

1. CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITION BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND OF INGRESS AND EGRESS TO SAID CONSTRUCTION. EXTENT OF TRANSITIONS TO BE DETERMINED BY THE COUNTY ENGINEER.
2. EXISTING UTILITIES ARE LOCATED ON PLANS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR THE PROTECTION OF UTILITIES AND THE ENGINEER BEARS NO RESPONSIBILITY FOR UTILITIES NOT SHOWN ON PLANS OR NOT IN THE LOCATION SHOWN ON THE PLANS. (CALL BEFORE YOU DIG 800-227-2600)
3. CONSTRUCTION SURVEY:
GRADES ARE GIVEN FROM TOP OF STAKES OR NAILS. THE CONTRACTORS ARE CAUTIONED TO OBSERVE THE FOLLOWING RULE IN USING THE GRADE STAKES GIVEN BY THIS OFFICE. THREE CONSECUTIVE POINTS THAT ARE SHOWN TO BE ON THE SAME RATE OF SLOPE MUST BE USED IN COMMON IN ORDER THAT ANY VARIATION OUT OF A PERFECT STRAIGHT GRADE MAY BE DETECTED. IN CASE ANY SUCH DISCREPANCY IS FOUND, THE SAME MUST BE REPORTED OTHERWISE THIS OFFICE WILL NOT BE RESPONSIBLE FOR ANY ERROR IN THE GRADE OF THE FINISH WORK.
4. NEITHER THE OWNER NOR ENGINEER ASSUMES ANY RESPONSIBILITY FOR UTILITIES OR STRUCTURES NOT SHOWN ON THE DRAWINGS. CONTRACTOR TO VERIFY THE EXACT LOCATION OF UTILITIES PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR'S RESPONSIBILITIES REGARDING UTILITIES SHALL BE AS REQUIRED UNDER SECTION 107.17 OF THE UNIFORM STANDARD SPECIFICATIONS FOR CLARK COUNTY AREA, NEVADA AND AS PROVIDED IN THE SPECIFICATIONS. THE CONTRACTOR SHALL USE EXTREME CARE WORKING OVER OR NEAR ANY EXISTING GAS MAINS.
5. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE FROM DAMAGE. ALL SUCH IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR RECONSTRUCTED TO THE SATISFACTION OF THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.
6. FENCES, SIGNS, STRUCTURES, LIGHTS AND OTHER EXISTING IMPROVEMENTS WITHIN STREET ROW SHALL BE REMOVED WHERE SHOWN ON THE CONTRACT DRAWINGS, AND AS REQUIRED BY THE ENGINEER.
7. REPLACEMENT, RELOCATION OR RECONSTRUCTION OF ALL EXISTING IMPROVEMENTS INCLUDING FENCES, SIGNS, AND ALL OTHER ITEMS APPLICABLE TO THIS CONTRACT SHALL BE AS REQUIRED BY THE ENGINEER.
8. THE CONTRACTOR SHALL BACKFILL AND FINAL GRADE ALL CUT OR FILL SLOPES TO MATCH EXISTING CONDITIONS TO THE SATISFACTION OF THE ENGINEER.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERTICAL ADJUSTMENT OF ALL EXISTING SANITARY AND STORMSEWER MANHOLES TO THE FINAL FINISH GRADE SHOWN ON THE CONTRACT DETAILS SHOWN ON THE CONTRACT DRAWINGS AND IN ACCORDANCE WITH SECTION 609 OF THE "STANDARD SPECIFICATIONS".
10. ALL GRADING SHALL BE IN ACCORDANCE WITH THE SPECIFICATION MANUAL AND THE SOILS REPORT AS PREPARED BY GEOTEK, NO. W 9786-16 WHERE CONFLICTS OCCUR THE MOST RESTRICTIVE SHALL GOVERN.
11. 48 HOURS PRIOR TO START OF CONSTRUCTION THE CONTRACTOR SHALL CONTACT:
NV ENERGY
CENTURYLINK TELEPHONE - NEVADA
SOUTHWEST GAS CORPORATION
LAS VEGAS VALLEY WATER DISTRICT
PHONE 1-800-227-2600 OR 811
PHONE 1-800-227-2600 OR 811
PHONE 1-(702) 865-2111
PHONE 1-(702) 870-2111

1. 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 ROADWAY BEING IMPROVED HEREUNDER. REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.
2. 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 GRADUALLY MOUNTED STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING COUNTY STREETS IMMEDIATELY AFTER FIRST GRADING WORK IS ACCOMPLISHED, AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.
3. ALL CONSTRUCTION SIGNING, BARRICADE AND PAVEMENT MARKINGS SHALL CONFORM TO THE NEVADA WORK ZONE TRAFFIC CONTROL HANDBOOK - 1986 AND TO THE MANUAL ON URBAN TRAFFIC CONTROL DEVICES, CURRENT EDITION.
4. 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 COUNTY TRAFFIC MANAGER.
5. THE DEVELOPER SHALL BE RESPONSIBLE TO PROVIDE AND INSTALL ALL PERMANENT SIGNS SHOWN ON THE PLANS. STREET NAME SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CLARK COUNTY AREA STANDARDS. ALL OTHER SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH CLARK COUNTY AREA STANDARDS. ALL SIGNS SHALL USE CLASS VI SHEETING.
6. IF A PROPOSED STREET LIGHT STANDARD IS FIELD LOCATED TO WITHIN FIVE (5) FEET OF ANY SIGN SHOWN HEREON TO BE MOUNTED ON A SIGN POST, CHANGE SIGN MOUNTING TO ONE ON THE STREETLIGHT STANDARD.
7. PRIOR TO CONSTRUCTION, THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE CURRENT PLANNING DIVISION OF THE DEPARTMENT OF COMPREHENSIVE PLANNING.
8. ALL TRAFFIC SIGNAL POLE ASSEMBLIES, STEEL PEDESTAL FOR CABINETS, AND STREET LIGHT POLES SHALL BE GALVANIZED PER ASTM A 123.
9. ALL STREET LIGHTING INSTALLATIONS SHALL CONFORM TO THE URBAN STANDARD DRAWINGS, AND THE URBAN STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, OFF-SITE IMPROVEMENTS. IN ADDITION TO EACH EXCEPT AS NOTED ON THE STREET LIGHTING STANDARD DRAWINGS, PLANS AND LUMINAIRES, REFER TO CLARK COUNTY PUBLIC WORKS QUALIFIED PRODUCTS LIST "QPL" FOR LED LUMINAIRES. CLARK COUNTY CAN BE FOUND ONLINE AT [HTTP://WWW.QPL.COM/CLARKCOUNTY/NAV.GOV/PUBLIC-WORKS/PAGES/DEFAULT.ASPX](http://www.qpl.com/CLARKCOUNTY/NAV.GOV/PUBLIC-WORKS/PAGES/DEFAULT.ASPX).
10. THE FOLLOWING CLARK COUNTY UNDERGROUND FACILITIES MAY BE LOCATED IN YOUR PROJECT AREA: STREET LIGHTING, TRAFFIC SIGNALS, AND FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T.) INTERCONNECT CABLE. YOU MUST CONTACT CLARK COUNTY TRAFFIC MANAGEMENT DIVISION, OPERATIONS UNIT AT 455-6000 FOR LOCATIONS AT LEAST 48 HOURS PRIOR TO WORKING IN THE AREA. CLARK COUNTY IS NOT A MEMBER OF "CALL BEFORE YOU DIG" (UNDERGROUND SERVICE ALERT), AND A CALL TO THAT ORGANIZATION DOES NOT RELIEVE YOU OF LIABILITY FOR CLARK COUNTY FACILITIES.
11. F.A.S.T. INTERCONNECT CABLE POLICY IS IN EFFECT. INTERCONNECT CABLE MUST BE MAINTAINED AT ALL TIMES. DEVELOPER/CONTRACTOR SHALL PROVIDE TEMPORARY OVERHEAD INTERCONNECT CABLE WHILE PERMANENT CABLE IS BEING RELOCATED. TEMPORARY AERIAL INSTALLATION MUST BE ACCEPTABLE TO THE COUNTY TRAFFIC MANAGER AND TO F.A.S.T. ANY DAMAGE TO THIS CABLE IS DEEMED IN EMERGENCY BY F.A.S.T., CITY OF LAS VEGAS, CLARK COUNTY AND NDOT AND MUST BE REPAIRED IMMEDIATELY TO F.A.S.T. ACCEPTANCE. \$2,500 PER DAY DAMAGES MAY BE ASSESSED AFTER 24 HOURS HAS ELAPSED FROM TIME OF BREAK OR DAMAGE.
12. ALL NEW OR REPLACEMENT TRAFFIC SIGNAL LOOPS SHALL BE INSTALLED USING CABLE-IN-DUCT SYSTEM. SHALL HAVE INDEPENDENT LEAD-IN WIRES FOR EACH LOOP FROM THE CONTROLLER TO THE PULL-BOX AND EACH LEAD-IN SHALL BE INDIVIDUALLY TAGGED.
13. TRAFFIC SIGNAL PEDESTRIAN HEADS SHALL BE THE LED TYPE.
14. ELECTRICAL POWER SERVICE POINT LOCATION(S) FOR STREET LIGHTING AND TRAFFIC SIGNALS MUST BE INDICATED ON THE PLANS. IF CONNECTING TO AN EXISTING CIRCUIT, INDICATE LOCATION OF EXISTING SERVICE POINT FOR EACH CIRCUIT.
15. WHEN STREET LIGHTS ARE TO BE CONNECTED TO AN EXISTING CIRCUIT, THE ENGINEER MUST CERTIFY THAT THE EXISTING CIRCUIT IS CAPABLE OF HANDLING THE ADDITIONAL CIRCUIT LOAD.
16. CLARK COUNTY RESERVES THE RIGHT TO REQUEST STREET LIGHT AND TRAFFIC SIGNAL POLES AND ASSEMBLIES WHICH HAVE A "STRIPED" APPEARANCE.
17. TWO WEEKS PRIOR TO BEGINNING OF CONSTRUCTION, MODIFICATION OR RELOCATION OF ANY TRAFFIC SIGNAL SYSTEM, WRITTEN NOTICE SHALL BE SUBMITTED TO THE CLARK COUNTY TRAFFIC MANAGEMENT DIVISION OF THE DATE THAT WORK WILL BEGIN.
18. THREE (3) NORMAL WORKING DAYS PRIOR TO TURN-ON OR COMPLETION OF MODIFICATION(S) TO A TRAFFIC SIGNAL SYSTEM, WRITTEN NOTICE SHALL BE SUBMITTED TO THE CLARK COUNTY TRAFFIC MANAGEMENT DIVISION THAT THE WORK IS BEING COMPLETED AND THE PROPOSED DATE OF COMPLETION.

EXISTING UTILITY LOCATIONS SHOWN HEREIN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS 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 EXISTING LOCATIONS.

NOTE: THIS OPINION OF THE CUT AND FILL QUANTITIES IS PROVIDED AS REQUIRED BY THE GOVERNING ENTITY. THIS INFORMATION SHOULD NOT BE USED FOR BIDDING PURPOSES. ALL CONTRACTORS ARE RESPONSIBLE FOR THEIR OWN QUANTITIES. TOTALS ARE RAW AND DO NOT ACCOUNT FOR SHRINKAGE AND SUBSIDENCE.

1. INSPECTIONS ARE REQUIRED. CALL 24 HOURS IN ADVANCE. 455-4610. YOUR PERMIT, APPROVED PLANS AND BARRICADE PLANS FOR THIS WORK MUST BE ON THE JOB SITE AT ALL TIMES.
2. EXACT LOCATION OF ALL SAW-CUT LINES SHALL BE DETERMINED IN THE FIELD BY A CLARK COUNTY INSPECTOR.
3. CURB AND GUTTER WITH A GRADE LESS THAN 4/10 OF ONE PERCENT SHALL BE CONSTRUCTED BY FORMING. EACH JOINT SHALL BE CHECKED FOR GRADE PRIOR TO CONSTRUCTION AND WATER TESTED AS SOON AS POSSIBLE AFTER CONSTRUCTION.
4. FINAL ASPHALTIC CONCRETE (AC) PAVEMENT SURFACES SHALL BE ONE-HALF (1/2") INCH ABOVE THE TOP OF THE GUTTER (INCLUDING OPEN GRADE).
5. ALL OFFSITE IMPROVEMENT CONSTRUCTION SHALL CONFORM TO THE UNIFORM STANDARD SPECIFICATIONS AND STANDARD DRAWINGS CLARK COUNTY AREA NEVADA AND CLARK COUNTY SUPPLEMENT TO UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS, LATEST REVISION EXCEPT FOR LUMINAIRES. REFER TO CLARK COUNTY PUBLIC WORKS QUALIFIED PRODUCTS LIST "QPL" FOR LED LUMINAIRES. OPL CAN BE FOUND ONLINE AT [HTTP://WWW.CLARKCOUNTYNV.GOV/PUBLIC-WORKS/PAGES/DEFAULT.ASPX](http://www.clarkcountynv.gov/public-works/pages/default.aspx).
6. PRIVATE STREETS, CURB AND GUTTER AND VALLEY GUTTERS REFLECTED ON THESE PLANS ARE TO BE INSPECTED BY A CLARK COUNTY INSPECTOR.
7. WHEEL CHAIR RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING 335. EXACT LOCATIONS OF RAMPS SHALL BE DETERMINED IN THE FIELD BY A CLARK COUNTY INSPECTOR.
8. PROPER SIGNS, BARRIERS, BARRICADES, AND LIGHTS SHALL BE PLACED AND MAINTAINED IN ACCORDANCE WITH THE LATEST "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS & HIGHWAYS". TRAFFIC, SCHOOL, OR STREET SIGNS OF ANY KIND ARE NOT TO BE MOVED FOR ANY REASON WITHOUT FIRST COORDINATING WITH THE DEPARTMENT OF PUBLIC WORKS OFF-SITE INSPECTOR @ 455-4610.
9. THIS PLAN DOES NOT AUTHORIZE CLOSURE OF ANY ROAD OR STREET.
10. NO OPEN TRENCH SHALL BE ALLOWED ACROSS ANY STREET OR WITHIN TEN (10) FEET OF ANY TRAVEL-WAY, EXCEPT WHEN WORK IS IN ACTUAL PROGRESS. AREAS COVERED BY ACCEPTABLE STEEL SHALLOWS SHALL BE CONSTRUCTED TO A TRENCH. NO OPEN TRENCH IS PERMITTED IN EXCESS OF 500 FEET IN LENGTH NECESSARY TO ACCOMMODATE PIPE INSTALLATION IN A SINGLE DAY, WHICH EVER IS GREATER. TRENCH CROSSINGS AND BACKFILL SHALL MEET THE STANDARD SPECIFICATION UNLESS OTHERWISE STATED.
11. A TEMPORARY PATCH IS TO BE IN PLACE AT THE END OF EACH WORK DAY WHERE THE BACKFILL IN THE TRENCH HAS BEEN COMPLETED AND PRIOR TO OPENING THE WORK AREA BACK TO TRAFFIC AND IS TO BE MAINTAINED BY THE PERMITEE. A PERMANENT PATCH IS TO BE IN PLACE WITHIN THIRTY (30) DAYS AFTER THE INSTALLATION OF THE TEMPORARY PATCH.
12. COMPACTION TESTS ARE REQUIRED.

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY, NEVADA AREA; LATEST ISSUE; THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY, NEVADA; LATEST REVISED EDITION; THE "SUBURBAN 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 UTILITY LINES SHOWN ON THESE 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 INTERFERENCES WHICH MAY AFFECT HIS OPERATIONS. THE CONTRACTOR 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 SUCH IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR 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 WORK. CONCRETE TO BE 3000 P.S.I. MINIMUM @ 28 DAYS. MIX DESIGN TO BE APPROVED BY THE CITY, PRIOR TO 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 OF EVERY 300' IN EXTRUDED-TYPE CURB.

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 238. 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 TRANSITIONS TO BE AS SHOWN ON PLANS.

12. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY THE GEOTECH PROJECT NO. 11240-LVR8, 06/19/13, REVISED: 01/02/15, UPDATE: 06/02/17 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.

13. 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.

14. UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC. SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY APPROACHES, FLOWLINES, AND CROSS GUTTERS UNLESS WRITTEN APPROVAL IS GRANTED BY THE UTILITY COMPANY AND THE CITY ENGINEER.

WALL NOTES:

15. 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.

16. ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT WITHIN CITY RIGHT OF WAY.

17. CONTRACTOR SHALL ADJUST ALL NEW AND EXISTING INLETS, VALVE BOXES, MANHOLE RIMS, AND SEWER CLEANOUTS, ETC. TO FINISH GRADE AS APPLICABLE, WHETHER OR NOT THEY ARE SHOWN ON THE PLANS.

18. MATERIALS, HANDLING, AND PLACEMENT OF PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND DETAILS OF THE CLARK COUNTY AREA SPECIFICATIONS (AS APPLICABLE) AND THE PLANS AND SECTION SHOWN HEREON.

19. 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.

20. 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 PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES AND TIE-INS, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN, AND AT 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, AND STORM DRAIN LATERALS, 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 MAPS MUST BE SEALED AND CERTIFIED BY A NEVADA PROFESSIONAL LAND SURVEYOR TO HAVE POSITIONAL CERTAINITIES OF ± 0.09 METERS (± 0.3 FEET). HORIZONTAL AND VERTICAL COORDINATES AND SEPARATE 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).

21. 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 EDITION.

22. A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF DESIGN & 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 CONTRACTORS TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATIONS.
2. IT SHALL BE THE CONTRACTORS' RESPONSIBILITY TO PERFORM CONSTRUCTION AS PER PLANS. ANY ADDITIONS, DELETIONS, OR CHANGES SHALL FIRST MEET WITH THE APPROVAL OF THE CITY ENGINEERS.
3. CHISEL "S" OR "C" 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 FEET (80') R/W AND LARGER SHALL HAVE CONCRETE COLLARS. STREETS LESS THAN EIGHTY FEET (80') WILL REQUIRE RETROFITTING 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 INCHES (12") IN DIAMETER. CONNECTIONS TO FIFTEEN INCH (15") OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES. INLINE "Y" SHALL BE USED ON LINES TWELVE INCHES (12") IN DIAMETER AND ABOVE.
7. WATER MAINS SHALL BE PROTECTED IN ACCORDANCE WITH LVWD00 STANDARDS WHENEVER A SEWER MAIN CROSSES OVER A MAIN LINE OR THE SEWER IS LESS THAN EIGHTEEN INCHES (18") UNDER A WATER MAIN.
8. ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER 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 OF A FOOT (0.1') 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 THE USE OF PVC C900 WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS.

- A. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CLARK COUNTY FIRE CODE AS AMENDED, AND THE 2010 EDITION OF NATIONAL FIRE PROTECTION ASSOCIATION HANDBOOK #24.
- B. FIRE HYDRANTS AND WATER SUPPLIES FOR FIRE PROTECTION SHALL BE AND MADE SERVICEABLE PRIOR TO AND DURING THE TIME OF CONSTRUCTION IN ACCORDANCE WITH SECTION 3312 OF THE CLARK COUNTY FIRE CODE, AS AMENDED.
- C. IF DURING CONSTRUCTION IT BECOMES NECESSARY TO CLOSE ANY CONTROL VALVE OR PLACE A HYDRANT OUT OF SERVICE, APPROVAL SHALL BE OBTAINED FROM THE FIRE PREVENTION BUREAU PRIOR TO PLACING THE HYDRANT OUT OF SERVICE.
- D. PAINTING OF CURBS AND/OR STRIPING OF ASPHALT AREAS AND PROTECTION OF HYDRANTS FROM PHYSICAL INJURY SHALL BE PER THE FIRE HYDRANT INSTALLATION SPECIFICATIONS OF THE FIRE PREVENTION BUREAU.
- E. NO FIRE HYDRANT SHALL BE LOCATED WITHIN 25 FEET OF ANY STRUCTURE, OR 6 FEET OF A DRIVEWAY, POWER POLE, LIGHT STANDARD, OR ANY OTHER OBSTRUCTION, FOR WALL, FENCE AND PLANTER LOCATIONS. A PERIMETER AROUND THE HYDRANT MEASURING A MINIMUM OF 3 FEET FROM ITS EXTERIOR SHALL BE MAINTAINED CLEAR OF ALL OBSTRUCTIONS AT ALL TIMES.
- F. FIRE APPARATUS ACCESS ROADS SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF FIRE APPARATUS WITH A MINIMUM VEHICLE LOAD OF 33,000 POUNDS PER AXLE, AND SHALL BE SURFACED AND PAVED SO AS TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES. EXCEPTION: TEMPORARY ACCESS ROADS SERVING ONLY BUILDING UNDER CONSTRUCTION SHALL NOT BE REQUIRED TO BE PAVED, BUT SHALL COMPLY WITH ALL OTHER REQUIREMENTS OF SECTION 503.2.3 OF THE CLARK COUNTY FIRE CODE.
- G. PRIOR TO ACCEPTANCE OF ANY FIRE SERVICE MAIN, A SATISFACTORY HYDROSTATIC TEST WITH PIPING JOINTS UNCOVERED MUST BE CONDUCTED. APPROVED PLANS, AN INSTALLATION PERMIT, AND A CONTRACTOR'S MATERIALS AND TEST CERTIFICATE MUST BE PROVIDED AT TIME OF INSPECTION.
- H. FIRE HYDRANTS SHALL BE LOCATED 4' TO 7' FROM BACK OF CURB AND A MINIMUM OF 6 FEET AWAY FROM TURNS.
- I. BLUE REFLECTIVE MARKERS MUST BE INSTALLED BEFORE FINAL HYDRANT ACCEPTANCE CAN BE ATTAINED. [SECTION C107 OF THE CLARK COUNTY FIRE CODE, AS AMENDED].
- J. HYDRANTS THAT ARE PROPOSED FOR INSTALLATION IN PUBLIC WATER SYSTEMS SHALL BE IN ACCORDANCE WITH APPROVED FIRE HYDRANTS AS ALLOWED BY THE WATER PURVEYOR. HYDRANTS PROPOSED FOR INSTALLATION ON PRIVATE WATER SYSTEMS SHALL BE IN ACCORDANCE WITH APPROVED FIRE HYDRANTS AS ALLOWED BY THE FIRE PREVENTION BUREAU.

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 WAY OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES. CONSTRUCTION ACTIVITIES AT THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT SUCH MATERIAL SHALL BE PREVENTED FROM ENTERING THE PUBLIC RIGHT OF WAY OR THE STORMWATER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNED AND HIS OR HER AGENTS DUE TO UNIFORM EROSION PROBLEMS AT THE SITE. THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN CLARK COUNTY TITLE 24.40 AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BEST MANAGEMENT PRACTICES 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. PERMIT TO NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NR100000, SECTION II.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 RAIN EVENT OF 0.5 INCHES OR MORE. CORRECTIVE ACTION SHALL BE INITIATED IMMEDIATELY TO PREVENT POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. PERMIT TO NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NR100000, SECTION II.A.12.
5. ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR AFTER THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

LVVWD PROJECT #125556

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 NUMBER 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 2010 EDITION OF THE UNIFORM STANDARD SPECIFICATIONS SHALL SUPERCEDE 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 INCHES (2") 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 INCHES (2") AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 OR 258-3902 TWO (2) WORKING DAYS PRIOR TO METER PICKUP!
11. ANY INTERRUPTION OF SERVICE MUST BE PERFORMED IN ACCORDANCE WITH UDACS SECTION 4.14.01, AND APPROVED PRODUCTS LIST FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.
12. ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVVWD APPROVED PRODUCTS LIST FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS BY SUBMITTING SHOP DRAWINGS.
13. TELEPHONE "CALL BEFORE YOU DIG" AT "911" 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 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.

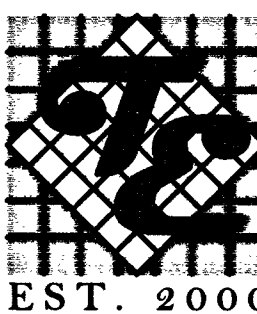
ANY DECORATIVE PAVING SURFACE WITHIN THE STREET IS THE RESPONSIBILITY OF THE OWNER'S ASSOCIATION, OR THE INDIVIDUAL PROPERTY OWNERS IF NO OWNERS ASSOCIATION IS IN EXISTENCE, OR THE AGENCY HAVING JURISDICTION. DECORATIVE SURFACE MATERIALS PLACED WITHIN THE TEN FOOT EASEMENT ABUTTING A PUBLIC OR PRIVATE STREET, IF DISTURBED BY THE LVVWD DURING THE REPAIR OR OPERATION OF ITS FACILITIES, WILL BE REPLACED BY LVVWD WITH AN APPROPRIATELY SIZED PLAIN FINISH CONCRETE PATCH. THE LVVWD WILL NOT RESTORE, AND WILL NOT BE RESPONSIBLE FOR THE RESTORATION OF, ANY DECORATIVE PAVING SURFACE WITHIN THE STREET. THE LVVWD WILL NOT ATTEMPT TO MATCH COLOR OR FINISH OF ANY ADJACENT MATERIALS.
15. **NO LEAD COMPLIANCE NOTE:** TO COMPLY WITH THE FEDERAL SAFE DRINKING WATER ACT, ALL WATER WORKS LEAD PRODUCTS SHOULD TO BE RELOCATED, OR INSTALLED AS NEW BUT BE INSTALLED WITH THE LEASE FREE APPROVED PRODUCT. THE OLD LEADED PRODUCT MAY NOT BE REUSED.

RESURFACING			
PAVING AND GRADING		PUBLIC	PRIVATE
2" AC PAVEMENT		472 SY	968 SY
3" AC PAVEMENT		2877 SY	
TYPE II		377 CY	220 CY
5" CONCRETE FLUME			488 LF
CURB & GUTTER (24-INCH)			306 LF
2 CUT OFF WALL		1378 LF	
WATER		PUBLIC	PRIVATE
8" PVC WATER MAIN		1,918 LF	
FIRE HYDRANT ASSEMBLY		4 EA	
8" X 8" WATERLINE TEE		4 EA	
8" WATERLINE TEE		1 EA	
8" WATERLINE CROSS		1 EA	
1" WATER SERVICE W/ 1" WATER METER		9 EA	
2" BLOW-OFF VALVE AND 8" CAP		3 EA	
8" GATE VALVE		8 EA	
10" X 8" REDUCER		2 EA	
8" 45° HORIZONTAL BEND		1 EA	
SEWER		PUBLIC	PRIVATE
8" PVC SEWER		506 LF	
48" SEWER MANHOLE		5 EA	
4" PVC SEWER LATERAL			1362 LF
CLEANOUT WITH TRAFFIC RATED LID			13 EA
TRAFFIC		PUBLIC	PRIVATE
STREET SIGNS		1 EA	
WHITE PAINTED EDGELINE		1375 LF	

[illegible]

9205 W. RUSSELL ROAD STE. 235
LAS VEGAS, NV 89118
(702) 929-3131 FAX: (702) 929-3899

6030 S. JONES BOULEVARD
LAS VEGAS, NV 89118
(702) 262-9944 FAX: (702) 262-5223



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GENERAL NOTES AND QUANTITIES

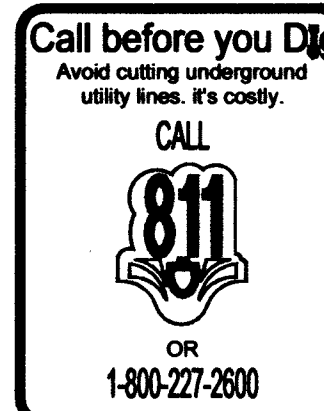
APN: 125-32-203-008 & 009
 BEING A PART OF THE NORTH HALF (N 1/2) OF THE NORTH-WEST QUARTER (NW 1/4) OF THE
 SOUTHEAST QUARTER (SE 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 32,
 TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M.

BENCHMARK

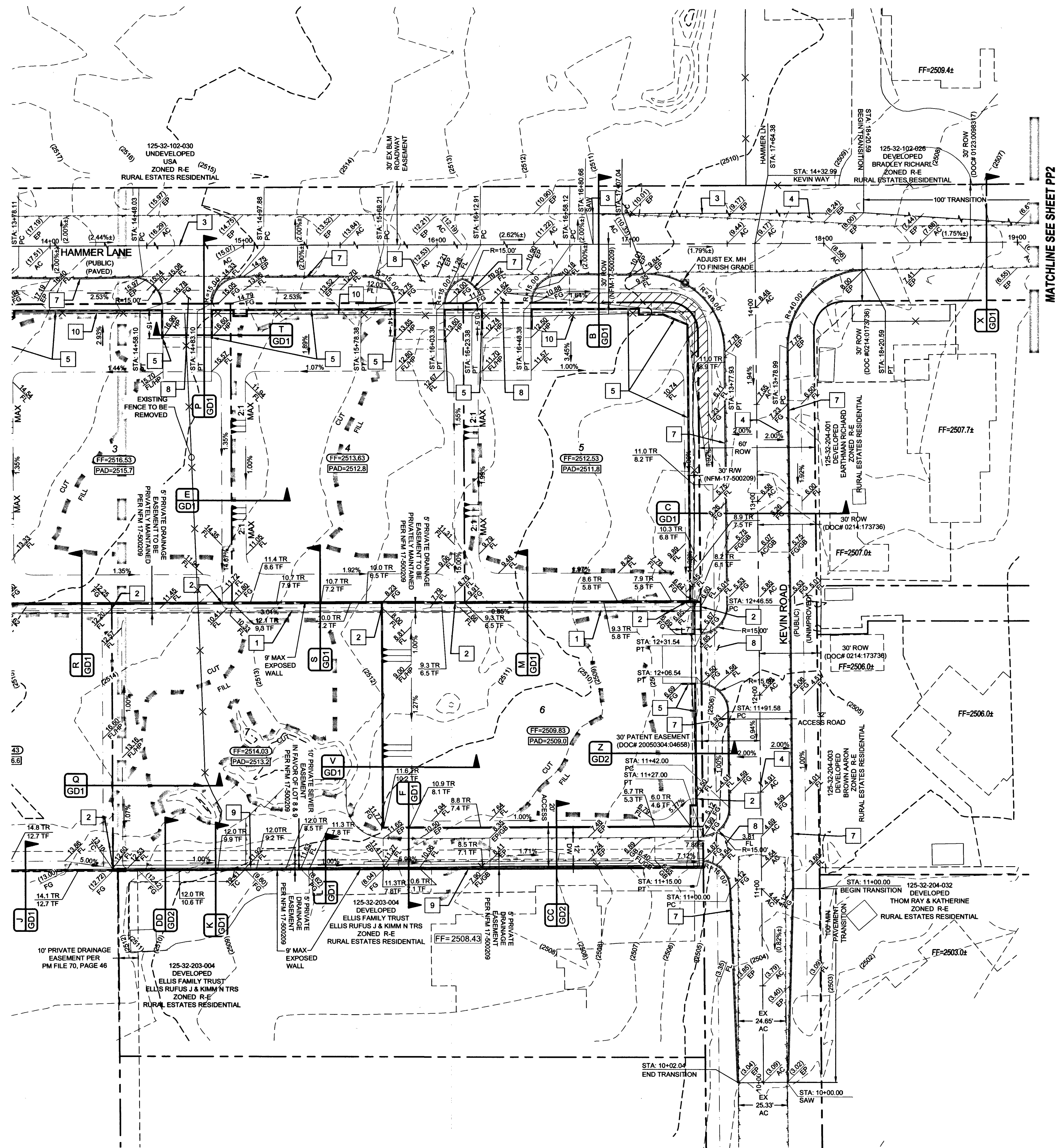
PROJECT VERTICAL DATUM: NAVD88
 CITY OF LAS VEGAS BM NO. 9LV0322W6 - CITY OF LAS VEGAS PIN AND ROUND PLATE IN
 CONCRETE PAD, WEST SIDE OF CAMPBELL ROAD, +/- 142 METER OF WASHBURN ROAD

NAVD88 ELEV: 2507.62 (FEET)
 764.329 (METERS)

AC	ASPHALTIC CONCRETE	FF	FINISH FLOOR ELEVATION	PVC	POLYVINYL CHLORIDE
AVE	AVENUE	FG	FINISH GRADE	R	RADIUS
BC	BACK OF CURB	FH	FIRE HYDRANT	RCB	REINFORCED CONCRETE BOX
BCR	BACK OF CURB RADIUS	FL	FLOW LINE	RCB	REINFORCED CONCRETE PIPE
BE	BASE ELEVATION	FT	FEET	RF	RIGHT-OF-WAY
BFP	BACK FLOW PREVENTOR	G	GRADING	RD	RIGHT
BLM	BUREAU OF LAND MANAGEMENT	GB	GRADE BREAK	SD	STORM DRAIN
BM	BENCHMARK	GG	GARAGE FINISH FLOOR	ST	SHEET
BPR	BLUE RAISED PAVEMENT MARKER	H	HIGH POINT	STLT	STREETLIGHT
BNV	BURN BENTICAL CURVE	HGF	HIGH PRESSURE GAS	SNWA	SOUTHERN NEVADA WATER AUTHORITY
BW	BOTTOM OF EXISTING WALL	INV	INVERT	SS	SANITARY SEWER
BT	BROADCAST TELEVISION	L	LINEAR FEET	ST	STREET
CC	CLARK COUNTY	LANE	LANE	STA	STATION
CCFD	CLARK COUNTY FIRE DEPARTMENT	LS	LANDSCAPE	STD	STANDARD
CCWR	CLARK COUNTY WATER RECLAMATION DISTRICT	LT	LET	STD	SIGHT VISIBILITY ZONE
CL	CENTERLINE	LWMD	LAS VEGAS VALLEY WATER DISTRICT	SW	SIDEWALK
CLSM	CONTROLLED LOW STRENGTH MATERIAL	MAX	MAXIMUM	SY	SQUARE YARD
CLV	CITY OF LAS VEGAS	MH	MANHOLE	TC	TOP OF CURB
CM	CORRUGATED METAL PIPE	MIN	MINIMUM	TELE	TELEPHONE
CNLY	CITY OF NORTH LAS VEGAS	NO	NUMBER	TF	TOP OF FOOTING
CO	CLEAN OUT, SEWER	NTS	NOT TO SCALE	TO.P	TOP OF PIPE
CO	CITY OF HENDERSON	ON	ON CENTER	TR	TOP OF REINFORCING
CY	CUBIC YARD	PC	PULL BOX	TW	TOP OF WALL
DCMSB	DESIGN AND CONSTRUCTION STANDARDS FOR	PC	POINT OF CURVE	TP	TYPICAL
	DESIGN AND COLLECTION SYSTEMS	PC	POINT OF COMPOUND CURVE	UMGS	UNIFORM DESIGN AND CONSTRUCTION STANDARDS
DG	DESIGN GRADE	PE	POLYETHYLENE	UT	UTILITY
DI	DROP INLET	PI	POINT OF INTERSECTION	USD	UNIFORM STANDARD DRAWING
DIP	DUCTILE IRON PIPE	PL	PROPERTY LINE	VC	VERTICAL CURVE
DR	DRAIN	PLT	PLATE	VCP	VERTICALLY CURVED PIPE
DW	DRIVEWAY	PCC	POINT OF CONNECTION	WGL	WATERGLUTTER
EC	END OF CURVE	PP	POWER POLE	WV	WATER
EG	EXISTING GRADE	P&P	PLAN AND PROFILE	ZC	ZERO LAP CURB
ELEC	ELECTRICAL	PRC	POINT OF REVERSE CURVE		
EP	EDGE OF PAVEMENT	PROJ	PROJECT		
EV	EXISTING VERTICAL CURVE	PRV	PRESSURE REDUCING VALVE		
EX	EXISTING	PTJ	POINT OF TANGENCY		



MATCHLINE SEE SHEET G1



MATCHLINE SEE SHEET PP2

SIGHT VISIBILITY ZONES (SVZ)
NO WALLS, FENCES, SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL DEVICES, FIRE HYDRANTS, TREES, AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM TOP OF CURB, OR WHERE NO CURB EXISTS, A HEIGHT OF 27 INCHES MEASURED FROM THE TOP OF ADJACENT ASPHALT, GRAVEL OR PAVEMENT STREET SURFACE. THIS RESTRICTION EXTENDS ALONG THE SIGHT VISIBILITY LINE THROUGH LANDSCAPED MEDIANS. (CCAUD 201)

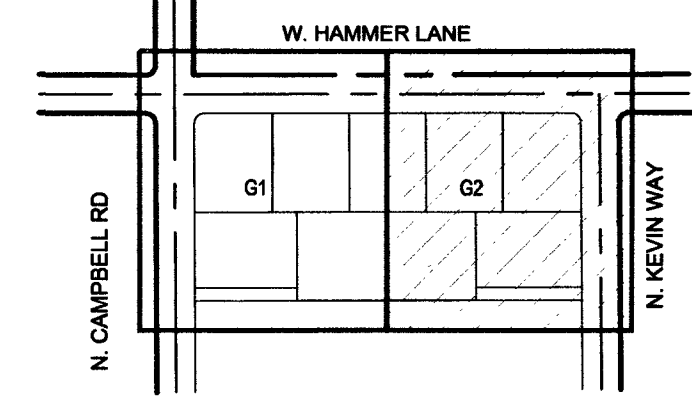
APPROVED FOR CONSTRUCTION
Franko Dean
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
FIRST APPROVED DATE: 05-21-18 PROJECT 125555
LVWD APPROVED FIRE FLOW: 2,000 GPM AT 20 PSI RESIDUAL

FAST
Call before you
Underground
1-702-432-5300
FREEMAN & ARTERIAL
SYSTEM OF TRANSPORTATION

Avoid overhead power
line contact. It's costly.
**Call before you
Overhead**
1-702-227-2929

Call before you Dig
Avoid cutting underground
utility lines. It's costly.
CALL 811
OR
1-800-227-2600

KEY MAP



SCALE: 1" = 30'
30' 15' 30' 60' 90'

GRADING CONSTRUCTION NOTES

- 5.0' CONCRETE CHANNEL (SEE DETAIL 'G' ON GD1)
- INSTALL 48"x16" BLOCK WALL OPENING (SEE DETAIL 'H' ON GD1)
- SAWCUT & REMOVE EX AC PAVEMENT (PER CCAUSD 503, 500.3 & 500.4)
- 3" AC PAVEMENT OVER 4" TYPE II (PER GEOTECHNICAL REPORT # DW17-42287)
- SOLID GROUT 3 COURSES ABOVE FG MIN.
- DECORATIVE 6" BLOCK WALL
- CUT-OFF WALL (DETAIL UGD1)
- DRIVEWAY: 2" AC OVER 4" TYPE II (DETAIL PGD1) (SEE DRIVEWAY NOTE ON THIS SHEET)
- INSTALL 24" L-TYPE CURB & GUTTER (USD #216)

DRIVEWAY NOTE

PROPOSED DRIVEWAY APPROACHES IN RIGHT-OF-WAY ARE NON-STANDARD IMPROVEMENTS AND ARE NOT MAINTAINED BY CLARK COUNTY PUBLIC WORKS.

GEOTECHNICAL

GEOTEK RESIDENTIAL, LLC
6835 S. ESCONDIDO ST. STE. B
LAS VEGAS, NV 89119
(702) 897-1424
REPORT NO.: 11240-LVR6
DATE: 06/18/15
REVISED: 01/20/15 UPDATE: 06/02/17

BASIS OF BEARING

NORTH 89°40'09" EAST
BEING THE BEARING OF THE NORTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 32, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN IN FILE 200 PAGE 45 OF SURVEYS, CLARK COUNTY, NEVADA, OFFICIAL RECORDS.

BENCHMARK

PROJECT VERTICAL DATUM: NAVD88
CITY OF LAS VEGAS BM NO. 31V03286 - CITY OF LAS VEGAS PIN AND ROUND PLATE IN CONCRETE PAD, WEST SIDE OF CAMPBELL ROAD, +/- 142' SOUTH OF WASHBURN ROAD
NAVD88 ELEV: 2507.82 (FEET)
764.329 (METERS)

EARTHWORK

TOTAL FOR OVERALL DEVELOPMENT: 2,917 CY CUT / 4,849 CY FILL / 1,932 CY NET
NOTE: THIS OPINION OF THE CUT AND FILL QUANTITIES IS PROVIDED AS REQUIRED BY THE GOVERNING ENTITY. THIS INFORMATION SHOULD NOT BE USED FOR BIDDING PURPOSES. ALL CONTRACTORS ARE RESPONSIBLE FOR THEIR OWN QUANTITIES. THESE TOTALS ARE RAW AND DO NOT ACCOUNT FOR SHRINKAGE AND SUBSIDENCE.

FLOOD ZONE

THIS PROJECT IS LOCATED IN FLOOD ZONE "X", AN AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOOD PLAN PER FIRM PANEL 32003C1745E, REVISED SEPTEMBER 27, 2002.

UTILITY DISCLAIMER

EXISTING UTILITY LOCATIONS SHOWN HEREIN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS 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 EXISTING LOCATIONS.

GRADING NOTES

COMPLETION OF SECTION II OF DRAINAGE COMPLIANCE REPORT REQUIRED FOR: ALL LOTS IN THE PROJECT
ADD 2500 FEET TO ALL GRADE TAGS TO GET ACTUAL ELEVATION.
THE ELEVATION DIFFERENCE BETWEEN THE PAD AND FINISH FLOOR IS DETERMINED FROM THE MINIMUM THICKNESS REQUIRED PER THE GEOTECHNICAL REPORT. FINISH FLOORS MAY INCREASE DEPENDING ON THE TYPE OF SOIL AND FOUNDATION PLAN USED. NOTE THAT THE STRUCTURAL PLANS & GEOTECHNICAL REPORT SHALL SUPERSEDE THE CIVIL IMPROVEMENT PLANS.
ALL WORK TO BE PERFORMED OUTSIDE OF THE PROJECT BOUNDARY AND ON PRIVATE PROPERTY SHALL NOT BE PERFORMED UNTIL WRITTEN PERMISSION AND EASEMENTS HAVE BEEN OBTAINED FROM THE OFFSITE OWNER AND GIVEN TO THE GOVERNING ENTITY.
CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

GRADING CERTIFICATION

I CERTIFY THIS GRADING PLAN COMPLIES WITH THE APPROVED DRAINAGE STUDY, HTE# 17-31956, ON FILE WITH CLARK COUNTY FOR THIS PROJECT.

STANLEY FONG, PE
DATE: 5-10-18

CLARK COUNTY
DEPARTMENT OF PUBLIC WORKS
DEVELOPMENT REVIEW
ACCEPTANCE OF PLANS FOR FILING

BY: _____ DATE: _____

ACCEPTANCE OF THESE PLANS FOR FILING SHALL NOT BE CONSTRUED TO BE A PERMIT FOR OR AN APPROVAL OF ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS AND/OR SPECIFICATIONS. CLARK COUNTY SHALL BE HELD FREE FROM DAMAGES WHICH MAY RESULT FROM THE CONSTRUCTION OF THE IMPROVEMENTS FROM THE ENGINEERING DESIGN DEPICTED HEREIN.
NOTE: POWER POLES AND/OR OTHER EXISTING FACILITIES NOT IN PROPER LOCATION BASED ON PROPOSED IMPROVEMENTS SHOWN HEREON WILL BE RELOCATED AT NO EXPENSE TO CLARK COUNTY.

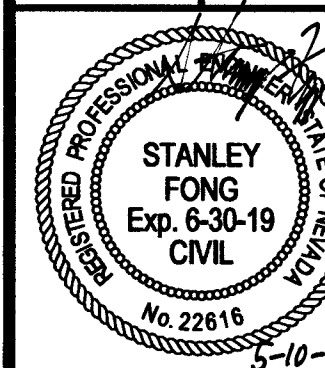
THM ENTERPRISES LLC
8204 W. RUSSELL ROAD STE. 235
LAS VEGAS, NV 89119
(702) 829-3151 FAX: (702) 829-3889

STANLEY FONG
800 S. JONES BOULEVARD
LAS VEGAS, NV 89101
(702) 382-2444 FAX: (702) 382-2333



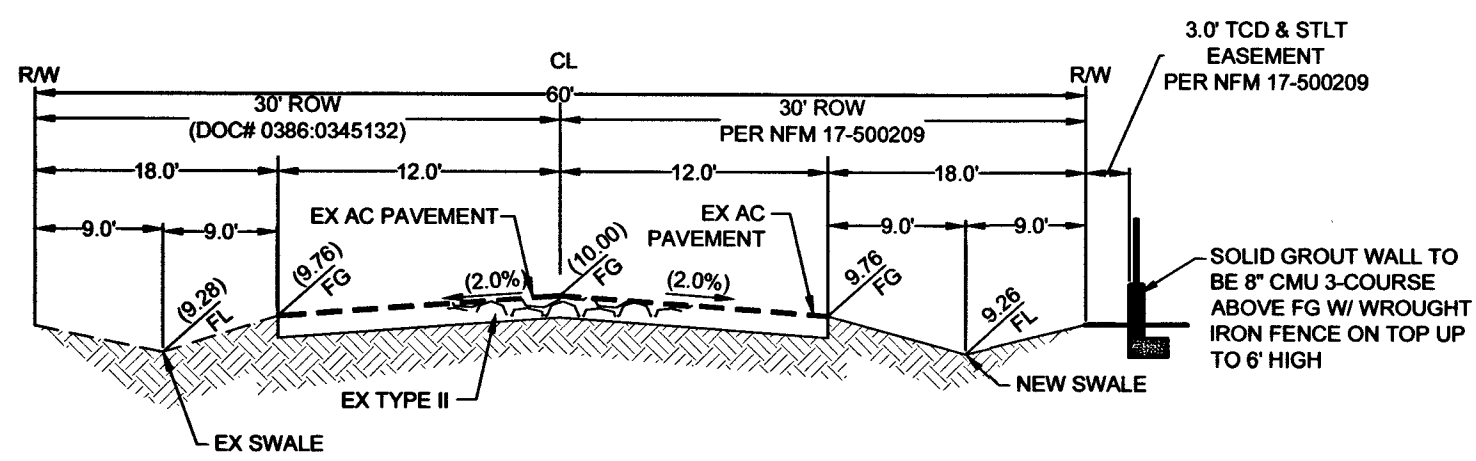
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GRADING PLAN 2

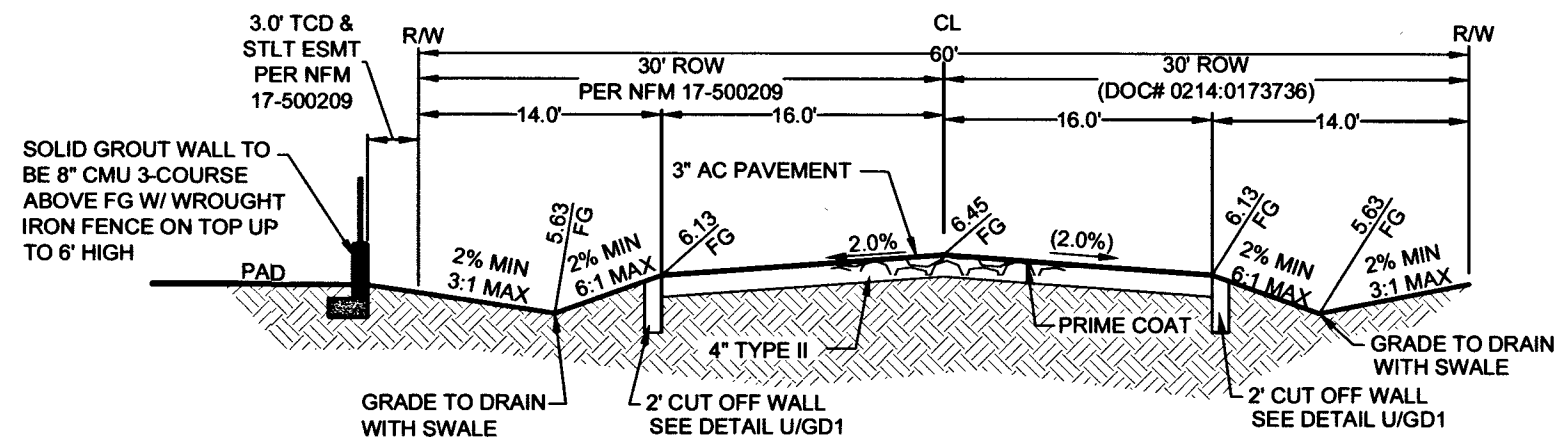


DATE: 5/10/2018
SCALE: 1"=30'
JOB NO.: THM-17-013
DESIGNED BY: SB CHECKED BY: SF
SHEET NAME: G2
SHEET NUMBER: 04 OF 15
CLV: 307/11/1
L17-01036
CC HTE# PW17-39999-SDF

PROJ#: 125555 AGR: 116561 QS: 125-32-32-NW

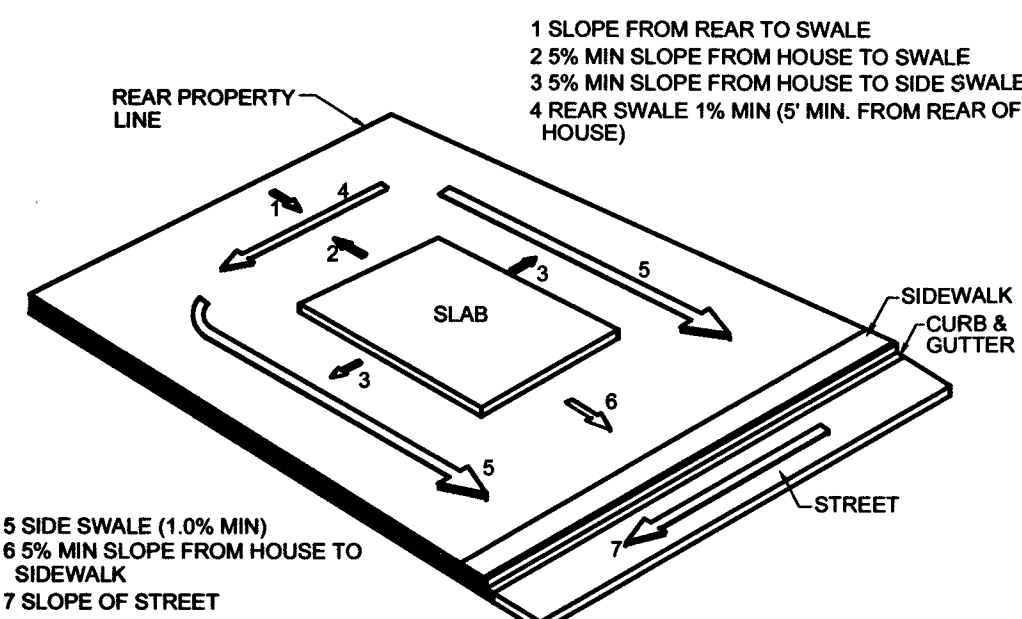


CAMPBELL ROAD
60-FT WIDE RIGHT-OF-WAY
NTS
SECTION Y
LOT 9 WESTERN BOUNDARY

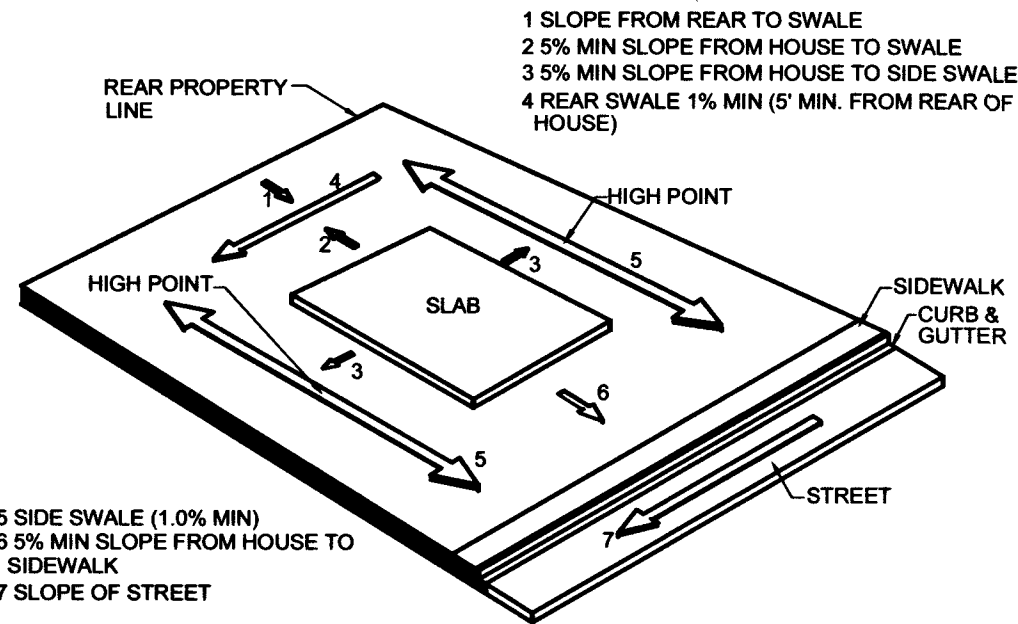


KEVIN ROAD
60-FT WIDE RIGHT-OF-WAY
NTS
SECTION Z
LOT 6 EASTERN BOUNDARY

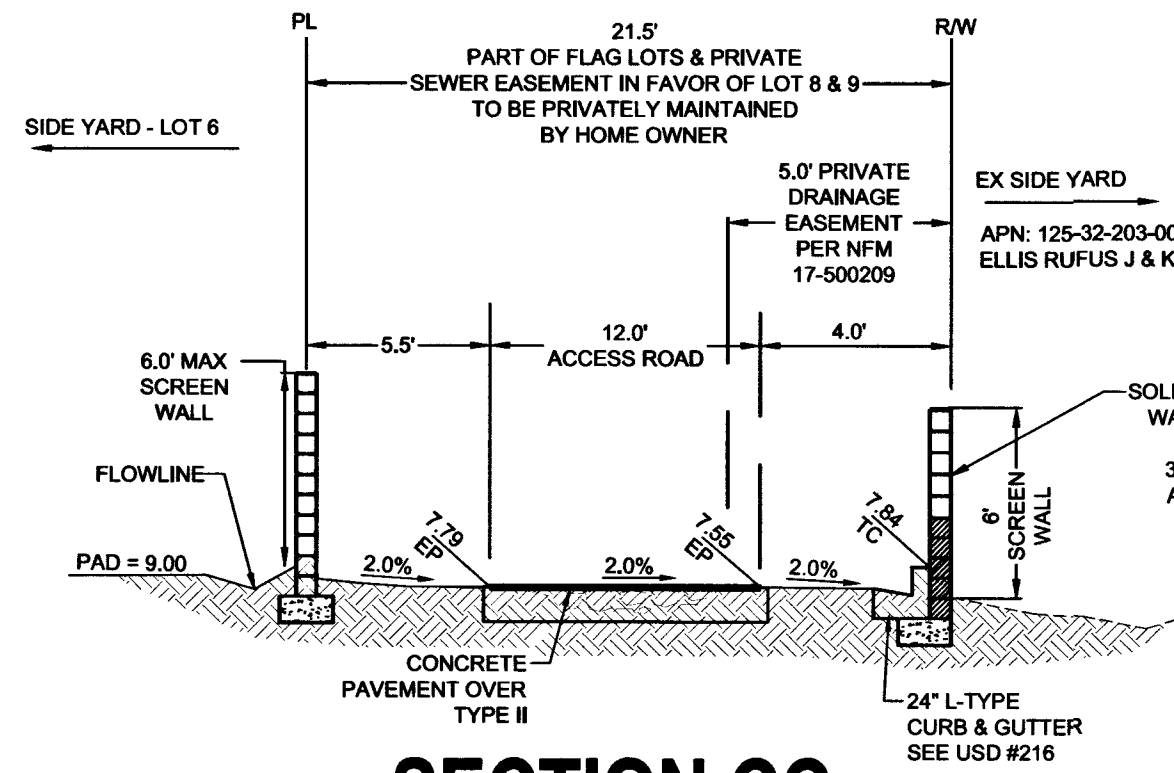
NOTE: ALL AGGREGATE BASES SHALL BE COMPACTED PER GEOTECHNICAL REPORT HTE# 17-42287. PRELIMINARY PAVEMENT SECTIONS SHALL BE VERIFIED WITH THE FINAL PAVEMENT SECTION RECOMMENDATION REPORT (MPSR) PRIOR TO CONSTRUCTION. IF FINAL PAVEMENT SECTIONS ARE DIFFERENT, A REVISION TO THE IMPROVEMENT PLANS WILL BE REQUIRED.



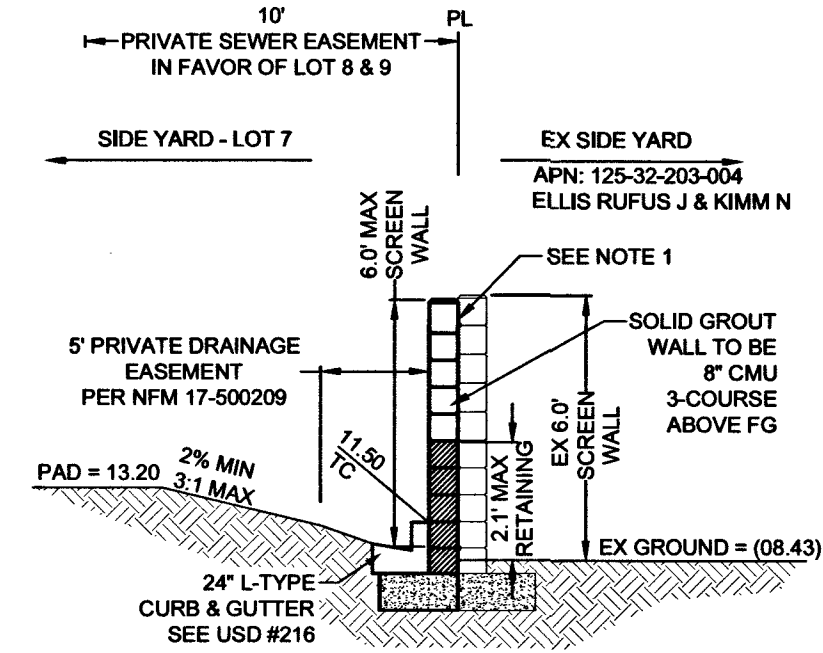
TYPE "A" DRAINAGE
SECTION AA
TYP. LOT DRAINAGE



TYPE "B" DRAINAGE
SECTION BB
TYP. LOT DRAINAGE



SECTION CC
LOT 7 DRIVE



NOTE 1: FOR REDUNDANT WALLS, MAINTAIN 4 INCHES OR LESS SEPARATION BETWEEN WALLS OR AT LEAST 30 INCHES WIDE PER TITLE 30.64.02013

NTS
SECTION DD
SOUTHERN BOUNDARY

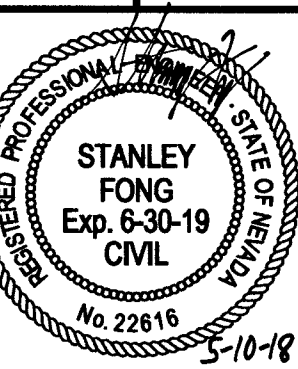
THM ENTERPRISES LLC
908 W. RUSSELL ROAD STE. 235
LAS VEGAS, NV 89119
(702) 923-3131 FAX: (702) 923-3899

STANLEY & JONES ENGINEERING
6030 S. JONES BOULEVARD
LAS VEGAS, NV 89119
(702) 362-8444 FAX: (702) 362-8233



HAMMER & KEVIN
A RESIDENTIAL SUBDIVISION

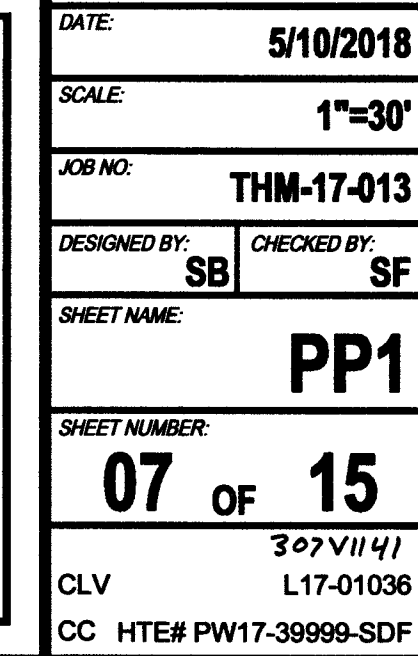
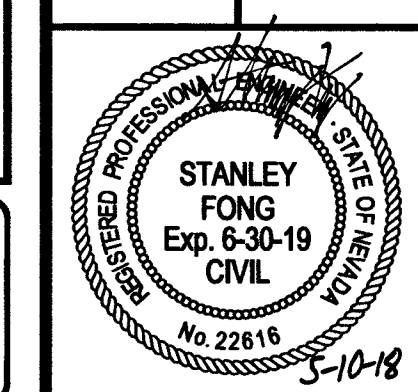
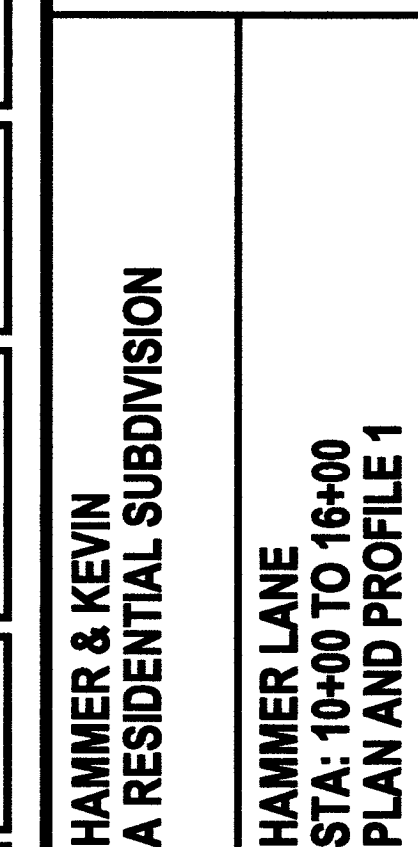
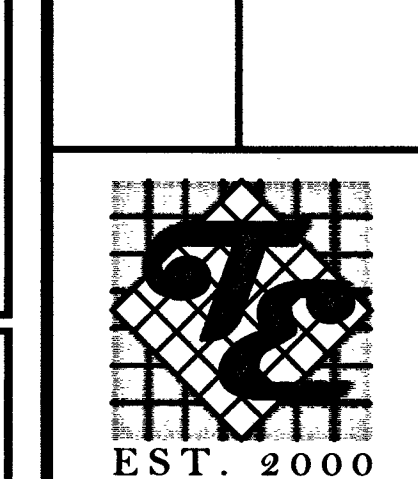
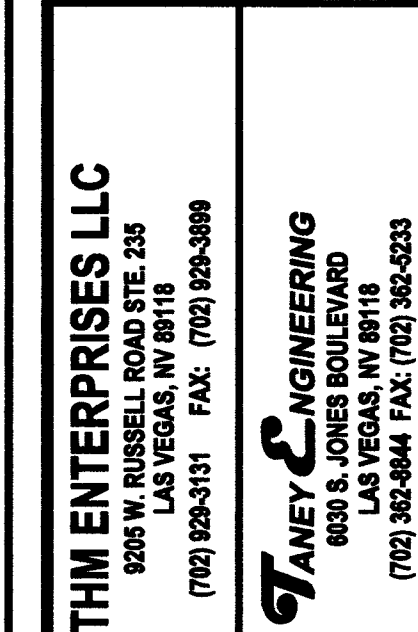
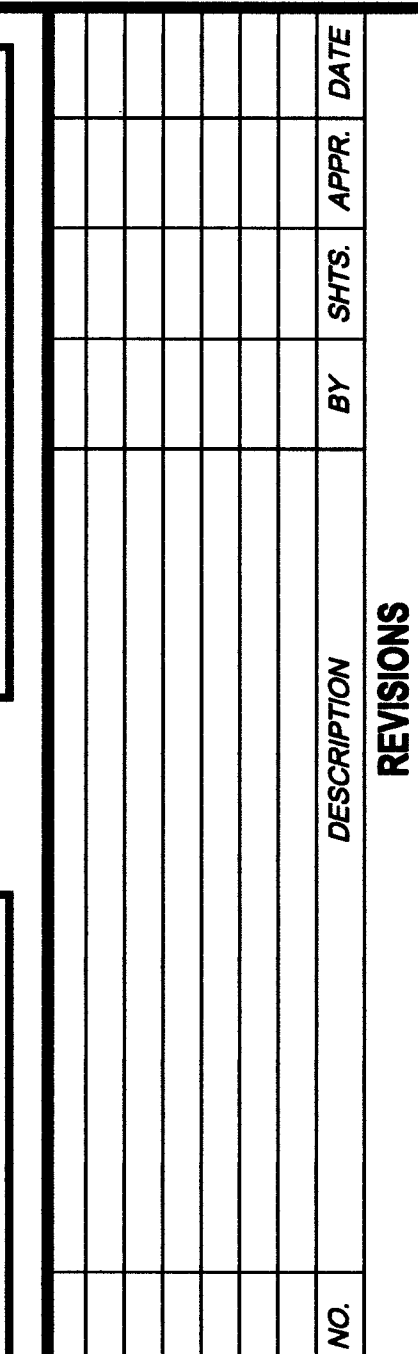
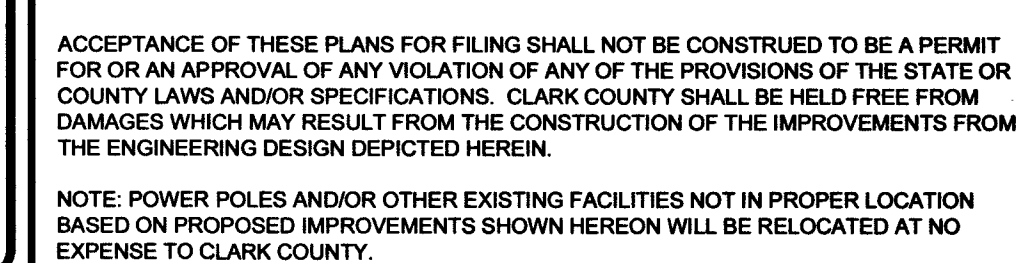
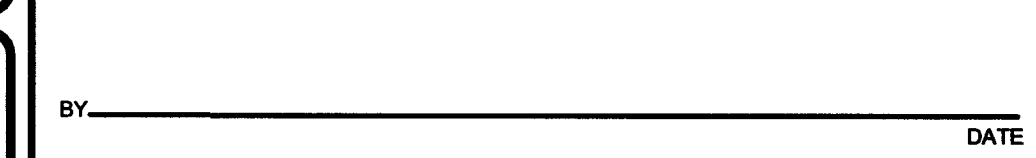
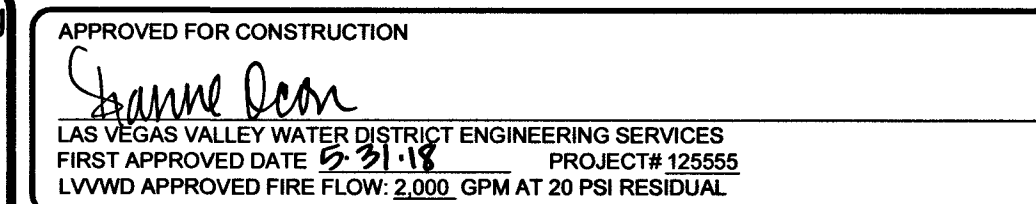
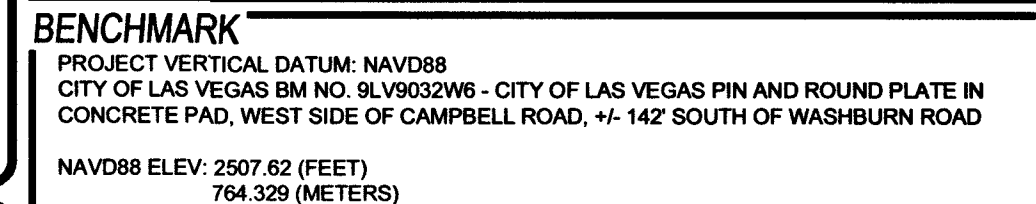
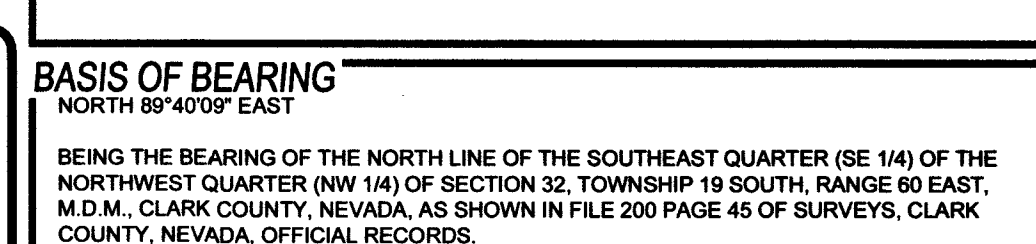
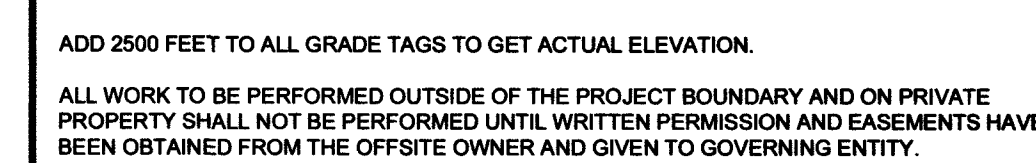
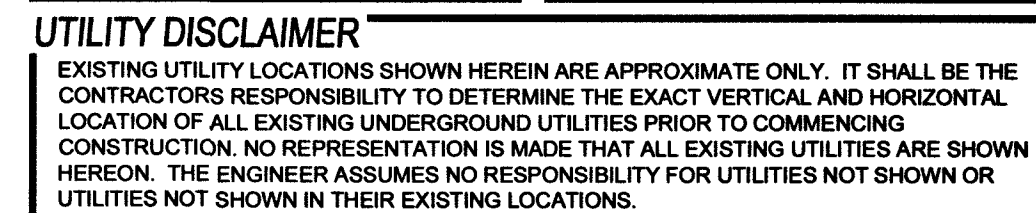
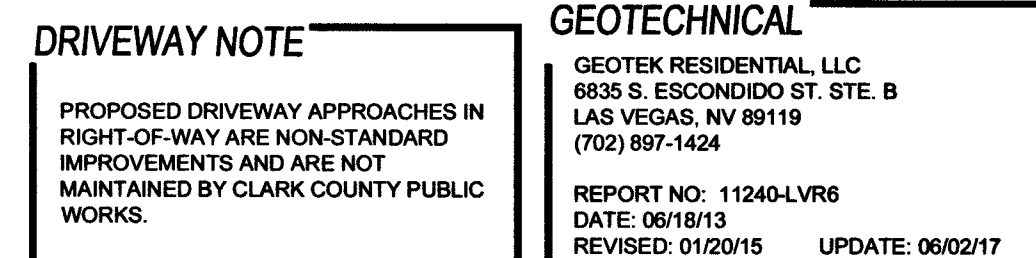
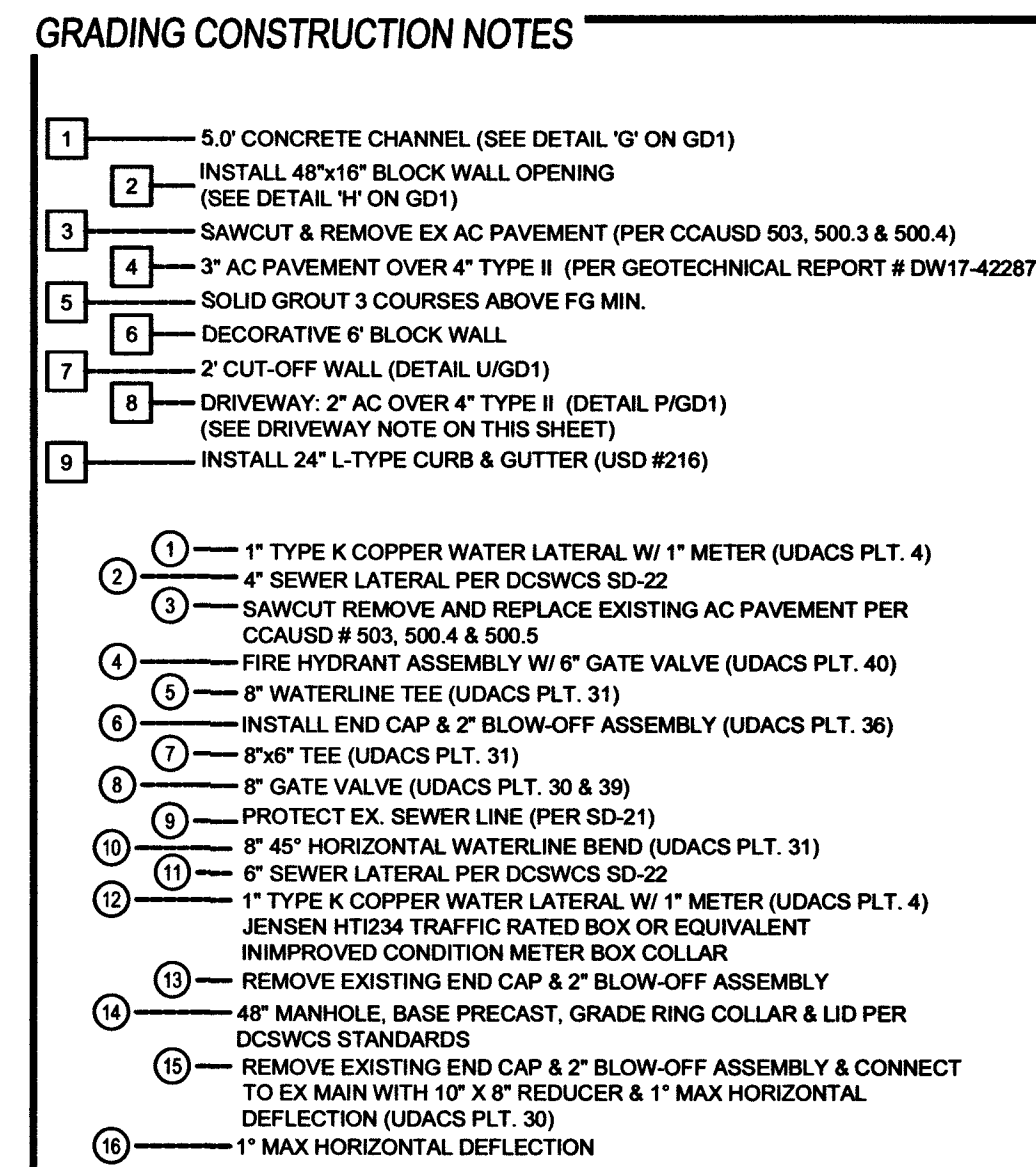
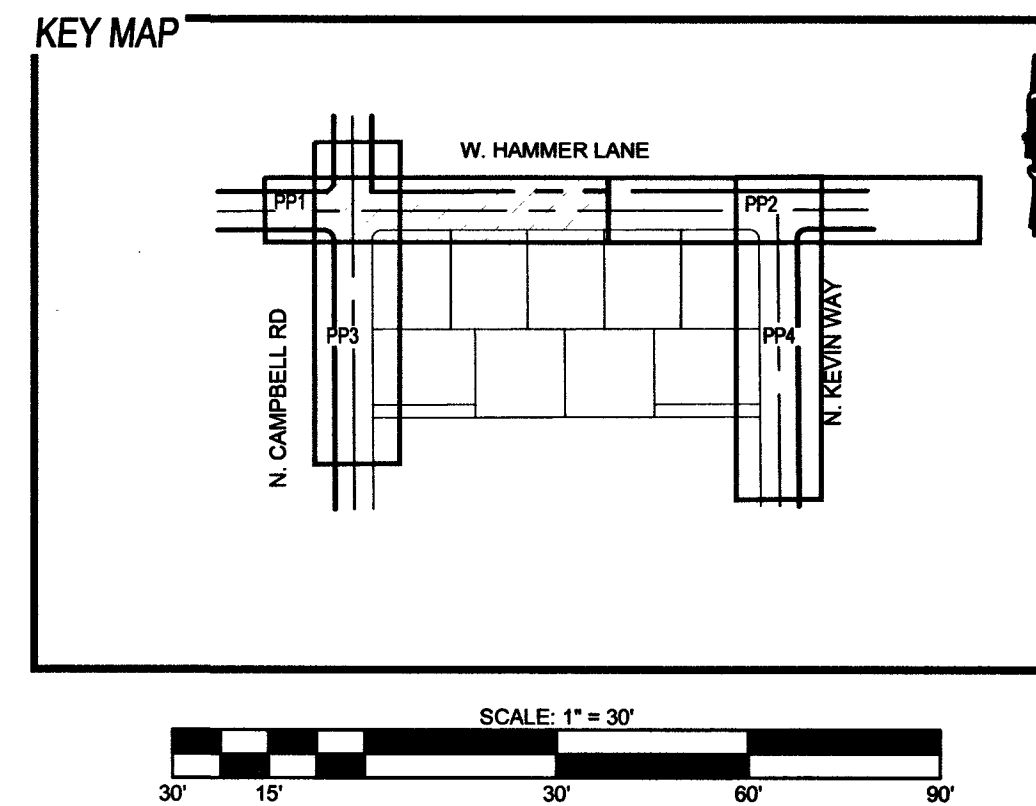
GRADING SECTION AND DETAILS 2



DATE: 5/10/2018
SCALE: 1"=30'
JOB NO: THM-17-013
DESIGNED BY: SB CHECKED BY: SF
SHEET NAME: GD2

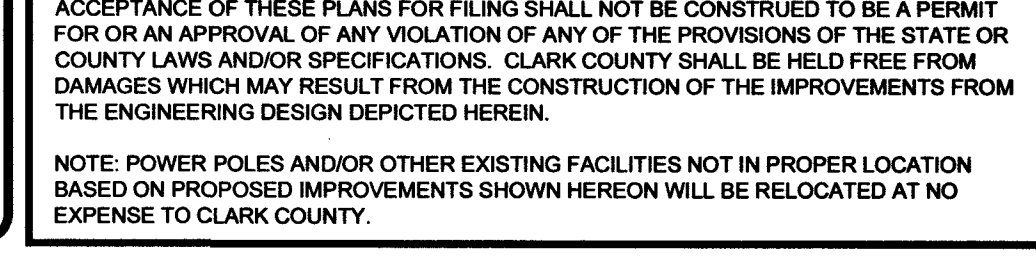
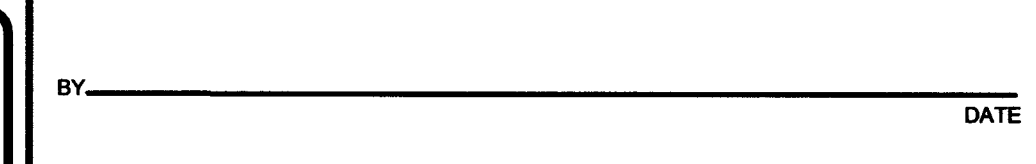
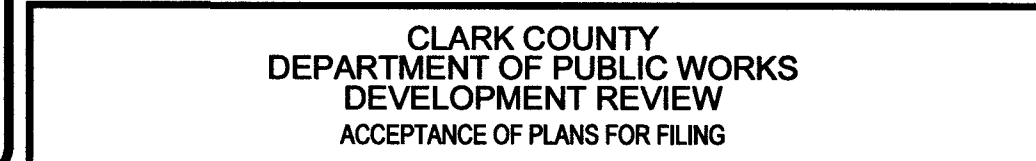
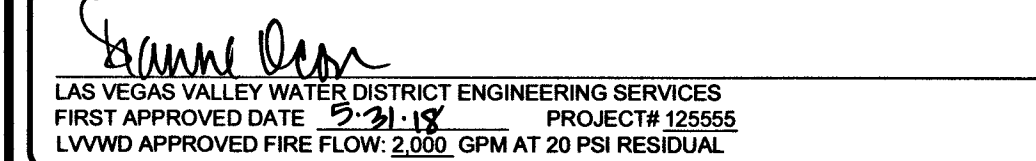
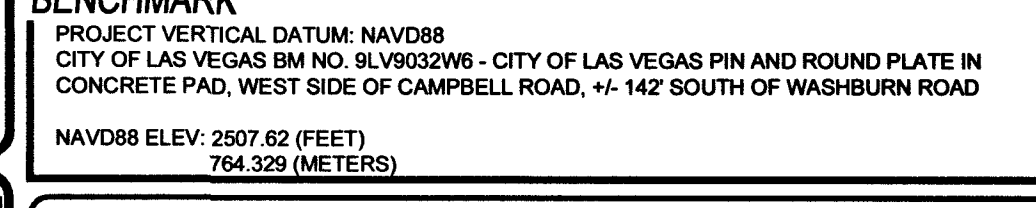
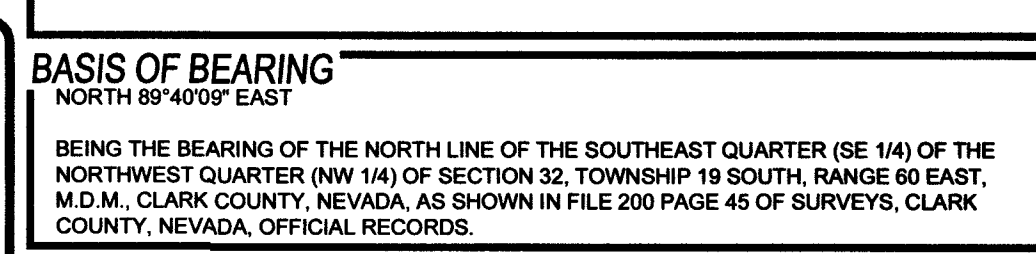
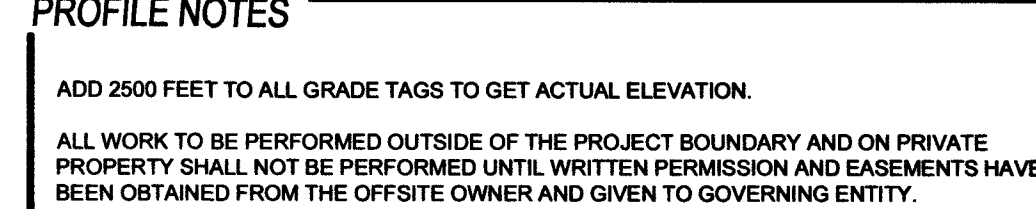
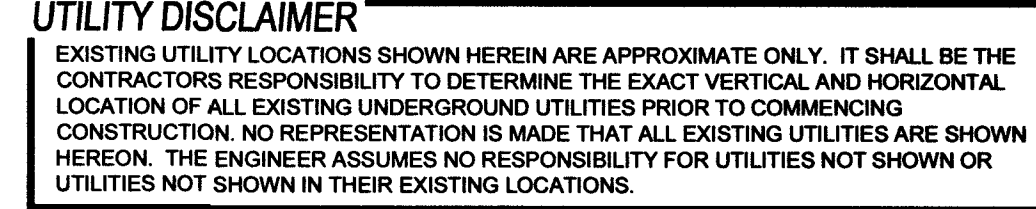
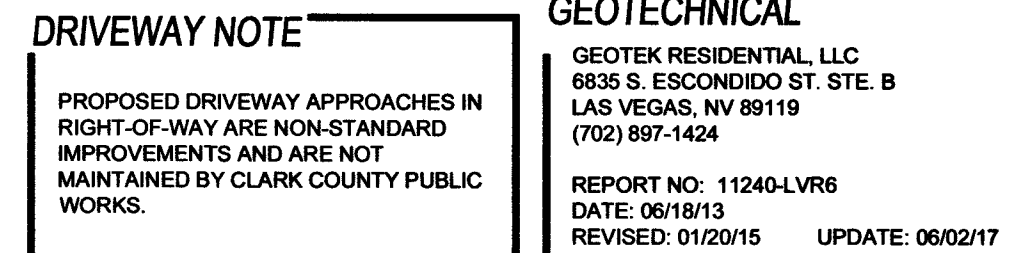
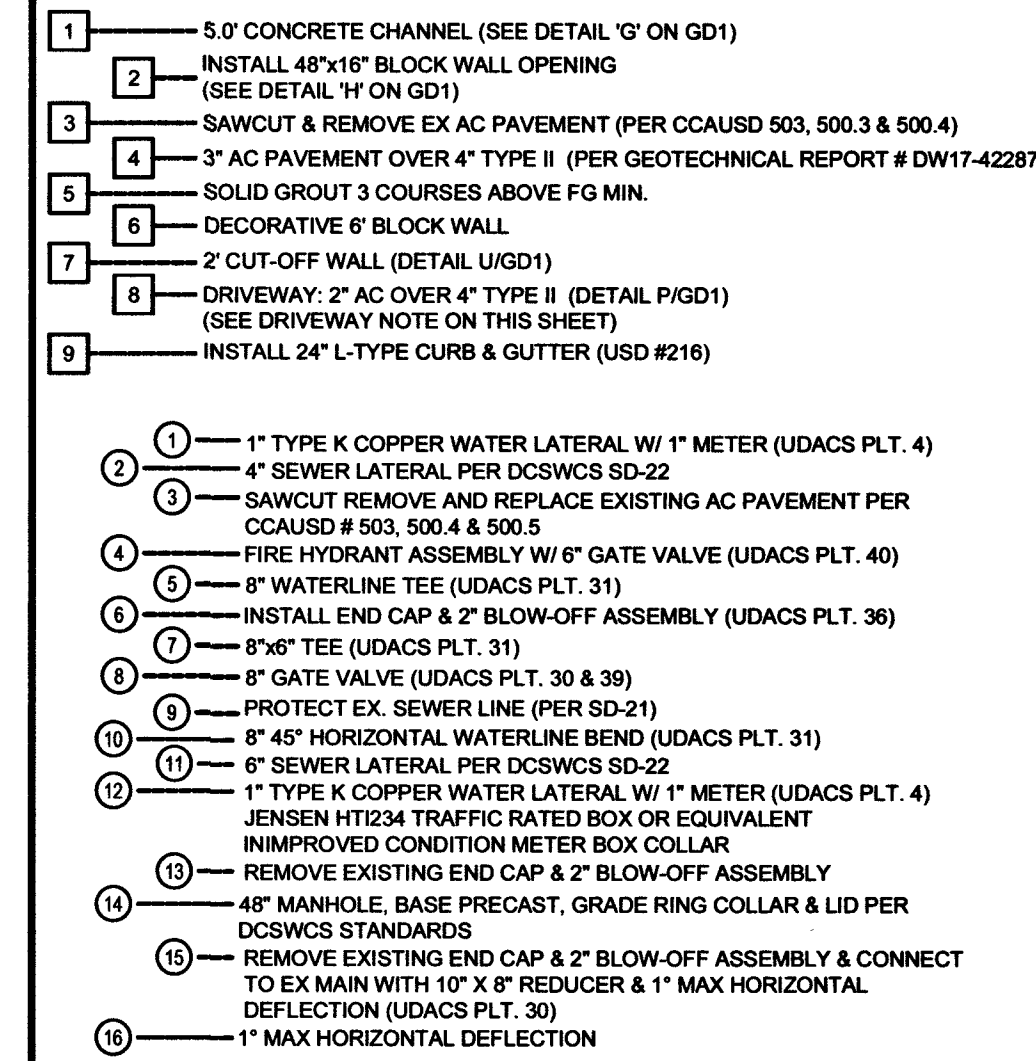
SHEET NUMBER: 06 OF 15
CLV 307V1114/
CC HTE# PW17-39999-SDF

APPROVED FOR CONSTRUCTION
Stanley Fong
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
FIRST APPROVED DATE: 5-21-18 PROJECT# 125555
LWWD APPROVED FIRE FLOW: 2,000 GPM AT 20 PSI RESIDUAL



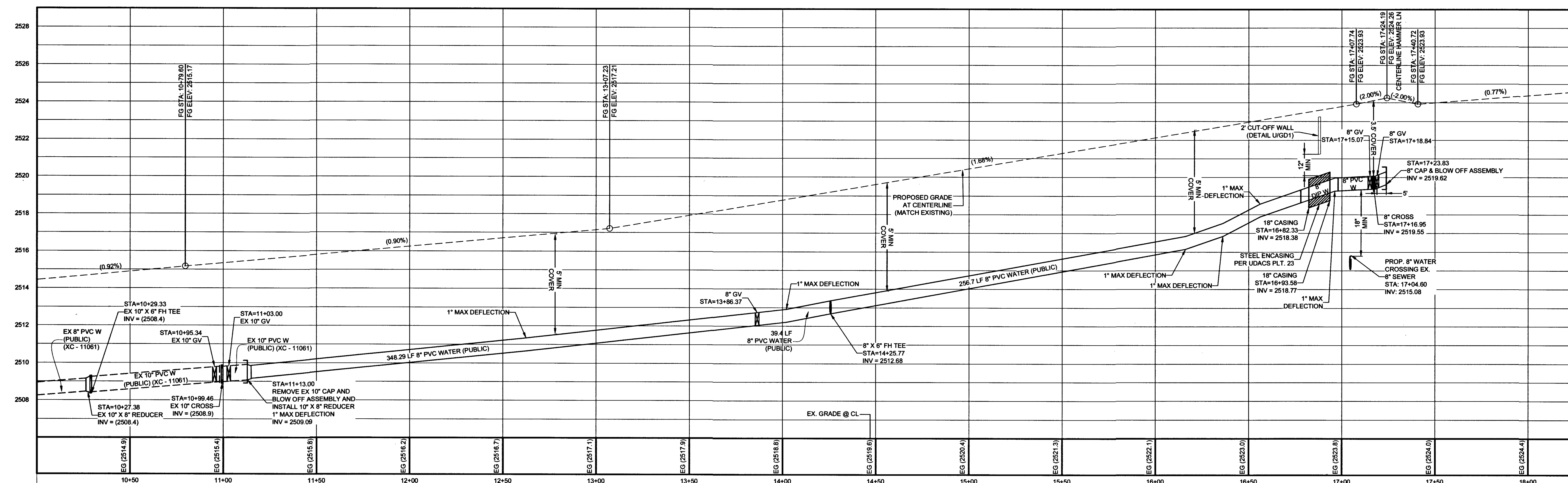
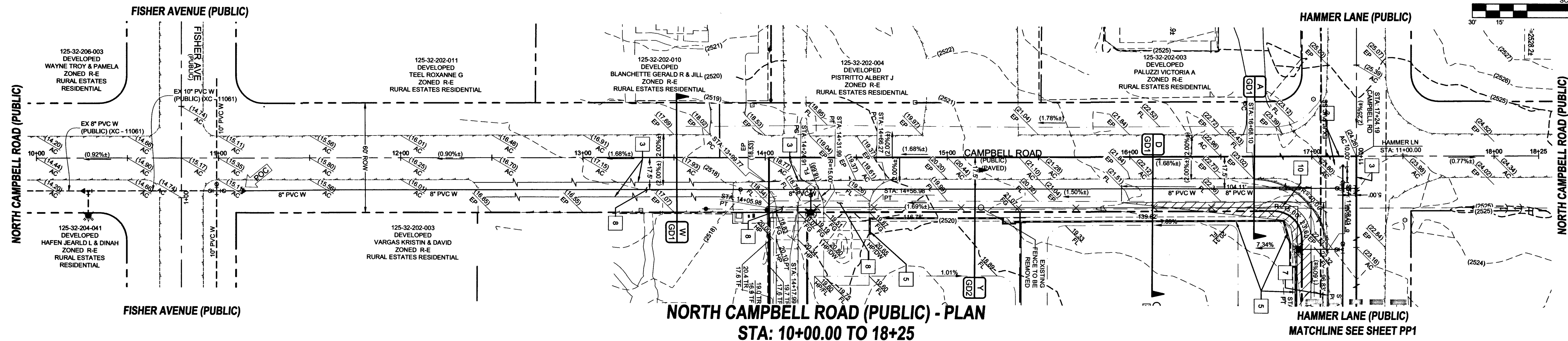
FILE NAME:

PROJ#:125555 AGR:116561 QS:125-32-NW



THM ENTERPRISES LLC 8205 W. RUSSELL ROAD STE. 235 LAS VEGAS, NV 89118 (702) 828-3131 FAX: (702) 928-3889		TANEY ENGINEERING 6000 S. JONES BOULEVARD LAS VEGAS, NV 89118 (702) 362-2844 FAX: (702) 365-5233		NO. _____ DESCRIPTION _____ REVISIONS _____		BY _____ SHTS. _____ APPR. _____ DATE _____
HAMMER & KEVIN A RESIDENTIAL SUBDIVISION		 EST. 2000		HAMMER LANE STA: 16+00 TO 22+00 PLAN AND PROFILE 2		
 DATE: 5/10/2018 SCALE: 1"=30' JOB NO: THM-17-013 DESIGNED BY: SB CHECKED BY: SF SHEET NAME: PP2 SHEET NUMBER: 08 OF 15		307V1141 L17-01036 CC CLV# PW17-39999-SDP				

FILE NAME:



GRADING CONSTRUCTION NOTES

- | | | | |
|---|---|----|---|
| 1 | 5.0" CONCRETE CHANNEL (SEE DETAIL 'G' ON GD1) | 6 | 8" WATERLINE (UDACS PLT. 31) |
| 2 | INSTALL 46X16" BLOCK WALL OPENING (SEE DETAIL 'H' ON GD1) | 7 | INSTALL END CAP & 2" BLOW-OFF ASSEMBLY (UDACS PLT. 36) |
| 3 | SAWCUT & REMOVE EX AC PAVEMENT (PER CCAUSD 503, 500.3 & 500.4) | 8 | 8"6" TIE (UDACS PLT. 31) |
| 4 | 3" AC PAVEMENT ABOVE TYPE II (PER GEOTECHNICAL REPORT & DW17-42287) | 9 | 8" GATE VALVE (UDACS PLT. 30 & 39) |
| 5 | SOLID GROUT SURT 3 COURSES ABOVE FG MIN. | 10 | PROTECT EX. SEWER LINE (PER SD-21) |
| 6 | DECORATIVE 6" BLOCK WALL | 11 | 8" 45° SEWER LATERAL WATERLINE BENE (UDACS PLT. 31) |
| 7 | 2" CUT-OFF WALL (DETAIL UGD1) | 12 | 6" SEWER LATERAL PER DCSWS SD-22 |
| 8 | DRIVEWAY: 2" AC OVER 4" TYPE II (DETAIL PGD1) (SEE DRIVEWAY NOTE ON THIS SHEET) | 13 | 1" TYPE K COPPER WATER LATERAL W/ 1" METER (UDACS PLT. JENSEN HT234 TRAFFIC RATED BOX OR EQUIVALENT UNIMPROVED CONDITION METER BOX COLLAR |
| 9 | INSTALL 24"-L-TYPE CURB & GUTTER (USD #216) | 14 | REMOVE EXISTING END CAP & 2" BLOW-OFF ASSEMBLY |
| | | 15 | 48" MANHOLE: BASE PRECAST, GRADE RING COLLAR & LID PER DCSWS STANDARDS |
| | | 16 | REMOVE EXISTING END CAP & 2" BLOW-OFF ASSEMBLY & CON TO EX MAIN WITH 10" X 8" REDUCER & 1" MAX HORIZONTAL DEFLECTION (UDACS PLT. 30) |
| | | | 1" MAX HORIZONTAL DEFLECTION |
| 1 | 1" TYPE K COPPER WATER LATERAL W/ 1" METER (UDACS PLT. 4) | | |
| 2 | 4" SEWER LATERAL PER DCSWS SD-22 | | |
| 3 | SAWCUT REMOVE AND REPLACE EXISTING AC PAVEMENT PER CCAUSD 503, 500.4 & 500.5 | | |
| 4 | FIRE HYDRANT ASSEMBLY W/ 6" GATE VALVE (UDACS PLT. 40) | | |

NORTH CAMPBELL ROAD (PUBLIC) - PROFILE
STA: 10+00.00 TO 18+25
SCALE: 1"=30' HORIZONTAL; 1"=3' VERTICAL

NOTE:
INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO.15

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

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

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

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

UTILITY DISCLAIMER

EXISTING UTILITY LOCATIONS SHOWN HEREIN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS 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 EXISTING LOCATIONS.

PROFILE NOTES

ADD 2500 FEET TO ALL GRADE TAGS TO GET ACTUAL ELEVATION.

ALL WORK TO BE PERFORMED OUTSIDE OF THE PROJECT BOUNDARY AND ON PRIVATE PROPERTY SHALL NOT BE PERFORMED UNTIL WRITTEN PERMISSION AND EASEMENTS HAVE BEEN OBTAINED FROM THE OFFSITE OWNER AND GIVEN TO GOVERNING ENTITY.

BASIS OF BEARING
NORTH 89°40'09" EAST

BEING THE BEARING OF THE NORTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 32, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN IN FILE 200 PAGE 45 OF SURVEYS, CLARK COUNTY, NEVADA, OFFICIAL RECORDS.

BENCHMARK

PROJECT VERTICAL DATUM: NAVD88
CITY OF LAS VEGAS BM NO. 9LV9032W6 - CITY OF LAS VEGAS PIN AND ROUND PLATE IN
CONCRETE PAD, WEST SIDE OF CAMPBELL ROAD, +/- 142' SOUTH OF WASHBURN ROAD
NAVD88 ELEV: 2507.62 (FEET)
764.329 (METERS)

APPROVED FOR CONSTRUCTION


 LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
 FIRST APPROVED DATE 05-31-18 PROJECT# 125555
 LVWD APPROVED FIRE FLOW: 2,000 GPM AT 20 PSI RESIDUAL

CLARK COUNTY
DEPARTMENT OF PUBLIC WORKS
DEVELOPMENT REVIEW
ACCEPTANCE OF PLANS FOR FILING

BY _____ DATE _____

ACCEPTANCE OF THESE PLANS FOR FILING SHALL NOT BE CONSTRUED TO BE A PERMIT FOR OR AN APPROVAL OF ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS AND/OR SPECIFICATIONS. CLARK COUNTY SHALL BE HELD FREE FROM DAMAGES WHICH MAY RESULT FROM THE CONSTRUCTION OF THE IMPROVEMENTS FROM THE ENGINEERING DESIGN DEPICTED HEREIN.

NOTE: POWER POLES AND/OR OTHER EXISTING FACILITIES NOT IN PROPER LOCATION BASED ON PROPOSED IMPROVEMENTS SHOWN HEREON WILL BE RELOCATED AT NO EXPENSE TO CLARK COUNTY.

DRIVEWAY NOTE

PROPOSED DRIVEWAY APPROACHES IN
RIGHT-OF-WAY ARE NON-STANDARD
IMPROVEMENTS AND ARE NOT
MAINTAINED BY CLARK COUNTY PUBLIC
WORKS.

FAST
Call before you
Underground
1-702-432-5300

Call before you Dig
Avoid cutting underground utility lines. it's costly.

CALL

811

OR

1-800-227-2600

Call
before you
Overhead
1-702-227-2929

GEOTECHNICAL

GEOTEK RESIDENTIAL, LLC
6835 S. ESCONDIDO ST. STE. B
LAS VEGAS, NV 89119
(702) 897-1424

REPORT NO: 11240-LVR6
DATE: 06/18/13
REVISED: 01/20/15 UPDATE: 06/02/17

THM ENTERPRISES LLC

**9205 W. RUSSELL ROAD STE. 235
LAS VEGAS, NV 89118
(702) 929-3131 FAX: (702) 929-3899**

3

ANEY ENGINEERING
6030 S. JONES BOULEVARD
LAS VEGAS, NV 89118

(02) 362-8844 FAX: (702) 362-5233

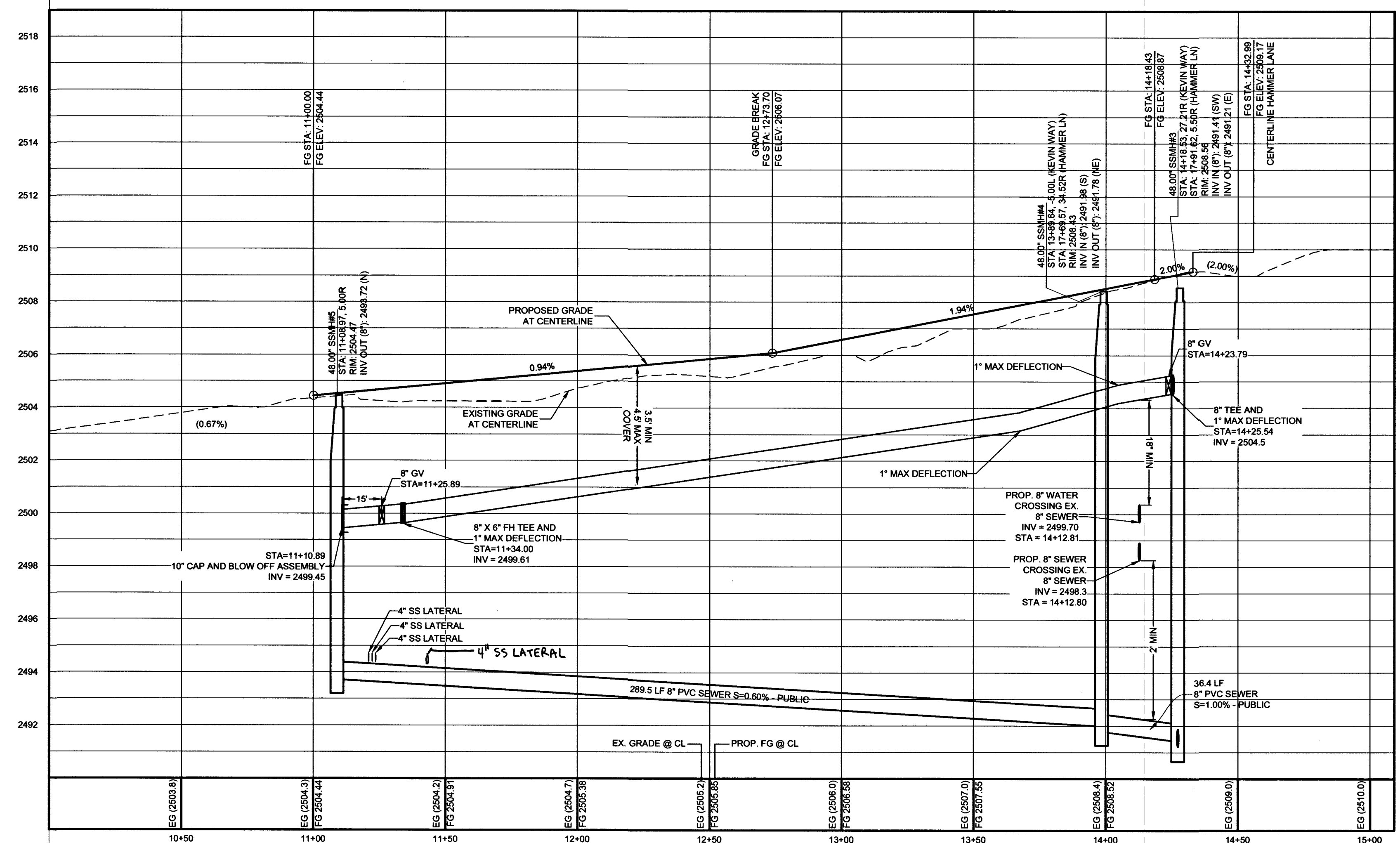
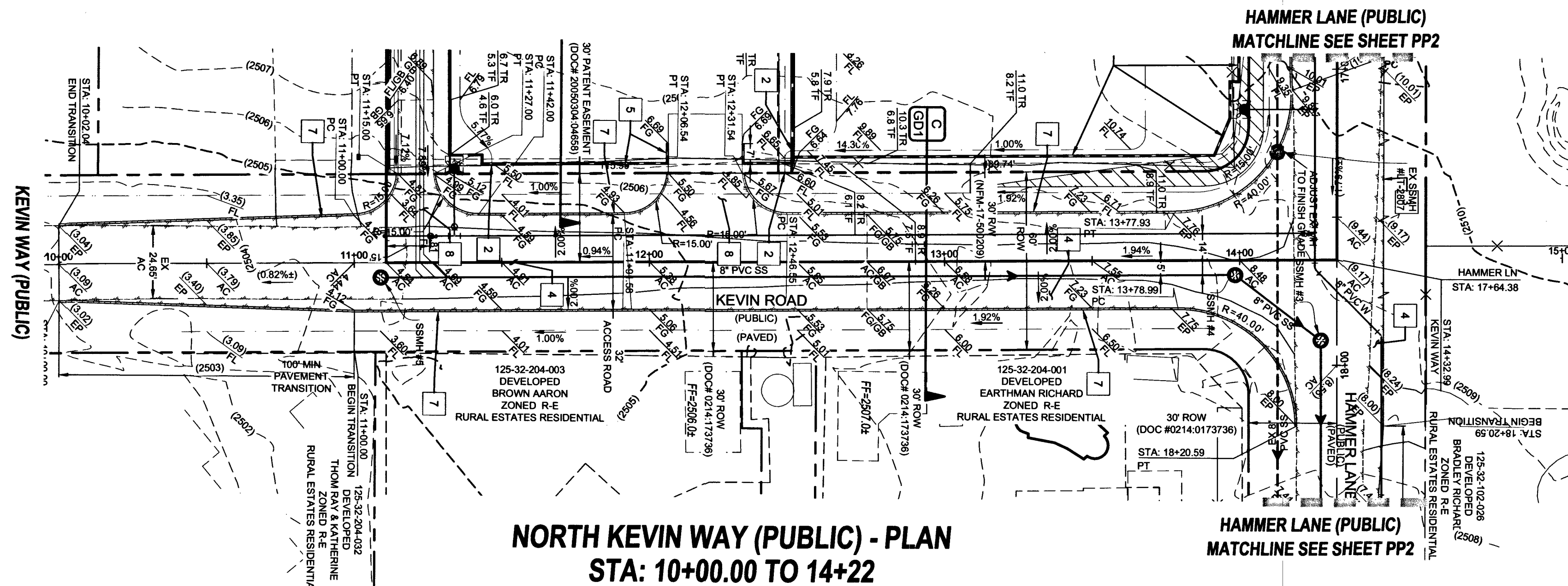
HAMMER & KEVIN A RESIDENTIAL SUBDIVISION

**NORTH CAMPBELL ROAD
STA: 10+00 TO 18+25
PLAN AND PROFILE 3**

STANLEY FONG
Exp. 6-30-19
CIVIL
No. 22616
REGISTERED PROFESSIONAL ENGINEER - STATE OF NEVADA

DATE:		5/10/2014	
SCALE:		1"=30'	
JOB NO:		THM-17-013	
DESIGNED BY: SB		CHECKED BY: SB	
SHEET NAME:		PP3	
SHEET NUMBER:		09 OF 15	
CLV		3 07V11034 L17-010303	
CC HTE# PW17-39999-SDI			

PROJ#:125555 AGR:116561 QS:125-32-NW

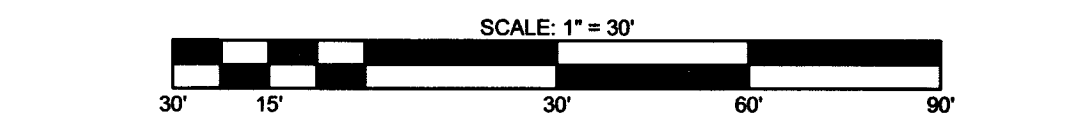
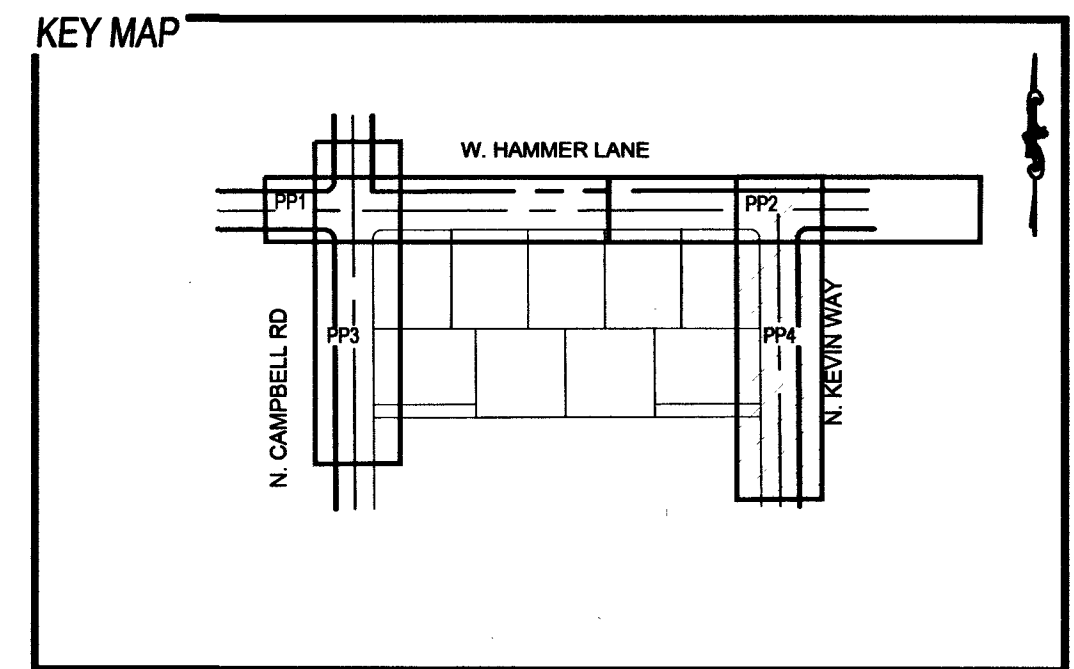


NORTH KEVIN WAY (PUBLIC) - PROFILE
STA: 10+00.00 TO 14+22
SCALE: 1"=30' HORIZONTAL; 1"=3' VERTICAL

NOTE:
 INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO.15

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.

WATER MAIN JOINT DEFLECTION NOTE (PVC 4"-24")
 PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MAXIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.02.
 FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTING SHALL BE USED.



GRADING CONSTRUCTION NOTES

1. 5.0' CONCRETE CHANNEL (SEE DETAIL 'G' ON GD1)
 2. INSTALL 48"x16" BLOCK WALL OPENING (SEE DETAIL 'H' ON GD1)
 3. SAWCUT & REMOVE EX AC PAVEMENT (PER CCAUSD 503, 500.3 & 500.4)
 4. 3" AC PAVEMENT OVER 4" TYPE II (PER GEOTECHNICAL REPORT # DW17-42287)
 5. SOLID CROUT 3 COURSES ABOVE FG MIN.
 6. DECORATIVE 6" BLOCK WALL
 7. Z CUT-OFF WALL (DETAIL UGD1)
 8. DRIVEWAY: 2" AC OVER 4" TYPE II (DETAIL P/GD1) (SEE DRIVEWAY NOTE ON THIS SHEET)
 9. INSTALL 24" L-TYPE CURB & GUTTER (USD #216)
1. 1" TYPE K COPPER WATER LATERAL W/ 1" METER (UDACS PLT. 4)
 2. 4" SEWER LATERAL PER DCSWCS SD-22
 3. SAWCUT REMOVE AND REPLACE EXISTING AC PAVEMENT PER CCAUSD # 503, 500.4 & 500.5
 4. FIRE HYDRANT ASSEMBLY W/ 8" GATE VALVE (UDACS PLT. 40)
 5. 8" WATERLINE TEE (UDACS PLT. 31)
 6. INSTALL END CAP & 2" BLOW-OFF ASSEMBLY (UDACS PLT. 38)
 7. 8"x6" TEE (UDACS PLT. 31)
 8. 8" GATE VALVE (UDACS PLT. 30 & 39)
 9. PROTECT EX. SEWER LINE (PER SD-21)
 10. 8" 45° HORIZONTAL WATERLINE BEND (UDACS PLT. 31)
 11. 8" SEWER LATERAL PER DCSWCS SD-22
 12. 1" TYPE K COPPER WATER LATERAL W/ 1" METER (UDACS PLT. 4)
 13. JENSEN HT124 TRAFFIC RATED BOX OR EQUIVALENT IMPROVED CONDITION METER BOX COLLAR
 14. REMOVE EXISTING END CAP & 2" BLOW-OFF ASSEMBLY
 15. 48" MANHOLE, BASE PRECAST, GRADE RING COLLAR & LID PER DCSWCS STANDARDS
 16. REMOVE EXISTING END CAP & 2" BLOW-OFF ASSEMBLY & CONNECT TO EX MAIN WITH 10" X 8" REDUCER & 1" MAX HORIZONTAL DEFLECTION (UDACS PLT. 30)
 17. 1" MAX HORIZONTAL DEFLECTION

DRIVEWAY NOTE

PROPOSED DRIVEWAY APPROACHES IN RIGHT-OF-WAY ARE NON-STANDARD IMPROVEMENTS AND ARE NOT MAINTAINED BY CLARK COUNTY PUBLIC WORKS.

GEOTECHNICAL

GEOTEK RESIDENTIAL, LLC
 6835 S. ESCONDIDO ST. STE. B
 LAS VEGAS, NV 89119
 (702) 897-1424
 REPORT NO.: 11240-LVR6
 DATE: 06/18/13
 REVISED: 01/20/15
 UPDATE: 06/02/17

UTILITY DISCLAIMER

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 EXISTING LOCATIONS.

PROFILE NOTES

ADD 2500 FEET TO ALL GRADE TAGS TO GET ACTUAL ELEVATION.
 ALL WORK TO BE PERFORMED OUTSIDE OF THE PROJECT BOUNDARY AND ON PRIVATE PROPERTY SHALL NOT BE PERFORMED UNTIL WRITTEN PERMISSION AND EASEMENTS HAVE BEEN OBTAINED FROM THE OFFSITE OWNER AND GIVEN TO GOVERNING ENTITY.

BASIS OF BEARING

NORTH 89°40'09" EAST
 BEING THE BEARING OF THE NORTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 32, TOWNSHIP 19 SOUTH, RANGE 80 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN IN FILE 200 PAGE 45 OF SURVEYS, CLARK COUNTY, NEVADA, OFFICIAL RECORDS.

BENCHMARK

PROJECT VERTICAL DATUM: NAVD83
 CITY OF LAS VEGAS BM NO. 84060326 - CITY OF LAS VEGAS PIN AND ROUND PLATE IN CONCRETE PAD, WEST SIDE OF CAMPBELL ROAD, +/- 142' SOUTH OF WASHBURN ROAD
 NAVD83 ELEV: 2507.62 (FEET)
 754.329 (METERS)

APPROVED FOR CONSTRUCTION

Shane Dean
 LAS VEGAS VALLEY WATER DISTRICT, ENGINEERING SERVICES
 FIRST APPROVED DATE: 12-21-12
 PROJECT: 125555
 LVWD APPROVED FIRE FLOW: 2,000 GPM AT 20 PSI RESIDUAL

CLARK COUNTY
 DEPARTMENT OF PUBLIC WORKS
 DEVELOPMENT REVIEW
 ACCEPTANCE OF PLANS FOR FILING

BY: _____ DATE: _____
 CHECKED BY: _____

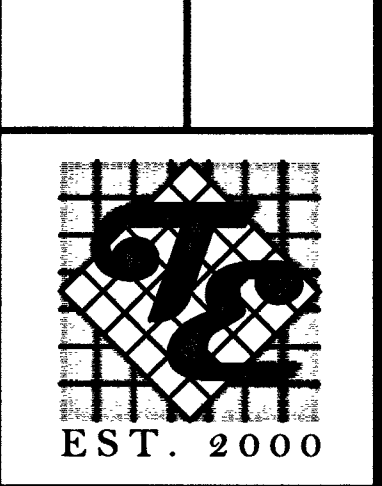
ACCEPTANCE OF THESE PLANS FOR FILING SHALL NOT BE CONSTRUED TO BE A PERMIT FOR OR AN APPROVAL OF ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS AND/OR SPECIFICATIONS. CLARK COUNTY SHALL BE HELD FREE FROM DAMAGES WHICH MAY RESULT FROM THE CONSTRUCTION OF THE IMPROVEMENTS FROM THE ENGINEERING DESIGN DEPICTED HEREIN.

NOTE: POWER POLES AND/OR OTHER EXISTING FACILITIES NOT IN PROPER LOCATION BASED ON PROPOSED IMPROVEMENTS SHOWN HEREON WILL BE RELOCATED AT NO EXPENSE TO CLARK COUNTY.

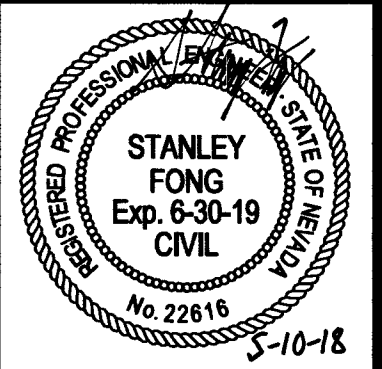
NO.	DESCRIPTION	BY	SFTS.	APPR.	DATE

THM ENTERPRISES LLC
 9205 W. RUSSELL ROAD STE. 235
 LAS VEGAS, NV 89118
 (702) 823-3151 FAX: (702) 823-3899

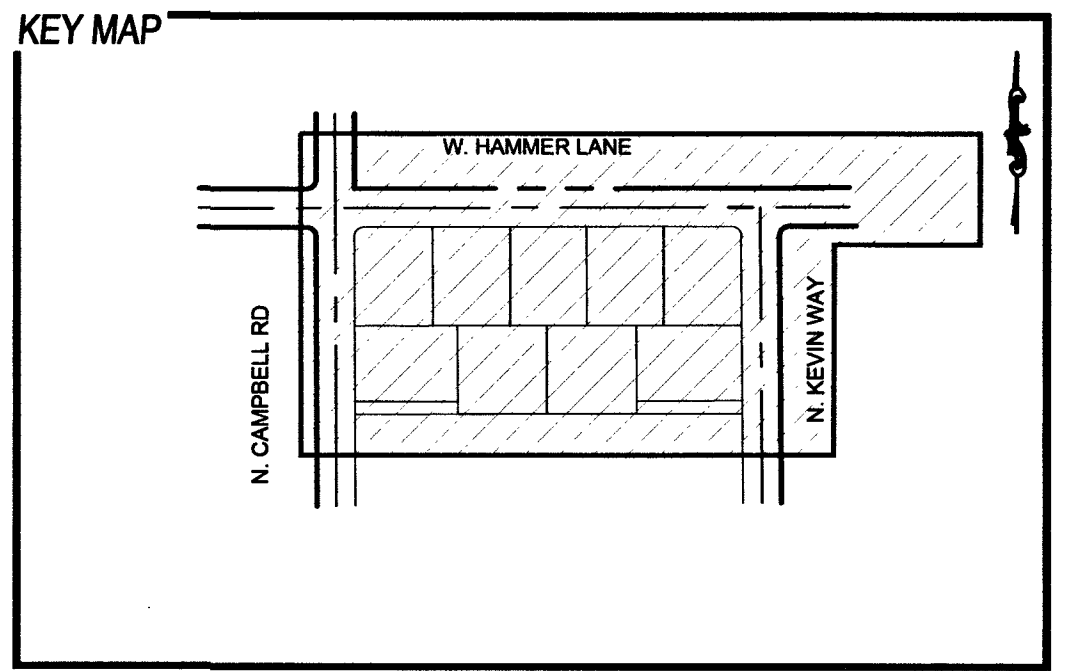
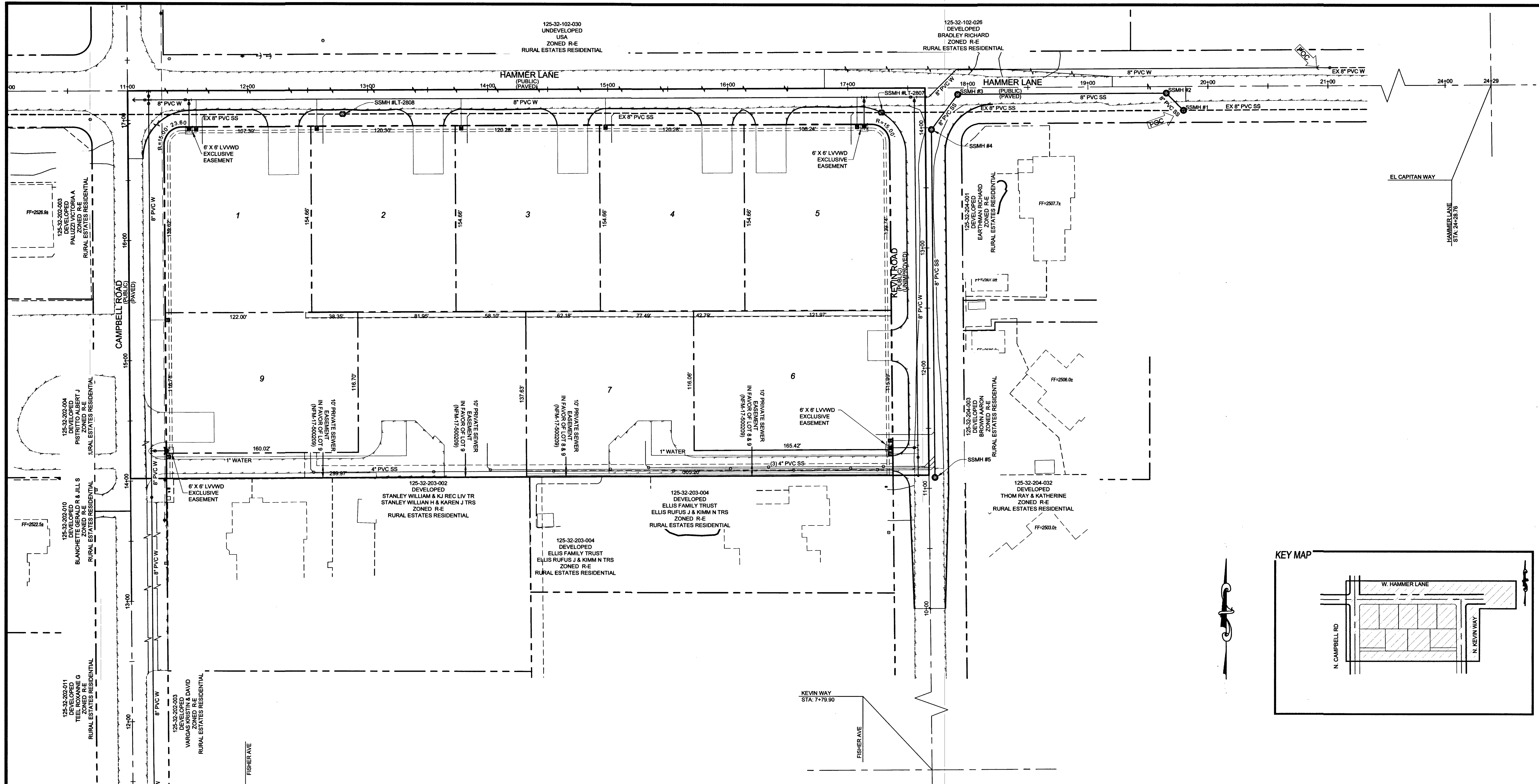
THANE & ENGINEERING
 6835 S. JONES BOULEVARD
 LAS VEGAS, NV 89118
 (702) 362-8644 FAX: (702) 362-8233



HAMMER & KEVIN
 A RESIDENTIAL SUBDIVISION
NORTH KEVIN WAY
STA: 10+00 TO 14+22
PLAN AND PROFILE 4



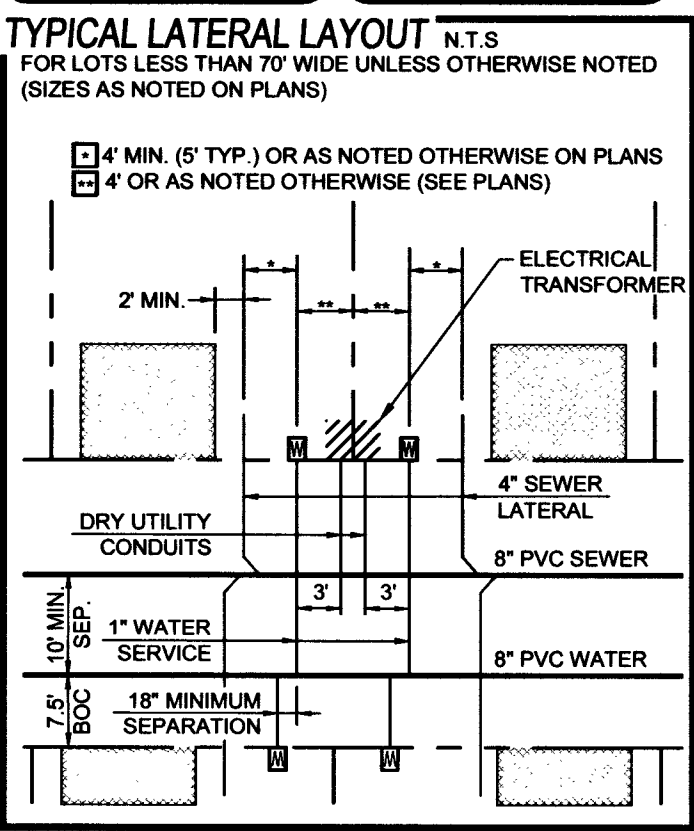
DATE: 5/10/2018
 SCALE: 1"=30'
 JOB NO: THM-17-013
 DESIGNED BY: SB CHECKED BY: SF
 SHEET NAME: PP4
 SHEET NUMBER: 10 OF 15
 307V111/1
 L17-01036
 CC HTE# PW17-39999-SDF



Call before you Overhead
1-702-227-2929

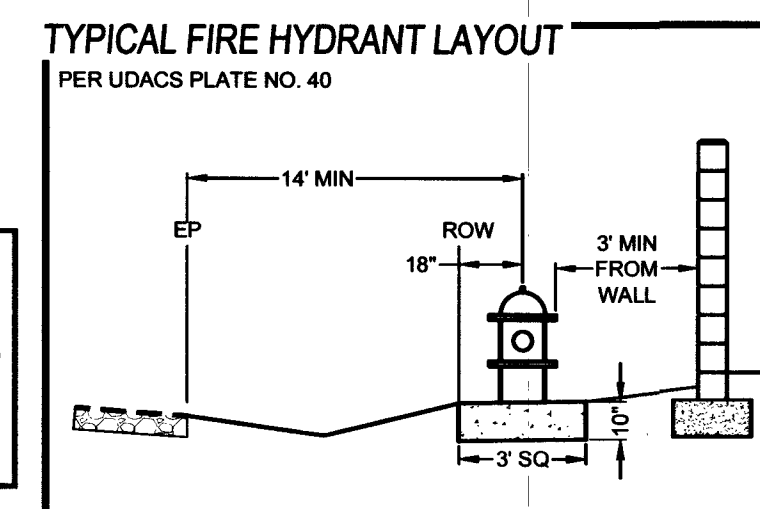
Call before you Dig
811
1-800-227-2600

FAST
Call before you Underground
1-702-432-5300



WATER MAIN JOINT DEFLECTION NOTE (PVC 4"-24")
PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MAXIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.02.

WASTEWATER CALCULATIONS
FACILITY TYPE: SINGLE FAMILY RESIDENTIAL
TOTAL UNITS AT BUILD OUT: 9 HOUSES
AVERAGE FLOW = 0.0022 MGD (9 ERUS)
PEAK FLOW = 0.0077 MGD (32 ERUS)
PEAK + WET WEATHER = 0.0097 MGD (40 ERUS)



FIRE FLOW CALCULATIONS
FIRE FLOW REQUIREMENT IS 2000 GALLONS PER MINUTE AT 20 POUNDS PER SQUARE INCH RESIDUAL.
BASED ON:
AREA UNDER ROOF: 5000-SF MAX
LARGEST AREA BETWEEN SEPARATE WALLS: N/A
HEIGHT: 35-FT MAX
TYPE OF CONSTRUCTION: V-B
SPRINKLER SYSTEM: NO
TOTAL HYDRANTS: 4

UTILITY DISCLAIMER
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 EXISTING LOCATIONS.

- UTILITY NOTES
1. ALL WATER FACILITIES CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS" (UDACS), LATEST EDITION.
 2. FIRE, WATER, AND SEWER SERVICES, AS APPROVED ON THIS PLAN, ARE INTENDED SPECIFICALLY FOR THE LOT AND USE SHOWN, AND ARE NOT INTENDED TO SERVICE ADDITIONAL PARCELS OR STRUCTURES WHICH MAY BE CREATED IN THE FUTURE. IN THE EVENT THAT THE PARCELS AND/OR LOTS SHOWN ON THIS PLAN ARE FURTHER DIVIDED TO CREATE ADDITIONAL PARCELS OR LOTS, THE OWNER IS REQUIRED TO PROVIDE SEPARATE FIRE, WATER, & SEWER SERVICES TO EACH.
 3. WATER AND SEWER LATERALS SHALL BE INSTALLED A MINIMUM OF 48" APART IN SEPARATE TRENCHES. WATER LATERALS SHALL BE A MINIMUM OF 12" ABOVE THE SEWER LATERAL. (REF. UNIFORM PLUMBING CODE)
 4. LOCATOR RIBBON SHALL BE USED FOR ALL SERVICE LATERALS NOT PERPENDICULAR TO THE MAIN. (TYPICAL)
 5. ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS" (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.
 6. ALL WORK TO BE PERFORMED OUTSIDE OF THE PROJECT BOUNDARY AND ON PRIVATE PROPERTY SHALL NOT BE PERFORMED UNTIL WRITTEN PERMISSION AND EASEMENTS HAVE BEEN OBTAINED FROM THE OFFSITE OWNER AND GIVEN TO CLARK COUNTY.
 7. ALL ONSITE STREETS AND DRAINAGE EASEMENTS ARE TO BE PRIVATELY OWNED AND MAINTAINED.
 8. INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING. (UDACS PLT 15.)
 9. 3 MIN. HORIZONTAL CLEARANCE REQUIRED BETWEEN WATER MAINS AND DRY UTILITIES PER UDACS SECTION 2.04.02
 10. 12" MIN. VERTICAL CLEARANCE REQUIRED BETWEEN WATER MAINS AND DRY UTILITIES AND 6" MIN. BETWEEN WATER LATERALS AND DRY UTILITIES PER UDACS SECTION 2.04.06

SCALE: 1" = 40'

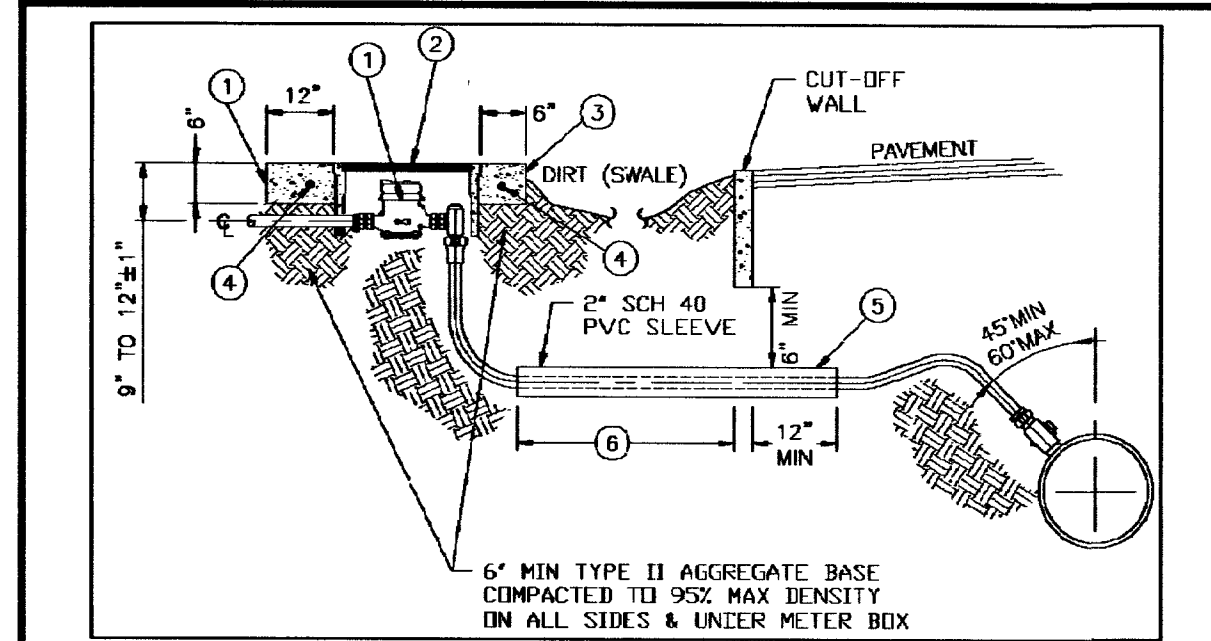
BASIS OF BEARING
NORTH 89°40'09" EAST
BEING THE BEARING OF THE NORTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 32, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN IN FILE 200 PAGE 45 OF SURVEYS, CLARK COUNTY, NEVADA, OFFICIAL RECORDS.

BENCHMARK
PROJECT VERTICAL DATUM: NAVD88
CITY OF LAS VEGAS BM NO. 9LV8032W6 - CITY OF LAS VEGAS PIN AND ROUND PLATE IN CONCRETE PAD, WEST SIDE OF CAMPBELL ROAD, +/- 142' SOUTH OF WASHBURN ROAD
NAVD88 ELEV: 2507.62 (FEET)
764.329 (METERS)

APPROVED FOR CONSTRUCTION
CLARK COUNTY FIRE DEPARTMENT
APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW = 2,000 G.P.M. AT 20 PSI RESIDUAL. FF17-44628

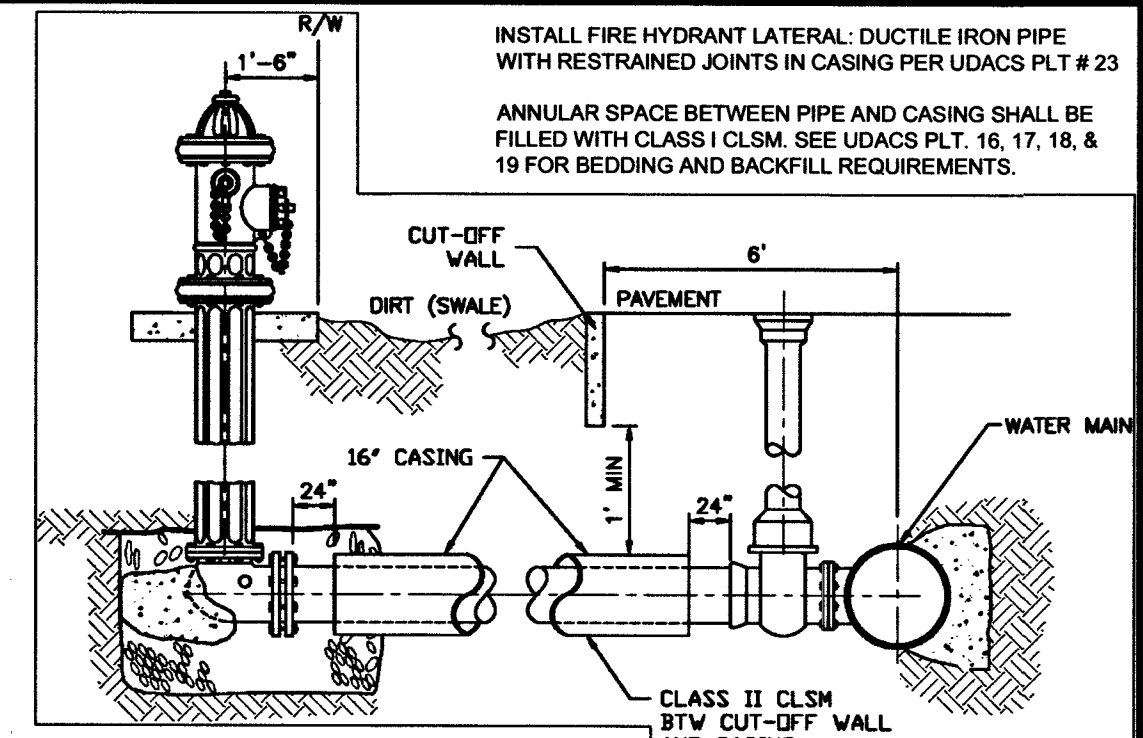
APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
FIRST APPROVED DATE: 5-31-18 PROJECT# 125555
LVWD APPROVED FIRE FLOW: 2,000 GPM AT 20 PSI RESIDUAL

THM ENTERPRISES LLC 9285 W. RUSSELL ROAD STE. 233 LAS VEGAS, NV 89118 (702) 925-3131 FAX: (702) 925-3889		TANEY & ENGINEERING 6803 S. JONES BOULEVARD LAS VEGAS, NV 89113 (702) 362-4444 FAX: (702) 362-5233	
HAMMER & KEVIN A RESIDENTIAL SUBDIVISION		MASTER UTILITY PLAN	
DATE: 5/10/2018		SCALE: 1"=40'	
JOB NO: THM-17-013		DESIGNED BY: SB	
SHEET NAME: MUT		SHEET NUMBER: 11 OF 15	
CLV		307 V11/17	
CC HTE# PW17-39999-SDF		L17-01036	



1. INSTALL 1" METER PER UDACS PLATE #3
2. INSTALL ARMORCAST 1" METER BOX ASSEMBLY (P800485T/A6000484T) OR APPROVED EQUAL
3. 6" THICK FORMED CONCRETE COLLAR
4. #4 REBAR 2" FROM BOTTOM, CENTERED WITHIN EACH SIDE OF COLLAR 4" MIN OVERLAP
5. 2" SCHEDULE 40 PVC SLEEVE, 6" MIN SEPARATION BETWEEN SLEEVE & BOTTOM OF CUT OFF WALL

DETAIL Y SERVICE SADDLE AND METER COLLAR WITH CUT-OFF WALL

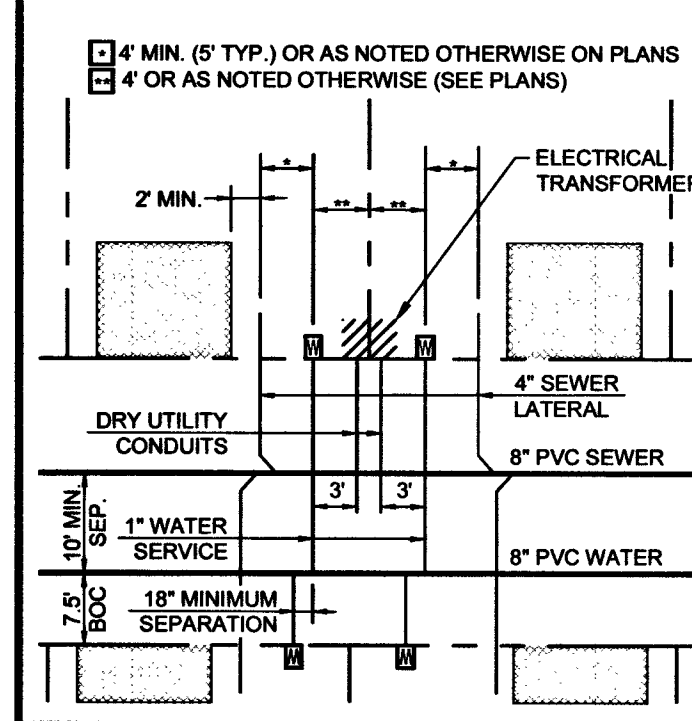


1. INSTALL FIRE HYDRANT ASSEMBLY PER UDACS PLATE #40
2. INSTALL 16" CASING 24" FROM HYDRANT VALVE AND 24" FROM 90° BEND PER UDACS PLATE #23
3. MIN. 1" SEPARATION BETWEEN STEEL CASING & BOTTOM OF CUT OFF WALL
4. BACKFILL WITH CLSM (CLASS I) IN DIRT AREA

DETAIL Z FIRE HYDRANT LATERAL CASING

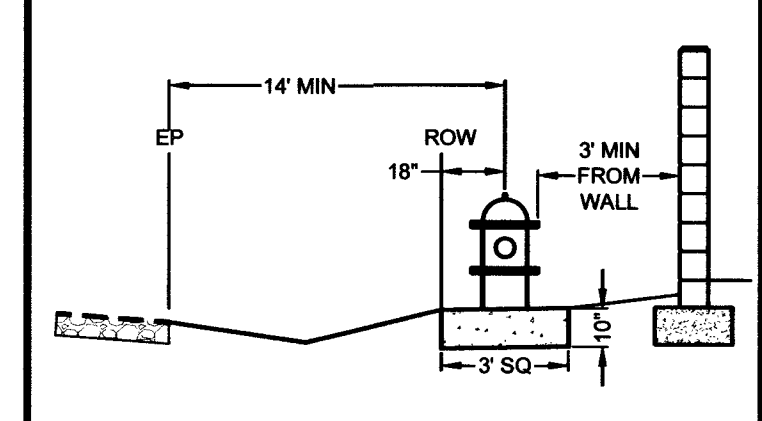
TYPICAL LATERAL LAYOUT

FOR LOTS LESS THAN 70' WIDE UNLESS OTHERWISE NOTED (SIZES AS NOTED ON PLANS)



TYPICAL FIRE HYDRANT LAYOUT

PER UDACS PLATE NO. 40



MATCHLINE SEE SHEET PP3

TO ENSURE LVVWD ACCESS WITHIN EASEMENT

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

LVVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE REMAINING WATER. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.

CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

UTILITY CONSTRUCTION NOTES

1. 1" TYPE K COPPER WATER LATERAL W/ 1" METER (UDACS PLT. 4)
2. 4" SEWER LATERAL PER DCSWCS SD-22
3. SAWCUT REMOVE AND REPLACE EXISTING AC PAVEMENT PER CCAUSD # 503, 500.4 & 500.5
4. FIRE HYDRANT ASSEMBLY W/ 6" GATE VALVE (UDACS PLT. 40) - PUBLIC
5. 6" WATERLINE TEE (UDACS PLT. 31)
6. INSTALL END CAP & 2" BLOW-OFF ASSEMBLY (UDACS PLT. 36)
7. 6"x6" TEE (UDACS PLT. 31)
8. 6" GATE VALVE (UDACS PLT. 30 & 39)
9. PROTECT EX. SEWER LINE (PER SD-21)
10. 8" 45° HORIZONTAL WATERLINE BEND (UDACS PLT. 31)
11. CLEANOUT WITH TRAFFIC RATED LID PER DCSWCS SD-28
12. 1" TYPE K COPPER WATER LATERAL W/ 1" METER (UDACS PLT. 4) JENSEN HTI234 TRAFFIC RATED BOX OR EQUIVALENT UNIMPROVED CONDITION METER BOX COLLAR
13. REMOVE EXISTING END CAP & 2" BLOW-OFF ASSEMBLY
14. 48" MANHOLE, BASE PRECAST, GRADE RING COLLAR & SINGLE 24" LID PER DCSWCS STANDARDS
15. REMOVE EXISTING END CAP & 2" BLOW-OFF ASSEMBLY & CONNECT TO EX MAIN WITH 10" X 8" REDUCER & 1" MAX HORIZONTAL DEFLECTION (UDACS PLT. 30)
16. 1" MAX HORIZONTAL DEFLECTION
17. STEEL ENCASING (UDACS PLT. 23)
18. 6" CROSS (UDACS PLT. 31)

BACKWATER VALVE (BWV)

LOTS 1, 2, 3, 4, 5. THESE LOTS HAVE DRAINAGE PIPING FEATURE THAT ARE LOWER THAN THE NEXT UPSTREAM SEWER MANHOLE COVER AND SHALL HAVE BACKWATER VALVES INSTALLED PER DCSWCS SD-29.

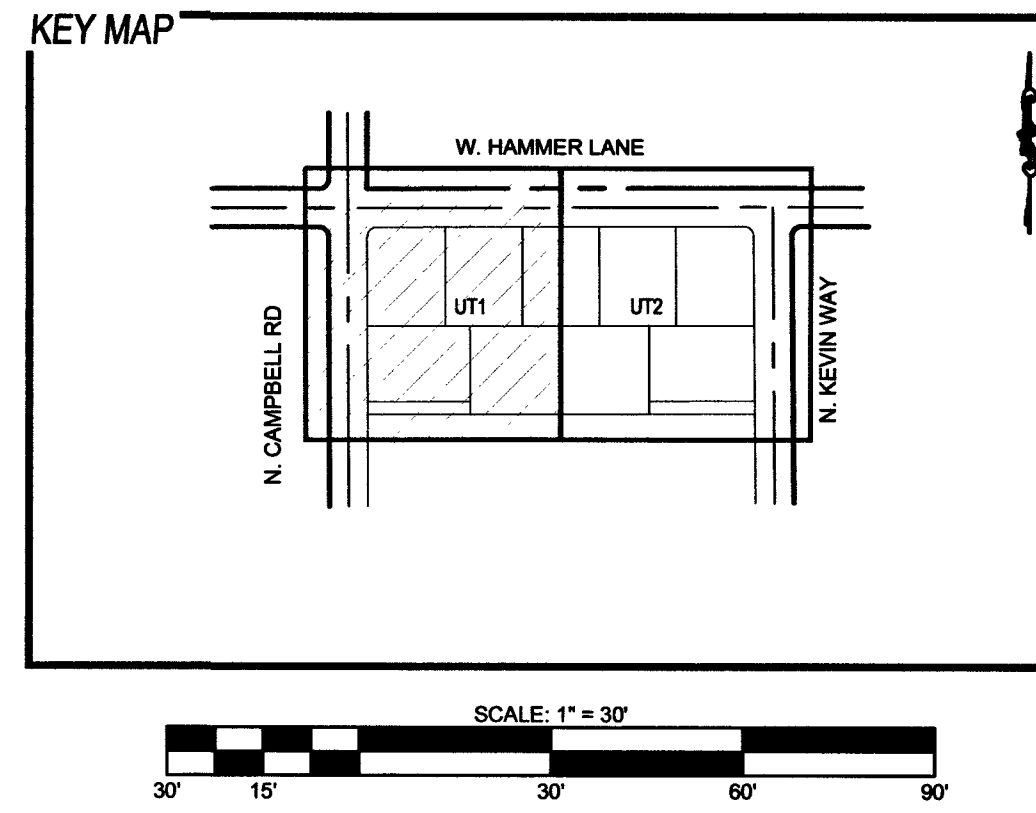
USE OF CUT-OFF WALLS NEAR LVVWD FACILITIES

FIVE FEET MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN THE CUT-OFF WALL AND THE WATER MAIN, FOR CROSSING OVER THE PROPOSED WATER MAIN, THE MAIN MUST BE WITHIN A STEEL CASING (PER UDACS PLATE 23) SPANNING FIVE FEET ON EITHER SIDE OF THE CUTOFF WALL AND VERTICAL SEPARATION OF NO LESS THAN ONE FOOT BETWEEN TOP OF CASING AND BOTTOM OF THE WALL. IF THE MAIN IS EXISTING, A MINIMUM OF ONE FOOT VERTICALLY IS REQUIRED AND CLSM I BETWEEN THE TOP OF THE MAIN AND THE BOTTOM OF THE CUTOFF WALL.

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

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

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



WASTEWATER CALCULATIONS

FACILITY TYPE: SINGLE FAMILY RESIDENTIAL
TOTAL UNITS AT BUILD OUT: 9 HOUSES
AVERAGE FLOW = 0.0022 MGD (9 ERUS)
PEAK FLOW = 0.00777 MGD (32 ERUS)
PEAK + WET WEATHER = 0.0097 MGD (40 ERUS)
CALCULATIONS:
AVG FLOW = 9 X 90,000 GAL X 1 MG = 0.0022 MGD
365 DAYS 1,000,000 G
PEAK FLOW = 0.0022 X 3.5 = 0.00777 MGD
PEAK + WET WEATHER FLOW = 0.00777 MGD X 1.25 = 0.0097 MGD

FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENT IS 2000 GALLONS PER MINUTE AT 20 POUNDS PER SQUARE INCH RESIDUAL.
BASED ON:
AREA UNDER ROOF: 5000-SF MAX
LARGEST AREA BETWEEN SEPARATE WALLS: N/A
HEIGHT: 35-FT MAX
TYPE OF CONSTRUCTION: V-B
SPRINKLER SYSTEM: NO
TOTAL HYDRANTS: 4
OCCUPANCY: R-3
ROOF CONSTRUCTION: TILE
STORIES: 2
HIGH PILED COMBUSTIBLE
STORAGE: NO
ESFR SYSTEM: NO

UTILITY NOTES

1. ALL WATER FACILITIES CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS" (UDACS), LATEST EDITION.
2. FIRE, WATER, AND SEWER SERVICES, AS APPROVED ON THIS PLAN, ARE INTENDED SPECIFICALLY FOR THE LOT AND USE SHOWN, AND ARE NOT INTENDED TO SERVICE ADDITIONAL PARCELS OR STRUCTURES WHICH MAY BE CREATED IN THE FUTURE. IN THE EVENT THAT THE PARCELS AND/OR LOTS SHOWN ON THIS PLAN ARE FURTHER DIVIDED TO CREATE ADDITIONAL PARCELS OR LOTS, THE OWNER IS REQUIRED TO PROVIDE SEPARATE FIRE, WATER, & SEWER SERVICES TO EACH.
3. WATER AND SEWER LATERALS SHALL BE INSTALLED A MINIMUM OF 48" APART IN SEPARATE TRENCHES. WATER LATERALS SHALL BE A MINIMUM OF 12" ABOVE THE SEWER LATERAL. (REF. UNIFORM PLUMBING CODE)
4. LOCATOR RIBBON SHALL BE USED FOR ALL SERVICE LATERALS NOT PERPENDICULAR TO THE MAIN. (TYPICAL)
5. ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS" (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.
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8. INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING. (UDACS PLT. 15.)
9. 3' MIN. HORIZONTAL CLEARANCE REQUIRED BETWEEN WATER MAINS AND DRY UTILITIES PER UDACS SECTION 2.04.02
10. 12" MIN. VERTICAL CLEARANCE REQUIRED BETWEEN WATER MAINS AND DRY UTILITIES AND 6" MIN. BETWEEN WATER LATERALS AND DRY UTILITIES PER UDACS SECTION 2.04.06

UTILITY DISCLAIMER

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BASIS OF BEARING

NORTH 89°40'00" EAST
BEING THE BEARING OF THE NORTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 22, TOWNSHIP 19 SOUTH, RANGE 90 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN IN FILE 200 PAGE 45 OF SURVEY, CLARK COUNTY, NEVADA, OFFICIAL RECORDS.

BENCHMARK

PROJECT VERTICAL DATUM: NAVD83
CITY OF LAS VEGAS BM NO. 9LV9032W6 - CITY OF LAS VEGAS PIN AND ROUND PLATE IN CONCRETE PAD, WEST SIDE OF CAMPBELL ROAD, +/- 142' SOUTH OF WASHBURN ROAD
NAVD83 ELEV: 2507.62 (FEET)
764.329 (METERS)

APPROVED FOR CONSTRUCTION

CLARK COUNTY FIRE DEPARTMENT
APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW = 2,000 G.P.M. AT 20 PSI RESIDUAL
APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
FIRST APPROVED DATE 5-31-18 PROJECT# 125555
LVVWD APPROVED FIRE FLOW: 2,000 GPM AT 20 PSI RESIDUAL

FAST
Call before you Dig
Underground
1-702-432-5300
FREEWAY & ARTERIAL
SYSTEM OF TRANSPORTATION

Call before you Dig
Avoid cutting underground
utility lines. It's costly.
CALL
811
OR
1-800-227-2600

Call before you Dig
Overhead
1-702-227-2929

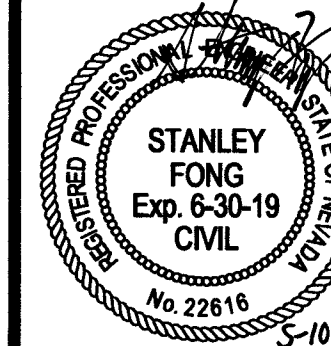
THM ENTERPRISES LLC
6025 W. RUSSELL ROAD STE. 235
LAS VEGAS, NV 89118
(702) 923-3151 FAX: (702) 923-3889

THM ENGINEERING
6003 S. JONES BOULEVARD
LAS VEGAS, NV 89118
(702) 962-8844 FAX: (702) 962-8233



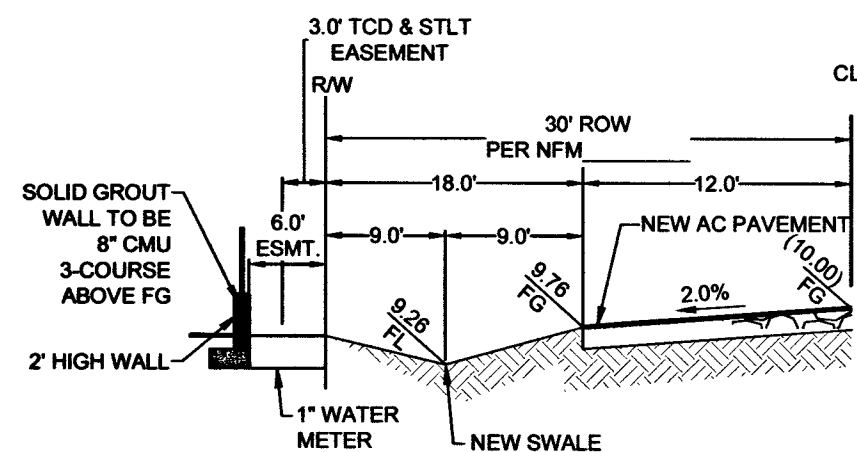
HAMMER & KEVIN
A RESIDENTIAL SUBDIVISION

UTILITY PLAN 1

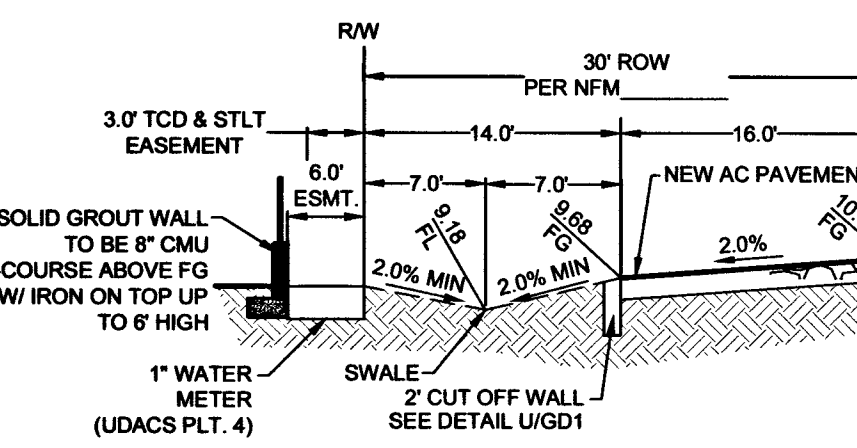


DATE: 5/10/2018
SCALE: 1"=30'
JOB NO: THM-17-013
DESIGNED BY: SB CHECKED BY: SF
SHEET NAME: UT1
SHEET NUMBER: 12 OF 15
CLV: 307/V1/H/1
L17-01036
CC: HTE# PW17-39999-SDF

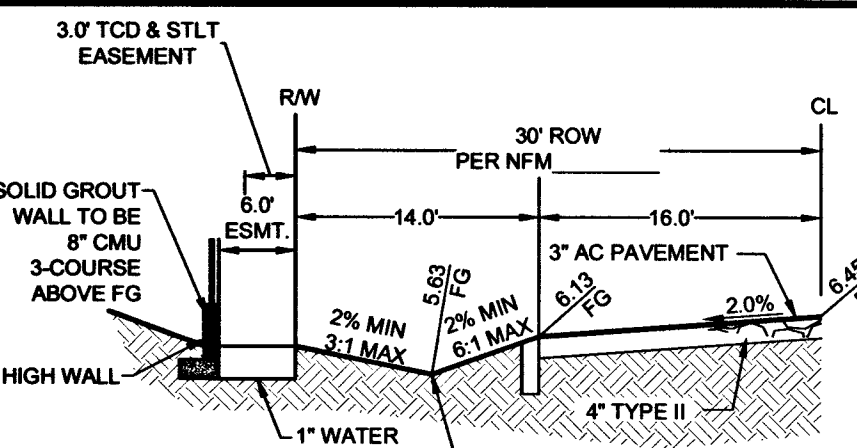
PROJ# 125555 AGR:116561 QS:25-32-NW



**TYPICAL WATER SERVICE METER
ALONG CAMPBELL ROAD
SECTION AA**

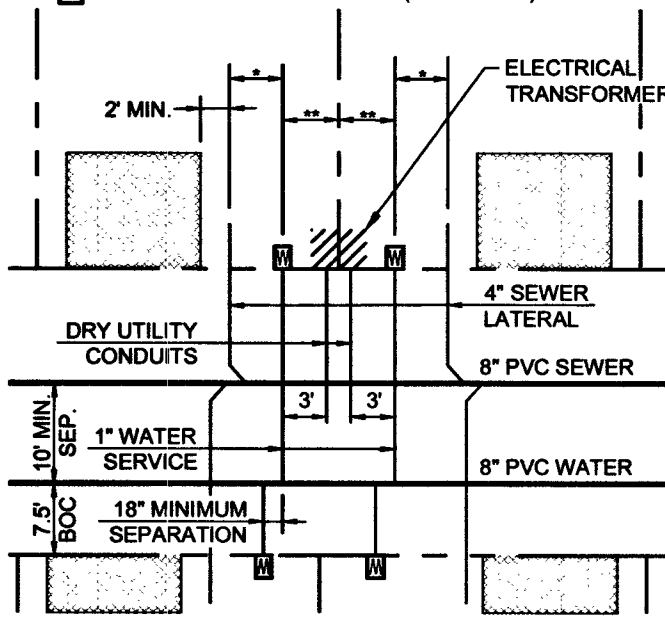


**TYPICAL WATER SERVICE METER
ALONG HAMMER LANE
SECTION BB**

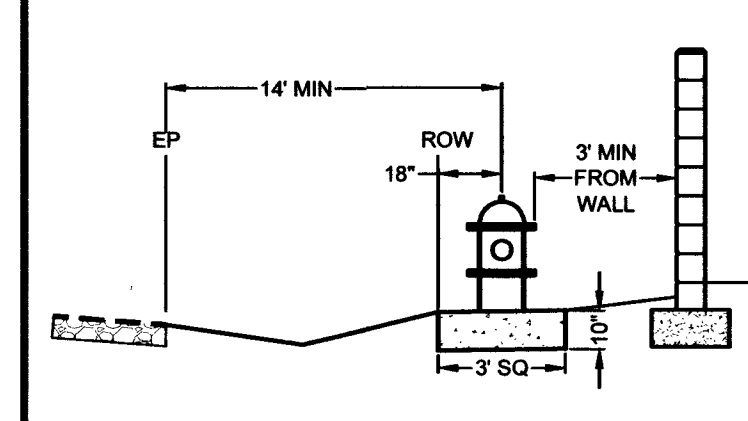


**TYPICAL WATER SERVICE METER
ALONG KEVIN WAY
SECTION CC**

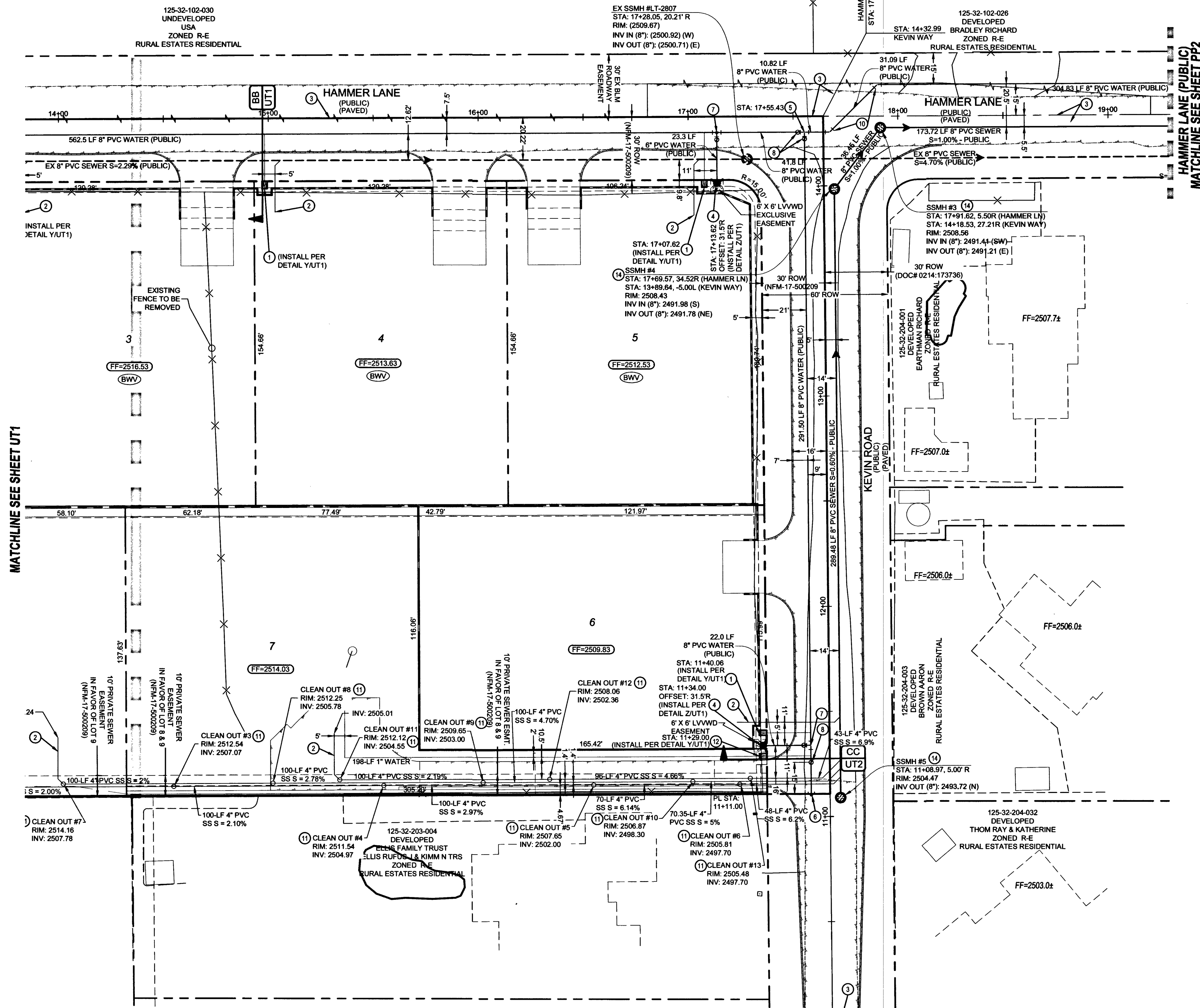
TYPICAL LATERAL LAYOUT N.T.S.
FOR LOTS LESS THAN 70' WIDE UNLESS OTHERWISE NOTED
(SIZES AS NOTED ON PLANS)



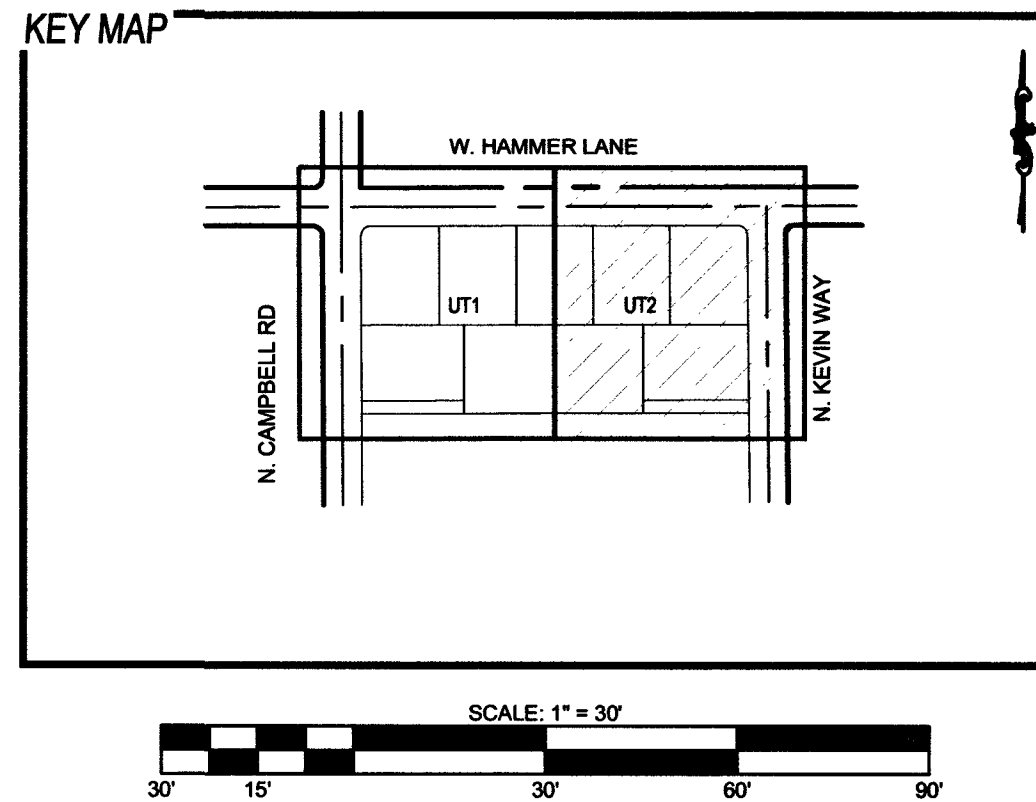
TYPICAL FIRE HYDRANT LAYOUT
PER UDACS PLATE NO. 40



MATCHLINE SEE SHEET UT1



MATCHLINE SEE SHEET PP2



WASTEWATER CALCULATIONS
FACILITY TYPE: SINGLE FAMILY RESIDENTIAL
TOTAL UNITS AT BUILD OUT: 9 HOUSES
AVERAGE FLOW = 0.0022 MGD (9 ERUS)
PEAK FLOW = 0.0077 MGD (32 ERUS)
PEAK + WET WEATHER = 0.0097 MGD (40 ERUS)
CALCULATIONS:
AVG FLOW = 9 X 90,000 GAL X 1 MG = 0.0022 MGD
365 DAYS 1,000,000 G
PEAK FLOW = 0.0022 X 3.5 = 0.0077 MGD
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FIRE FLOW REQUIREMENT IS 2000 GALLONS PER MINUTE AT 20 POUNDS PER SQUARE INCH RESIDUAL.
BASED ON:
AREA UNDER ROOF: 5000-SF MAX
LARGEST AREA BETWEEN SEPARATE WALLS: N/A
HEIGHT: 35-FT MAX
TYPE OF CONSTRUCTION: V-B
SPRINKLER SYSTEM: NO
TOTAL HYDRANTS: 4
OCCUPANCY: R-3
ROOF CONSTRUCTION: TILE
STORIES: 2
HIGH PILED COMBUSTIBLE
STORAGE: NO
ESFR SYSTEM: NO

- UTILITY NOTES**
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 - 3' MIN. HORIZONTAL CLEARANCE REQUIRED BETWEEN WATER MAINS AND DRY UTILITIES PER UDACS SECTION 2.04.02
 - 12' MIN. VERTICAL CLEARANCE REQUIRED BETWEEN WATER MAINS AND DRY UTILITIES PER UDACS SECTION 2.04.06

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BENCHMARK
PROJECT VERTICAL DATUM: NAVD83
CITY OF LAS VEGAS BM NO. 8LV932W6 - CITY OF LAS VEGAS PIN AND ROUND PLATE IN CONCRETE PAD, WEST SIDE OF CAMPBELL ROAD, +/- 142' SOUTH OF WASHBURN ROAD
NAVD83 ELEV: 2507.62 (FEET)
784.329 (METERS)

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APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
FIRST APPROVED DATE: 5-21-18 PROJECT# 125555
LVVWD APPROVED FIRE FLOW: 2,000 GPM AT 20 PSI RESIDUAL

UTILITY CONSTRUCTION NOTES

- 1" TYPE K COPPER WATER LATERAL W/ 1" METER (UDACS PLT. 4)
- 4" SEWER LATERAL PER DCSWCS SD-22
- SAWCUT REMOVE AND REPLACE EXISTING AC PAVEMENT PER CCAUSD # 503, 500.4 & 500.5
- FIRE HYDRANT ASSEMBLY W/ 6" GATE VALVE (UDACS PLT. 40) - PUBLIC
- 6" WATER LINE TEE (UDACS PLT. 31)
- 6" GATE VALVE (UDACS PLT. 30 & 39)
- PROTECT EX. SEWER LINE (PER SD-21)
- 45" HORIZONTAL WATER LINE BEND (UDACS PLT. 31)
- CLEANOUT WITH TRAFFIC RATED LID PER DCSWCS SD-26
- 1" TYPE K COPPER WATER LATERAL W/ 1" METER (UDACS PLT. 4) JENSEN HT1234 TRAFFIC RATED BOX OR EQUIVALENT UNIMPROVED CONDITION METER BOX COLLAR
- REMOVE EXISTING END CAP & 2" BLOW-OFF ASSEMBLY
- 4" MANHOLE, BASE PRECAST, GRADE RING COLLAR & SINGLE 24" LID PER DCSWCS STANDARDS
- REMOVE EXISTING END CAP & 2" BLOW-OFF ASSEMBLY & CONNECT TO EX MAIN WITH 10" X 8" REDUCER & 1" MAX HORIZONTAL DEFLECTION (UDACS PLT. 30)
- 1" MAX HORIZONTAL DEFLECTION
- STEEL ENCASEMENT (UDACS PLT. 23)
- CROSS (UDACS PLT. 31)

TO ENSURE LVVWD ACCESS WITHIN EASEMENT

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CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

BACKWATER VALVE (BWV)

LOTS 1, 2, 3, 4, 5.
THESE LOTS HAVE DRAINAGE PIPING FEATURE THAT ARE LOWER THAN THE NEXT UPSTREAM SEWER MANHOLE COVER AND SHALL HAVE BACKWATER VALVES INSTALLED PER DCSWCS SD-29.

USE OF CUT-OFF WALLS NEAR LVVWD FACILITIES

FIVE FEET MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN THE CUT-OFF WALL AND THE WATER MAIN. FOR CROSSING OVER THE PROPOSED WATER MAIN, THE MAIN MUST BE WITHIN A STEEL CASING (PER UDACS PLATE 23) SPANNING FIVE FEET ON EITHER SIDE OF THE CUTOFF WALL AND VERTICAL SEPARATION OF NO LESS THAN ONE FOOT BETWEEN TOP OF CASING AND BOTTOM OF THE WALL. IF THE MAIN IS EXISTING, A MINIMUM OF ONE FOOT VERTICALLY IS REQUIRED AND CLSM 1 BETWEEN THE TOP OF THE MAIN AND THE BOTTOM OF THE CUTOFF WALL.

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

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

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

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1-702-432-5300
FREEMAN & ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig
Avoid cutting underground utility lines. It's costly.
CALL
811
OR
1-800-227-2800

Call before you Dig
Overhead
1-702-227-2929

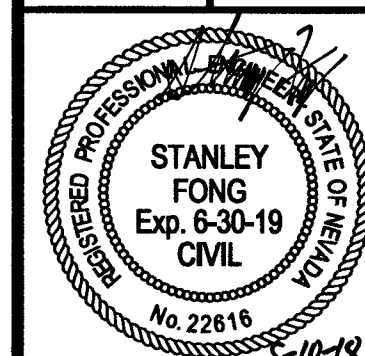
THM ENTERPRISES LLC
9205 W. RUSSELL ROAD, STE. 235
LAS VEGAS, NV 89119
(702) 923-3131 FAX: (702) 923-3889

STANLEY FONG
9030 S. JONES BOULEVARD
LAS VEGAS, NV 89119
(702) 362-8444 FAX: (702) 362-8233



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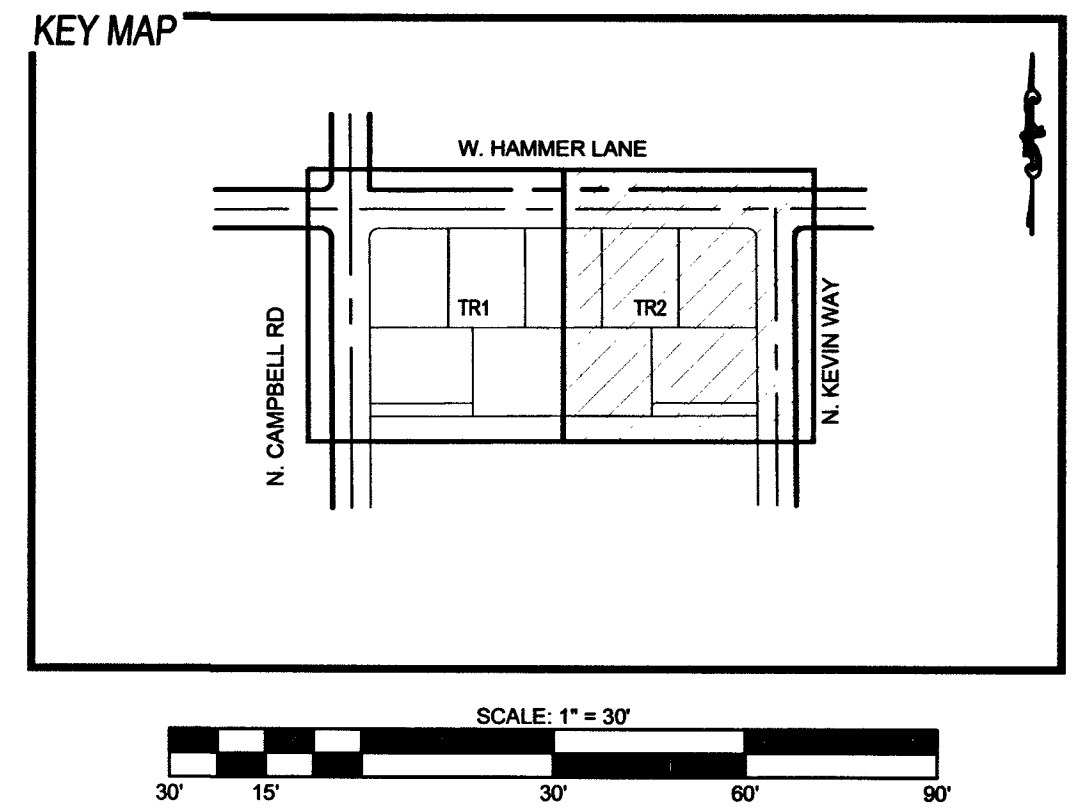
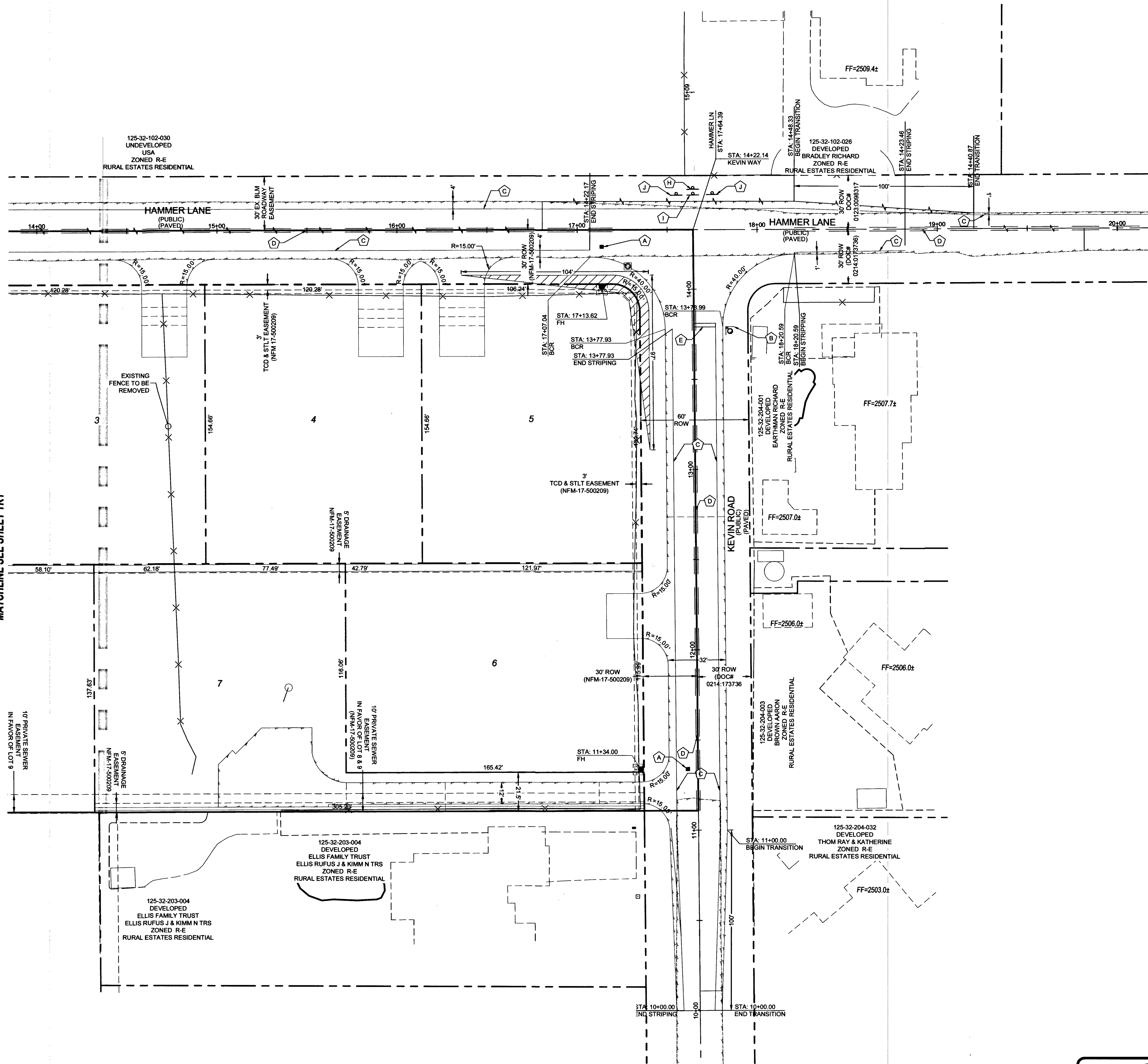
UTILITY PLAN 2



DATE: 5/10/2018
SCALE: 1"=30'
JOB NO: THM-17-013
DESIGNED BY: SB CHECKED BY: SF
SHEET NAME: UT2
SHEET NUMBER: 13 OF 15
CLV 307V17147
CC HTE# PW17-39999-SDF

PROJ.#: 125555 AGR: 16565 QS: 125-32-NW

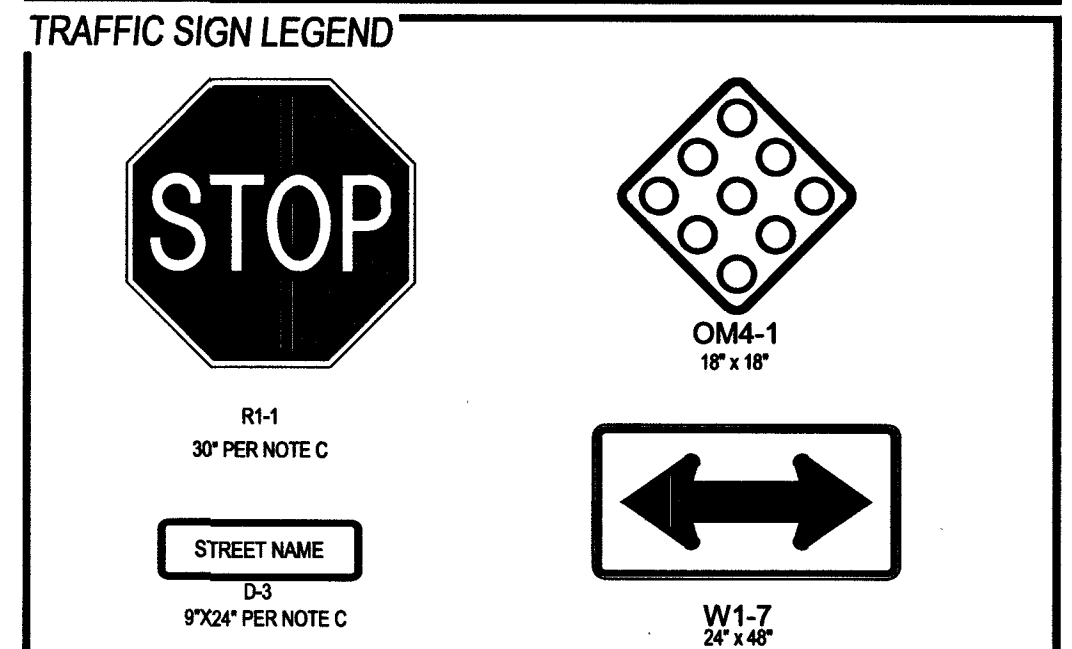
MATCHLINE SEE SHEET TR1



- TRAFFIC CONSTRUCTION NOTES**
- (A) BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS
 - (B) INSTALL 30" R1-1 "STOP" SIGN W/ TWO (2) 9" D-3 "STREET NAME" SIGNS
 - (C) INSTALL 4" WHITE PAINTED EDGE LINE
 - (D) INSTALL TYPE 1 CENTERLINE (CCAUSD #244 RPM)
 - (E) INSTALL 24" WIDE WHITE STOP BAR (CCAUSD #254)
 - (F) MATCH EXISTING TYPE 1 CENTERLINE
 - (G) MATCH EXISTING 4" SOLID WHITE LINE

SIGHT VISIBILITY ZONES (SVZ)
NO WALLS, FENCES, SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL DEVICES, FIRE HYDRANTS, TREES, AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM TOP OF CURB, OR WHERE NO CURB EXISTS, A HEIGHT OF 27 INCHES MEASURED FROM THE TOP OF ADJACENT ASPHALT, GRAVEL OR PAVEMENT STREET SURFACE. THIS RESTRICTION EXTENDS ALONG THE SIGHT VISIBILITY LINE THROUGH LANDSCAPED MEDIANS. (CCAUSD 201)

BASIS OF BEARING
NORTH 89° 40' 09" EAST
BEING THE BEARING OF THE NORTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 32, TOWNSHIP 19 SOUTH, RANGE 60 EAST, N.D.M., CLARK COUNTY, NEVADA, AS SHOWN IN FILE NO. 200 PAGE 45 OF SURVEYS, CLARK COUNTY, NEVADA, OFFICIAL RECORDS.



UTILITY DISCLAIMER
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 EXISTING LOCATIONS.

BENCHMARK
PROJECT VERTICAL DATUM: NAVD88
CITY OF LAS VEGAS BM NO. 9LV9032W6 - CITY OF LAS VEGAS PIN AND ROUND PLATE IN CONCRETE PAD, WEST SIDE OF CAMPBELL ROAD, +/- 142' SOUTH OF WASHBURN ROAD
NAVD88 ELEV: 2507.62 (FEET)
764.329 (METERS)

REVISIONS		NO.	DESCRIPTION	BY	CHKD.	DATE

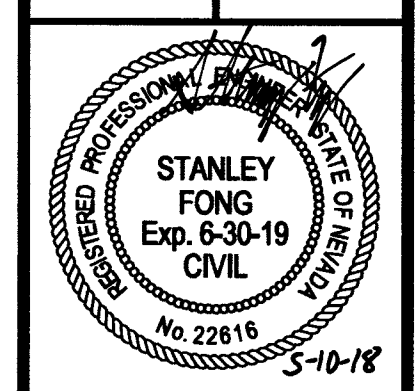
THM ENTERPRISES LLC
8008 W. RUSSELL ROAD STE. 235
LAS VEGAS, NV 89118
(702) 923-3111 FAX: (702) 923-3899

STANLEY ENGINEERING
6001 S. JONES BOULEVARD
LAS VEGAS, NV 89118
(702) 362-8844 FAX: (702) 362-3333



HAMMER & KEVIN
A RESIDENTIAL SUBDIVISION

TRAFFIC PLAN 2



DATE:	5/10/2018
SCALE:	1"=30'
JOB NO.:	THM-17-013
DESIGNED BY:	SB
CHECKED BY:	SF
SHEET NAME:	TR2
SHEET NUMBER:	15 OF 15
CLV	307 V114/
CC	HTF# PW17-39999-0106

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OR
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Avoid overhead power line contact. It's costly.
Call before you Overhead
1-702-227-2929

Clark County Public Works
ACCEPTED

BY: _____ DATE: _____

ACCEPTANCE OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF ANY VIOLATION OF STATE, COUNTY OR FEDERAL LAW SPECIFICATIONS OR THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.