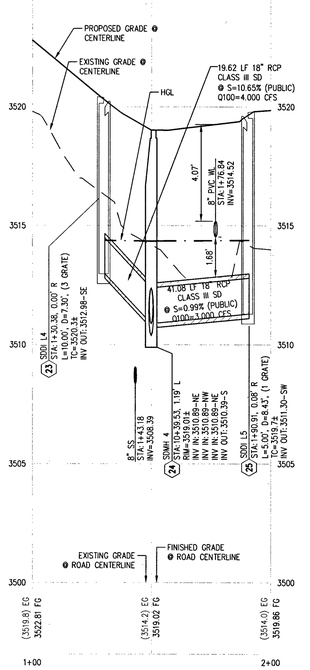
VERT: 1" = 3'



SDDI L4 TO SDDI L5 - PROFILE VIEW
HORIZ: 1" = 30'
VERT: 1" = 3'

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

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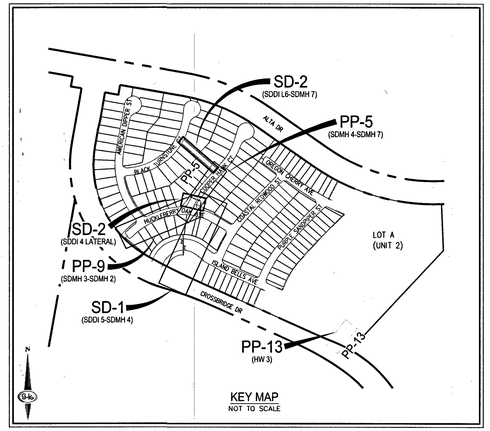

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CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6

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APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO.: 136070 FIRST APPROVED DATE: 3/14/19

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) 264-5300
FAX (702) 264-5399

NO.	DESCRIPTION	DATE	BY	APP.	APP. DATE

LAS VEGAS, NV

KB HOME
BRISTLE VALE - UNIT 1

SD PLAN & PROFILE - SDDI L6 TO SDMH 7 & SDDI L4 TO SDDI L5

S 33
T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO. KBH1804-000

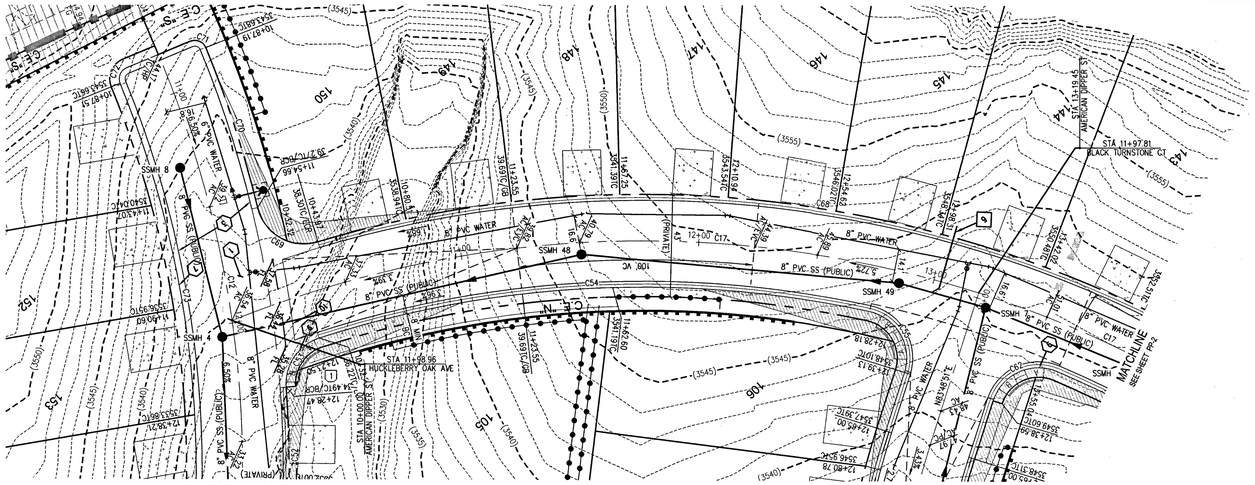
PROFESSIONAL ENGINEER - STATE OF NEVADA - TIMOTHY M. MULRODNEY - Exp. 12/31/2019 - CIVIL - No. 22936 - 3/14/19

SD-2
SHEET 18 OF 54

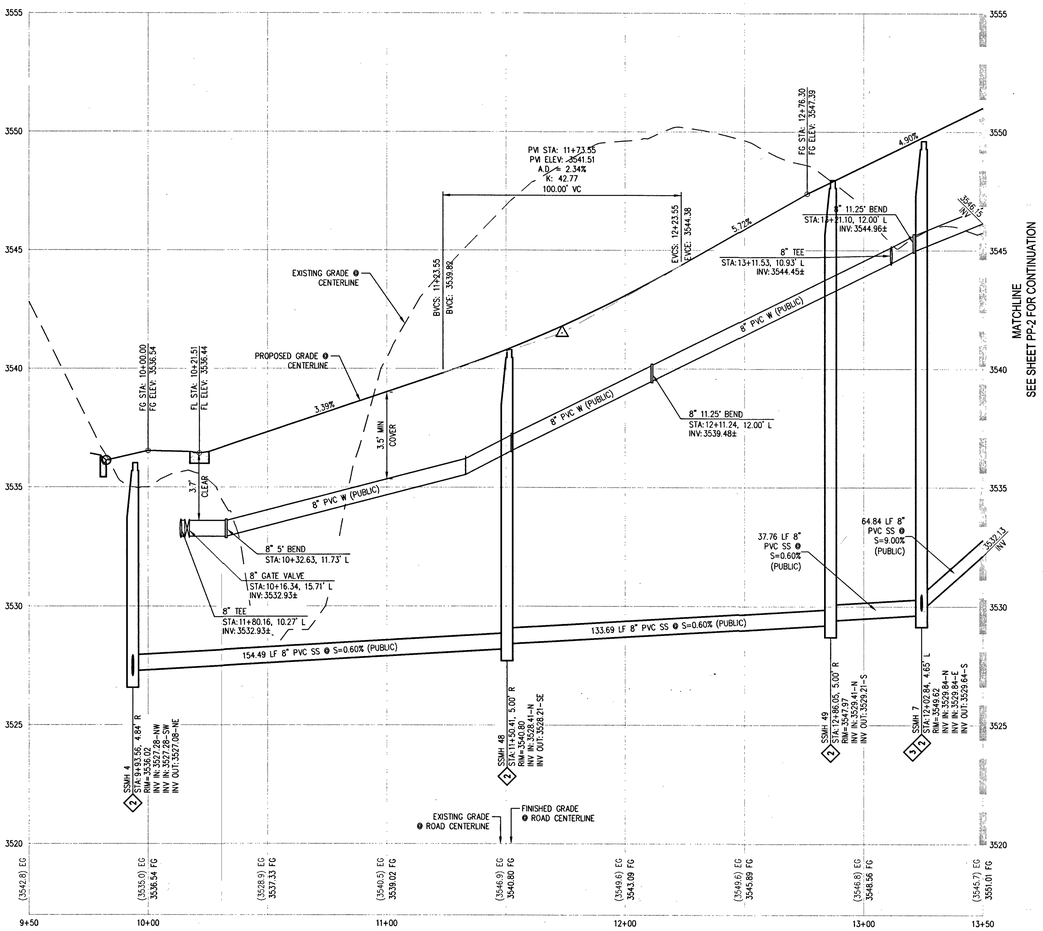
L19-00027
10745102

PROJ#:136070A QS:137-33-NE

J:\kbh1804-000 summerlin v24 parcel 6\cm\dwg\improv\phase 1\kbh1804-000 pnp p1.dwg 3/14/2019 11:16 AM Oscar Quiroz



AMERICAN DIPPER ST - PLAN VIEW
(PRIVATE)



AMERICAN DIPPER ST - PROFILE VIEW
HORIZ: 1" = 30'
VERT: 1" = 3'

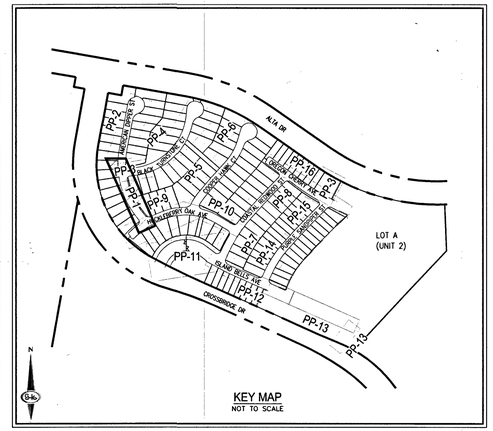
SCALE = 1"=30' (0, 30, 60 FEET)

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 % "S" 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 ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD NO. 235, CASE I



KEY MAP
NOT TO SCALE

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	TANGENT
C12	201.05'	450.00'	25°35'55"	102.23'
C17	453.86'	460.00'	56°31'54"	247.33'
C52	57.30'	469.50'	6°59'32"	28.68'
C53	26.58'	20.00'	76°09'14"	15.67'
C54	233.71'	440.50'	30°23'53"	119.67'
C55	33.27'	20.00'	95°19'29"	21.95'
C62	33.32'	20.00'	95°27'19"	22.00'
C63	87.16'	440.50'	11°20'11"	43.72'
C68	427.27'	479.50'	51°03'18"	228.99'
C69	32.47'	20.00'	93°01'44"	21.09'
C70	70.11'	469.50'	8°33'20"	35.12'
C71	7.64'	5.00'	87°31'55"	4.79'
C72	7.82'	5.00'	89°37'39"	4.97'
C73	187.64'	430.50'	24°58'23"	95.33'

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.

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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. MANHOLE SHALL BE CORROSION PROTECTED WITH FIELD APPLIED COATING PER DCSWCS SECTION 3.16.88
4. INSTALL 4" PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25
5. REMOVE CAP AND CONNECT TO EXISTING 8" SS
6. INSTALL 4" C900 PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25 FOR LOTS 123 AND 124 ONLY
7. INSTALL 8" C900 PVC SANITARY SEWER PER DCSWCS SD-15 & SD-17

SEE SHEET C-3 FOR QUANTITIES AND ABBREVIATIONS

CONSTRUCTION NOTES

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

LVVWD NOTES

- ALL DUCTILE IRON PIPE (DIP) TO BE CLASS 350 DIP UNLESS OTHERWISE SPECIFIED.
- MAINTAIN MINIMUM TWENTY-FOUR (24") INCH COVER PER UDACS SEC. 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION
- WATER PRESSURE ZONE 3665

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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.

STORM DRAIN NOTES

- WATER TIGHT MANHOLE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO.: 136070 FIRST APPROVED DATE: 3-20-19

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
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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'D DATE	APP

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 1

PLAN & PROFILE - AMERICAN DIPPER ST STA 9+50 TO 13+50

S 33
T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

PROJECT NO.
KBH1804-000

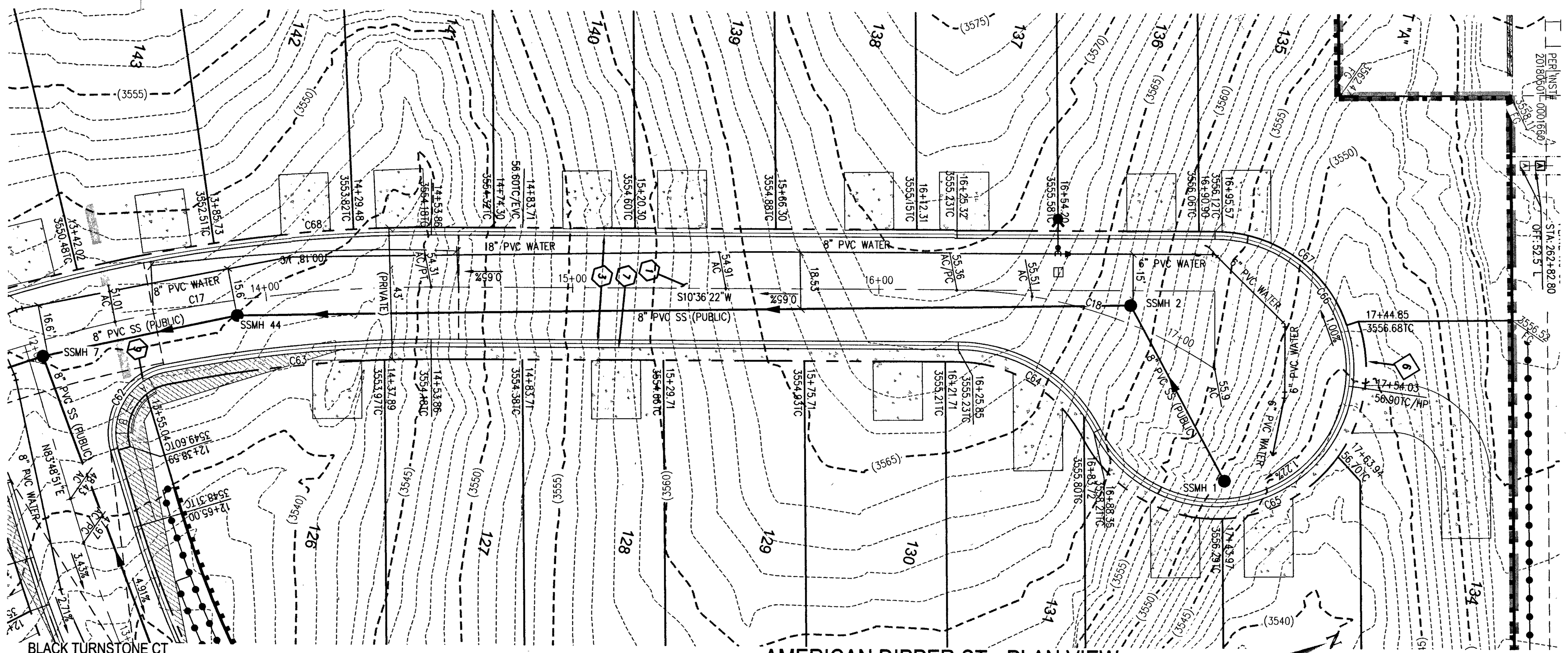
PROFESSIONAL ENGINEER & STATE OF NEVADA
TIMOTHY M. MULROONEY
Exp. 12/31/2019
CIVIL
No. 22938
3/14/19

PP-1
SHEET 19 OF 54

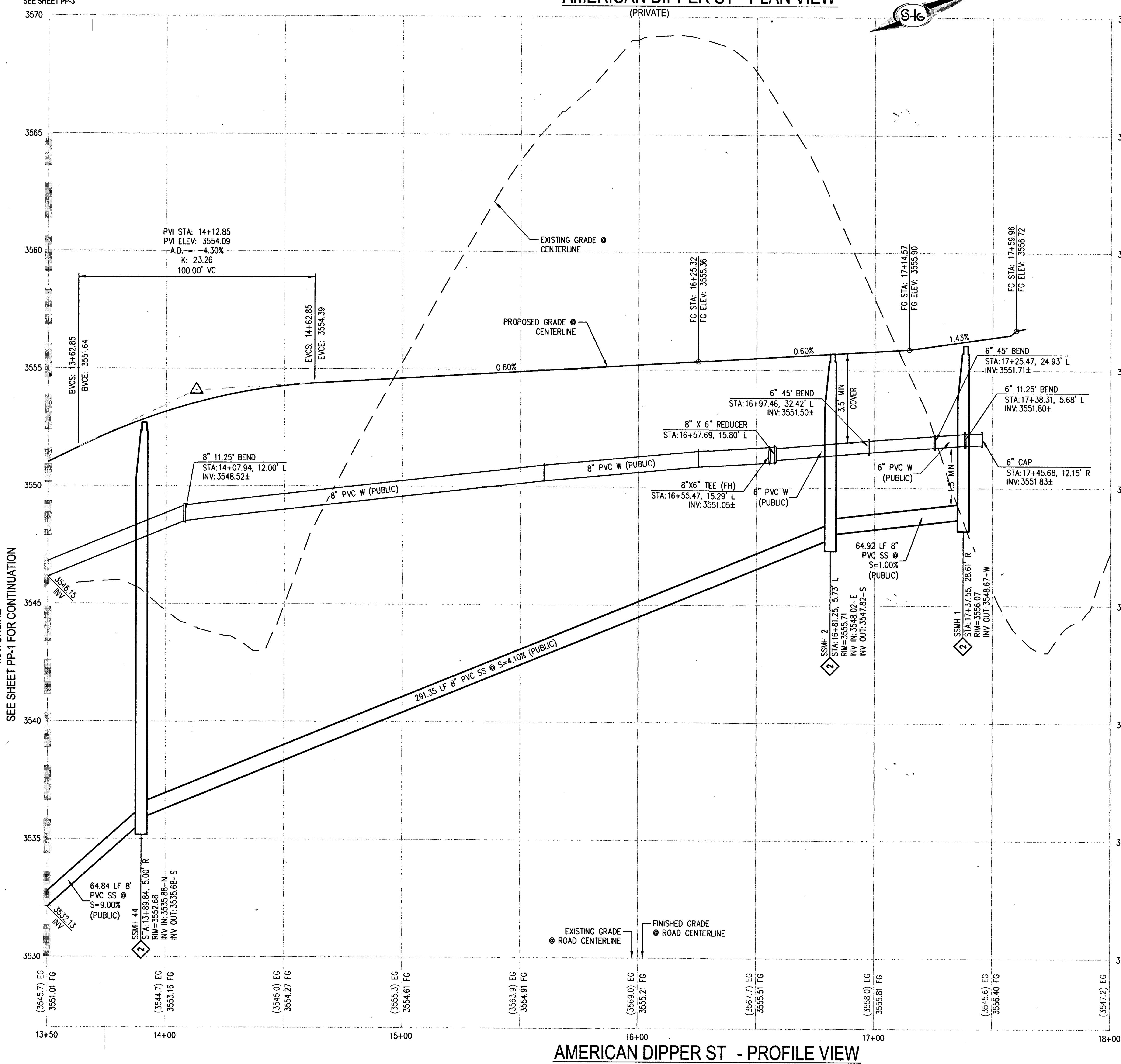
L19-00027

PROJ.#:136070A QS:137-33-NE

J:\Kbh1804-000 summerlin v24 parcel l&m\dwg\improv\phase 1\kbh1804-000 pnc2 pl.dwg 3/14/2019 11:19 AM Prashant Aryal



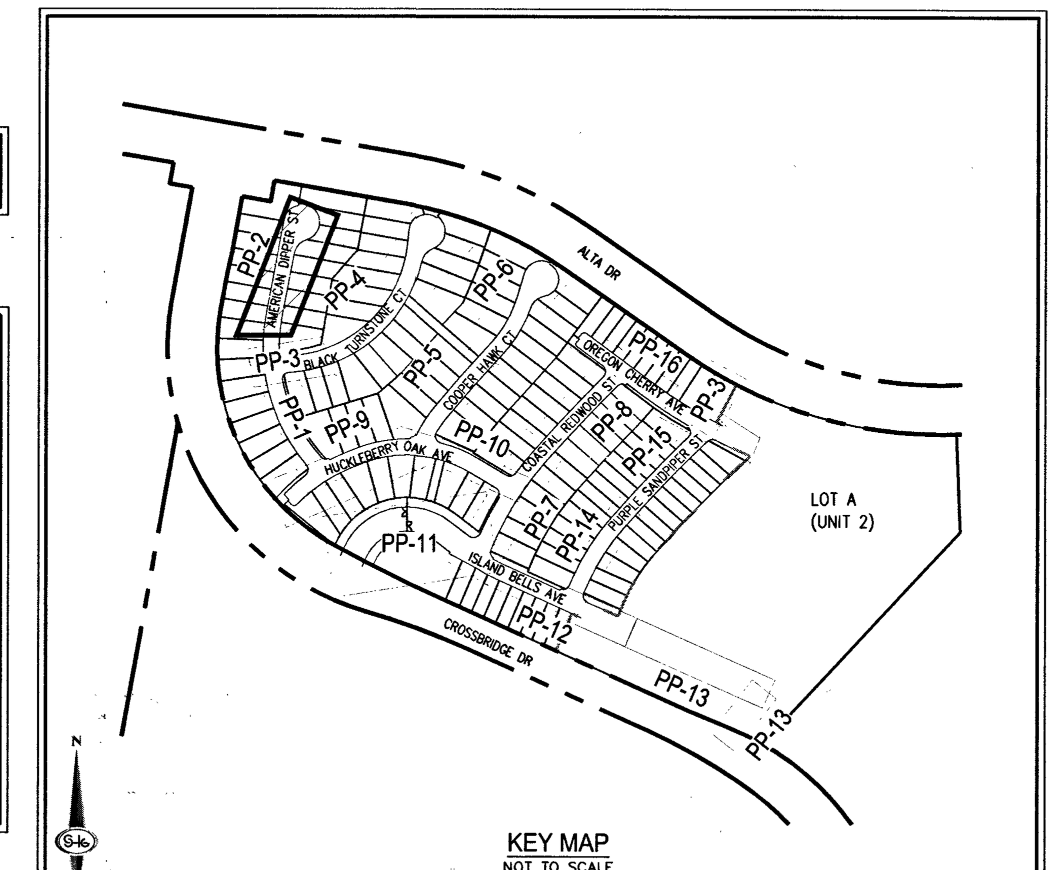
AMERICAN DIPPER ST - PLAN VIEW
(PRIVATE)



AMERICAN DIPPER ST - PROFILE VIEW
HORIZ: 1" = 30'
VERT: 1" = 3'

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

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



KEY MAP
NOT TO SCALE

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
C18	89.25'	151.76'	33°41'49"	45.96'
C62	33.32'	20.00'	95°27'19"	22.00'
C63	87.16'	440.50'	11°20'11"	43.72'
C64	54.46'	50.00'	62°24'27"	30.29'
C65	134.40'	45.00'	171°07'10"	579.50'
C66	14.38'	45.00'	18°18'19"	7.25'
C67	42.06'	45.00'	53°33'03"	22.71'

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.

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. MANHOLE SHALL BE CORROSION PROTECTED WITH FIELD APPLIED COATING PER DCSWCS SECTION 3.16.8B
4. INSTALL 4" PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25.
5. REMOVE CAP AND CONNECT TO EXISTING 8" SS
6. INSTALL 4" C900 PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25 FOR LOTS 123 AND 124 ONLY
7. INSTALL 8" C900 PVC SANITARY SEWER PER DCSWCS SD-15 & SD-17

SEE SHEET C-3 FOR QUANTITIES AND ABBREVIATIONS

CONSTRUCTION NOTES

1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
2. INSTALL "L" TYPE CURB PER CCAUSD NO. 216
3. INSTALL MODIFIED ROLL TYPE CURB PER CCAUSD NO. 217.1
4. INSTALL "L" TYPE ISLAND CURB PER CCAUSD NO 219
5. INSTALL "A" TYPE ISLAND CURB PER CCAUSD NO 219
6. INSTALL 10' "L" TYPE CURB TO MODIFIED ROLL CURB TRANSITION PER DETAIL 31, SHEET D-3
7. CONSTRUCT 4' WIDE SIDEWALK PER CCAUSD NO. 234
8. CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234
9. CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER DETAIL 33, SHEET D-3
10. CONSTRUCT 8' CROSS GUTTER PER CCAUSD NO. 228
11. CONSTRUCT SIDEWALK DRAIN PER CCAUSD NO. 236
12. INSTALL 18" RCP STORM DRAIN PIPE
13. INSTALL 24" RCP STORM DRAIN PIPE
14. INSTALL 30" RCP STORM DRAIN PIPE
15. INSTALL 36" RCP STORM DRAIN PIPE
16. INSTALL 48" RCP STORM DRAIN PIPE
17. INSTALL 4.5'X6' NDOT TYPE 2A DROP INLET PER DETAIL R-4.2.1.1, SHEET D-4, CCAUSD NO. 421
18. INSTALL WROUGHT IRON FENCE WITH VEHICLE ACCESS GATE AND EMERGENCY KNOX PADLOCK PER CCAUSD NO 425.S1
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20. CUT EXISTING SD PIPE WHERE SHOWN ON PLANS
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24. INSTALL 48" TYPE II SDMH PER CCAUSD NO. 401, 402 & 405.2
25. INSTALL 5' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
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27. INSTALL 48" TYPE I SDMH CCAUSD NO. 401, 402 & 403
28. INSTALL D50=6" RIPRAP THICKNESS=12" OVER 6" TYPE II AGGREGATE BASE
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SEE SHEET C-3 FOR LEGEND, ABBREVIATIONS, & QUANTITIES

LVVWD NOTES

- ALL DUCTILE IRON PIPE (DIP) TO BE CLASS 350 DIP UNLESS OTHERWISE SPECIFIED.
- MAINTAIN MINIMUM TWENTY-FOUR (24") INCH COVER PER UDACS SEC. 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION
- WATER PRESSURE ZONE 3665

DISCLAIMER NOTE

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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.
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STORM DRAIN NOTES

- WATER TIGHT MANHOLE

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.: 136070 FIRST APPROVED DATE: 3-20-19

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
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AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
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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.

KB HOME
LAS VEGAS, NV
BRISTLE VALE - UNIT 1
PLAN & PROFILE - AMERICAN DIPPER ST STA 13+50 TO 18+00
S 33 T 20S R 59E

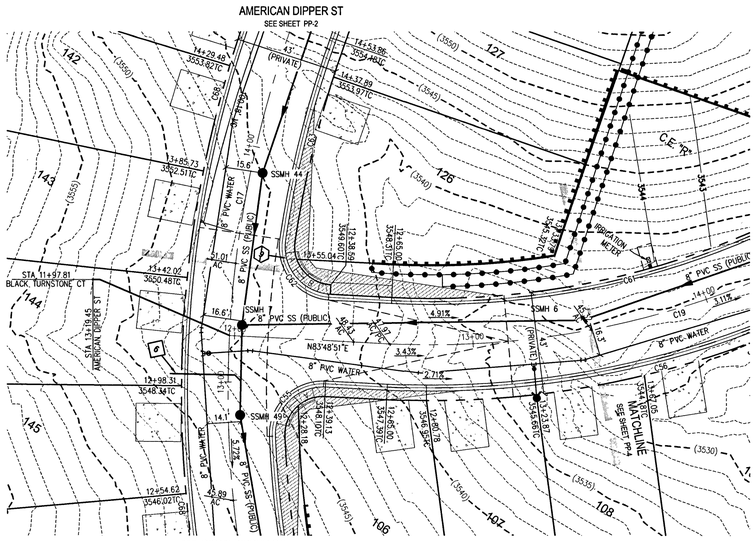
DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER STATE OF NEVADA
TIMOTHY M. MULROONEY
Exp. 12/31/2019
CIVIL
No. 22938
3/14/19

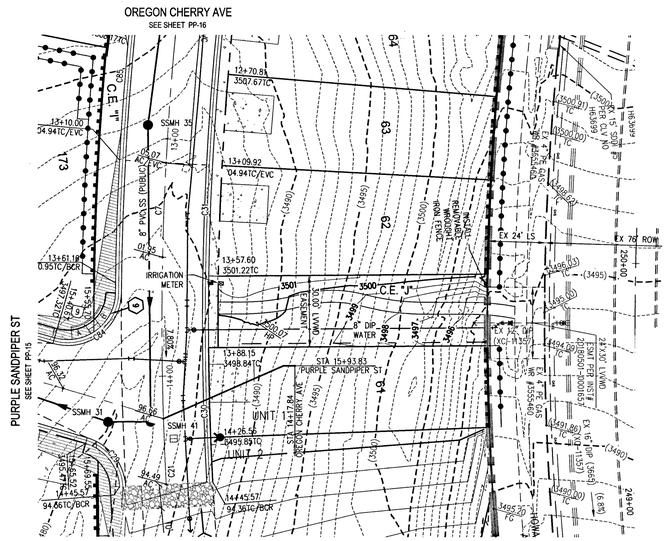
PP-2
SHEET 20 OF 54
L19-00027
107Y5102

PROJ#:136070A QS:137-33-NE

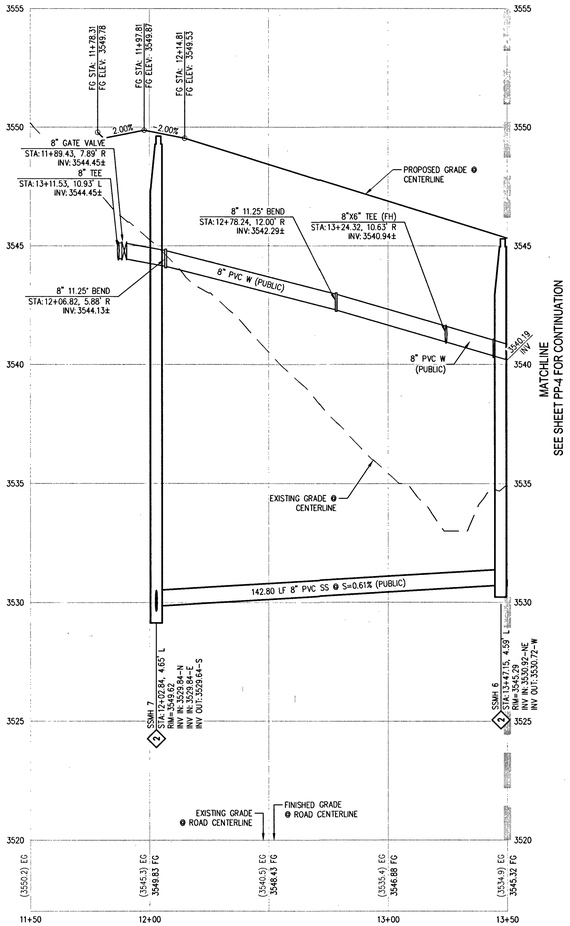
j:\kbh1804-000 summerlin v24 parcel l&m\dwg\improv\phase 1\kbh1804-000 pnp2 p1.dwg 3/14/2019 11:20 AM Prashant Aryal



BLACK TURNSTONE CT - PLAN VIEW
(PRIVATE)



COMMON ELEMENT J - PLAN VIEW
(PRIVATE)



BLACK TURNSTONE CT - PROFILE VIEW
HORIZ: 1" = 30'
VERT: 1" = 3'

COMMON ELEMENT J - PROFILE VIEW
HORIZ: 1" = 30'
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RAMP TRANSITION LENGTHS
FOR 1:12 SIDE SLOPES

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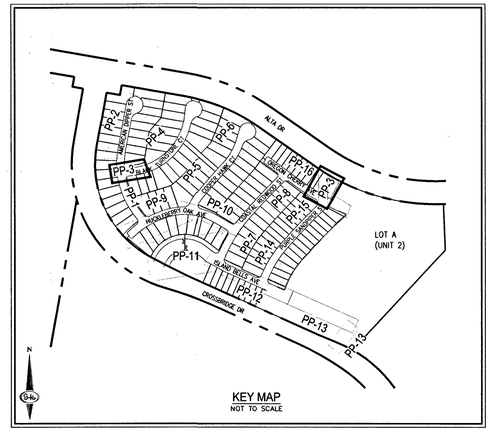
9	5.01 TO 6	21.5'	4.5'

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

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	TANGENT
C7	198.16'	1298.50'	8°44'37"	99.27'
C21	32.33'	1298.50'	1°25'35"	16.16'
C29	24.63'	20.00'	70°34'13"	14.15'
C30	31.84'	1279.00'	1°25'35"	15.92'
C31	195.18'	1279.00'	8°44'37"	97.78'
C55	33.27'	20.00'	95°19'29"	21.95'
C62	33.32'	20.00'	95°27'19"	22.00'
C63	87.16'	440.50'	11°20'11"	43.72'
C68	427.27'	479.50'	51°03'18"	228.99'
C84	36.83'	20.00'	105°29'47"	26.30'
C85	152.36'	1318.00'	6°37'23"	76.26'



KEY MAP
NOT TO SCALE

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3. INSTALL MODIFIED ROLL TYPE CURB PER CCAUSD NO. 217.1
4. INSTALL "L" TYPE ISLAND CURB PER CCAUSD NO 219
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SEE SHEET C-3 FOR QUANTITIES AND ABBREVIATIONS

SOUTHWEST GAS APPROVAL
SOUTHWEST GAS CORPORATION — DATE 3/18/19

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BENCHMARK
CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6

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- WATER PRESSURE ZONE 3665

STORM DRAIN NOTES
- WATER TIGHT MANHOLE

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO.: 136070 FIRST APPROVED DATE: 3-20-19

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

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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

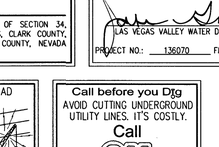
KB HOME

BRISTLE VALE - UNIT 1
PLAN & PROFILE - BLACK TURNSTONE CT
STA 11+50 TO 13+50 AND COMMON ELEMENT J

S 33
T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

PROJECT NO.
KBH1804-000



PP-3
SHEET 21 OF 54
L19-00027
10795202

PROJ.#:136070A QS:137-33-NE

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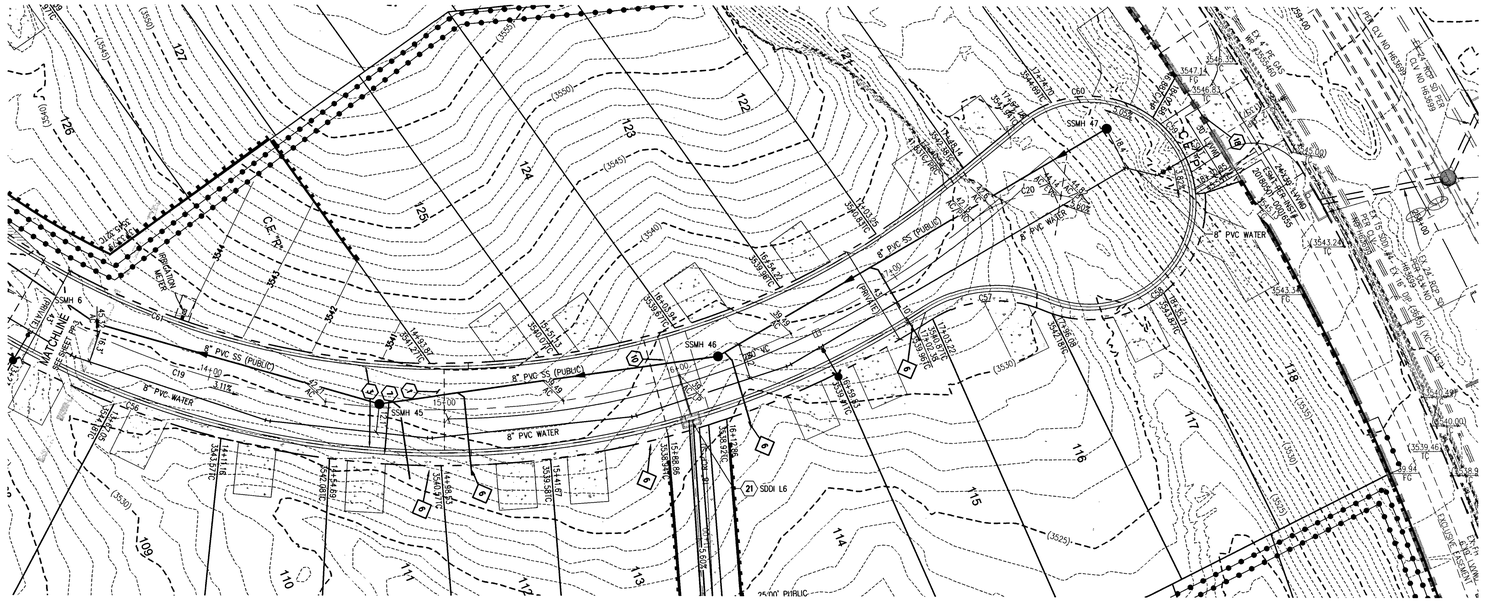

BLACK TURNSTONE CT- PLAN VIEW
(PRIVATE)

BLACK TURNSTONE CT - PROFILE VIEW
HORIZ: 1" = 30'
VERT: 1" = 3'

CE P (WATERLINE) - PROFILE VIEW
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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

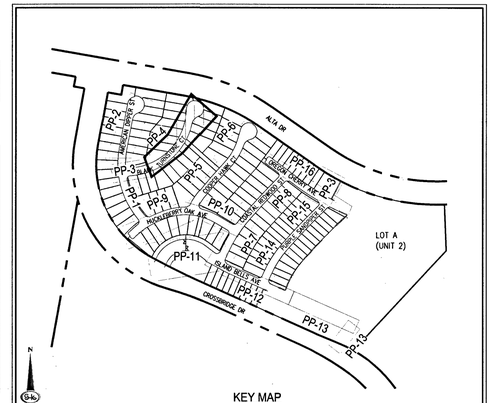
RAMP TRANSITION LENGTHS FOR 1:12 SIDE SLOPES

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
C19	475.55'	350.00'	77°50'53"	282.66'
C20	51.54'	47.10'	62°42'22"	28.69'
C56	461.76'	369.50'	71°36'05"	266.50'
C57	53.16'	54.00'	56°24'06"	28.96'
C58	94.61'	45.00'	120°27'26"	78.67'
C59	42.17'	45.00'	53°41'34"	22.78'
C60	53.80'	45.00'	68°29'53"	30.64'
C61	449.05'	330.50'	77°50'53"	266.91'



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.

CONSTRUCTION NOTES

1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
2. INSTALL "L" TYPE CURB PER CCAUSD NO. 216
3. INSTALL MODIFIED ROLL TYPE CURB PER CCAUSD NO. 217.1
4. INSTALL "L" TYPE ISLAND CURB PER CCAUSD NO 219
5. INSTALL "A" TYPE ISLAND CURB PER CCAUSD NO 219
6. INSTALL 10' "L" TYPE CURB TO MODIFIED ROLL CURB TRANSITION PER DETAIL 31, SHEET D-3
7. CONSTRUCT 4' WIDE SIDEWALK PER CCAUSD NO. 234
8. CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234
9. CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER DETAIL 33, SHEET D-3
10. CONSTRUCT 8' CROSS GUTTER PER CCAUSD NO. 228
11. CONSTRUCT SIDEWALK DRAIN PER CCAUSD NO. 236
12. INSTALL 18" RCP STORM DRAIN PIPE
13. INSTALL 24" RCP STORM DRAIN PIPE
14. INSTALL 30" RCP STORM DRAIN PIPE
15. INSTALL 36" RCP STORM DRAIN PIPE
16. INSTALL 48" RCP STORM DRAIN PIPE
17. INSTALL A 4.5'X6' NDOT TYPE 2A DROP INLET PER DETAIL R-4.2.1.1, SHEET D-4, CCAUSD NO. 421
18. INSTALL WROUGHT IRON FENCE WITH VEHICLE ACCESS GATE AND EMERGENCY KNOX PADLOCK PER CCAUSD NO 425.S1
19. INSTALL DROP INLET CONCRETE APRON PER DETAIL R-4.2.7, SHEET D-4 & CCAUSD NO. 421
20. CUT EXISTING SD PIPE WHERE SHOWN ON PLANS
21. INSTALL 7.5' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
22. INSTALL 10' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
23. INSTALL 20' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
24. INSTALL 48" TYPE II SDMH PER CCAUSD NO. 401, 402 & 405.2
25. INSTALL 5' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
26. INSTALL 48" TYPE III SDMH CCAUSD NO. 401, 402 & 406
27. INSTALL 48" TYPE I SDMH CCAUSD NO. 401, 402 & 403
28. INSTALL D50=6" RIPRAP THICKNESS=12" OVER 6" TYPE II AGGREGATE BASE
29. INSTALL RIPRAP D50=12" THICKNESS=24" OVER 6" TYPE II AGGREGATE BASE

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

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. MANHOLE SHALL BE CORROSION PROTECTED WITH FIELD APPLIED COATING PER DCSWCS SECTION 3.16.6B
4. INSTALL 4" PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25.
5. REMOVE CAP AND CONNECT TO EXISTING 8" SS
6. INSTALL 4" C900 PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25 FOR LOTS 123 AND 124 ONLY
7. INSTALL 8" C900 PVC SANITARY SEWER PER DCSWCS SD-15 & SD-17

SEE SHEET C-3 FOR QUANTITIES AND ABBREVIATIONS

SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORPORATION — DATE 3/18/19

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 7LVO9 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.

LVVWD NOTES

- ALL DUCTILE IRON PIPE (DIP) TO BE CLASS 350 DIP UNLESS OTHERWISE SPECIFIED.
- MAINTAIN MINIMUM TWENTY-FOUR (24") INCH COVER PER UDACS SEC. 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION
- WATER PRESSURE ZONE 3665

STORM DRAIN NOTES

- WATER TIGHT MANHOLE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO.: 136070 FIRST APPROVED DATE: 3-20-19

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) 264-5300
FAX (702) 264-5399

NO	DESCRIPTION	DATE	BY	APP	APP DATE

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 1

PLAN & PROFILE - BLACK TURNSTONE CT 13+50 TO 19+50

S 33
T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — No. 21938 — CIVIL — Exp. 12/31/2019 — STATE OF NEVADA
3/18/19

PP-4
SHEET 22 OF 54

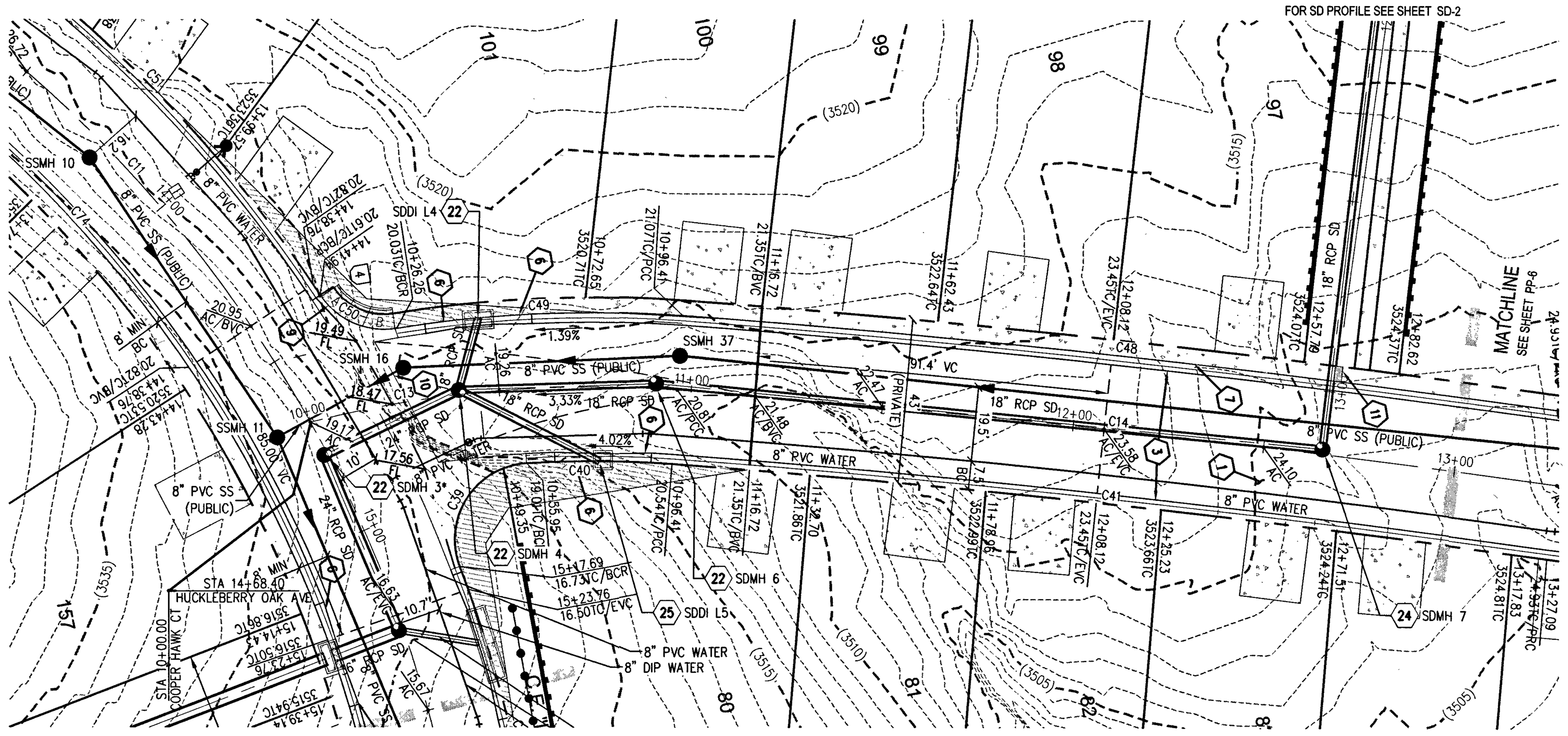
L19-00027
1974502

PRO.#:136070A QS:137-33-NE

J:\Kbh1804-000 summerlin v24 parcel (4m)\dwg\improv\phase 1\kbh1804-000 pno2 p1.dwg 3/15/2019 3:04 PM Prashant Aiyal

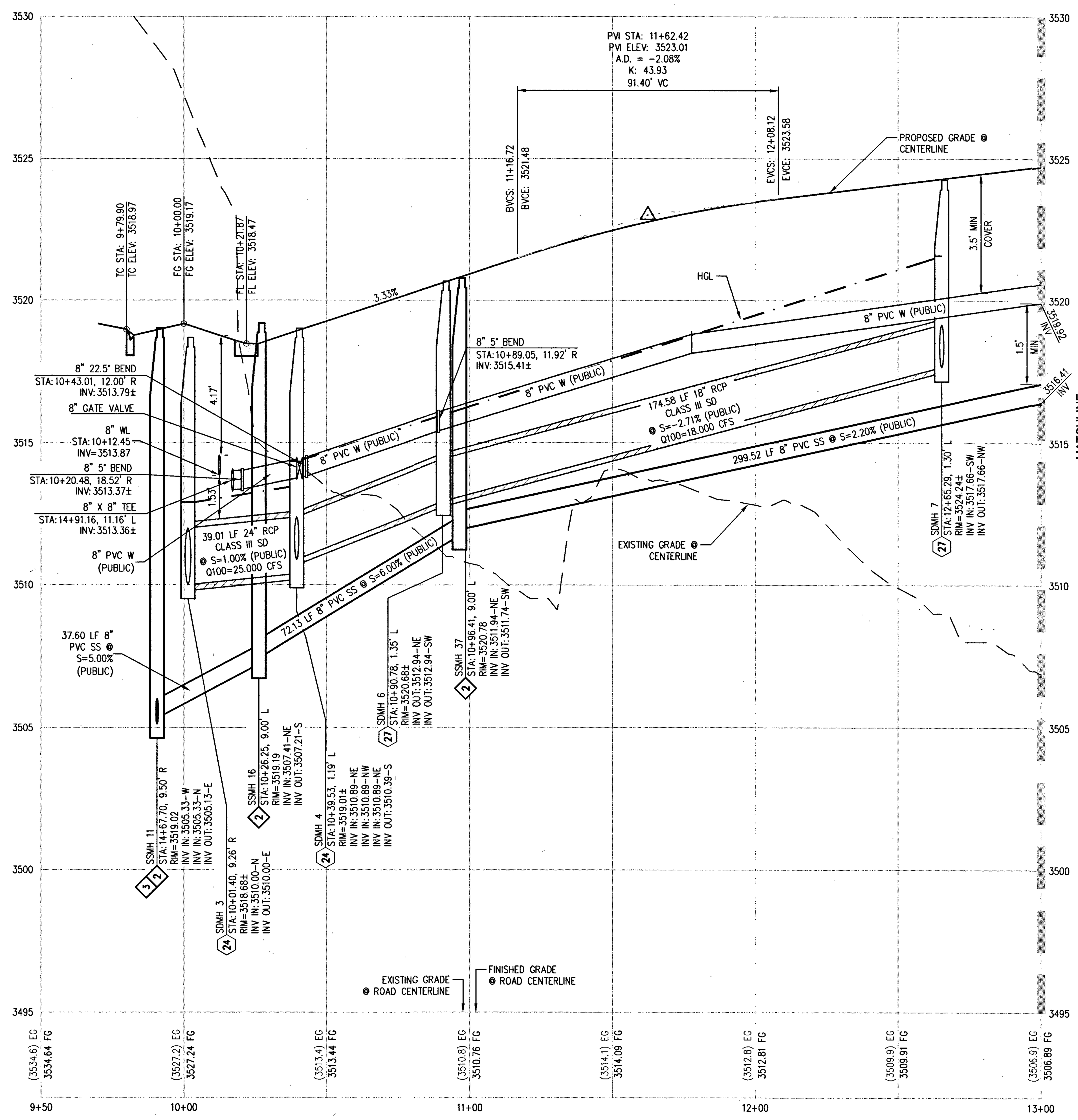
HUCKLEBERRY OAK AVE
SEE SHEET PP-9

CE "M"
FOR SD PROFILE SEE SHEET SD-2



HUCKLEBERRY OAK AVE
SEE SHEET PP-10

COOPER HAWK CT- PLAN VIEW
(PRIVATE)



COOPER HAWK CT- PROFILE VIEW
HORIZ: 1" = 30'
VERT: 1" = 3'

0 30 60
SCALE - 1"=30' FEET

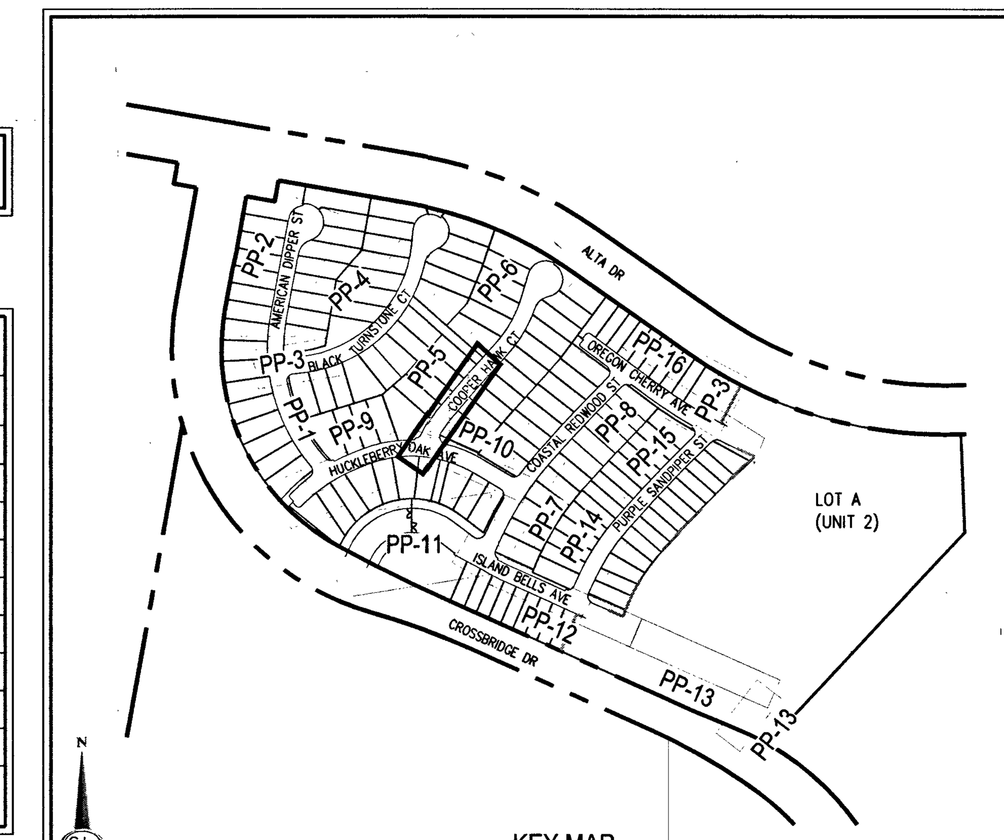
CALL SOUTHWEST GAS AT 702-651-2111 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES

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	151.99'	343.00'	25°23'20"	77.26'
C11	160.25'	343.00'	26°46'07"	81.61'
C13	96.41'	296.00'	18°39'42"	48.64'
C14	230.68'	3496.00'	3°46'50"	115.38'
C38	107.65'	362.50'	17°00'54"	54.22'
C39	37.41'	20.00'	107°10'20"	27.11'
C40	37.79'	276.50'	7°49'52"	18.93'
C41	229.39'	3476.50'	3°46'50"	114.74'
C48	231.96'	3515.50'	3°46'50"	116.02'
C49	74.79'	315.50'	13°34'52"	37.57'
C50	23.01'	20.00'	65°55'28"	12.97'
C51	142.28'	362.50'	22°29'19"	72.07'
C74	151.14'	323.50'	26°46'07"	76.97'
C75	143.35'	323.50'	25°23'20"	72.87'



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.

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2. ALL COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED.

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SEE SHEET C-3 FOR QUANTITIES AND ABBREVIATIONS

CONSTRUCTION NOTES

1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
2. INSTALL "L" TYPE CURB PER CCAUSD NO. 216
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9. CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER DETAIL 33, SHEET D-3
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12. INSTALL 18" RCP STORM DRAIN PIPE
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17. INSTALL 4.5'X6' NDOT TYPE 2A DROP INLET PER DETAIL R-4.2.1.1, SHEET D-4, CCAUSD NO. 421
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20. CUT EXISTING SD PIPE WHERE SHOWN ON PLANS
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SEE SHEET C-3 FOR LEGEND, ABBREVIATIONS, & QUANTITIES

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- WATER PRESSURE ZONE 3665

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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.

STORM DRAIN NOTES

- WATER TIGHT MANHOLE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO.: 136070 FIRST APPROVED DATE: 3-20-19

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 1

PLAN & PROFILE - COOPER HAWK CT STA 9+00 TO 13+00

S 33
T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

PROJECT NO.
KBH1804-000

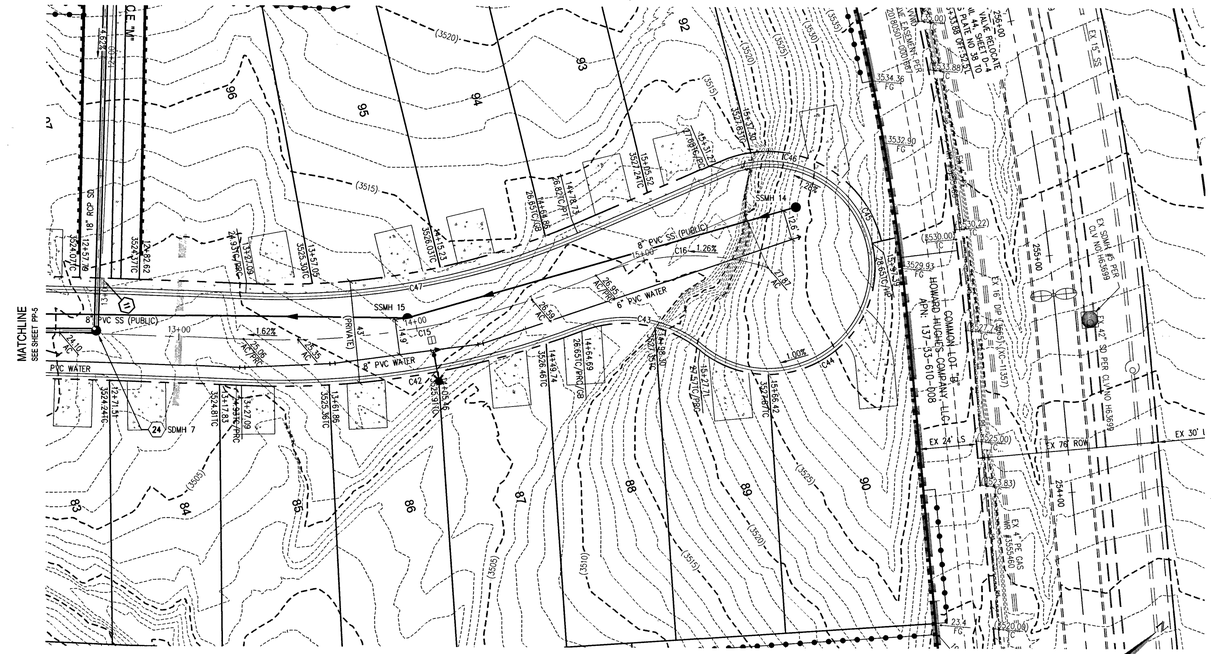
PROFESSIONAL ENGINEER STATE OF NEVADA
TIMOTHY M. MULROONEY
Exp. 12/31/2019
CIVIL
No. 22938
3/14/19

PP-5
SHEET 23 OF 54

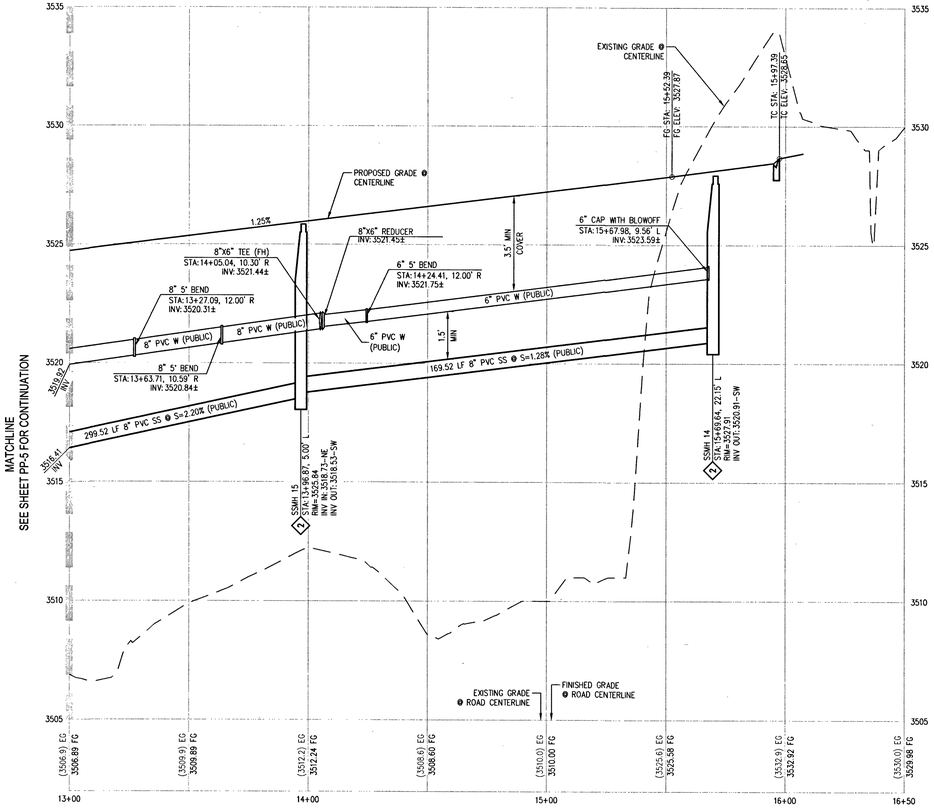
L19-00027
107Y5102

PROJ#:136070A QS:137-33-NE

j:\kbh1804-000 summerlin v24 parcel l&m\dwg\improv\phase 1\kbh1804-000 pnp2 p1.dwg 3/14/2019 11:21 AM Prashant Aryal



COOPER HAWK CT- PLAN VIEW
(PRIVATE)



COOPER HAWK CT- PROFILE VIEW
HORIZ: 1" = 30'
VERT: 1" = 3'

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

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'
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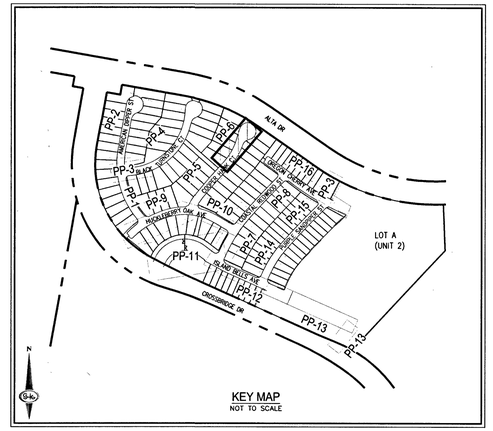
9	5.01 TO 6	21.5'	4.5'

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



KEY MAP
NOT TO SCALE

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	TANGENT
C15	151.64'	331.50'	26°12'34"	77.17'
C16	73.66'	101.85'	41°26'20"	38.52'
C42	145.70'	351.00'	23°46'59"	73.91'
C43	52.56'	50.00'	60°13'27"	29.00'
C44	112.24'	45.00'	142°54'13"	134.12'
C45	23.32'	45.00'	29°41'54"	11.93'
C46	55.00'	45.00'	70°01'21"	31.52'
C47	142.72'	312.00'	26°12'34"	72.63'

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.

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2. ALL COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED.

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4. INSTALL "L" TYPE ISLAND CURB PER CCAUSD NO 219
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17. INSTALL 4.5'X6' NDOT TYPE 2A DROP INLET PER DETAIL R-4.2.1.1, SHEET D-4, CCAUSD NO. 421
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27. INSTALL 48" TYPE I SDMH CCAUSD NO. 401, 402 & 403
28. INSTALL D50=6" RIPRAP THICKNESS=12" OVER 6" TYPE II AGGREGATE BASE
29. INSTALL RIPRAP D50=12" THICKNESS=24" OVER 6" TYPE II AGGREGATE BASE

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

SEWER NOTES
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3. MANHOLE SHALL BE CORROSION PROTECTED WITH FIELD APPLIED COATING PER DCSWCS SECTION 3.16.88
4. INSTALL 4" PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25
5. REMOVE CAP AND CONNECT TO EXISTING 8" SS
6. INSTALL 4" C900 PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25 FOR LOTS 123 AND 124 ONLY
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SEE SHEET C-3 FOR QUANTITIES AND ABBREVIATIONS

SOUTHWEST GAS APPROVAL
SOUTHWEST GAS CORPORATION — DATE 3/18/19

DISCLAIMER NOTE
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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)
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STORM DRAIN NOTES
- WATER TIGHT MANHOLE

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.: 136070 FIRST APPROVED DATE: 3-20-19

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 1

PLAN & PROFILE - COOPER HAWK CT STA 13+00 TO 16+00

S33 T20S R59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER — STATE OF NEVADA — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22939 — 3/18/19

PP-6
SHEET 24 OF 54

L19-00027
10755102

PROJ#:136070A QS:137-33-NE

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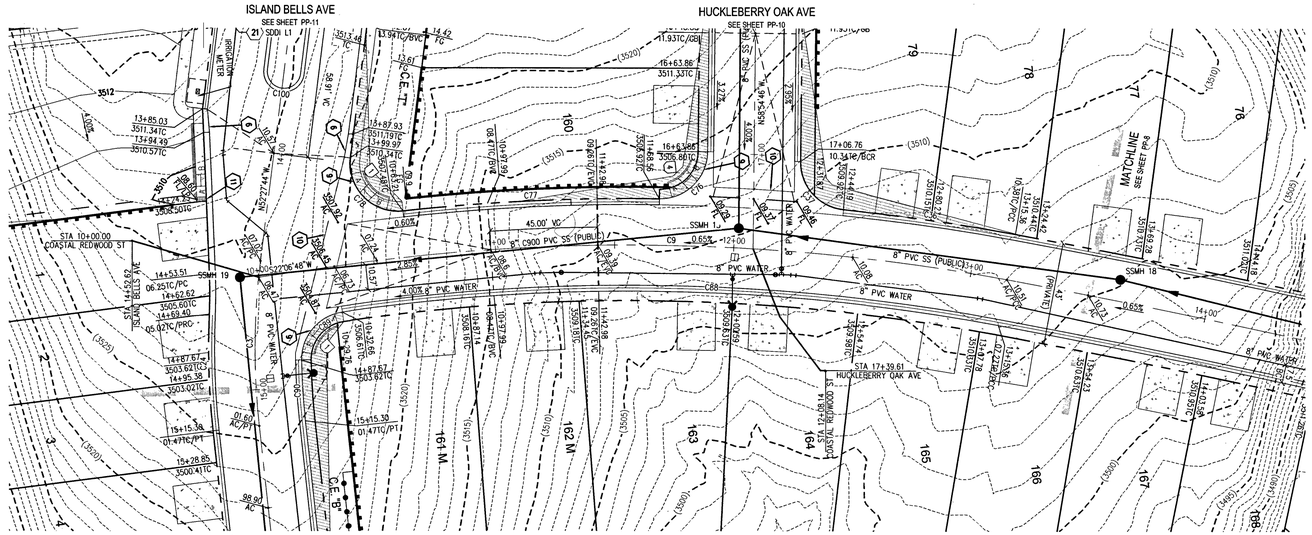
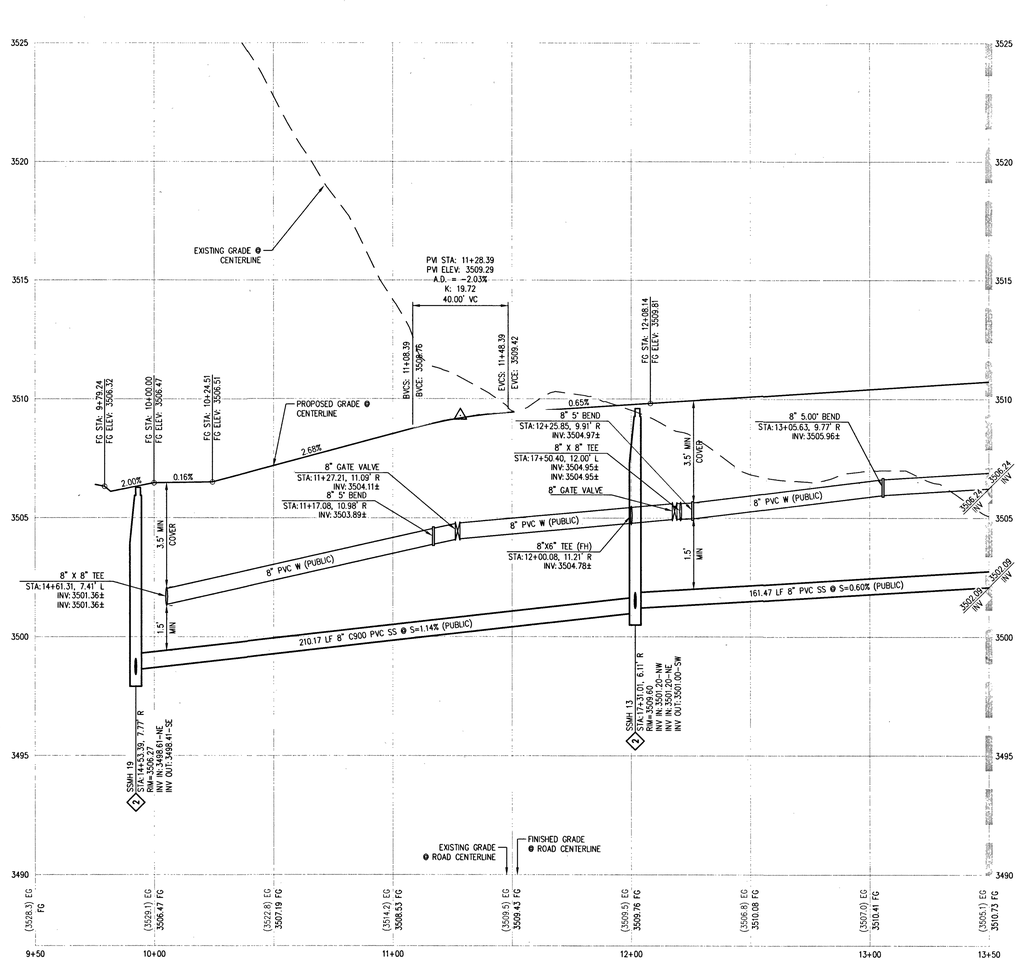


COASTAL REDWOOD ST- PLAN VIEW
(PRIVATE)



COASTAL REDWOOD ST- PROFILE VIEW
HORIZ: 1" = 30'
VERT: 1" = 3'

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

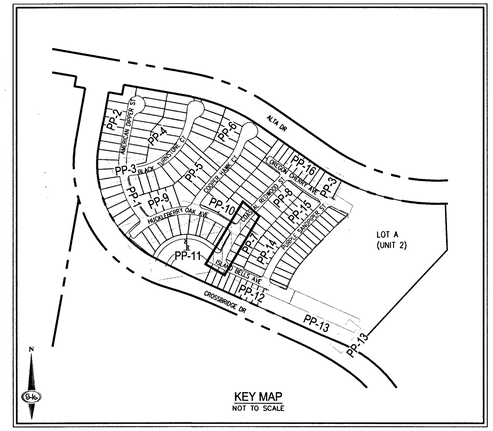
RAMP TRANSITION LENGTHS
FOR 1:12 SIDE SLOPES

CASE NO.	GRADE % "S" TO "A"	"A" MIN.	"S" 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
C3	69.65'	300.00'	13°18'10"	34.98'
C9	283.21'	860.90'	18°50'55"	142.90'
C24	48.88'	319.50'	8°45'55"	24.49'
C36	72.78'	880.40'	4°44'12"	36.41'
C37	29.62'	20.00'	84°51'44"	18.28'
C76	31.45'	20.00'	90°06'14"	20.04'
C77	107.76'	880.40'	7°00'47"	53.95'
C78	36.08'	20.00'	103°21'34"	25.31'
C88	276.30'	841.40'	18°48'52"	139.40'
C89	28.85'	20.00'	82°38'10"	17.58'
C90	25.83'	280.50'	5°16'35"	12.92'
C100	21.99'	7.00'	180°00'00"	INFINITY



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
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SEWER NOTES
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SEE SHEET C-3 FOR QUANTITIES AND ABBREVIATIONS

CONSTRUCTION NOTES
1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
2. INSTALL "L" TYPE CURB PER CCAUSD NO. 216
3. INSTALL MODIFIED ROLL TYPE CURB PER CCAUSD NO. 217.1
4. INSTALL "L" TYPE ISLAND CURB PER CCAUSD NO 219
5. INSTALL "A" TYPE ISLAND CURB PER CCAUSD NO 219
6. INSTALL 10" "L" TYPE CURB TO MODIFIED ROLL CURB TRANSITION PER DETAIL 31, SHEET D-3
7. CONSTRUCT 4' WIDE SIDEWALK PER CCAUSD NO. 234
8. CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234
9. CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER DETAIL 33, SHEET D-3
10. CONSTRUCT 8' CROSS GUTTER PER CCAUSD NO. 228
11. CONSTRUCT SIDEWALK DRAIN PER CCAUSD NO. 236
12. INSTALL 18" RCP STORM DRAIN PIPE
13. INSTALL 24" RCP STORM DRAIN PIPE
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15. INSTALL 36" RCP STORM DRAIN PIPE
16. INSTALL 48" RCP STORM DRAIN PIPE
17. INSTALL 4.5'X6' NDOT TYPE 2A DROP INLET PER DETAIL R-4.2.1.1, SHEET D-4, CCAUSD NO. 421
18. INSTALL WROUGHT IRON FENCE WITH VEHICLE ACCESS GATE AND EMERGENCY KNOX PADLOCK PER CCAUSD NO 425.S1
19. INSTALL DROP INLET CONCRETE APRON PER DETAIL R-4.2.7, SHEET D-4 & CCAUSD NO. 421
20. CUT EXISTING SD PIPE WHERE SHOWN ON PLANS
21. INSTALL 7.5' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
22. INSTALL 10' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
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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.
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STORM DRAIN NOTES
- WATER TIGHT MANHOLE

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO.: 136070 FIRST APPROVED DATE: 3-20-19

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

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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'D DATE	APP

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 1

PLAN & PROFILE - COASTAL REDWOOD ST STA 9+50 TO 13+50

T 20 S
R 59 E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY Exp. 12/31/2019 CIVIL No. 22938 — STATE OF NEVADA
3/14/19

PP-7
SHEET 25 OF 54

L19-00027
1079502

PROJ#:136070A QS:137-33-NE

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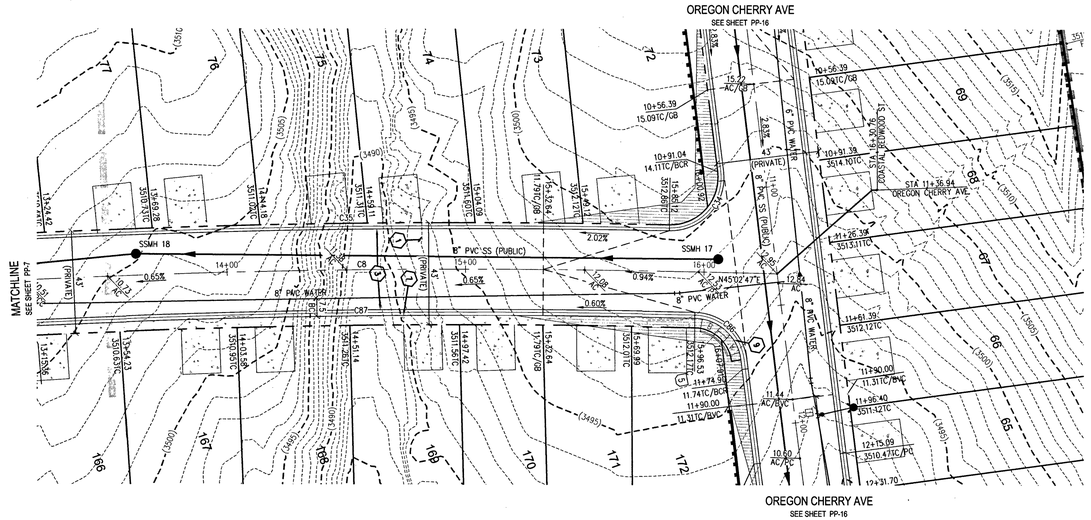

SCALE - 1"=30' (0, 30, 60 FEET)

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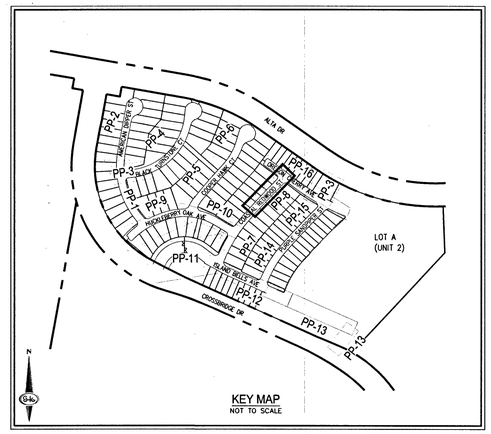
SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD NO. 235, CASE I



CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
C8	282.37'	3960.90'	4°05'04"	141.24'
C34	34.25'	20.00'	98°07'55"	23.06'
C35	271.09'	3980.40'	3°54'08"	135.60'
C86	28.52'	20.00'	81°42'11"	17.29'
C87	279.78'	3941.40'	4°04'02"	139.95'

LEGAL DESCRIPTION

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BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LVD9 34SW6

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STORM DRAIN NOTES

- WATER TIGHT MANHOLE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO.: 136070 FIRST APPROVED DATE: 3-20-19

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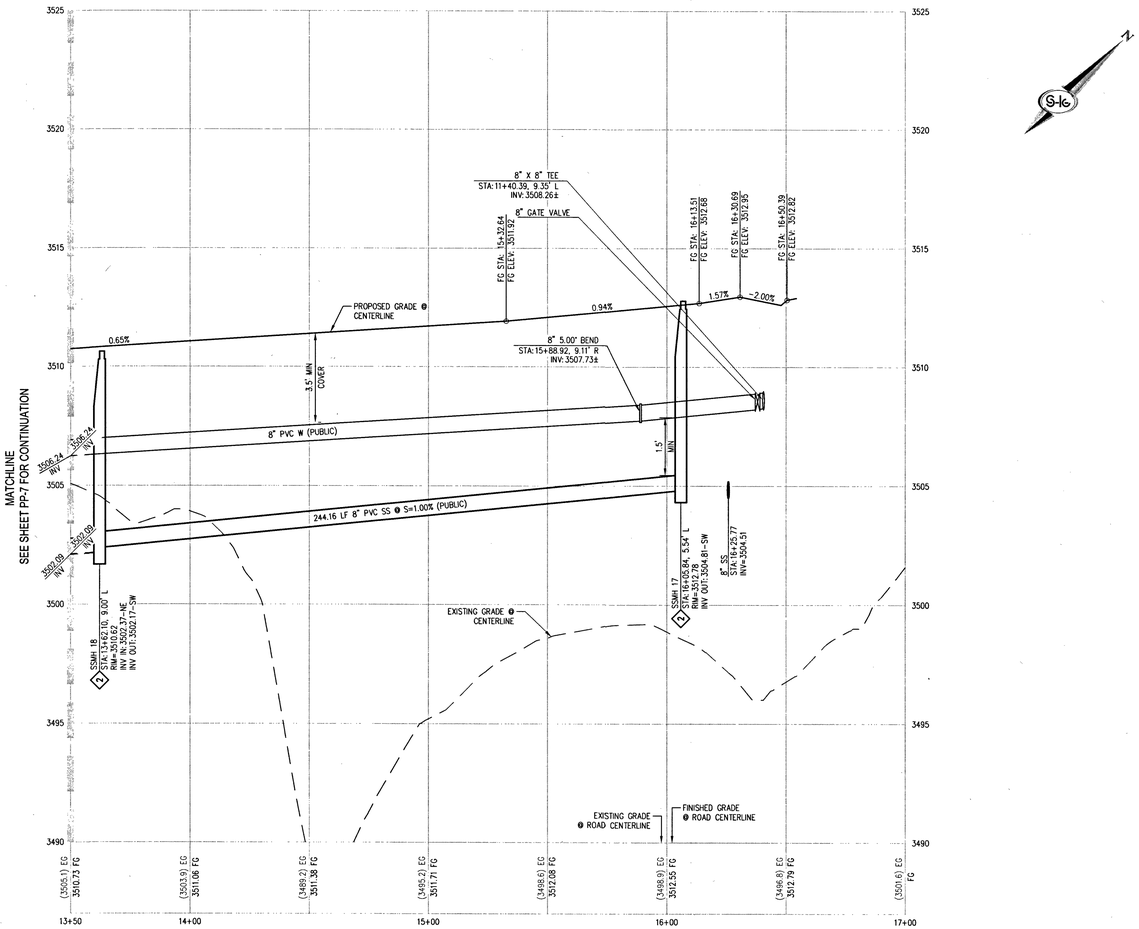
COASTAL REDWOOD ST- PLAN VIEW

(PRIVATE)



COASTAL REDWOOD ST- PROFILE VIEW

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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 1
PLAN & PROFILE - COASTAL REDWOOD ST
STA 13+50 TO 17+00

S 33
T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO. KBH1804-000

PROFESSIONAL ENGINEER STATE OF NEVADA TIMOTHY M. MULROONEY Exp. 12/31/2019 CIVIL No. 22938 3/14/19

PP-8
SHEET 26 OF 54

L19-00027
1074502

PROJ.#:136070A QS:137-33-NE

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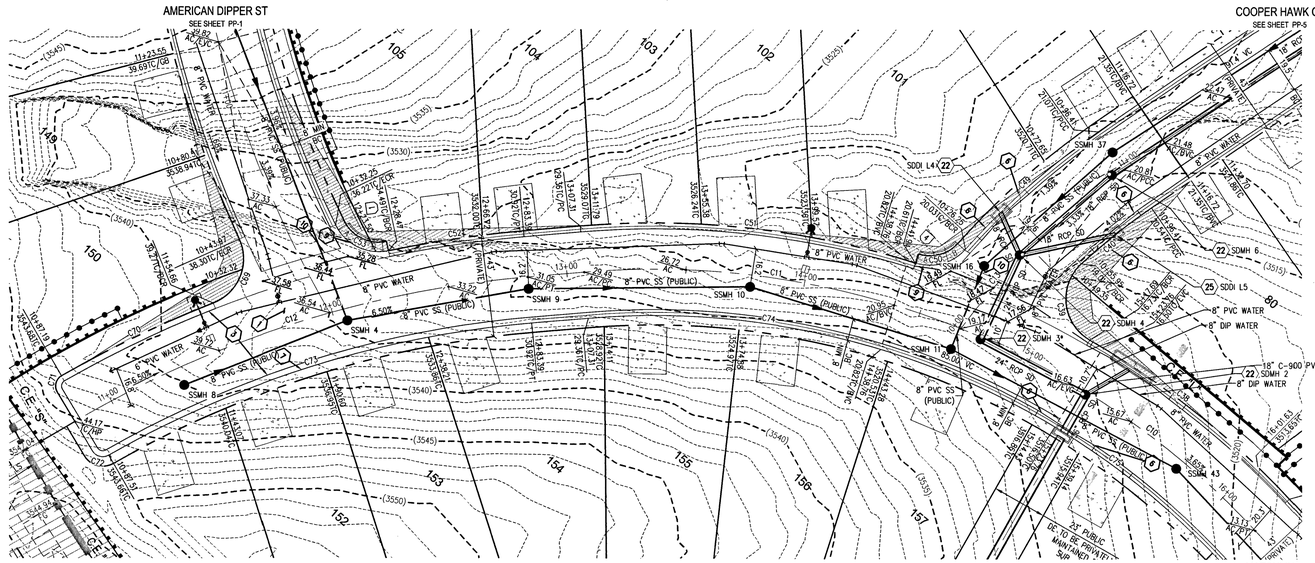
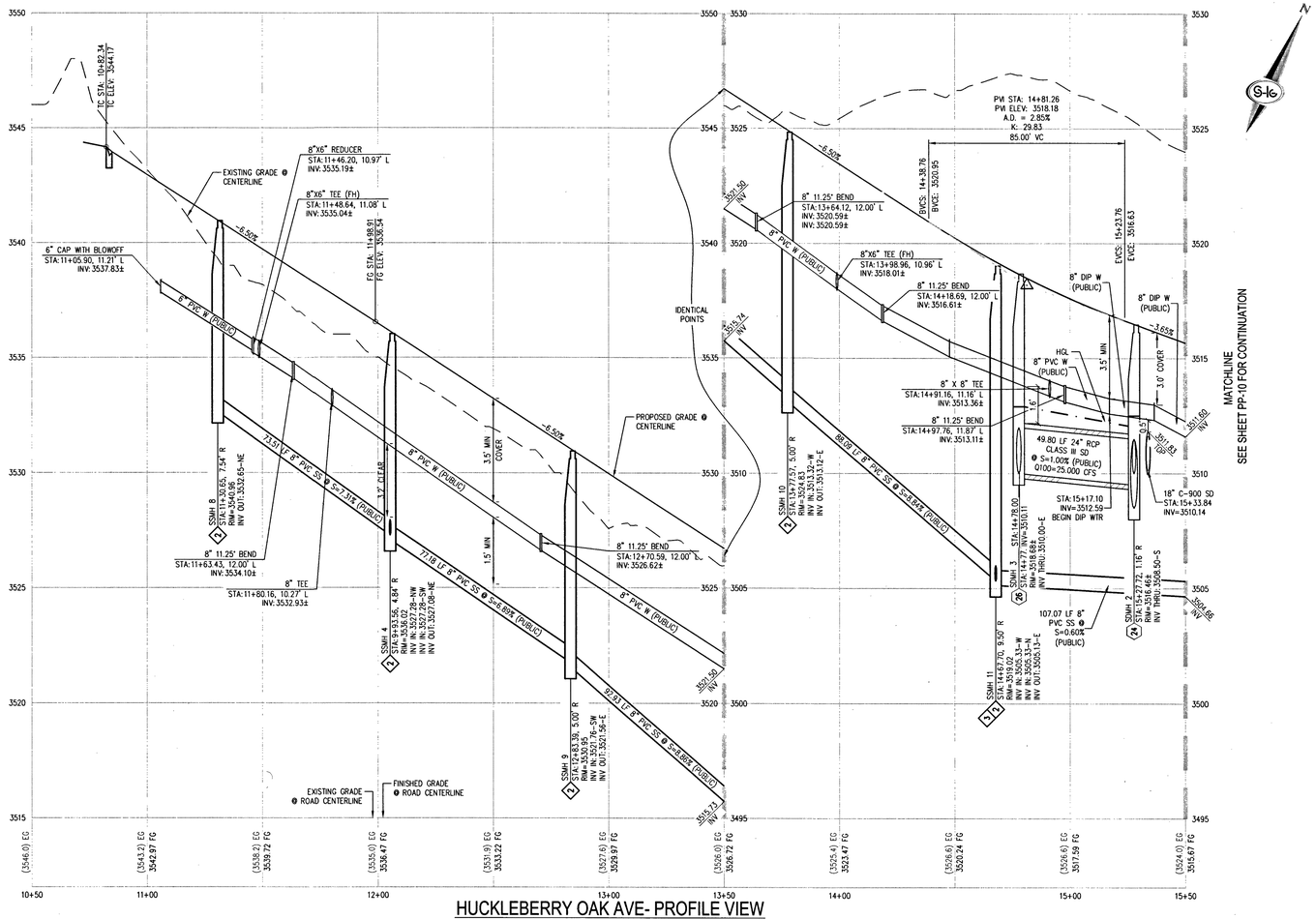


HUCKLEBERRY OAK AVE- PLAN VIEW
(PRIVATE)



HUCKLEBERRY OAK AVE- PROFILE VIEW
HORIZ: 1" = 30'
VERT: 1" = 3'

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

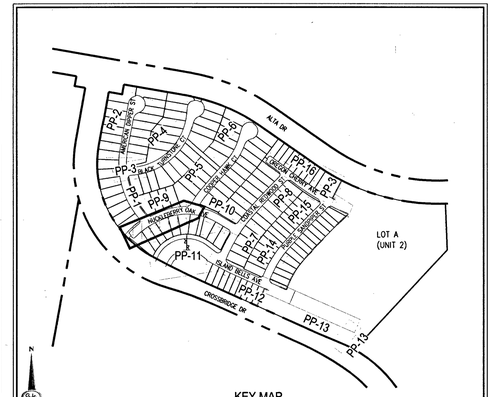
RAMP TRANSITION LENGTHS FOR 1:12 SIDE SLOPES

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 1

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	TANGENT
C11	160.25'	343.00'	26°46'07"	81.61'
C12	201.05'	450.00'	25°35'55"	102.23'
C50	23.01'	20.00'	65°55'28"	12.97'
C51	142.28'	362.50'	22°29'19"	72.07'
C52	57.30'	469.50'	6°59'32"	28.68'
C53	26.58'	20.00'	76°09'14"	15.67'
C69	32.47'	20.00'	93°01'44"	21.09'
C70	70.11'	469.50'	8°33'20"	35.12'
C71	7.64'	5.00'	87°31'55"	4.79'
C72	7.82'	5.00'	89°37'39"	4.97'
C73	187.64'	430.50'	24°58'23"	95.33'
C74	151.14'	323.50'	26°46'07"	76.97'



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.

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-16, SD-4, SD-9, AND SINGLE LID (24")
3. MANHOLE SHALL BE CORROSION PROTECTED WITH FIELD APPLIED COATING PER DCSWCS SECTION 3.16.6B
4. INSTALL 4" PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25.
5. REMOVE CAP AND CONNECT TO EXISTING 8" SS
6. INSTALL 4" C900 PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25 FOR LOTS 123 AND 124 ONLY
7. INSTALL 8" C900 PVC SANITARY SEWER PER DCSWCS SD-15 & SD-17

SEE SHEET C-3 FOR QUANTITIES AND ABBREVIATIONS

CONSTRUCTION NOTES

1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
2. INSTALL "L" TYPE CURB PER CCAUSD NO. 216
3. INSTALL MODIFIED ROLL TYPE CURB PER CCAUSD NO. 217.1
4. INSTALL "L" TYPE ISLAND CURB PER CCAUSD NO 219
5. INSTALL "A" TYPE ISLAND CURB PER CCAUSD NO 219
6. INSTALL 10' "L" TYPE CURB TO MODIFIED ROLL CURB TRANSITION PER DETAIL 31, SHEET D-3
7. CONSTRUCT 4' WIDE SIDEWALK PER CCAUSD NO. 234
8. CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234
9. CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER DETAIL 33, SHEET D-3
10. CONSTRUCT 8' CROSS GUTTER PER CCAUSD NO. 228
11. CONSTRUCT SIDEWALK DRAIN PER CCAUSD NO. 236
12. INSTALL 18" RCP STORM DRAIN PIPE
13. INSTALL 24" RCP STORM DRAIN PIPE
14. INSTALL 30" RCP STORM DRAIN PIPE
15. INSTALL 36" RCP STORM DRAIN PIPE
16. INSTALL 48" RCP STORM DRAIN PIPE
17. INSTALL 4.5'X6' NDOT TYPE 2A DROP INLET PER DETAIL R-4.2.1.1, SHEET D-4, CCAUSD NO. 421
18. INSTALL WROUGHT IRON FENCE WITH VEHICLE ACCESS GATE AND EMERGENCY KNOX PADLOCK PER CCAUSD NO 425.5)
19. INSTALL DROP INLET CONCRETE APRON PER DETAIL R-4.2.7, SHEET D-4 & CCAUSD NO. 421
20. CUT EXISTING SD PIPE WHERE SHOWN ON PLANS
21. INSTALL 7.5' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
22. INSTALL 10' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
23. INSTALL 20' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
24. INSTALL 48" TYPE II SDMH PER CCAUSD NO. 401, 402 & 405.2
25. INSTALL 5' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
26. INSTALL 48" TYPE III SDMH CCAUSD NO. 401, 402 & 406
27. INSTALL 48" TYPE I SDMH CCAUSD NO. 401, 402 & 403
28. INSTALL D50=6" RIPRAP THICKNESS=12" OVER 6" TYPE II AGGREGATE BASE
29. INSTALL RIPRAP D50=12" THICKNESS=24" OVER 6" TYPE II AGGREGATE BASE

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

LVVWD NOTES

- ALL DUCTILE IRON PIPE (DIP) TO BE CLASS 350 DIP UNLESS OTHERWISE SPECIFIED.
- MAINTAIN MINIMUM TWENTY-FOUR (24") INCH COVER PER UDACS SEC. 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION
- WATER PRESSURE ZONE 3665

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.

STORM DRAIN NOTES

- WATER TIGHT MANHOLE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO.: 136070 FIRST APPROVED DATE: 3-20-19

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'D	APP DATE

LAS VEGAS, NV

KB HOME
BRISTLE VALE - UNIT 1
PLAN & PROFILE - HUCKLEBERRY OAK AVE STA 10+50 TO 15+50

S 33
T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO. KBH1804-000

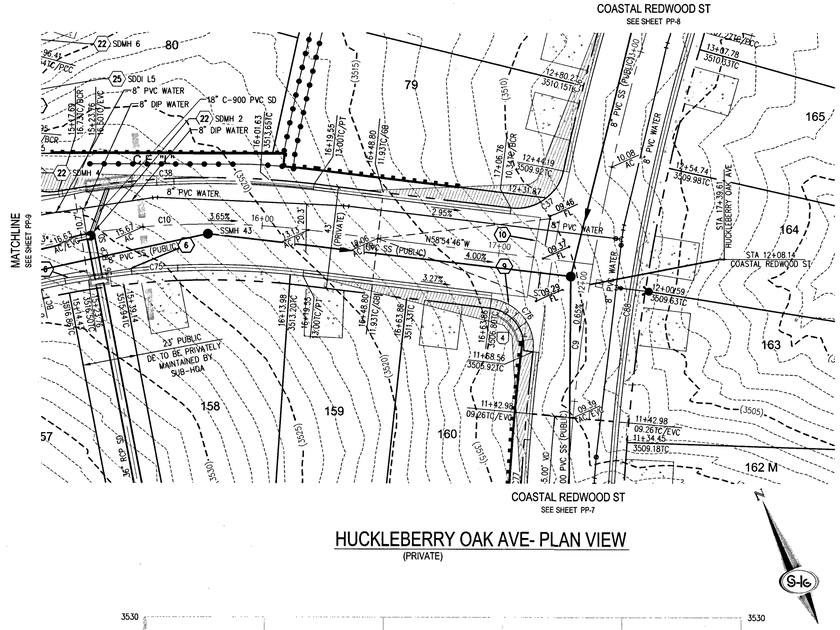
PROFESSIONAL ENGINEER — STATE OF NEVADA — No. 22938 — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL
3/14/19

PP-9
SHEET 27 OF 54

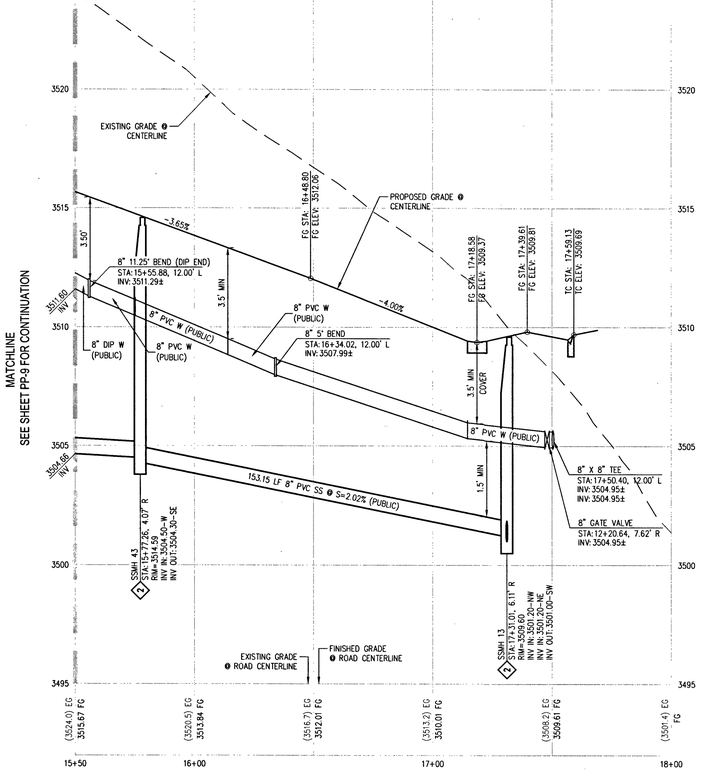
L19-00027
19745102

PROJ.#:136070A QS:137:33-NE

J:\kbh1804-000 summerlin v24 parcel l\dwg\dwgs\improv\phase 1\kbh1804-000 prof1.dwg 3/14/2019 11:23 AM Prashant Aryal



HUCKLEBERRY OAK AVE- PLAN VIEW
(PRIVATE)



HUCKLEBERRY OAK AVE- PROFILE VIEW
HORIZ: 1" = 30'
VERT: 1" = 3'

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'
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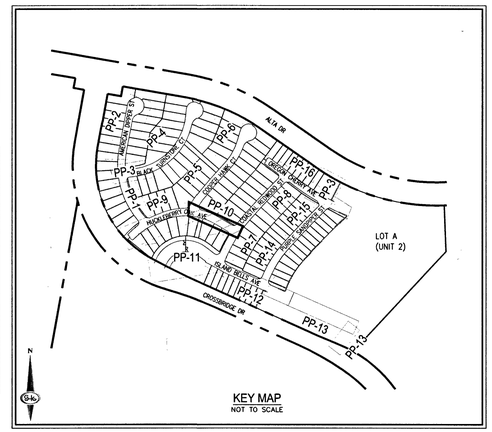
9	5.01 TO 6	21.5'	4.5'

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

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	TANGENT
C9	283.21'	860.90'	18°50'55"	142.90'
C10	151.99'	343.00'	25°23'20"	77.26'
C11	160.25'	343.00'	26°46'07"	81.61'
C13	96.41'	296.00'	18°39'42"	48.64'
C36	72.78'	880.40'	4°44'12"	36.41'
C37	29.62'	20.00'	84°51'44"	18.28'
C38	107.65'	362.50'	17°00'54"	54.22'
C39	37.41'	20.00'	107°10'20"	27.11'
C40	37.79'	276.50'	7°49'52"	18.93'
C49	74.79'	315.50'	13°34'52"	37.57'
C50	23.01'	20.00'	65°55'28"	12.97'
C74	151.14'	323.50'	26°46'07"	76.97'
C75	143.35'	323.50'	25°23'20"	72.87'
C76	31.45'	20.00'	90°06'14"	20.04'
C77	107.76'	880.40'	7°00'47"	53.95'
C88	276.30'	841.40'	18°48'52"	139.40'



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.

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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. MANHOLE SHALL BE CORROSION PROTECTED WITH FIELD APPLIED COATING PER DCSWCS SECTION 3.16.8B
4. INSTALL 4" PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25.
5. REMOVE CAP AND CONNECT TO EXISTING 8" SS
6. INSTALL 4" C900 PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25 FOR LOTS 123 AND 124 ONLY
7. INSTALL 8" C900 PVC SANITARY SEWER PER DCSWCS SD-15 & SD-17

SEE SHEET C-3 FOR QUANTITIES AND ABBREVIATIONS

CONSTRUCTION NOTES

1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
2. INSTALL "L" TYPE CURB PER CCAUSD NO. 216
3. INSTALL MODIFIED ROLL TYPE CURB PER CCAUSD NO. 217.1
4. INSTALL "L" TYPE ISLAND CURB PER CCAUSD NO 219
5. INSTALL "A" TYPE ISLAND CURB PER CCAUSD NO 219
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7. CONSTRUCT 4' WIDE SIDEWALK PER CCAUSD NO. 234
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13. INSTALL 24" RCP STORM DRAIN PIPE
14. INSTALL 30" RCP STORM DRAIN PIPE
15. INSTALL 36" RCP STORM DRAIN PIPE
16. INSTALL 48" RCP STORM DRAIN PIPE
17. INSTALL 4.5'X6' NDOT TYPE 2A DROP INLET PER DETAIL R-4.2.1.1, SHEET D-4, CCAUSD NO. 421
18. INSTALL WROUGHT IRON FENCE WITH VEHICLE ACCESS GATE AND EMERGENCY KNOX PADLOCK PER CCAUSD NO 425.31
19. INSTALL DROP INLET CONCRETE APRON PER DETAIL R-4.2.7, SHEET D-4 & CCAUSD NO. 421
20. CUT EXISTING SD PIPE WHERE SHOWN ON PLANS
21. INSTALL 7.5' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
22. INSTALL 10' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
23. INSTALL 20' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
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- WATER PRESSURE ZONE 3665

DISCLAIMER NOTE

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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.

STORM DRAIN NOTES

- WATER TIGHT MANHOLE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO.: 136070 FIRST APPROVED DATE: 3-20-19

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 1

PLAN & PROFILE - HUCKLEBERRY OAK AVE STA 15+50 TO 18+00

S 33 T 20S R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO. KBH1804-000

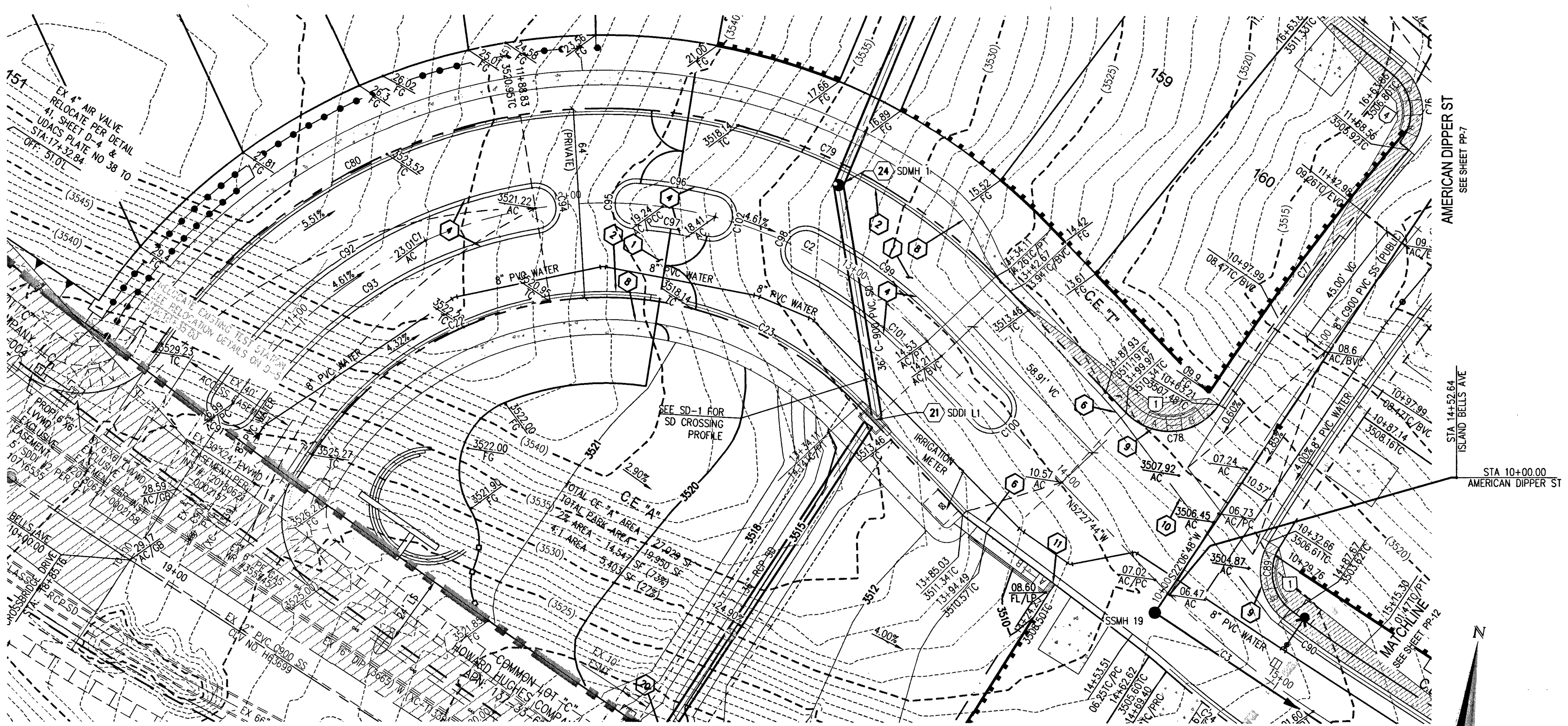
TIMOTHY M. MULROONEY Exp. 12/31/2019 CIVIL No. 22938 STATE OF NEVADA PROFESSIONAL ENGINEER
3/14/19

PP-10
SHEET 28 OF 54

L19-00027

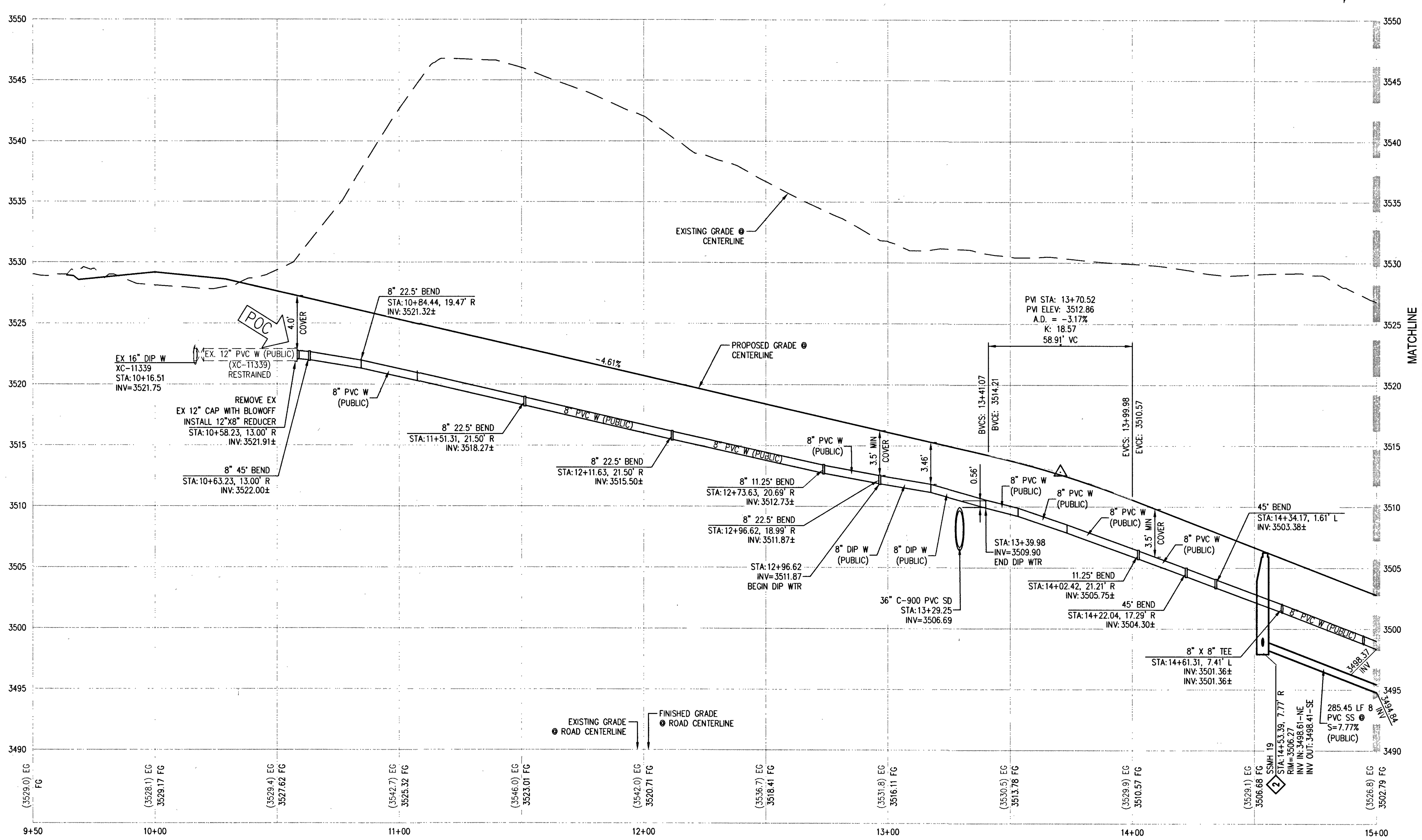
PRO.#:136070A QS:137-33-NE

J:\kbh1804-000 summerlin #24 parcel I&J\cdwg\engrcv\sheets I\kbh1804-000 prs2 pl.dwg 3/14/2019 11:24 AM Prashant Aryal



ISLAND BELLS AVE- PLAN VIEW

(PRIVATE)



MATCHLINE
SEE SHEET PP-12 FOR CONTINUATION

ISLAND BELLS AVE- PROFILE VIEW

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

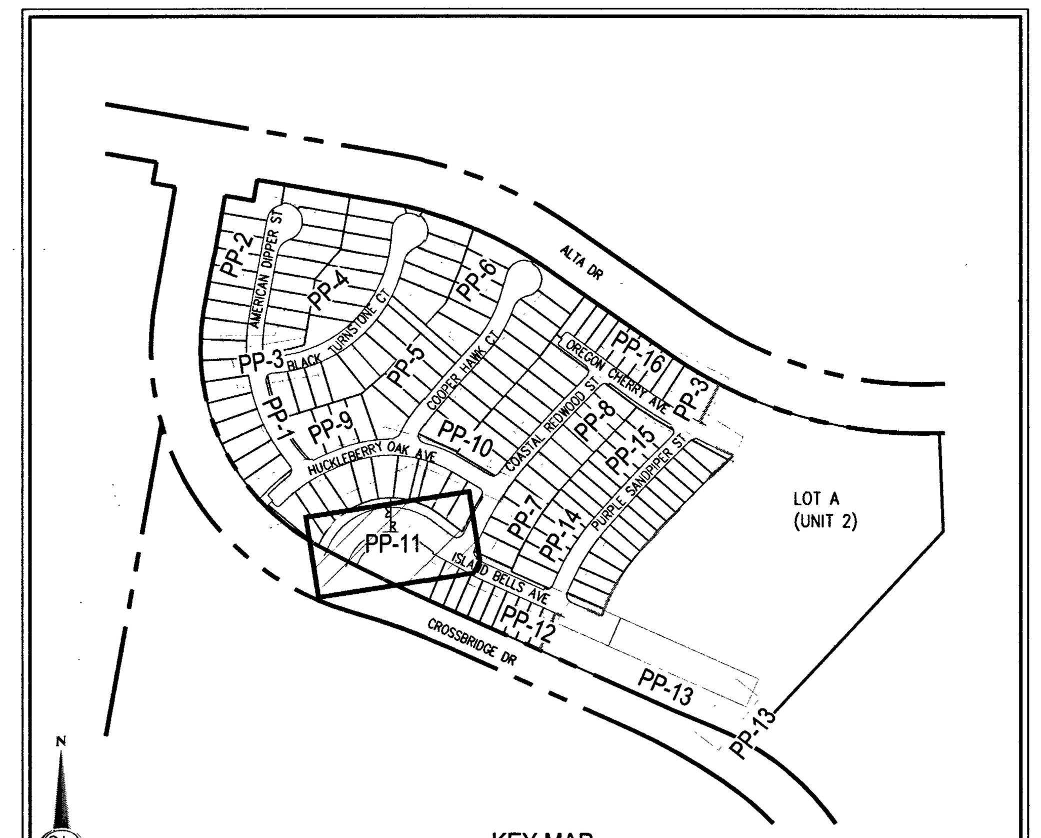
RAMP TRANSITION LENGTHS FOR 1:12 SIDE SLOPES

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
C1	168.23'	150.00'	64°15'39"	94.21'
C2	102.21'	150.00'	39°02'31"	53.18'
C3	69.65'	300.00'	13°18'10"	34.98'
C22	132.34'	118.00'	64°15'39"	74.11'
C23	80.41'	118.00'	39°02'31"	41.83'
C77	107.76'	880.40'	7°00'47"	53.95'
C78	36.08'	20.00'	103°21'34"	25.31'
C79	141.83'	182.00'	44°38'57"	74.73'
C80	186.31'	182.00'	58°39'13"	102.25'
C89	28.85'	20.00'	82°38'10"	17.58'
C90	25.83'	280.50'	5°16'35"	12.92'
C91	22.18'	7.00'	181°31'20"	526.96'
C92	131.89'	157.00'	48°08'02"	70.12'
C93	120.03'	143.01'	48°05'15"	63.80'
C94	21.99'	7.00'	180°00'00"	INFINITY'
C95	21.99'	7.00'	180°00'00"	INFINITY'
C96	27.21'	157.00'	9°55'46"	13.64'
C97	24.78'	143.00'	9°55'46"	12.42'
C98	21.99'	7.00'	180°00'00"	INFINITY'
C99	53.66'	157.00'	19°35'02"	27.10'
C100	21.99'	7.00'	180°00'00"	INFINITY'
C101	48.88'	143.00'	19°35'02"	24.68'
C102	21.99'	7.00'	180°00'00"	INFINITY'



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.
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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. MANHOLE SHALL BE CORROSION PROTECTED WITH FIELD APPLIED COATING PER DCSWCS SECTION 3.16.8B
4. INSTALL 4" PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25.
5. REMOVE CAP AND CONNECT TO EXISTING 8" SS
6. INSTALL 4" C900 PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25 FOR LOTS 123 AND 124 ONLY
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SEE SHEET C-3 FOR QUANTITIES AND ABBREVIATIONS

CONSTRUCTION NOTES

1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
2. INSTALL "L" TYPE CURB PER CCAUSD NO. 216
3. INSTALL MODIFIED ROLL TYPE CURB PER CCAUSD NO. 217.1
4. INSTALL "L" TYPE ISLAND CURB PER CCAUSD NO 219
5. INSTALL "A" TYPE ISLAND CURB PER CCAUSD NO 219
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7. CONSTRUCT 4' WIDE SIDEWALK PER CCAUSD NO. 234
8. CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234
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16. INSTALL 48" RCP STORM DRAIN PIPE
17. INSTALL 4.5'X6' NDOT TYPE 2A DROP INLET PER DETAIL R-4.2.1.1, SHEET D-4, CCAUSD NO. 421
18. INSTALL WROUGHT IRON FENCE WITH VEHICLE ACCESS GATE AND EMERGENCY KNOX PADLOCK PER CCAUSD NO 425.S1
19. INSTALL DROP INLET CONCRETE APRON PER DETAIL R-4.2.7, SHEET D-4 & CCAUSD NO. 421
20. CUT EXISTING SD PIPE WHERE SHOWN ON PLANS
21. INSTALL 7.5' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
22. INSTALL 10' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
23. INSTALL 20' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
24. INSTALL 48" TYPE II SDMH PER CCAUSD NO. 401, 402 & 405.2
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27. INSTALL 48" TYPE I SDMH CCAUSD NO. 401, 402 & 403
28. INSTALL D50=6" RIPRAP THICKNESS=12" OVER 6" TYPE II AGGREGATE BASE
29. INSTALL RIPRAP D50=12" THICKNESS=24" OVER 6" TYPE II AGGREGATE BASE

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

SOUTHWEST GAS APPROVAL

[signature] 3/18/19
SOUTHWEST GAS CORPORATION DATE

DISCLAIMER NOTE

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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 GUTTER 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.

LVVWD NOTES

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

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)

STORM DRAIN NOTES

* WATER TIGHT MANHOLE

APPROVED FOR CONSTRUCTION

[signature]
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO.: 136070 FIRST APPROVED DATE: 3-20-19

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.

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.

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 1

PLAN & PROFILE - ISLAND BELLS AVE STA 9+50 TO 15+00

S 33
T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

PROJECT NO.
KBH1804-000

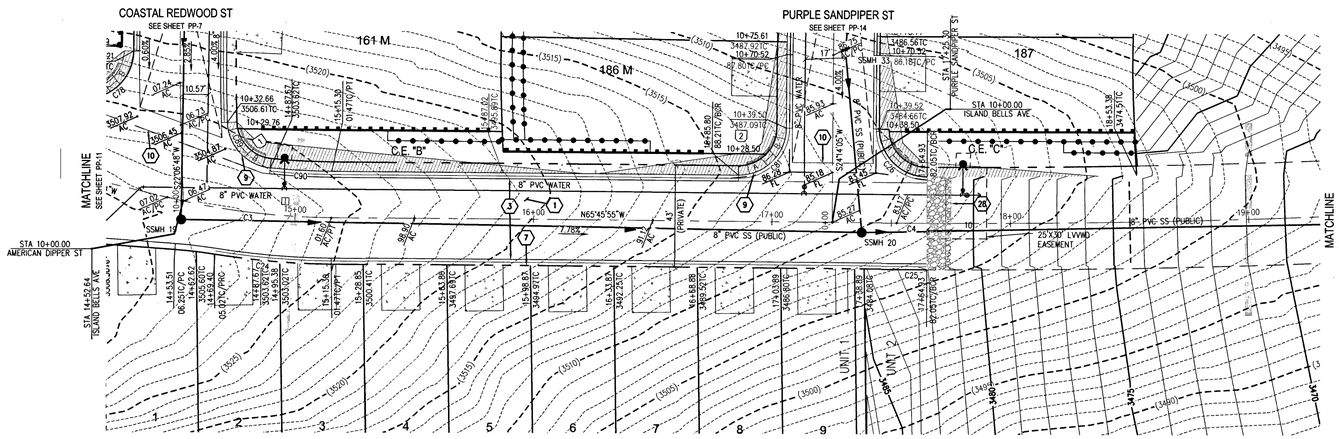
PROFESSIONAL ENGINEER STATE OF NEVADA
TIMOTHY M. MULROONEY
Exp. 12/31/2019
CIVIL
No. 22938
3/18/19

PP-11
SHEET 29 OF 54

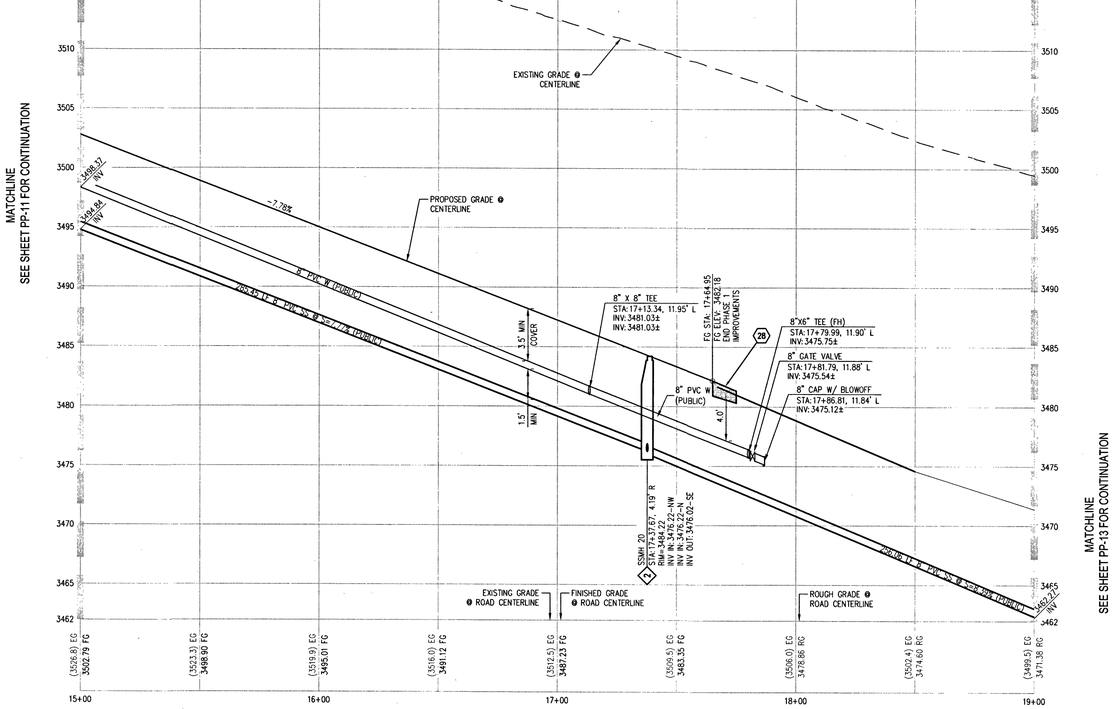
L19-00027
107Y5102

PROJ#:136070A QS:137-33-NE

j:\kbh1804-000 summerlin v24 parcel l&m\dwg\improv\phase 1\kbh1804-000 pnp2 p1.dwg 3/15/2019 3:05 PM Prashant Aryal



ISLAND BELLS AVE- PLAN VIEW
(PRIVATE)



ISLAND BELLS AVE- PROFILE VIEW
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

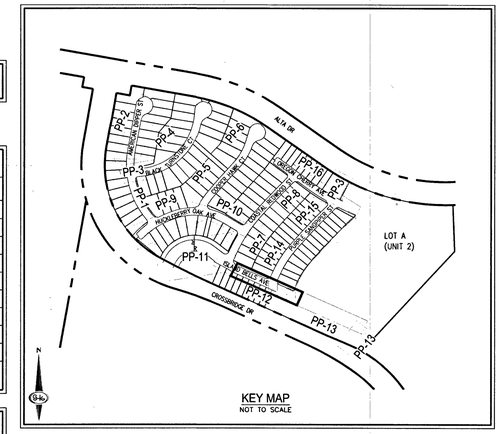
RAMP TRANSITION LENGTHS
FOR 1:12 SIDE SLOPES

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 ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD NO. 235, CASE I

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	TANGENT
C3	69.65'	300.00'	13°18'10"	34.98'
C4	12.71'	3750.00'	0°11'39"	6.35'
C24	48.88'	319.50'	8°45'55"	24.49'
C25	12.78'	3769.50'	0°11'40"	6.39'
C26	31.48'	20.00'	90°11'39"	20.07'
C78	36.08'	20.00'	103°21'34"	25.31'
C81	31.42'	20.00'	90°00'00"	20.00'
C89	28.85'	20.00'	82°38'10"	17.58'
C90	25.83'	280.50'	5°16'35"	12.92'



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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)

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STORM DRAIN NOTES
- WATER TIGHT MANHOLE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO.: 136070 FIRST APPROVED DATE: 3-26-19

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

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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 1

PLAN & PROFILE - ISLAND BELLS AVE STA 15+00 TO 19+00

S23 T20S R59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO. KBH1804-000

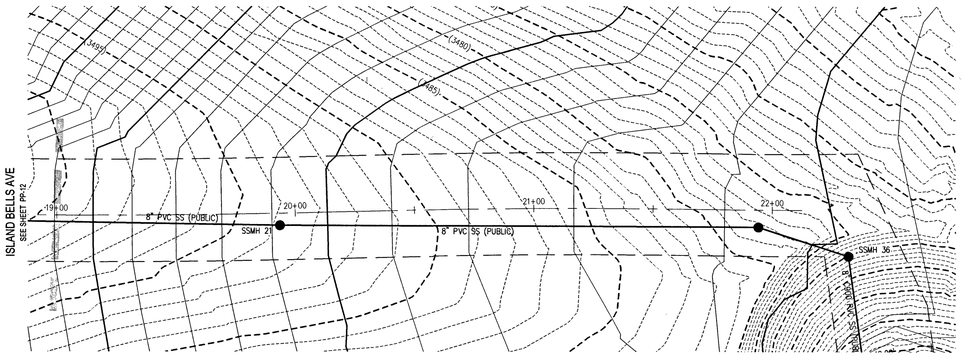
PROFESSIONAL ENGINEER TIMOTHY M. MULROONEY Exp. 12/31/2019 CIVIL No. 22938 STATE OF NEVADA
3/14/19

PP-12
SHEET 30 OF 54

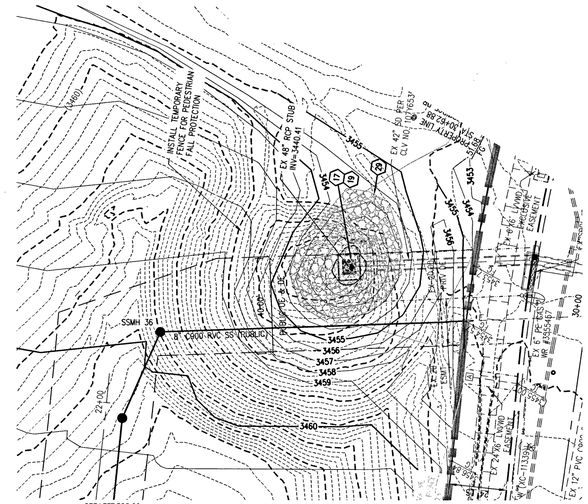
L19-00027
10785102

PROJ.#:136070A QS:137-33-NE

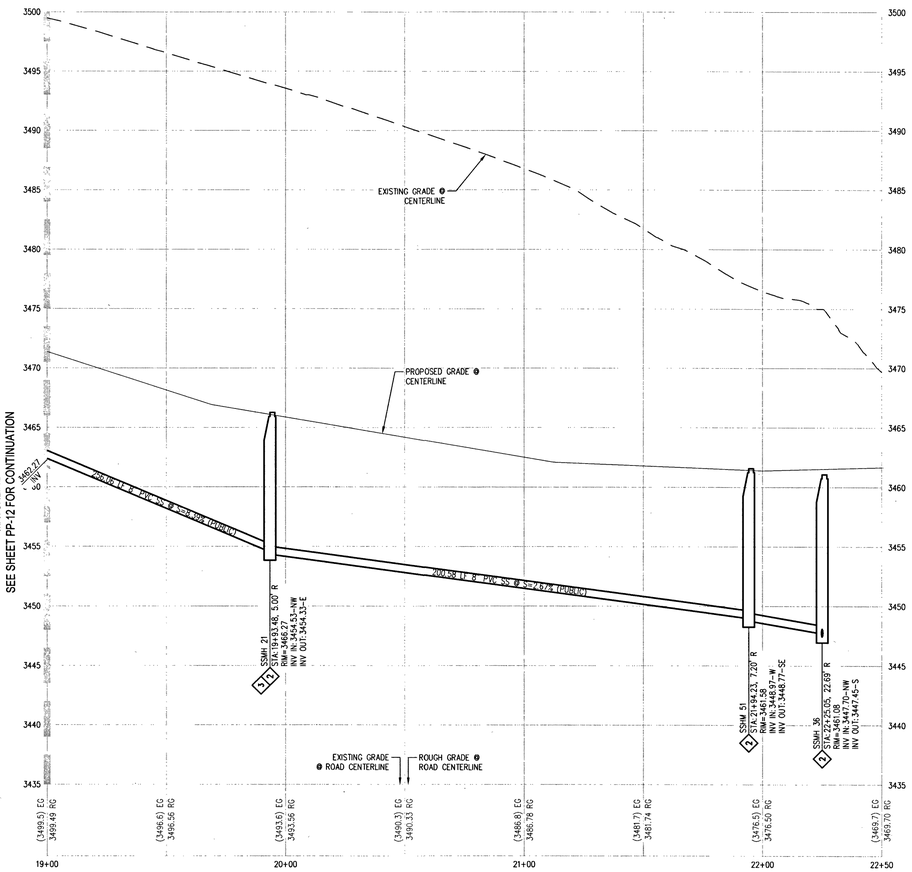
J:\kbh1804-000 summerlin v24 parcel 6\mv\dwg\improv\phase 1\kbh1804-000 pp2 p1.dwg 3/14/2019 11:25 AM Prashant Aryal



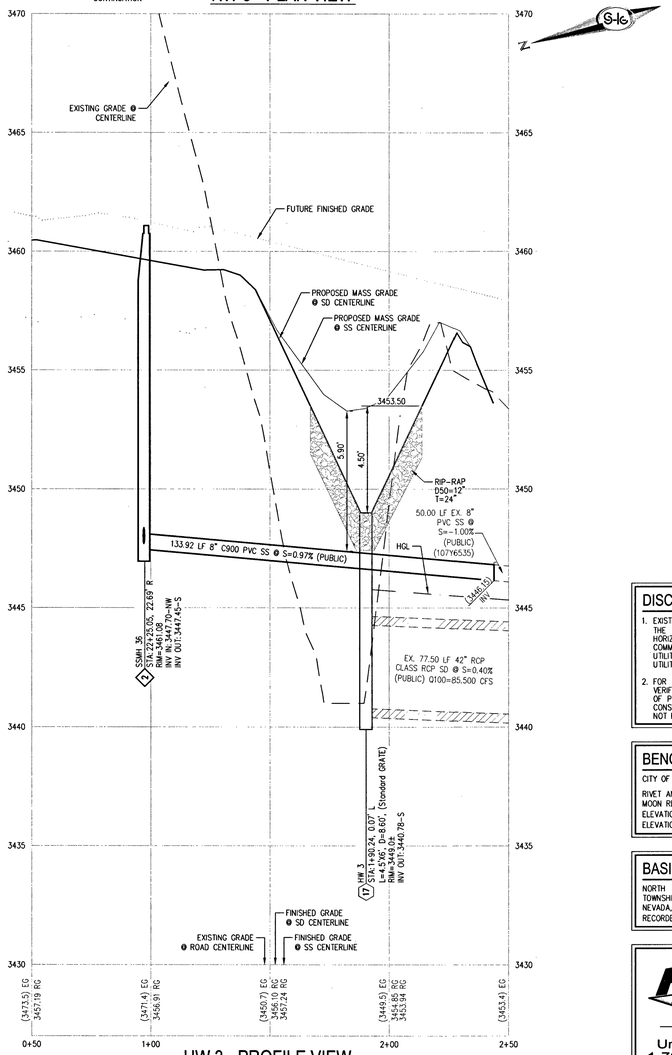
ISLAND BELLS AVE - PLAN VIEW
(PRIVATE)



HW 3 - PLAN VIEW



ISLAND BELLS AVE - PROFILE VIEW
HORIZ: 1" = 30'
VERT: 1" = 6'



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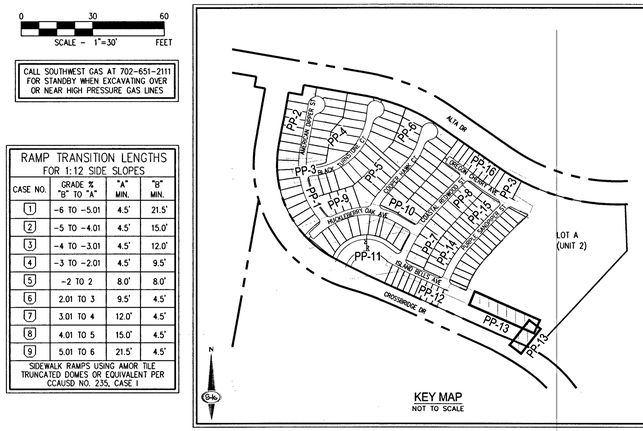

KEY MAP
NOT TO SCALE

0 30 60
SCALE – 1"=30' FEET

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

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SOUTHWEST GAS APPROVAL
SOUTHWEST GAS CORPORATION — DATE 3/18/19

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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)
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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.

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- WATER PRESSURE ZONE 3665

STORM DRAIN NOTES
- WATER TIGHT MANHOLE

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO.: 136070 FIRST APPROVED DATE: 3-20-19

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

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SLATER HANIFAN GROUP
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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 1

PLAN & PROFILE - ISLAND BELLS AVE STA 19+00 TO 22+50 AND HW 3

S 33
T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

PROJECT NO.
KBH1804-000

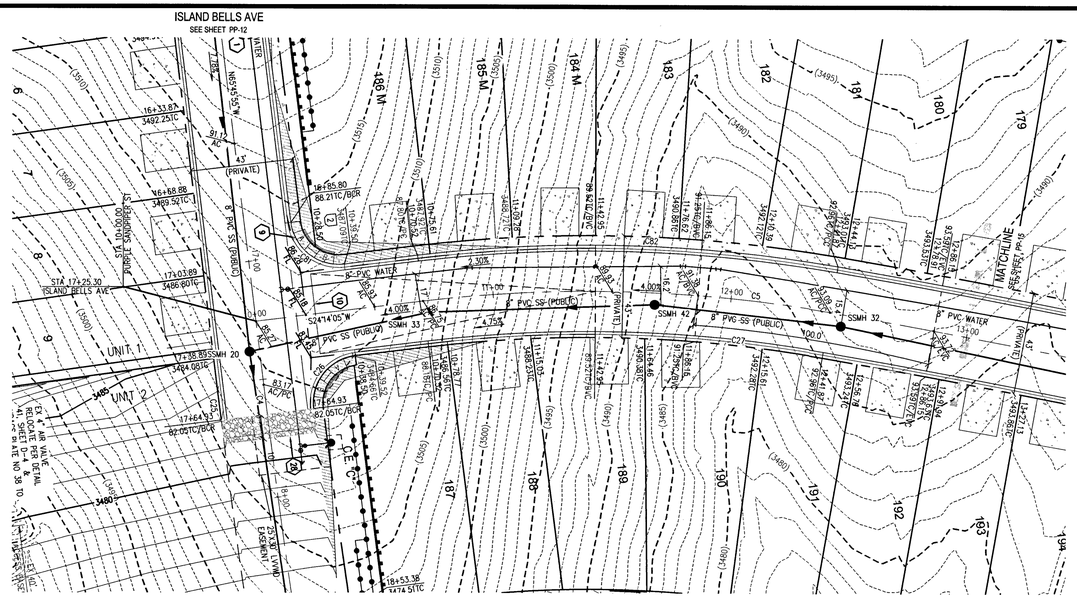
ENGINEER'S CERTIFICATION
I HEREBY CERTIFY THAT THIS PROFESSIONAL SERVICE WAS PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NEVADA
TIMOTHY M. MULROONEY
Exp. 12/31/2019
CIVIL
STATE OF NEVADA
No. 22938
3/18/19

PP-13
SHEET 31 OF 54

L19-00027
10745102

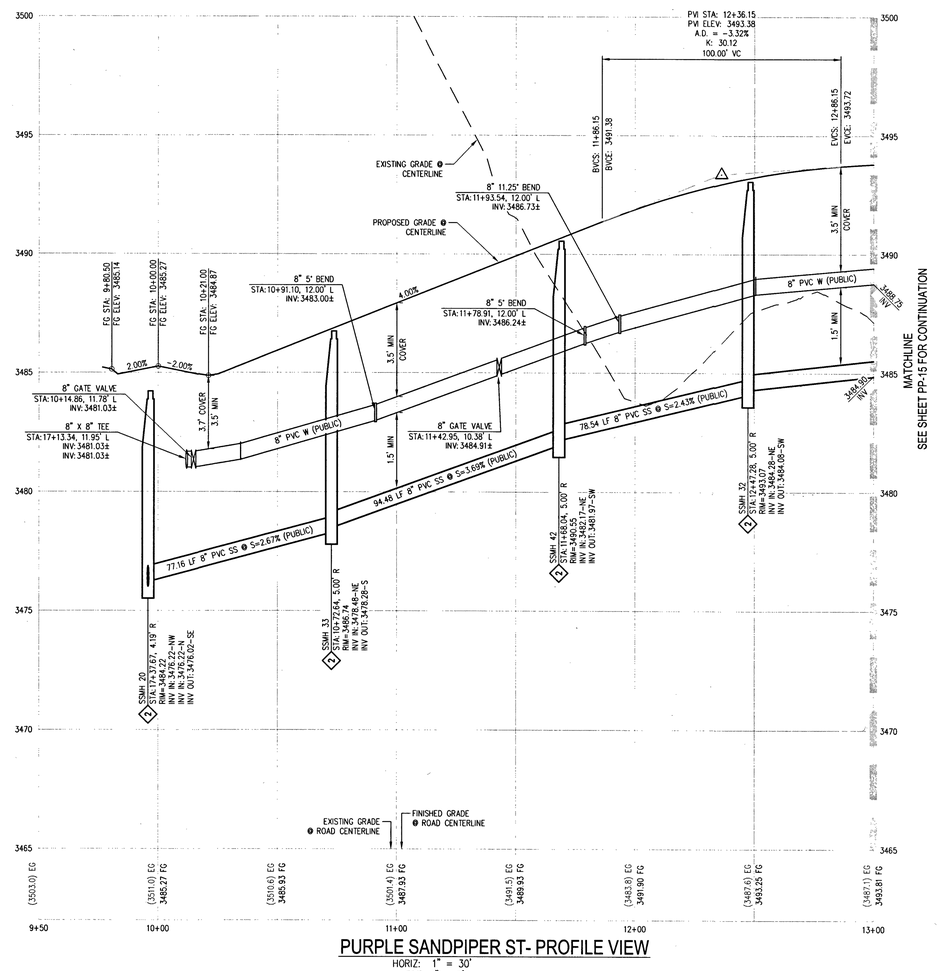
PROJ#:136070A QS:137-33-NE

k:\kbh1804-000 summerlin v24 parcel 16\dwg\improv\phase 1\kbh1804-000 pp12 p1.dwg 3/15/2019 3:06 PM Prashant Aryal



PURPLE SANDPIPER ST - PLAN VIEW

(PRIVATE)



PURPLE SANDPIPER ST- PROFILE VIEW

HORIZ: 1" = 30'
VERT: 1" = 3'

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'
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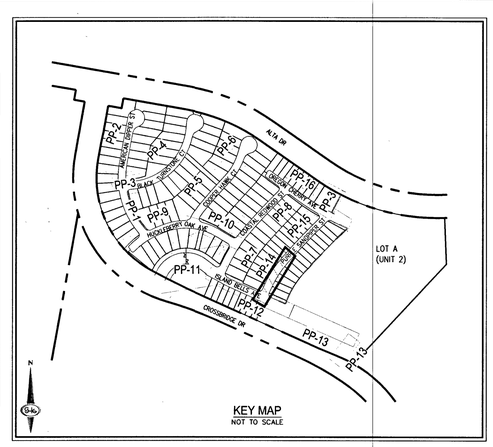
9	5.01 TO 6	21.5'	4.5'

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



CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	TANGENT
C4	12.71'	3750.00'	0°11'39"	6.35'
C5	171.34'	586.90'	16°43'37"	86.28'
C25	12.78'	3769.50'	0°11'40"	6.39'
C26	31.48'	20.00'	90°11'39"	20.07'
C27	165.65'	567.40'	16°43'37"	83.42'
C81	31.42'	20.00'	90°00'00"	20.00'
C82	177.03'	606.40'	16°43'37"	89.15'

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.

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CONSTRUCTION NOTES

1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
2. INSTALL "L" TYPE CURB PER CCAUSD NO. 216
3. INSTALL MODIFIED ROLL TYPE CURB PER CCAUSD NO. 217.1
4. INSTALL "L" TYPE ISLAND CURB PER CCAUSD NO 219
5. INSTALL "A" TYPE ISLAND CURB PER CCAUSD NO 219
6. INSTALL 10' "L" TYPE CURB TO MODIFIED ROLL CURB TRANSITION PER DETAIL 31, SHEET D-3
7. CONSTRUCT 4' WIDE SIDEWALK PER CCAUSD NO. 234
8. CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234
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10. CONSTRUCT 8' CROSS GUTTER PER CCAUSD NO. 228
11. CONSTRUCT SIDEWALK DRAIN PER CCAUSD NO. 236
12. INSTALL 18" RCP STORM DRAIN PIPE
13. INSTALL 24" RCP STORM DRAIN PIPE
14. INSTALL 30" RCP STORM DRAIN PIPE
15. INSTALL 36" RCP STORM DRAIN PIPE
16. INSTALL 48" RCP STORM DRAIN PIPE
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18. INSTALL WROUGHT IRON FENCE WITH VEHICLE ACCESS GATE AND EMERGENCY KNOX PADLOCK PER CCAUSD NO 425.S1
19. INSTALL DROP INLET CONCRETE APRON PER DETAIL R-4.2.7, SHEET D-4 & CCAUSD NO. 421
20. CUT EXISTING SD PIPE WHERE SHOWN ON PLANS
21. INSTALL 7.5' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
22. INSTALL 10' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
23. INSTALL 20' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
24. INSTALL 48" TYPE II SDMH PER CCAUSD NO. 401, 402 & 405.2
25. INSTALL 5' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
26. INSTALL 48" TYPE III SDMH CCAUSD NO. 401, 402 & 406
27. INSTALL 48" TYPE I SDMH CCAUSD NO. 401, 402 & 403
28. INSTALL D50=6" RIPRAP THICKNESS=12" OVER 6" TYPE II AGGREGATE BASE
29. INSTALL RIPRAP D50=12" THICKNESS=24" OVER 6" TYPE II AGGREGATE BASE

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

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. MANHOLE SHALL BE CORROSION PROTECTED WITH FIELD APPLIED COATING PER DCSWCS SECTION 3.16.B8
4. INSTALL 4" PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25.
5. REMOVE CAP AND CONNECT TO EXISTING 8" SS
6. INSTALL 4" C900 PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25 FOR LOTS 123 AND 124 ONLY
7. INSTALL 8" C900 PVC SANITARY SEWER PER DCSWCS SD-15 & SD-17

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BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6

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STORM DRAIN NOTES

- WATER TIGHT MANHOLE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO.: 136070 FIRST APPROVED DATE: 3-5-19

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PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 1

PLAN & PROFILE - PURPLE SANDPIPER ST STA 9+50 TO 13+00

S33 T20S R59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO. KBH1804-000

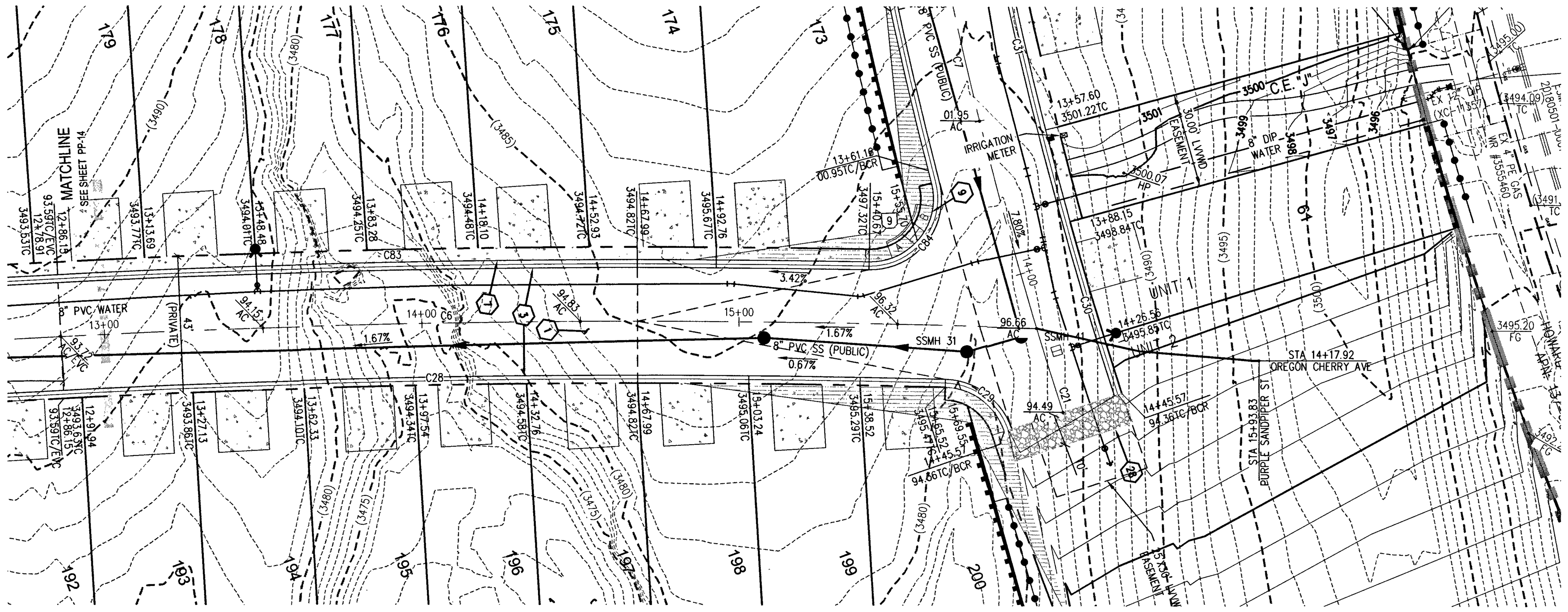
TIMOTHY M. MULROONEY, Exp. 12/31/2019, CIVIL, STATE OF NEVADA, No. 23958, PROFESSIONAL ENGINEER — 3/14/19

PP-14
SHEET 32 OF 54
L19-00027
10745102

PRO.#:136070A QS:137-33-NE

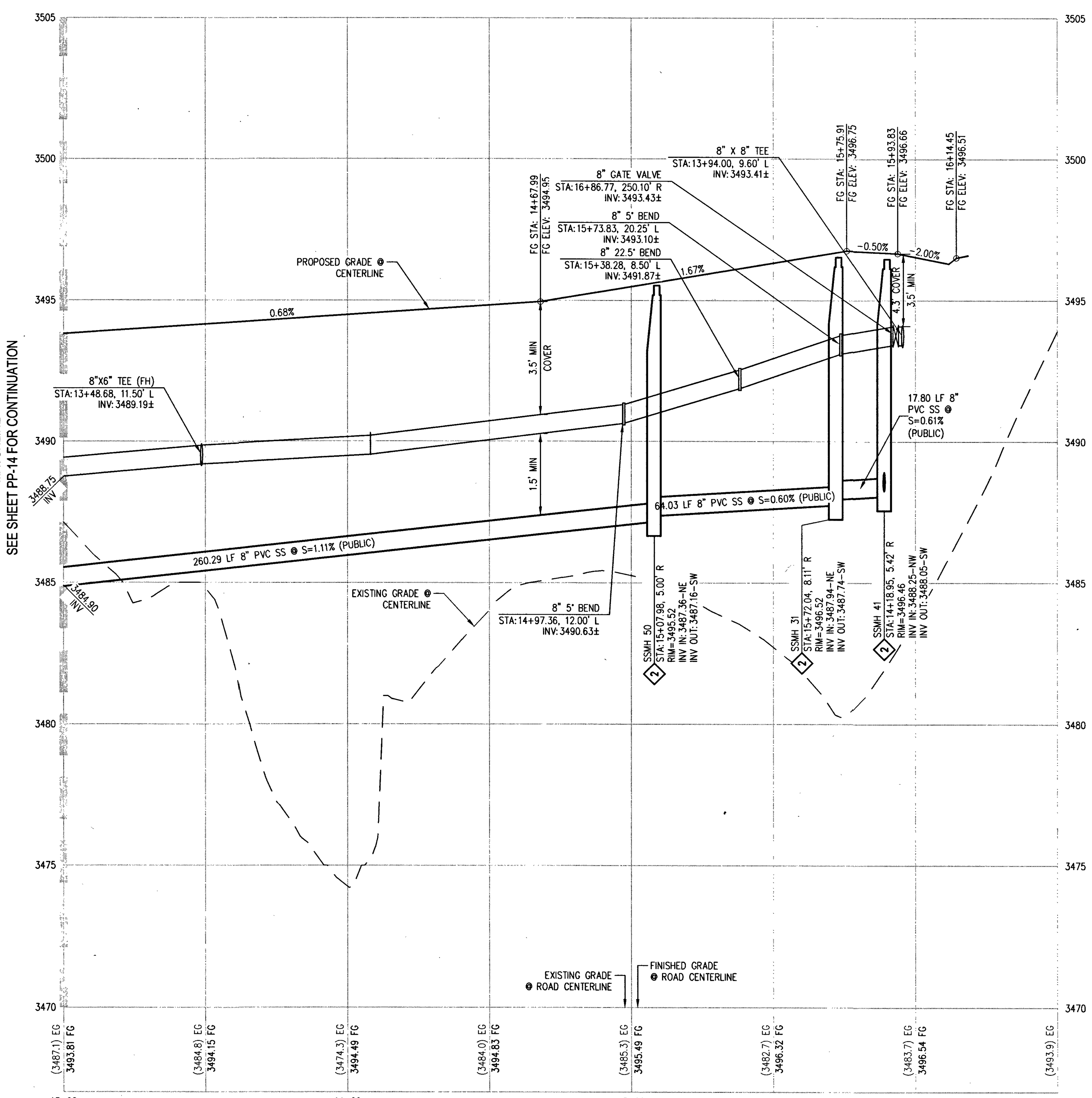
J:\Kbh1804-000 summerlin, v24 parcel 18m\dwg\mpro\xbase 1\kbh1804-000 pp02 p1.dwg 3/14/2019 11:27 AM Prashant Aryal

OREGON CHERRY AVE
SEE SHEET PP-13



OREGON CHERRY AVE
SEE SHEET PP-16

PURPLE SANDPIPER ST- PLAN VIEW
(PRIVATE)



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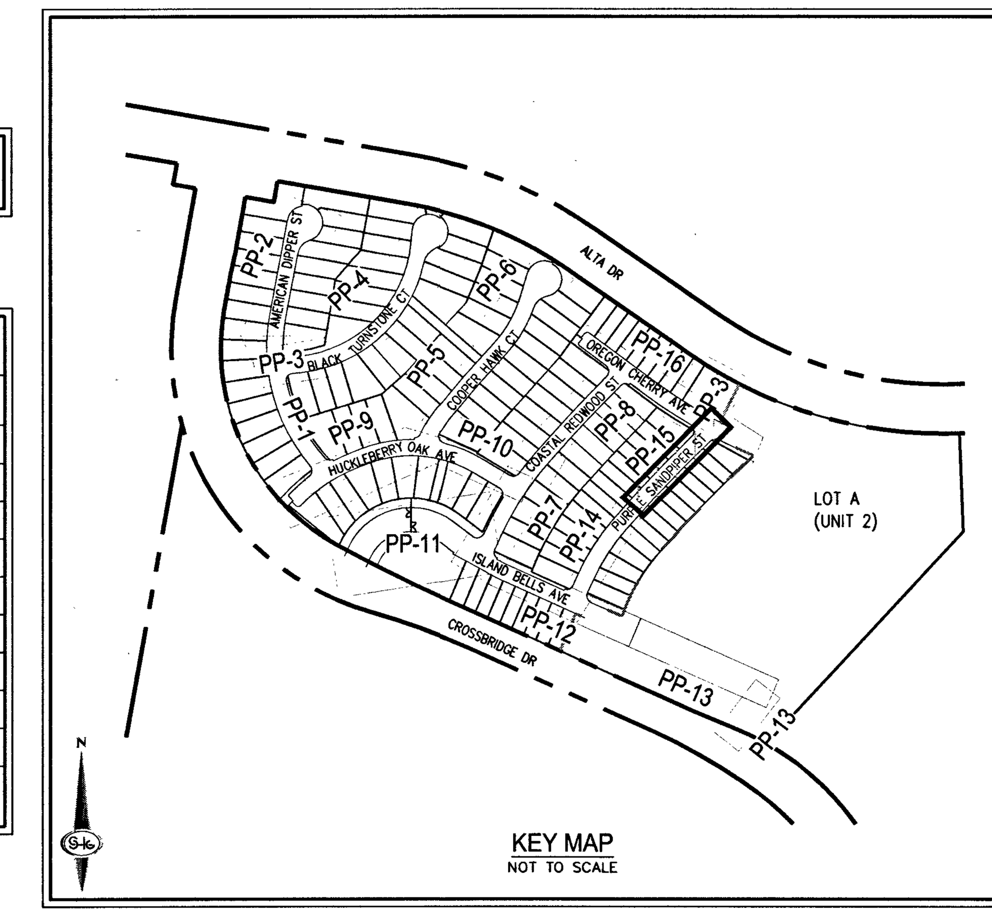

KEY MAP
NOT TO SCALE

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	TANGENT
C6	351.96'	3686.90'	5°28'11"	176.12'
C7	198.16'	1298.50'	8°44'37"	99.27'
C21	32.33'	1298.50'	1°25'35"	16.16'
C28	321.95'	3667.40'	5°01'47"	161.08'
C29	24.63'	20.00'	70°34'13"	14.15'
C30	31.84'	1279.00'	1°25'35"	15.92'
C31	195.18'	1279.00'	8°44'37"	97.78'
C83	300.39'	3706.40'	4°38'37"	150.28'
C84	36.83'	20.00'	105°29'47"	26.30'

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SOUTHWEST GAS APPROVAL

[signature] 3/18/19
SOUTHWEST GAS CORPORATION DATE

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BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6

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APPROVED FOR CONSTRUCTION
[signature]
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO.: 136070 FIRST APPROVED DATE: 3-20-19

FAST
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FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T)

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CALL BEFORE YOU DO OVERHEAD
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Call before you Dig
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OR
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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.

KB HOME
LAS VEGAS, NV
BRISTLE VALE - UNIT 1
PLAN & PROFILE - PURPLE SANDPIPER ST STA 13+00 TO 16+50
S 33 T 20S R 59E

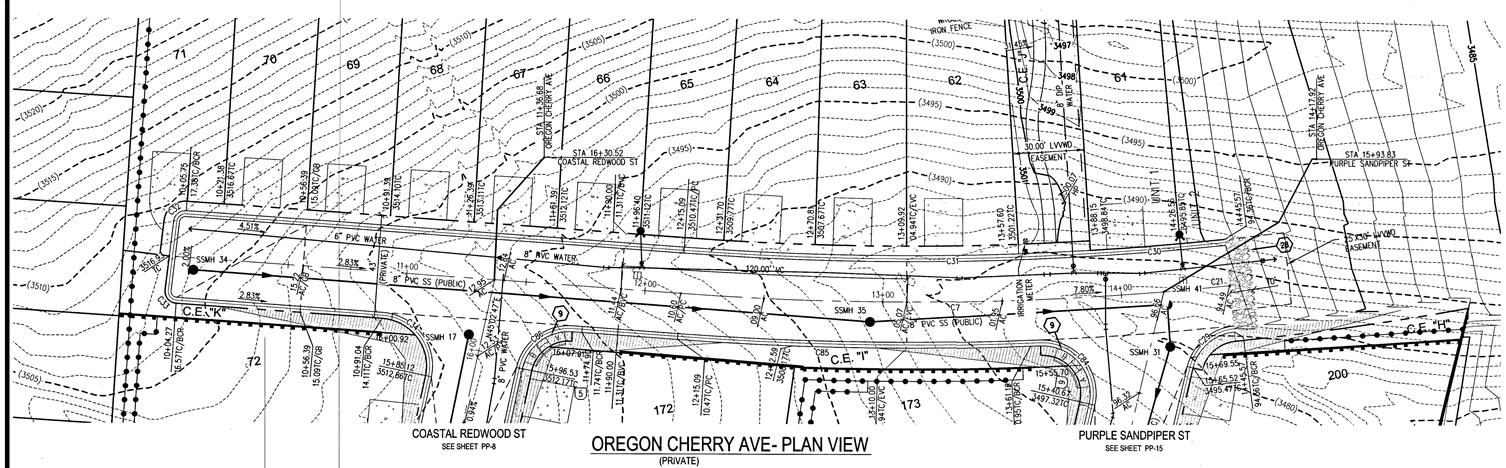
DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO. KBH1804-000

ENGINEER STATE OF NEVADA
TIMOTHY M. MULROONEY
Exp. 12/31/2019
CIVIL
No. 22938
PROFESSIONAL
3/18/19

PP-15
SHEET 33 OF 54
L19-00027
107Y5102

PROJ#:136070A QS:137-33-NE

j:\kbh1804-000 summerlin v24 parcel l&m\dwg\improv\phase 1\kbh1804-000 pnp2 p1.dwg 3/15/2019 3:07 PM Prashant Aryal



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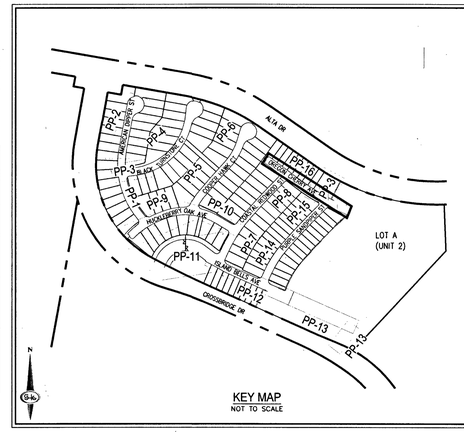
5	-2 TO 2	8.0'	8.0'
6	2.01 TO 3	9.5'	4.5'
7	3.01 TO 4	12.0'	4.5'
8	4.01 TO 5	15.0'	4.5'
9	5.01 TO 6	21.5'	4.5'

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

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	TANGENT
C7	198.16'	1298.50'	8°44'37"	99.27'
C21	32.33'	1298.50'	1°25'35"	16.16'
C29	24.63'	20.00'	70°34'13"	14.15'
C30	31.84'	1279.00'	1°25'35"	15.92'
C31	195.18'	1279.00'	8°44'37"	97.78'
C32	7.60'	5.00'	87°04'34"	4.75'
C33	8.11'	5.00'	92°55'26"	5.26'
C34	34.25'	20.00'	105°29'47"	26.30'
C84	36.83'	20.00'	105°29'47"	26.30'
C85	152.36'	1318.00'	6°37'23"	76.26'
C86	28.52'	20.00'	81°42'11"	17.29'



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.

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. MANHOLE SHALL BE CORROSION PROTECTED WITH FIELD APPLIED COATING PER DCSWCS SECTION 3.16.6B
4. INSTALL 4" PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25.
5. REMOVE CAP AND CONNECT TO EXISTING 8" SS
6. INSTALL 4" C900 PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25 FOR LOTS 1,23 AND 124 ONLY
7. INSTALL 8" C900 PVC SANITARY SEWER PER DCSWCS SD-15 & SD-17

SEE SHEET C-3 FOR QUANTITIES AND ABBREVIATIONS

CONSTRUCTION NOTES

1. INSTALL 2" ASPHALT PAVEMENT OVER 4" TYPE II AGGREGATE BASE
2. INSTALL "L" TYPE CURB PER CCAUSD NO. 216
3. INSTALL MODIFIED ROLL TYPE CURB PER CCAUSD NO. 217.1
4. INSTALL "L" TYPE ISLAND CURB PER CCAUSD NO 219
5. INSTALL "A" TYPE ISLAND CURB PER CCAUSD NO 219
6. INSTALL 10' "L" TYPE CURB TO MODIFIED ROLL CURB TRANSITION PER DETAIL 31, SHEET D-3
7. CONSTRUCT 4' WIDE SIDEWALK PER CCAUSD NO. 234
8. CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234
9. CONSTRUCT SIDEWALK RAMPS USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER DETAIL 33, SHEET D-3
10. CONSTRUCT 8' CROSS GUTTER PER CCAUSD NO. 228
11. CONSTRUCT SIDEWALK DRAIN PER CCAUSD NO. 236
12. INSTALL 18" RCP STORM DRAIN PIPE
13. INSTALL 24" RCP STORM DRAIN PIPE
14. INSTALL 30" RCP STORM DRAIN PIPE
15. INSTALL 36" RCP STORM DRAIN PIPE
16. INSTALL 48" RCP STORM DRAIN PIPE
17. INSTALL 4.5'X6' NDOT TYPE 2A DROP INLET PER DETAIL R-4.2.1.1, SHEET D-4, CCAUSD NO. 421
18. INSTALL WROUGHT IRON FENCE WITH VEHICLE ACCESS GATE AND EMERGENCY KNOX PADLOCK PER CCAUSD NO 425.51
19. INSTALL DROP INLET CONCRETE APRON PER DETAIL R-4.2.7, SHEET D-4 & CCAUSD NO. 421
20. CUT EXISTING SD PIPE WHERE SHOWN ON PLANS
21. INSTALL 7.5' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
22. INSTALL 10' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
23. INSTALL 20' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
24. INSTALL 48" TYPE II SDMH PER CCAUSD NO. 401, 402 & 405.2
25. INSTALL 5' TYPE "CM2" DROP INLET PER CCAUSD NO. 421
26. INSTALL 48" TYPE III SDMH CCAUSD NO. 401, 402 & 406
27. INSTALL 48" TYPE I SDMH CCAUSD NO. 401, 402 & 403
28. INSTALL D50=6" RIPRAP THICKNESS=12" OVER 6" TYPE II AGGREGATE BASE
29. INSTALL RIPRAP D50=12" THICKNESS=24" OVER 6" TYPE II AGGREGATE BASE

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

LVVWD NOTES

- ALL DUCTILE IRON PIPE (DIP) TO BE CLASS 350 DIP UNLESS OTHERWISE SPECIFIED.
- MAINTAIN MINIMUM TWENTY-FOUR (24") INCH COVER PER UDACS SEC. 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION
- WATER PRESSURE ZONE 3665

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

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STORM DRAIN NOTES

- WATER TIGHT MANHOLE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO.: 136070 FIRST APPROVED DATE: 3-20-19

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 1

PLAN & PROFILE - OREGON CHERRY AVE STA 9+50 TO 15+50

S33 T20S R59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER STATE OF NEVADA TIMOTHY M. MULROONEY Exp. 12/31/2019 CIVIL No. 22959 3/14/19

PP-16
SHEET 34 OF 54

L19-00027
10795102

PROJ#:136070A QS:137-33-NE

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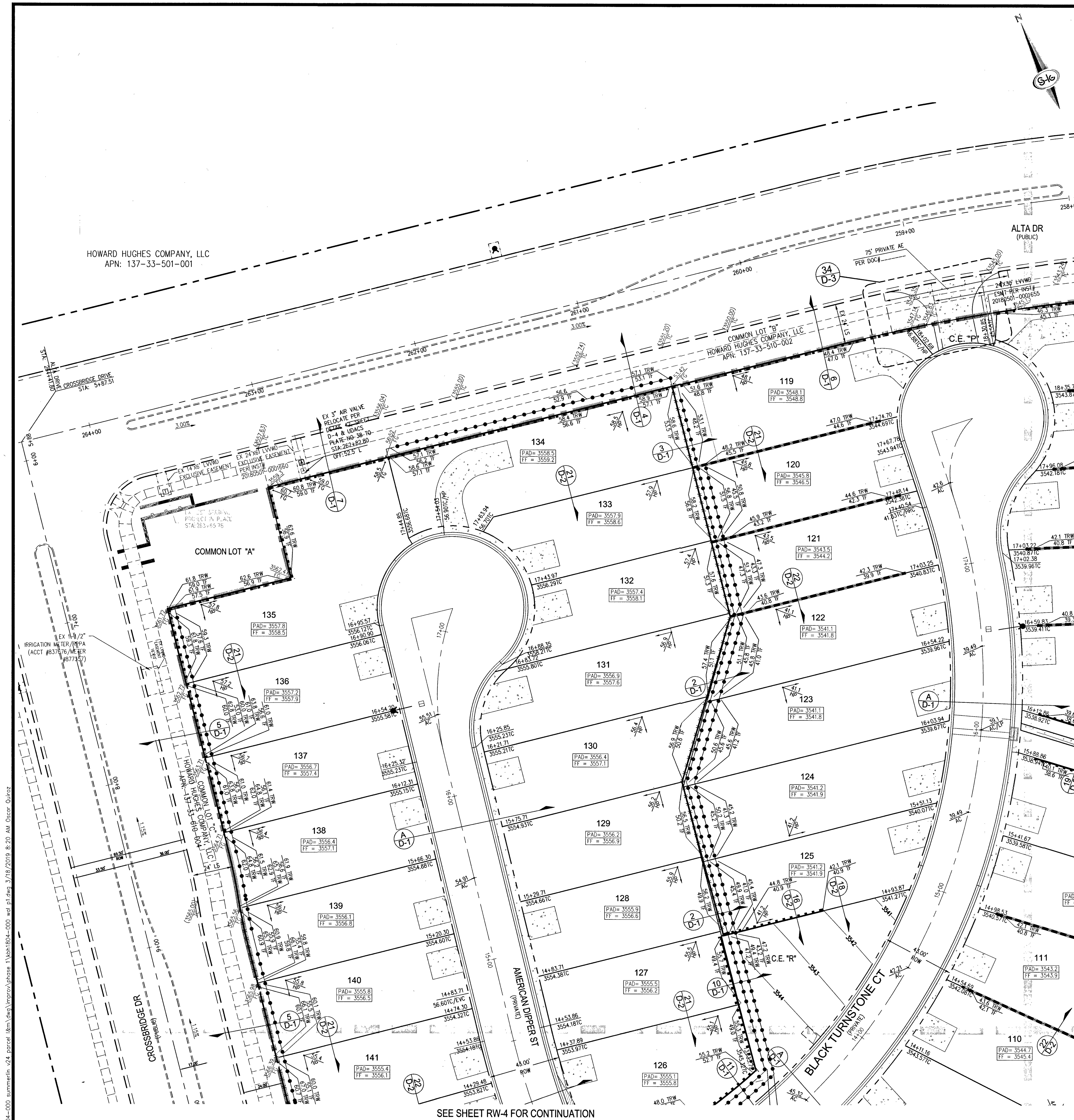

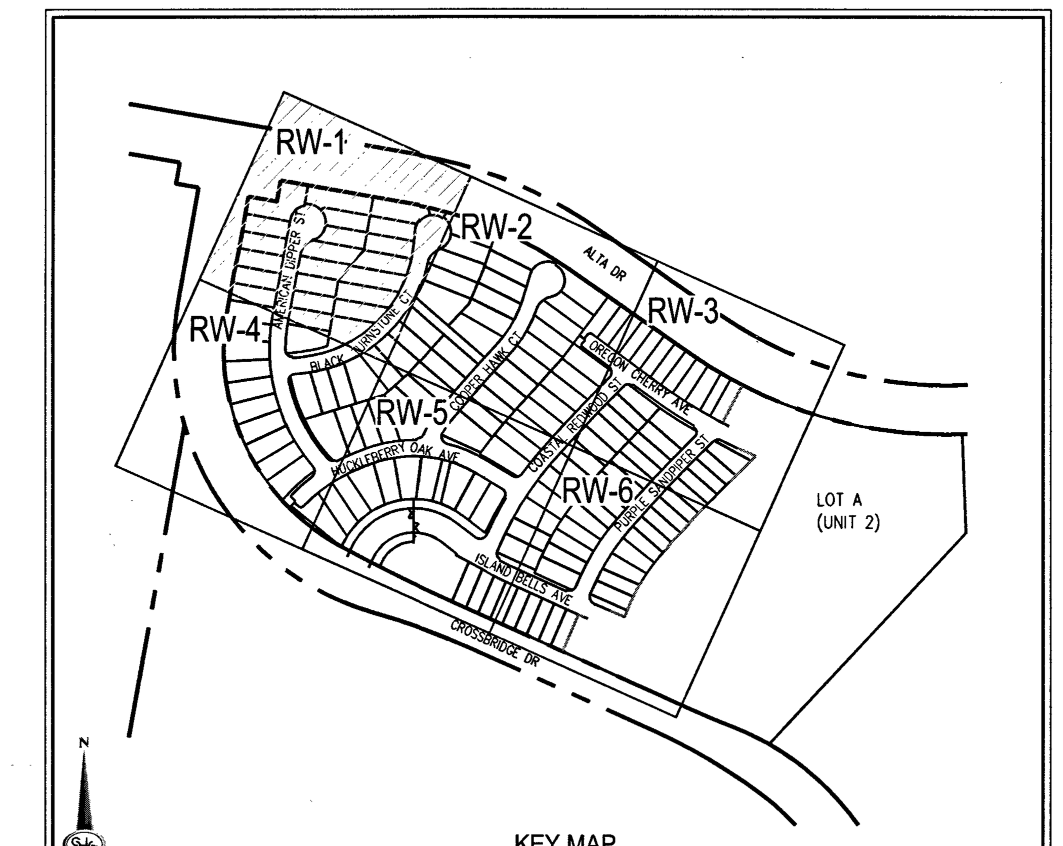

KEY MAP
NOT TO SCALE

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.
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FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

S 33
T 20S
R 59E

KB HOME
BRISTLE VALE - UNIT 1
RETAINING WALL PLAN I

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER STATE OF NEVADA
TIMOTHY M. MULROONEY
Exp. 12/31/2019
CIVIL
No. 22938
3/18/19

RW-1
SHEET 35 OF 54

L19-00027
107Y5102

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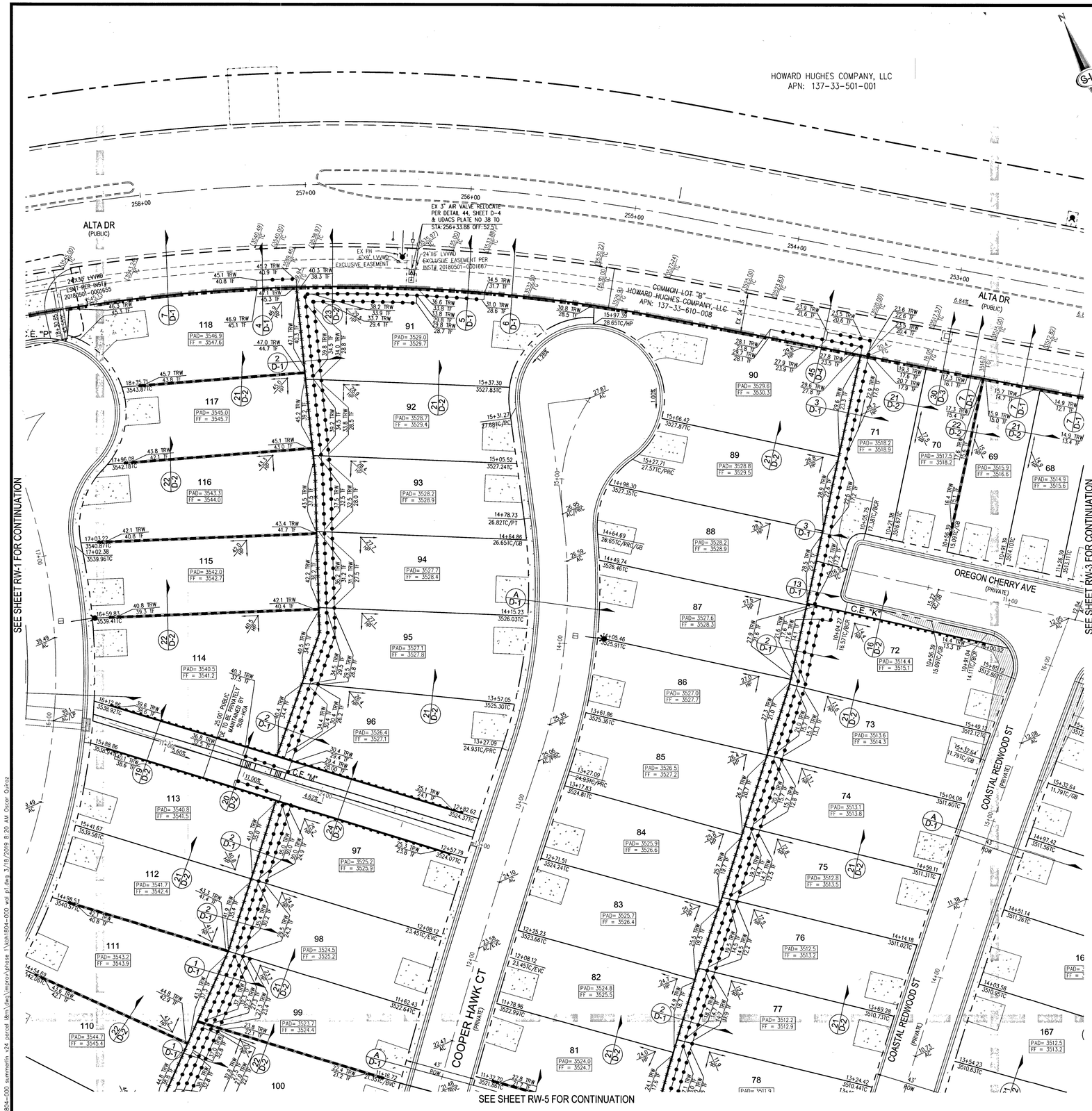

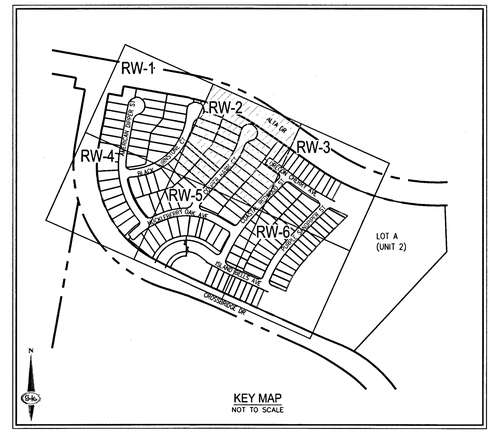

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 345W6

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PHONE (702) 284-5300
FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 1

RETAINING WALL PLAN II

S 33
T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER
TIMOTHY M. MULROONEY
Exp. 12/31/2019
CIVIL
No. 22938
STATE OF NEVADA
3/18/19

RW-2
SHEET 36 OF 54

L19-00027
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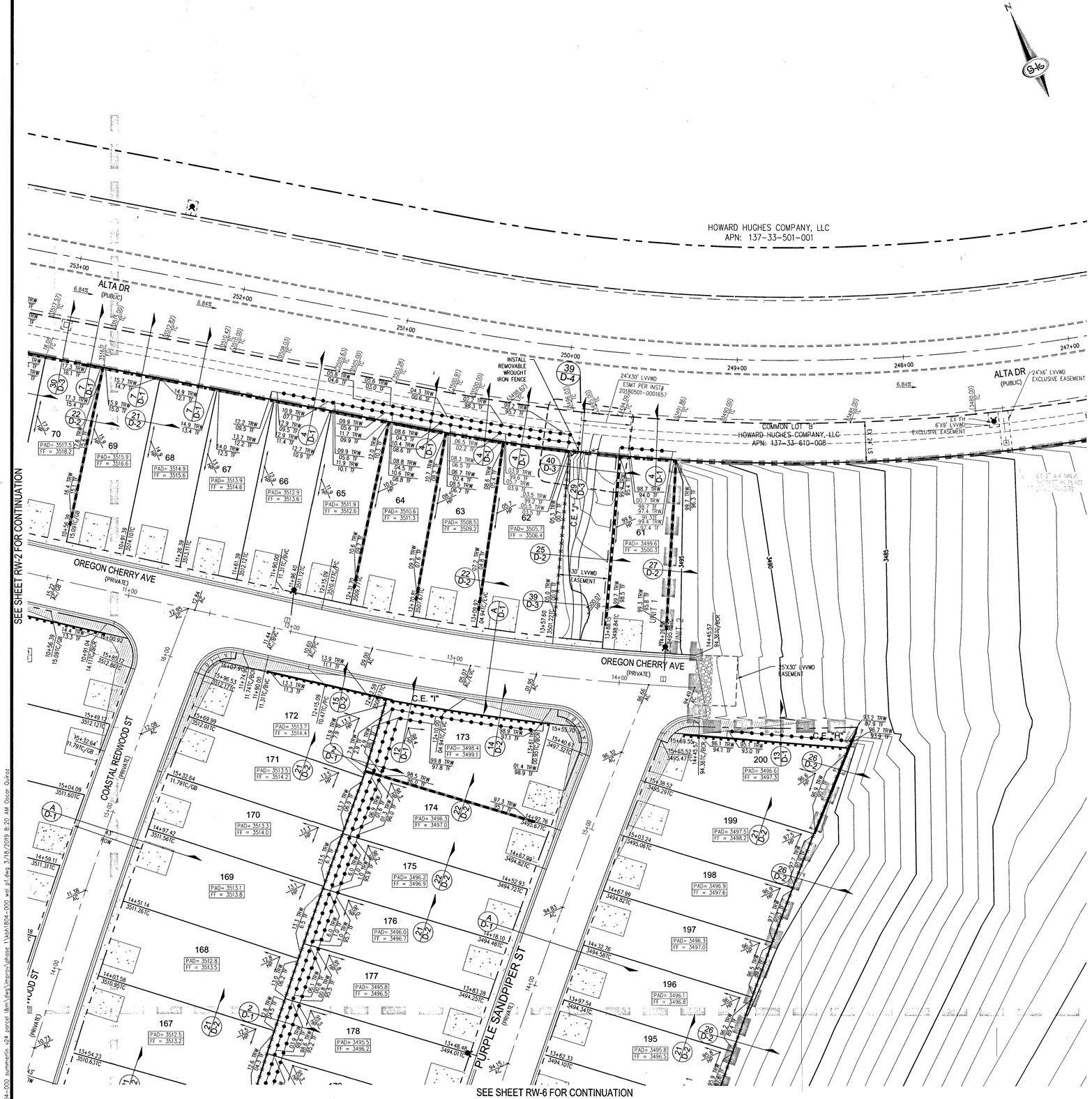

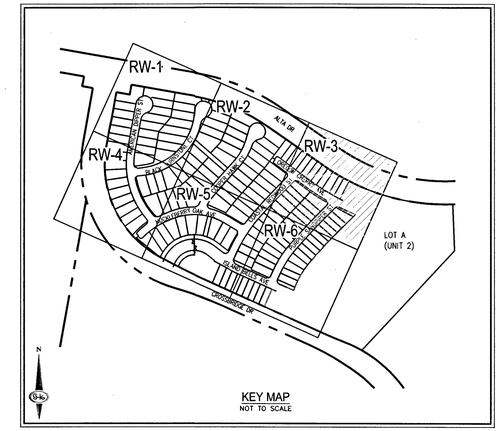

KEY MAP
NOT TO SCALE

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.
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OR
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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 1

RETAINING WALL PLAN III

S 33
T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER
TIMOTHY M. MULROONEY
Exp. 12/31/2019
CIVIL
No. 22938
STATE OF NEVADA
3/8/19

RW-3
SHEET 37 OF 54

L19-00027
10745102

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SEE SHEET RW-1 FOR CONTINUATION

SEE SHEET RW-5 FOR CONTINUATION

CROSSBRIDGE DR (PUBLIC)

AMERICAN DIPPER ST (PRIVATE)

BLACK TURNSTONE CT (PRIVATE)

HUCKLEBERRY OAK AVE (PRIVATE)

CROSSBRIDGE DR (PUBLIC)

FUTURE VILLAGE
HOWARD HUGHES COMPANY, LLC
APN: 137-33-101-001

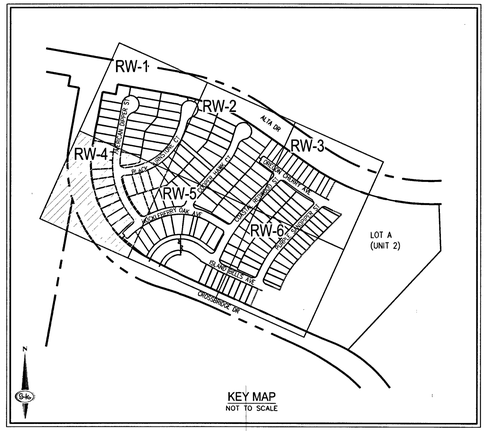
SUMMERLIN VILLAGE 24 – PARCEL K
APN: 137-33-610-001

HOWARD HUGHES COMPANY, LLC
APN: 137-33-610-004

EX 4" AIR VALVE
RELOCATE PER DETAIL
#3, SHEET D-4 &
UDACS PLATE NO 38
TO STA: N+20.35
OFF: 51.01'

EX 4" AIR VALVE
RELOCATE PE
41, SHEET D-
UDACS PLATE
STA: 17+32.8
OFF: 51.01'

140	PAD= 3555.8	FF = 3556.5
141	PAD= 3555.4	FF = 3556.1
142	PAD= 3554.9	FF = 3555.6
143	PAD= 3553.6	FF = 3554.3
144	PAD= 3551.6	FF = 3552.3
145	PAD= 3540.5	FF = 3550.2
146	PAD= 3547.3	FF = 3547.8
147	PAD= 3544.7	FF = 3545.4
148	PAD= 3542.5	FF = 3543.2
149	PAD= 3540.8	FF = 3541.5
150	PAD= 3540.0	FF = 3540.7
151	PAD= 3544.1	FF = 3544.8
152	PAD= 3540.6	FF = 3541.3
126	PAD= 3555.1	FF = 3555.8
127	PAD= 3555.5	FF = 3556.2
102	PAD= 3526.	FF = 3527.
103	PAD= 3529.7	FF = 3530.4
104	PAD= 3532.6	FF = 3533.3
105	PAD= 3535.1	FF = 3535.8
106	PAD= 3549.2	FF = 3549.9
107	PAD= 3548.1	FF = 3548.8
108	PAD= 3546.8	FF = 3547.5
109	PAD= 3545.3	FF = 3546.0
110	PAD= 3544.7	FF = 3545.4
111	PAD= 3543.2	FF = 3543.9



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.
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FAST
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FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T)

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Call before you Dig
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Call 811
OR
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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 1
RETAINING WALL PLAN IV

S 33
T 20 S
R 59 E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER
TIMOTHY M. MULROONEY
Exp. 12/31/2019
CIVIL
No. 22938
STATE OF NEVADA
3/18/19

RW-4
SHEET 38 OF 54

L19-00027
10745102

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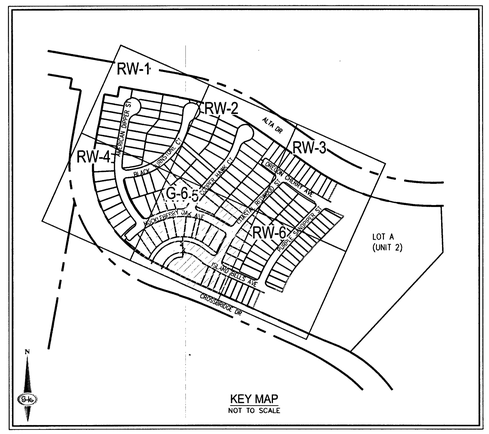
SEE SHEET RW-2 FOR CONTINUATION

SEE SHEET RW-4 FOR CONTINUATION

SEE SHEET RW-6 FOR CONTINUATION



BENCHMARK

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NO.	DESCRIPTION	DATE	BY	APP.	APP. DATE

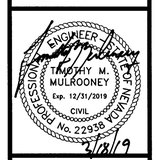
LAS VEGAS, NV

KB HOME
BRISTLE VALE - UNIT 1
RETAINING WALL PLAN V

S 33
T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

PROJECT NO.
KBH1804-000



RW-5
SHEET 39 OF 54

L19-00027
10775102

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SEE SHEET RW-3 FOR CONTINUATION

SEE SHEET RW-5 FOR CONTINUATION

PURPLE SANDPIPER ST (PRIVATE)

ISLAND BELLS AVE (PRIVATE)

CROSSBRIDGE DR (PUBLIC)

CROSSBRIDGE DR (PUBLIC)

UNIT 1

UNIT 2

COMMON LOT "K" HOWARD HUGHES COMPANY, LLC APN: 137-33-610-009

EX 2" AIR VALVE RELOCATE PER DETAIL ON SHEET D-4 & UDACS PLATE NO 38 TO STA 24+43.56 OFF 39.50L

EX 40' ACCESS EASEMENT

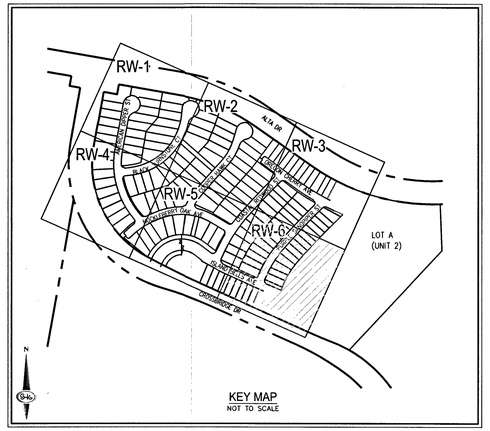
EX 24'X6' LVWD EASEMENT PER INST. # 20180621-0002159

EX 30'X24' LVWD EASEMENT PER INST. # 20180621-0002159

25'X30' LVWD EASEMENT

C.E. 'B'

C.E. 'C'



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.

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	APP DATE

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 1

RETAINING WALL PLAN VI

S 33
T 20S
R 59E

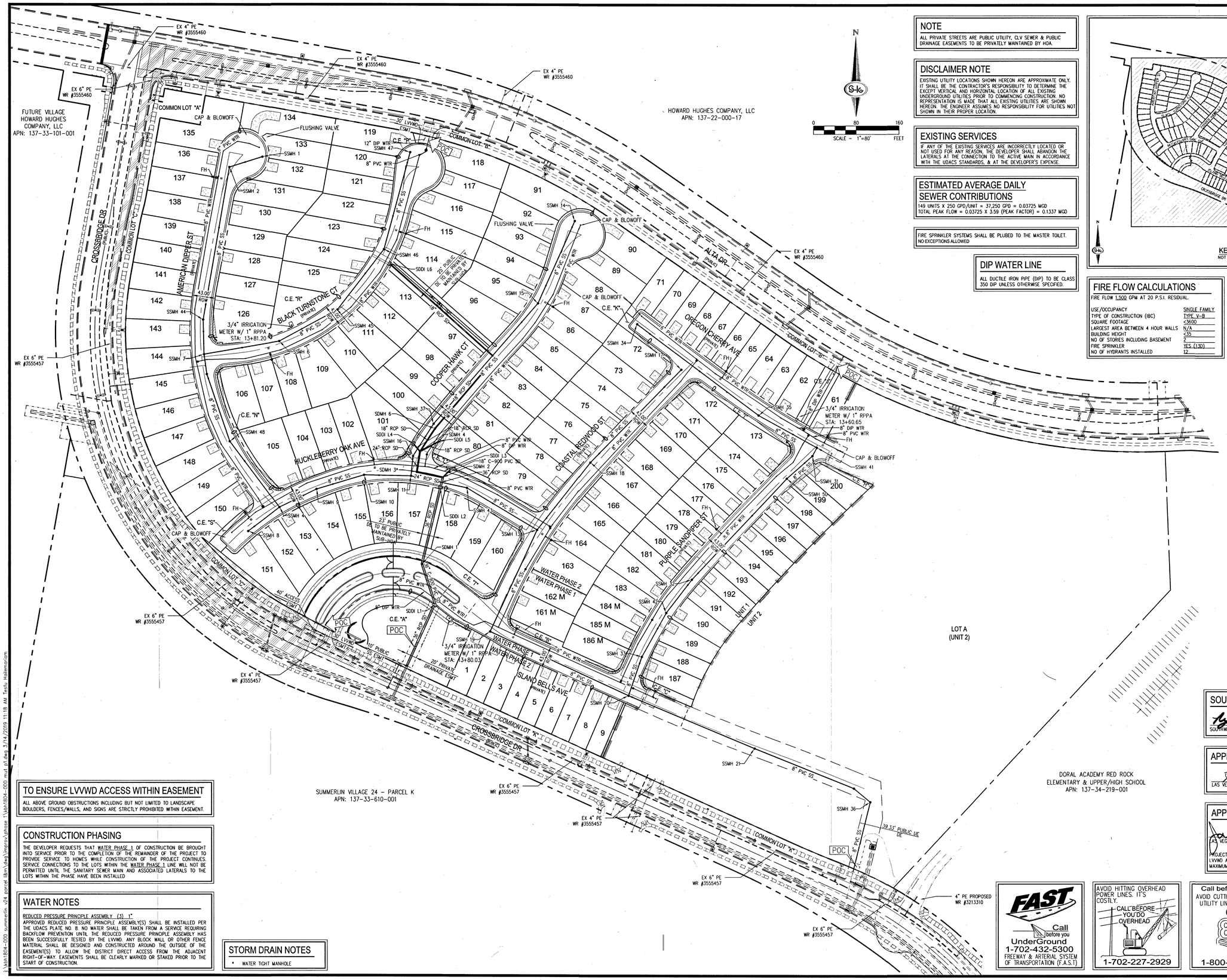
DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO. KBH1804-000

PROFESSIONAL ENGINEER TIMOTHY M. MULROONEY Exp. 12/31/2019 CIVIL STATE OF NEVADA No. 22955 3/8/19

RW-6
SHEET 40 OF 54

L19-00027
10745102

J:\KBH1804-000 summerlin -224 parcel 4\dwt\xrefs\phase 1\KBH1804-000 wall pl.dwg 3/19/2019 8:21 AM Oscar Quiroz



NOTE

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DISCLAIMER NOTE

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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

149 UNITS X 250 GPD/UNIT = 37,250 GPD = 0.03725 MGD
TOTAL PEAK FLOW = 0.03725 X 3.59 (PEAK FACTOR) = 0.1337 MGD

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

DIP WATER LINE

ALL DUCTILE IRON PIPE (DIP) TO BE CLASS 350 DIP UNLESS OTHERWISE SPECIFIED.

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	12

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.
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CONSTRUCTION PHASING

THE DEVELOPER REQUESTS THAT WATER PHASE 1 OF CONSTRUCTION BE BROUGHT INTO SERVICE PRIOR TO THE COMPLETION OF THE REMAINDER OF THE PROJECT TO PROVIDE SERVICE TO HOMES WHILE CONSTRUCTION OF THE PROJECT CONTINUES. SERVICE CONNECTIONS TO THE LOTS WITHIN THE WATER PHASE 1 LINE WILL NOT BE PERMITTED UNTIL THE SANITARY SEWER MAIN AND ASSOCIATED LATERALS TO THE LOTS WITHIN THE PHASE HAVE BEEN INSTALLED

WATER NOTES

REDUCED PRESSURE PRINCIPLE ASSEMBLY (3) 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.

STORM DRAIN NOTES

* WATER TIGHT MANHOLE

SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORPORATION — DATE 3/14/19

APPROVAL

LAS VEGAS FIRE AND RESCUE — DATE 3/26/19

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136070 — FIRST APPROVED DATE: 3-20-19
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.)

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SLATER HANIFAN GROUP
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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 1
MASTER UTILITY SHEET

S33 T20S R59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

PROJECT NO.
KBH1804-000

TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22938 — STATE OF NEVADA — PROFESSIONAL ENGINEER
3/14/19

MU
SHEET 41 OF 54

L19-00027
1072-5102

PROJ.#:136070A QS:137-33-NE

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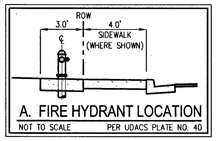

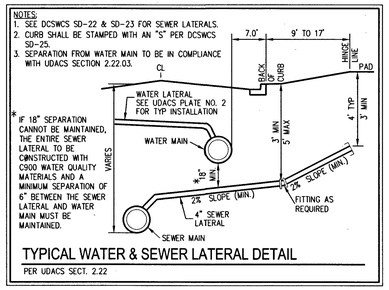

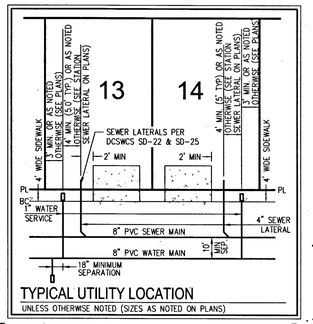

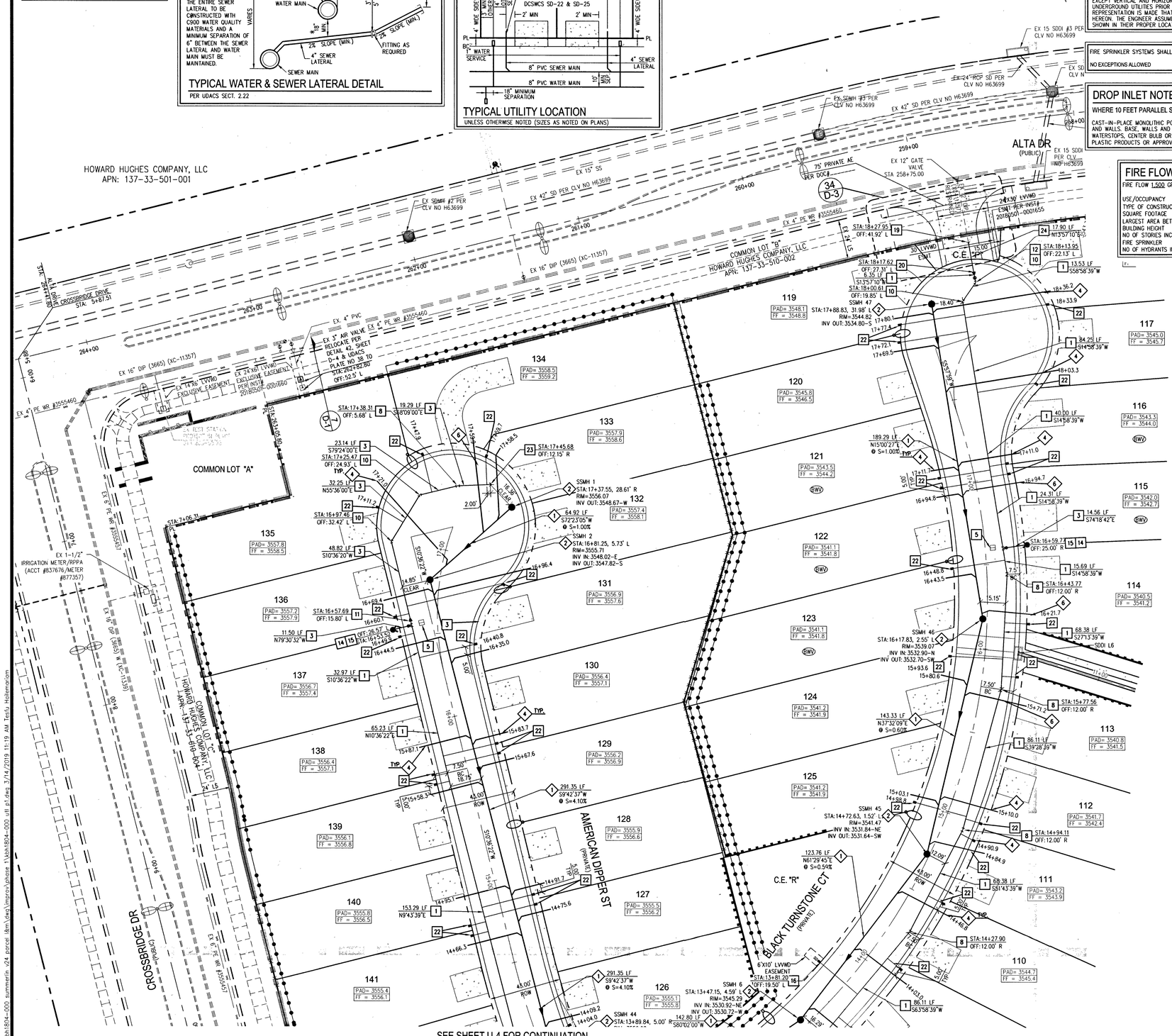

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FIRE SPRINKLER SYSTEMS SHALL BE PLUMBED TO THE MASTER TOILET.

NO EXCEPTIONS ALLOWED

DROP INLET NOTE

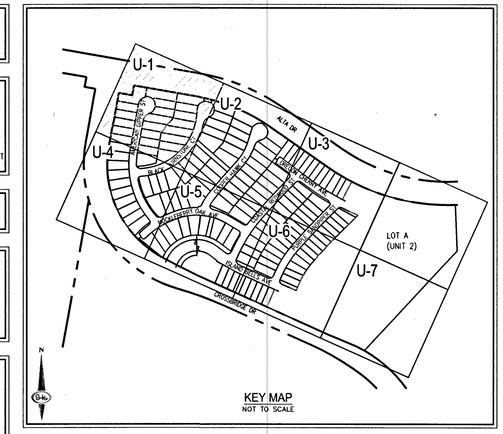
WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE

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. (WINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL)

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	1
FIRE SPRINKLER	YES (13D)
NO OF HYDRANTS INSTALLED	12



0 30 60
SCALE - 1"=30' FEET

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.
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WATER NOTES

1. INSTALL 8" PVC WATER PIPE (3665 WPZ)
2. INSTALL 8" DIP WATER PIPE (3665 WPZ)
3. INSTALL 6" PVC WATER PIPE (3665 WPZ)
4. INSTALL 1" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 1
5. INSTALL BLUE REFLECTIVE RAISED PAVEMENT MARKERS PER 2009 IFC APPENDIX C, SECT C107.1
6. INSTALL CAP AND 2" BLOWOFF VALVE PER UDACS PLATE NO. 36
7. INSTALL 5' BEND PER UDACS PLATE NO. 31
8. INSTALL 11.25° BEND PER UDACS PLATE NO. 31
9. INSTALL 22.5° BEND PER UDACS PLATE NO. 31
10. INSTALL 45° BEND PER UDACS PLATE NO. 31
11. INSTALL 8"X6" REDUCER PER UDACS PLATE NO. 30
12. INSTALL 8" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30 & 39
13. INSTALL 8"X8" TEE PER UDACS PLATE NO. 31
14. INSTALL 8"X6" TEE PER UDACS PLATE NO. 31
15. INSTALL FIRE HYDRANT ASSEMBLY W/6" GATE VALVE PER UDACS PLATE NO. 40
16. INSTALL 1" COPPER SERVICE W/ 3/4" IRRIGATION METER AND 1" RPPA PER UDACS PLATE NO. 4 & 8. SEE DETAIL ON SHEET U-3
17. FIELD VERIFY LOCATION, REMOVE CAP AND BLOW OFF VALVE PER UDACS PLATE NO. 36 & CONNECT TO EX. 12" CS00 PVC WATER PIPE
18. NOT USED
19. FIELD VERIFY LOCATION, REMOVE CAP AND BLOW OFF VALVE PER UDACS PLATE NO. 36 & CONNECT TO EX. 12" DIP WATER PIPE
20. INSTALL 12"X8" REDUCER PER UDACS PLATE NO. 30
21. EXISTING UTILITY, PROTECT IN PLACE
22. INSTALL 1.5" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 1. ADD ADAPTER FITTINGS TO ACCOMODATE THE 1-1/2-INCH PUBLIC LATERAL AND THE 1-1/2-INCH PRIVATE LATERAL (LOTS 106-152)
23. INSTALL 6" END CAP PER UDACS PLATE NO. 31
24. INSTALL 12" DIP WATER PIPE (3665 WPZ)

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. MANHOLE SHALL BE CORROSION PROTECTED WITH FIELD APPLIED COATING PER DCSWCS SECTION 3.16.8B
4. INSTALL 4" PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25.
5. REMOVE CAP AND CONNECT TO EXISTING 8" SS
6. INSTALL 4" C900 PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25 FOR LOTS 123 AND 124 ONLY
7. INSTALL 8" C900 PVC SANITARY SEWER PER DCSWCS SD-15 & SD-17

SEE SHEET C-3 FOR QUANTITIES AND ABBREVIATIONS

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

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.
7. CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.
   * WATER TIGHT MANHOLE
8. WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03.

FOR ALL DRY UTILITIES CROSSINGS

9. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING FOR DRY UTILITIES.
10. MAINTAIN MINIMUM 3' PARALLEL SEPARATION FOR DRY UTILITIES.
11. 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

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WATER NOTES

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SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORPORATION — DATE 3/18/19

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136070 FIRST APPROVED DATE: 3-20-19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

CONSTRUCTION PHASING

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APPROVAL

LAS VEGAS FIRE AND RESCUE — DATE 3/19/19

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PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

KB HOME
BRISTLE VALE - UNIT 1
UTILITY PLAN I

S33 T20S R59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO. KBH1804-000

TIMOTHY M. MULROONEY Exp. 12/31/2019 CIVIL No. 22958 STATE OF NEVADA PROFESSIONAL ENGINEER 3/14/19

U-1
SHEET 42 OF 54

L19-00027
1014-5102

PRO#:136070A QS:137-33-NE

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HOWARD HUGHES COMPANY, LLC
APN: 137-33-501-001

COMMON LOT "B"
HOWARD HUGHES COMPANY, LLC
APN: 137-33-610-008

ALTA DR (PUBLIC)

OREGON CHERRY AVE (PRIVATE)

COOPER HAWK CT (PRIVATE)

COASTAL REDWOODS ST (PRIVATE)

C.F. "M"

C.F. "K"

SEE SHEET U-1 FOR CONTINUATION

SEE SHEET U-3 FOR CONTINUATION

SEE SHEET U-5 FOR CONTINUATION

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WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE

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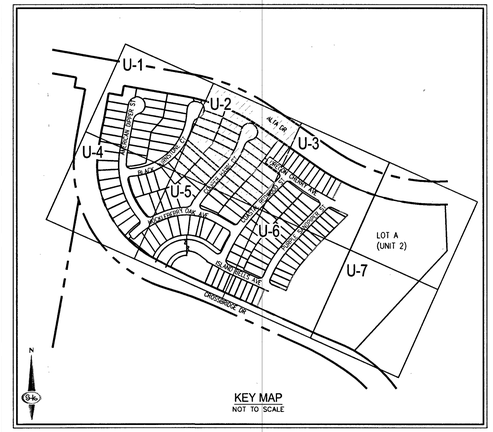
FIRE FLOW CALCULATIONS

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	12



KEY MAP
NOT TO SCALE

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

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)
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20. INSTALL 12"X8" REDUCER PER UDACS PLATE NO. 30
21. EXISTING UTILITY, PROTECT IN PLACE
22. INSTALL 1.5" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 1. ADD ADAPTER FITTINGS TO ACCOMODATE THE 1-1/2-INCH PUBLIC LATERAL AND THE 1-1/2-INCH PRIVATE LATERAL (LOTS 106-152)
23. INSTALL 6" END CAP PER UDACS PLATE NO. 31
24. INSTALL 12" DIP WATER PIPE (3665 WPZ)

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. MANHOLE SHALL BE CORROSION PROTECTED WITH FIELD APPLIED COATING PER DCSWCS SECTION 3.16.6B
4. INSTALL 4" PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25.
5. REMOVE CAP AND CONNECT TO EXISTING 8" SS
6. INSTALL 4" C900 PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25 FOR LOTS 123 AND 124 ONLY
7. INSTALL 8" C900 PVC SANITARY SEWER PER DCSWCS SD-15 & SD-17

SEE SHEET C-3 FOR QUANTITIES AND ABBREVIATIONS

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

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.
7. CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.
   * WATER TIGHT MANHOLE
8. WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03.

FOR ALL DRY UTILITIES CROSSINGS

9. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING FOR DRY UTILITIES.
10. MAINTAIN MINIMUM 3' PARALLEL SEPARATION FOR DRY UTILITIES.
11. 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 (3) 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.

SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORPORATION — DATE 3/18/19

CONSTRUCTION PHASING

THE DEVELOPER REQUESTS THAT WATER PHASE 1 OF CONSTRUCTION BE BROUGHT INTO SERVICE PRIOR TO THE COMPLETION OF THE REMAINDER OF THE PROJECT TO PROVIDE SERVICE TO HOMES WHILE CONSTRUCTION OF THE PROJECT CONTINUES. SERVICE CONNECTIONS TO THE LOTS WITHIN THE WATER PHASE 1 LINE WILL NOT BE PERMITTED UNTIL THE SANITARY SEWER MAIN AND ASSOCIATED LATERALS TO THE LOTS WITHIN THE PHASE HAVE BEEN INSTALLED.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136070 FIRST APPROVED DATE: 3-20-19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

APPROVAL

LAS VEGAS FIRE AND RESCUE — DATE 3/18/19

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.	APP. DATE

LAS VEGAS, NV

KB HOME
BRISTLE VALE - UNIT 1
UTILITY PLAN II

S 33
T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

PROJECT NO.
KBH1804-000

TIMOTHY M. MULROONEY, Exp. 12/31/2019, CIVIL, No. 22938, STATE OF NEVADA, PROFESSIONAL ENGINEER
3/14/19

U-2
SHEET 43 OF 54

L19-00027
107X-6192

PROJ#:136070A QS:137-33-ME

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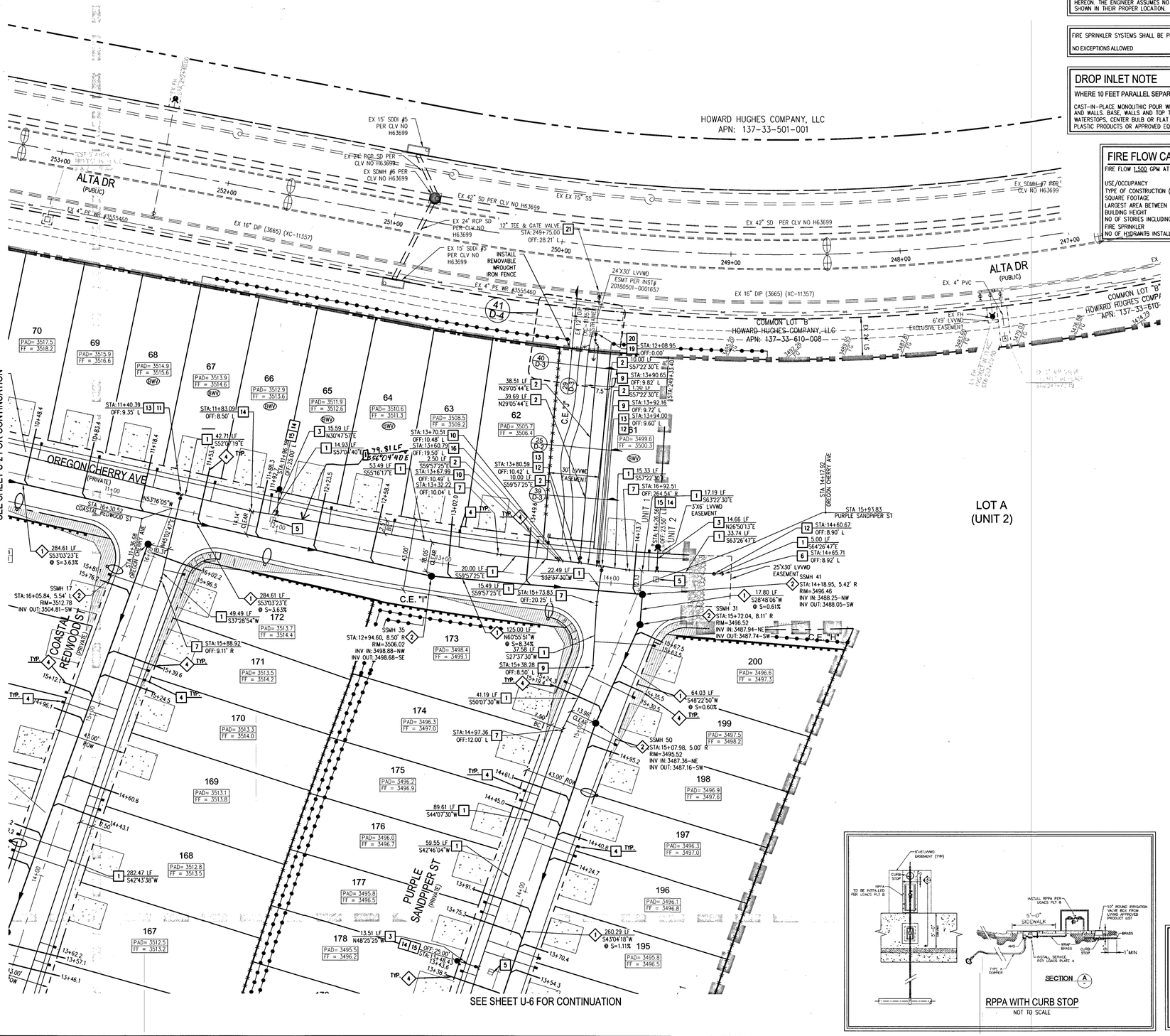

NOTE

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

DISCLAIMER NOTE

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FIRE SPRINKLER SYSTEMS SHALL BE PLUMBED TO THE MASTER TOILET.

NO EXCEPTIONS ALLOWED

DROP INLET NOTE

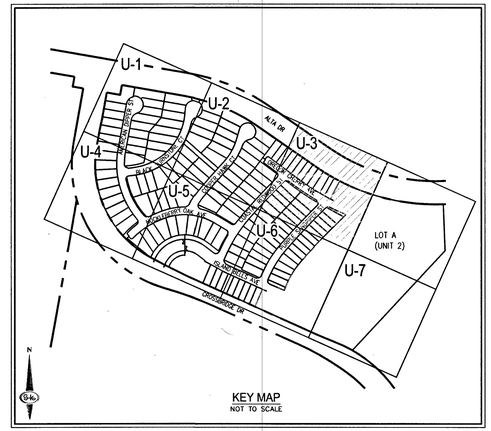
WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE

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)

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	12



WATER NOTES

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4. INSTALL 1" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 1
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6. INSTALL CAP AND 2" BLOWOFF VALVE PER UDACS PLATE NO. 36
7. INSTALL 5" BEND PER UDACS PLATE NO. 31
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9. INSTALL 22.5° BEND PER UDACS PLATE NO. 31
10. INSTALL 45° BEND PER UDACS PLATE NO. 31
11. INSTALL 8"X6" REDUCER PER UDACS PLATE NO. 30
12. INSTALL 8" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30 & 39
13. INSTALL 8"X8" TEE PER UDACS PLATE NO. 31
14. INSTALL 8"X6" TEE PER UDACS PLATE NO. 31
15. INSTALL FIRE HYDRANT ASSEMBLY W/6" GATE VALVE PER UDACS PLATE NO. 40
16. INSTALL 1" COPPER SERVICE W/ 3/4" IRRIGATION METER AND 1" RPPA PER UDACS PLATE NO. 4 & 6. SEE DETAIL ON SHEET U-3
17. FIELD VERIFY LOCATION, REMOVE CAP AND BLOW OFF VALVE PER UDACS PLATE NO. 36 & CONNECT TO EX. 12" C900 PVC WATER PIPE
18. NOT USED
19. FIELD VERIFY LOCATION, REMOVE CAP AND BLOW OFF VALVE PER UDACS PLATE NO. 36 & CONNECT TO EX. 12" DIP WATER PIPE
20. INSTALL 12"X8" REDUCER PER UDACS PLATE NO. 30
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22. INSTALL 1.5" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 1. ADD ADAPTER FITTINGS TO ACCOMODATE THE 1-1/2-INCH PUBLIC LATERAL AND THE 1-1/2-INCH PRIVATE LATERAL (LOTS 106-152)
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SEE SHEET C-3 FOR QUANTITIES AND ABBREVIATIONS

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

GENERAL NOTES

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   - WATER TIGHT MANHOLE
8. WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03.

FOR ALL DRY UTILITIES CROSSINGS

9. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING FOR DRY UTILITIES
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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.

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REDUCED PRESSURE PRINCIPLE ASSEMBLY (3) 1"

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SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORPORATION — DATE 3/18/19

CONSTRUCTION PHASING

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APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136070 FIRST APPROVED DATE: 3-20-19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

APPROVAL

LAS VEGAS FIRE AND RESCUE — 3/12/19 DATE

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

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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 1

UTILITY PLAN III

S 33 T 20S R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO. KBH1804-000

ENGINEER'S CERTIFICATION — TIMOTHY M. MULROONEY, Exp. 12/31/2019, CIVIL, No. 22938, STATE OF NEVADA, PROFESSIONAL ENGINEER — 3/14/19

U-3
SHEET 44 OF 54
L19-00027
10YC - 5102

PROJ#:136070A QS:137-33-NE

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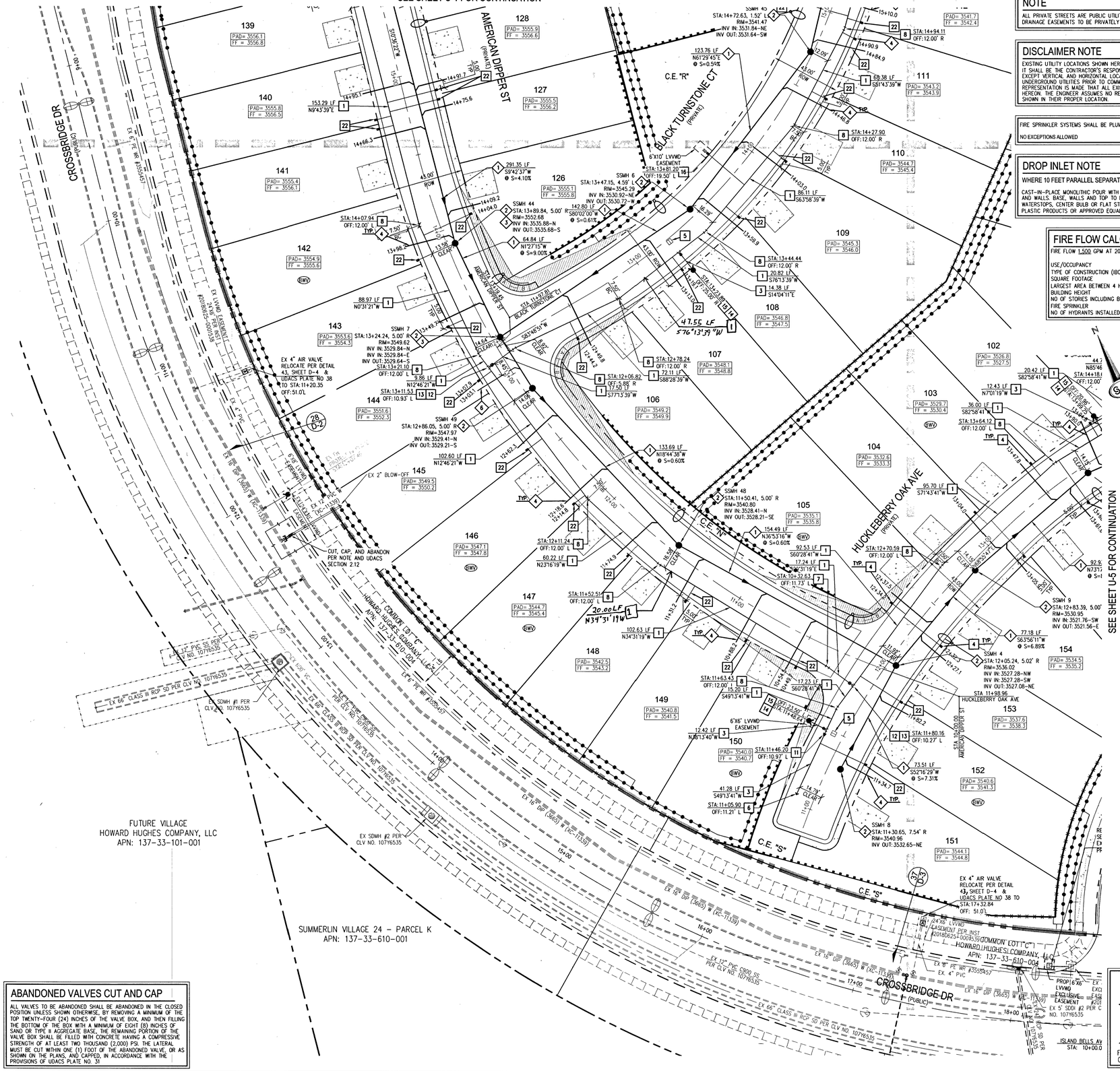
SEE SHEET U-1 FOR CONTINUATION



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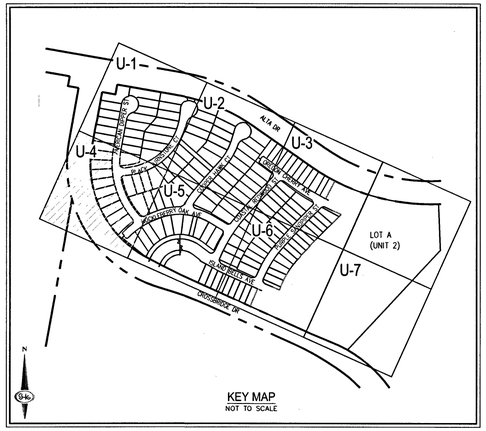
FIRE FLOW CALCULATIONS

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	12



SCALE – 1"=30' (0, 30, 60 FEET)

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.
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SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORPORATION — DATE 3/18/19

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136070 FIRST APPROVED DATE: 3-20-19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

CONSTRUCTION PHASING

THE DEVELOPER REQUESTS THAT WATER PHASE 1 OF CONSTRUCTION BE BROUGHT INTO SERVICE PRIOR TO THE COMPLETION OF THE REMAINDER OF THE PROJECT TO PROVIDE SERVICE TO HOMES WHILE CONSTRUCTION OF THE PROJECT CONTINUES. SERVICE CONNECTIONS TO THE LOTS WITHIN THE WATER PHASE 1 LINE WILL NOT BE PERMITTED UNTIL THE SANITARY SEWER MAIN AND ASSOCIATED LATERALS TO THE LOTS WITHIN THE PHASE HAVE BEEN INSTALLED.

APPROVAL

LAS VEGAS FIRE AND RESCUE — DATE 3/18/19

ABANDONED VALVES 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 (2,000) PSI. THE LATERAL MUST BE CUT WITHIN ONE (1) FOOT OF THE ABANDONED VALVE, OR AS SHOWN ON THE PLANS, AND CAPPED, IN ACCORDANCE WITH THE PROVISIONS OF UDACS PLATE NO. 31

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

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

KB HOME
BRISTLE VALE - UNIT 1
UTILITY PLAN IV

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

LAS VEGAS, NV

S33 T20S R59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO. KBH1804-000

ENGINEER — STATE OF NEVADA — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22938 — 3/14/19

U-4
SHEET 45 OF 54

L19-00027
107X-5102

PROJ#:136070A QS:137-33-NE

SEE SHEET U-2 FOR CONTINUATION

SEE SHEET U-4 FOR CONTINUATION

SEE SHEET U-6 FOR CONTINUATION

NOTE

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FIRE SPRINKLER SYSTEMS SHALL BE PLUMBED TO THE MASTER TOILET.

NO EXCEPTIONS ALLOWED

DROP INLET NOTE

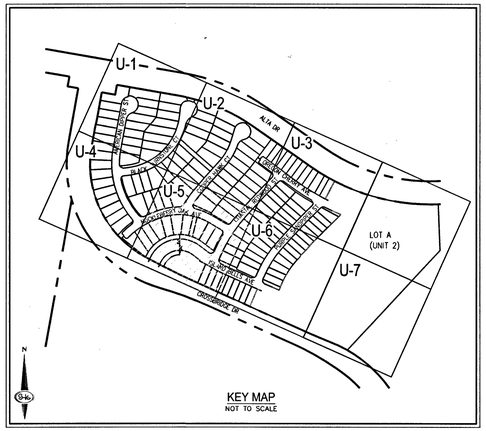
WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE

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. (WINTLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL)

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	12



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

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.

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2. INSTALL 8" DIP WATER PIPE (3665 WPZ)
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14. INSTALL 8"x6" TEE PER UDACS PLATE NO. 31
15. INSTALL FIRE HYDRANT ASSEMBLY W/6" GATE VALVE PER UDACS PLATE NO. 40
16. INSTALL 1" COPPER SERVICE W/ 3/4" IRRIGATION METER AND 1" RPPA PER UDACS PLATE NO. 4 & 8. SEE DETAIL ON SHEET U-3
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18. NOT USED
19. FIELD VERIFY LOCATION, REMOVE CAP AND BLOW OFF VALVE PER UDACS PLATE NO. 36 & CONNECT TO EX. 12" DIP WATER PIPE
20. INSTALL 12"x8" REDUCER PER UDACS PLATE NO. 30
21. EXISTING UTILITY, PROTECT IN PLACE
22. INSTALL 1.5" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 1. ADD ADAPTER FITTINGS TO ACCOMODATE THE 1-1/2-INCH PUBLIC LATERAL AND THE 1-1/2-INCH PRIVATE LATERAL (LOTS 106-152)
23. INSTALL 6" END CAP PER UDACS PLATE NO. 31
24. INSTALL 12" DIP WATER PIPE (3665 WPZ)

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. MANHOLE SHALL BE CORROSION PROTECTED WITH FIELD APPLIED COATING PER DCSWCS SECTION 3.16.8B
4. INSTALL 4" PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25.
5. REMOVE CAP AND CONNECT TO EXISTING 8" SS
6. INSTALL 4" C900 PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25 FOR LOTS 123 AND 124 ONLY
7. INSTALL 8" C900 PVC SANITARY SEWER PER DCSWCS SD-15 & SD-17

SEE SHEET C-3 FOR QUANTITIES AND ABBREVIATIONS

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

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
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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.
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   - WATER TIGHT MANHOLE
8. WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03.

FOR ALL DRY UTILITIES CROSSINGS

9. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING FOR DRY UTILITIES.
10. MAINTAIN MINIMUM 3' PARALLEL SEPARATION FOR DRY UTILITIES.
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SOUTHWEST GAS CORPORATION — DATE 3/18/19

APPROVED FOR CONSTRUCTION

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APPROVAL

LAS VEGAS FIRE AND RESCUE — DATE 3/12/19

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NO.	DESCRIPTION	DATE	BY	APP. DATE	APP

LAS VEGAS, NV

KB HOME

BRISTLE VALE - UNIT 1

UTILITY PLAN V

S33 T20S R59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO. KBH1804-000

PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22938 — STATE OF NEVADA — 3/14/19

U-5
SHEET 46 OF 54
L19-00027
107X-5102

PRO.#:136070A QS:137-33-NE

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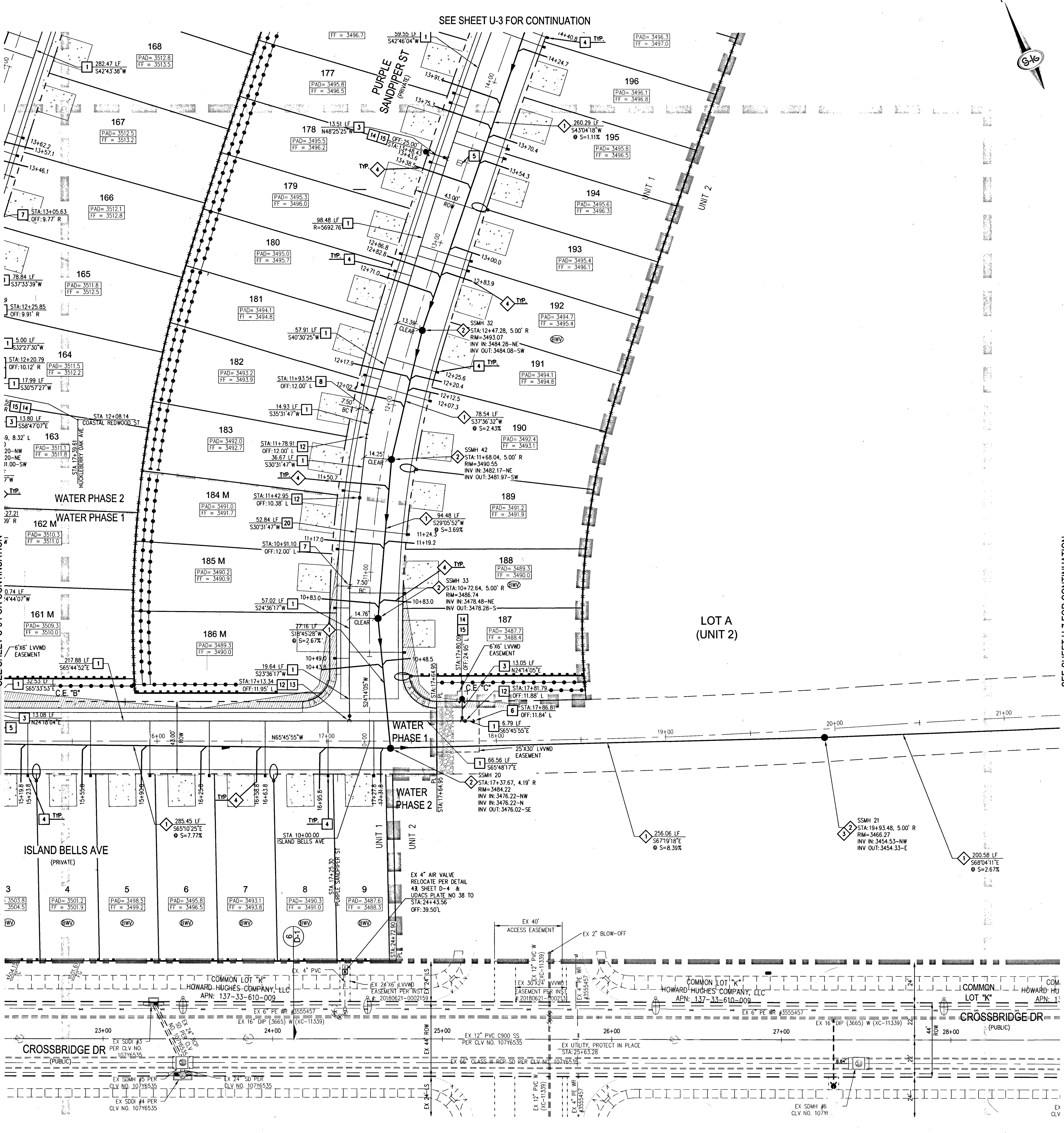

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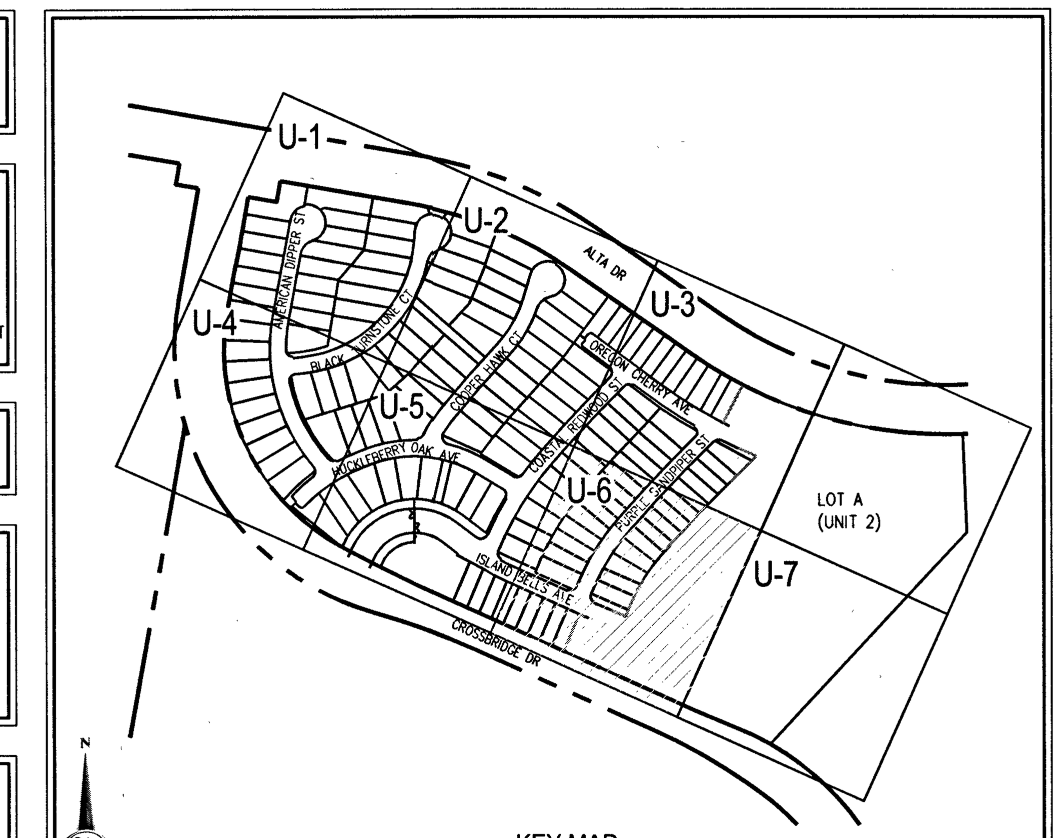

KEY MAP
NOT TO SCALE

0 30 60
SCALE - 1"=30' FEET

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CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6

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SOUTHWEST GAS APPROVAL

[signature] 3/18/19
SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION

[signature]
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136070 FIRST APPROVED DATE: 3-20-19
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APPROVAL

[signature] 3/18/19
LAS VEGAS FIRE AND RESCUE DATE

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FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DO OVERHEAD
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Call 811
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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 1
UTILITY PLAN VI

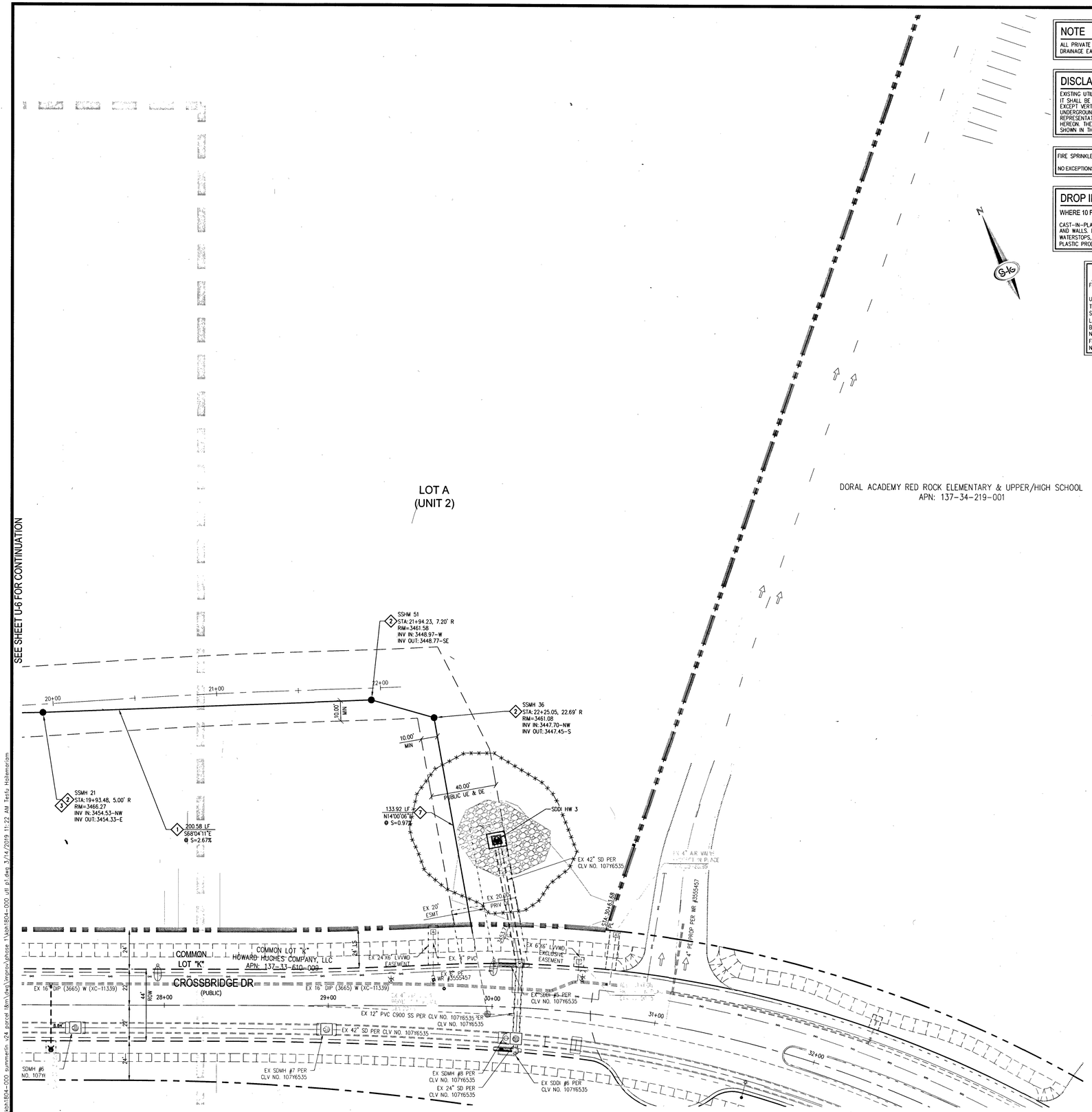
S 33
T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO.
KBH1804-000

PROFESSIONAL ENGINEER STATE OF NEVADA
TIMOTHY M. MULROONEY
Exp. 12/31/2019
CIVIL
No. 22938
3/14/19

U-6
SHEET 47 OF 54
L19-00027
1038-5102

PROJ#:136070A QS:137-33-NE



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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.

FIRE SPRINKLER SYSTEMS SHALL BE PLUMBED TO THE MASTER TOILET.

NO EXCEPTIONS ALLOWED

DROP INLET NOTE

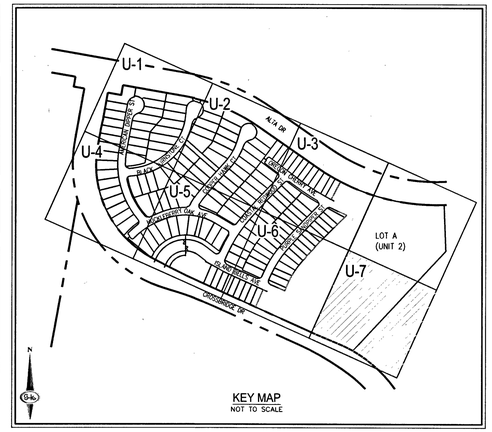
WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE

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)

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	12



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

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 8" DIP WATER PIPE (3665 WPZ)
3. INSTALL 6" PVC WATER PIPE (3665 WPZ)
4. INSTALL 1" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 1
5. INSTALL BLUE REFLECTIVE RAISED PAVEMENT MARKERS PER 2009 IFC APPENDIX C, SECT C107.1
6. INSTALL CAP AND 2" BLOWOFF VALVE PER UDACS PLATE NO. 36
7. INSTALL 5° BEND PER UDACS PLATE NO. 31
8. INSTALL 11.25° BEND PER UDACS PLATE NO. 31
9. INSTALL 22.5° BEND PER UDACS PLATE NO. 31
10. INSTALL 45° BEND PER UDACS PLATE NO. 31
11. INSTALL 8"X6" REDUCER PER UDACS PLATE NO. 30
12. INSTALL 8" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30 & 39
13. INSTALL 8"X8" TEE PER UDACS PLATE NO. 31
14. INSTALL 8"X6" TEE PER UDACS PLATE NO. 31
15. INSTALL FIRE HYDRANT ASSEMBLY W/6" GATE VALVE PER UDACS PLATE NO. 40
16. INSTALL 1" COPPER SERVICE W/ 3/4" IRRIGATION METER AND 1" RPPA PER UDACS PLATE NO. 4 & 8. SEE DETAIL ON SHEET U-3
17. FIELD VERIFY LOCATION, REMOVE CAP AND BLOW OFF VALVE PER UDACS PLATE NO. 36 & CONNECT TO EX 12" C900 PVC WATER PIPE
18. NOT USED
19. FIELD VERIFY LOCATION, REMOVE CAP AND BLOW OFF VALVE PER UDACS PLATE NO. 36 & CONNECT TO EX. 12" DIP WATER PIPE
20. INSTALL 12"X8" REDUCER PER UDACS PLATE NO. 30
21. EXISTING UTILITY, PROTECT IN PLACE
22. INSTALL 1.5" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 1. ADD ADAPTER FITTINGS TO ACCOMODATE THE 1-1/2-INCH PUBLIC LATERAL AND THE 1-1/2-INCH PRIVATE LATERAL (LOTS 106-152)
23. INSTALL 6" END CAP PER UDACS PLATE NO. 31
24. INSTALL 12" DIP WATER PIPE (3665 WPZ)

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. MANHOLE SHALL BE CORROSION PROTECTED WITH FIELD APPLIED COATING PER DCSWCS SECTION 3.16.8B
4. INSTALL 4" PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25.
5. REMOVE CAP AND CONNECT TO EXISTING 8" SS
6. INSTALL 4" C900 PVC SEWER LATERAL PER DCSWCS SD-22 & SD-25 FOR LOTS 123 AND 124 ONLY
7. INSTALL 8" C900 PVC SANITARY SEWER PER DCSWCS SD-15 & SD-17

SEE SHEET C-3 FOR QUANTITIES AND ABBREVIATIONS.
PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE PER UDACS. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.

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.
7. CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.
   * WATER TIGHT MANHOLE
8. WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03.

FOR ALL DRY UTILITIES CROSSINGS
9. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING FOR DRY UTILITIES.
10. MAINTAIN MINIMUM 3' PARALLEL SEPARATION FOR DRY UTILITIES.
11. 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 (3) 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.

SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORPORATION — DATE 3/18/19

CONSTRUCTION PHASING

THE DEVELOPER REQUESTS THAT WATER PHASE 1 OF CONSTRUCTION BE BROUGHT INTO SERVICE PRIOR TO THE COMPLETION OF THE REMAINDER OF THE PROJECT TO PROVIDE SERVICE TO HOMES WHILE CONSTRUCTION OF THE PROJECT CONTINUES. SERVICE CONNECTIONS TO THE LOTS WITHIN THE WATER PHASE 1 LINE WILL NOT BE PERMITTED UNTIL THE SANITARY SEWER MAIN AND ASSOCIATED LATERALS TO THE LOTS WITHIN THE PHASE HAVE BEEN INSTALLED

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136070 FIRST APPROVED DATE: 3-20-19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

APPROVAL

LAS VEGAS FIRE AND RESCUE — DATE 3/21/19

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 HANFAN 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 1

UTILITY PLAN VII

S33 T20S R59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO. KBH1804-000

PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22938 — STATE OF NEVADA — 3/14/19

U-7
SHEET 48 OF 54

L19-00027
1078-5102

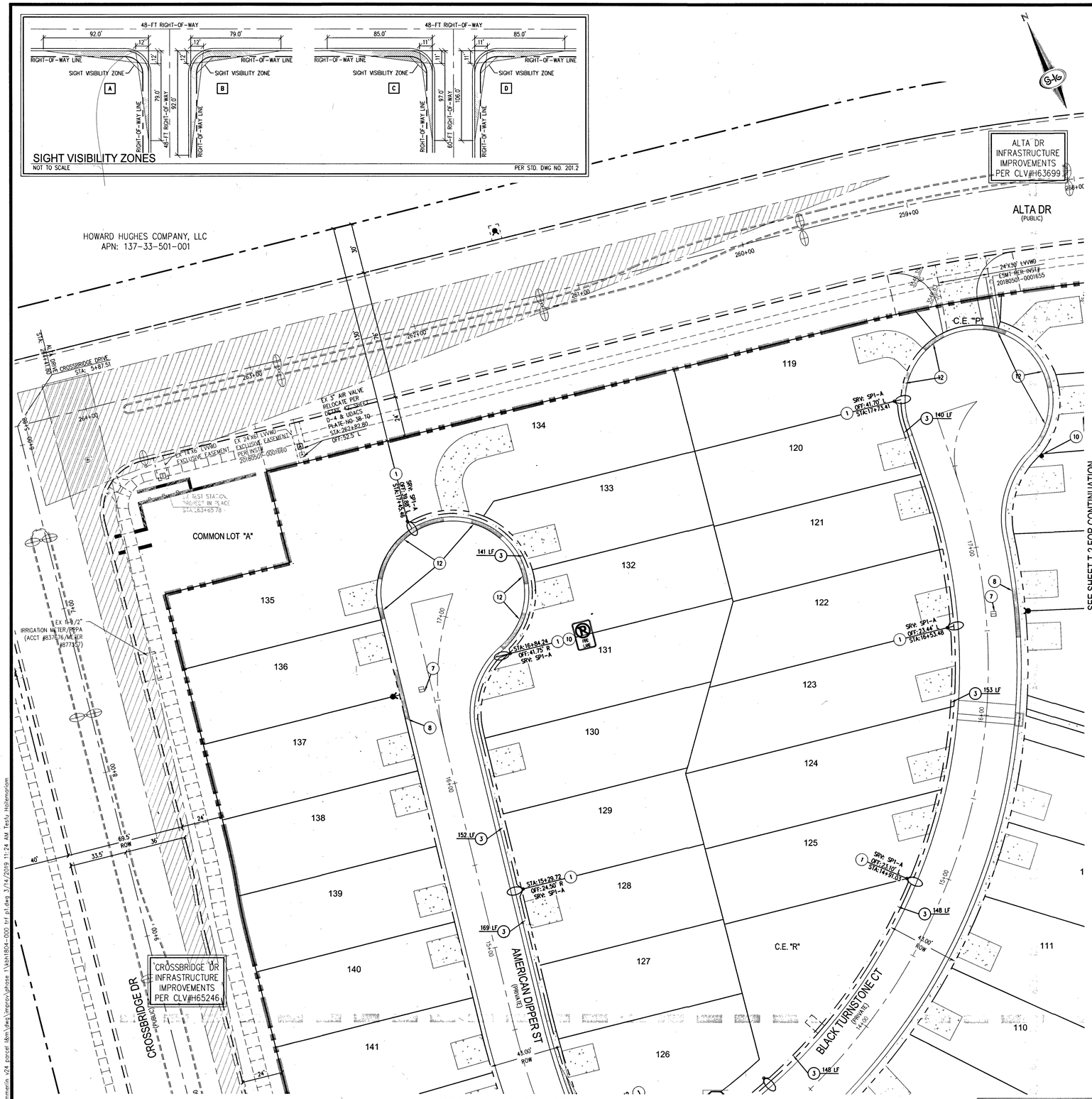
PROJ#:136070A QS:137-33-NE

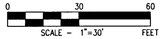
z:\kbh1804-000 summerlin v24 parcel 6\civil\dwg\improv\phase 1\kbh1804-000 ut1 p1.dwg 3/14/2019 11:22 AM Tesfu Hollemariam

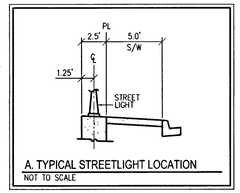
SIGHT VISIBILITY ZONES

NOT TO SCALE

PER STD. DWG NO. 201.2

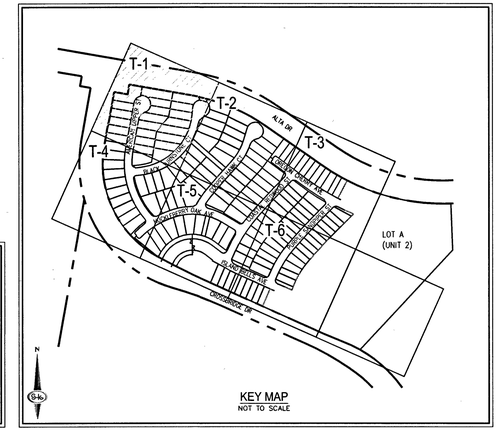






A. TYPICAL STREETLIGHT LOCATION

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. 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.

TRAFFIC NOTES

1. INSTALL 100W HPS STREET LIGHT WITH FOUNDATION PER CCAUSD # 313, 316, 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 200 AMP SERVICE PEDESTAL PER CCAUSD # 331 & 332.S2 (FOR STREET LIGHTS, IRRIGATION, AND GATES)
5. INSTALL SIGN PER PLAN (SEE LEGEND FOR SIGN DESCRIPTION)
6. NOT USED
7. INSTALL BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKER
8. PAINT CURB RED 15' BOTH DIRECTION OF FIRE HYDRANT FOR A TOTAL OF 30' (WHEN CURB LENGTH PERMITTED)
9. PAINT CURB RED WITH WHITE "NO PARKING – FIRE LANE" (TYPE C)
10. INSTALL "NO PARKING" FIRE LANE" SIGN PER SOUTHERN NEVADA FIRE CODE AMENDMENTS, SECTION 503.3 GENERAL NOTE #27
11. STUB AND CAP WITH P.30 PULLBOX W/"FIBER OPTIC" INSCRIBED ON LID
12. PAINT CURB RED PER INTERNATIONAL FIRE CODE 503.3 GENERAL NOTE #27

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

SIGN LEGEND

- MAIN ST — 9" OR 12" STREET NAME SIGN (D-3, 2 PER POLE) SIZE PER PLAN
- 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
- BIKE LANE — BIKE LANE (R3-17) – 18"x24"
- SPEED LIMIT 25 — SPEED LIMIT (R2-1) – 24"x30"
- NO OUTLET — NO OUTLET (W14-2AR) – 24"x12"
- RIGHT LANE MUST TURN RIGHT — RIGHT LANE MUST TURN RIGHT (R3-7R) 36"x36"
- REFLECTIVE RAISED PAVEMENT MARKERS
- 100W STREETLIGHT
- 250W STREETLIGHT
- 400W STREETLIGHT
- EXISTING 100W STREETLIGHT
- EXISTING 250W STREETLIGHT
- EXISTING 400W 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
- 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

APPROVAL

LAS VEGAS FIRE AND RESCUE — 3/18/19 DATE

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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 1

TRAFFIC PLAN I

S 33 T 20S R 59E

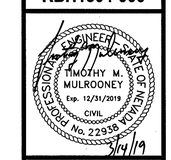
DATE: 3/14/19

DRAFTER: OIQ

DESIGNER: OIQ

CHECKED: DP

PROJECT NO. KBH1804-000



T-1

SHEET 49 OF 54

L19-00027

107 - 502

J:\Vol1\1804-000 summerlin, CA parcel 18m\Dwg\Improv\phase 1\Vol1804-000 trf pl.dwg 3/14/2019 11:24 AM Tesla Holtemeyer

HOWARD HUGHES COMPANY, LLC
APN: 137-33-501-001

ALTA DR INFRASTRUCTURE IMPROVEMENTS PER CLV#H63699

ALTA DR (PUBLIC)

EX 3" AIR VALVE RELOCATE PER DETAIL 4A, SHEET D-4 & UDACS PLATE NO 38 TO STA:256+33.88 OFF:52.5'L

EX FH

24"X6" LVWD EXCLUSIVE EASEMENT PER INST# 20180501-0001867

24"X6" LVWD EXCLUSIVE EASEMENT PER INST# 20180501-0001655

C.E. "P"

C.E. "M"

C.E. "K"

SRV: SP1-A OFF:0.00' STA:16+02.38

SRV: SP1-A OFF:24.49' L STA:14+65.00

SRV: SP1-A OFF:24.50' L STA:12+82.81

SRV: SP1-A OFF:24.50' L STA:14+85.12

SRV: SP1-A OFF:23.49' L STA:14+13.87

SRV: SP1-A OFF:24.69' L STA:11+62.45

3 165 LF
3 175 LF
3 153 LF
3 123 LF
3 44 LF
3 107 LF
3 173 LF
3 173 LF

25.00' PUBLIC DE, BE PRIVATELY MAINTAINED BY SUBAREA

OREGON CHERRY AVE (PRIVATE)

COOPER HAWK CT (PRIVATE)

COASTAL REDWOOD ST (PRIVATE)

43.00' ROW

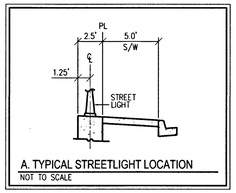
118 117 116 115 114 113 112 111 110 91 92 93 94 95 96 97 98 99 100 90 89 88 87 86 85 84 83 82 81 71 70 69 68 72 73 74 75 76 77 78 16 167

SEE SHEET T-1 FOR CONTINUATION

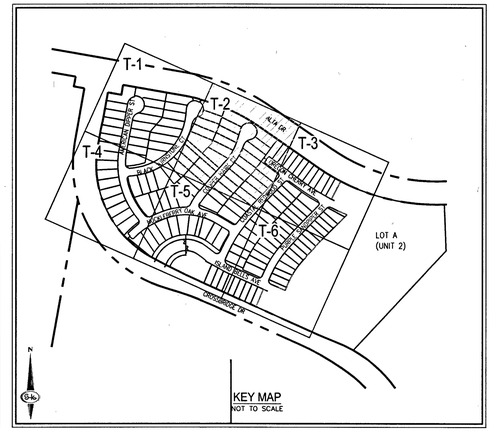
SEE SHEET T-3 FOR CONTINUATION

SEE SHEET T-5 FOR CONTINUATION

0 30 60
SCALE - 1"=30' FEET



A. TYPICAL STREETLIGHT LOCATION
NOT TO SCALE



KEY MAP
NOT TO SCALE

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BENCHMARK

CITY OF LAS VEGAS BENCHMARK 7LV09 34SW6

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(1) 15 AMP, 120V, SINGLE POLE CIRCUIT BREAKER FOR LIGHTING CONTROLS.
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SIGN LEGEND

MAIN ST	9" OR 12" STREET NAME SIGN (D-3, 2 PER POLE) SIZE PER PLAN
STOP	30" OR 36" STOP SIGN W/POST (R1-1) SIZE PER PLAN
FIRE LANE	TYPE A SIGN PER "SOUTHERN NEVADA FIRE CODE AMENDMENTS" SECTION 503.3
BIKE LANE	BIKE LANE (R3-17) - 18"x24"
SPEED LIMIT 25	SPEED LIMIT (R2-1) - 24"x30"
NO OUTLET	NO OUTLET (W14-2AR) - 24"x12"
RIGHT LANE MUST TURN RIGHT	RIGHT LANE MUST TURN RIGHT (R3-7R) 36"x36"
	REFLECTIVE RAISED PAVEMENT MARKERS
	100W STREETLIGHT
	250W STREETLIGHT
	400W STREETLIGHT
	EXISTING 100W STREETLIGHT
	EXISTING 250W STREETLIGHT
	EXISTING 400W 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
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

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.

TRAFFIC NOTES

(1) INSTALL 100W HPS STREET LIGHT WITH FOUNDATION PER CCAUSD # 313, 316, 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 200 AMP SERVICE PEDESTAL PER CCAUSD # 331 & 332.S2 (FOR STREET LIGHTS, IRRIGATION, AND GATES)
(5) INSTALL SIGN PER PLAN (SEE LEGEND FOR SIGN DESCRIPTION)
(6) NOT USED
(7) INSTALL BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKER
(8) PAINT CURB RED 15' BOTH DIRECTION OF FIRE HYDRANT FOR A TOTAL OF 30' (WHEN CURB LENGTH PERMITTED)
(9) PAINT CURB RED WITH WHITE "NO PARKING - FIRE LANE" (TYPE C)
(10) INSTALL "NO PARKING FIRE LANE" SIGN PER SOUTHERN NEVADA FIRE CODE AMENDMENTS, SECTION 503.3 GENERAL NOTE #27
(11) STUB AND CAP WITH P.30 PULLBOX W/"FIBER OPTIC" INSCRIBED ON LID
(12) PAINT CURB RED PER INTERNATIONAL FIRE CODE 503.3 GENERAL NOTE #27

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

APPROVAL
LAS VEGAS FIRE AND RESCUE — 3/6/19 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
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'D	APP'D DATE

LAS VEGAS, NV

KB HOME
BRISTLE VALE - UNIT 1
TRAFFIC PLAN II

S:33 T:20S R:59E

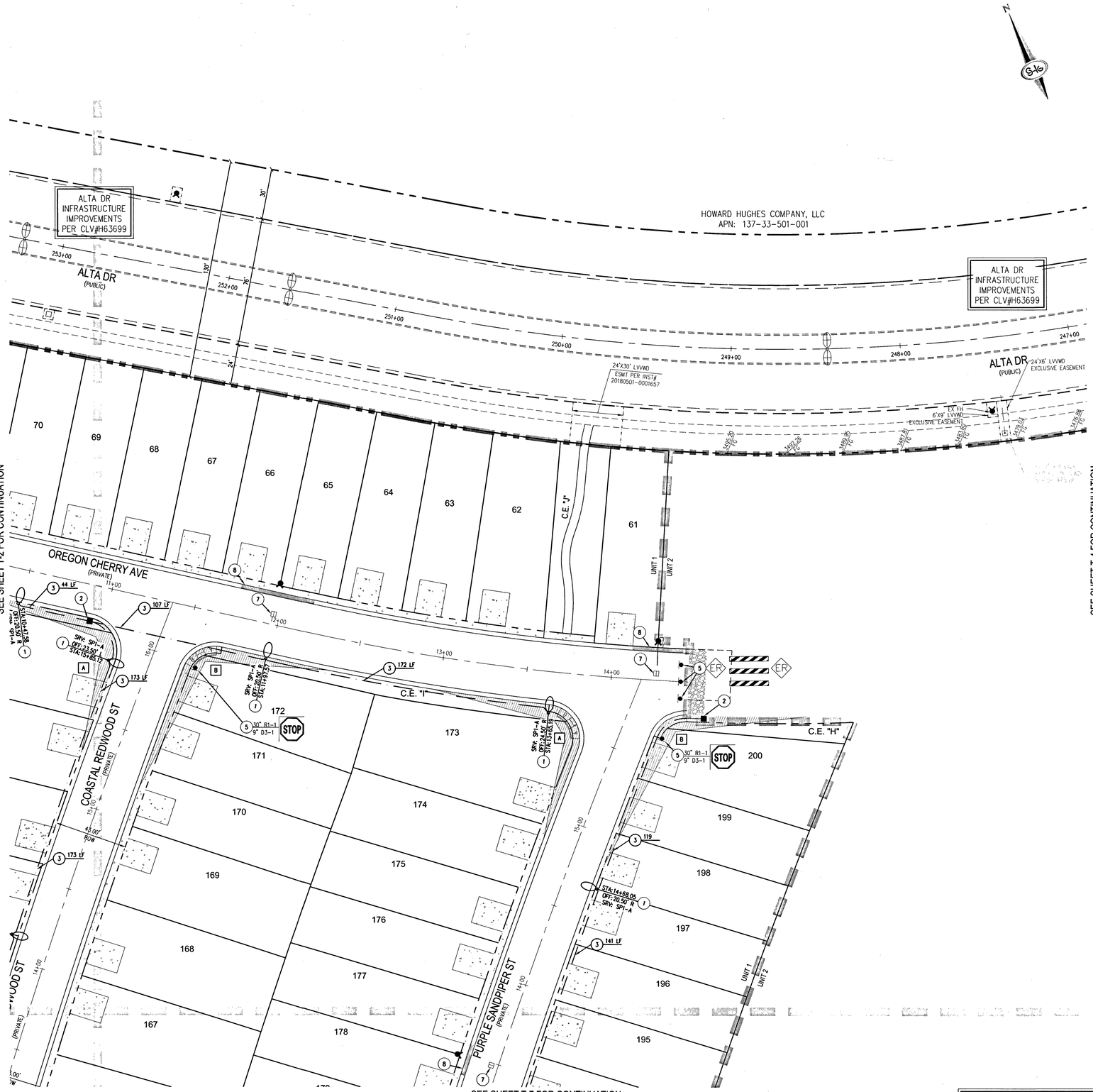
DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO. KBH1804-000

PROFESSIONAL ENGINEER TIMOTHY M. MULROONEY Exp. 12/31/2019 CIVIL No. 22938 STATE OF NEVADA
3/14/19

T-2
SHEET 50 OF 54

L19-00027
107X - 5182

J:\kbh1804-000 summerlin n\24 parcel 1&m\dwg\improv\phase 1\kbh1804-000 trf pl.dwg 3/14/2019 11:24 AM Testy Hidlemoriom



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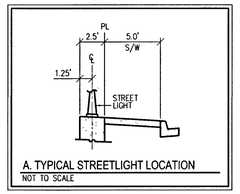
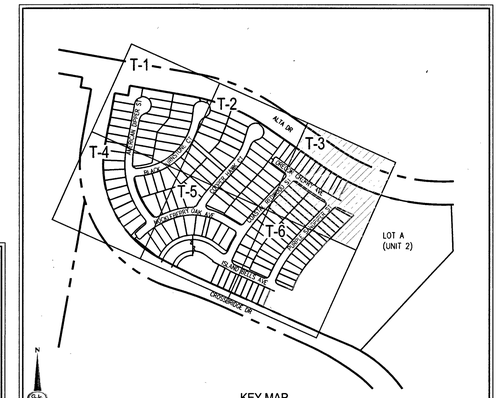
SCALE - 1"=30' FEET



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.
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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 FOUNDATION PER CCAUSD # 313, 316, 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 200 AMP SERVICE PEDESTAL PER CCAUSD # 331 & 332.S2 (FOR STREET LIGHTS, IRRIGATION, AND GATES)
5. INSTALL SIGN PER PLAN (SEE LEGEND FOR SIGN DESCRIPTION)
6. NOT USED
7. INSTALL BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKER
8. PAINT CURB RED 15' BOTH DIRECTION OF FIRE HYDRANT FOR A TOTAL OF 30' (WHEN CURB LENGTH PERMITTED)
9. PAINT CURB RED WITH WHITE "NO PARKING – FIRE LANE" (TYPE C)
10. INSTALL "NO PARKING" FIRE LANE" SIGN PER SOUTHERN NEVADA FIRE CODE AMENDMENTS, SECTION 503.3 GENERAL NOTE #27
11. STUB AND CAP WITH P30 PULLBOX W/"FIBER OPTIC" INSCRIBED ON LID
12. PAINT CURB RED PER INTERNATIONAL FIRE CODE 503.3 GENERAL NOTE #27

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

SIGN LEGEND

- MAIN ST — 9" OR 12" STREET NAME SIGN (D-3, 2 PER POLE) SIZE PER PLAN
- STOP — 30" OR 36" STOP SIGN W/POST (R1-1) SIZE PER PLAN
- FIRE LANE — TYPE A SIGN PER "SOUTHERN NEVADA FIRE CODE AMENDMENTS" SECTION 503.3
- BIKE LANE — BIKE LANE (R3-17) – 18"x24"
- SPEED LIMIT 25 — SPEED LIMIT (R2-1) – 24"x30"
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- REFLECTIVE RAISED PAVEMENT MARKERS
- 100W STREETLIGHT
- 250W STREETLIGHT
- 400W STREETLIGHT
- EXISTING 100W STREETLIGHT
- EXISTING 250W STREETLIGHT
- EXISTING 400W 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

APPROVAL
LAS VEGAS FIRE AND RESCUE — 3/19/19 DATE

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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 1
TRAFFIC PLAN III
S 33 T 20S R 59E

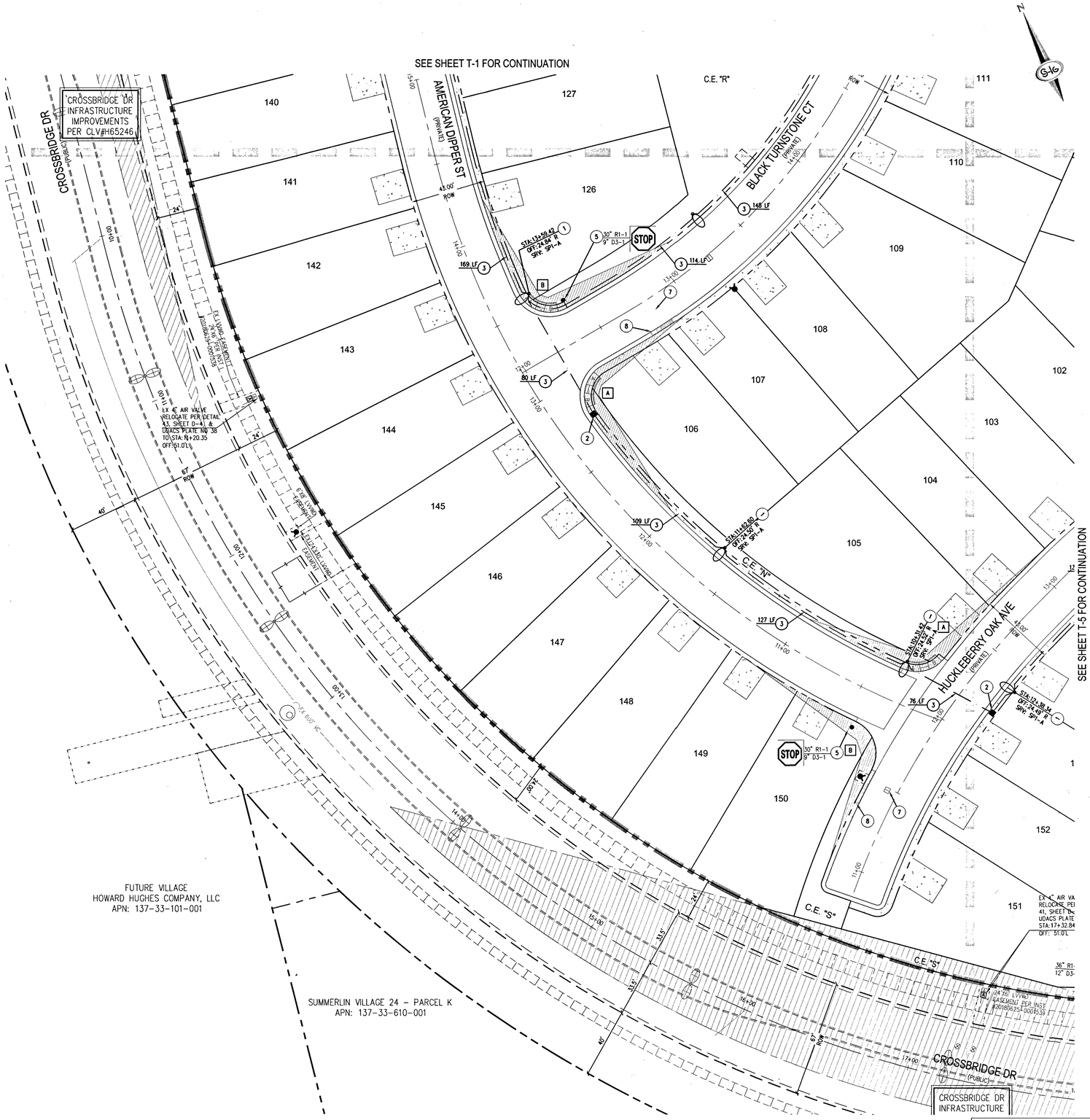
DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO. KBH1804-000

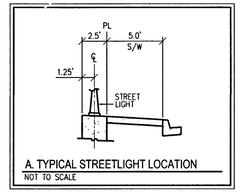
PROFESSIONAL ENGINEER STATE OF NEVADA TIMOTHY M. MULROONEY Exp. 12/31/2019 CIVIL No. 22938
3/14/19

T-3
SHEET 51 OF 54

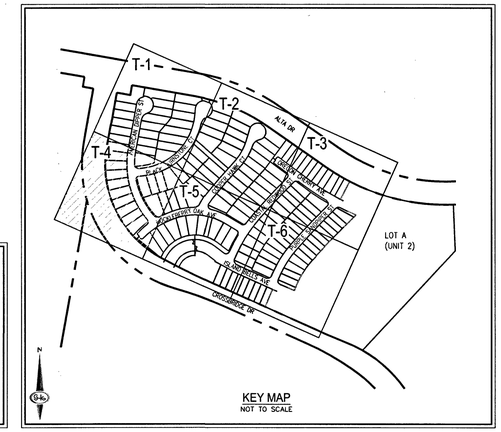
L19-00027
10LY-5102

J:\Vault\1804-000 summerlin (24 parcel tbm\Civil\Improv\phase 1\Vault1804-000 trf pl.dwg 3/14/2019 11:24 AM Tarik Hoffmeister





A. TYPICAL STREETLIGHT LOCATION
NOT TO SCALE



KEY MAP
NOT TO SCALE

ELECTRICAL NOTES

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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)
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(2) TEST SWITCHES (ONE FOR EACH CONTACTOR), PHOTOELECTRICAL CONTROL,
(1) 15 AMP, 120V, SINGLE POLE CIRCUIT BREAKER FOR LIGHTING CONTROLS.
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SIGN LEGEND

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- STOP — 30" OR 36" STOP SIGN W/POST (R1-1) SIZE PER PLAN
- R 15' LINE — TYPE A SIGN PER "SOUTHERN NEVADA FIRE CODE AMENDMENTS" SECTION 503.3
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- 100W STREETLIGHT
- 250W STREETLIGHT
- 400W STREETLIGHT
- EXISTING 100W STREETLIGHT
- EXISTING 250W STREETLIGHT
- EXISTING 400W STREETLIGHT
- NO. 3-1/2 PULL BOX (STREET LIGHT)
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- TRAFFIC SIGN (AS INDICATED)
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SEE SHEET C-3 FOR ABBREVIATIONS AND QUANTITIES

TRAFFIC NOTES

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2. INSTALL NO. 3-1/2 PULLBOX PER CCAUSD # 326
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SEE SHEET C-3 FOR ABBREVIATIONS, QUANTITIES & ADDITIONAL LEGEND

APPROVAL
LAS VEGAS FIRE AND RESCUE — DATE 3/18/19

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

SLATER HANIFAN GROUP
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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 1
TRAFFIC PLAN IV

S 33
T 20S
R 59E

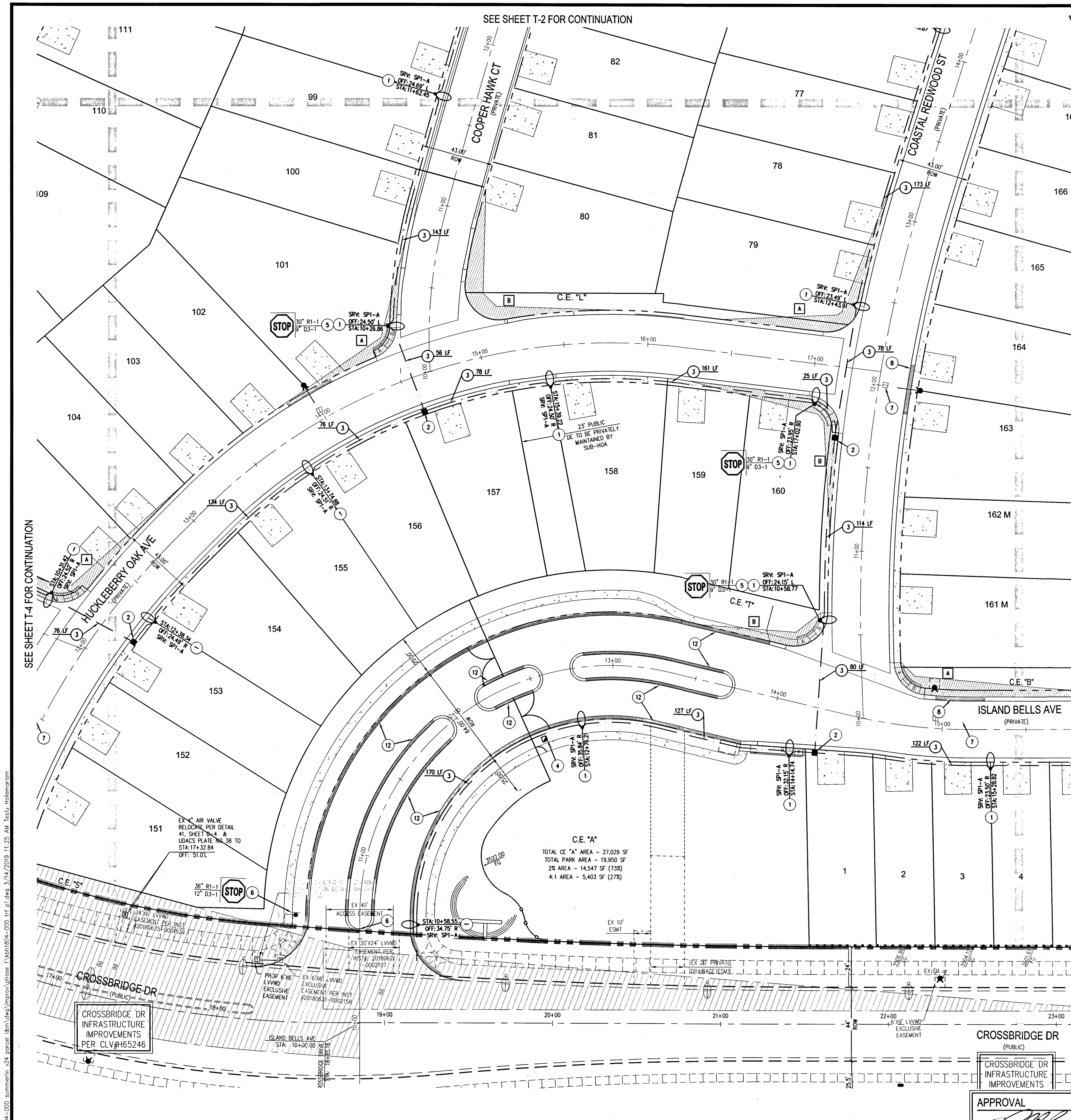
DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO. KBH1804-000

ENGINEER'S CERTIFICATION — PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22938 — STATE OF NEVADA — 3/14/19

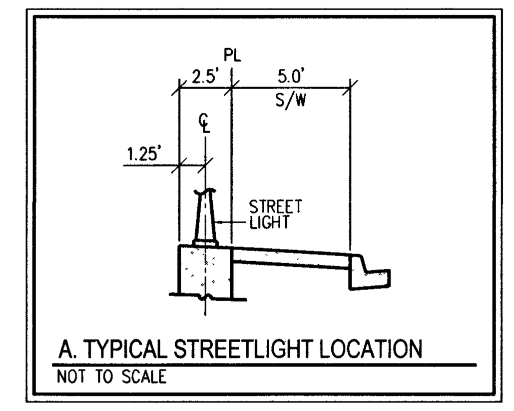
T-4
SHEET 52 OF 54

L19-00027
10TY - 5102

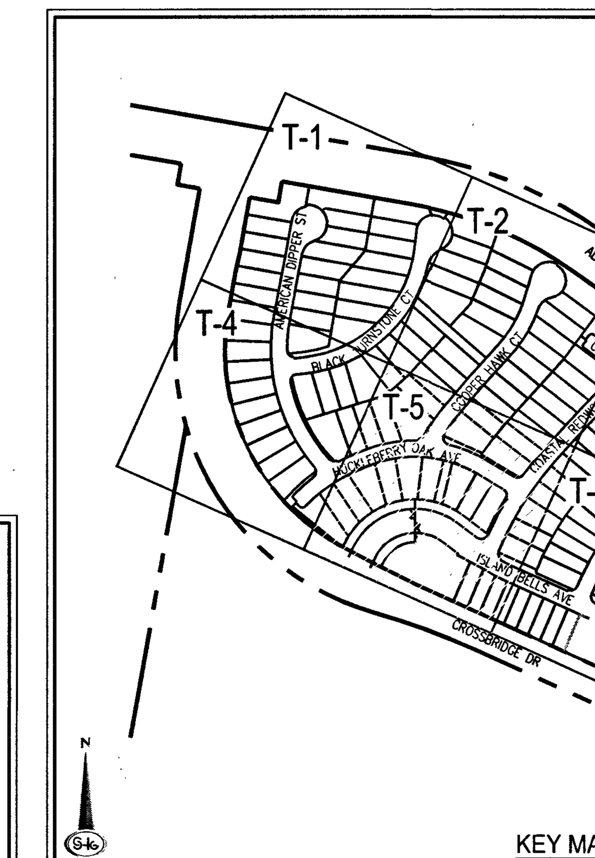
J:\Kbh1804-000 summerlin x24 parcel k\en\dwg\improvs\phase 1\kbh1804-000 trf pl.dwg 3/14/2019 11:25 AM Tesfu Hollemorium



SCALE - 1"=30' 0 30 60 FEET



A. TYPICAL STREETLIGHT LOCATION
NOT TO SCALE



KEY MAP
NOT TO SCALE

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ELECTRICAL SERVICE NOTES

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(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,
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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.
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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 FOUNDATION PER CCAUSD # 313, 316, 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 200 AMP SERVICE PEDESTAL PER CCAUSD # 331 & 332.S2 (FOR STREET LIGHTS, IRRIGATION, AND GATES)
5. INSTALL SIGN PER PLAN (SEE LEGEND FOR SIGN DESCRIPTION)
6. NOT USED
7. INSTALL BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKER
8. PAINT CURB RED 15' BOTH DIRECTION OF FIRE HYDRANT FOR A TOTAL OF 30' (WHEN CURB LENGTH PERMITTED)
9. PAINT CURB RED WITH WHITE "NO PARKING - FIRE LANE" (TYPE C)
10. INSTALL "NO PARKING' FIRE LANE" SIGN PER SOUTHERN NEVADA FIRE CODE AMENDMENTS, SECTION 503.3 GENERAL NOTE #27
11. STUB AND CAP WITH P30 PULLBOX W/"FIBER OPTIC" INSCRIBED ON LID
12. PAINT CURB RED PER INTERNATIONAL FIRE CODE 503.3 GENERAL NOTE #27

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

Symbol	Description
MAIN ST	9" OR 12" STREET NAME SIGN (D-3, 2 PER POLE) SIZE PER PLAN
STOP	30" OR 36" STOP SIGN W/POST (R1-1) SIZE PER PLAN
FIRE LANE	TYPE A SIGN PER "SOUTHERN NEVADA FIRE CODE AMENDMENTS" SECTION 503.3
BIKE LANE	BIKE LANE (R3-17) - 18"x24"
SPEED LIMIT 25	SPEED LIMIT (R2-1) - 24"x30"
NO OUTLET	NO OUTLET (W14-2AR) - 24"x12"
RIGHT LANE MUST TURN RIGHT	RIGHT LANE MUST TURN RIGHT (R3-7R) 36"x36"
	REFLECTIVE RAISED PAVEMENT MARKERS
	100W STREETLIGHT
	250W STREETLIGHT
	400W STREETLIGHT
	EXISTING 100W STREETLIGHT
	EXISTING 250W STREETLIGHT
	EXISTING 400W 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

APPROVAL
LAS VEGAS FIRE AND RESCUE 3/18/19 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
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 1
TRAFFIC PLAN V

S 33 T 20S R 59E

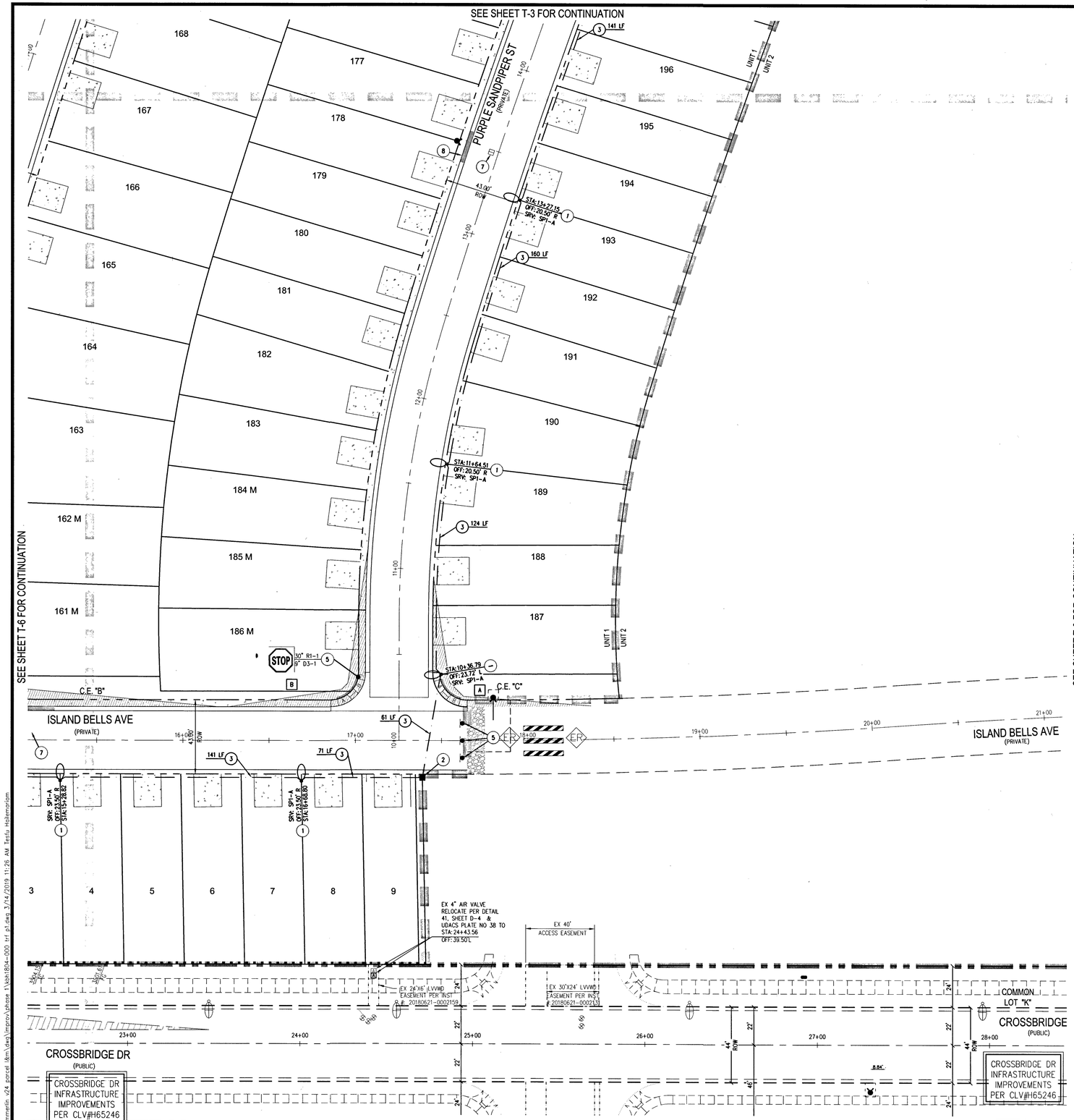
DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP

PROJECT NO.
KBH1804-000

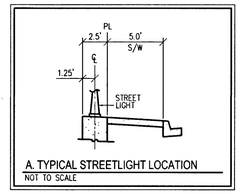
PROFESSIONAL ENGINEER STATE OF NEVADA
TIMOTHY M. MULROONEY
Exp. 12/31/2019
CIVIL
No. 22938
3/14/19

T-5
SHEET 53 OF 54
L19-00027
107X - 5102

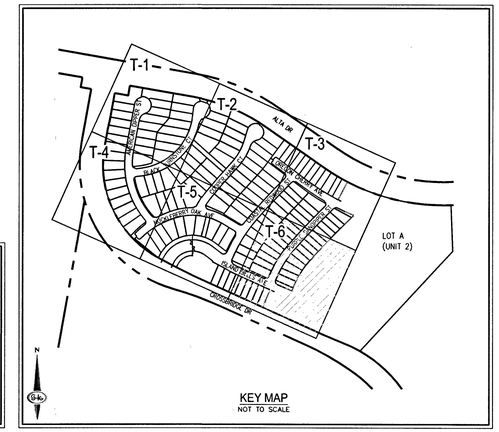
j:\kbh1804-000 summerlin v24 parcel l&m\dwg\improv\phase 1\kbh1804-000 trf p1.dwg 3/14/2019 11:25 AM Tesfu Hailemariam



0 30 60
SCALE - 1"=30' 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.

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5. INSTALL SIGN PER PLAN (SEE LEGEND FOR SIGN DESCRIPTION)
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11. STUB AND CAP WITH P30 PULLBOX W/"FIBER OPTIC" INSCRIBED ON LID
12. PAINT CURB RED PER INTERNATIONAL FIRE CODE 503.3 GENERAL NOTE #27

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

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- 400W STREETLIGHT
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- 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
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APPROVAL
LAS VEGAS FIRE AND RESCUE — 3/18/19 DATE

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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 1
TRAFFIC PLAN VI

S 33
T 20S
R 59E

DATE: 3/14/19
DRAFTER: OIQ
DESIGNER: OIQ
CHECKED: DP
PROJECT NO. KBH1804-000

PROFESSIONAL ENGINEER — TIMOTHY M. MULROONEY — Exp. 12/31/2019 — CIVIL — No. 22938 — STATE OF NEVADA — 3/14/19

T-6
SHEET 54 OF 54

LT9-00027
1074 - 5102

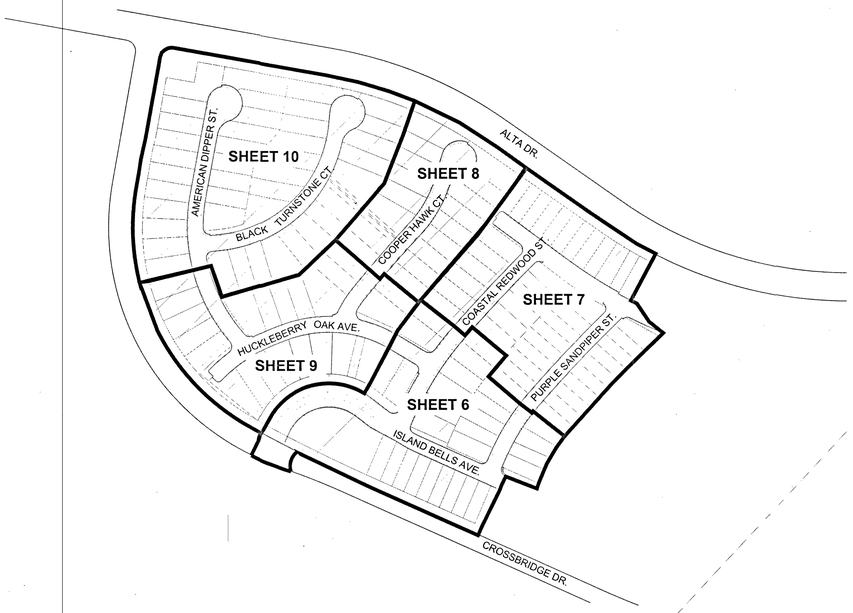
J:\KBH1804-000 summerlin v24 parcel 4\en\dwg\improv\phase 1\KBH1804-000 trf p1.dwg 3/14/2019 11:26 AM Tesfu Hollemarion

LEGEND

EXISTING GAS MAIN	
EXISTING GAS SERVICE	
GAS LINE TO BE ABANDONED	
STEEL RISER	
ANODELESS RISER	
GASLIGHT	
GAS VALVE	
EXCESS FLOW VALVE	
RELIEF VALVE	
COUPLINGS	C–C, E–F
BOND OVER	B–O
TEST POINT	T–P
INSULATOR	
REGULATOR STATION	R R
RECTIFIER	
ANODE	
SCADA	
METER SET ASSEMBLY	M M
PURGE POINT	
BRANCH,CVT,LINE STOPPER	B CVT S
GAS LINE TO BE ABANDONED	
PROPOSED GAS MAIN	
PROPOSED GAS SERVICE	
EXISTING EASEMENT	
ROW LINE	
PROPERTY LINE	
STREET CENTERLINE	
EDGE OF PAVEMENT	
CABLE LINE - UNDERGROUND	CATV
ELECTRIC - OVERHEAD	OHE
ELECTRIC - UNDERGROUND	UGE
FIBER OPTIC - UNDERGROUND	FO
PHONE - OVERHEAD	OHT
PHONE - UNDERGROUND	UGT
RECLAIMED WATER	RW
SEWER	S
STORMWATER	SD
WATER	W
UTILITY PEDESTALS	
FIRE HYDRANT	
MANHOLE	
WATER VALVE	
SURVEY MONUMENT	
POWER POLE	
GAS FLOW ARROW	FLOW

N

N.T.S.



SHEET INDEX MAP

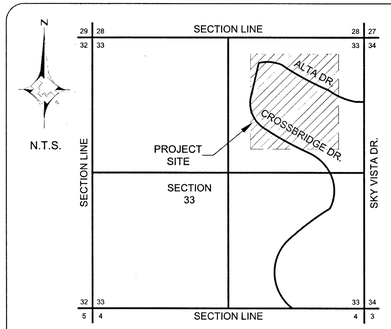
CUSTOMERS 149

SHEET INDEX

1	COVERSHEET
2	SIGNATURE SHEET
3-5	NOTES AND STANDARD DETAILS
6-10	PLAN SHEETS

N

N.T.S.



LOCATION MAP
T20S R59E SEC 33

City of Las Vegas

Total footage located in Public ROW 4'

APPROVED FOR CONSTRUCTION
THIS APPROVAL IS FOR WORK IN CLV R/W OR CLV EASEMENTS ONLY. OBTAINING PERMISSION OR EASEMENTS FOR WORK SHOWN ON PRIVATE PROPERTY IS THE RESPONSIBILITY OF THE UTILITY.

Approval 6.20.19 Date

811 Know what's **below.** **Call** before you dig.

SOUTHWEST GAS CORPORATION

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REVISIONS			
NO.	DESCRIPTION	BY	DATE APPVD

PERMIT INFORMATION	ISOLATION AREA	LOCATION	ATLAS OR TILE
CITY OF LAS VEGAS TAX CODE: 02-0200	ISO_21_DIST_323	T20S R59E SEC 33 M.D.M.	x561y516

D_W_VALLEY	
SYSTEM MAOP:	60
SYSTEM MOP:	55
N/A	
SYSTEM MAOP:	
SYSTEM MOP:	

JOB TYPE	
HP SERVICE	☐
DISTRIBUTION	☒
FEEDER	☐
TRANS. BY DEF	☐
TRANS > 20%	☐

WR NO.	RELATED WR NO.S
3793277	N/A

ENGINEER/TECHNICIAN	Amanda Henderson	PHONE:	(702) 365-2152
ACCOUNT REP.	Tony Vanchieri	PHONE:	(702) 365-2308
PROJECT CONTACT	Aric Bonner .	PHONE:	(702)802-9486 .
SHEET NO. 1 OF 10	SCALE N.T.S.	DATE	05/16/2019
DWN. BY SEI	CHKD. BY AH	APPVD. BY	BWJ

S BRISTLE VALE AT SUMMERLIN VILLAGE 24
LA-00027
1075102 55

PRESSURE TEST PERFORMED BY AND VERIFIED BY SIGNATURES

I HAVE **PERFORMED** THE PRESSURE TESTS AS SHOWN ON THE AS-BUILT AND IN ACCORDANCE WITH THE OPERATIONS MANUAL.

I HAVE **VERIFIED** THE PRESSURE TESTS AS SHOWN ON THE AS-BUILT AND IN ACCORDANCE WITH THE OPERATIONS MANUAL.

PRESSURE TEST # ___ PERFORMED BY ___ DATE ___

SWG VERIFIED BY ___ DATE ___

PURGE PLAN PERFORMED BY SIGNATURES

PURGE PLAN WAS COMPLETED IN ACCORDANCE WITH THE OPERATIONS MANUAL GUIDELINES:

PERFORMED BY ___ DATE ___ SHEET#___

LOCATION ___

PIPE JOINER VISUAL INSPECTION CERTIFICATION

I HAVE VISUALLY INSPECTED ALL HEATED FUSIONS, SOLVENT, CEMENT, MECHANICAL JOINTS, AND WELDS THAT I HAVE PERFORMED

NAME ___ PJQ# ___

2ND VISUAL INSPECTION CERTIFICATION

I HAVE VISUALLY INSPECTED ALL HEATED FUSIONS, SOLVENT, CEMENT AND MECHANICAL JOINTS THAT HAVE BEEN PERFORMED (INSPECTION OF FINAL JOINT ON PLASTIC PIPE ONLY)

NAME ___ PJQ# ___

CONSTRUCTION

INSPECTOR ___ PJQ# ___

FOREMAN ___ PJQ#___

REVIEWED BY ___ PJQ#___

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CITY OF LAS VEGAS TAX CODE: 02-0200	ISO_21_DIST_323	T20S R59E SEC 33 M.D.M.	x561y516

D_W_VALLEY	
SYSTEM MAOP:	60
SYSTEM MOP:	55

N/A	
SYSTEM MAOP:	
SYSTEM MOP:	

JOB TYPE	
HP SERVICE	☐
DISTRIBUTION	☒
FEEDER	☐
TRANS. BY DEF	☐
TRANS > 20%	☐

WR NO. 3793277

RELATED WR NO.S N/A

ENGINEER/TECHNICIAN	Amanda Henderson	PHONE:	(702) 365-2152
ACCOUNT REP.	Tony Vanchieri	PHONE:	(702) 365-2308
PROJECT CONTACT	Aric Bonner .	PHONE:	(702 802-9486 .
SHEET NO. 2 OF 10	SCALE N.T.S.	DATE	05/16/2019
DWN. BY SEI	CHKD. BY AH	APPVD. BY	BWJ

S BRISTLE VALE AT SUMMERLIN VILLAGE 24

L19-00027

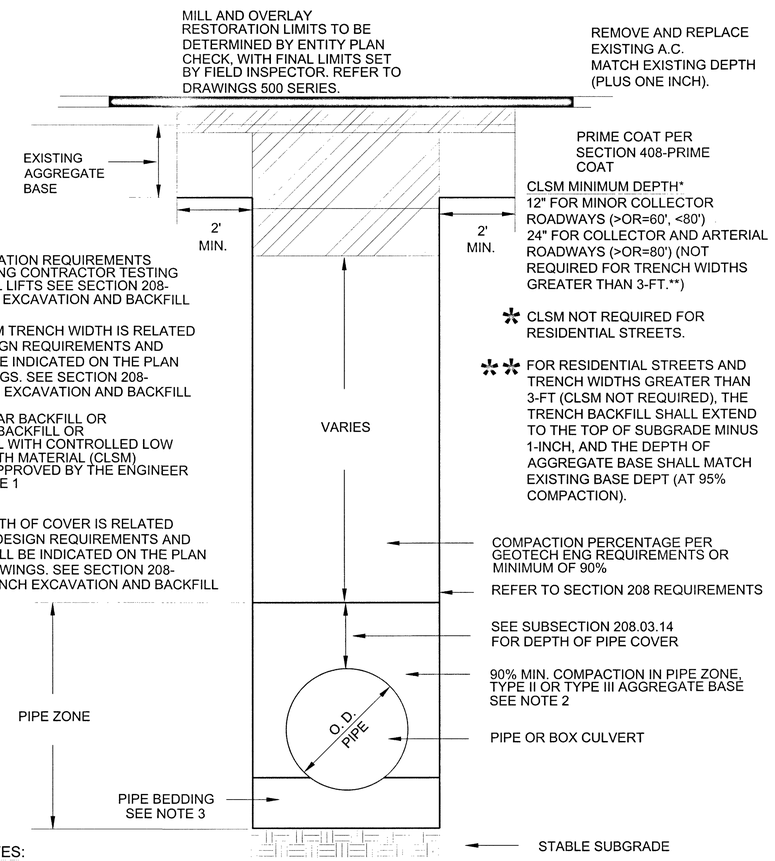
107Y5102 56

GENERAL NOTES:

1. SUGGESTED GAS LOCATIONS ARE TO CLEAR SUBSTRUCTURES. LOCATE IN FIELD.
2. ALL PIPELINE CONSTRUCTION SHALL CONFORM TO APPLICABLE JURISDICTION SPECIFICATIONS..
3. DO NOT SCALE THIS DRAWING.
4. CHANGE IN PROPOSED MAIN LOCATION MUST BE AUTHORIZED BY SWG ENGINEER PRIOR TO INSTALLATION.
5. GAS MAINS SHALL BE PURGED PER OPERATIONS MANUAL.
6. ALL EXISTING UTILITY LOCATIONS TO BE VERIFIED PRIOR TO START OF CONSTRUCTION.
7. TRENCH IS TO BE EXCAVATED TO THE DEPTH AND WIDTH AS INDICATED ON THE TRENCH DETAIL(S).
8. CONTACT ENGINEERING FOR BYPASS INFORMATION.
9. ALL MAIN TIE-INS REQUIRING TEES ARE TO BE FULL-FLOW TEES UNLESS OTHERWISE STATED..
10. ALL SHORING REQUIREMENTS SHALL CONFORM TO APPLICABLE PORTIONS OF THE OPERATIONS MANUAL.
11. REQUEST FOR SURVEYING AND/OR STAKING WILL BE SUBMITTED TO ENGINEERING 72 HOURS IN ADVANCE, MINIMUM.
12. TRENCHING AND PAVEMENT REPLACEMENT SHALL CONFORM WITH RTC STANDARD 503. AND UNIFORM STANDARD SPEC SECTION 208.
13. MINIMUM TEST DURATION REQUIREMENTS AND GUIDELINES FOR MAIN INSTALLATION IN SYSTEMS <60PSIG ARE:
    A. MINIMUM TEST DURATION IS 8 HOURS FOR PIPES 1-1/4-INCHES OR GREATER, WITH FOOTAGES BETWEEN 3,001 FEET AND 10,000 FEET.
    B. ALL FOOTAGES GREATER THAN 3,000 FEET REQUIRE A CHART.
    C. CONSTRUCTION SHALL CONTACT ENGINEERING FOR MINIMUM TEST DURATIONS IF THE FOOTAGE TO BE TESTED EXCEEDS 10,000 FEET.

DESIGN PIPE SUMMARY

DESIGN QTY.	DESCRIPTION
4,936'	2" PE8100
2,670'	1" PE8100



NOTES:

1. NO STONES OR LUMPS GREATER THAN 3" PERMITTED IN TRENCH 2' OR LESS IN WIDTH.
2. TRENCH WIDTH, BEDDING, SUBGRADE AND PIPE ZONE REQUIREMENTS FOR UTILITY INSTALLATIONS SHALL CONFORM TO THE RESPECTIVE ENTITY REQUIREMENTS.
3. CRUSHED ROCK MAY BE USED FOR PIPE BEDDING ONLY IF MATERIAL USE HAS BEEN SPECIFICALLY APPROVED BY THE GOVERNING AGENCY. SEE STANDARD DRAWING NO. 505 FOR PIPE BEDDING METHODS.
4. LAS VEGAS VALLEY WATER DISTRICT REQUIRES PIPE BEDDING AND BACKFILL WITHIN THE PIPE ZONE TO BE OF THE SAME MATERIAL.

RTC STD DWG 503

ABBREVIATIONS:

AA	ALDYL-A PIPE
ABND	ABANDONED
AC	ASPHALTIC CONCRETE
AC#	ACCELERATED CONSTRUCTION
ACP	ASBESTOS CEMENT PIPE
APN	ASSESSOR PARCEL NUMBER
BLVD	BOULEVARD
BM	BENCHMARK
BO	BLOW OFF
BTU	BRITISH THERMAL UNIT
CIP	CAST IRON PIPE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CP	CATHODIC PROTECTION
D	INSIDE DIAMETER
DDCA	DESIGN DATA COLLECTION APPLICATION
DET	DETAIL
DIP	DUCTICLE IRON PIPE
DIA	DIAMETER
DIMP	DISTRIBUTION INTEGRITY MANAGEMENT PROGRAM
DP	DESIGN PRESSURE
DWG	DRAWING
EFV	EXCESS FLOW VALVE
EG	EXISTING GRADE
ELEC	ELECTRICAL
ELEV	ELEVATION
EMS	ELECTRONIC MARKING SYSTEM
E.P	END POINT
EPR	ELECTRONIC PRESSURE RECORDERS
ESMT	EASEMENT
EX	EXISTING
FERC	FEDERAL ENERGY REGULATORY COMMISSION
FH	FIRE HYDRANT
GIR	GAS INFRASTRUCTURE REPLACEMENT
GPR	GAS PRESSURE REGULATOR
HCA	HIGH CONSEQUENCE AREA
HDD	HEATING DEGREE DAY
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HP	HIGH PRESSURE
HOP	HISTORIC OPERATING PRESSURE
HVTT	HIGH VOLUME TAPPING TEE
IN	INCH(ES)
IPS	IRON PIPE SIZE
JT	JOINT TRENCH
MAOP	MAXIMUM ALLOWABLE OPERATING PRESSURE
M&C	MEASUREMENTS & CONTROL
MCFH	THOUSAND CUBIC FEET PER HOUR
MH	MANHOLE
MOP	MAXIMUM OPERATING PRESSURE
MP	MANUFACTURER'S PRESSURE RATING
MSA	METER SET ASSEMBLY
MVP	MAPPING VERIFICATION PROCEDURE
NAP	NOT A PART
NTSB	NATIONAL TRANSPORTATION SAFETY BOARD
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OHE	OVERHEAD ELECTRIC
P	POWER
PAOP	POTENTIONAL ALLOWABLE OPERATING PRESSURE
PCC	PORTLAND CEMENT CONCRETE
PE	POLYETHYLENE PIPE
PH	POT HOLE
PHMSA	PIPELINE & HAZARDOUS MATERIALS SAFETY ADMINISTRATION
PL	PROPERTY LINE
PIC	POTENTIAL IMPACT CIRCLE
PLS	PRESSURE LIMITING STATION
P.O.B	POINT OF BEGINNING
PP	POWER POLE
PROP	PROPOSED
PQF	PREQUALIFIED FITTING
PSIG	POUNDS PER SQUARE INCH (GAUGE)
PVC	POLYVINYL CHLORIDE
PUE	PUBLIC UTILITY EASEMENT
RC	REINFORCED CONCRETE
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT OF WAY
SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FOOT
SHT	SHEET
SLSV	SERVICE LINE SHUT-OFF VALVE
SMYS	SPECIFIED MAXIMUM YIELD STRENGTH
SS	SANITARY SEWER
SST	STAINLESS STEEL
ST	STREET
STA	STATION
STL	STEEL
SWG	SOUTHWEST GAS
TDS	TEST DATA SHEET
TEL	TELEPHONE
TB	THRUST BLOCK
TOP	TOP OF PIPE
TP	TEST POINT
TS	TECHNICAL SERVICE NOTE
TRIMP	TRANSMISSION INTEGRITY MANAGAMENT PROGRAM
TYP	TYPICAL
U.E.	UTILITY EASEMENT
UGE	UNDERGROUND ELECTRIC
UOC	UNUSUAL OPERATING CONDITION
USD	UNIFORM STANDARD DRAWING
UGT	UNDERGROUND TELEPHONE
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
VG	VALLEY GUTTER
VSP	VINTAGE STEEL PIPE
W	WATER
WMS	WORK MANAGEMENT SYSTEM
WR	WORK REQUEST
WT	WALL THICKNESS
WV	WATER VALVE
YD	YARD(S)

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SOUTHWEST GAS CORPORATION

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REVISIONS

NO.	DESCRIPTION	BY	DATE	APPVD.

PERMIT INFORMATION	ISOLATION AREA	LOCATION	ATLAS OR TILE
CITY OF LAS VEGAS TAX CODE: 02-0200	ISO_21_DIST_323	T20S R59E SEC 33 M.D.M.	x561y516

D_W_VALLEY	
SYSTEM MAOP:	60
SYSTEM MOP:	55
N/A	
SYSTEM MAOP:	
SYSTEM MOP:	

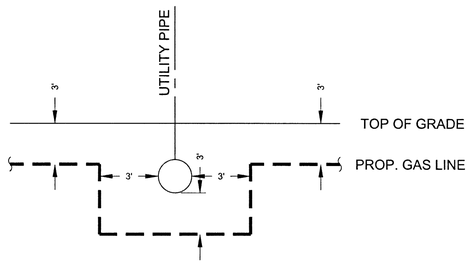
JOB TYPE	
HP SERVICE	☐
DISTRIBUTION	☒
FEEDER	☐
TRANS. BY DEF	☐
TRANS > 20%	☐

WR NO. 3793277

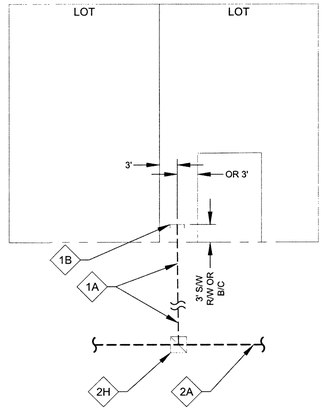
RELATED WR NO.S N/A

ENGINEER/TECHNICIAN	Amanda Henderson	PHONE:	(702) 365-2152
ACCOUNT REP.	Tony Vanchieri	PHONE:	(702) 365-2308
PROJECT CONTACT	Aric Bonner .	PHONE:	(702 802-9486 .
SHEET NO. 3 OF 10	SCALE N.T.S.	DATE	05/16/2019
DWN. BY SEI	CHKD. BY AH	APPVD. BY	BWJ

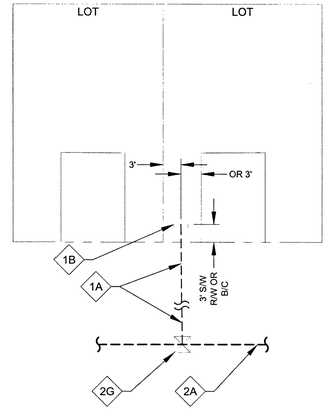
S BRISTLE VALE AT SUMMERLIN VILLAGE 24
LA-00027
10TY5102 57



TYPICAL UTILITY CROSSING DETAIL
N.T.S.



TYPICAL RESIDENTIAL
SINGLE SERVICE
LATERAL DETAIL
4A / 6
N.T.S.



TYPICAL RESIDENTIAL
BRANCH SERVICE
LATERAL DETAIL
4B / 6
N.T.S.

2" DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
2A	0'	0'	100-5101	2" PE8100 PIPE (MAIN)	N/A	N/A
2G	54	0'	160-8394	2" X 1" PE TAPPING TEE W/1800 EFV	N/A	N/A
2H	42	0	160-8577	2" X 1" PE TAPPING TEE W/1200 EFV	N/A	N/A

1 1/4" AND BELOW, DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
1A	2,670'	0'	101-8526	1" PE PIPE (SERVICE)	N/A	N/A
1B	96	0'	850-8773	1" PE CAP	N/A	N/A

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REVISIONS

NO.	DESCRIPTION	BY	DATE	APPVD.

PERMIT INFORMATION	ISOLATION AREA	LOCATION	ATLAS OR TILE
CITY OF LAS VEGAS TAX CODE: 02-0200	ISO_21_DIST_323	T20S R59E SEC 33 M.D.M.	x561y516

D_W_VALLEY	
SYSTEM MAOP:	60
SYSTEM MOP:	55
N/A	
SYSTEM MAOP:	
SYSTEM MOP:	

JOB TYPE	
HP SERVICE	☐
DISTRIBUTION	☒
FEEDER	☐
TRANS. BY DEF	☐
TRANS > 20%	☐

WR NO.: 3793277

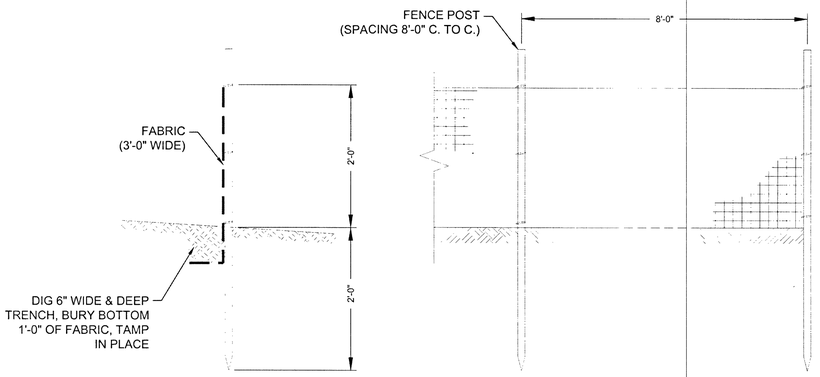
RELATED WR NO.S: N/A

ENGINEER/TECHNICIAN	Amanda Henderson		PHONE: (702) 365-2152
ACCOUNT REP.	Tony Vanchieri		PHONE: (702) 365-2308
PROJECT CONTACT	Aric Bonner .		PHONE: (702 802-9486 .
SHEET NO. 4 OF 10		SCALE N.T.S.	DATE 05/16/2019
DWN. BY SEI		CHKD. BY AH	APPVD. BY BWJ

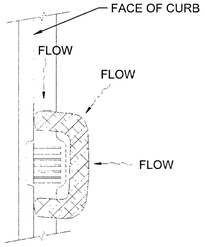
S BRISTLE VALE AT SUMMERLIN VILLAGE 24

L19-00027
10TY5102 58

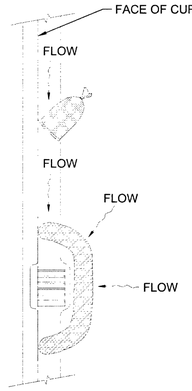
TYPICAL SWPPP BMP DETAILS



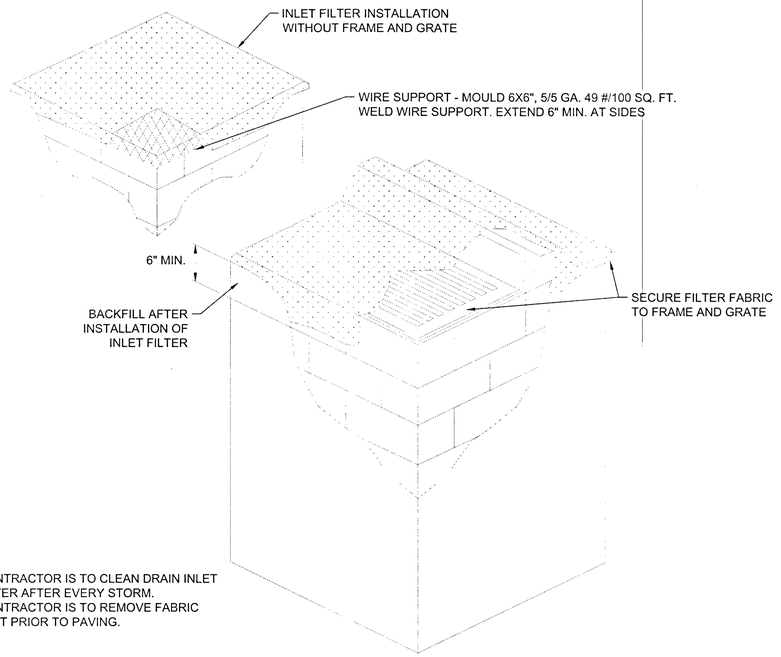
1 - SILT FENCE N.T.S.



2 - FIBER ROLL N.T.S.

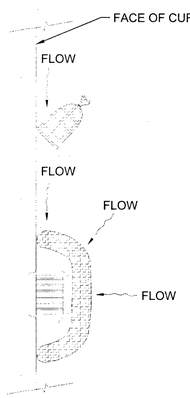


3 - SAND BAG/ ROLL N.T.S.

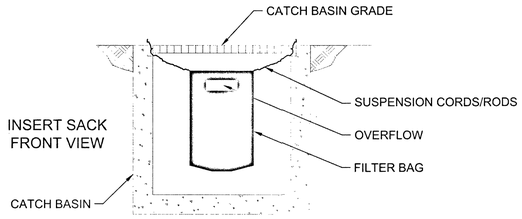


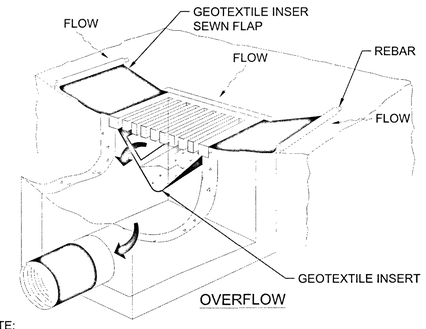
NOTE:
1. CONTRACTOR IS TO CLEAN DRAIN INLET FILTER AFTER EVERY STORM.
2. CONTRACTOR IS TO REMOVE FABRIC JUST PRIOR TO PAVING.

4 - DRAIN INLET FILTER N.T.S.



5 - GRAVEL BAG/ ROLL N.T.S.





NOTE:
RECESSED CURB INLET MUST BE BLOCKED WHEN USING FILTER FABRIC INLET SACKS.
SIZE OF FILTER FABRIC INLET SACK TO BE DETERMINED BY MANUFACTURER.

6 - SEDIMENT FILTER BAG N.T.S.

SWPPP NOTES

1. SOUTHWEST GAS CORPORATION, IT'S CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL INSTALL ONE OF THE APPROPRIATE BMPS FOR THE PROTECTION OF EXISTING STORM DRAIN INLETS, WITHIN OR SIGNIFICANTLY NEAR ANY IMPROVED RIGHT-OF-WAY, FROM DEBRIS AND SEDIMENT RESULTING FROM CONSTRUCTION OF NATURAL GAS FACILITIES.
2. SOUTHWEST GAS CORPORATION, IT'S CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM, USING BEST MANAGEMENT PRACTICES DETAILED ON THIS SHEET.
3. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF SOUTHWEST GAS CORPORATION, IT'S CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE LISTED BMPS ON THIS SHEET DOT NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN THE CLARK COUNTY CODE - CHAPTER 24.40/STORM SEWER SYSTEM DISCHARGE AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
4. ACCUMULATED SEDIMENT IN BMPS SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

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REVISIONS				
NO.	DESCRIPTION	BY	DATE	APPVD.

PERMIT INFORMATION	ISOLATION AREA	LOCATION	ATLAS OR TILE
CITY OF LAS VEGAS TAX CODE: 02-0200	ISO_21_DIST_323	T20S R59E SEC 33 M.D.M.	x561y516

D_W_VALLEY	
SYSTEM MAOP:	60
SYSTEM MOP:	55
N/A	
SYSTEM MAOP:	
SYSTEM MOP:	

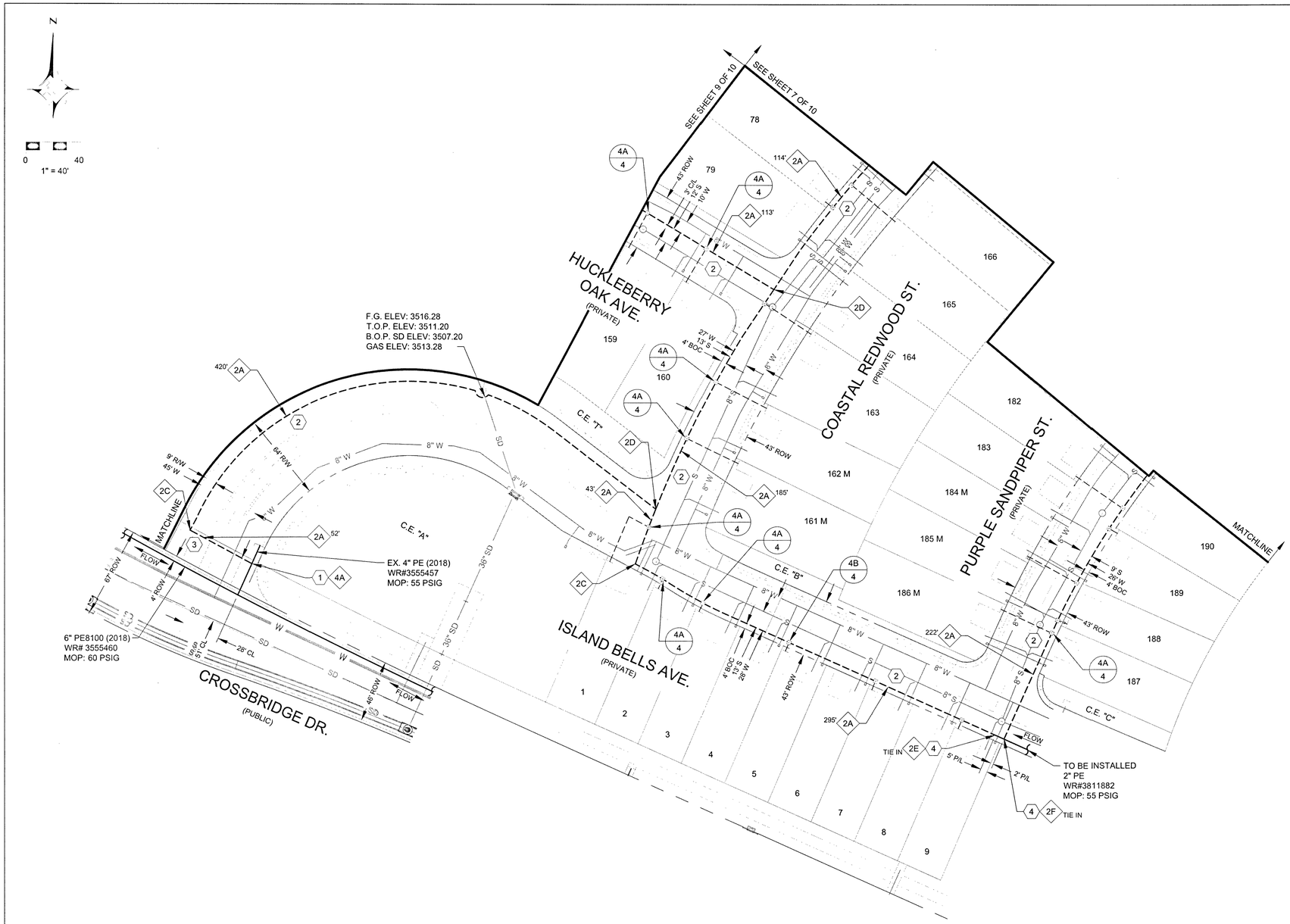
JOB TYPE	
HP SERVICE	☐
DISTRIBUTION	☒
FEEDER	☐
TRANS. BY DEF	☐
TRANS > 20%	☐

WR NO. 3793277

RELATED WR NO.S N/A

ENGINEER/TECHNICIAN	Amanda Henderson	PHONE:	(702) 365-2152
ACCOUNT REP.	Tony Vanchieri	PHONE:	(702) 365-2308
PROJECT CONTACT	Aric Bonner .	PHONE:	(702)802-9486
SHEET NO. 5 OF 10	SCALE N.T.S.	DATE	05/16/2019
DWN. BY SEI	CHKD. BY AH	APPVD. BY	BWJ

S BRISTLE VALE AT SUMMERLIN VILLAGE 24
LA-00027
107Y5102 59



6" DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
4A	1	0'	160-8171	4" X 2" PE HVTT	N/A	N/A

2" DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
2A	1,444'	0'	100-5101	2" PE PIPE (MAIN)	N/A	N/A
2C	2	0'	140-3067	2" PE 90 DEGREE ELBOW	N/A	N/A
2D	2	0	140-3074	2" PE FULL FLOW TEE	N/A	N/A
2E	1	0	140-3532	2" PE COUPLING	N/A	N/A
2F	1	0	160-8171	2" X 2" PE HIGH VOLUME TAPPING TEE	N/A	N/A

CONSTRUCTION NOTES	
1	TIE NEW 2" PE8100 TO EXISTING 4" PE8100
2	RTC 503
3	RTC 500.5 - PAVEMENT CUT 4'
4	TIE NEW 2" PE8100 INTO TO BE INSTALLED 2" PE8100

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PERMIT INFORMATION	ISOLATION AREA	LOCATION	ATLAS OR TILE
CITY OF LAS VEGAS TAX CODE: 02-0200	ISO_21_DIST_323	T20S R59E SEC 33 M.D.M.	x561y516

D_W_VALLEY	
SYSTEM MAOP:	60
SYSTEM MOP:	55
N/A	
SYSTEM MAOP:	
SYSTEM MOP:	

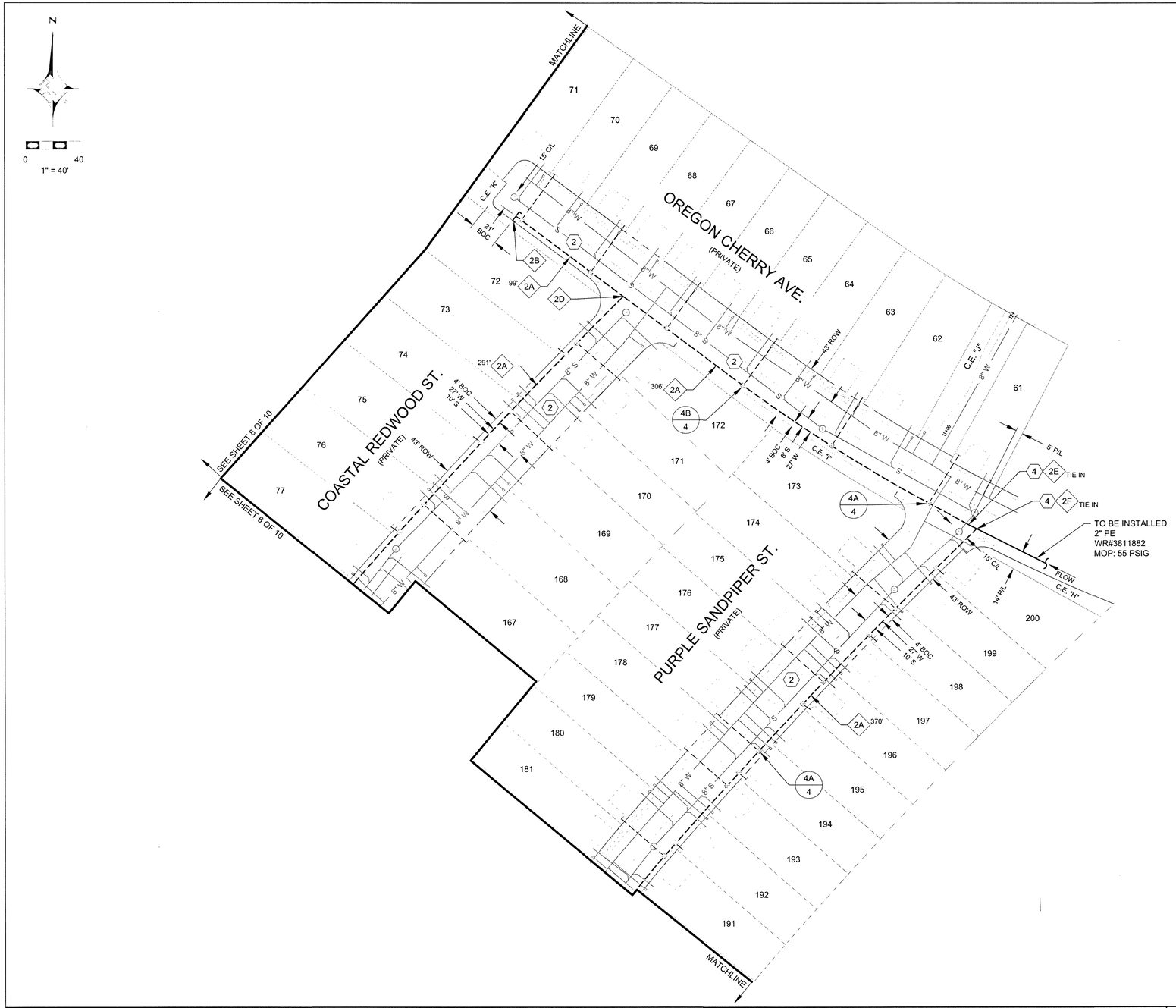
JOB TYPE	
HP SERVICE	☐
DISTRIBUTION	☒
FEEDER	☐
TRANS. BY DEF	☐
TRANS > 20%	☐

WR NO.
3793277
RELATED WR NO.S
N/A

ENGINEER/TECHNICIAN	Amanda Henderson		PHONE: (702) 365-2152
ACCOUNT REP.	Tony Vanchieri		PHONE: (702) 365-2308
PROJECT CONTACT	Aric Bonner .		PHONE: (702) 802-9486
SHEET NO. 6 OF 10		SCALE 1" = 40'	DATE 05/16/2019
DWN. BY SEI		CHKD. BY AH	APPVD. BY BWJ

S BRISTLE VALE AT SUMMERLIN VILLAGE 24

L19-00027
107Y5102 60



2" DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
2A	1,066'	0'	100-5101	2" PE PIPE (MAIN)	N/A	N/A
2B	1	0'	140-3067	2" PE CAP	N/A	N/A
2D	1	0	140-3074	2" PE FULL FLOW TEE	N/A	N/A
2E	1	0	140-3532	2" PE COUPLING	N/A	N/A
2F	1	0	160-8171	2" X 2" PE HIGH VOLUME TAPPING TEE	N/A	N/A

CONSTRUCTION NOTES	
2	RTC 503
4	TIE NEW 2" PE8100 INTO TO BE INSTALLED 2" PE8100

Know what's **below.**
Call before you dig.

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CITY OF LAS VEGAS TAX CODE: 02-0200	ISO_21_DIST_323	T20S R59E SEC 33 M.D.M.	x561y516

D_W_VALLEY	
SYSTEM MAOP:	60
SYSTEM MOP:	55
N/A	
SYSTEM MAOP:	
SYSTEM MOP:	

JOB TYPE	
HP SERVICE	☐
DISTRIBUTION	☒
FEEDER	☐
TRANS. BY DEF	☐
TRANS > 20%	☐

WR NO.
3793277
RELATED WR NO.S
N/A

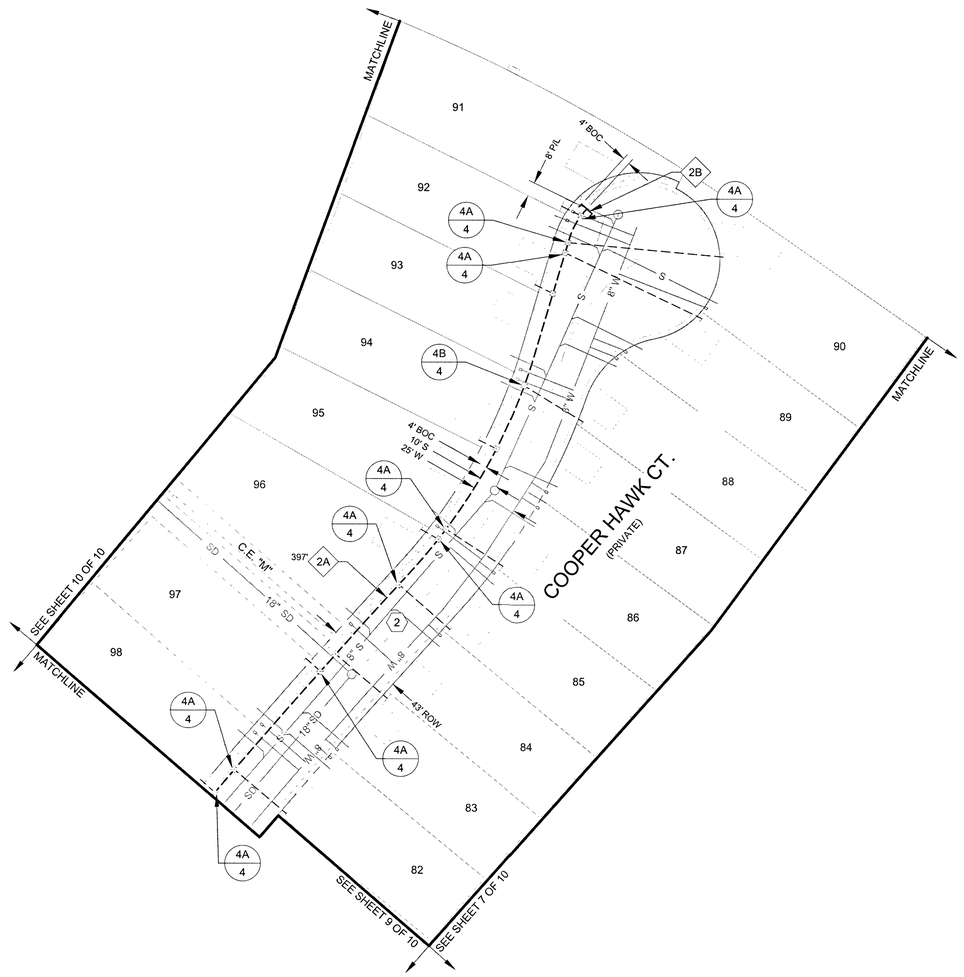
ENGINEER/TECHNICIAN	Amanda Henderson		PHONE: (702) 365-2152
ACCOUNT REP.	Tony Vanchieri		PHONE: (702) 365-2308
PROJECT CONTACT	Aric Bonner .		PHONE: (702) 802-9486
SHEET NO. 7 OF 10		SCALE 1" = 40'	DATE 05/16/2019
DWN. BY SEI		CHKD. BY AH	APPVD. BY BWJ

S BRISTLE VALE AT SUMMERLIN VILLAGE 24
L19-00027
107Y5102 61

N

0 40

1" = 40'



2" DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
2A	379'	0'	100-5101	2" PE PIPE (MAIN)	N/A	N/A
2B	1	0'	140-3060	2" PE CAP	N/A	N/A

CONSTRUCTION NOTES	
2	RTC 503

Know what's **below.** **Call** before you dig.

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CITY OF LAS VEGAS TAX CODE: 02-0200	ISO_21_DIST_323	T20S R59E SEC 33 M.D.M.	x561y516

D_W_VALLEY	
SYSTEM MAOP:	60
SYSTEM MOP:	55
N/A	
SYSTEM MAOP:	
SYSTEM MOP:	

JOB TYPE	
HP SERVICE	☐
DISTRIBUTION	☒
FEEDER	☐
TRANS. BY DEF	☐
TRANS > 20%	☐

WR NO. 3793277

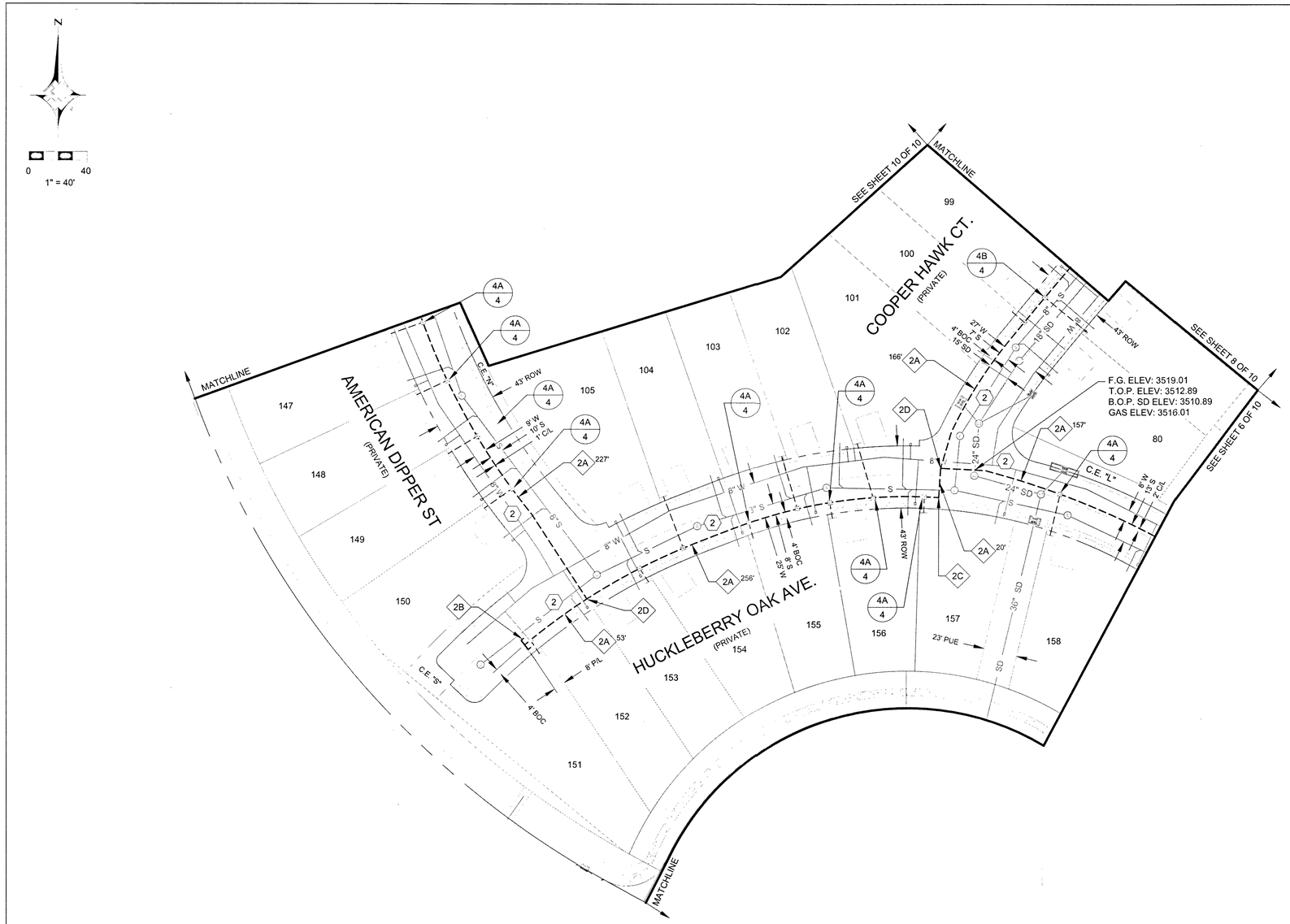
RELATED WR NO.S N/A

ENGINEER/TECHNICIAN	Amanda Henderson		PHONE: (702) 365-2152
ACCOUNT REP.	Tony Vanchieri		PHONE: (702) 365-2308
PROJECT CONTACT	Aric Bonner .		PHONE: (702) 802-9486
SHEET NO. 8 OF 10		SCALE 1" = 40'	DATE 05/16/2019
DWN. BY SEI		CHKD. BY AH	APPVD. BY BWJ

S BRISTLE VALE AT SUMMERLIN VILLAGE 24

L19-00027

107Y5102 62



2" DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
2A	879'	0'	100-5101	2" PE PIPE (MAIN)	N/A	N/A
2B	1	0'	140-3060	2" PE CAP	N/A	N/A
2C	1	0	140-3067	2" PE 90 DEGREE ELBOW	N/A	N/A
2D	2	0	140-3074	2" PE FULL FLOW TEE	N/A	N/A

CONSTRUCTION NOTES	
2	RTC 503

Know what's **below.** **Call** before you dig.

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REVISIONS				
NO.	DESCRIPTION	BY	DATE	APPVD.

PERMIT INFORMATION	ISOLATION AREA	LOCATION	ATLAS OR TILE
CITY OF LAS VEGAS TAX CODE: 02-0200	ISO_21_DIST_323	T20S R59E SEC 33 M.D.M.	x561y516

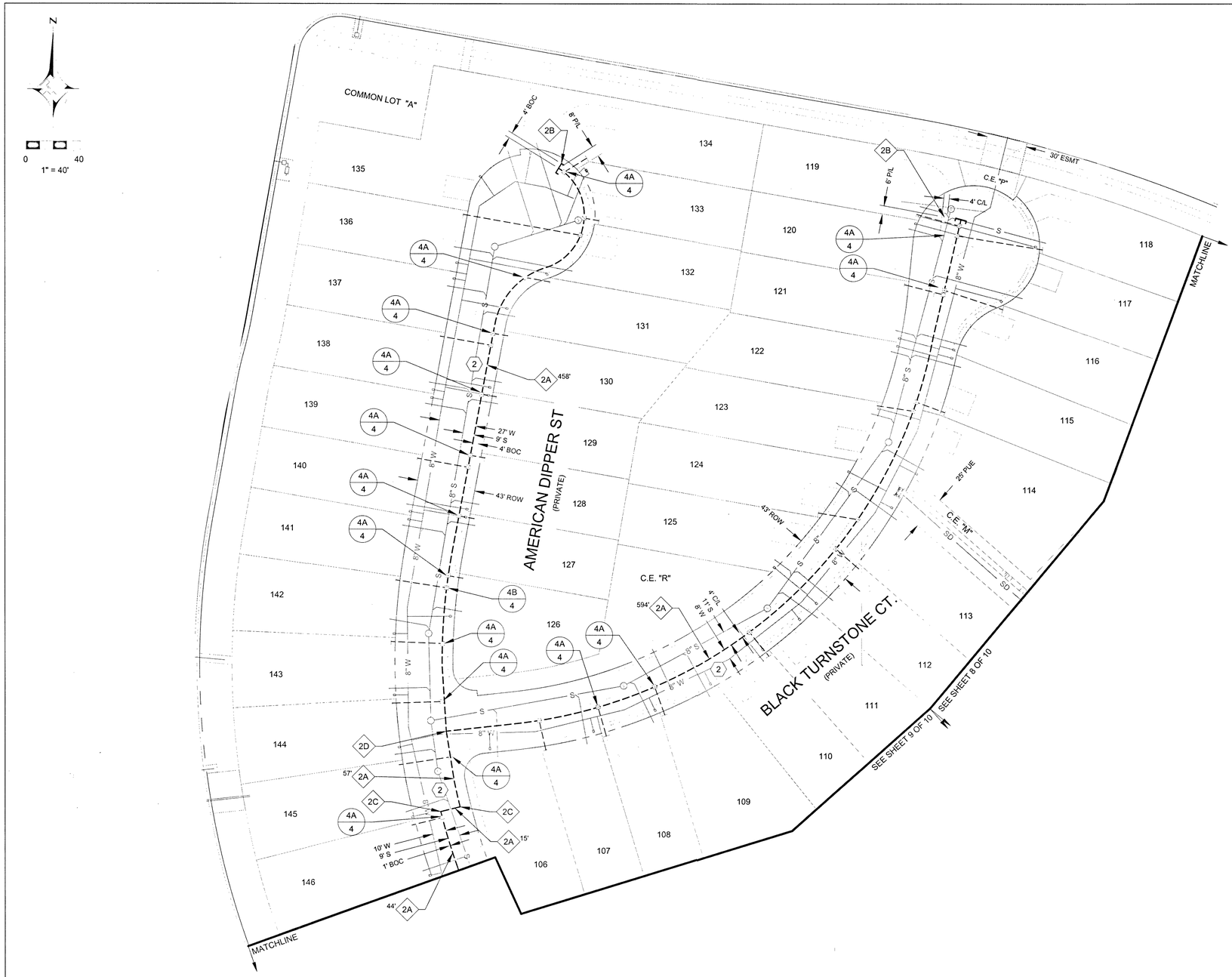
D_W_VALLEY	
SYSTEM MAOP:	60
SYSTEM MOP:	55
N/A	
SYSTEM MAOP:	
SYSTEM MOP:	

JOB TYPE	
HP SERVICE	☐
DISTRIBUTION	☒
FEEDER	☐
TRANS. BY DEF	☐
TRANS > 20%	☐

WR NO.	RELATED WR NO.S
3793277	N/A

ENGINEER/TECHNICIAN	Amanda Henderson		PHONE: (702) 365-2152
ACCOUNT REP.	Tony Vanchieri		PHONE: (702) 365-2308
PROJECT CONTACT	Aric Bonner .		PHONE: (702) 802-9486
SHEET NO. 9 OF 10		SCALE 1" = 40'	DATE 05/16/2019
DWN. BY SEI		CHKD. BY AH	APPVD. BY BWJ

S BRISTLE VALE AT SUMMERLIN VILLAGE 24
L19-00027
107Y5102 63



2" DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
2A	1,168'	0'	100-5101	2" PE PIPE (MAIN)	N/A	N/A
2B	2	0'	140-3060	2" PE CAP	N/A	N/A
2C	2	0	140-3067	2" PE 90 DEGREE ELBOW	N/A	N/A
2D	1	0	140-3074	2" PE FULL FLOW TEE	N/A	N/A

CONSTRUCTION NOTES	
2	RTC 503

Know what's **below.** **Call** before you dig.

SOUTHWEST GAS CORPORATION

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CITY OF LAS VEGAS TAX CODE: 02-0200	ISO_21_DIST_323	T20S R59E SEC 33 M.D.M.	x561y516

D_W_VALLEY	
SYSTEM MAOP:	60
SYSTEM MOP:	55
N/A	
SYSTEM MAOP:	
SYSTEM MOP:	

JOB TYPE	
HP SERVICE	☐
DISTRIBUTION	☒
FEEDER	☐
TRANS. BY DEF	☐
TRANS > 20%	☐

WR NO.	RELATED WR NO.S
3793277	N/A

ENGINEER/TECHNICIAN	Amanda Henderson		PHONE: (702) 365-2152
ACCOUNT REP.	Tony Vanchieri		PHONE: (702) 365-2308
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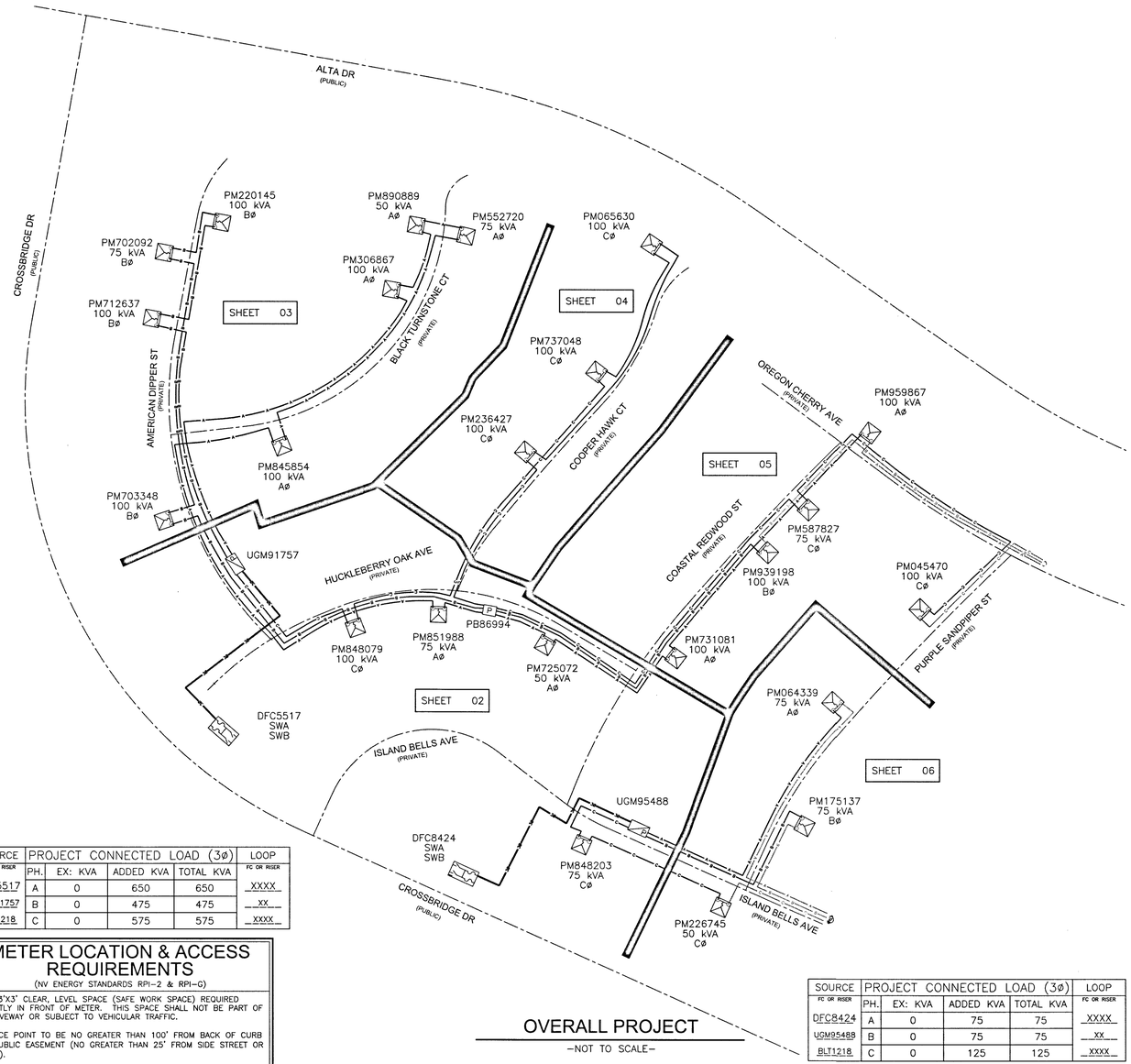
107Y5102 64



OVERALL PROJECT

–NOT TO SCALE–

SOURCE FC OR RISER	PROJECT CONNECTED LOAD (3Ø) PH.	EX: KVA	ADDED KVA	TOTAL KVA	LOOP FC OR RISER
DFC5517	A	0	650	650	XXXX
UGM91757	B	0	475	475	XX
BLT1218	C	0	575	575	XXXX

SOURCE FC OR RISER	PROJECT CONNECTED LOAD (3Ø) PH.	EX: KVA	ADDED KVA	TOTAL KVA	LOOP FC OR RISER
DFC8424	A	0	75	75	XXXX
UGM95488	B	0	75	75	XX
BLT1218	C	0	125	125	XXXX

METER LOCATION & ACCESS REQUIREMENTS

(NV ENERGY STANDARDS RPI–2 & RPI–G)

MIN. 3'X3' CLEAR, LEVEL SPACE (SAFE WORK SPACE) REQUIRED DIRECTLY IN FRONT OF METER. THIS SPACE SHALL NOT BE PART OF A DRIVEWAY OR SUBJECT TO VEHICULAR TRAFFIC.

SERVICE POINT TO BE NO GREATER THAN 100' FROM BACK OF CURB OR PUBLIC EASEMENT (NO GREATER THAN 25' FROM SIDE STREET OR ALLEY).

A SERVICE PEDESTAL MUST BE 5' MIN. FROM BACK OF CURB, 6' MIN FROM DRIVEWAY OR OTHER TRAFFIC AREA.

BOTH SERVICE POINT AND SAFE WORK SPACE TO BE DIRECTLY VISIBLE FROM BACK OF CURB OR PUBLIC EASEMENT, AND MUST BE READILY ACCESSIBLE TO NV ENERGY AT ALL TIMES WITHOUT REQUIRING PASSAGE THROUGH RESTRICTED AREAS OR REQUIRING CUSTOMER CONTACT. FENCES, GATES, WALLS, OR OTHER OBSTRUCTIONS IN FRONT OF THE SERVICE POINT ARE PROHIBITED.

VISIBILITY, ACCESSIBILITY, AND SAFE WORK SPACE MUST BE MAINTAINED FOR THE ENTIRE LIFE OF THE SERVICE.

RTC NOTES:

BACKFILL AND RIGHT OF WAY RESTORATION SHALL CONFORM TO CLARK COUNTY UNIFORM STANDARD DRAWINGS

1	500.1	0 TO 5 YEARS PAVEMENT RESTORATION LONGITUDINAL CUT
2	500.2	0 TO 5 YEARS PAVEMENT RESTORATION TRANSVERSE CUT
3	500.3	OVER 5 YRS PAVEMENT RESTORATION LONGITUDINAL CUT. GREATER THAN 60' R.O.W
4	500.4	OVER 5 YRS PAVEMENT RESTORATION LONGITUDINAL CUT. 60' R.O.W OR LESS
5	500.5	OVER 5 YRS PAVEMENT RESTORATION TRANSVERSE ALL R.O.W WIDTHS
6	501	TYPICAL UNDERGROUND UTILITY LOCATIONS IN RESIDENTIAL STREETS 60' OR LESS R.O.W.
7	S01.1	TYPICAL UTILITY UNDERGROUND LOCATIONS IN STREETS WITH GREATER THAN 60' R.O.W.
8	503	METHOD B FOR RIGID AND FLEXIBLE PIPE TRENCH BACKFILL – PAVED AREAS
9	503.1	METHOD A FOR FLEXIBLE PIPE TRENCH BACKFILL – PAVED AREAS
11		BACKFILL IN UNPAVED AREA AS REQUIRED BY LOCAL CODE OR AS APPROVED BY AGENCY.
12	234	SIDEWALK
13	506	UTILITY POTHOLE REPAIR
14	216	"L" TYPE CURB AND GUTTER

NV ENERGY SCHEDULING NOTE: DAY (LANE BLOCKS)

THIS PROJECT WAS ESTIMATED WITH THE ASSUMPTION THAT ALL THE WORK BEING PERFORMED ON THIS PROJECT BY NV ENERGY CREWS CAN BE DONE DURING THE DAYTIME AND WILL REQUIRE TRAFFIC CONTROL.

GOVERNMENT APPROVAL OF THESE DRAWINGS DOES NOT INDICATE APPROVAL OF TRAFFIC CONTROL. PLEASE REFER TO THE BARRICADE PLAN FOR APPROVED TRAFFIC CONTROL REQUIREMENTS.

CONDUIT SEALING REQUIREMENT:

CONDUIT SEALING PER NESC AND OR NEC LATEST VERSION:

ALL ELECTRIC CONDUITS ENTERING BUILDING THROUGH OR PENETRATING CONCRETE SLAB SHALL BE SEALED AT BOTH ENDS WITH EXPANDING PLUG(S) AFTER CONDUIT IS MANDRILLED. NVE WILL INSTALL A PERMANENT SEAL, AFTER CONDUCTORS ARE INSTALLED.

CONSTRUCTION / INSPECTION REQUIREMENTS

WORK MUST CONFORM TO NVE ELECTRIC SERVICE STANDARDS, AVAILABLE AT: www.nvenergy.com/business/newconstruction/newconstructionS/servicestandards.cfm

NVE INSPECTOR MUST BE PRESENT TO INSPECT TRENCHING (SCHEDULE AT LEAST 72 HOURS IN ADVANCE) AT EACH OF THE FOLLOWING STAGES:
1. BOTTOM SAND AND CONDUIT INSTALLED
2. TOP SAND INSTALLED
3. BACKFILL INSTALLED

CONDUIT MUST BE MANDRILLED PRIOR TO RELEASE (COORDINATE WITH INSPECTOR).

NVE STAND BY CREW IS REQUIRED WHEN WORKING AT AN ENERGIZED VAULT OR TRANSFORMER. CALL STAND BY NUMBER (SEE TITLE BLOCK) TO SCHEDULE.

NVE ELECTRICAL INSTALLATION WILL NOT BE SCHEDULED UNTIL AFTER THE NVE INSPECTOR HAS COMPLETED THE OFFICIAL RELEASE.

METER(S) WILL NOT BE SET UNTIL ALL OF THE FOLLOWING ARE COMPLETE:
- [INSTRUMENT–RATED ONLY] METERING EQUIPMENT HAS BEEN SUBMITTED TO NVE METERING ENGINEER AND APPROVED. (submittals_southern@nvenergy.com)
- APPLICATION FOR METER SET HAS BEEN SUBMITTED TO NVE'S NEW DEVELOPMENT CENTER. FORM AVAILABLE AT: www.nvenergy.com/brochures_arch/new_construction/meter_set.pdf
- THE LOCAL BUILDING AUTHORITY HAS INSPECTED AND APPROVED THE METERING EQUIPMENT.
- METERING EQUIPMENT IS ACCESSIBLE AND CLEARLY IDENTIFIED WITH PERMANENT MARKINGS. ADDRESSES, SUITE NUMBERS, AND STREET SIGNS ARE POSTED IN PERMANENT LOCATIONS (SEE RPI–G).

TRACK PROJECT STATUS ONLINE WITH NVE'S DEVELOPER DASHBOARD: www.nvenergy.com/business/newconstruction/newconstructionS/developerdashboard.cfm

UNLESS OTHERWISE NOTED:

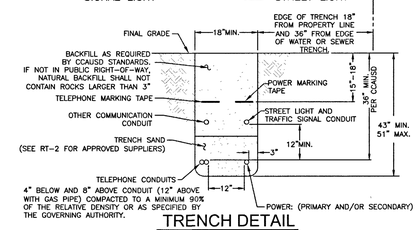
ALL SERVICE CONDUCTOR: 2/0 AL. TRI.
ALL TRANSFORMERS: 7200V–120/240V–1Ø PM
LARGEST A/C UNIT SIZE: 5 TONS
NUMBER OF UNITS: 98
MAIN SIZE: 200 AMPS
ESTIMATED KVA PER UNIT: 14 KVA
SQ. FT. OF LARGEST UNIT: 3,066 FT²

UNLESS OTHERWISE NOTED:

ALL SERVICE CONDUCTOR: 2/0 AL. TRI.
ALL TRANSFORMERS: 7200V–120/240V–1Ø PM
LARGEST A/C UNIT SIZE: 5 TONS
NUMBER OF UNITS: 51
MAIN SIZE: 200 AMPS
ESTIMATED KVA PER UNIT: 8 KVA
SQ. FT. OF LARGEST UNIT: 2,466 FT²

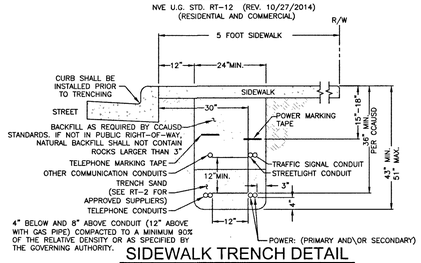
CIVIL LINETYPE LEGEND

CENTERLINE
PROPERTY LINE/ROW
CURB
EDGE OF PAVEMENT
EDGE OF SIDEWALK
SEWER LINE (S)
WATER LINE (W)
COHW WATER LINE (COHW)
LVWD WATER LINE (LVWD)
SNWA WATER LINE (SNWA)
GAS LINE (GAS)
TELEPHONE LINE (TEL)
CABLE TV LINE (CATV)
CABLE TV LINE (FIBER)
STORM DRAIN LINE (SD)
FIRE HYDRANT
SERVICE INDICATOR
SIGNAL LIGHT
STREET LIGHT



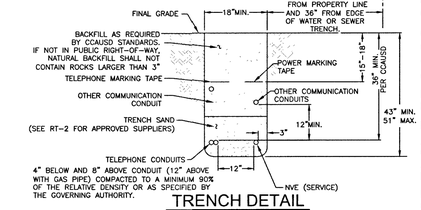
TRENCH DETAIL

NVE U.G. STD. RT–12 (REV. 10/27/2014)
(RESIDENTIAL AND COMMERCIAL)



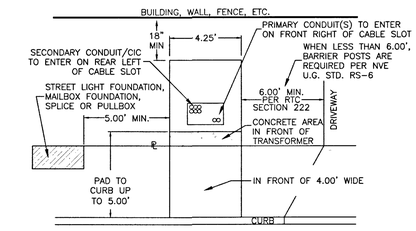
SIDEWALK TRENCH DETAIL

NVE U.G. STD. RT–7 (REV. 10/27/2014)
(RESIDENTIAL OR COMMERCIAL)



TRENCH DETAIL

NVE U.G. STD. RT–8 (REV. 10/27/2014)
(RESIDENTIAL SERVICE)



SINGLE-PHASE TRANSFORMER LOCATION DETAIL

NVE U.G. STD. RS–5 & RS–13 (RESIDENTIAL) & RS–19 (COMMERCIAL)

NVE STANDARDS

T,R,S: 20–59–33

APN: 137–33–610–002
137–33–610–003

GENERAL NOTES:

ANY NOTES LOCATED IN DRAWING AREA TAKE PRECEDENCE OVER STANDARD NOTES.

REFER TO A CURRENT NVEnergy ELECTRIC SERVICE REQUIREMENTS HANDBOOK FOR FURTHER CLARIFICATION OF NVEnergy STANDARDS.

THE APPLICANT SHALL INFORM THE INSPECTOR AT LEAST 48 HOURS BEFORE COMMENCING ANY ITEM OF CONSTRUCTION OR INSTALLATION OF MATERIAL TO ENABLE PROPER INSPECTION OF MATERIALS AND WORKMANSHIP. MAIN TRENCH WIRE PULLS TO BE SCHEDULED 72 HOURS IN ADVANCE OF INSTALLATION. APPLICANT'S PROJECT WILL NOT BE SCHEDULED UNTIL FINAL APPROVAL FROM NVEnergy UNDERGROUND & ELECTRICAL INSPECTORS.

ALL WORK SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE SPECIFICATIONS SET FORTH IN THE ELECTRIC SERVICE REQUIREMENTS HANDBOOK, AS CURRENTLY ADOPTED BY NVEnergy. THE CONTRACTOR SHALL SECURE COPIES OF THE AFOREMENTIONED CONSTRUCTION SPECIFICATIONS ON HIS OR HER OWN BEHALF.

SYMBOLS ARE NOT TO SCALE AND DO NOT NECESSARILY REPRESENT ACTUAL LOCATIONS OF FACILITIES.

THIS DRAWING ILLUSTRATES DATA COLLECTED FROM VARIOUS SOURCES AND MAY NOT REPRESENT A SURVEY OF THE PREMISES.

APPLICANT SHALL FIELD DETERMINE POSITION AND DEPTH OF EXISTING UTILITY EQUIPMENT PRIOR TO COMMENCING CONSTRUCTION.

USE CAUTION PRIOR TO EXCAVATION. CHECK TO ENSURE ADDITIONAL DEPTH IS NOT REQUIRED TO ACCOMMODATE GAS AND/OR WATER FACILITIES AND DRAINAGE CHANNELS.

CALL NVEnergy UNDERGROUND INSPECTORS 48 HOURS PRIOR TO START OF CONSTRUCTION FOR TRENCH INSPECTION BEFORE COVERING TRENCH.

ALL NVEnergy CABLE TO BE INSTALLED BEHIND CURB, UNLESS OTHERWISE STATED.

APPLICANT IS RESPONSIBLE FOR STAKING OF PROPERTY CORNERS & ELEVATIONS.

ALL HANDHOLES AND PULLBOXES SHALL BE INSTALLED TO FINISHED GRADE OR 6" ABOVE IF GRADE IS NOT ESTABLISHED.

ANY SUBSTRUCTURE VAULT INSTALLED IN GRAVEL, GRASS, OR BARE GROUND WILL REQUIRE A CONCRETED 8" WIDE AND 6" DEEP COLLAR AROUND BOX IN ACCORDANCE TO RS–G6.

2" PLASTIC CONDUIT BENDS (90', 45') WITH 36" MIN. RADIUS. (USE FIBERGLASS IF CONDUIT LENGTH IS OVER 500')

3" & 4" PLASTIC CONDUIT BENDS (90', 45') WITH 36" MIN. RADIUS. (USE RGS IF CONDUIT LENGTH IS OVER 100')

6" PLASTIC CONDUIT BENDS (90', 45') WITH 48" MIN. RADIUS. (USE RGS IF CONDUIT LENGTH IS OVER 100')

WHEN INSTALLING CONDUIT IN FIELD, USE APPROPRIATE BENDS TO COMPLETE THE INSTALLATION.

DEFLECTION OF CONDUIT BENDS AND CONDUIT NOT TO EXCEED NVEnergy STANDARDS.

EXISTING STUB–OUT/CONDUIT INSTALLED BY PREVIOUS CONTRACTOR / DEVELOPER. NVEnergy DOES NOT GUARANTEE LOCATION, LENGTH, OR ACCESSIBILITY OF EXISTING STUB–OUT/CONDUIT. IF UTILIZING ANY PORTION OF EXISTING CONDUIT, IT MUST BE MANDRELED PRIOR TO FINAL RELEASE.

PREVIOUSLY MANDRELED CONDUIT WHICH HAS BEEN IN THE GROUND FOR OVER 6 MONTHS MUST BE RE–MANDRILLED PRIOR TO FINAL RELEASE.

WHEN NVEnergy FACILITIES ARE TO BE REMOVED, NVEnergy WILL REMOVE ALL WIRES AND EQUIPMENT. NVEnergy IS NOT RESPONSIBLE FOR THE REMOVAL OF CONDUIT RUNS OR SUBSTRUCTURES FROM THE PROPERTY.

NO COVERED PARKING IN FRONT OF EQUIPMENT.

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 ISSUE; AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY; ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE.

NVE WILL NOT VERIFY THE EXISTING CONDUIT. CUSTOMER TO ENSURE ITS INTEGRITY AND REPAIR IF NECESSARY.

CUSTOMER NOTE:

UNLESS OTHERWISE NOTED, ALL CONDUIT, BENDS AND SUBSTRUCTURES ARE THE RESPONSIBILITY OF THE CUSTOMERS CONTRACTOR, OR ASSIGNED DCA CONTRACTOR (RESIDENTIAL ONLY)

FIRE HYDRANT CLEARANCE:

6' RADIUS FROM CENTER OF HYDRANT TO ALL ABOVE GROUND PADS AND/OR EQUIPMENT AND ALL MANHOLES AND SWITCHBOXES.
6' RADIUS FROM CENTER OF HYDRANT TO ALL UNDERGROUND HANDHOLES, PULLBOXES AND SPLICEBOXES. ALL PER NVEnergy STD. RS–5

NOTE: ALL THE ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF CLV UNIFIED DEVELOPMENT CODE TITLE 19.06 AND 19.08

APPROVED FOR CONSTRUCTION

THIS APPROVAL IS FOR WORK IN CLV R/W & EASEMENT ONLY. OBTAINING PERMISSIONS OR EASEMENTS FOR WORK SHOWN ON PRIVATE PROPERTY IS THE RESPONSIBILITY OF THE UTILITY.

---- [signature] 6.20.19 ----
APPROVAL BY: DATE

NVEnergy REQUIRES 24 HOUR ACCESS TO EQUIPMENT

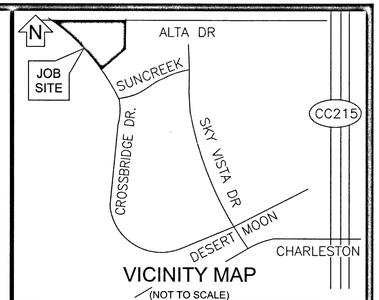
CITY OF LAS VEGAS
PERMIT REQUIRED*

CONTACT CLV LAND DEVELOPMENT (229–6371) CLV CONSTRUCTION SERVICES MUST BE NOTIFIED 24 HOURS PRIOR TO COMMENCING CONSTRUCTION (229–6337)

HANSEN_____

DATE_____

*NVE INSPECTOR MUST BE NOTIFIED BY FAX 48 HOURS PRIOR TO COMMENCING CONSTRUCTION & WILL VERIFY CITY PERMIT FOR WORK DONE IN STREETS OR SIDEWALK.
FAX PERMIT TO:
LAS VEGAS NORTH (RYAN CENTER): 402–4354
LAS VEGAS SOUTH (BELTWAY CENTER): 402–6864



VICINITY MAP

(NOT TO SCALE)

EVERY EFFORT HAS BEEN MADE TO IDENTIFY ALL NVE FACILITIES. THE CUSTOMER SHALL CONFIRM THE EXISTENCE AND LOCATION OF THESE FACILITIES.

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL 1-702-402-2929

Call before you Dig
Avoid cutting underground utility lines. It's costly.
CALL 811
OR
1-800-227-2600
AND CLARK COUNTY TRAFFIC OPERATIONS
1-702-455-6000

REVISIONS

NO.	DESCRIPTION	DATE	REV BY
1			
2			
3			
4			
5			
6			
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9			
10			
11			

STANDARD DCA

PROJECT PURPOSE:

SERVE RESIDENTIAL SUBDIVISION WITHIN THE MASTER PLAN COMMUNITY OF 3000725849–SUMMERLIN V24
(149) HOMES, 200A 120/240V PANELS
(2) IRRIGATION SVC, 125A 120/240V PEDESTAL
(1) IRRI/GATE SVC 125A 120/240V PEDESTAL
(1) STREETLIGHT SVC 200A 120/240V PEDESTAL

EXHIBIT 'A'

NVEnergy INFORMATION:
COORDINATOR: MONTOYA, LUIS
PHONE: (702)217–8222 D.F. LOWELL, KEN
DESIGNER: MONTOYA, LUIS
DCA: 285–8182, 219–5761
INSPECTOR: 702–402–3008 OR UGI@NVENERGY.COM
STAND BY: (702) 402–4450, 4150, 4114, 4117, 4118
DISTRICT: LAS VEGAS NORTH DISTRICT
JPA INFORMATION:
JPA ADMIN PHONE: N/A JPA#: N/A
CUSTOMER INFORMATION:
APPLICANT: KB HOME LAS VEGAS INC.
ENGINEER: SHG
CONTACT: BONNER, ARIC ** 702–266–8556
APPROVAL DATE: 5/13/2019
GOVERNMENT INFORMATION:
AGENCY: CITY OF LAS VEGAS
APPROVAL DATE:

FOR EACH SERVICE POINT (POINT OF DELIVERY), ENERGY FOR EACH TENANT SPACE WILL BE MEASURED THROUGH ONE WATTHOUR METER. ENERGY FOR ALL NON–TENANT SPACE WILL BE MEASURED THROUGH ONE WATTHOUR METER. CONTACT NVE METER OPERATIONS FOR MULTIPLE RATE CLASS INSTALLATIONS.

NVEnergy

BRISTLE VALE UNIT 1–SUBDIVISION

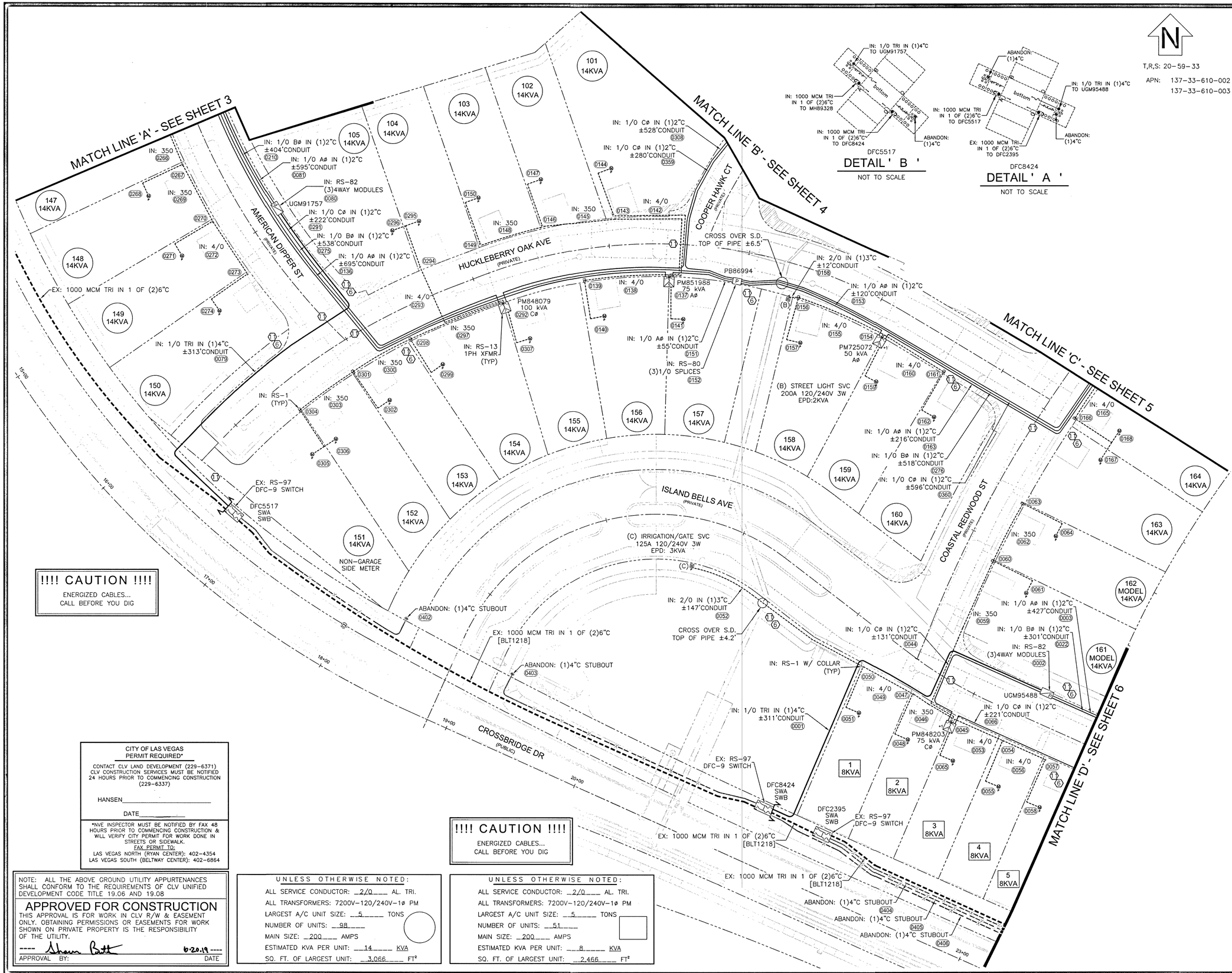
ALTA AND CROSSBRIDGE

PROJ #3003472877	SCALE: 1"=30'
SHEET # 1 OF 6	DATE: 3/19/2019

Sharing of this drawing and the information contained herein shall be only to individuals/parties who have entered into an agreement with Applicant for the completion of work associated with this specific project. Use for purposes other than this specific project requires the written consent of NV Energy.

LI9–00027 0 REVISION(S)
107Y5102 65

5/21/2019 3:41 PM mc21910



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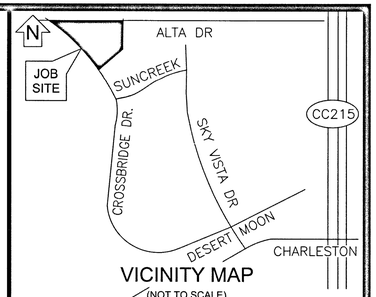
T,R,S: 20-59-33

APN: 137-33-610-002
137-33-610-003



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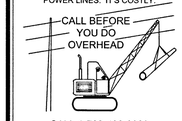

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REVISIONS

NO.	DESCRIPTION	DATE	REV BY

STANDARD DCA

PROJECT PURPOSE:

SERVE RESIDENTIAL SUBDIVISION WITHIN THE MASTER PLAN COMMUNITY OF 3000725849-SUMMERLIN V24
(149) HOMES, 200A 120/240V PANELS
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STAND BY: (702) 402-4450, 4150, 4114, 4117, 4118
DISTRICT: LAS VEGAS NORTH DISTRICT

JPA INFORMATION:
JPA ADMIN PHONE: N/A JPA#: N/A

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APPROVAL DATE: ---- I

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NVEnergy.

BRISTLE VALE UNIT 1-SUBDIVISION

ALTA AND CROSSBRIDGE

PROJ #3003472877	SCALE: 1"=30'
SHEET # 2 OF 6	DATE: 3/19/2019

!!!! CAUTION !!!!
ENERGIZED CABLES...
CALL BEFORE YOU DIG

CITY OF LAS VEGAS
PERMIT REQUIRED*

CONTACT CLV LAND DEVELOPMENT (229-6371) CLV CONSTRUCTION SERVICES MUST BE NOTIFIED 24 HOURS PRIOR TO COMMENCING CONSTRUCTION (229-6337)

HANSEN_____

DATE_____

*NVE INSPECTOR MUST BE NOTIFIED BY FAX 48 HOURS PRIOR TO COMMENCING CONSTRUCTION & WILL VERIFY CITY PERMIT FOR WORK DONE IN STREETS OR SIDEWALK.
FAX PERMIT TO:
LAS VEGAS NORTH (RYAN CENTER): 402-4354
LAS VEGAS SOUTH (BELTWAY CENTER): 402-6864

NOTE: ALL THE ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF CLV UNIFIED DEVELOPMENT CODE TITLE 19.06 AND 19.08

APPROVED FOR CONSTRUCTION
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---- Adam Batt 6.20.19 ----
APPROVAL BY: DATE

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ALL SERVICE CONDUCTOR: 2/0 AL. TRI.
ALL TRANSFORMERS: 7200V-120/240V-1ø PM
LARGEST A/C UNIT SIZE: 5 TONS
NUMBER OF UNITS: 98
MAIN SIZE: 200 AMPS
ESTIMATED KVA PER UNIT: 14 KVA
SQ. FT. OF LARGEST UNIT: 3,066 FT²

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MAIN SIZE: 200 AMPS
ESTIMATED KVA PER UNIT: 8 KVA
SQ. FT. OF LARGEST UNIT: 2,466 FT²

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L19-00027
10TY5102

0 REVISION(S)
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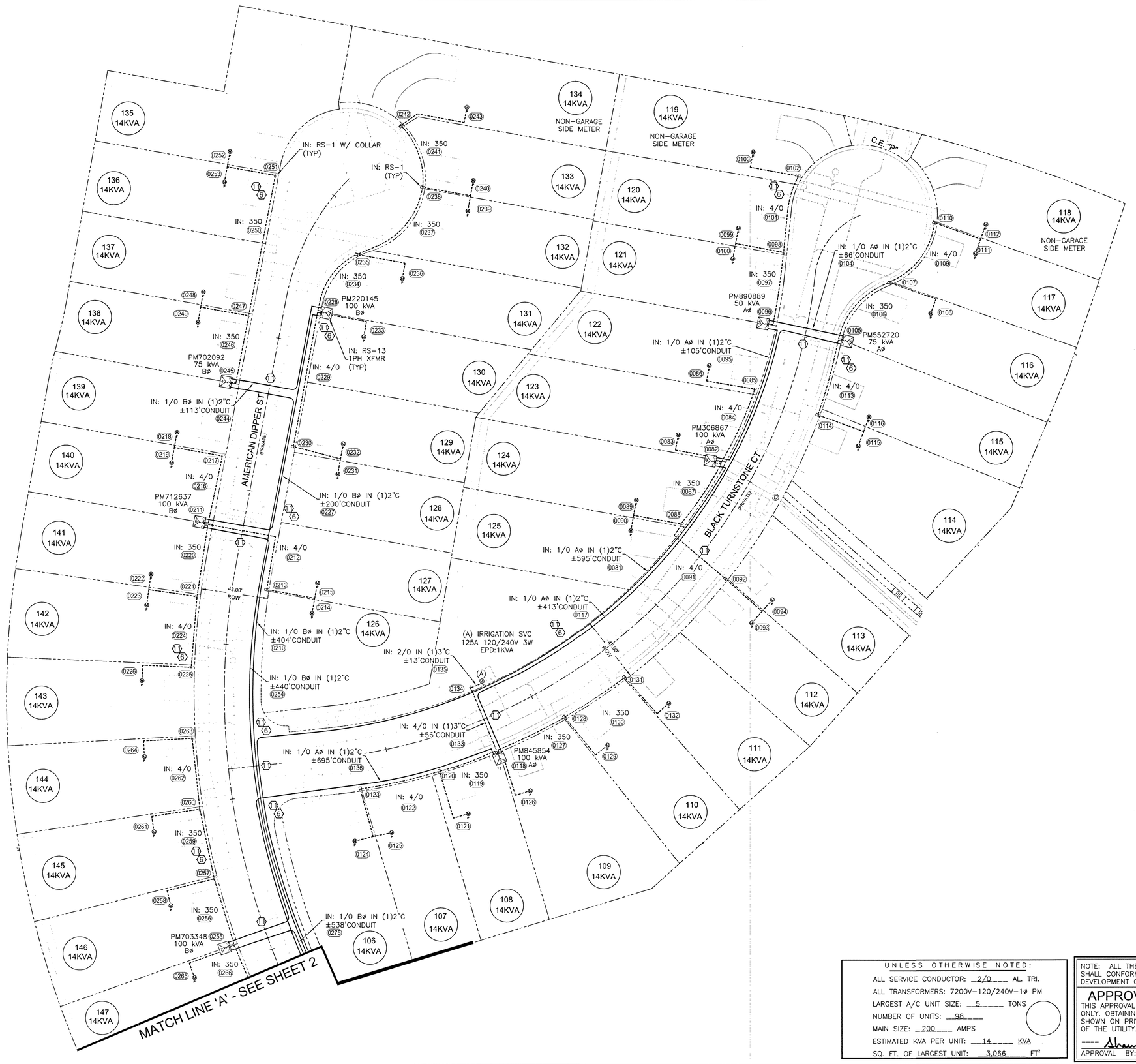

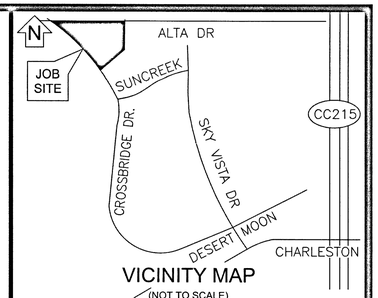

VICINITY MAP
(NOT TO SCALE)

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OR
1-800-227-2600
AND CLARK COUNTY TRAFFIC OPERATIONS
1-702-455-6000

REVISIONS

NO.	DESCRIPTION	DATE	REV BY

STANDARD DCA

PROJECT PURPOSE:

SERVE RESIDENTIAL SUBDIVISION WITHIN THE MASTER PLAN COMMUNITY OF 3000725849-SUMMERLIN V24
(149) HOMES, 200A 120/240V PANELS
(2) IRRIGATION SVC, 125A 120/240V PEDESTAL
(1) IRRI/GATE SVC 125A 120/240V PEDESTAL
(1) STREETLIGHT SVC 200A 120/240V PEDESTAL

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NVEnergy INFORMATION:
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PHONE: (702)217-8222 D.F. LOWELL, KEN
DESIGNER: MONTOYA, LUIS
DCA: 285-8182, 219-5761
INSPECTOR: 702-402-3008 OR UGI@NVENERGY.COM
STAND BY: (702) 402-4450, 4150, 4114, 4117, 4118
DISTRICT: LAS VEGAS NORTH DISTRICT

JPA INFORMATION:
JPA ADMIN PHONE: N/A JPA#: N/A

CUSTOMER INFORMATION:
APPLICANT: KB HOME LAS VEGAS INC.
ENGINEER: SHG
CONTACT: BONNER, ARIC ** 702-266-8556
APPROVAL DATE: 5/13/2019

GOVERNMENT INFORMATION:
AGENCY: CITY OF LAS VEGAS
APPROVAL DATE: ---- I

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CITY OF LAS VEGAS
PERMIT REQUIRED*

CONTACT CLV LAND DEVELOPMENT (229-6371)
CLV CONSTRUCTION SERVICES MUST BE NOTIFIED 24 HOURS PRIOR TO COMMENCING CONSTRUCTION (229-6337)

HANSEN_____

DATE_____

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---- [signature] 6.20.19 ----
APPROVAL BY: DATE

NVEnergy

BRISTLE VALE UNIT 1-SUBDIVISION

ALTA AND CROSSBRIDGE

PROJ #3003472877	SCALE: 1"=30'
SHEET # 3 OF 6	DATE: 3/19/2019

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0 REVISION(S)
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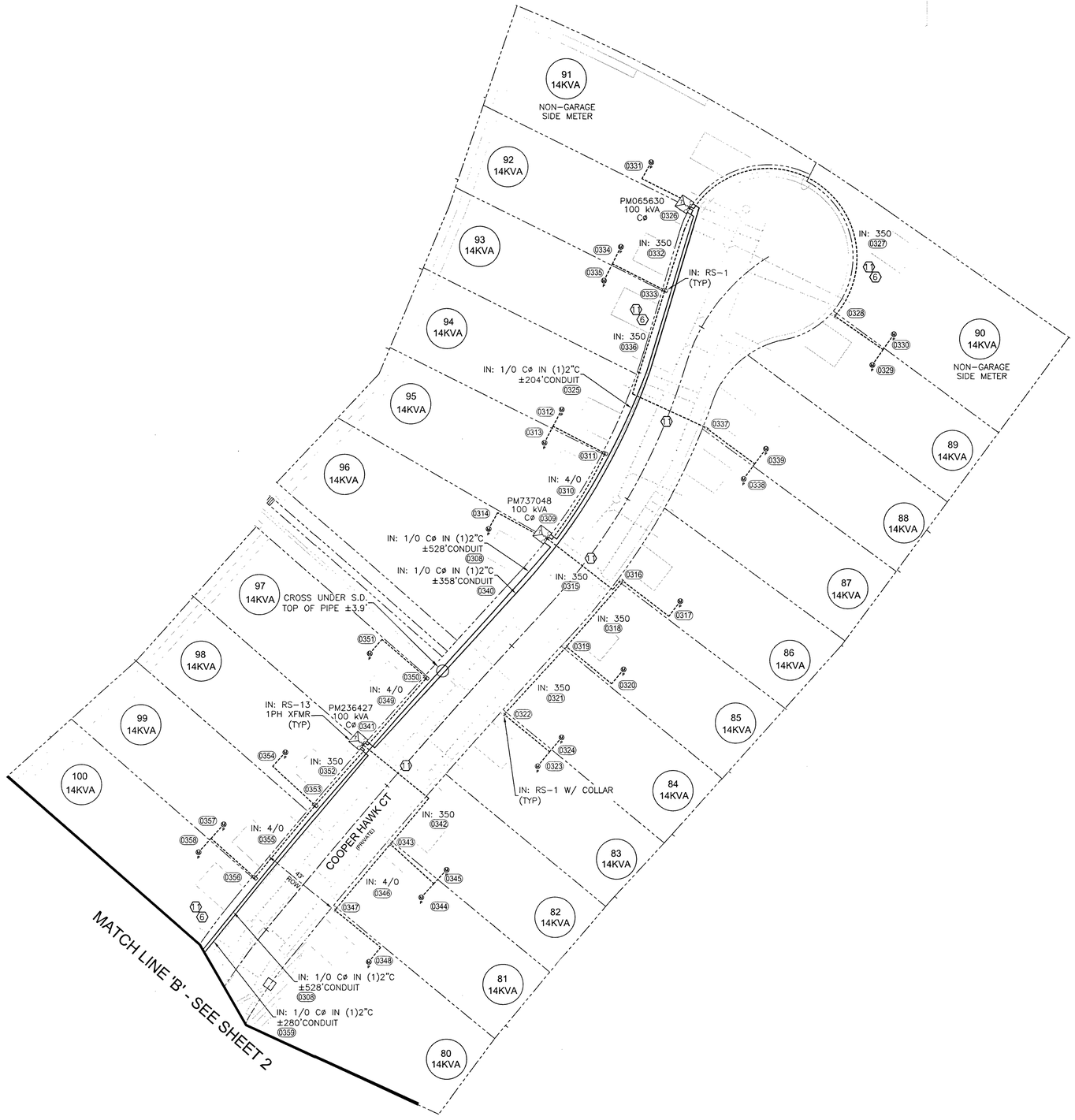

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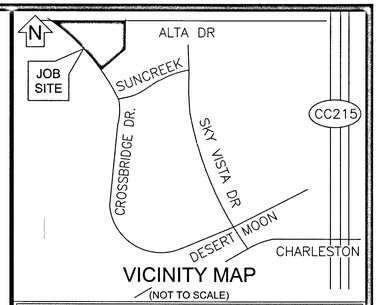
T,R,S: 20-59-33

APN: 137-33-610-002
137-33-610-003



VICINITY MAP
(NOT TO SCALE)

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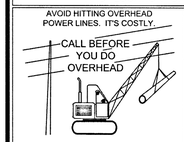

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REVISIONS

NO.	DESCRIPTION	DATE	REV BY

STANDARD DCA

PROJECT PURPOSE:

SERVE RESIDENTIAL SUBDIVISION WITHIN THE MASTER PLAN COMMUNITY OF 3000725849-SUMMERLIN V24
(149) HOMES, 200A 120/240V PANELS
(2) IRRIGATION SVC, 125A 120/240V PEDESTAL
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JPA ADMIN PHONE: N/A JPA#: N/A

CUSTOMER INFORMATION:
APPLICANT: KB HOME LAS VEGAS INC.
ENGINEER: SHG
CONTACT: BONNER, ARIC ** 702-266-8556
APPROVAL DATE: 5/13/2019

GOVERNMENT INFORMATION:
AGENCY: CITY OF LAS VEGAS
APPROVAL DATE: ---- I

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CITY OF LAS VEGAS
PERMIT REQUIRED*

CONTACT CLV LAND DEVELOPMENT (229-6371)
CLV CONSTRUCTION SERVICES MUST BE NOTIFIED 24 HOURS PRIOR TO COMMENCING CONSTRUCTION (229-6337)

HANSEN

DATE

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APPROVAL BY: DATE 6-20-19

NVEnergy

BRISTLE VALE UNIT 1-SUBDIVISION

ALTA AND CROSSBRIDGE

PROJ #3003472877 | SCALE: 1"=30'
SHEET # 4 OF 6 | DATE: 3/19/2019

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5/21/2019 3:41 PM

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LA-00027
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0 REVISION(S)
MB

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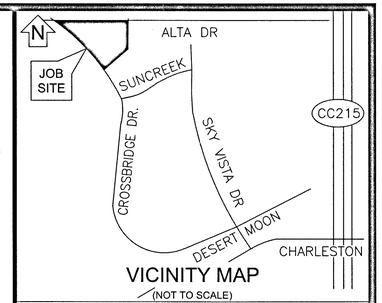
T,R,S: 20-59-33

APN: 137-33-610-002
137-33-610-003



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REVISIONS

NO.	DESCRIPTION	DATE	REV BY

STANDARD DCA

PROJECT PURPOSE:

SERVE RESIDENTIAL SUBDIVISION WITHIN THE MASTER PLAN COMMUNITY OF 3000725849-SUMMERLIN V24
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(2) IRRIGATION SVC, 125A 120/240V PEDESTAL
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CUSTOMER INFORMATION:
APPLICANT: KB HOME LAS VEGAS INC.
ENGINEER: SHG
CONTACT: BONNER, ARIC ** 702-266-8556
APPROVAL DATE: 5/13/2019

GOVERNMENT INFORMATION:
AGENCY: CITY OF LAS VEGAS
APPROVAL DATE: ---- /

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NVEnergy.

BRISTLE VALE UNIT 1-SUBDIVISION

ALTA AND CROSSBRIDGE

PROJ #3003472877	SCALE: 1"=30'
SHEET # 5 OF 6	DATE: 3/19/2019

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CITY OF LAS VEGAS
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HANSEN

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0 REVISION(S)
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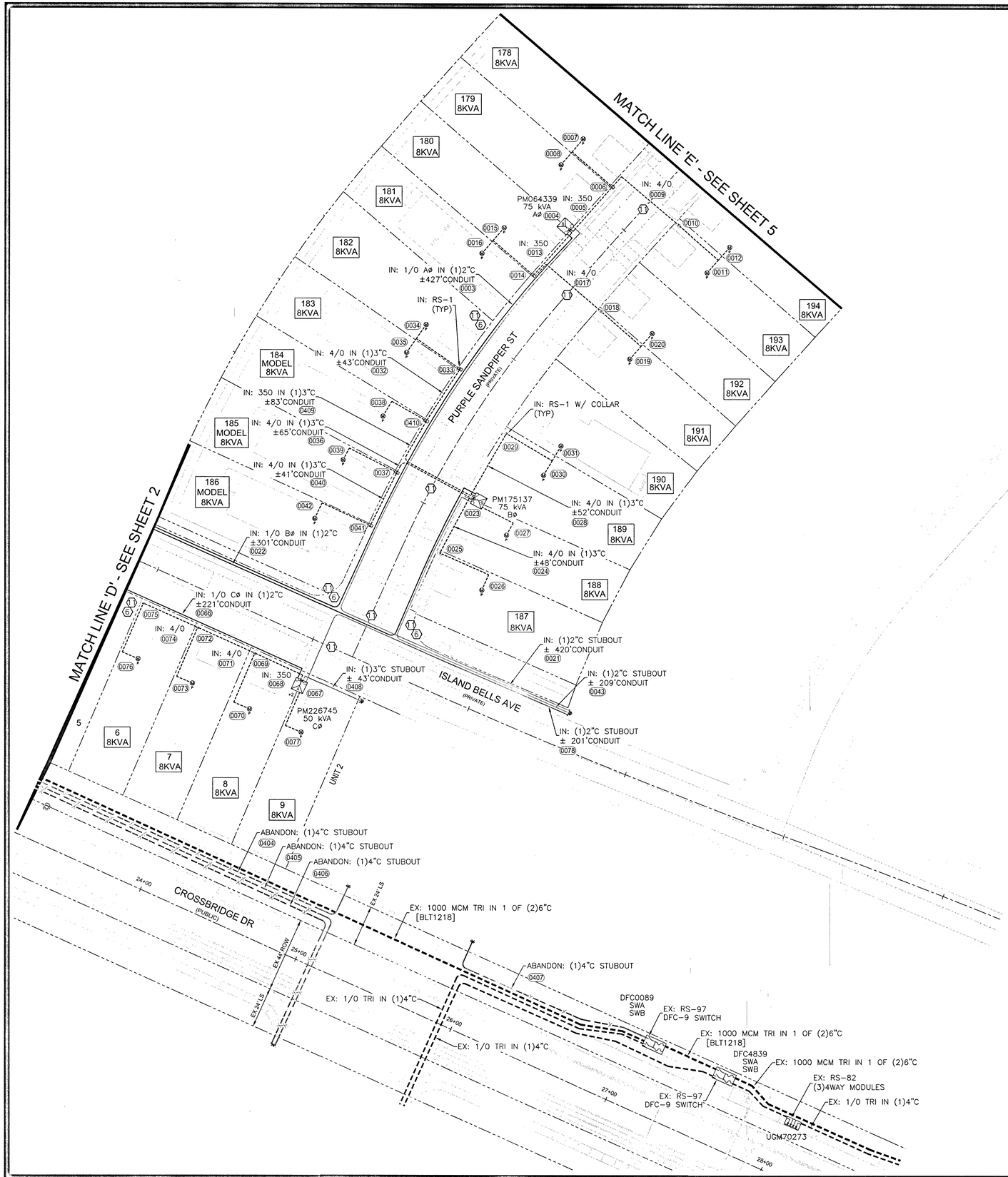
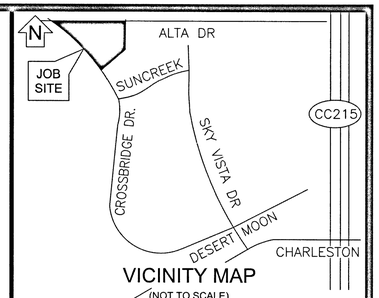


T,R,S: 20-59-33

APN: 137-33-610-002
137-33-610-003



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STANDARD DCA

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SERVE RESIDENTIAL SUBDIVISION WITHIN THE MASTER PLAN COMMUNITY OF 3000725849-SUMMERLIN V24
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ENGINEER: SHG
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APPROVAL DATE: 5/13/2019
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APPROVAL BY: 6.20.19 DATE

NVEnergy

BRISTLE VALE UNIT 1-SUBDIVISION

ALTA AND CROSSBRIDGE

PROJ #3003472877	SCALE: 1"=30'
SHEET # 6 OF 6	DATE: 3/19/2019

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