# GRADING NOTES

1. IN THE EVENT THAT ANY UNFORSEEN 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' | AS INDICATED ON PLAN |
| B. ENGINEERED FILL | 0.5'+ | +0.1' TO -0.1' | MINIMUM OF 90% OR AS SHOWN ON PLANS |

COMPACTION TESTING WILL BE PERFORMED BY THE OWNER OR HIS REPRESENTATIVE AND COPIES OF TEST RESULTS WILL BE PROVIDED TO THE CITY.

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.

# STREETLIGHT NOTES

1. ALL STREET LIGHTS, POLES, LUMINAIRES AND APPURTENANCES WILL CONFORM WITH THE MINIMUM REQUIREMENTS OF SUMMERLIN'S STDS.
2. NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS (ETC.) LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE TRAFFIC/ELECTRICAL FIELD OPERATIONS DIVISION AND THE CITY ENGINEER. ANY DEVIATION FROM THE PLAN LOCATION WILL REQUIRE COMPLIANCE WITH SECTION 623.L0.03 (E) OF THE SPECIFICATIONS.
3. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION.
4. ALL EMPTY CONDUIT SHALL HAVE PULL STRINGS INSTALLED PRIOR TO FINAL INSPECTION.
5. ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE OF EIGHTEEN INCHES (18") TO THE FACE OF STREET LIGHTNING POLE ON ALL SIDES WHEN STREETLIGHT IS INSTALLED BEHIND SIDEWALK, AND SHALL AT NO TIME COMPLETELY ENCLOSE THE STREET LIGHTNING POLE.
6. AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE ELECTRICAL SERVICES SECTION PRIOR TO ANY PER FINAL INSPECTION. THE AS-BUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.
7. SERVICE POINT SHALL BE COORDINATED WITH NEVADA POWER COMPANY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CIRCUIT. THIS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
8. IT SHALL BE ASSUMED THAT IN THE ABSENCE OF AN EXISTING WORKABLE CIRCUIT TO ATTACHE TO, ALL INSTALLATIONS SHALL REQUIRE A NEW SERVICE FOR OPERATION OF THE CIRCUIT.
9. WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREET LIGHTNING 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 SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON PLANS.

# FIRE DEPARTMENT NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LAS VEGAS FIRE DEPARTMENT "HYDRANT SPECIFICATIONS," "HYDRANT INSTALLATION SPECIFICATIONS" AND ORDINANCE NO. 3944.
2. AUTHORIZED HYDRANTS FOR THIS PROJECT ARE:
   A. KENNEDY GUARDIAN
   B. MUELLER A-423 CENTURION
   C. CLOW MODEL 2546 MEDALLION
3. ON ANY NEW HOME OR BUILDING INSTALLATION, ACCESSIBLE FIRE HYDRANTS SHALL BE INSTALLED BEFORE COMBUSTIBLE CONSTRUCTION COMMENCES AND SAID FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER WITH AN ADEQUATE WATER SUPPLY.
4. CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT CENTERLINE OF STREET ADJACENT TO FIRE HYDRANT AS REQUIRED IN ORDINANCE NO. 3944 TO IDENTIFY THE FIRE HYDRANT LOCATIONS.
5. CONTRACTOR SHALL CALL THE LAS VEGAS BUILDING DEPARTMENT AT 229-2071 FOR UNDERGROUND INSPECTION, PRESSURE AND FLUSH VERIFICATION OF ALL FIRE HYDRANTS AND FIRE LINES BEFORE BACK FILLING.
6. PAINTING OF THE CURBS AND HYDRANTS AND ANY WORK NECESSARY FOR PROTECTION OF HYDRANTS FROM PHYSICAL DAMAGE, PER ORDINANCE NO. 3944, SHALL BE COMPLETED BEFORE APPROVAL BY THE CITY OF LAS VEGAS FIRE DEPARTMENT.
7. A PERMIT IS REQUIRED FROM THE FIRE DEPARTMENT FOR ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER PRIOR TO ANY WORK BEGINNING.
8. PRIVATE FIRE HYDRANTS SHALL BE PAINTED RED.
9. A FLOW TEST MUST BE WITNESSED BY THE FIRE DEPARTMENT PRIOR TO OCCUPANCY FOR VERIFICATION OF REQUIRED ON-SITE WATER SUPPLY.
10. ALL ON-SITE FIRE MAIN MATERIALS MUST BE U.L. LISTED AND A.W.W.A. APPROVED.
11. FIRE HYDRANT SPACING:

    RESIDENTIAL -
    500 FEET UNSPRINKLERED; 1,000 FEET SPRINKLERED.
    COMMERCIAL, INCLUDING MULTI-FAMILY -
    300 FEET UNSPRINKLERED; 600 FEET SPRINKLERED.
12. WHERE NEW WATER MAINS ARE EXTENDED ALONG STREETS, WHERE HYDRANTS ARE NOT NEEDED FOR PROTECTION OF STRUCTURES, FIRE HYDRANTS SHALL BE SPACED AT MAXIMUM ONE-THOUSAND (1,000') FOOT SPACING TO PROVIDE FOR TRANSPORTATION HAZARDS.
13. NO FIRE HYDRANT SHALL BE LOCATED WITHIN THE REQUIRED RADIUS OF A CUL-DE-SAC OR WITHIN TWENTY (20') FEET OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
14. NO FIRE HYDRANT SHALL BE LOCATED WITHIN SIX FEET (6') OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREET LIGHT OR ANY OTHER OBSTRUCTION.
15. TWO SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE ARE FOUR (4) OR MORE FIRE HYDRANTS INSTALLED ON A SINGLE SYSTEM.
16. NOT MORE THAN TWO (2) HYDRANTS CAN BE OUT OF SERVICE DUE TO A SINGLE MAIN BREAK.
17. FIRE APPARATUS ACCESS ROADS SHALL HAVE AN UNOBSTRUCTED WIDTH OF NOT LESS THAN TWENTY FEET (20') PROVIDED NO PARKING IS ALLOWED, NOT LESS THAN TWENTY-EIGHT FEET (28') IF PARALLEL PARKING IS ALLOWED ON ONE SIDE, AND NOT LESS THAN THIRTY-SIX FEET (36') IF PARALLEL PARKING IS ALLOWED ON BOTH SIDES. VERTICAL CLEARANCE SHALL BE NOT LESS THAN THIRTEEN-FEET-SIX-INCHES (13'6").
18. THE TURNING RADIUS FOR ANY FIRE APPARATUS ACCESS ROAD AND/OR FIRE LANE, PUBLIC OR PRIVATE SHALL BE NOT LESS THAN FORTY-FIVE FEET (45') OUTSIDE RADIUS AND TWENTY-TWO FEET (22') INSIDE RADIUS.
19. A FIRE APPARATUS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN ONE-HUNDRED FIFST FEET (150') FROM A FIRE DEPARTMENT VEHICLE ACCESS. (SEE EXCEPTIONS IN UFC 94, SECTION 902.2).
20. ALL DEAD END FIRE APPARATUS ACCESS ROADS AND/OR FIRE LANES, PUBLIC OR PRIVATE, IN EXCESS OF ONE-HUNDRED FIFTY FEET (150') IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND AREA. SEE ORDINANCE NO. 3944.
21. 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 ONE-HUNDRED FEET (100') ALONG ALL 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 TEN FEET (10') OR LESS THAN SIX FEET (6') FROM ROADWAY LEVEL. THE CURBS ALONG OR ON THE PAVEMENT OR CEMENT IF CURB IS NOT PRESENT, SHALL BE PAINTED WITH A RED WEATHER RESISTANT PAINT IN ADDITION TO THE SIGNS.
22. ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. SAID SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF LAS VEGAS GUIDELINES FOR AUTOMATIC EMERGENCY VEHICLE ACCESS GATES.

FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENT IS:
gallons per minute at 20 psi residual pressure.

Based on:

SQUARE FOOTAGE: square feet

LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS: square feet

BUILDING HEIGHT: feet

NUMBER OF STORIES: floors

TYPE OF CONSTRUCTION:

OCCUPANCY:

FULL AUTOMATIC FIRE SPRINKLER SYSTEM:

Reviewed By:

Date:

# DEVATION FROM STANDARDS

1. STREET SLOPE ON PINE LEAF DRIVE EXCEEDS 3% AT THE INTERSECTION OF OAK KNOLL DRIVE.
2. K-VALUE ON PINE GREENS SEE SHEET SS-1

* ALL STREET LIGHT INSTALLATIONS, FOUNDATIONS,POLES, LUMINAIRES AND APPURTENCES WILL CONFORM WITH THE MINIMUM REQUIREMENTS OF SUMMERLIN'S IMPROVEMENT STANDARDS

# GENERAL NOTES

1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS' CONSTRUCTION, OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, LATEST EDITION". REFER TO SUMMERLIN IMPROVEMENT STDS. AS APPROVED BY CLV ON 2/2/93; AND THE UNIFORM BUILDING CODE; AND ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE.
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 IS OWN EXPENSE, LOCATE ALL UNDERGROUND AND OVERHEAD INTERFERENCES 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 DESIGN TO BE APPROVED BY THE CITY ENGINEER, 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. 1/2" EXPANSION JOINT REQUIRED AT ALL COLD JOINTS, AT BEGINNING & END OF RETURN AND AT 150' MAX INTERVALS FOR EXTRUDED CURB AND 30' MAX. INTERVALS FOR FORMED CURB. FOR JOINT DETAIL SEE SUMMERLIN IMPROVEMENT STDS DWG No. S-72.
8. AC PAVEMENT TO BE ONE-HALF INCH (1/2") ABOVE LIP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.
9. REQUIRED CURB, GUTTER AND SIDEWALKS OR WALKWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUMMERLIN STANDARDS AND ADA STANDARDS AS ADOPTED BY THE CITY OF LAS VEGAS.
10. ALL STREET INTERSECTIONS SHALL HAVE WHEELCHAIR RAMPS CONSTRUCTION IN ACCORDANCE WITH SUMMERLIN IMPROVEMENT STANDARDS AND ADA STANDARDS AS ADOPTED BY THE CITY OF LAS VEGAS. ALTERNATIVE RAMP LOCATIONS MAY BE PERMITTED WITH THE APPROVAL OF THE CITY ENGINEER AND THE SDRC.
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 TRANSITIONS TO BE AS SHOWN ON PLANS.
12. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY THE SOILS ENGINEER 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 LOCATIONS 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 MONUMENT. ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH N.R.S. STATUTE NO. 625.550.
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.
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 BUILDING PERMIT AND BUILDING INSPECTION.
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.

## BENCHMARK

REFER

CITY OF LAS VEGAS BENCHMARK
CLV00019S4 RIVET & PLATE IN TOP OF CURB NW SIDE OF TOWN CENTER DRIVE & SOUTH CIRCLE ISLAND.
2728.37 NAVD 1988 DATUM (831.6074 M)
2726.19 SUMMERLIN DATUM (USED IN THIS PROJECT)
SUMMERLIN DATUM + 2.18 = NAVD 1988 DATUM

## BASIS OF BEARING

NORTH 15°23'46" EAST, BEING THE BEARING OF THE CENTERLINE OF ANASAZI DRIVE AS SHOWN BY MAP THEREOF ON FILE IN BOOK 64, PAGE 67 OF PLATS, IN THE CLARK COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA.

## LEGEND - GRADING

FUTURE IMPROVEMENTS
EX. IMPROVEMENTS
BLOCK RETAINING WALL
BLOCK WALL
INDEX CONTOUR
INTERMEDIATE CONTOUR
SCARP (3:1 MAX)
A.C. SWALE
HINGE LINE
UNIT LINE
PAD GRADE (99.9)
MATCH MASKING
RETAINING HEIGHT (2)

# TRAFFIC NOTES

1. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "NEVADA WORK ZONE TRAFFIC CONTROL HANDBOOK", LATEST EDITION, AND 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 CONTRACT 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. 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 HEREUNDER, REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.
9. STREET SIGNS AND STOP SIGNS SHALL BE INSTALLED PER CITY STANDARD SPECIFICATIONS FOR PLACEMENT OF STREET NAME SIGNS.
10. THE CONTRACTOR SHALL PROVIDE BARRICADES, SIGNS, FLASHERS, OTHER EQUIPMENT AND FLAG PERSONS NECESSARY TO INSURE THE SAFETY OF WORKERS AND VISITORS.
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 NO. IS 229-3442) WHO WILL PROVIDE OFFICERS PROPERLY TRAINED IN TRAFFIC CONTROL. FEES FOR THE USE OF THESE OFFICER SHALL BE SET UP BY METRO AND WILL BE PAID BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL ARRANGEMENTS WITH METRO.

## LEGEND - UTILITY

| DESCRIPTION | PROPOSED | EXISTING |
|---|---|---|
| EXISTING STREET LIGHT OFFSITE | N/A | |
| EXISTING STREET LIGHT OFFSITE | N/A | |
| NEW STREET LIGHT | | |
| PHOTO EYE | PE | PE |
| ELECTRICAL PEDISTAL | | |
| PULL BOX AS SHOWN | | |
| GATE VALVE | | |
| EXISTING FIRE HYDRANT OFFSITE | N/A | |
| NEW FIRE HYDRANT (UNLESS NOTED AS EXISTING) | | |
| BACKWATER VALVE | BW | N/A |
| SEWER MANHOLE | | |
| STORM DRAIN MANHOLE | | |
| SEWER AND WATER SERVICE | | |
| STREET NAME SIGN | | |
| STREET SIGN (SPEED LIMIT 25) | | |
| STOP SIGN | | |
| FUTURE IMPROVEMENTS | | N/A |
| EX. IMPROVEMENTS | | N/A |
| UNIT LINE | | N/A |
| SEWER | | |
| WATER | | |
| 1 1/4" STREET LIGHT CONDUIT | | |
| OM-3 MARKER | | |

# 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 IN PAVED 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. A SEWER MAIN CROSSING OVER A WATER MAIN OR LESS THAN EIGHTEEN INCHES (18") UNDER A WATER MAIN, MUST BE REINFORCED CONCRETE ENCASED FOR A DISTANCE NOT LESS THAN TEN FEET (10') TO EACH SIDE OF THE CENTERLINE OF THE 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 AND REPLACED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO ACCEPTANCE BY THE CITY OF LAS VEGAS.
10. INSTALLATION OF CURVED SEWER REQUIRES SPECIAL CONSTRUCTION PROCEDURES AND INSPECTIONS. CONTACT CITY OF LAS VEGAS CONSTRUCTION SERVICES 24 HOURS PRIOR TO INSTALLATION.

# QUANTITIES:

## PUBLIC WATER QUANTITIES

| | |
|---|---|
| 8" WATER | 1242 LF |
| 6" WATER | 103 LF |
| 8" x 6" REDUCER | 1 EA |
| 12"x8"x12" MECHANICAL TAPPING TEE | - |
| 8" TEE | 1 EA |
| 8" 45° BEND | 1 EA |
| 8" 22.5° BEND | 2 EA |
| 8" 11.25° BEND | 1 EA |
| 1" LATERAL WITH 5/8" METER AND PRV | 36 EA |
| 1" LATERAL WITH 5/8" METER AND PRV (IRRIG.)(3/4" RPPA) | 1 EA |
| 1" LATERAL WITH 1" METER AND PRV (IRRIG.) | - |
| 8" GATE VALVE | 3 EA |
| STD. F.H. ASSY. W/ 8x6x8 TEE, 6" GV AND LATERAL | 3 EA |
| 2" BLOWOFF VALVE | 1 EA |

## PUBLIC SEWER QUANTITIES

| | |
|---|---|
| 8" SEWER | 1120 LF |
| 48" MANHOLE | 3 EA |
| 4" LATERAL (PRIVATE) | 720 LF |
| BACK WATER VALVE (PRIVATE) | 20 EA |
| 4" LATERAL | 360 LF |

## PRIVATE STREET LIGHT QUANTITIES

| | |
|---|---|
| 100 W H.P.S. | 9 EA |
| 150 W H.P.S. | - |
| #3-1/2 PULLBOX | 1 EA |
| 1-1/4" CONDUIT | 1100 LF |

## ONSITE PAVING AND GRADING QUANTITIES

| | |
|---|---|
| 2.5" AC PAVEMENT | 45,770 SF |
| VALLEY GUTTER | 690 SF |
| 30" ROLL CURB AND GUTTER | 2720 LF |
| 24" "L" TYPE CURB AND GUTTER | - |
| "A" TYPE CURB | - |
| 4' SIDE WALK (EXCLUDING MINI PARK) | 5800 SF |
| TYPE II BASE | 660 CY |

## PUBLIC SIGN QUANTITIES

| | |
|---|---|
| STREET NAME SIGN | 2 EA |

# ABBREVIATIONS

| | |
|---|---|
| AB | AGGREGATE BASE |
| AC | ASPHALTIC CONCRETE |
| ACP | ASBESTOS CEMENT PIPE |
| ADJ | ADJUST |
| AGG | AGGREGATE |
| AVE | AVENUE |
| BC | BACK OF CURB |
| BCR | BEGIN CURB RETURN |
| BM | BENCH MARK |
| BVC(E) | BEGIN OF VERTICAL CURVE (ELEVATION) |
| BVC(S) | BEGIN OF VERTICAL CURVE (STATION) |
| BW | BOTTOM WALL |
| CC | CLARK COUNTY |
| C/L | CENTERLINE |
| CF | CUBIC FEET |
| CI | CURB INLET |
| CIP | CAST IRON PIPE |
| CMU | CONCRETE MASONARY UNIT |
| CO | CLEAN OUT |
| CONC | CONCRETE |
| CONST | CONSTRUCT |
| CONT | CONTINUOUS |
| CSP | CORRUGATED STEEL PIPE |
| CL | CENTERLINE |
| CULV | CULVERT |
| CY | CUBIC YARD |
| DET | DETAIL |
| DI | DROP INLET |
| DIA | DIAMETER |
| E | EAST |
| EGL | ENERGY GRADE LINE |
| ELEV | ELEVATION |
| EP | EDGE OF PAVEMENT |
| ESMT | EASEMENT |
| EOP | EDGE OF PAVEMENT |
| EVC(E) | END OF VERTICAL CURVE (ELEVATION) |
| EVC(S) | END OF VERTICAL CURVE (STATION) |
| EX | EXISTING |
| FF | FLOOR FINISH |
| FG | FINISH GRADE |
| FH | FIRE HYDRANT |
| FT | FEET OR FOOT |
| FL | FLOW LINE |
| G | GAS |
| GA | GAUGE |
| GALV | GALVANIZED |
| GB | GRADE BREAK |
| HGL | HYDRAULIC GRADE LINE |
| HP | HIGH POINT |
| IE | INVERT ELEVATION |
| INT | INTERSECTION |
| INV | INVERT |
| ISL | ISLAND |
| JB | JUNCTION BOX |
| LF | LINEAR FEET |
| LT | LEFT |
| LAT | LATERAL |
| LVVWD | LAS VEG

## GRADING NOTES

## STREETLIGHT NOTES

## FIRE DEPARTMENT NOTES

## DEVIATION FROM STANDARDS

## GENERAL NOTES

## TRAFFIC NOTES

## LEGEND – UTILITY

## LEGEND – GRADING

## SEWER NOTES

## QUANTITIES

### PUBLIC WATER QUANTITIES

| | |
|---|---|
| 8" WATER | 1168 LF |
| 8" x 8" TEE | 1 EA |
| 8" GATE VALVE | 1 EA |
| 8" x 6" REDUCER | 1 EA |
| 6" GATE VALVE | 1 EA |
| 6" x 6" TEE | 1 EA |
| 6" x 6" CROSS | 1 EA |
| 6" x 6" BEND | 2 EA |
| 6" x 6" BEND | 1 EA |
| 1" LATERAL WITH 3/4" METER AND PIT | 36 EA |
| 1" LATERAL WITH 3/4" METER AND PIT (STAGE 1) | 1 EA |
| 1" LATERAL WITH 1" METER AND PIT (SIGNS) | – |
| 8" GATE VALVE | 3 EA |
| 8" x 6" x 6" TEE | 3 EA |
| 8" BLOWOFF VALVE | 1 EA |

### PUBLIC SEWER QUANTITIES

| | |
|---|---|
| 8" SEWER | 1160 LF |
| 48" MANHOLE | 3 EA |
| 4" LATERAL (PRIVATE) | 200 LF |
| BACK WATER VALVE (PRIVATE) | 88 EA |
| 4" LATERAL | 200 LF |

### PRIVATE STREET LIGHT QUANTITIES

| | |
|---|---|
| 400 W PLACE | 8 EA |
| 400 W PLACE | – |
| 20-4/0 PRIMARY | 1 EA |
| 2-4/0 CABLE | 1160 LF |

### CREEK PATHS AND GRADING QUANTITIES

| | |
|---|---|
| 8" AC PAVEMENT | 45,770 SF |
| VALLEY GUTTER | 660 SF |
| 30" FULL CURB AND GUTTER | 8700 LF |
| 30" "L" TYPE CURB AND GUTTER | – |
| "V" TYPE CURB | – |
| 4' SIDE WALK (INCLUDING MEW PATHS) | 8600 SF |
| TYPE I BARC | 900 SY |

### PUBLIC SIGN QUANTITIES

| | |
|---|---|
| STREET NAME SIGN | 2 EA |

## ABBREVIATIONS

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ALPHA & OMEGA
ENGINEERING
CONSULTANTS
LAS VEGAS, NEVADA

SLV NORTH
QUANTITIES PLAN

WOODLANDS UNIT 1
THE VINEYARD • UNIT 1

SCALE
DATE
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