TRAFFIC NOTES

GENERAL TRAFFIC NOTES

1. ALL BARRICADING, CONSTRUCTION SIGNING, TRAFFIC DELINEATION AND MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND/OR WORK ZONE TRAFFIC CONTROL HANDBOOK. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ALL TRAFFIC CONTROL DEVICES ARE PROPERLY INSTALLED AND MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. CONTACT THE CITY OF NORTH LAS VEGAS' CITY TRAFFIC ENGINEER FOR SPECIFIC TRAFFIC CONTROL REQUIREMENTS.
2. IF THE PROJECT IMPROVEMENTS NECESSITATE TEMPORARY REMOVAL AND/OR RELOCATION OF TRAFFIC CONTROL SIGNS, MARKINGS OR ANY OTHER TRAFFIC CONTROL DEVICES, THEY SHALL BE MAINTAINED THROUGHOUT THE ENTIRE DURATION OF THE PROJECT AND SHALL BE RESTORED TO THE SATISFACTION OF CITY OF NORTH LAS VEGAS' CITY TRAFFIC ENGINEER.
3. PERMANENT PAVEMENT MARKING SHALL BE REQUIRED FOR ALL RIGHTS-OF-WAY 80 FEET WIDE OR GREATER WHICH INCLUDE HALF STREET IMPROVEMENTS UNLESS OTHERWISE NOTED. NEW PAVEMENT MARKINGS DESIGNS SHALL INCORPORATE INTO ANY EXISTING BORDERING MARKINGS. PAINTED MARKINGS SHALL NOT BE USED FOR TEMPORARY CONDITIONS. ALL TEMPORARY MARKINGS SHALL BE A REMOVABLE GRADE TAPE. ALL OTHER MARKINGS SHALL BE PER CLARK COUNTY UNIFORM STANDARD DRAWING 244 THRU 248 AND MEET THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.
4. ALL PERMANENT TRAFFIC CONTROL DEVICES REQUIRED BY CITY TRAFFIC ENGINEER SHALL BE PROPERLY INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE MUTCD AND/OR THE RTC STANDARDS PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE STREETS, REGARDLESS OF THE STATUS OF THEIR COMPLETION.
5. FIBER OPTIC CONDUIT SCHEDULE 40 PVC IS REQUIRED ON ALL RIGHTS-OF-WAY 80 FEET AND GREATER, SIZE SHALL BE 4 INCHES, UNLESS OTHERWISE SPECIFIED. PULL BOXES AND COVERS SHALL BE MADE OF REINFORCED POLYMER CONCRETE MATERIALS AND PULL BOX COVERS SHALL BE STAMPED WITH ONLY FIBER. PULL BOXES SHALL BE CAPABLE TO WITHSTAND BOTTOM ENTRY AND EXITS. SPACING OF PULL BOXES SHALL BE 450 FEET, MAXIMUM 500 FEET APART, IF CONSTRUCTION LIMITS ARE LESS THAN 450 FEET, AND ONE PULL BOX SHALL BE INSTALLED. ALL FIBER CONDUITS AT THE CONSTRUCTION SHALL BE STUBBED AND CAPPED 5 FEET PAST PROPERTY LINE AND/OR CONNECTED TO EXISTING FIBER CONDUIT. ALL CONDUITS SHALL BE CLEANED, BLOWN OUT, MANDREL(ED) AND SHALL HAVE A NUMBER 8 AWG THW GREEN TRACE WIRE. WIRE SHALL BE SECURED AT BOTH ENDS AND CAPPED.
6. ALL INTERSECTIONS WITH 80 FEET/80 FEET RIGHTS-OF-WAY AND GREATER SHALL BE IN ACCORDANCE WITH CLARK COUNTY UNIFORM STANDARD DRAWINGS 889 AND 765. LOCATION OF FUTURE SIGNAL POLE FOUNDATIONS SHALL BE TYPE L AND LOCATED CENTER OF RADIUS AS IN ACCORDANCE WITH CLARK COUNTY UNIFORM STANDARD DRAWING 885 UNLESS OTHERWISE NOTED.
7. ALL DEVELOPMENT PLANS SHALL HAVE A MASTER STREET LIGHTING AND TRAFFIC CONTROL (SIGNING AND STRIPING) PLAN SHEET CONTAINED IN THE SET WHICH INCLUDES ALL UNITS AND/OR PHASES OF THE PROJECT.
8. ALL TEMPORARY REGULATORY SIGNAGE SHALL BE GROUND MOUNTED IN ACCORDANCE WITH CLARK COUNTY UNIFORM STANDARD DRAWING 249 AND MEET THE MOST RECENT MUTCD REQUIREMENTS.
9. "NO PARKING" ZONES AT CURB RETURNS, FIRE HYDRANT ZONES AND SCHOOL ZONES SHALL BE PAINTED RED TO THE LIMITS NOTED ON THE PLANS.
10. PRIVATE STREET NAME SIGNS SHALL HAVE A WHITE BACKGROUND WITH BLUE LETTERING.
11. ALL WORK PERFORMED ON ANY COMPONENT OF ANY ELECTRICAL STREET LIGHTING OR TRAFFIC SIGNAL SYSTEM SHALL BE SUPERVISED BY AN ELECTRICIAN THAT IS CERTIFIED AS A JOURNEYMAN ELECTRICIAN. THE COMPANY SHALL HOLD A VALID STATE OF NEVADA RECOGNIZED C-2 ELECTRICAL CONTRACTOR'S LICENSE.

CONSTRUCTION SURVEY NOTES

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.

GRADING/DRAINAGE NOTES

A. GENERAL GRADING AND DRAINAGE NOTES
1. PURSUANT TO CITY OF NORTH LAS VEGAS ORDINANCE NUMBER 1172, THE CONTRACTOR IS REQUIRED TO SECURE A GRADING PERMIT PRIOR TO COMMENCING WORK.
2. THE CONTRACTOR SHALL SECURE A PERMIT FOR ANY OFF-SITE CONSTRUCTION.
3. THE CONTRACTOR'S OPERATIONS SHALL NOT TRESPASS BEYOND THE PROJECT PROPERTY LINES UNLESS A PERMIT OR WRITTEN AUTHORIZATION HAS BEEN OBTAINED FROM THE PROPERTY OWNER(S) INVOLVED. COPIES OF SUCH WRITTEN AUTHORIZATION SHALL BE FURNISHED TO THE CITY OF NORTH LAS VEGAS' REPRESENTATIVE PRIOR TO START OF CONSTRUCTION.
4. THE CITY OF NORTH LAS VEGAS CONSTRUCTION SERVICES SHALL BE NOTIFIED ONE (1) WORKING DAY BEFORE ANY ON-SITE CONSTRUCTION WORK BEGINS.
5. AN APPROVED GRADING AND DRAINAGE PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THE APPROVED PLAN WILL REQUIRE SUBMITTAL OF A FORMAL REVISED PLAN FOR REVIEW AND APPROVAL.
6. ALL CONSTRUCTION SURVEY CONTROL SHALL BE DONE BY A LICENSED PROFESSIONAL LAND SURVEYOR IN ACCORDANCE WITH APPLICABLE STATUTES AND CODES. THE CONTRACTOR SHALL PROVIDE COMPETENT RESOURCES TO ASSURE BUILDING PAD AND BUILDING FLOOR ELEVATIONS CONFORM TO THOSE SHOWN ON THE CONSTRUCTION DRAWINGS. FURTHERMORE, THE CONTRACTOR SHALL PROVIDE THE CITY OF NORTH LAS VEGAS BUILDING DEPARTMENT WITH:
   a. CERTIFICATION OF 'BUILDING FLOOR ELEVATIONS' IN CRITICAL DRAINAGE AREAS.
   b. CERTIFICATES OF 'BUILDING PAD ELEVATIONS' IN NONCRITICAL AREAS.
7. THE CONTRACTOR SHALL CERTIFY TO THE CITY OF NORTH LAS VEGAS CONSTRUCTION SERVICES DIVISION THAT ALL FILLS, FOUNDATIONS AND SUBGRADES MEET THE MINIMUM COMPACTION REQUIREMENTS. CERTIFICATION SHALL BE MADE PRIOR TO POURING CONCRETE.

STORMWATER NOTES

GENERAL STORMWATER NOTES

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

STREET LIGHT NOTES

GENERAL STREETLIGHT NOTES

1. STREETLIGHTS SHALL BE LIGHT EMITTING DIODE (LED) PER UNIFORM STANDARD DRAWINGS FOR CLARK COUNTY AREA, SUPPLEMENTAL DRAWING, STREETLIGHT LOCATION LED, STANDARDS AND GENERAL NOTES, DWG. NO. 300.S3, AND PER CITY OF NORTH LAS VEGAS APPROVED PRODUCTS LIST WITH 7 PIN RECEPTACLE AND PHOTOCELL.
2. TERMINATION CONDUIT SHALL END IN A PULL BOX WITH PULL STRING. ALL CONDUITS AT LIMITS OF CONSTRUCTION SHALL BE STUBBED AND CAPPED WITH A PULL BOX FIVE (5) FEET PAST PROPERTY LINE AND/OR CONNECTED TO EXISTING STREET LIGHTING CONDUIT. FOR EMPTY CONDUIT, A 8 AWG THW GREEN SHALL BE INSTALLED.
3. ALL CONDUITS SHALL BE 2 INCH PVC SCHEDULE 40 AND SHALL HAVE A MINIMUM OF 24 INCHES OF COVER IN ALL AREAS.
4. ALL CONDUITS FOR FUTURE USE SHALL BE BLOWN OUT WITH COMPRESSED AIR, CLEANED AND PROVIDED WITH A 200 POUND PULL LINE; ALL CONDUITS SHALL BE CAPPED. ALL PULL BOXES AND COVERS SHALL BE MADE OF REINFORCED POLYMER CONCRETE MATERIALS AND PULL BOX COVERS SHALL BE STAMPED WITH STREET LIGHT. ALL PULL BOXES SHALL BE # 3½, UNLESS OTHERWISE NOTED. ALL PULL BOX COVERS SHALL HAVE TAMPER RESISTANT BOLTS.
5. LED CHARACTERISTICS SHALL CONFORM IN GENERAL TO THE PROVISIONS OF THE CLARK COUNTY UNIFORM STANDARDS SPECIFICATIONS 623 1.02.03. WATTAGE SHALL BE AS SHOWN ON THE PLANS.
6. ALL SERVICE POINTS SHALL BE PER CLARK COUNTY UNIFORM STANDARD DRAWING NO. 730. THE PHOTO CELL SHALL BE A TYPE II, 10RK 200V OR EQUAL AND BE MOUNTED INSIDE THE SERVICE PEDESTAL. A SWITCH SHALL BE INCLUDED FOR MANUAL OPERATION (USS 623.02.06); RECEPTACLE SHALL BE A 7 PIN.
7. ALL CONSTRUCTION SHALL CONFORM TO UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CITY OF NORTH LAS VEGAS, AND UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY, NEVADA, UNLESS OTHERWISE NOTED.
8. THE TRAFFIC OPERATIONS SUPERVISOR (702-239-2123) SHALL BE NOTIFIED 2 BUSINESS DAYS (48 HOURS) IN ADVANCE TO SCHEDULE AN INSPECTION OF THE WIRING MAKEUP /SERVICE POINT. A COMPLETED SET OF MYLAR AS-BUILT DRAWINGS MUST BE SUBMITTED TO TRAFFIC OPERATIONS UPON COMPLETION OF WORK.
9. STREET LIGHTS SHALL BE PLACED IN ACCORDANCE WITH UNIFORM STANDARD DRAWING NUMBER 320 THRU 320.1, UNLESS OTHERWISE NOTED. STANDARDS AND MAST ARMS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A-123.
10. STREETLIGHT SERVICE POINT LOCATIONS SHALL BE PROVIDED ON THE OFF-SITE IMPROVEMENTS PLANS AND ASBUILT PLANS.
11. ADDRESS CALL OUTS FOR ALL STREETLIGHT SERVICE LOCATIONS SHALL BE ON ADDRESS PLACARDS WITH RAISED LETTERS.
12. INTERNAL RESIDENTIAL STREETS AND EXTERNAL ARTERIAL, COLLECTOR STREETS SHALL HAVE SEPARATE SERVICE POINTS (RCOC / PEDESTALS), ALL SERVICES SHALL BE LIMITED TO 80 PERCENT CAPACITY.
13. AN EMPTY 2 INCH SCHEDULE 40 PVC SHALL BE PLACE BETWEEN INTERNAL AND EXTERNAL STREET LIGHTING CIRCUIT.
14. NO STREET LIGHTING CIRCUITS SHALL CROSS ANY ARTERIAL OR COLLECTOR STREETS (EXCLUDING FEEDERS AND HOME RUNS).
15. ALL WORK PERFORMED ON ANY COMPONET OF ANY ELECTRICAL STREET LIGHTING OR TRAFFIC SIGNAL SYSTEM SHALL BE SUPERVISED BY AN ELECTRICIAN THAT IS CERTIFIED AS A JOURNEYMAN ELECTRICIAN. THE COMPANY SHALL HOLD A VALID STATE OF NEVADA RECOGNIZED C-2 ELECTRICAL CONTRACTOR'S LICENSE.
16. ALL STREETLIGHTS SHALL HAVE LOCKING HANDHOLE COVERS PER, DCI (ALIANTE AMERON) HDC-REC-110X4 NED-RAL8025-SDC, OR DCI(VALMONT) HHC-OVL-CONV-4X6-MED-GRY, OR DCI(AMERON) HHC-OVL-CONV 4X6-MED-GRY OR EQUAL AS APPROVED BY TRAFFIC OPERATIONS.

GRADING NOTES

1. INDICATED GRADES OTHER THAN T.C., F.G. & GUTTER F.L. ARE ROUGH GRADES.
2. THE ROUGH GRADING PLANS SHALL BE ON THE JOB SITE AT ALL TIMES. THE ROUGH GRADING SHALL BE FINISHED IN CONFORMANCE WITH THE LINES AND GRADES SHOWN ON THE PLANS. THE GRADING QUANTITIES ARE BASED ON THE ELEVATION AND DETAILS SHOWN ON THE PLANS. ANY DEVIATIONS FROM THE PLANS WILL RESULT IN QUANTITY CHANGES.
3. CARE SHALL BE EXERCISED IN GRADING CORNER LOTS.
4. ROUGH PAD ELEVATIONS SHALL BE GRADED TO WITHIN 0.1' OF THE PAD ELEVATIONS SHOWN ON THE PLANS. WHEN GRADING IS COMPLETE PER THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE LOTS CAN BE INSPECTED. AT THAT TIME THE ENGINEER SHALL ALSO DECIDE IF ANY ADDITIONAL DITCHES OR BERMS ARE REQUIRED. THE CONTRACTOR IS REQUESTED NOT TO REMOVE ANY OF HIS ROUGH GRADING EQUIPMENT UNTIL HE RECEIVES GRADING APPROVAL FROM THE ENGINEER.
5. PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL, INC., PROJECT No: E-06-022, DATED: APRIL 26, 2006, REVISED: JULY 14, 2006
   UPDATE PREPARED BY: NOVA GEOTECHNICAL & INSPECTION SERVICES LETTER DATED: 08/29/16
6. EARTHWORK QUANTITIES (RAW):
   REGIONAL FLOOD CONTROL FACILITY
   -CUT = 400,000 CUBIC YARDS.
   -FILL = 400,000 CUBIC YARDS
   ROADWAY
   -CUT = 0 CUBIC YARDS.
   -FILL = 40,000 CUBIC YARDS

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

C.N.L.V. SEWER NOTES

IV STANDARD SPECIFICATIONS AND STANDARD DRAWINGS FOR SEWER LINE CONSTRUCTION

A. ALL SEWER LINES (WASTEWATER COLLECTION SYSTEMS) SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL CONFORM TO THE STANDARDS DESCRIBED BELOW, AND IN ACCORDANCE WITH THE PRECEDENT SHOWN:
   1. "DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS, SOUTHERN NEVADA," LATEST EDITION.
   2. "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY NEVADA," LATEST EDITION.

B. EXCEPTIONS TO THESE STANDARDS ARE NOTED BELOW:
   1. MATERIALS USED FOR WASTEWATER COLLECTION SYSTEMS SHALL BE INCLUDED IN THE CITY OF NORTH LAS VEGAS APPROVED MATERIALS LIST, LATEST EDITION, OR SPECIFICALLY IDENTIFIED AND APPROVED ON THESE PLANS.
   2. THE CITY OF NORTH LAS VEGAS TRENCH BACKFILL POLICY, DATED AUGUST 15, 1996 SHALL BE ADHERED TO FOR THIS PROJECT.
   3. THE CONTRACTOR SHALL INSCRIBE "S", 3-INCHES IN HEIGHT, INTO THE CURB AT THE POINT WHERE THE SEWER LATERAL ENTERS EACH SUBDIVISION LOT OR PRIVATE LAND PARCEL.

C. MODIFICATIONS AND CLARIFICATION TO THESE STANDARDS ARE NOTED BELOW:
   1. ALL SANITARY SEWER MANHOLE BASES FOR NEW PIPE MUST BE PRECAST PER DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS PLATES SD-1A, 1B AND 9.
   2. LIMITS OF ASPHALT PATCHES TO BE DETERMINED IN THE FIELD BY A CITY OF NORTH LAS VEGAS INSPECTOR. PATCHES WILL BE A MINIMUM OF TWELVE (12)-FEET, MACHINE REPLACED.
   3. THE ON-SITE SEWER LINES AND APPURTENANCES ARE PRIVATE FACILITIES NOT TO BE OPERATED OR MAINTAINED BY THE CITY OF NORTH LAS VEGAS, UNLESS OTHERWISE SPECIFIED ON CIVIL IMPROVEMENT PLANS.
   4. SEWER SERVICES AS APPROVED ON THIS PLAN, ARE INTENDED SPECIFICALLY FOR THE LOT AND USE SHOWN, AND ARE NOT INTENDED TO SERVE 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 SEWER SERVICES TO EACH.
   5. TO SCHEDULE UTILITY INSPECTIONS, PLEASE EMAIL UTIL-INSPHOTCITYOFNORTHLASVEGAS.COM. UTILITY INSPECTION REQUESTS MUST BE RECEIVED BY 2:00 P.M. FOR INSPECTIONS TO OCCUR THE FOLLOWING NORMAL WORKING DAY (MONDAY THROUGH FRIDAY). FOR AFTER HOURS UTILITY INSPECTIONS, INCLUDING WEEKENDS, EMAIL UTIL-INSPHOTCITYOF NORTHLASVEGAS.COM OR CALL THE INSPECTION LINE AT 702-390-4407.
   6. RECORD AS-BUILT DRAWINGS SHALL BE PREPARED, SIGNED AND SUBMITTED TO THE CITY OF NORTH LAS VEGAS PRIOR TO ACCEPTANCE OF ANY WASTEWATER COLLECTION SYSTEMS TO BE OWNED, OPERATED, OR MAINTAINED BY THE CITY OF NORTH LAS VEGAS.
   7. PIPE DETECTOR RIBBON AND LOCATOR BALLS SHALL ALSO BE REQUIRED ABOVE ALL SEWER MAINS.

D. ADJUSTING MANHOLES
   1. WHEN ADJUSTING MANHOLES, THE CONTRACTOR SHALL INSTALL PLYWOOD COVERS IN SANITARY SEWER MANHOLE INVERTS AS WELL AS STEEL PLATE COVERS OVER MANHOLES (AFTER MANHOLE RINGS/FRAMES ARE REMOVED) TO PREVENT DEBRIS FROM ENTERING SEWER MANHOLES AND CORRESPONDING LINES. DEBRIS IN THE MANHOLES SHALL BE REMOVED PRIOR TO PLYWOOD REMOVAL.
   2. PLYWOOD AND STEEL COVERS FOR MANHOLES SHALL BE INSTALLED AND REMOVED IN THE PRESENCE OF THE UTILITIES INSPECTOR. ALL DEBRIS DROPPED INTO THE SEWER MANHOLES AND CORRESPONDING LINES SHALL BE RETRIEVED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL CLEAN (E.G., JET VAC OR EQUIVALENT) THE DOWNS OUT OF THE AFFECTED MANHOLES AND/OR SEWER LINES IN THE PRESENCE OF THE UTILITIES INSPECTOR.

FIRE DEPARTMENT NOTES

GENERAL FIRE DEPARTMENT NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH NORTH LAS VEGAS' STANDARD SPECIFICATIONS AND DRAWINGS.
2. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH THE 2012 INTERNATIONAL FIRE CODE, CHAPTER 33, DURING CONSTRUCTION.
3. WHERE ACCESS TO OR WITHIN A STRUCTURE OR AREA IS RESTRICTED BECAUSE OF SECURED OPENINGS OR WHERE IMMEDIATE ACCESS IS NECESSARY FOR LIFE-SAVING OR FIRE-FIGHTING PURPOSES, THE FIRE CODE OFFICIAL IS AUTHORIZED TO REQUIRE A KEY BOX TO BE INSTALLED IN AN APPROVED LOCATION. BUILDINGS WITH FIRE SPRINKLER OR FIRE ALARM SYSTEMS, OR BUILDINGS NOT EQUIPPED WITH AND EXTERIOR MEANS OF ELECTRICAL DISCONNECT, SHALL BE PROVIDED WITH A KEY BOX. THE KEY BOX SHALL BE OF AN APPROVED TYPE, INSTALLED WITH THE TOP OF THE BOX BEING 5 FEET TO 6 ½ FEET ABOVE FINISHED GRADE AND SHALL CONTAIN KEYS TO GAIN NECESSARY ACCESS. FOR MORE INFORMATION AND AN APPLICATION, PLEASE CALL 702-633-1102.
4. A MINIMUM OF ONE FIRE DEPARTMENT APPARATUS ACCESS ROAD IS REQUIRED TO ALL BUILDINGS. THE FIRE CODE OFFICIAL IS AUTHORIZED TO REQUIRE MORE THAN ONE FIRE APPARATUS ACCESS ROAD WHEN IT IS DETERMINED THAT A SINGLE MEANS OF ACCESS IS INSUFFICIENT. APPROVED SECONDARY ACCESS SHALL BE PROVIDED FOR GROUPS OF 20 OR MORE DWELLING UNITS, ROAD(S) WITH DEAD ENDS OR WITH A SINGLE POINT OF ACCESS IN EXCESS OF 600 FEET AND FOR ALL COMMERCIAL AND INDUSTRIAL DEVELOPMENTS. FIRE APPARATUS ROADS SHALL HAVE AN UNOBSTRUCTED WIDTH OF NOT LESS THAN 24 FEET, EXCLUSIVE OF SHOULDERS, EXCEPT FOR APPROVED ACCESS CATES IN ACCORDANCE WITH SECTION 503.6 OF THE INTERNATIONAL FIRE CODE, PROVIDED NO PARKING IS ALLOWED AND NOT LESS THAN 40 FEET IF PARALLEL PARKING IS ALLOWED ON BOTH SIDES AND AN UNOBSTRUCTED VERTICAL CLEARANCE OF NOT LESS THAN 13 FEET 6 INCHES. FOR GROUP R, DIVISION 3 RESIDENTIAL SUBDIVISION, THE MINIMUM WIDTH OF THE FIRE APPARATUS ACCESS ROAD IS 36 FEET, MEASURED FACE OF CURB TO FACE OF CURB.
5. FIRE APPARATUS ACCESS ROADS SHALL BE MARKED WHERE REQUIRED TO PROHIBIT PARKING AND OTHER OBSTRUCTIONS. MARKING SHALL CONSIST OF PAINTING THE CURB, OR THE SIDE OF THE STREET, WHERE NO CURB IS PRESENT, WITH A SUITABLE COAT OF INDUSTRIAL RED ENAMEL ALONG THE ENTIRE LENGTH OF ROAD WHERE PARKING IS PROHIBITED. EACH SECTION OF CURB THAT IS PAINTED RED SHALL ALSO BE MARKED BY SIGNAGE STATING "NO PARKING FIRE LANE". SIGNS ARE TO BE INSTALLED NO HIGHER THAN 10 FEET OR LESS THAN 6 FEET FROM THE SURFACE OF THE ROADWAY. SIGNS SHALL BE LOCATED AT EACH END OF PAINTED CURB, AND ADDITIONALLY IN BETWEEN SO THAT THE MAXIMUM SEPARATION BETWEEN SIGNS IS 100 FEET, AS MEASURED ALONG THE CENTERLINE OF THE FIRE APPARATUS ACCESS ROAD.
6. GATES RESTRICTING TRAFFIC ACROSS ACCESS LANES SHALL BE OPERABLE BY THE FIRE DEPARTMENT. GATES SHALL BE ELECTRICALLY POWERED, PROVIDED WITH AN AVI LOOP, AND HAVE A BACK-UP BATTERY SYSTEM IN CASE OF NORMAL POWER LOSS. THE AVI LOOP SHALL BE LOCATED 10 FEET PERPENDICULARLY FROM THE FACE OF THE ACCESS GATE ALONG THE ROUTE OF ARRIVAL, 10 FEET FROM THE PUBLIC RIGHT-OF-WAY, AND THE LOOP SHALL BE MARKED BY WAY OF A GREEN REFLECTIVE MARKER ON THE ACCESS LANE. A FIRE DEPARTMENT PERMIT IS REQUIRED TO INSTALL A GATE THAT OBSTRUCTS A FIRE APPARATUS ACCESS ROAD. A SEPARATE PERMIT IS REQUIRED FOR EACH GATED ENTRANCE.
7. DEAD-ENDED LONGER THAN 150 FEET SHALL BE PROVIDED WITH A CLEAR TURNAROUND WITH A DIAMETER OF 104 FEET FOR COMMERCIAL AND MULTI-FAMILY R-1 AND R-2 OCCUPANCIES AND 90 FEET FOR R-3 OCCUPANCIES AND SINGLE-FAMILY DWELLINGS (BUILT UNDER THE IRC ONLY).
8. IN ALL RESIDENTIAL AREAS (R-3 OCCUPANCIES AND SINGLE-FAMILY DWELLING BUILT UNDER THE IRC ONLY), HYDRANTS SHALL BE SPACED NOT TO EXCEED 500 FEET, OR 600 FEET IF ALL HOMES ARE PROTECTED BY APPROVED AUTOMATIC FIRE SPRINKLERS SYSTEMS. IN ALL COMMERCIAL AND INDUSTRIAL AREAS, INCLUDING MULTI-FAMILY R-1 AND R-2 OCCUPANCIES, HYDRANTS SHALL BE SPACED NOT TO EXCEED 300 FEET, OR 400 FEET IF ALL BUILDINGS ARE PROTECTED BY APPROVED AUTOMATIC SPRINKLER SYSTEMS AND 1000 FEET WHERE NOT REQUIRED FOR STRUCTURES TO PROVIDE FOR TRANSPORTATION HAZARDS. HYDRANT SPACING MAY BE INCREASED BY 100 FEET IF ALL STRUCTURES WITHIN THE DEVELOPMENT ARE PROVIDED WITH SPRINKLER PROTECTION. THERE IS NO ALLOWABLE INCREASE FOR HYDRANTS INSTALLED FOR TRANSPORTATION HAZARDS.
9. ON ANY RESIDENTIAL OR COMMERCIAL CONSTRUCTION PROJECT, ACCESSIBLE FIRE HYDRANTS SHALL BE INSTALLED BEFORE ACTUAL CONSTRUCTION COMMENCES. FIRE HYDRANTS SHALL BE PROVIDED WITHIN 300 FEET OF COMBUSTIBLE MATERIAL STORAGE AND FRAMING CONSTRUCTION. A HYDRANT FLOW TEST IS REQUIRED, WHICH SHALL INCLUDE STATIC PRESSURE AND WATER FLOW VOLUME SHOWING THE ABILITY TO MEET THE REQUIRED FIRE FLOW, AND MUST BE PRESENTED TO THE NORTH LAS VEGAS FIRE DEPARTMENT AND PUBLIC WORKS
10. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN SIX (6) FEET OF A DRIVEWAY, POWER POLE, LIGHT STANDARD, OR ANY OTHER OBSTRUCTION OR WITHIN FIFTEEN (15) FEET OF A CURB RETURN OR DRIVEWAY IN AN INDUSTRIAL OR COMMERCIAL AREA. 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. FIRE HYDRANTS SHALL BE LOCATED 4 FEET TO 7 FEET FROM THE BACK OF CURB, WHERE IT IS NOT POSSIBLE TO LOCATE THE HYDRANT A MINIMUM OF 4 FEET FROM THE BACK OF THE CURB, THE HYDRANT SHALL BE PROTECTED AGAINST VEHICULAR IMPACT IN ACCORDANCE WITH SECTION 312 OF THE 2012 OF THE INTERNATIONAL FIRE CODE.
11. THE MINIMUM FIRE-FLOW AND FLOW DURATION FOR BUILDINGS OTHER THAN ONE- AND TWO-FAMILY DWELLINGS SHALL BE AS SPECIFIED IN TABLE B105.1. FOR BUILDINGS OTHER THAN HIGH-RISE BUILDINGS, A REDUCTION IN REQUIRED FIRE FLOW OF UP TO 50 PERCENT, AS APPROVED, IS ALLOWED WHEN THE BUILDING IS PROVIDED WITH AN APPROVED AUTOMATIC SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH SECTION 903.3.1.1 OR 903.3.1.2. A REDUCTION IN THE REQUIRED FIRE FLOW OF UP TO 25 PERCENT IS PERMITTED IN HIGH-RISE BUILDINGS. THE RESULTING FIRE FLOW SHALL NOT BE LESS THAN 1,500 GALLONS PER MINUTE (5678 L/MIN) FOR THE PRESCRIBED DURATION AS SPECIFIED IN TABLE B105.1.
12. WHEN AUTOMATIC FIRE PROTECTION IS REQUIRED, THE FIRE DEPARTMENT CONNECTION (FDC) SHALL BE SO LOCATED THAT FIRE APPARATUS AND HOSE CONNECTED TO SUPPLY THE SYSTEM WILL NOT OBSTRUCT ACCESS TO THE BUILDING FOR OTHER FIRE APPARATUS. IT SHALL BE LOCATED ON THE STREET SIDE OF BUILDINGS, FULLY VISIBLE AND RECOGNIZABLE FROM THE STREET OR NEAREST POINT OF FIRE DEPARTMENT VEHICLE ACCESS. IMMEDIATE ACCESS TO FDC SHALL BE MAINTAINED AT ALL TIMES AND WITHOUT OBSTRUCTION BY FENCES, BUSHES, TREES, WALLS OR ANY OTHER FIXED OR MOVEABLE OBJECT. A WORKING SPACE OF NOT LESS THAN 36 INCHES IN WIDTH, 36 INCHES IN DEPTH AND 78 INCHES IN HEIGHT NOT INCLUDING ANY DOORS OR WINDOWS, SHALL BE PROVIDED AND MAINTAINED IN FRONT OF AND TO THE SIDES OF WALL-MOUNTED FIRE DEPARTMENT CONNECTIONS AND AROUND THE CIRCUMFERENCE OF FREE-STANDING FIRE DEPARTMENT CONNECTIONS. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A FDC SUPPLYING FIRE SPRINKLERS AND/OR STANDPIPES SHALL NOT EXCEED 100 FEET, AS MEASURED BY AN APPROVED ROUTE. AN APPROVED ROUTE IS DEFINED AS AN UNOBSTRUCTED PATH OF TRAVEL ON WHICH FIRE APPARATUS CAN MANEUVER AND ON WHICH HOSE CAN EASILY BE LAID.

SOUTHERN NEVADA - SOU

STORMWATER RUNOFF MANAGEMENT

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

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

LAS VEGAS VALLEY WATER DISTRICT (LVVWD) STANDARD NOTES

LVVWD PROJECT # 124070

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

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

2.2 CITY OF LAS VEGAS SEWER NOTES

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

CITY OF LAS VEGAS FIRE AND RESCUE GENERAL NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LAS VEGAS FIRE AND RESCUE ADOPTED FIRE CODE ORDINANCE # 6325, FOR HYDRANT SPECIFICATIONS, AND HYDRANT INSTALLATION SPECIFICATIONS.
2. ONLY FIRE HYDRANTS THAT ARE ON THE LAS VEGAS VALLEY WATER DISTRICT'S – APPROVED PRODUCTS LIST ARE ALLOWED TO BE INSTALLED.
3. A PERMIT IS REQUIRED FROM LAS VEGAS FIRE AND RESCUE FOR ALL INSTALLATION OF ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTORS MATERIAL TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER BEFORE COMMENCEMENT OF WORK [IFC 105.7.12]
4. ON ANT RESIDENTIAL OR COMMERCIAL INSTALLATIONS, FIRE HYDRANTS SHALL BE INSTALLED AND FIRE APPARATUS ACCESS ROADS SHALL BE MAINTAINED BEFORE COMMENCEMENT OF ANY COMBUSTIBLE CONSTRUCTION. ALL FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER AND SHALL BE CAPABLE OF DELIVERING THE REQUIRED FIRE FLOW. [IFC 3310, 3312]
5. TO IDENTIFY THE FIRE HYDRANT LOCATIONS, THE CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF THE STREET ADJACENT TO THE FIRE HYDRANTS. [IFC 507.5.7.3]
6. ALL UNDERGROUND INSPECTIONS, PRESSURE AND FLUSH VERIFICATIONS OF ALL FIRE HYDRANTS AND FIRE LINES, SHALL BE CONDUCTED BEFORE COVERING THE LINES. CENTER LOADING IS ACCEPTABLE FOR THE HYDRO TESTS WITH PRIOR FIRE PREVENTION APPROVAL. [IFC 106.3]
7. ALL ON-SITE UNDERGROUND WATER MAINS AND MATERIALS SHALL BE U.L. LISTED, A.W.W.A APPROVED AND SHALL BE RATED FOR THE APPROPRIATE WORKING PRESSURE. [IFC 507.2.1, NFPA 24]
8. PAINTING OF CURBS, FIRE HYDRANTS, PADS, PROTECTION OF FIRE HYDRANTS FROM PHYSICAL DAMAGE, AND ALL OTHER WORK NECESSARY PER PLANS SHALL BE COMPLETED BEFORE APPROVAL BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION. [IFC 507]
9. PRIVATE HYDRANTS SHALL BE PAINTED RED. [IFC 507.5.7.1]
10. PRIOR TO THE FINAL OCCUPANCY, A FIRE FLOW TEST SHALL BE WITNESSED BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION TO VERIFY AVAILABILITY OF THE REQUIRED FIRE FLOW. [IFC 507]
11. FIRE HYDRANT SPACING SHALL BE AS FOLLOWS: [IFC C102]
    - RESIDENTIAL– 500 FT UNSPRINKLERED; 600 FT SPRINKLERED.
    - COMMERCIAL– 300 FT UNSPRINKLERED; 400 FT SPRINKLERED.
12. WHERE NEW WATER MAINS ARE EXTENDED ALONG STREETS OR NEW STREETS ARE INSTALLED WHERE FIRE HYDRANTS ARE NOT NEEDED FOR PROTECTION OF THE STRUCTURES, FIRE HYDRANTS SHALL BE INSTALLED AT MAXIMUM OF 1,000 FOOT SPACING, TO PROVIDE FOR TRANSPORTATION HAZARDS. WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS OR HAVE FOUR (4) OR MORE TRAFFIC LANES AND HAVE A TRAFFIC COUNT OF MORE THAN 30,000 PER DAY, HYDRANTS ARE REQUIRED ON EACH SIDE OF THE STREET SPACED AT 500 FT ON AN ALTERNATING BASIS. [IFC C102.8]
13. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN THE RADIUS OF A CUL-DE-SAC OR WITHIN 20 FEET OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
14. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN 6 FT OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREETLIGHT OR ANY OTHER OBSTRUCTION. [IFC C102.12]
15. A MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A ONE-TWO FAMILY DWELLING SHALL NOT EXCEED 300 FT, AS MEASURED BY AN APPROVED ROUTE. [IFC C102.4]
16. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A FIRE DEPARTMENT CONNECTION (FDC) SHALL NOT EXCEED 100 FT, AS MEASURED BY AN APPROVED ROUTE. [IFC C102.7]
17. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FT. [IFC C102.6]
18. TWO (2) SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE ARE 4 OR MORE FIRE HYDRANTS/SPRINKLER LEAD-INS ARE INSTALLED ON A SINGLE SYSTEM. SECTIONAL CONTROL VALVES SHALL BE INSTALLED SO THAT NO MORE THAN 2 FIRE HYDRANTS CAN BE OUT OF SERVICE DUE TO A BREAK IN A WATER MAIN. [IFC C104]
19. ALL FIRE APPARATUS ACCESS ROADS SHALL BE PAVED TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES, AND SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF THE FIRE APPARATUS. [IFC 503.2.3]
20. THE GRADIENT FOR THE FIRE APPARATUS ACCESS ROADS SHALL NOT EXCEED 12% ANGLES OF APPROACH AND ANGLES OF DEPARTURE SHALL NOT EXCEED 6% FOR 25 FEET PRIOR TO OR AFTER THE GRADE CHANGE. ADJACENT TO THE STRUCTURES GRADIENT SHALL NOT EXCEED 6%. [IFC 503.2.7, 503.2.8]
21. THE TURNING RADIUS OF THE FIRE APPARATUS ACCESS ROADS SHALL BE NO LESS THAN 52 FEET OUTSIDE AND 28 FEET INSIDE TURNING RADIUS. [IFC 503.2.4]
22. VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROADS SHALL NOT BE LESS THAN 13 FT 6 INS. [IFC 503.2.1]
23. FIRE DEPARTMENT ACCESS ROADS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS THAN 40 FT FLOW LINE TO FLOW LINE WITH PARALLEL PARKING PERMITTED ON BOTH SIDES. NOT LESS THAN 32 FT WIDE, FLOW LINE TO FLOW LINE, WHERE PARKING IS PERMITTED ONLY ON ONE SIDE OF THE FIRE APPARATUS ACCESS ROAD. NOT LESS THAN 24 FT WIDE, FLOW LINE TO FLOW LINE, WHERE NO PARKING IS PERMITTED ON EITHER SIDE. FIRE LANES THROUGH PARKING LOTS SHALL BE NOT LESS THAN 24 FT. [IFC 503.2.1.1]
24. A FIRE APPARATUS ACCESS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FT FROM A FIRE DEPARTMENT VEHICLE ACCESS. THE DISTANCE COULD BE INCREASED TO 250 FT IF THE BUILDING IS SPRINKLERED. [IFC 503.1.1]
25. APPROVED SECONDARY FIRE APPARATUS ACCESS SHALL BE PROVIDED FOR 100 OR MORE DWELLING UNITS. ROAD(S) WITH DEAD-ENDS OR WITH A SINGLE POINT OF ACCESS IN EXCESS OF 600 FT. COMMERCIAL AND INDUSTRIAL DEVELOPMENTS WHERE BUILDINGS EXCEED 2 STORIES OR 30 FEET IN HEIGHT, OR EXCEEDING 62,000 SQUARE FEET IN AREA. [IFC 503.1.2]
26. ALL DEAD-END FIRE APPARATUS ROADS AND/OR FIRE LANES, PUBLIC OR PRIVATE, IN EXCESS OF 150 FT IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND HAVING A MINIMUM DIAMETER OF 81 FT. [IFC 503.2.5]
27. ALL FIRE APPARATUS ACCESS ROADS SHALL BE MARKED BY PLACING APPROVED SIGNS AT THE START OF THE DESIGNATED FIRE LANE, ONE SIGN AT THE END OF THE FIRE LANE AND WITH SIGNS AT INTERVALS OF 100 FEET ALONG THE DESIGNATED FIRE LANES. SIGNS TO BE PLACED ON BOTH SIDES OF AN ACCESS ROADWAY IF NEEDED TO PREVENT PARKING ON EITHER SIDE. SIGNS TO BE INSTALLED NO HIGHER THAN 10 FEET OR LESS THAN 6 FEET FROM THE ROADWAY LEVEL. THE CURB ALONG OR ON THE PAVEMENT OR CEMENT (IF NO CURB IS PROVIDED) SHALL BE PAINTED WITH A RED WEATHER RESISTANT PAINT IN ADDITION TO THE SIGNS. [IFC 503.3]
28. ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. SAID SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE IFC 503.6 AND IFC APPENDIX M.

2.5 CITY OF LAS VEGAS GRADING NOTES

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

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

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

7. ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNTIL EFFECTIVE EROSION CONTROL HAS BEEN ESTABLISHED.
8. THE USE OF POTABLE WATER WITHOUT A SPECIAL PERMIT FOR BUILDING OR CONSTRUCTION PURPOSES INCLUDING CONSOLIDATION OF BACKFILL OR DUST CONTROL IS PROHIBITED. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION WATER.
9. THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHT-OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE PUBLICLY OWNED PROPERTY DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE CONDITION.
10. IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED THAT IS NOT SHOWN ON THESE DRAWINGS, THE OWNER AGREES TO PROVIDE AND INSTALL SUCH ITEM AT HIS OWN EXPENSE AND AT THE DIRECTION OF THE CITY ENGINEER. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND BARRICADES, ETC.

DEVIATIONS FROM STANDARDS

NONE

2.1 CITY OF LAS VEGAS GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA", LATEST ISSUE; THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST REVISED EDITION; THE "SUMMERLIN IMPROVEMENT STANDARDS" FOR WORK IN THE SUMMERLIN AREA; AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY; THE UNIFORM BUILDING CODE; AND ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE, EXCEPT AS NOTED ON THIS SHEET AS "DEVIATIONS FROM STANDARDS".
2. THE EXISTENCE AND LOCATION OF ANY OVERHEAD OR UNDERGROUND UTILITY LINES, PIPES, OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A RESEARCH OF THE AVAILABLE RECORDS. EXISTING UTILITIES AS SHOWN FROM CLV PLANS LIBRARY ARE APPROXIMATE AND FOR RECORD PURPOSES. EXISTING UTILITIES ARE LOCATED ON PLANS ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. EXISTING UTILITY SERVICE LATERALS MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, LOCATE ALL UNDERGROUND AND OVERHEAD 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 DESIGNS TO BE APPROVED BY THE CITY, PRIOR TO THE USE ON THE PROJECT.
6. PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.
7. EXPANSION JOINTS REQUIRED, MAXIMUM EVERY 300'IN EXTRUDED-TYPE CURB.
8. AC PAVEMENT TO BE ONE-HALF INCH (½") ABOVE LIP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.
9. CURB AND GUTTER FOUND TO BE UNACCEPTABLE TO THE CITY OF LAS VEGAS SHALL BE REMOVED AND REPLACED PER STANDARD DRAWING 216.
10. SIDEWALK RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING 235. EXACT LOCATION OF RAMPS MAY BE ADJUSTED IN THE FIELD BY A CITY INSPECTOR.
11. CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITIONS BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND FOR INGRESS AND EGRESS TO NEW CONSTRUCTION. THE EXTENT OF THE TRANSITIONS TO BE AS SHOWN ON PLANS.
12. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY ADD GEO. REPORT ADD# FIELD. ADD FIELD APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.
13. EXACT LOCATION OF ALL SAWCUT LINES MAY BE ADJUSTED OR DETERMINED IN THE FIELD BY A CITY OF LAS VEGAS ENGINEER IF LOCATION ON PLANS IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRES RELOCATIONS.
14. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH N.R.S. STATUTE NO. 625.380 & CITY OF LAS VEGAS TITLE 18, APPENDIX D.
15. UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC., SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY APRONS, FLOWLINES, AND CROSS GUTTERS UNLESS WRITTEN APPROVAL IS GRANTED BY THE UTILITY COMPANY AND THE CITY ENGINEER.

WALL NOTES:

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

    OR

    SANITARY SEWER AND STORM DRAIN FACILITIES SHOWN ON THESE PLANS SHALL BE USED TO MEET THE REQUIREMENTS OF NRS 455 AND SHALL SHOW AT A MINIMUM THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC MANHOLES, STORM DRAIN MANHOLES, STORM DRAIN LATERALS, AND THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIT THE PUBLIC RIGHT-OF-WAY. ANY DEVIATIONS FROM THE INFORMATION SHOWN SHALL BE NOTED AND SUBMITTED AS A REVISION TO THE PLANS AND APPROVED PRIOR TO ACCEPTANCE OF FACILITY VIDEO INSPECTION.
22. STORM DRAIN LATERALS REQUIRE THE INSTALLATION OF A MARKER BALL AT THE CONNECTION OF THE STORM DRAIN LATERAL TO THE STORM DRAIN MAIN AND WHERE THE STORM DRAIN LATERAL EXITS THE PUBLIC RIGHT-OF-WAY OR WHERE THE STORM DRAIN LATERAL CONNECTS TO A DROP INLET. THE MARKER BALL SHALL BE 3M 4" MARKER BALL 1404-XR OR APPROVED EQUAL.
23. CCTV VIDEO INSPECTION IS REQUIRED FOR ALL SEWER AND STORM D

ABBREVIATIONS

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

SPECIAL NOTE

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

NOTICE TO CONTRACTOR

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

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

LEGEND

EXISTING	PROPOSED	DESCRIPTION
(1900)	1900	5' CONTOUR
		1' CONTOUR
		STRIPING
		SEWER MANHOLE
		CURB AND GUTTER
EX 8" PVC SS	8" PVC SS	SANITARY SEWER PIPE AND FLOW ARROW
EX 8" PVC WTR	8" PVC WTR	WATER PIPE
		WATER GATE VALVE
		FIRE HYDRANT
		WATER BLOW-OFF
		WATER LATERAL W/ METER
		SANITARY SEWER LATERAL
		STREETLIGHT
		EDGE OF PAVEMENT
		TRAFFIC SIGN
PAD = XXX.X F = XXXX	PAD = XXX.X F = XXXX	PAD ELEVATION FINISHED FLOOR ELEVATION
000.00 TC	000.00 TC	ELEVATION
		RETAINING WALL
		STORM DRAIN W/ MANHOLE

	EXISTING GAS GATE VALVE
	EXISTING UNKNOWN MANHOLE
	EXISTING GAS, SIZE PER PLAN
	EXISTING POWER POLE
	EXISTING TRAFFIC SIGNAL
	EXISTING WALL
	WATER PIPE FITTING
POC	WATER POINT OF CONNECTION
POC	SEWER POINT OF CONNECTION
	DAYLIGHT LINE
	STREET CENTERLINE
	RIGHT-OF-WAY
	SECTION LINE
	MATCHLINE
	BOUNDARY LINE
	PHASE LINE
	PROPERTY LINE
	FLOWLINE
	SAWCUT
	CUT/FILL TRANSITION LINE
	SIDEWALK
	EX STRIPING TO BE OBLITERATED
	GRADE BREAK LINE
	REFLECTIVE RAISED PAVEMENT MARKERS
BWV	BACK WATER VALVE
	WROUGHT IRON FENCE
	PONY WALL
	DECORATIVE PERIMETER WALL
	DECORATIVE PERIMETER RETAINING WALL
	PROPOSED CURB AND GUTTER WITH RIGHT-OF-WAY AT BACK OF CURB
	EXISTING CURB AND GUTTER WITH RIGHT-OF-WAY AT BACK OF CURB
	FUTURE CURB AND GUTTER WITH RIGHT-OF-WAY AT BACK OF CURB

	PROPOSED SCARP AREA
	DRIVEWAY
	PROPOSED RIP RAP
	SIGHT VISIBILITY ZONE PER STD DWG NO. 201.2
	HANDICAP RAMP
PH#	POTHOLE LOCATION

QUANTITIES

	DRAINAGE		CNLV RFC FACILITY IMPROVEMENT	CNLV GRAND TETON DRIVE IMPROVEMENTS	CNLV TOTAL	CLV TOTAL
1.	60" TYPE III STORM DRAIN MANHOLE	EA	11	3	14	1
2.	4.0' TYPE "CM2" DROP INLET	EA	–	2	2	–
3.	7.5' TYPE "CM2" DROP INLET	EA	3	–	3	–
4.	15.0' TYPE "CM2" DROP INLET	EA	2	–	2	–
5.	12' TYPE "C" DROP INLET	EA	–	–	–	1
6.	20.0' TYPE "CM2" DROP INLET	EA	3	0	3	–
7.	18" RCP CLASS IV STORM DRAIN	LF	–	120	120	–
8.	24" RCP CLASS IV STORM DRAIN	LF	500	–	500	–
9.	30" RCP CLASS IV STORM DRAIN	LF	–	–	–	–
10.	36" RCP CLASS IV STORM DRAIN	LF	300	15	315	35
11.	42" RCP CLASS IV STORM DRAIN	LF	–	1,284	1,284	86
12.	48" RCP CLASS IV STORM DRAIN	LF	20	–	20	–
13.	54" RCP CLASS IV STORM DRAIN	LF	–	160	160	–
14.	60" RCP CLASS IV STORM DRAIN	LF	–	100	100	–
15.	66" RCP CLASS IV STORM DRAIN	LF	–	–	–	–
16.	72" RCP CLASS IV STORM DRAIN	LF	700	–	700	–
17.	RIPRAP D50=8", THK=16"	CY	130	250	380	–
18.	RIPRAP D50=12", THK=24"	CY	70	–	70	–
19.	RIPRAP D50=18", THK=36"	SF	–	–	–	–
20.	8' WIDE CONCRETE VALLEY GUTTER W/10" TYPE I AGGREGATE BASE	SF	–	–	–	–
21.	SIDEWALK UNDER DRAIN	SF	–	–	–	–
22.	6'X5' REINFORCED CONCRETE BOX	LF	140	–	140	–
23.	12'X5' REINFORCED CONCRETE BOX	LF	670	–	670	90
24.	12'X7' REINFORCED CONCRETE ARCH	LF	1950	–	1950	–
25.	14'X7' REINFORCED CONCRETE ARCH	LF	325	–	325	–
26.	NEENAH TRENCH DRAIN	EA	–	–	–	1
27.	66" RCP HEADWALL W/ FALL PROTECTION	EA	1	–	1	–
28.	JUNCTION STRUCTURE	EA	3	2	5	–
29.	TRANSITION STRUCTURE	EA	1	–	1	–
30.	7' WIDE CONCRETE U-CHANNEL	LF	1,400	–	1,400	–
31.	5' WIDE CONCRETE U-CHANNEL	LF	400	–	400	–
32.	DETENTION BASIN INLET STRUCTURE	LS	1	–	1	–
33.	DETENTION BASIN OUTLET STRUCTURE	LS	1	–	1	–
34.	OUTLET STRUCTURE	EA	–	1	1	–
35.	NDOT TYPE 4 MANHOLE	EA	–	3	3	–
36.	48" TYPE II MANHOLE	EA	–	1	1	–
37.	SPECIAL MANHOLE	EA	4	–	4	–
38.	STORM DRAIN PLUG	EA	–	–	–	2
	SEWER SYSTEM					
1.	4" PVC SEWER LATERAL (PRIVATE)	LF	–	–	–	–
2.	8" PVC SEWER PIPE (PUBLIC)	LF	–	–	–	–
3.	SEWER MANHOLE (>6')	EA	–	2	2	–
4.	8" SEWER PIPE CAP	EA	–	–	–	–
5.	BACK WATER VALVE	EA	–	–	–	–
6.	10" C-900 WATER QUALITY SEWER PIPE (PUBLIC)	EA	–	140	140	–
7.						
	WATER SYSTEM					
1.	FIRE HYDRANT ASSEMBLY W/6" GATE VALVE PER UDACS PLATE NO. 40	EA	–	6	6	–
2.	6" PVC WATER PIPE (CLASS 150)	LF	–	600	600	–
3.	10" DIP WATER PIPE	LF	–	950	950	–
4.	10" PVC WATER PIPE (CLASS 150)	LF	–	65	65	–
5.	8" 90 DEGREE BEND PER UDACS PLATE NO. 31	EA	–	–	–	–
6.	CAP AND 2" BLOW-OFF ASSEMBLY W/CAP PER UDACS PLATE NO. 36	EA	–	–	–	–
7.	1" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 2	EA	–	–	–	–
8.	1" COPPER SERVICE W/ 1" METER PER UDACS PLATE NO. 4	EA	–	–	–	–
9.	1" COPPER SERVICE W/ 3/4" METER & 1" RPPA PER UDACS PLATE NO. 4 & 8	EA	–	–	–	–
10.	2" SCHEDULE 40 PVC SLEEVE – IRRIGATION	LF	–	–	–	–
11.	4" SCHEDULE 40 PVC SLEEVE – IRRIGATION	LF	–	550	550	–
12.	1" IRRIGATION METER	EA	–	1	1	–
13.	6" DIP WATER PIPE	LF	–	150	150	50
	STREET IMPROVEMENTS					
1.	6" A.C. PAVEMENT	SY	–	45,000	45,000	1,235
2.	TYPE II AGGREGATE BASE	CY	–	77,000	77,000	620
3.	TYPE I AGGREGATE BASE	CY	–	17,750	17,750	
4.	STANDARD 24" TYPE "L" CURB	LF	–	5,250	5,250	–
5.	STANDARD 8" TYPE "A" ISLAND CURB	LF	–	9,700	9,700	50
6.	CONCRETE CROSS GUTTER	SF	–	240	240	–
7.	5" CONCRETE SIDEWALK	SF	–	60,400	60,400	–
8.	SIDEWALK RAMP	EA	–	6	6	–
9.	TYPE I SURVEY MONUMENTS	EA	–	3	3	–
10.	TYPE II SURVEY MONUMENTS	EA	–	1	1	–
11.	EXCAVATION (DETENTION BASIN)	EA	400,000	40,000	440,000	–
	TRAFFIC IMPROVEMENTS					
1.	STREET SIGNS	EA	–	50	50	–
2.	BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKER	EA	–	6	6	–
3.	BUS TURNOUT	EA	–	2	2	–
4.	STREETLIGHTS, 8' MAST ARM (LED)	EA	–	27	27	–
5.	STREETLIGHTS, 15' MAST ARM (LED)	EA	–	3	3	–
6.	P30 PULL BOXES	EA	–	12	12	–
7.	4-INCH FIBER OPTIC CONDUIT	LF	–	5,230	5,230	–
8.	STREETLIGHT CONDUIT, 2-INCH	LF	–	5,620	5,620	–
9.	PAVEMENT STRIPING – ARTERIAL	LF	–	18,000	18,000	–
10.	#7 PULL BOX	EA	–	8	8	–
11.	#5 PULL BOX	EA	–	5	5	–
12.	8-INCH WIDE WHITE PAINTED LINE	LF	–	1,300	1,300	–
13.	FILM FOR CROSSWALKS, STRIPING, ETC.	SF	–	4,800	4,800	–
14.	SIGNAL UNDERGROUND, PER QUADRANT	EA	–	4	4	–
15.	TRAFFIC SIGNAL FOUNDATION	EA	–	4	4	–
16.	200 AMP SERVICE PEDESTAL (STLT)	EA	–	2	2	–
17.	TRAFFIC SIGNAL POLE AND LUMINAIRE	EA	–	4	4	–
18.	LOOP DETECTOR	EA	–	6	6	
19.	TYPE 200 PULL BOX	EA	–	1	1	
	DRY UTILITIES					
1.	1-1/4" PVC STREET LIGHT CONDUIT WITH (2) #4 AND (1) #8 CONDUCTORS	LF	–	–	–	–
2.	NO. 3-1/2 PULL BOX W/METAL COVER	EA	–	10	10	–

APPROVED FOR CONSTRUCTION

Las Vegas Valley Water District Engineering Services

Project No. 124070 First Approved Date: 9/5/18

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

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

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

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

S 18 T 19S R 61E

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
LEGEND AND QUANTITIES

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000

PROFESSIONAL ENGINEER STATE OF NEVADA DERICK D. J YORO Exp: 06/30/2020 No. 16396 CIVIL 9/5/18

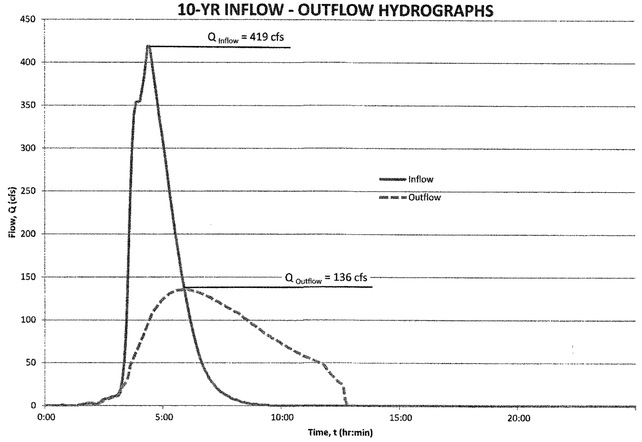
C-04
SHEET 4 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

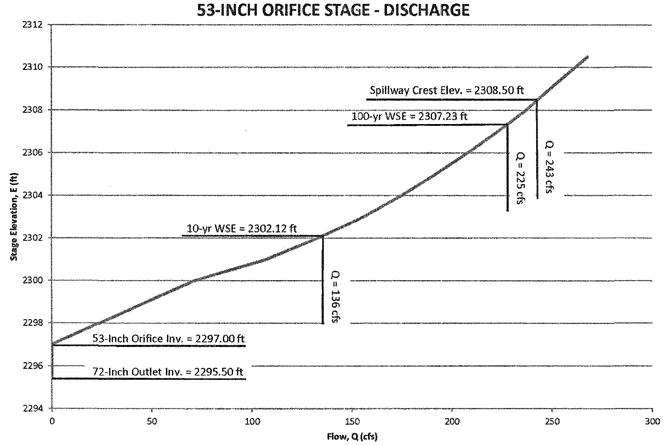
PROJ#:124070 AGREE:#115666 QS:124-07-SW/NE,124-18-NW/NE

J:\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403-000cvr.dwg 8/13/2018 8:51 AM Jane Crotty

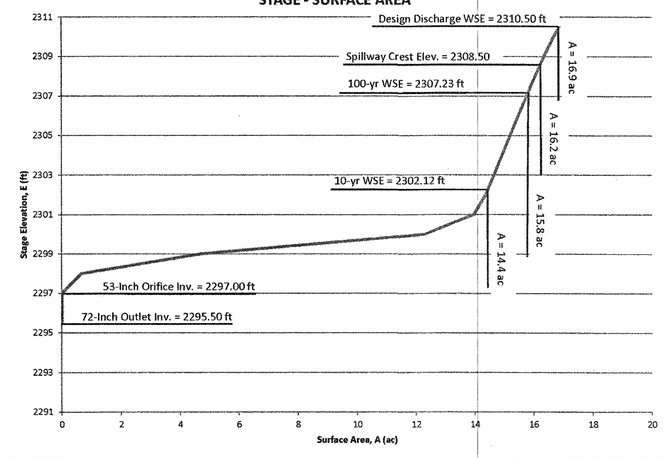
DETENTION BASIN
10-YR INFLOW - OUTFLOW HYDROGRAPHS



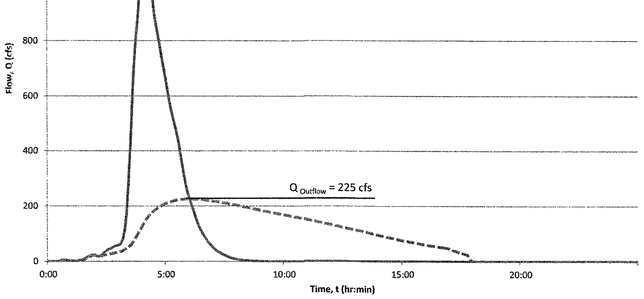
DETENTION BASIN
53-INCH ORIFICE STAGE - DISCHARGE



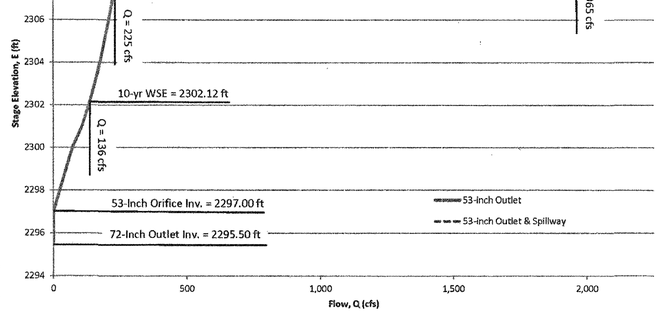
DETENTION BASIN
STAGE - SURFACE AREA



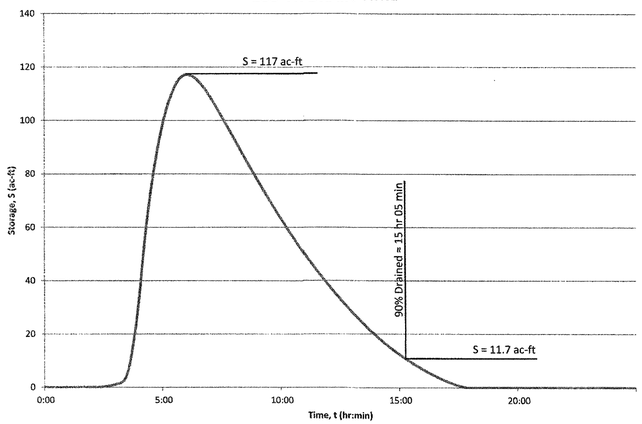
DETENTION BASIN
100-YR INFLOW - OUTFLOW HYDROGRAPHS



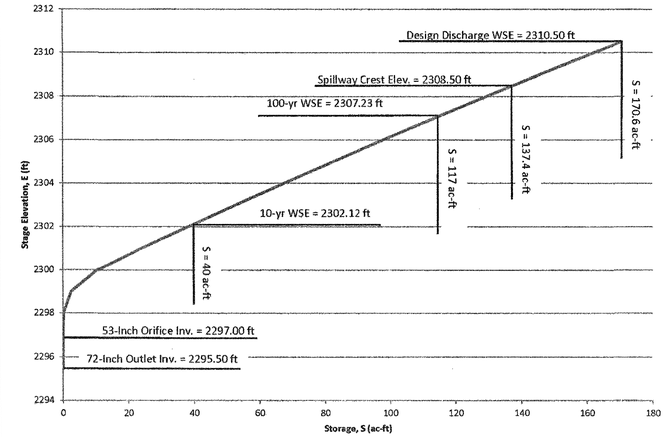
DETENTION BASIN
53-INCH ORIFICE & OVERFLOW SPILLWAY STAGE - DISCHARGE



DETENTION BASIN
100-YR DRAIN TIME



DETENTION BASIN
STAGE - STORAGE



Summary of Detention Basin Characteristics

Basin Attribute	Design Parameter
100-Year Storm Event	
Contributing Area	3.19 mi^2
Peak Inflow	1,242 cfs (SDN3)
Orifice Dimension / Invert	53" / 2297.00 ft
Outfall Conduit / Invert	72" RCP @ 0.003 ft/ft / 2295.50 ft
Peak Water Surface Elevation	2307.23 ft
Peak Outflow	225 cfs
Peak Storage Volume	117 ac-ft
Sediment Storage Volume Provided / Required	20.4 ac-ft / 1.56 ac-ft
Drain Time	15 Hr, 05 Min
10-Year Storm Event	
Peak Inflow	419 cfs (SDN3)
Peak Outflow	136 cfs
Peak Water Surface Elevation	2302.12 ft
Peak Storage Volume	40 ac-ft
Overflow Spillway	
Crest Length / Elevation	200 LF / 2308.50 ft
Discharge Capacity / Elevation	1,697 cfs / 2310.50 ft
Desgin Storage Volume / Elevation	170.6 ac-ft / 2310.50 ft
Water Quality Capture Volume (WQCV)	
Tributary (Developable) Area	546.2 ac
WQCV Provided / Required	3.1 ac-ft / 3.1 ac-ft
Discharge Dimension / Invert	0.5-ft wide by 2.2-ft high / 2297.00 ft
Drain Time	14 Hr, 24 Min

731-98

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

S 18 T 19S R 61E

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

DETENTION BASIN PERFORMANCE CURVES

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000

PROFESSIONAL ENGINEER - STATE OF NEVADA
DERICK D.J YORO
Exp. 06/30/2020
CIVIL
No. 16396
5/7/18

C-05
SHEET 5 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ#:124070 AGREE:#115666 QS:124-07-SW/NE,124-18-NW/NE

i:\sun\1403-000 grand teton regional flood control facility\dwg\engineering\sun1403-000civil-5.dwg 5/7/2018 7:37 AM Jane Scatterday

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DO OVERHEAD
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AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.
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1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS
AND
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

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1-702-455-6000

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BENCHMARK:

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NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
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RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLV9117NWS. SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

LEGAL DESCRIPTION:

GOVERNMENT LOTS 5, 7, 10, 12, 14, 18, 19, 21, 24, 25, & 28 THROUGH 37, INCLUSIVE, OF SECTION 18, TOGETHER WITH GOVERNMENT LOT 7 OF SECTION 19, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA.

BASIS OF BEARINGS:

SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

NOTE

GEODETIC/STATE PLANE COORDINATE DATA
PER FILE 152, PAGE 15 OF SURVEYS

GEODETIC/STATE PLANE COORDINATE TABLE

STATION	LATITUDE (DMS)	LONGITUDE (DMS)	ELLIPSOID HEIGHT (METERS)	ELLIPSOID HEIGHT (FEET)	STATE PLANE NORTHING (METERS)	STATE PLANE EASTING (METERS)	ORTHOMETRIC ELEVATION (METERS)	SCALE FACTOR	COMBINED FACTOR
51009002	36°18'22.13048"N	115°12'25.62401"W	683.406	2242.141	8172703.428	233786.084	711.058	1.0000946502	0.9999876113
56009102	36°18'20.50021"N	115°11'20.56494"W	673.365	2209.559	8172659.643	235409.251	701.041	1.0000942910	0.9999888250

CURVE TABLE

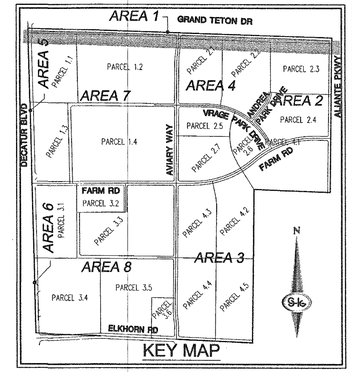
CURVE	DELTA	RADIUS	LENGTH	TANGENT
C1	180°00'00"	1.33'	4.18'	----
C2	93°12'20"	30.00'	48.80'	31.73'
C3	10°12'27"	25.00'	4.45'	2.23'
C4	10°12'27"	25.00'	4.45'	2.23'
C5	14°02'10"	25.00'	6.12'	----
C6	13°47'24"	25.00'	6.02'	----
C7	15°44'26"	200.00'	54.94'	27.65'
C8	15°44'26"	200.00'	54.94'	27.65'
C9	180°00'00"	1.33'	4.18'	----
C10	11°28'42"	250.00'	50.08'	25.13'
C11	11°28'42"	250.00'	50.08'	25.13'
C12	180°00'00"	1.33'	4.18'	----
C13	180°00'00"	1.33'	4.18'	----
C14	11°28'42"	250.00'	50.08'	25.13'
C15	11°28'42"	250.00'	50.08'	25.13'
C16	11°28'42"	250.00'	50.08'	25.13'
C17	11°28'42"	250.00'	50.08'	25.13'
C18	18°11'42"	100.00'	31.76'	16.01'
C19	18°11'42"	100.00'	31.76'	16.01'
C20	88°39'01"	30.00'	46.42'	29.30'
C21	180°00'00"	1.33'	4.18'	----
C22	180°00'00"	1.33'	4.18'	----
C23	91°21'09"	30.00'	47.83'	30.72'
C24	09°27'43"	25.00'	4.13'	2.07'
C25	10°12'27"	25.00'	4.45'	2.23'
C26	17°06'46"	25.00'	7.47'	3.76'

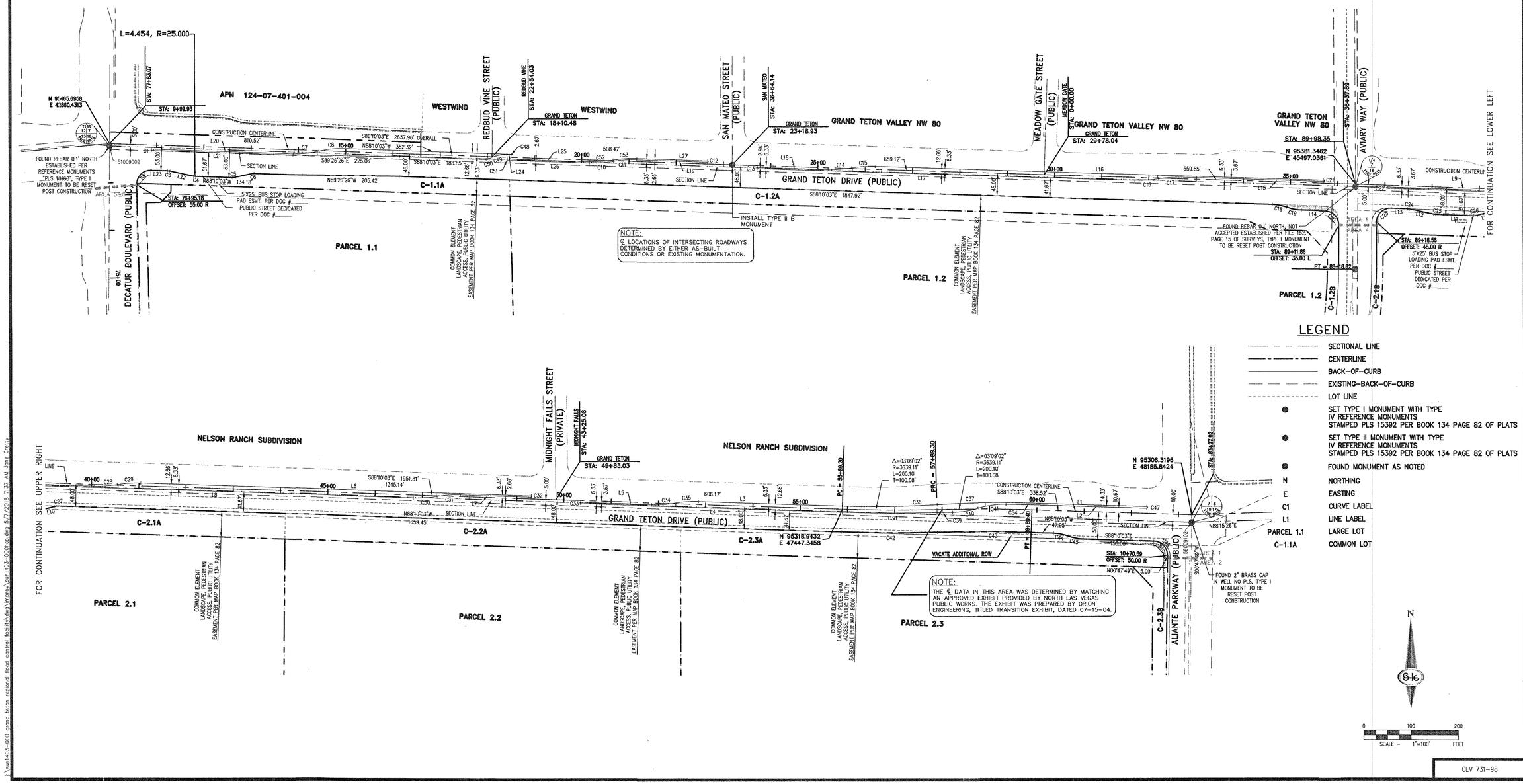
CURVE TABLE

CURVE	DELTA	RADIUS	LENGTH	TANGENT
C27	17°06'46"	25.00'	7.47'	3.76'
C28	11°28'41"	250.00'	50.08'	25.13'
C29	11°28'42"	250.00'	50.08'	25.13'
C30	11°28'42"	250.00'	50.08'	25.13'
C31	11°28'42"	250.00'	50.08'	25.13'
C32	180°00'00"	1.33'	4.18'	----
C33	180°00'00"	1.33'	4.18'	----
C34	11°28'42"	250.00'	50.08'	25.13'
C35	11°28'42"	250.00'	50.08'	25.13'
C36	05°26'20"	2110.01'	200.30'	100.23'
C37	05°26'20"	2110.01'	200.30'	100.23'
C38	03°09'02"	3645.44'	200.45'	100.25'
C39	00°31'04"	3632.78'	32.82'	16.41'
C40	15°44'25"	200.00'	54.94'	27.65'
C41	16°52'15"	200.00'	60.09'	29.66'
C42	03°08'59"	3687.11'	202.69'	101.37'
C43	03°09'05"	3591.11'	197.52'	98.78'
C44	18°11'42"	98.00'	31.12'	15.69'
C45	18°11'42"	102.00'	32.39'	16.33'
C46	88°57'52"	30.00'	46.58'	29.46'
C47	180°00'00"	1.83'	5.75'	----
C48	180°00'00"	0.33'	1.04'	----
C49	30°59'54"	74.00'	40.04'	20.52'
C50	31°02'08"	10.00'	5.42'	2.78'
C51	180°00'00"	1.33'	4.18'	0.00'
C52	11°28'42"	250.00'	50.08'	25.13'
C53	11°26'53"	250.65'	50.08'	25.12'
C54	01°30'08"	2106.35'	55.23'	27.62'

LINE TABLE

LINE	BEARING	DISTANCE
L1	N88°10'03"W	242.94'
L2	S88°10'03"E	242.94'
L3	N88°10'03"W	304.17'
L4	N88°10'03"W	553.67'
L5	N88°10'03"W	150.00'
L6	N88°10'03"W	826.29'
L7	S86°10'03"E	150.00'
L8	N88°10'03"W	976.29'
L9	N88°10'03"W	300.00'
L10	S74°43'11"W	26.46'
L11	N88°10'03"W	80.00'
L12	S77°57'44"E	52.29'
L13	S88°10'03"E	35.00'
L14	S88°10'03"E	50.00'
L15	N88°10'03"W	300.00'
L16	N88°10'03"W	949.12'
L17	N88°10'03"W	799.12'
L18	N88°10'03"W	150.00'
L19	N88°10'03"W	150.00'
L20	N88°10'03"W	300.00'
L21	N88°10'03"W	299.54'
L22	S77°57'35"E	51.96'
L23	S88°10'03"E	35.00'
L24	S88°10'03"E	9.19'
L25	S88°10'03"E	174.52'
L26	S88°10'03"E	174.52'
L27	S88°10'03"E	150.00'





LEGEND

- SECTIONAL LINE
- CENTERLINE
- BACK-OF-CURB
- EXISTING-BACK-OF-CURB
- LOT LINE
- SET TYPE I MONUMENT WITH TYPE IV REFERENCE MONUMENTS STAMPED PLS 15392 PER BOOK 134 PAGE 82 OF PLATS
- SET TYPE II MONUMENT WITH TYPE IV REFERENCE MONUMENTS STAMPED PLS 15392 PER BOOK 134 PAGE 82 OF PLATS
- FOUND MONUMENT AS NOTED
- N NORTHING
- E EASTING
- C1 CURVE LABEL
- L1 LINE LABEL
- PARCEL 1.1 LARGE LOT
- C-1.1A COMMON LOT

N
0 100 200
SCALE - 1"=100' FEET

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
HORIZONTAL CONTROL PLAN

S 18
T 19S
R 61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000

PROFESSIONAL ENGINEER - STATE OF NEVADA
DERICK D.J YORO
Exp: 06/30/2020
No. 16396
CIVIL
5/7/18

HC-01
SHEET 6 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ#:124070 AGREE:#115666 QS:124-07-SW/NE,124-18-NW/NE

\\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403-000hcp.dwg 5/7/2018 7:37 AM Jane Crelly

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AND
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FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

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OR

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AND
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NLV9117NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
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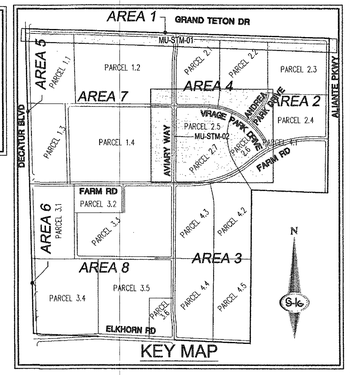
SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

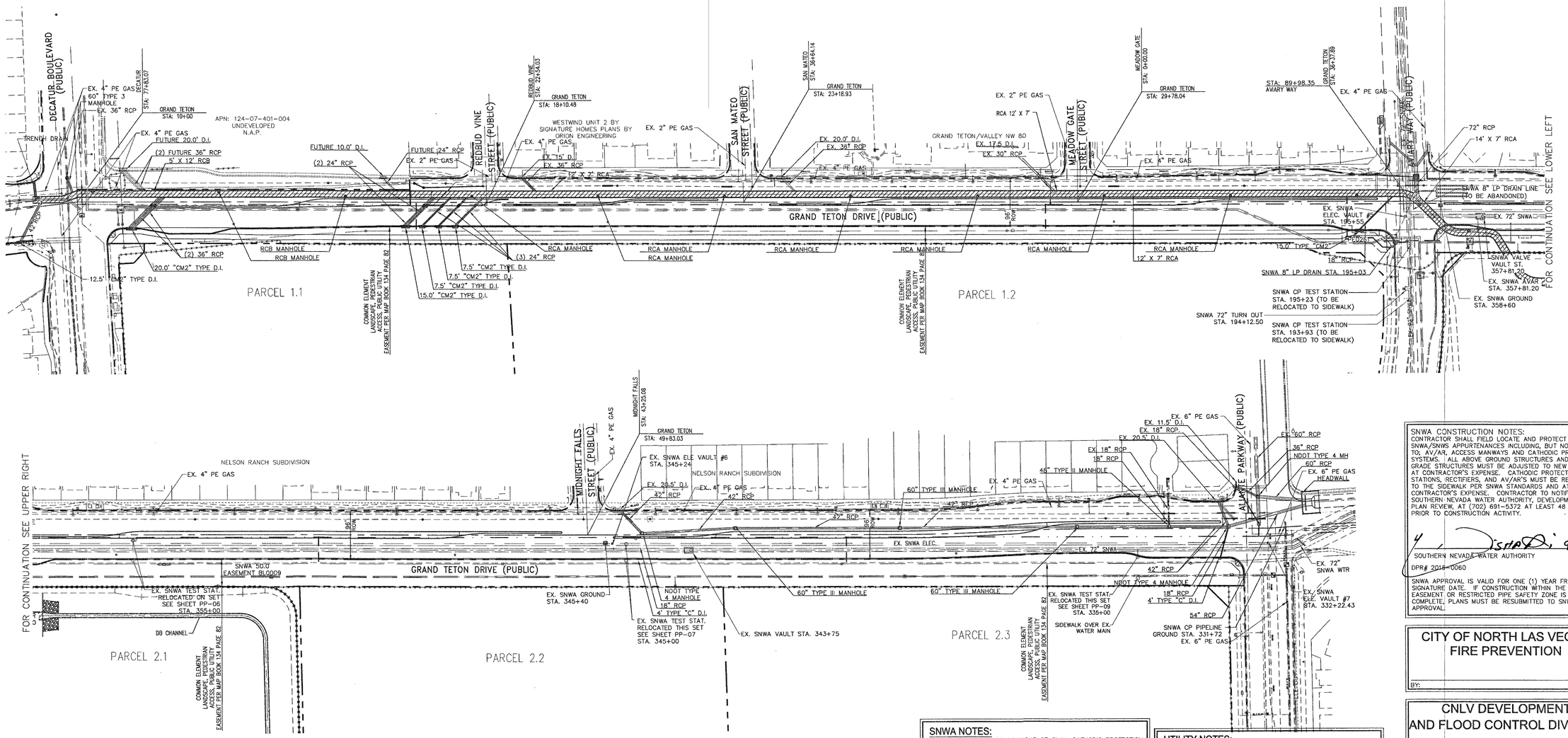
GENERAL NOTES

A. REFER TO SHEET E-01 FOR SYMBOLS AND LEGEND.
B. BRANCH CIRCUITS AND HOME RUN CONDUITS SHALL BE 2"C-(-2)#4 AND (1)#8 GND WITH SPLICE IN BASE OF POLE WITH FUSE FOR EACH CIRCUIT AND #10 CONDUCTORS TO LIGHTING HEAD.
C. CONTRACTOR SHALL COORDINATE WITH NPCO FOR LOCATION OF CONNECTION AND SERVICE PEDESTAL SHALL BE LOCATED A MINIMUM OF 30' FROM NPCO TRANSFORMER.
D. AREA'S ARE INDICATED WITH FIRST NUMBER OF THE SHEET CALLOUT I.E. E-1.0 IS AREA 1, E-2.0 IS AREA 2 AND SO FORTH TO E-9.0 WHICH IS AREA 9
E. SEE SHEET E-01 FOR POLE AND PEDESTAL DETAILS.
F. ELECTRICAL CONDUIT TO BE INSTALLED BEHIND SNWA AVAR AND TEST STATIONS.

N

0 100 200
SCALE – 1"=100' FEET





SNWA CONSTRUCTION NOTES:

CONTRACTOR SHALL FIELD LOCATE AND PROTECT ALL SNWA/SNWS APPURTENANCES INCLUDING, BUT NOT LIMITED TO; AV/AR, ACCESS MANWAYS AND CATHODIC PROTECTION SYSTEMS. ALL ABOVE GROUND STRUCTURES AND AT GRADE STRUCTURES MUST BE ADJUSTED TO NEW GRADE AT CONTRACTOR'S EXPENSE. CATHODIC PROTECTION TEST STATIONS, RECTIFIERS, AND AV/AR'S MUST BE RELOCATED TO THE SIDEWALK PER SNWA STANDARDS AND AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO NOTIFY SOUTHERN NEVADA WATER AUTHORITY, DEVELOPMENT PLAN REVIEW, AT (702) 691-5372 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY.

SOUTHERN NEVADA WATER AUTHORITY — DATE 9/5/18

DPR# 2018-0060

SNWA APPROVAL IS VALID FOR ONE (1) YEAR FROM THE SIGNATURE DATE. IF CONSTRUCTION WITHIN THE EASEMENT OR RESTRICTED PIPE SAFETY ZONE IS NOT COMPLETE, PLANS MUST BE RESUBMITTED TO SNWA FOR APPROVAL.

CITY OF NORTH LAS VEGAS FIRE PREVENTION

BY: DATE:

CNLV DEVELOPMENT AND FLOOD CONTROL DIVISION

MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM DATE:

SNWA NOTES:

1. ALL REPAIRS OR RELOCATIONS OF SNWA CATHODIC PROTECTION STATIONS OR APPURTENANCES WILL BE DONE BY A CERTIFIED NACE CATHODIC PROTECTION SPECIALIST AND INACCORDANCE WITH SNWA STANDARDS
2. CAUTION: SNWA TEST LEADS ARE SHALLOW
3. ALL SNWA TEST STATIONS TO BE TESTED BY CONTRACTOR AND WITNESSED BY SNWA PRIOR TO CONSTRUCTION IN THE AREA. COORDINATE WITH SNWA INSPECTOR
4. IF EXPOSED, CONTRACTOR TO PAY FOR AND REPLACE SNWA CATHODIC PROTECTION TEST STATION GROUND MATS, MAGNESIUM RIBBONS, OR ZINC RIBBONS WITH NEW GROUND MATS, MAGNESIUM RIBBONS OR ZINC RIBBONS.
5. CAUTION SNWA FIBER OPTICS CONDUIT RUNS ALONG THE WEST AND SOUTH SIDES OF THE SNWA 72" LATERAL AT VARIOUS DEPTHS.

UTILITY NOTES:

THE INTENTION OF THIS MAP / DRAWING IS TO GIVE AN OVER-ALL UTILITY SCHEME. PLEASE REFER TO FOLLOWING UTILITY PLANS, PP-01 THROUGH PP-09, FOR PRECISE UTILITY LOCATIONS.

MINIMUM SEPARATION BETWEEN FIRE SYSTEMS AND DOMESTIC WATER MAINS SHALL BE SIX (6) FEET HORIZONTALLY FROM EXTERIOR PIPE WALLS AND EIGHTEEN (18) INCHES VERTICALLY. MINIMUM SEPARATION FROM SEWER LINES SHALL BE TEN (10) FEET HORIZONTALLY.

LIMITS OF ASPHALT PATCH TO BE DETERMINED IN THE FIELD BY A CITY OF NORTH LAS VEGAS INSPECTOR. PATCH WILL BE A MINIMUM OF 12 FEET, MACHINE REPLACED.

ALL WASTEWATER FACILITIES CONSTRUCTION SHALL BE IN ACCORDANCE WITH "DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS", (DACSWWS), LATEST.

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP.	APP. DATE

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
MASTER UTILITY PLAN - STORM I

S 18 T 19S R 61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000

DERICK D. YORO — NEVADA — PROFESSIONAL ENGINEER — STATE OF NEVADA — No. 16396 — CIVIL — exp. 06/30/2020 — 5/7/18

MU-STM-01
SHEET 7 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PRO.#:124070 AGREE.#115666 QS:124-07-SWINE, 124-18-NWINE

I:\sun1403-000 grand teton replace\ flood control facility\civil\xrefs\sun1403-000mu-stl.dwg, 5/7/2018 7:38 AM, Jane Crotty

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CLARK COUNTY TRAFFIC OPERATIONS AND

1-702-492-5300

FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

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CLARK COUNTY TRAFFIC OPERATIONS

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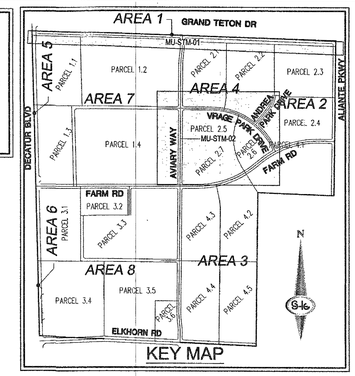
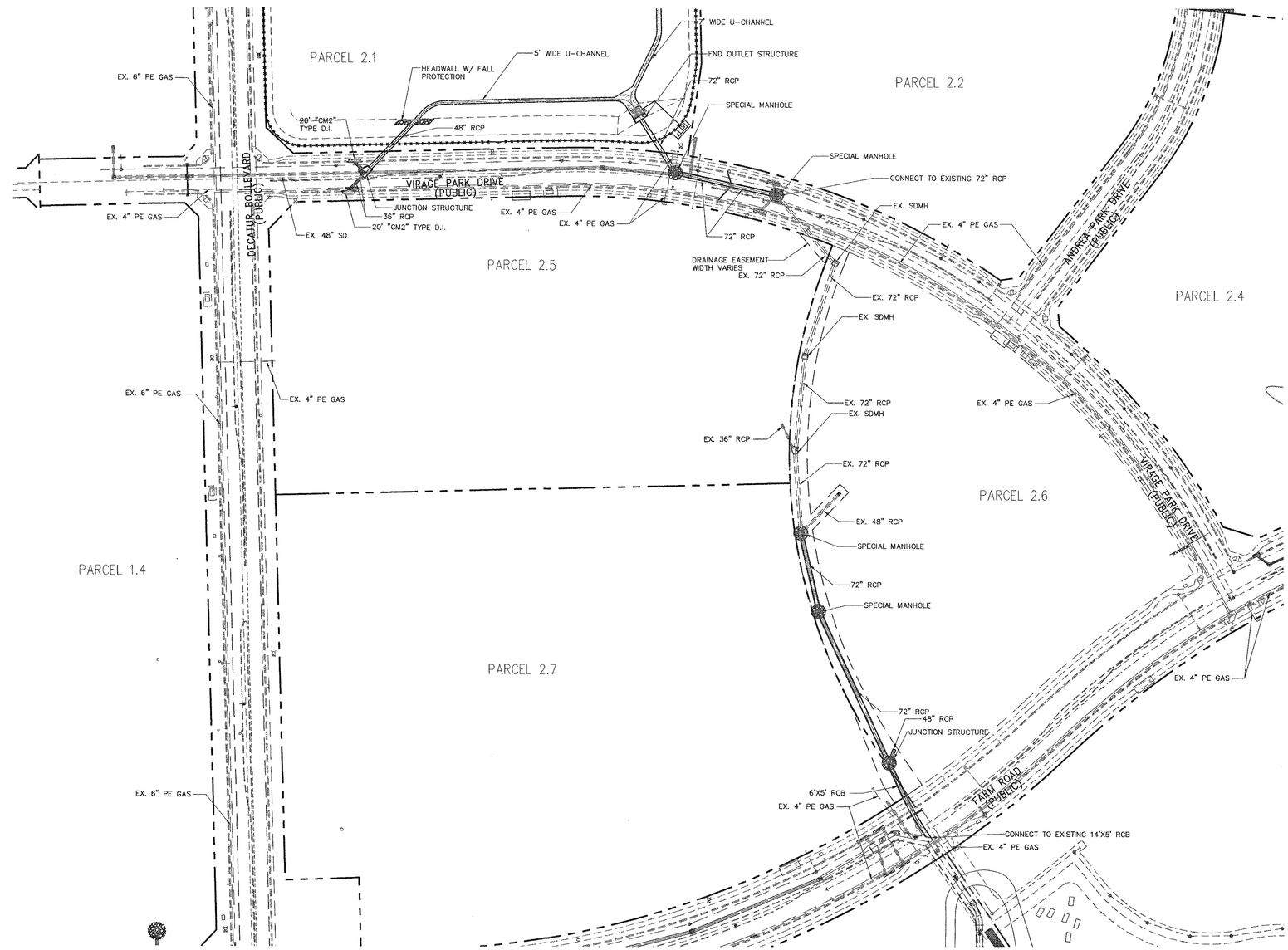
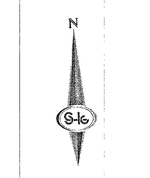
D. AREA'S ARE INDICATED WITH FIRST NUMBER OF THE SHEET CALLOUT I.E. E-1.0 IS AREA 1, E-2.0 IS AREA 2 AND SO FORTH TO E-9.0 WHICH IS AREA 9
E. SEE SHEET E-01 FOR POLE AND PEDESTAL DETAILS.
F. ELECTRICAL CONDUIT TO BE INSTALLED BEHIND SNWA AVAR AND TEST STATIONS.







UTILITY NOTES:

THE INTENTION OF THIS MAP / DRAWING IS TO GIVE AN OVER-ALL UTILITY SCHEME. PLEASE REEFER TO FOLLOWING UTILITY PLANS, PP-01 THROUGH PP-09, FOR PRECISE UTILITY LOCATIONS.

MINIMUM SEPARATION BETWEEN FIRE SYSTEMS AND DOMESTIC WATER MAINS SHALL BE SIX (6) FEET HORIZONTALLY FROM EXTERIOR PIPE WALLS AND EIGHTEEN (18) INCHES VERTICALLY. MINIMUM SEPARATION FROM SEWER LINES SHALL BE TEN (10) FEET HORIZONTALLY.

LIMITS OF ASPHALT PATCH TO BE DETERMINED IN THE FIELD BY A CITY OF NORTH LAS VEGAS INSPECTOR. PATCH WILL BE A MINIMUM OF 12 FEET, MACHINE REPLACED.

ALL WASTEWATER FACILITIES CONSTRUCTION SHALL BE IN ACCORDANCE WITH "DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS", (DACSWWS), LATEST.

CITY OF NORTH LAS VEGAS
FIRE PREVENTION

BY: DATE:

CNLV DEVELOPMENT
AND FLOOD CONTROL DIVISION

MANAGER, ROBERT A. McLAUGHLIN, P.E, CFM DATE:

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

S 18
T 19S
R 61E

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
MASTER UTILITY PLAN - STORM II

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000

PROFESSIONAL ENGINEER STATE OF NEVADA DERICK D.J YORO Exp: 06/30/2020 CIVIL No. 16396 5/1/18

MU-STM-02
SHEET 8 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PRO.#:124070 AGREE.#115666 QS:124-07-SW/NE,124-18-NW/NE

J:\sun1403-000 grand teton drive\civil flood control facility\dwg\improv\sun1403-000mu-stl.dwg, 5/7/2018 7:39 AM, Jose Ortiz

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DO OVERHEAD

1-702-227-2929

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.

Call before you do UnderGround

1-702-455-6000

CLARK COUNTY TRAFFIC OPERATIONS AND

1-702-492-5300

FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig

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Call 811 OR

1-800-227-2600 AND

CLARK COUNTY TRAFFIC OPERATIONS

1-702-455-6000

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BENCHMARK:

NLV9117NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
699.511 METERS, 2294.98 FEET
RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLV9117NWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

LEGAL DESCRIPTION:

GOVERNMENT LOTS 5, 7, 10, 12, 14, 18, 19, 21, 24, 25, & 28 THROUGH 37, INCLUSIVE, OF SECTION 18, TOGETHER WITH GOVERNMENT LOT 7 OF SECTION 19, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA.

BASIS OF BEARINGS:

SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

CONDITIONAL APPROVAL OF VALVED OUTLET (6" AND LARGER) THE WATER PLANS SHOW ONE OR MORE VALVED OUTLETS EXTENDING OUT OF PAVED AREAS. INSTALLATION OF THESE OUTLETS IS ACCEPTABLE, HOWEVER, IF THE OUTLETS ARE INCORRECTLY LOCATED OR NOT USED FOR ANY REASON WHEN THE PROPERTY IS ACTUALLY DEVELOPED, THE DEVELOPER SHALL ABANDON THE OUTLETS AT THE CONNECTION TO THE ACTIVE MAIN IN ACCORDANCE WITH THE CITY'S STANDARDS AND AT THE DEVELOPER'S EXPENSE. APPROVAL OF THE VALVED OUTLET DOES NOT PROVIDE OR IMPLY A WATER COMMITMENT.

GENERAL NOTES

A. REFER TO SHEET E-01 FOR SYMBOLS AND LEGEND.
B. BRANCH CIRCUITS AND HOME RUN CONDUITS SHALL BE 2"C-(-2)#4 AND (1)#8 GND WITH SPLICE IN BASE OF POLE WITH FUSE FOR EACH CIRCUIT AND #10 CONDUCTORS TO LIGHTING HEAD.
C. CONTRACTOR SHALL COORDINATE WITH NPCO FOR LOCATION OF CONNECTION AND SERVICE PEDESTAL SHALL BE LOCATED A MINIMUM OF 30' FROM NPCO TRANSFORMER.
D. AREA'S ARE INDICATED WITH FIRST NUMBER OF THE SHEET CALLOUT I.E. E-1.0 IS AREA 1, E-2.0 IS AREA 2 AND SO FORTH TO E-9.0 WHICH IS AREA 9
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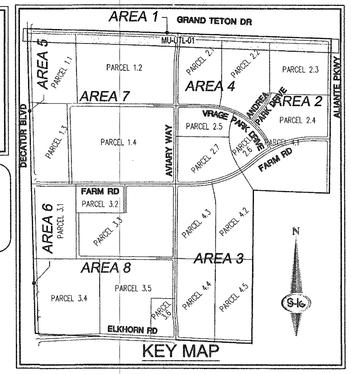

ALL METERS TO BE INSTALLED IN THE CNLV WATER SYSTEM, INCLUDING DCDA'S, MUST BE COMPATIBLE WITH THE SENSUS AMR PROTOCOL (A.K.A. INVENSYS) AND MUST BE INSTALLED WITH THE ENCODED REGISTER. METERS THAT ARE FULLY COMPATIBLE ARE:
INVENSYS/SENSUS E03/MP MODELS
NEPTUNE AUTOREAD MODELS

A MINIMUM OF TWO (2) VALVES SHALL BE LOCATED AT EVERY MAINLINE CROSS AND AT EVERY MAINLINE TEE.

UTILITY NOTES:

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LIMITS OF ASPHALT PATCH TO BE DETERMINED IN THE FIELD BY A CITY OF NORTH LAS VEGAS INSPECTOR. PATCH WILL BE A MINIMUM OF 12 FEET, MACHINE REPLACED.

ALL WASTEWATER FACILITIES CONSTRUCTION SHALL BE IN ACCORDANCE WITH "DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS", (DACSSWS), LATEST.

WATER / SEWER CROSSING NOTES:
THE FOLLOWING ARE THE REQUIREMENTS THAT MUST BE MET WHEN THERE IS A WATER-SEWER CROSSING:

WHEN PROTECTION OF THE WATER LINE IS CONSIDERED, THE MINIMUM VERTICAL DISTANCE OF 18 INCHES MUST BE MAINTAINED WHEN THE WATER LINE IS INSTALLED OVER THE SEWER/STORM LINE. IF THIS DISTANCE CANNOT BE MAINTAINED BECAUSE OF PHYSICAL OBSTRUCTIONS OR THE WATER LINE MUST BE PLACED UNDER THE SEWER/STORM LINE, THE SEWER/STORM LINE MUST CONSTRUCTED WITH ONE OF THE FOLLOWING:

A. EXTRA HEAVY CAST IRON OR DUCTILE IRON PIPE.
B. WATER SUPPLY QUALITY MATERIAL MEETING AWWA STANDARDS.
C. ENCASEMENT WITH 4 INCHES MIN. OF CONCRETE SLEEVING WITH WATER QUALITY PIPE.

EACH OF THESE PROVISIONS MUST BE EXTENDED FOR 10 FEET ON EITHER SIDE OF THE WATER LINE AT 90 DEGREES TO THE CROSSING. REFERENCE SECTION 2.19.02 U.D.A.C.S.

WATER METERING REQUIREMENTS FOR NEW DEVELOPMENTS:

A) SEPARATE DOMESTIC AND FIRE SERVICES (WHERE APPLICABLE) ARE REQUIRED FOR EACH DWELLING UNIT, PUBLIC, QUASI-PUBLIC, COMMERCIAL, AND/OR INDUSTRIAL OCCUPANCY LOCATED ON A SINGLE PARCEL OR LOT.

B) IN THE EVENT THAT A BUILDING WITHIN AN INDUSTRIAL OR COMMERCIAL SUBDIVISION IS DIVIDED, SEPARATE DOMESTIC SERVICES ARE REQUIRED FOR EACH UNIT.

C) EACH PARCEL OR LOT OF A COMMERCIAL OR RESIDENTIAL SUBDIVISION WILL HAVE A MINIMUM OF ONE (1) METERED DOMESTIC SERVICE. WHEN A FIRE SERVICE IS REQUIRED, EACH PARCEL OR LOT WILL HAVE A MINIMUM OF ONE (1) FIRE SERVICE. THE CITY, AT ITS OPTION, MAY ALLOW A COMMUNAL FIRE SERVICE PROVIDED THE PROPERTY OWNERS FIRST ESTABLISH A PROPERTY MANAGEMENT ASSOCIATION WHICH ACCEPTS RESPONSIBILITY FOR THE PAYMENT OF WATER BILLS AND THE MAINTENANCE AND OPERATIONS OF THE FIRE LINES AND BACKFLOW PREVENTION ASSEMBLY.

NOTE (UTILITIES):

AS OF THIS SUBMITTAL DATE OF THESE WATER AND/OR SEWER IMPROVEMENT PLANS, THE DOWNSTREAM CONNECTION POINT AS SHOWN ON THESE DRAWINGS HAS NOT BEEN CONSTRUCTED BY "OTHERS" AND/OR THE WATER/SEWER CONSTRUCTION BY "OTHERS" HAS NOT BEEN ACCEPTED BY THE CITY. FOR THIS PROJECT, THE DEVELOPER HAS CHOSEN TO DEPEND ON WORK BY "OTHERS". AT SOLE RISK, THE DEVELOPER MAY CONSTRUCT THEIR UTILITIES AS SHOWN ON THESE APPROVED PLANS PRIOR TO THE COMPLETION OF WORK BY "OTHERS". BUT OCCUPANCY PERMIT RELEASE WILL NOT BE GIVEN BY THE CITY UNTIL THE UTILITY BY "OTHERS" HAS BEEN CONSTRUCTED AND ACCEPTED BY THE CITY. IF THE WORK BY "OTHERS" IS ABANDONED OR NOT COMPLETED FOR ANY REASON, THIS PROJECT SHALL BE RESPONSIBLE FOR ANY AND ALL OF THE FOLLOWING: (1) PROVIDING RESUBMITTED AND APPROVED MAIN LINE EXTENSION DESIGN PLANS; (2) THE CONSTRUCTION OF ADDITIONAL MAIN LINE UTILITIES TO CONNECT TO AN EXISTING ACCEPTED PUBLIC UTILITY HAVING CAPACITY TO SERVE THIS PROJECT; AND (3) PROVIDING RIGHT-OF-WAY OR EASEMENT AS NEEDED.

CITY OF NORTH LAS VEGAS UTILITY DEPARTMENT DISCLAIMER

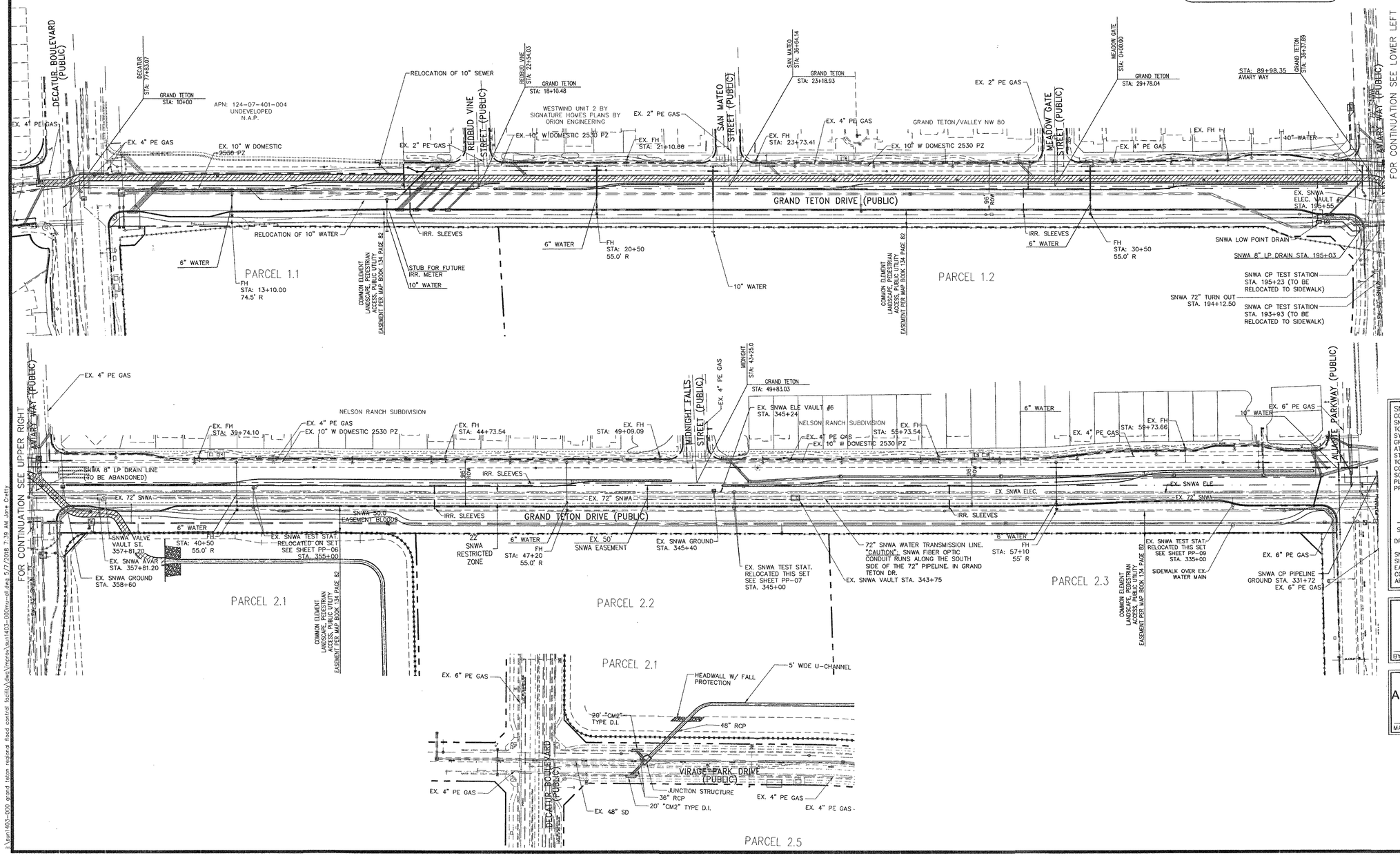
A STATEMENT OF UNDERSTANDING BETWEEN THE CITY OF NORTH LAS VEGAS UTILITY DEPARTMENT (CITY) AND ANY AND ALL SUBSEQUENT USERS OF INFORMATION CONTAINED HEREFROM:

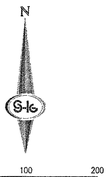
THE PLANS AND SUPPORTING INFORMATION IS FURNISHED BY THE CITY, AND IS ACCEPTED/USED BY THE RECIPIENT WITH THE UNDERSTANDING THAT THE CITY MAKES NO WARRANTIES, EXPRESS OR IMPLIED, CONCERNING THE ACCURACY, COMPLETENESS, RELIABILITY, OR SUITABILITY OF SAID PLANS OR ANY SUPPORTING DATA AND FURTHER UNDERSTANDS THAT ALL USERS ARE ACTING AT THEIR OWN RISK.

THE CITY SHALL BE UNDER NO LIABILITY WHATSOEVER RESULTING FROM ANY USE OF THIS INFORMATION. THIS INFORMATION SHOULD NOT BE RELIED UPON AS THE SOLE BASIS FOR EXISTING WATER AND/OR SEWER LOCATIONS. THE ENGINEER SHALL CHECK AND VERIFY ALL DIMENSIONS AND LOCATIONS OF EXISTING UTILITIES.

IF THE PROJECT OVERLAYS AN AREA INVOLVING SNWA FACILITIES, THE DEVELOPER'S ENGINEER SHALL SUBMIT THE PLANS TO SNWA FOR THEIR REVIEW PARALLEL WITH THE AGENCY'S REVIEW. SNWA APPROVAL MUST BE OBTAINED PRIOR TO AGENCY WATER PLAN APPROVAL. THE SNWA MAY BE CONTACTED BY TELEPHONE AT (702)486-6741, BY FAX AT 486-6742, OR BY MAIL AT 243 LAKE SHORE ROAD, BOULDER CITY, NEVADA, 89005.

FUTURE USE LATERALS (1" THROUGH 2")
IF ANY OF THE SERVICE LATERALS TO BE INSTALLED FOR FUTURE LOTS ARE INCORRECTLY LOCATED OR ARE NOT USED FOR ANY REASON WHEN THE LOTS ARE DEVELOPED, THE DEVELOPER SHALL ABANDON THE LATERALS AT THE CONNECTION TO THE ACTIVE MAIN IN ACCORDANCE WITH THE AGENCY'S STANDARDS AT THE DEVELOPER'S EXPENSE. INSTALLATION OF SERVICE LATERALS 2 INCHES IN DIAMETER AND SMALLER FOR FUTURE LOTS SHALL INCLUDE THE SERVICE LATERALS WITH ALL FITTINGS PER AGENCY STANDARD PLATE NO. 1A OR 1C. THE AGENCY MAY LOCK THESE SERVICES TO PREVENT UNAUTHORIZED USE.





NOTES:

1. ALL REPAIRS OR RELOCATIONS OF SNWA CATHODIC PROTECTION STATIONS OR APPURTENANCES WILL BE DONE BY A CERTIFIED NACE CATHODIC PROTECTION SPECIALIST AND INACCORDANCE WITH SNWA STANDARDS
2. CAUTION: SNWA TEST LEADS ARE SHALLOW
3. ALL SNWA TEST STATIONS TO BE TESTED BY CONTRACTOR AND WITNESSED BY SNWA PRIOR TO CONSTRUCTION IN THE AREA. COORDINATE WITH SNWA INSPECTOR
4. IF EXPOSED, CONTRACTOR TO PAY FOR AND REPLACE SNWA CATHODIC PROTECTION TEST STATION GROUND MATS, MAGNESIUM RIBBONS, OR ZINC RIBBONS WITH NEW GROUND MATS, MAGNESIUM RIBBONS OR ZINC RIBBONS.
5. CAUTION SNWA FIBER OPTICS CONDUIT RUNS ALONG THE WEST AND SOUTH SIDES OF THE SNWA 72" LATERAL AT VARIOUS DEPTHS.

SNWA CONSTRUCTION NOTES:

CONTRACTOR SHALL FIELD LOCATE AND PROTECT ALL SNWA/SNWS APPURTENANCES INCLUDING, BUT NOT LIMITED TO, AV/AR, ACCESS MANWAYS AND CATHODIC PROTECTION SYSTEMS. ALL ABOVE GROUND STRUCTURES AND AT GRADE STRUCTURES MUST BE ADJUSTED TO NEW GRADE AT CONTRACTOR'S EXPENSE. CATHODIC PROTECTION TEST STATIONS, RECTIFIERS, AND AV/AR'S MUST BE RELOCATED TO THE SIDEWALK PER SNWA STANDARDS AND AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO NOTIFY SOUTHERN NEVADA WATER AUTHORITY, DEVELOPMENT PLAN REVIEW, AT (702) 691-5372 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY.

SOUTHERN NEVADA WATER AUTHORITY — DATE

DPR# 2016-0060

SNWA APPROVAL IS VALID FOR ONE (1) YEAR FROM THE SIGNATURE DATE. IF CONSTRUCTION WITHIN THE EASEMENT OR RESTRICTED PIPE SAFETY ZONE IS NOT COMPLETE, PLANS MUST BE RESUBMITTED TO SNWA FOR APPROVAL.

CITY OF NORTH LAS VEGAS
FIRE PREVENTION
BY: DATE:

CNLV DEVELOPMENT
AND FLOOD CONTROL DIVISION
MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM DATE:

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

NO.	DESCRIPTION	DATE	BY	APP.	APP. DATE

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
MASTER UTILITY PLAN - WATER & SEWER

VALLEY VISTA

S 18
T 19S
R 61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000

DERICK D. YORO — STATE OF NEVADA — No. 16396 — CIVIL — EXP. 06/30/2020 — 5/7/18

MU-UTL-01
SHEET 9 OF 125

CLV 731-98

CNLV PROJECT NO. 5738
CLV PROJECT NO. 60221

PROJ.#:124070 AGREE.#115666 QS-124-07-SWINE,124-18-NWINE

J:\sun1403-000 grand teton regional flood control facility\Data\Xrefs\Xref1403-000mu-dtl.dwg 5/7/2018 7:39 AM Jane Cretty

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DO OVERHEAD

1-702-227-2929

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LEGAL DESCRIPTION:

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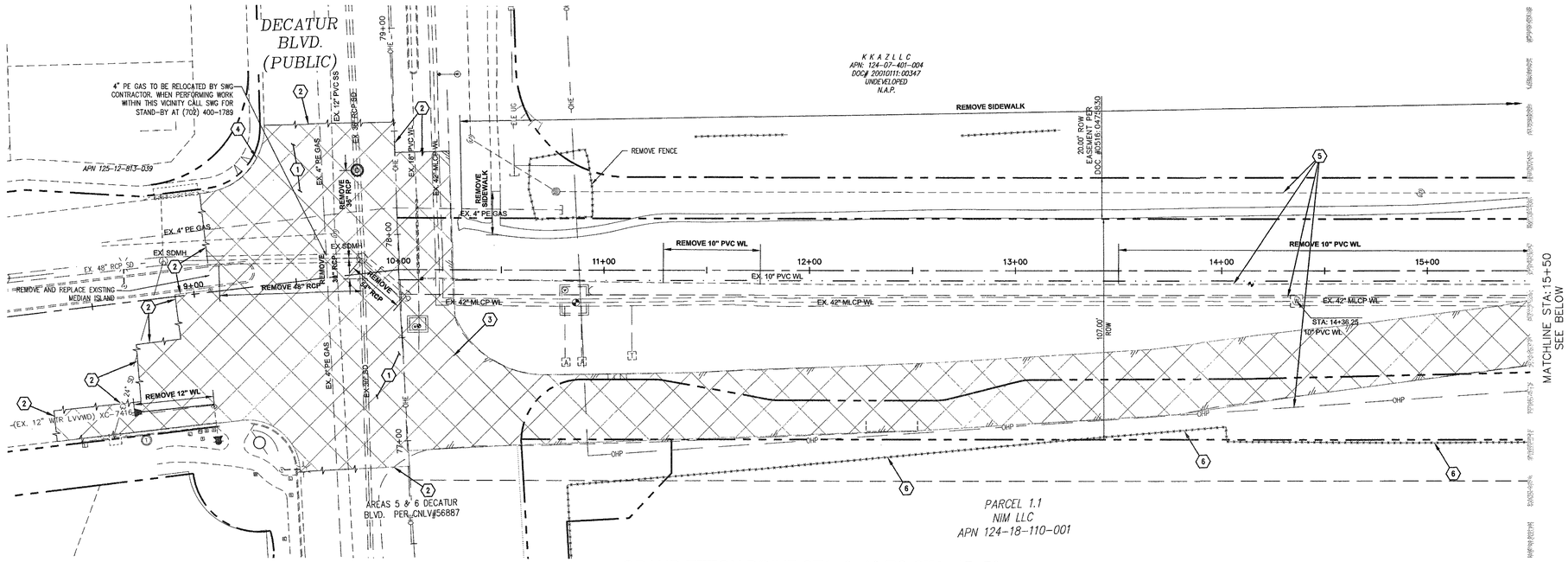
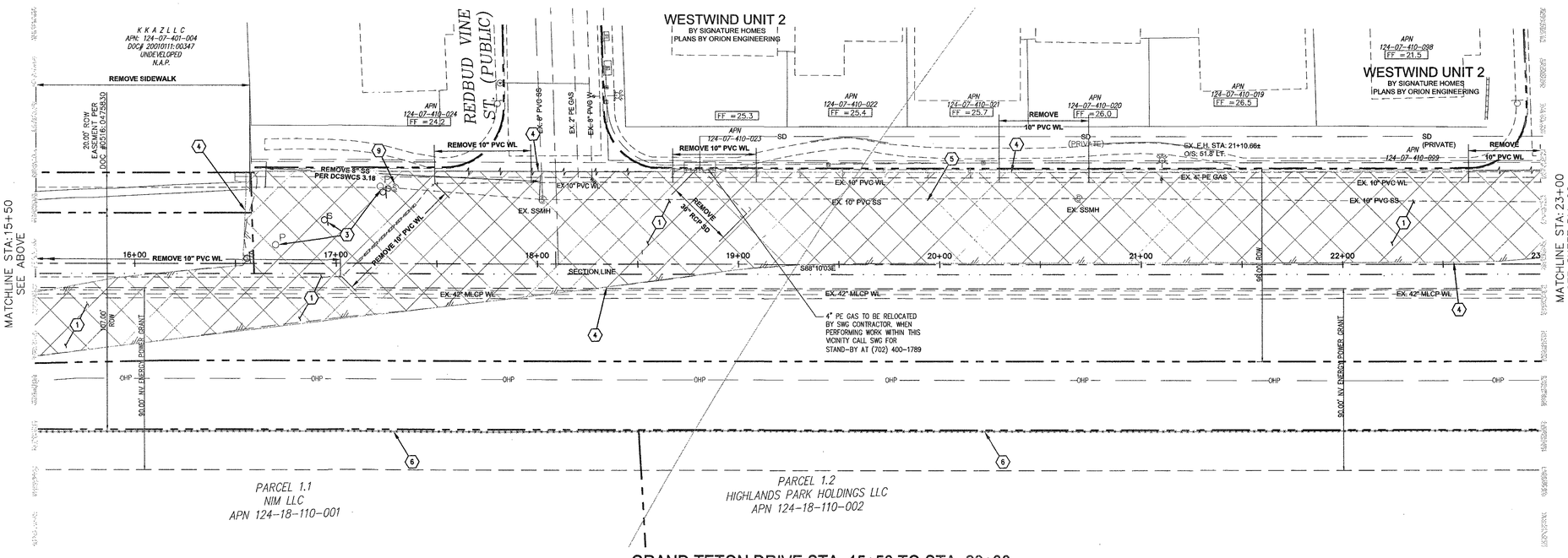
BASIS OF BEARINGS:

SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.



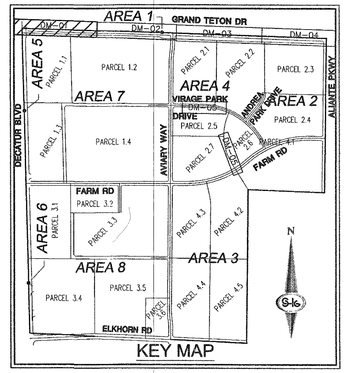
GRAND TETON DRIVE STA. 8+10 TO STA. 15+50

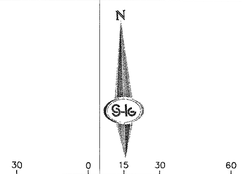
(PUBLIC)



GRAND TETON DRIVE STA. 15+50 TO STA. 23+00

(PUBLIC)





LEGEND

DEMOLISH EXISTING PAVEMENT

DEMOLITION NOTES

1. REMOVE AC & ASSOCIATED IMPROVEMENTS
2. THE SAWCUT LINES AND LIMITS OF AC REMOVAL AND REPLACEMENT SHALL BE DETERMINED BY A CNLV CONSTRUCTION SERVICES INSPECTOR.
3. EXISTING SIGNAGE TO BE REMOVED, PER PLAN, PROTECT FOR REUSE
4. LIMITS OF PAVEMENT DEMOLITION
5. EXISTING UTILITIES, PROTECT IN PLACE
6. EXISTING FENCE, PROTECT IN PLACE
7. EXISTING FENCE TO BE REMOVED AND REPLACED
8. EXISTING DROP INLET TO BE REMOVED
9. EXISTING MANHOLE/JUNCTION BOX TO BE REMOVED

SEE SHEET C-2 FOR ABBREVIATIONS AND QUANTITIES

NOTICE TO CONTRACTOR

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APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER

DATE: _____ PROJECT No. 124070

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

NO.	DESCRIPTION	DATE	BY	APP.	APP. DATE

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
DEMO PLANS - GRAND TETON STA 8+10 TO STA 23+00

S18 T19S R61E

VALLEY VISTA

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000

DERICK D. J. YORO
Exp: 06/30/2020
CIVIL
No. 16396
STATE OF NEVADA
PROFESSIONAL ENGINEER
5/7/18

DM-01
SHEET 10 OF 125

CLV 731-98

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ#:124070 AGREE:#115666 QS:124-07-SW/NE,124-18-NW/NE

i:\sun1403-000 grand teton regional flood control facility\dwg\xrefs\sun1403-000demo.dwg 5/7/2018 7:40 AM Jane Coetzy

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DO OVERHEAD

1-702-227-2929

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Call before you do UnderGround

1-702-455-6000

CLARK COUNTY TRAFFIC OPERATIONS AND

1-702-432-5300

FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.

Call 811 OR

1-800-227-2600 AND

CLARK COUNTY TRAFFIC OPERATIONS

1-702-455-6000

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BENCHMARK:

NLV9117NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
699.511 METERS, 2294.98 FEET
RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLV9117NWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

LEGAL DESCRIPTION:

GOVERNMENT LOTS 5, 7, 10, 12, 14, 18, 19, 21, 24, 25, & 28 THROUGH 37, INCLUSIVE, OF SECTION 18, TOGETHER WITH GOVERNMENT LOT 7 OF SECTION 19, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA.

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SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 81 OF PARCEL MAPS.

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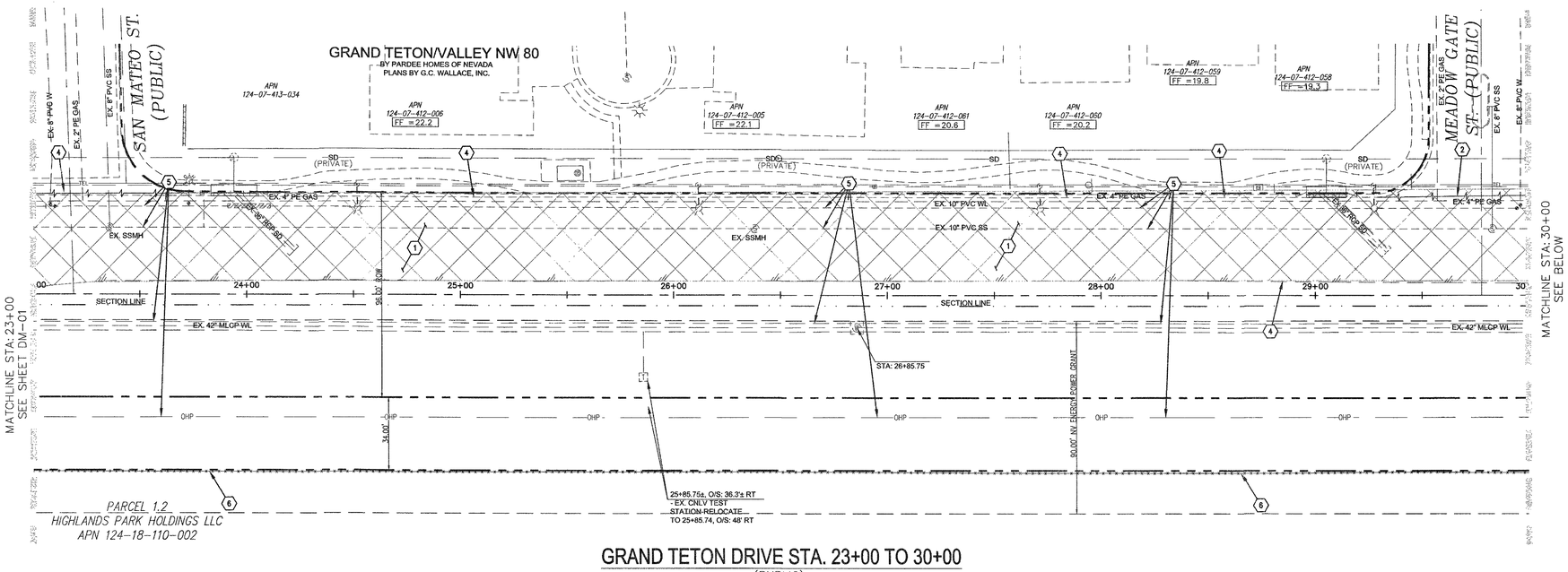
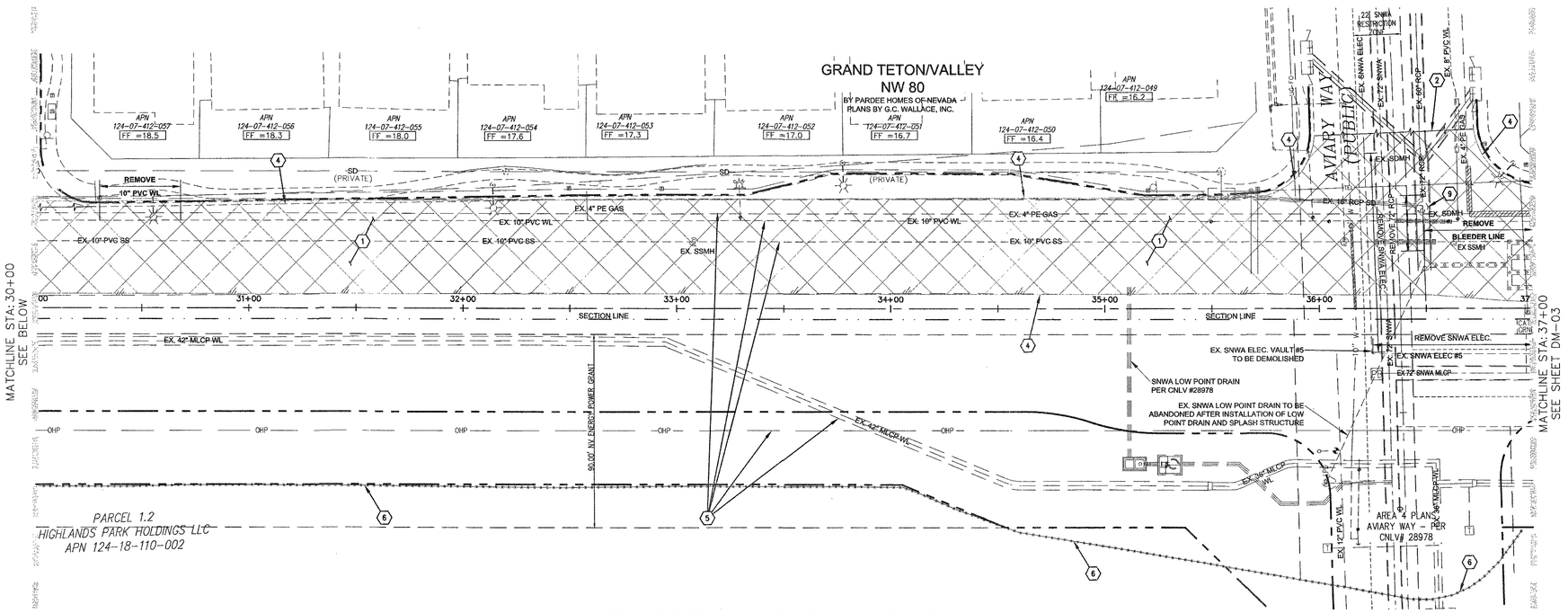
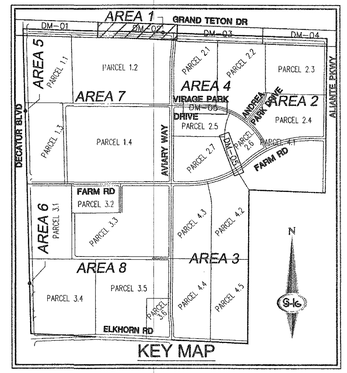
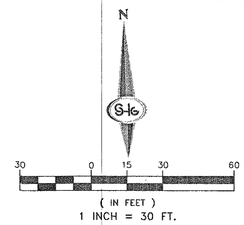


GRAND TETON DRIVE STA. 23+00 TO 30+00
(PUBLIC)



GRAND TETON DRIVE STA. 30+00 TO 37+00
(PUBLIC)





LEGEND

DEMOLISH EXISTING PAVEMENT

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SOUTHERN NEVADA WATER AUTHORITY — DATE 9/5/18

DPR# 2018-0060

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CLV 731-98

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #215, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

S18 T19S R61E

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
DEMO PLANS - GRAND TETON STA 23+00 TO STA 37+00

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000

DERICK D.J. YORO — NEVADA — No. 16396 — CIVIL — 06/30/2020 — PROFESSIONAL ENGINEER — STATE OF NEVADA — 6/7/18

DM-02
SHEET 11 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ#:124070 AGREE:#115666 QS:124-07-SWINE,124-18-NWINE

J:\sun1403-000 grand teton regional flood control facility\Acad\xrefs\sun1403-000demo.dwg 5/7/2018 7:40 AM Jane Oatly

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1-702-227-2929

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RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH
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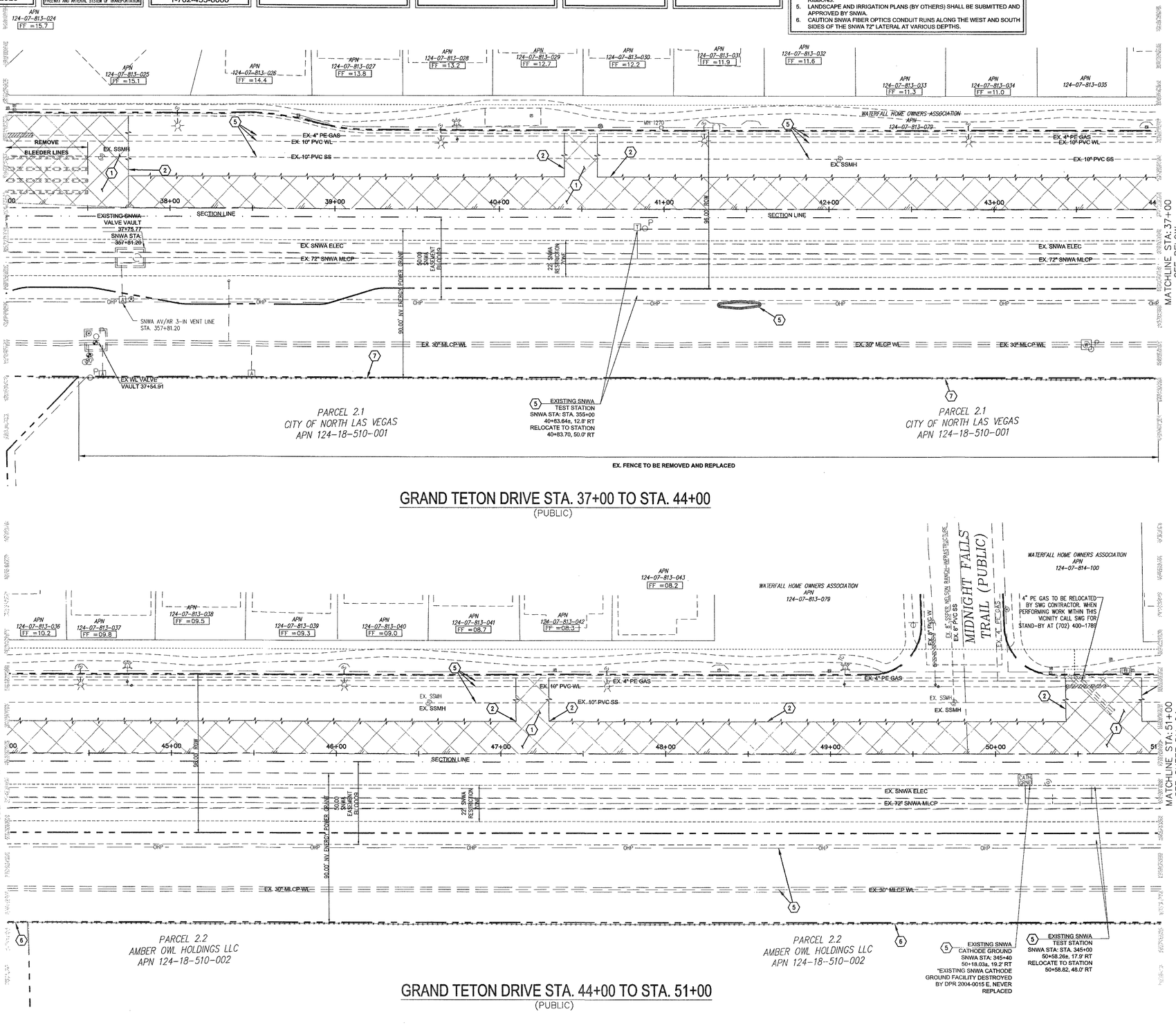
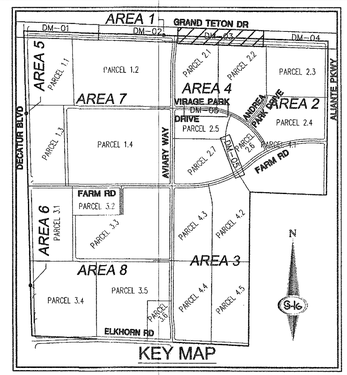


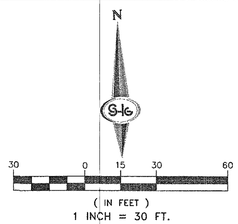
GRAND TETON DRIVE STA. 37+00 TO STA. 44+00

(PUBLIC)

GRAND TETON DRIVE STA. 44+00 TO STA. 51+00

(PUBLIC)





LEGEND

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SOUTHERN NEVADA WATER AUTHORITY — DATE 9/5/18

DPR# 2015-0060

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CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

T 18 S
R 61E

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
DEMO PLANS - GRAND TETON STA 37+00 TO STA 51+00

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000

PROFESSIONAL ENGINEER - STATE OF NEVADA
DERICK D.J YORO
06/30/2020
CIVIL
No. 16396
5/7/18

DM-03
SHEET 12 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ#:124070 AGREE:#115666 QS:124-07-SWINE,124-18-NWINE

J:\sun1403-000 grand teton regional flood control facility\dwg\mpro\sun1403-000demo.dwg 5/7/2018 7:40 AM Jone Crotty

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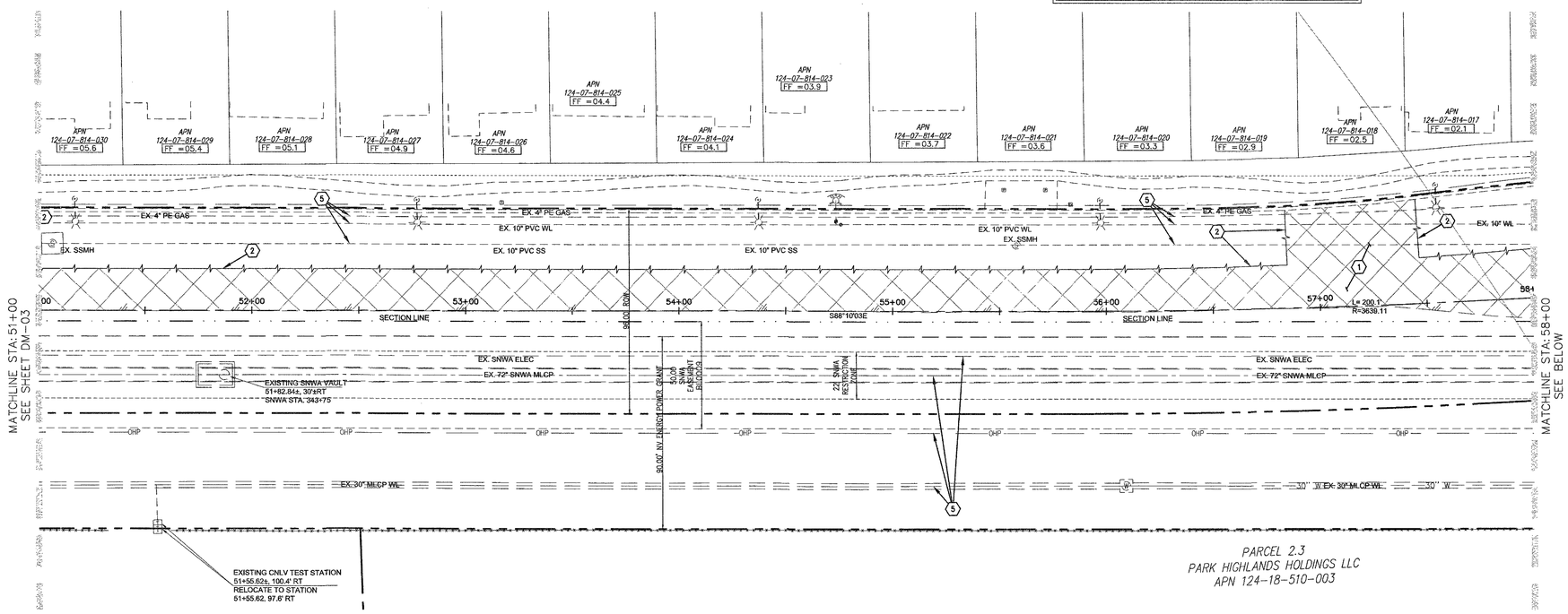
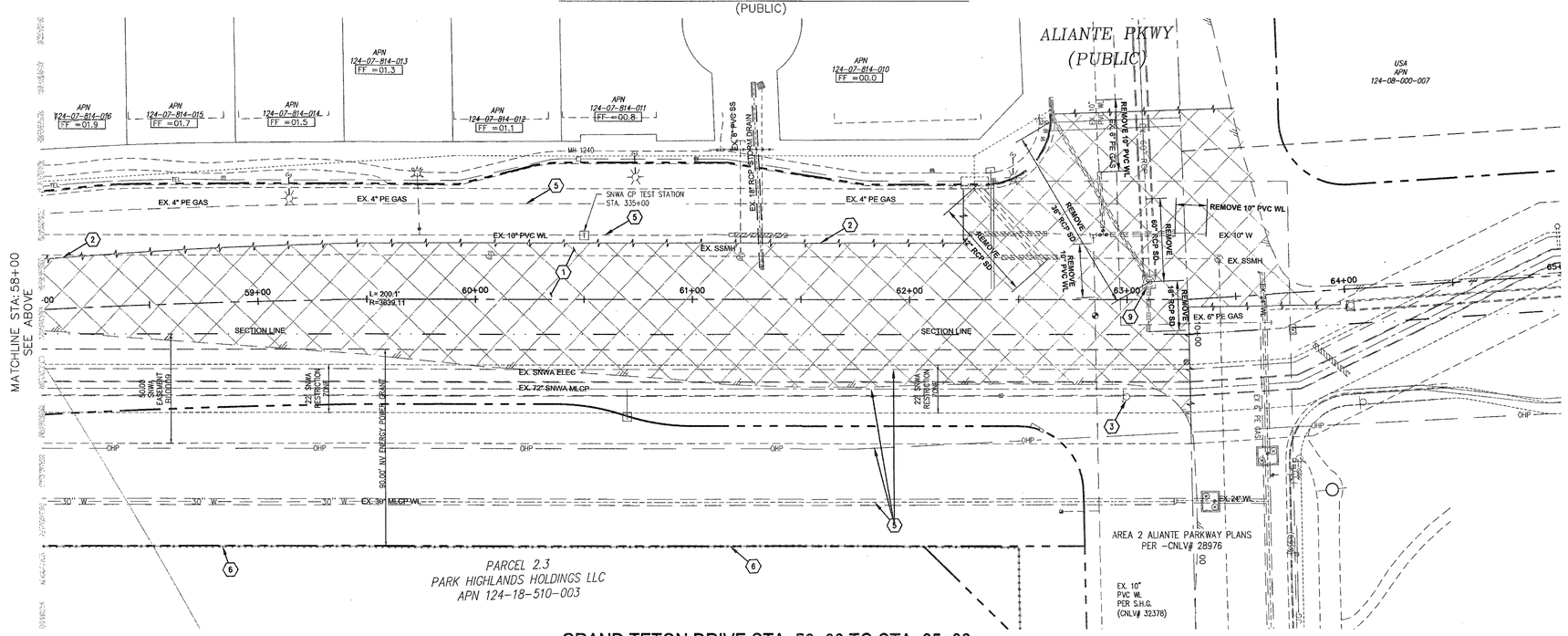


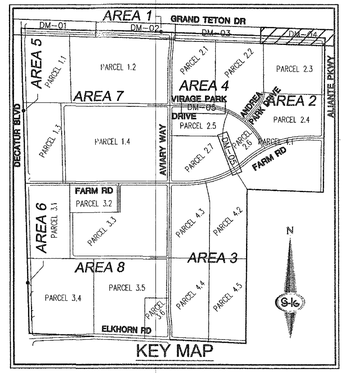
GRAND TETON DRIVE STA. 51+00 TO STA. 58+00

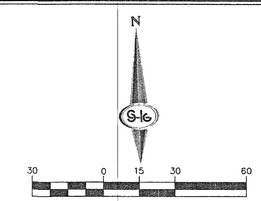
(PUBLIC)



GRAND TETON DRIVE STA. 58+00 TO STA. 65+00

(PUBLIC)





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SNWA 9/5/18

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DEP# 2016-0060

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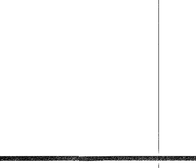

5/7/18

DM-04
SHEET 13 OF 125

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PROJ#:124070 AGREE#:115666 QS:124-07-SW/NE,124-18-NW/NE

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1-800-227-2600

AND

CLARK COUNTY TRAFFIC OPERATIONS

1-702-455-6000

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BENCHMARK:

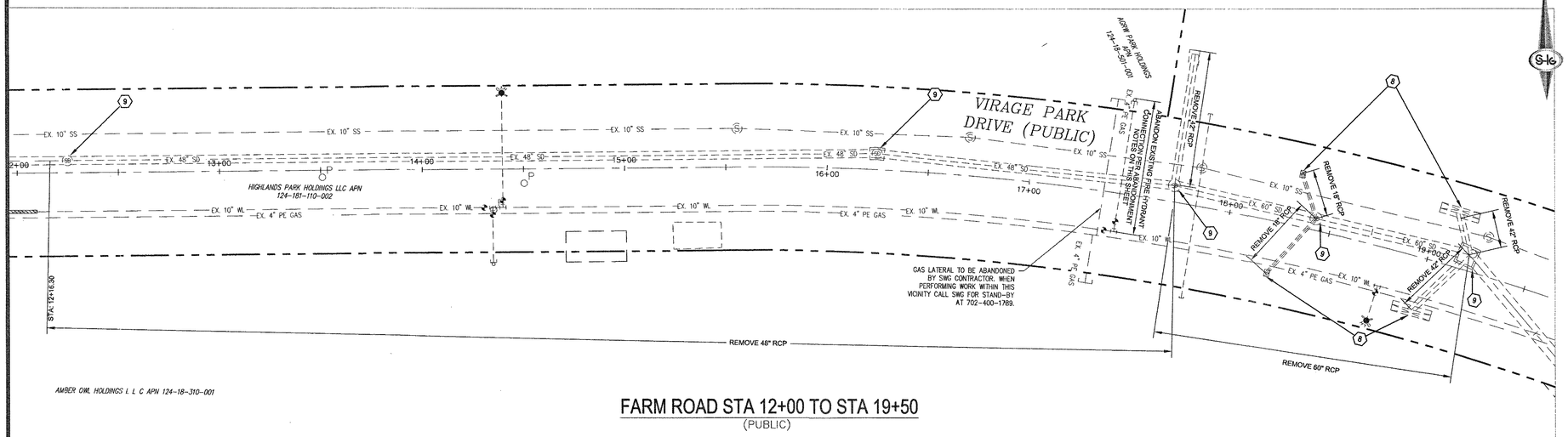
NLV911TNWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
699.511 METERS, 2294.98 FEET
RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLV911TNWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

LEGAL DESCRIPTION:

GOVERNMENT LOTS 5, 7, 10, 12, 14, 18, 19, 21, 24, 25, & 28 THROUGH 37, INCLUSIVE, OF SECTION 18, TOGETHER WITH GOVERNMENT LOT 7 OF SECTION 19, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA.

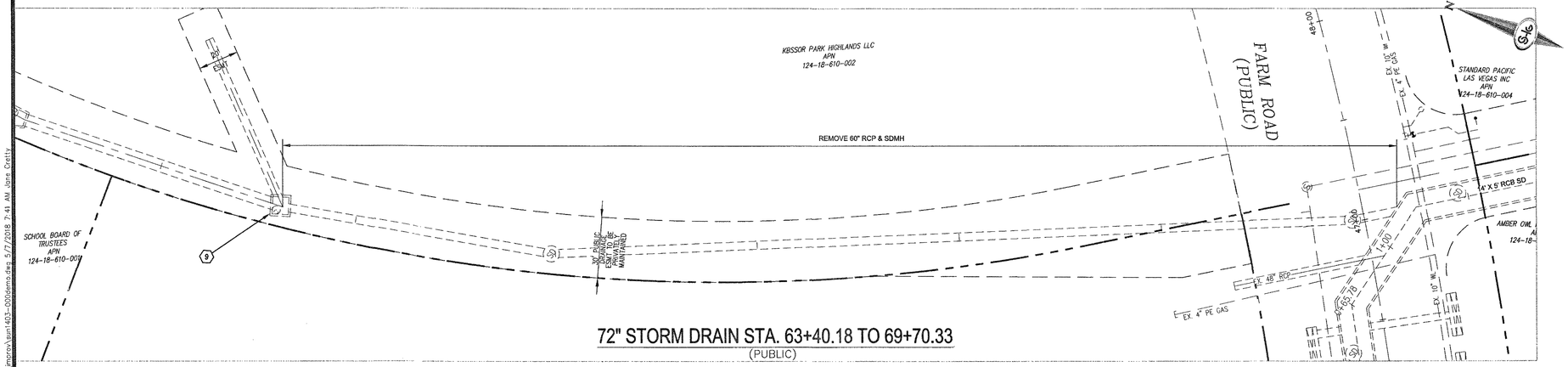
BASIS OF BEARINGS:

SOUTH 87°29'09" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.



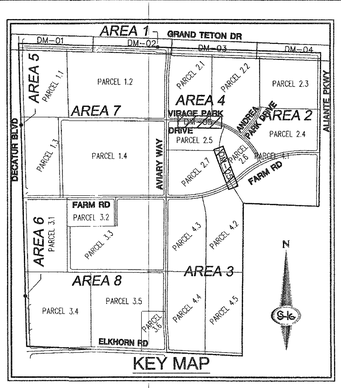
FARM ROAD STA 12+00 TO STA 19+50

(PUBLIC)



72" STORM DRAIN STA. 63+40.18 TO 69+70.33

(PUBLIC)



KEY MAP

30 0 15 30 60

(IN FEET)
1 INCH = 30 FT.

LEGEND

DEMOLISH EXISTING PAVEMENT

DEMOLITION NOTES

1. REMOVE AC & ASSOCIATED IMPROVEMENTS
2. THE SAWCUT LINES AND LIMITS OF AC REMOVAL AND REPLACEMENT SHALL BE DETERMINED BY A CNLV CONSTRUCTION SERVICES INSPECTOR.
3. EXISTING SIGNAGE TO BE REMOVED, PER PLAN, PROTECT FOR REUSE
4. LIMITS OF PAVEMENT DEMOLITION
5. EXISTING UTILITIES, PROTECT IN PLACE
6. EXISTING FENCE, PROTECT IN PLACE
7. EXISTING FENCE TO BE REMOVED AND REPLACED
8. EXISTING DROP INLET TO BE REMOVED
9. EXISTING MANHOLE/JUNCTION BOX TO BE REMOVED

SEE SHEET C-2 FOR ABBREVIATIONS AND QUANTITIES

NOTICE TO CONTRACTOR

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VALVE ABANDONMENT NOTE

ALL VALVES TO BE ABANDONED SHALL BE ABANDONED IN THE CLOSED POSITION UNLESS SHOWN OTHERWISE BY REMOVING A MINIMUM OF THE TOP TWENTY-FOUR (24) INCHES OF THE VALVE BOX AND THEN FILLING THE BOTTOM OF THE BOX WITH A MINIMUM OF EIGHT (8) INCHES OF SAND OR TYPE II AGGREGATE BASE, THE REMAINING PORTION OF THE VALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF AT LEAST TWO THOUSAND (2,000) PSI.

LATERAL ABANDONMENT NOTE

THE LATERAL MUST BE CUT WITHIN THREE (3) FEET OF THE ABANDONED VALVE, OR AS SHOWN ON PLANS, AND CAPPED. THE CONTRACTOR SHALL CUT THE EXISTING PIPE WHERE SHOWN ON THE DRAWING AND INSTALL A CAP COMPLETE WITH THE THRUST BLOCK. WHERE A JOINT OR COUPLING IN THE EXISTING PIPE IS UNCOVERED AT THE CUT AND CAP LOCATIONS. THE INSTALLATION OF A PLUG MAY BE PERMITTED WITH AGENCY APPROVAL. A CONCRETE THRUST BLOCK SHALL BE INSTALLED AT ALL CAP OR PLUG LOCATIONS IN ACCORDANCE WITH THE PROVISIONS OF UDACS PLATE #5.

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

NO.	DESCRIPTION	DATE	BY	APP.	APP. DATE

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

S18 T19S R61E

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
DEMO PLANS - RFC STA 25+00 TO STA 50+00

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000

PROFESSIONAL ENGINEER - STATE OF NEVADA
DERICK D.J. YORO
Exp: 06/30/2020
CIVIL
No. 16396
5/7/18

DM-05
SHEET 14 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

CLV 731-98

PRO.#:124070 AGREE.#115666 QS:124-07-SW/NE,124-18-NW/NE

J:\sun1403-000 grand teton regional flood control facility\dwg\engrcnv\sun1403-000demo.dwg 5/7/2018 7:41 AM Jane Crotty

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.

Call before you do UnderGround
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS
AND
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811
OR
1-800-227-2600
AND
CLARK COUNTY TRAFFIC OPERATIONS
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CCRFCD NOTE

PER CITY OF LAS VEGAS, EXTENSION OF FUTURE STORM DRAIN FACILITIES WEST OF DECATUR BOULEVARD NECESSARY TO COLLECT AND CONVEY REGIONAL STORM FLOWS SHALL BE INCLUDED ON THE CCRFCD MPU AMENDMENT AS CATEGORY A FACILITIES

CNLV UTILITY NOTE:

PRIOR TO INSTALLATION OF ANY SUBGRADE STREET IMPROVEMENTS, ALL REQUIRED UNDERGROUND UTILITIES (I.E. TELEPHONE, POWER, WATER, ETC.) LOCATED WITHIN PUBLIC RIGHTS-OF WAY, SHALL BE EXTENDED A MINIMUM OF TEN (10) FEET BEYOND THE PROJECT BOUNDARY.

CNLV PAVEMENT NOTE:

THE SAWCUT LIMITS OF AC REMOVAL AND REPLACEMENT SHALL BE DETERMINED BY A CNLV CONSTRUCTION SERVICES INSPECTOR; AC SHALL BE REPLACED BY MECHANICAL MEANS. TRENCH BACKFILL MATERIAL SHALL BE SAMPLED, DESIGNED, TESTED AND CERTIFIED PER CNLV TRENCH BACK FILL POLICY.

NOTE:

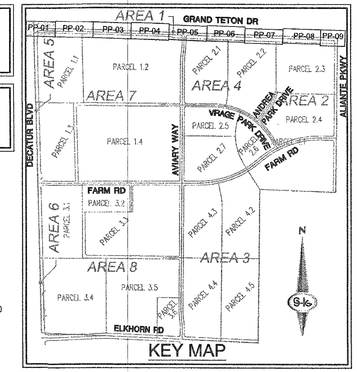
THE GRAND TETON ℄ GRADES AND ℄ OF DRIVEWAYS ENTERING GRAND TETON ARE BASED ON AS-BUILT POINTS SHOT BY CARTER BURGESS SURVEY IN 2006.

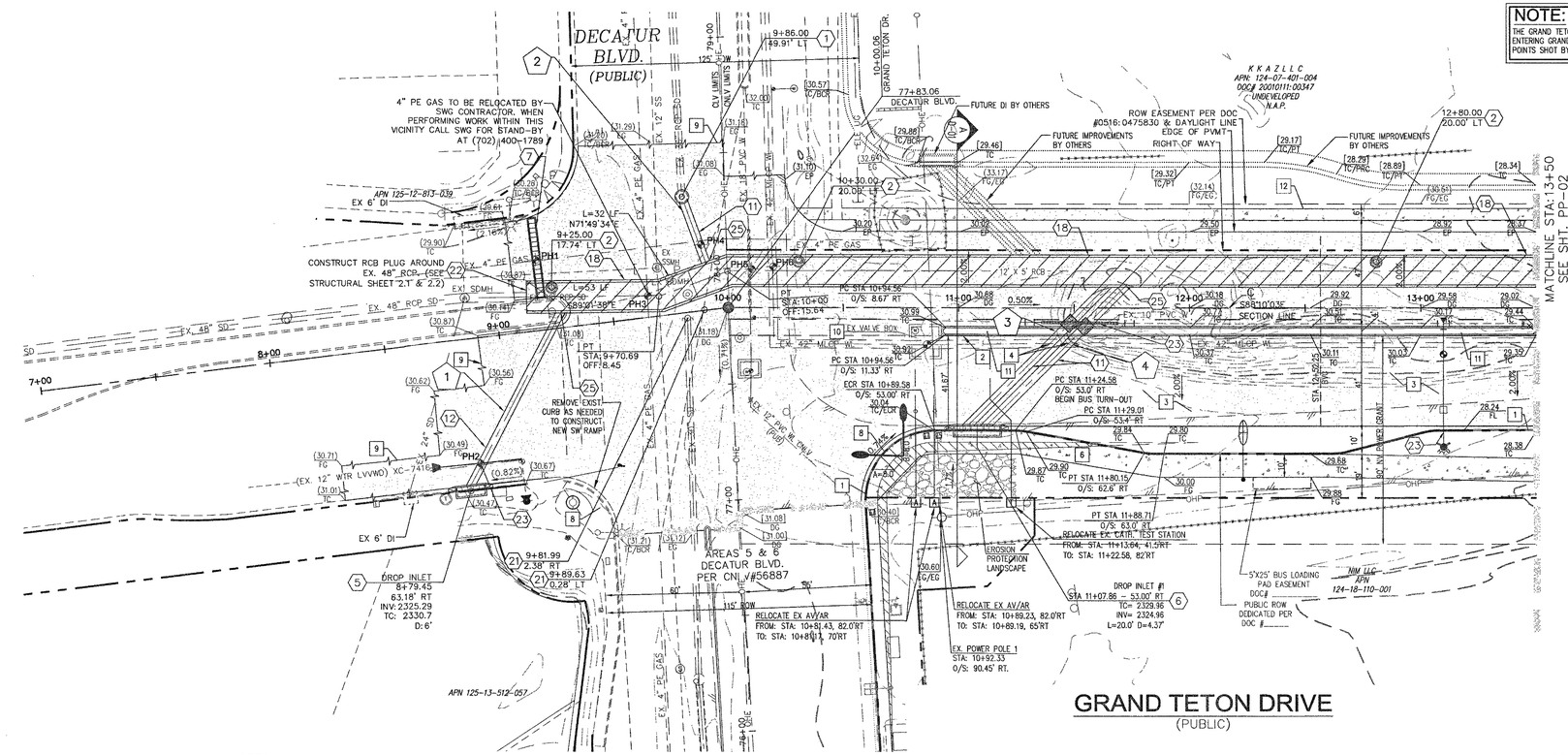
N.P.C. NOTE:

POLE KEYS ALONG GRAND TETON; SEE NEVADA POWER CO. DRAWING NUMBER 442:230.21KEYS, PROJ. ID. TL568TRPKH FOR DETAILS

GAS NOTE:

CALL SOUTHWEST GAS AT (702) 400-1789 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES





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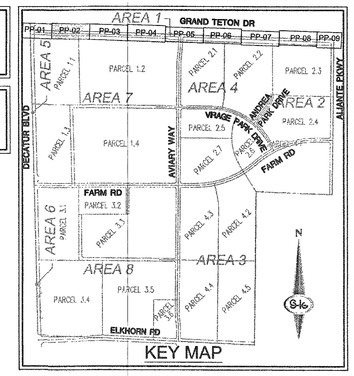

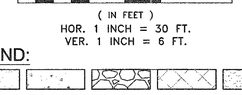

LEGEND:

PROP. ASPHALT | PROP. SIDEWALK | PROP. RIP-RAP | NO TREES OR DEEP ROOTED PLANTS | PROP. GROUTED RIP-RAP

CONSTRUCTION NOTES:

– ALL CONSTRUCTION TO BE DONE IN ACCORDANCE WITH "CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS (CCAUSD)" LATEST EDITION AND/OR REGULATING ENTITY HAVING JURISDICTION.
– NOT ALL NOTES USED ON THIS SHEET –

1. CONSTRUCT "L" TYPE CURB PER CCAUSD No. 216.
2. CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD No. 219.
3. INSTALL AC PAVEMENT PER STREET SECTIONS ON SHEET D-01.
4. 6" OF COVER OVER WATER MAIN SHALL BE MAINTAINED AT ALL TIME. CONTRACTOR SHALL USE EXTREME CAUTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY DAMAGES TO WATER LINE REGARDLESS OF METHODS UTILIZED.
5. ADJUST TO FINISH GRADE WITH GRADE RINGS
6. CONSTRUCT CONC. SIDEWALK PER CCAUSD No. 234 (OR 234.3PER PLAN).
7. CONSTRUCT TYPICAL BUS TURNOUT PER CCAUSD No. 234.1, 234.4 & LOADING PAD PER CCAUSD No. 234.2
8. CONSTRUCT CASE II SIDEWALK RAMP W/ TRUNCATED DOMES FOR 2' MIN. PER CCAUSD No. 235. A & B=8.0' UNLESS NOTED OTHERWISE ON PLANS. THE SAWCUT LINES AND LIMITS OF AC REMOVAL AND REPLACEMENT SHALL BE DETERMINED BY A CNLV CONSTRUCTION SERVICES INSPECTOR.
9. ADJUST WTR MANHOLE TO GRADE PER DETAIL 4 ON SHEET D-03
10. INSTALL STAMPED CONCRETE. SOLOMON COLOR: BAMBOO #288 AND STAMP PATTERN NEW BRICK HERRINGBONE OR APPROVED EQUAL
11. CONSTRUCT TEMPORARY AC SIDEWALK

STORM DRAIN NOTES:

1. CONSTRUCT 60" TYPE III MANHOLE (CCAUSD STD. DWG. NO. 406.1)
2. CONSTRUCT RCB MANHOLE (SEE STRUCTURAL DETAIL 7 SHEET S0.2)
3. CONSTRUCT RCA MANHOLE (SEE STRUCTURAL DETAIL 2 SHEET S3.2)
4. CONSTRUCT SPECIAL MANHOLE (PER STRUCTURAL PLANS)
5. CONSTRUCT 12.5-FOOT TYPE "DM" DROP INLET (CCAUSD STD. DWG. NO. 412.1& 421)
6. CONSTRUCT TYPE "CMZ" DROP INLET LENGTH PER CALLOUT (CCAUSD STD. DWG. NO. 412.1& 421)
7. CONSTRUCT TRENCH DRAIN (L=34') (17 NEENAH R-4939-LX TYPE C HEAVY DUTY BOLT DOWN GRATES) (SEE STRUCTURAL DETAILS ON S2.1 & S2.2)
8. INSTALL 18" RCP (CCAUSD STD. DWG. NO. 503.2)
9. INSTALL 24" RCP (CCAUSD STD. DWG. NO. 503.2)
10. CONSTRUCT 14' X 7' RCA (SEE STRUCTURAL DETAILS)
11. INSTALL 36" RCP (CCAUSD STD. DWG. NO. 503.2)
12. INSTALL 42" RCP (CCAUSD STD. DWG. NO. 503.2)
13. INSTALL 48" RCP (CCAUSD STD. DWG. NO. 503.2)
14. INSTALL 54" RCP (CCAUSD STD. DWG. NO. 503.2)
15. INSTALL 60" RCP (CCAUSD STD. DWG. NO. 503.2)
16. INSTALL 66" RCP (CCAUSD STD. DWG. NO. 503.2)
17. INSTALL 72" RCP (CCAUSD STD. DWG. NO. 503.2)
18. CONSTRUCT 12' X 5' PRECAST RCB
19. CONSTRUCT 6' X 5' PRECAST RCB
20. CONSTRUCT 12' X 7' RCA (SEE STRUCTURAL DETAILS)
21. CONSTRUCT BRICK AND MORTAR PLUG (SEE DETAIL 7, SHEET D-05)
22. CONSTRUCT RCB PLUG (NDOT STD. PLAN B-20.1.7)
23. INSTALL WATER/SEWER LINE PER SHEETS PP-UTL-01 THROUGH PP-UTL-09
24. ADJUST STORM DRAIN MANHOLE TO PROPOSED FINISH GRADE PER CCAUSD STANDARDS
25. REFER TO STRUCTURAL PLANS FOR CONNECTION TO RCA/RCB, SHEETS S1.1 THROUGH S1.6
26. CONSTRUCT 4' TYPE "C" DI PER CCAUSD NO 421
27. INSTALL PULL BOX PER DETAIL SHEET D-08
28. INSTALL NDOT TYPE 4MANHOLE, SEE SHEET D-02
29. INSTALL 48" TYPE II MH PER CCAUSD DWG NO. 406
30. PROTECT EXISTING DI WITH BOARDS, STRAW BALE, ETC.

LATERAL RUN PROFILE INDEX	
LATERAL RUN NO	SEE SHEET
1 THRU 8	LAT-SD-01
9 THRU 16	LAT-SD-02
17 THRU 22	LAT-SD-03
23 THRU 28	LAT-W-01
29 THRU 33	LAT-W-02

GEOTECHNICAL NOTE:

PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL, INC., PROJECT No: E-06-022, DATED: APRIL 26, 2006, REVISED: JULY 14, 2006
UPDATE PREPARED BY: NOVA GEOTECHNICAL & INSPECTION SERVICES LETTER DATED: AUGUST 29, 2016.

GENERAL GRADING AND DRAINAGE NOTES:

1. PURSUANT TO CITY OF NORTH LAS VEGAS ORDINANCE NUMBER 1172, THE CONTRACTOR IS REQUIRED TO SECURE A GRADING PERMIT PRIOR TO COMMENCING WORK.
2. THE CONTRACTOR SHALL SECURE A PERMIT FOR ANY OFF-SITE CONSTRUCTION.
3. THE CONTRACTORS OPERATIONS SHALL NOT TRESPASS BEYOND THE PROJECT PROPERTY LINES UNLESS A PERMIT OR WRITTEN AUTHORIZATION HAS BEEN OBTAINED FROM THE PROPERTY OWNER(S) INVOLVED. COPIES OF SUCH WRITTEN AUTHORIZATION SHALL BE FURNISHED TO THE CITY OF NORTH LAS VEGAS' REPRESENTATIVE PRIOR TO START OF CONSTRUCTION.
4. THE CITY OF NORTH LAS VEGAS CONSTRUCTION SERVICES SHALL BE NOTIFIED ONE (1) WORKING DAY BEFORE ANY ON-SITE CONSTRUCTION WORK BEGINS.
5. AN APPROVED GRADING AND DRAINAGE PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THE APPROVED PLAN WILL REQUIRE SUBMITTAL OF A FORMAL REVISED PLAN FOR REVIEW AND APPROVAL.
6. ALL CONSTRUCTION SURVEY CONTROL SHALL BE DONE BY A LICENSED PROFESSIONAL LAND SURVEYOR IN ACCORDANCE WITH APPLICABLE STATUTES AND CODES. THE CONTRACTOR SHALL PROVIDE COMPETENT RESOURCES TO ASSURE BUILDING PAD AND BUILDING FLOOR ELEVATIONS CONFORM TO THOSE SHOWN ON THE CONSTRUCTION DRAWINGS. FURTHERMORE, THE CONTRACTOR SHALL PROVIDE THE CITY OF NORTH LAS VEGAS BUILDING DEPARTMENT WITH:
   A. CERTIFICATION OF "BUILDING FLOOR ELEVATIONS" IN CRITICAL DRAINAGE AREAS.
   B. CERTIFICATES OF "BUILDING PAD ELEVATIONS" IN NONCRITICAL AREAS.
7. THE CONTRACTOR SHALL CERTIFY TO THE CITY OF NORTH LAS VEGAS CONSTRUCTION SERVICES DIVISION THAT ALL FILLS, FOUNDATIONS AND SUBGRADES MEET THE MINIMUM COMPACTION REQUIREMENTS. CERTIFICATION SHALL BE MADE PRIOR TO POURING CONCRETE.
8. ALL STATIONS & OFFSETS REFERENCE GRAND TETON CENTERLINE UNLESS OTHERWISE NOTED.
9. FOR LIMITS OF DEMOLITION SEE DM-1 THROUGH DM-5

POTHOLE TABLE PER AZTEC PROJECT NUMBER NVSUE1614					
NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
PH7	10" PVC W	4.10			
PH8	4" PE GAS	3.60			
PH9	10" PVC W	3.50			

CNLV DEVELOPMENT AND FLOOD CONTROL DIVISION

MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM DATE:

GRADING PLAN CERTIFICATION

DERICK D.J. YORO PE #: 16396 DATE: 5/7/18

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF NORTH LAS VEGAS.

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

NO.	DESCRIPTION	DATE	BY	APP.	APP. DATE

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

S-18 T-19S R-61E

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
ROADWAY PLAN & PROFILE STA 13+50 TO 20+00

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000

DERICK D.J. YORO — EXPIRES: 06/30/2020 — CIVIL — No. 16396 — STATE OF NEVADA — PROFESSIONAL ENGINEER — 5/7/18

PP-02
SHEET 16 OF 125

CLV 731-98

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ.#:124070 AGREE.#115666 QS:124-07-SW/NE,124-18-NW/NE

i:\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403-000prp-road.dwg 5/7/2018 7:45 AM Jane Cratty

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NLVS117NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
699.511 METERS, 2294.98 FEET
RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLVS117NWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

LEGAL DESCRIPTION:

GOVERNMENT LOTS 5, 7, 10, 12, 14, 16, 19, 21, 24, 25, & 28 THROUGH 37, INCLUSIVE, OF SECTION 18, TOGETHER WITH GOVERNMENT LOT 7 OF SECTION 19, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA.

BASIS OF BEARINGS:

SOUTH 87°29'38" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

CNLV UTILITY NOTE:

PRIOR TO INSTALLATION OF ANY SUBGRADE STREET IMPROVEMENTS, ALL REQUIRED UNDERGROUND UTILITIES (I.E. TELEPHONE, POWER, WATER, ETC.) LOCATED WITHIN PUBLIC RIGHTS-OF WAY, SHALL BE EXTENDED A MINIMUM OF TEN (10) FEET BEYOND THE PROJECT BOUNDARY.

CNLV PAVEMENT NOTE:

THE SAWCUT LIMITS OF AC REMOVAL AND REPLACEMENT SHALL BE DETERMINED BY A CNLV CONSTRUCTION SERVICES INSPECTOR; AC SHALL BE REPLACED BY MECHANICAL MEANS. TRENCH BACKFILL MATERIAL SHALL BE SAMPLED, DESIGNED, TESTED AND CERTIFIED PER CNLV TRENCH BACK FILL POLICY.

N.P.C. NOTE:

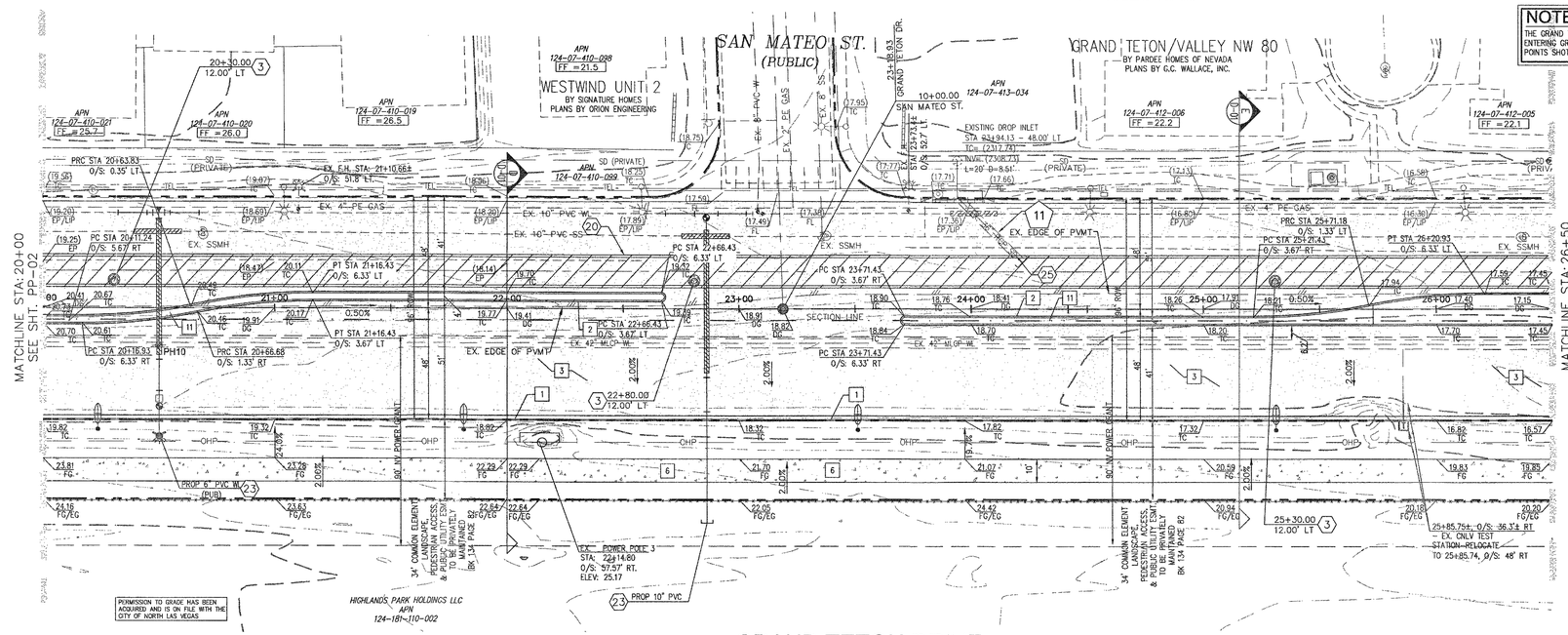
POLE KEYS ALONG GRAND TETON; SEE NEVADA POWER CO. DRAWING NUMBER 442.230.2KEYS, PROJ. ID. TLS881TRPKH FOR DETAILS

GAS NOTE:

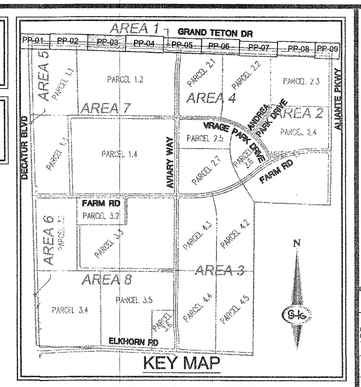
CALL SOUTHWEST GAS AT (702) 400-1789 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES

NOTE:

THE GRAND TETON Ⓒ GRADES AND Ⓒ OF DRIVEWAYS ENTERING GRAND TETON ARE BASED ON AS-BUILT POINTS SHOT BY CARTER BURGESS SURVEY IN 2006.



GRAND TETON DRIVE
(PUBLIC)



30 0 15 30 60
(IN FEET)
HOR. 1 INCH = 30 FT.
VER. 1 INCH = 6 FT.

LEGEND:

PROP. ASPHALT | PROP. SIDEWALK | PROP. RIP-RAP | NO TREES OR DEEP ROOTED PLANTS | PROP. GROUTED RIP-RAP

CONSTRUCTION NOTES:

– ALL CONSTRUCTION TO BE DONE IN ACCORDANCE WITH "CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS (CCAUSD)" LATEST EDITION AND/OR REGULATING ENTITY HAVING JURISDICTION.
– NOT ALL NOTES USED ON THIS SHEET –

1. CONSTRUCT "L" TYPE CURB PER CCAUSD No. 216.
2. CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD No. 219.
3. INSTALL AC PAVEMENT PER STREET SECTIONS ON SHEET D-01.
4. 2' OF COVER OVER WATER MAIN SHALL BE MAINTAINED AT ALL TIME. CONTRACTOR SHALL USE EXTREME CAUTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY DAMAGES TO WATER LINE REGARDLESS OF METHODS UTILIZED.
5. ADJUST TO FINISH GRADE WITH GRADE RINGS
6. CONSTRUCT CONC. SIDEWALK PER CCAUSD No. 234 (OR 234.3PER PLAN).
7. CONSTRUCT TYPICAL BUS TURNOUT PER CCAUSD No. 234.1, 234.4 & LOADING PAD PER CCAUSD No. 234.2.
8. CONSTRUCT CASE II SIDEWALK RAMP W/ TRUNCATED DOMES FOR 2' MIN. PER CCAUSD No. 235. A & B=8.0' UNLESS NOTED OTHERWISE ON PLANS.
9. THE SAWCUT LINES AND LIMITS OF AC REMOVAL AND REPLACEMENT SHALL BE DETERMINED BY A CNLV CONSTRUCTION SERVICES INSPECTOR.
10. ADJUST WTR MANHOLE TO GRADE PER DETAIL 4 ON SHEET D-03
11. INSTALL STAMPED CONCRETE, SOLOMON COLOR: BAMBOO #288 AND STAMP PATTERN NEW BRICK HERRINGBONE OR APPROVED EQUAL
12. CONSTRUCT TEMPORARY AC SIDEWALK

STORM DRAIN NOTES:

1. CONSTRUCT 60" TYPE III MANHOLE (CCAUSD STD. DWG. NO. 406.1)
2. CONSTRUCT RCB MANHOLE (SEE STRUCTURAL DETAIL 7 SHEET S0.2)
3. CONSTRUCT RCA MANHOLE (SEE STRUCTURAL DETAIL 2 SHEET S3.2)
4. CONSTRUCT SPECIAL MANHOLE (PER STRUCTURAL PLANS)
5. CONSTRUCT 12.5-FOOT TYPE "DM" DROP INLET (CCAUSD STD. DWG. NO. 412.1& 421)
6. CONSTRUCT TYPE "CM2" DROP INLET LENGTH PER CALLOUT (CCAUSD STD. DWG. NO. 412.1& 421)
7. CONSTRUCT TRENCH DRAIN (L=34') (17 NEENAH R-4999-LX TYPE C HEAVY DUTY BOLT DOWN GRATES) (SEE STRUCTURAL DETAILS ON S2.1 & S2.2)
8. INSTALL 18" RCP (CCAUSD STD. DWG. NO. 503.2)
9. INSTALL 24" RCP (CCAUSD STD. DWG. NO. 503.2)
10. CONSTRUCT 14' X 7' RCA (SEE STRUCTURAL DETAILS)
11. INSTALL 36" RCP (CCAUSD STD. DWG. NO. 503.2)
12. INSTALL 42" RCP (CCAUSD STD. DWG. NO. 503.2)
13. INSTALL 48" RCP (CCAUSD STD. DWG. NO. 503.2)
14. INSTALL 54" RCP (CCAUSD STD. DWG. NO. 503.2)
15. INSTALL 60" RCP (CCAUSD STD. DWG. NO. 503.2)
16. INSTALL 66" RCP (CCAUSD STD. DWG. NO. 503.2)
17. INSTALL 72" RCP (CCAUSD STD. DWG. NO. 503.2)
18. CONSTRUCT 12' X 5' PRECAST RCB
19. CONSTRUCT 6' X 5' PRECAST RCB
20. CONSTRUCT 12' X 7' RCA (SEE STRUCTURAL DETAILS)
21. CONSTRUCT BRICK AND MORTAR PLUG (SEE DETAIL 7, SHEET D-05)
22. CONSTRUCT RCB PLUG (NDOT STD. PLAN B-20.1.7)
23. INSTALL WATER/SEWER LINE PER SHEETS PP-UTL-01 THROUGH PP-UTL-09
24. ADJUST STORM DRAIN MANHOLE TO PROPOSED FINISH GRADE PER CCAUSD STANDARDS
25. REFER TO STRUCTURAL PLANS FOR CONNECTION TO RCA/RCB, SHEETS S1.1 THROUGH S1.6
26. CONSTRUCT 4' TYPE "C" DI PER CCAUSD NO 421
27. INSTALL PULL BOX PER DETAIL SHEET D-08
28. INSTALL NDOT TYPE 4MANHOLE, SEE SHEET D-02
29. INSTALL 48" TYPE II MH PER CCAUSD DWG NO. 406
30. PROTECT EXISTING DI WITH BOARDS, STRAW BALE, ETC.

POTHOLE TABLE
PER AZTEC PROJECT NUMBER NVSUE1614

NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
PH10	42" MLCP W	4.70			

GEOTECHNICAL NOTE:

PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL, INC., PROJECT No: E-06-022, DATED: APRIL 26, 2006, REVISED: JULY 14, 2006
UPDATE PREPARED BY: NOVA GEOTECHNICAL & INSPECTION SERVICES LETTER DATED: AUGUST 29, 2016.

GENERAL GRADING AND DRAINAGE NOTES:

1. PURSUANT TO CITY OF NORTH LAS VEGAS ORDINANCE NUMBER 1172, THE CONTRACTOR IS REQUIRED TO SECURE A GRADING PERMIT PRIOR TO COMMENCING WORK.
2. THE CONTRACTOR SHALL SECURE A PERMIT FOR ANY OFF-SITE CONSTRUCTION.
3. THE CONTRACTORS OPERATIONS SHALL NOT TRESPASS BEYOND THE PROJECT PROPERTY LINES UNLESS A PERMIT OR WRITTEN AUTHORIZATION HAS BEEN OBTAINED FROM THE PROPERTY OWNER(S) INVOLVED. COPIES OF SUCH WRITTEN AUTHORIZATION SHALL BE FURNISHED TO THE CITY OF NORTH LAS VEGAS' REPRESENTATIVE PRIOR TO START OF CONSTRUCTION.
4. THE CITY OF NORTH LAS VEGAS CONSTRUCTION SERVICES SHALL BE NOTIFIED ONE (1) WORKING DAY BEFORE ANY ON-SITE CONSTRUCTION WORK BEGINS.
5. AN APPROVED GRADING AND DRAINAGE PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THE APPROVED PLAN WILL REQUIRE SUBMITTAL OF A FORMAL REVISED PLAN FOR REVIEW AND APPROVAL.
6. ALL CONSTRUCTION SURVEY CONTROL SHALL BE DONE BY A LICENSED PROFESSIONAL LAND SURVEYOR IN ACCORDANCE WITH APPLICABLE STATUTES AND CODES. THE CONTRACTOR SHALL PROVIDE COMPETENT RESOURCES TO ASSURE BUILDING PAD AND BUILDING FLOOR ELEVATIONS CONFORM TO THOSE SHOWN ON THE CONSTRUCTION DRAWINGS. FURTHERMORE, THE CONTRACTOR SHALL PROVIDE THE CITY OF NORTH LAS VEGAS BUILDING DEPARTMENT WITH:
   A. CERTIFICATION OF "BUILDING FLOOR ELEVATIONS" IN CRITICAL DRAINAGE AREAS.
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7. THE CONTRACTOR SHALL CERTIFY TO THE CITY OF NORTH LAS VEGAS CONSTRUCTION SERVICES DIVISION THAT ALL FILLS, FOUNDATIONS AND SUBGRADES MEET THE MINIMUM COMPACTION REQUIREMENTS. CERTIFICATION SHALL BE MADE PRIOR TO POURING CONCRETE.
8. ALL STATIONS & OFFSETS REFERENCE GRAND TETON CENTERLINE UNLESS OTHERWISE NOTED.
9. FOR LIMITS OF DEMOLITION SEE DM-1 THROUGH DM-5

LATERAL RUN PROFILE INDEX

LATERAL RUN NO	SEE SHEET
1 THRU 8	LAT-SD-01
9 THRU 16	LAT-SD-02
17 THRU 22	LAT-SD-03
23 THRU 28	LAT-W-01
29 THRU 33	LAT-W-02

CNLV DEVELOPMENT AND FLOOD CONTROL DIVISION
MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM DATE:

GRADING PLAN CERTIFICATION
DERICK D.J. YORO PE #: 16396 DATE: 5/7/18
I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF NORTH LAS VEGAS.

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP.	APP. DATE

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.
VALLEY VISTA
S 18
T 19S
R 61E

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
ROADWAY PLAN & PROFILE STA 20+00 TO 26+50

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000

DERICK D.J. YORO Exp: 06/30/2020 CIVIL No. 16396 STATE OF NEVADA 5/7/18

PP-03
SHEET 17 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ#:124070 AGREE:#115666 QS:124-07-SWINE,124-18-NWINE

J:\sun1403-000 grand teton regional flood control facility\dwg\merlin\sun1403-000prp-roads.dwg 5/7/2018 7:47 AM Jaime Crotty

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DO OVERHEAD

1-702-227-2929

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.

Call before you do UnderGround

1-702-455-6000

CLARK COUNTY TRAFFIC OPERATIONS AND

1-702-432-5300

FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.

Call 811 OR

1-800-227-2600 AND

CLARK COUNTY TRAFFIC OPERATIONS

1-702-455-6000

DISCLAIMER:

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND OR OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION. CONTRACTOR TO NOTIFY ENGINEER OF ANY CHANGES OR DISCREPANCIES.

BENCHMARK:

NLV9117NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
699.511 METERS, 2294.98 FEET
RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLV9117NWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

LEGAL DESCRIPTION:

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BASIS OF BEARINGS:

SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

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NOTE:

THE GRAND TETON ℄ GRADES AND ℄ OF DRIVEWAYS ENTERING GRAND TETON ARE BASED ON AS-BUILT POINTS SHOT BY CARTER BURGESS SURVEY IN 2006.

N.P.C. NOTE:

POLE KEYS ALONG GRAND TETON; SEE NEVADA POWER CO. DRAWING NUMBER 442.230.2IKEYS, PROJ. ID. TL588TRPKH FOR DETAILS

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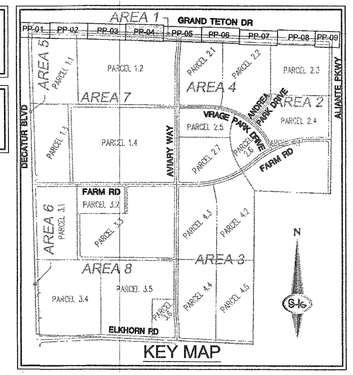

30 0 15 30 60

(IN FEET)

HOR. 1 INCH = 30 FT.

VER. 1 INCH = 6 FT.

LEGEND:

PROP. ASPHALT | PROP. SIDEWALK | PROP. RIP-RAP | NO TREES OR DEEP ROOTED PLANTS | PROP. GROUTED RIP-RAP

CONSTRUCTION NOTES:

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– NOT ALL NOTES USED ON THIS SHEET –

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2. CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD No. 219.
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POTHOLE TABLE

PER AZTEC PROJECT NUMBER NVSUE1614

NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
PH11	42" MLCP W	4.90			

GEOTECHNICAL NOTE:

PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL, INC., PROJECT No: E-06-022, DATED: APRIL 26, 2006, REVISED: JULY 14, 2006
UPDATE PREPARED BY: NOVA GEOTECHNICAL & INSPECTION SERVICES LETTER DATED: AUGUST 29, 2016.

GENERAL GRADING AND DRAINAGE NOTES:

1. PURSUANT TO CITY OF NORTH LAS VEGAS ORDINANCE NUMBER 1172, THE CONTRACTOR IS REQUIRED TO SECURE A GRADING PERMIT PRIOR TO COMMENCING WORK.
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3. THE CONTRACTORS OPERATIONS SHALL NOT TRESPASS BEYOND THE PROJECT PROPERTY LINES UNLESS A PERMIT OR WRITTEN AUTHORIZATION HAS BEEN OBTAINED FROM THE PROPERTY OWNER(S) INVOLVED. COPIES OF SUCH WRITTEN AUTHORIZATION SHALL BE FURNISHED TO THE CITY OF NORTH LAS VEGAS' REPRESENTATIVE PRIOR TO START OF CONSTRUCTION.
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7. THE CONTRACTOR SHALL CERTIFY TO THE CITY OF NORTH LAS VEGAS CONSTRUCTION SERVICES DIVISION THAT ALL FILLS, FOUNDATIONS AND SUBGRADES MEET THE MINIMUM COMPACTION REQUIREMENTS. CERTIFICATION SHALL BE MADE PRIOR TO POURING CONCRETE.
8. ALL STATIONS & OFFSETS REFERENCE GRAND TETON CENTERLINE UNLESS OTHERWISE NOTED.
9. FOR LIMITS OF DEMOLITION SEE DM-1 THROUGH DM-5

LATERAL RUN PROFILE INDEX

LATERAL RUN NO	SEE SHEET
1 THRU 8	LAT-SD-01
9 THRU 16	LAT-SD-02
17 THRU 22	LAT-SD-03
23 THRU 28	LAT-W-01
29 THRU 33	LAT-W-02

CNLV DEVELOPMENT AND FLOOD CONTROL DIVISION

MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM DATE:

GRADING PLAN CERTIFICATION

DERRICK D.J. YORO PE #: 16396 DATE: 5/7/18

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF NORTH LAS VEGAS.

CLV 731-98

MATCHLINE STA: 26+50 SEE SHT. PP-03

MATCHLINE STA: 33+00 SEE SHT. PP-05

GRAND TETON DRIVE (PUBLIC)

MEADOW GATE ST. (PUBLIC)

EX. EDGE OF PVMT

EX. 10" PVC WL

EX. 4" PE GAS

EX. 10" PVC SS

EX. 42" MLCP W

EX. 36" RCP CONNECT TO ARCH

EX. WL MH STA: 26+85.75

PH11

APN 124-07-412-059 FF = 19.8

APN 124-07-412-058 FF = 19.3

APN 124-07-412-061 FF = 20.6

APN 124-07-412-060 FF = 20.2

APN 124-07-412-057 FF = 18.5

APN 124-07-412-056 FF = 18.3

APN 124-07-412-055 FF = 18.0

APN 124-07-412-054 FF = 17.6

APN 124-07-412-053 FF = 17.3

EXISTING DROP INLET STA 29+05.31 — 48.00' RT TC= (2315.19) INV= (2305.92) L=17.5' D=8.77'

10+00.00 MEADOW GATE ST

29+78.04 GRAND TETON DR

S88°19'03"E

27+00 28+00 29+00 30+00 31+00 32+00 33+00

0.50% 2.00%

27+80.00 12.00' RT

30+30.00 12.00' LT

32+80.00 12.00' LT

PC STA 31+70.55 O/S: 6.33' RT

PRC STA 32+20.39 O/S: 1.33' RT

PT STA 32+70.05 O/S: 3.67' LT

PROPERTY LINE

EX. POWER POLE 4 O/S: 56.14' RT. ELEV: 19.39

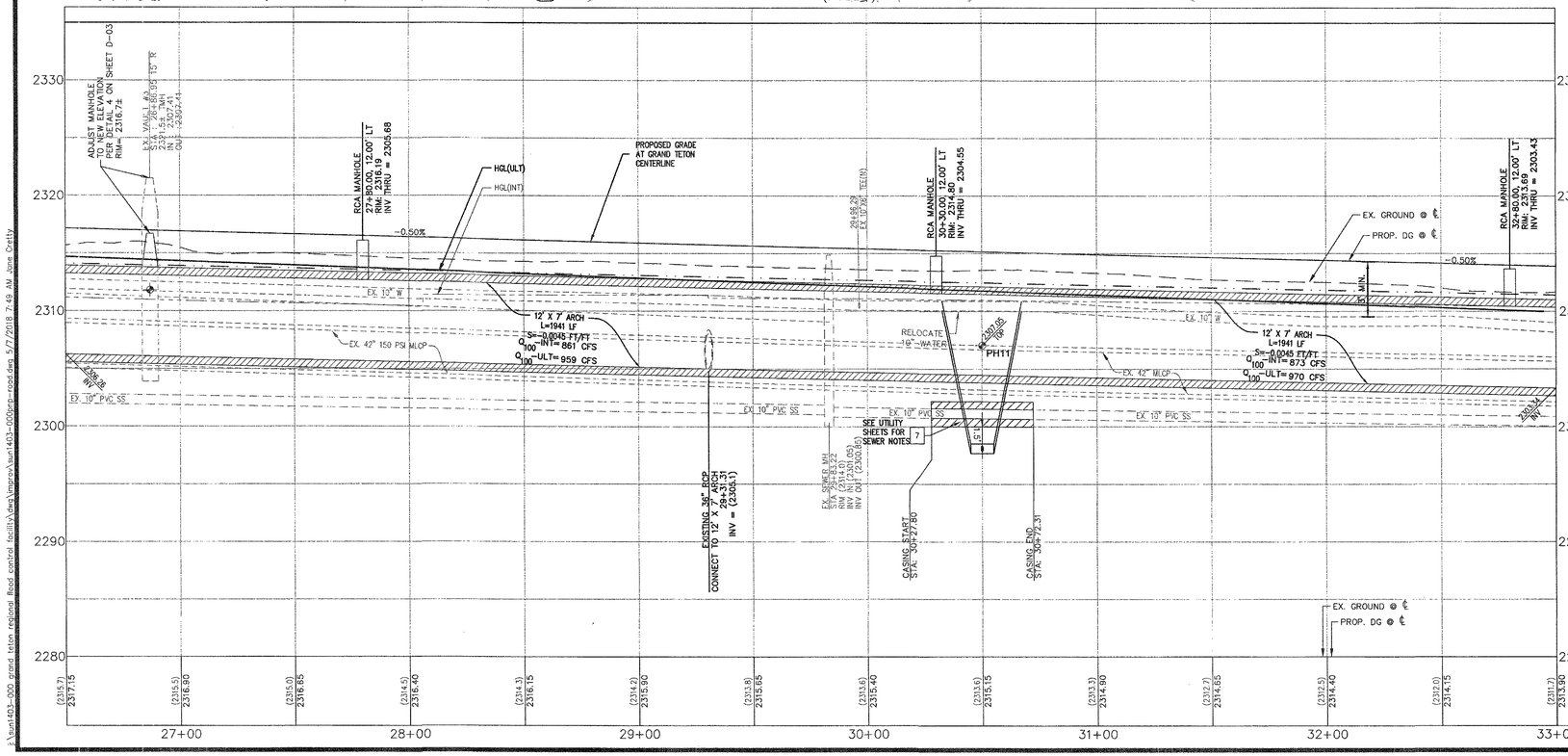
NV POWER GRANT

KISSOR PARK HIGHLANDS LLC APN 124-18-110-005

HIGHLANDS PARK HOLDINGS LLC APN 124-181-110-002

34' COMMON ELEMENT LANDSCAPE, PEDESTRIAN ACCESS & PUBLIC UTILITY EASEMENT TO BE PRIVATELY MAINTAINED BK 104 PAGE 61

PERMISSION TO GRADE HAS BEEN ACQUIRED AND IS ON FILE WITH THE CITY OF NORTH LAS VEGAS



SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 264-5300 FAX (702) 264-5399

NO.	DESCRIPTION	DATE	BY	APP.	APP. DATE

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
ROADWAY PLAN & PROFILE STA 26+50 TO 33+00

S 18 T 19S R 61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO. SUN1403-000

DERRICK D.J. YORO Exp. 06/30/2020 CIVIL No. 16396 STATE OF NEVADA PROFESSIONAL ENGINEER 5/7/18

PP-04
SHEET 18 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ#:124070 AGREE:#115666 QS:124-07-SW/NE,124-18-NW/NE

K:\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403-000prp-roads.dwg 5/7/2018 7:49 AM Jane Crotty

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DO OVERHEAD

1-702-227-2929

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.

Call before you do UnderGround

1-702-455-6000

CLARK COUNTY TRAFFIC OPERATIONS AND FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

1-702-432-5300

Call before you Dig

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.

Call 811 or 1-800-227-2600

AND CLARK COUNTY TRAFFIC OPERATIONS

1-702-455-6000

DISCLAIMER:

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BENCHMARK:

NLVS117NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
699.511 METERS, 2294.98 FEET
RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLVS117NWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

LEGAL DESCRIPTION:

GOVERNMENT LOTS 5, 7, 10, 12, 14, 18, 19, 21, 24, 25, & 28 THROUGH 37, INCLUSIVE, OF SECTION 18, TOGETHER WITH GOVERNMENT LOT 7 OF SECTION 19, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

BASIS OF BEARINGS:

SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

CNLV UTILITY NOTE:

PRIOR TO INSTALLATION OF ANY SUBGRADE STREET IMPROVEMENTS, ALL REQUIRED UNDERGROUND UTILITIES (I.E. TELEPHONE, POWER, WATER, ETC.) LOCATED WITHIN PUBLIC RIGHTS-OF WAY, SHALL BE EXTENDED A MINIMUM OF TEN (10) FEET BEYOND THE PROJECT BOUNDARY.

CNLV PAVEMENT NOTE:

THE SAWCUT LIMITS OF AC REMOVAL AND REPLACEMENT SHALL BE DETERMINED BY A CNLV CONSTRUCTION SERVICES INSPECTOR; AC SHALL BE REPLACED BY MECHANICAL MEANS. TRENCH BACKFILL MATERIAL SHALL BE SAMPLED, DESIGNED, TESTED AND CERTIFIED PER CNLV TRENCH BACK FILL POLICY.

NOTE:

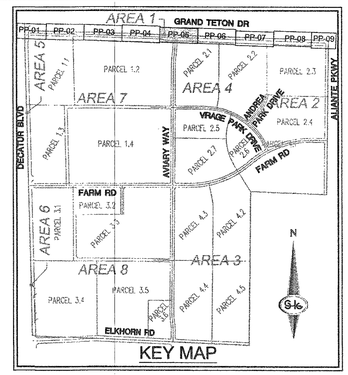
THE GRAND TETON ℄ GRADES AND ℄ OF DRIVEWAYS ENTERING GRAND TETON ARE BASED ON AS-BUILT POINTS SHOT BY CARTER BURGESS SURVEY IN 2006.

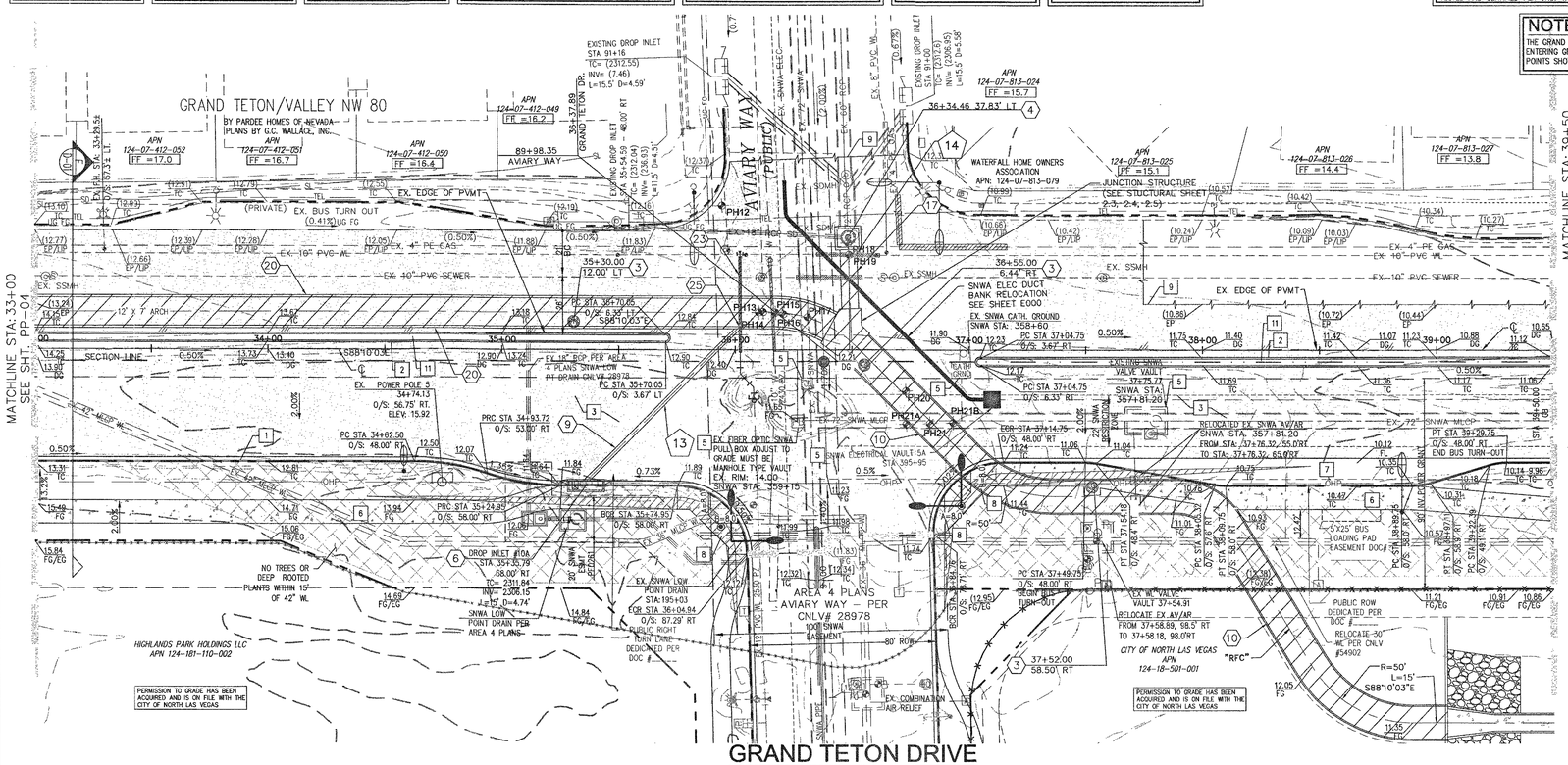
N.P.C. NOTE:

POLE KEYS ALONG GRAND TETON: SEE NEVADA POWER CO. DRAWING NUMBER 442-230.21KEYS, PROJ. ID. TLS881TRPKH FOR DETAILS

GAS NOTE:

CALL SOUTHWEST GAS AT (702) 400-1789 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES




GRAND TETON/VALLEY NW 80
BY PARDEE HOMES OF NEVADA
PLANS BY G.C. WALLACE, INC.
AVIARY WAY (PUBLIC)
GRAND TETON DR
MATCHLINE STA: 33+00 SEE SHT. PP-04
MATCHLINE STA: 39+50 SEE SHT. PP-06
WATERFALL HOME OWNERS ASSOCIATION APN: 124-07-813-079
JUNCTION STRUCTURE (SEE STRUCTURAL SHEET 2.3, 2.4, 2.5)
SNWA ELEC DUCT BANK RELOCATION SEE SHEET E000
EX. SNWA CATH. GROUND SNWA STA: 358+60
EX. EDGE OF PVMT
EX. SSMH
EX. 10" PVC SEWER
EX. 8" PVC SEWER
EX. 4" PE GAS
EX. 10" PVC W
EX. POWER POLE 5
EX. FIBER OPTIC SNWA PULL BOX ADJUST TO GRADE MUST BE MANHOLE TYPE VAULT EX. RIM: 14.00 SNWA STA: 359+15
EX. SNWA VALVE VAULT
SNWA STA: 357+81.29
RELOCATED EX. SNWA AV/AR FROM STA: 37+76.32, 55.0'RT TO STA: 37+76.32, 85.0'RT
EX. SNWA MLCP
EX. SNWA 72" MLCP
EX. SNWA ELECTRICAL VAULT SA STA: 395+95
EX. SNWA ELECTRICAL VAULT SA STA: 395+95
EX. SNWA 72" MLCP
EX. SNWA 72" MLCP
EX. SNWA 72" MLCP

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BENCHMARK:

NLV9117NWS
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699.482 METERS, 2294.88 FEET
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N.P.C. NOTE:

POLE KEYS ALONG GRAND TETON; SEE NEVADA POWER CO. DRAWING NUMBER 442.230.2IKEYS, PROJ. ID. 1L588TRPKH FOR DETAILS

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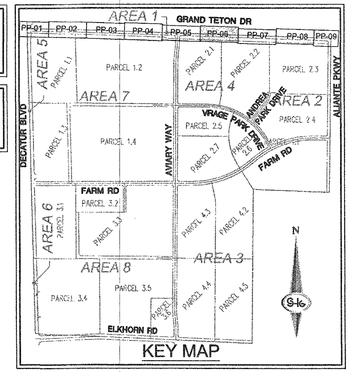

(IN FEET)
HOR. 1 INCH = 30 FT.
VER. 1 INCH = 6 FT.

LEGEND:

PROP. ASPHALT | PROP. SIDEWALK | PROP. RIP-RAP | NO TREES OR DEEP ROOTED PLANTS | PROP. GROUTED RIP-RAP

CONSTRUCTION NOTES:

– ALL CONSTRUCTION TO BE DONE IN ACCORDANCE WITH "CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS (CCAUSD)" LATEST EDITION AND/OR REGULATING ENTITY HAVING JURISDICTION.
– NOT ALL NOTES USED ON THIS SHEET –

1. CONSTRUCT "L" TYPE CURB PER CCAUSD No. 216.
2. CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD No. 219.
3. INSTALL AC PAVEMENT PER STREET SECTIONS ON SHEET D–01.
4. 2' OF COVER OVER WATER MAIN SHALL BE MAINTAINED AT ALL TIME. CONTRACTOR SHALL USE EXTREME CAUTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY DAMAGES TO WATER LINE REGARDLESS OF METHODS UTILIZED.
5. ADJUST TO FINISH GRADE WITH GRADE RINGS
6. CONSTRUCT CONC. SIDEWALK PER CCAUSD No. 234 (OR 234.3PER PLAN).
7. CONSTRUCT TYPICAL BUS TURNOUT PER CCAUSD No. 234.1, 234.4 & LOADING PAD PER CCAUSD No. 234.2.
8. CONSTRUCT CASE II SIDEWALK RAMP W/ TRUNCATED DOMES FOR 2' MIN. PER CCAUSD No. 235. A & B=8.0' UNLESS NOTED OTHERWISE ON PLANS.
9. THE SAWCUT LINES AND LIMITS OF AC REMOVAL AND REPLACEMENT SHALL BE DETERMINED BY A CNLV CONSTRUCTION SERVICES INSPECTOR.
10. ADJUST WTR MANHOLE TO GRADE PER DETAIL 4 ON SHEET D–03
11. INSTALL STAMPED CONCRETE, SOLOMON COLOR: BAMBOO #288 AND STAMP PATTERN NEW BRICK HERRINGBONE OR APPROVED EQUAL
12. CONSTRUCT TEMPORARY AC SIDEWALK

STORM DRAIN NOTES:

1. CONSTRUCT 60" TYPE III MANHOLE (CCAUSD STD. DWG. NO. 406.1)
2. CONSTRUCT RCB MANHOLE (SEE STRUCTURAL DETAIL 7 SHEET S0.2)
3. CONSTRUCT RCA MANHOLE (SEE STRUCTURAL DETAIL 2 SHEET S3.2)
4. CONSTRUCT SPECIAL MANHOLE (PER STRUCTURAL PLANS)
5. CONSTRUCT 12.5–FOOT TYPE "DM" DROP INLET (CCAUSD STD. DWG. NO. 412.1& 421)
6. CONSTRUCT TYPE "CM2" DROP INLET LENGTH PER CALLOUT (CCAUSD STD. DWG. NO. 412.1& 421)
7. CONSTRUCT TRENCH DRAIN (L=34') (17 NEENAH R–4999–LX TYPE C HEAVY DUTY BOLT DOWN GRATES) (SEE STRUCTURAL DETAILS ON S2.1 & S2.2)
8. INSTALL 18" RCP (CCAUSD STD. DWG. NO. 503.2)
9. INSTALL 24" RCP (CCAUSD STD. DWG. NO. 503.2)
10. CONSTRUCT 14' X 7' RCA (SEE STRUCTURAL DETAILS)
11. INSTALL 36" RCP (CCAUSD STD. DWG. NO. 503.2)
12. INSTALL 42" RCP (CCAUSD STD. DWG. NO. 503.2)
13. INSTALL 48" RCP (CCAUSD STD. DWG. NO. 503.2)
14. INSTALL 54" RCP (CCAUSD STD. DWG. NO. 503.2)
15. INSTALL 60" RCP (CCAUSD STD. DWG. NO. 503.2)
16. INSTALL 66" RCP (CCAUSD STD. DWG. NO. 503.2)
17. INSTALL 72" RCP (CCAUSD STD. DWG. NO. 503.2)
18. CONSTRUCT 12' X 5' PRECAST RCB
19. CONSTRUCT 6' X 5' PRECAST RCB
20. CONSTRUCT 12' X 7' RCA (SEE STRUCTURAL DETAILS)
21. CONSTRUCT BRICK AND MORTAR PLUG (SEE DETAIL 7, SHEET D–05)
22. CONSTRUCT RCB PLUG (NDOT STD. PLAN B–20.1.7)
23. INSTALL WATER/SEWER LINE PER SHEETS PP–UTL–01 THROUGH PP–UTL–09
24. ADJUST STORM DRAIN MANHOLE TO PROPOSED FINISH GRADE PER CCAUSD STANDARDS
25. REFER TO STRUCTURAL PLANS FOR CONNECTION TO RCA/RCB, SHEETS S1.1 THROUGH S1.6
26. CONSTRUCT 4' TYPE "C" DI PER CCAUSD NO 421
27. INSTALL PULL BOX PER DETAIL SHEET D–08
28. INSTALL NDOT TYPE 4MANHOLE, SEE SHEET D–02
29. INSTALL 48" TYPE II MH PER CCAUSD DWG NO. 406
30. PROTECT EXISTING DI WITH BOARDS, STRAW BALE, ETC.

GEOTECHNICAL NOTE:

PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL, INC., PROJECT No: E–06–022, DATED: APRIL 26, 2006, REVISED: JULY 14, 2006
UPDATE PREPARED BY: NOVA GEOTECHNICAL & INSPECTION SERVICES LETTER DATED: AUGUST 29, 2016.

GENERAL GRADING AND DRAINAGE NOTES:

1. PURSUANT TO CITY OF NORTH LAS VEGAS ORDINANCE NUMBER 1172, THE CONTRACTOR IS REQUIRED TO SECURE A GRADING PERMIT PRIOR TO COMMENCING WORK.
2. THE CONTRACTOR SHALL SECURE A PERMIT FOR ANY OFF–SITE CONSTRUCTION.
3. THE CONTRACTORS OPERATIONS SHALL NOT TRESPASS BEYOND THE PROJECT PROPERTY LINES UNLESS A PERMIT OR WRITTEN AUTHORIZATION HAS BEEN OBTAINED FROM THE PROPERTY OWNER(S) INVOLVED. COPIES OF SUCH WRITTEN AUTHORIZATION SHALL BE FURNISHED TO THE CITY OF NORTH LAS VEGAS' REPRESENTATIVE PRIOR TO START OF CONSTRUCTION.
4. THE CITY OF NORTH LAS VEGAS CONSTRUCTION SERVICES SHALL BE NOTIFIED ONE (1) WORKING DAY BEFORE ANY ON–SITE CONSTRUCTION WORK BEGINS.
5. AN APPROVED GRADING AND DRAINAGE PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THE APPROVED PLAN WILL REQUIRE SUBMITTAL OF A FORMAL REVISED PLAN FOR REVIEW AND APPROVAL.
6. ALL CONSTRUCTION SURVEY CONTROL SHALL BE DONE BY A LICENSED PROFESSIONAL LAND SURVEYOR IN ACCORDANCE WITH APPLICABLE STATUTES AND CODES. THE CONTRACTOR SHALL PROVIDE COMPETENT RESOURCES TO ASSURE BUILDING PAD AND BUILDING FLOOR ELEVATIONS CONFORM TO THOSE SHOWN ON THE CONSTRUCTION DRAWINGS. FURTHERMORE, THE CONTRACTOR SHALL PROVIDE THE CITY OF NORTH LAS VEGAS BUILDING DEPARTMENT WITH:
   A. CERTIFICATION OF "BUILDING FLOOR ELEVATIONS" IN CRITICAL DRAINAGE AREAS.
   B. CERTIFICATES OF "BUILDING PAD ELEVATIONS" IN NONCRITICAL AREAS.
7. THE CONTRACTOR SHALL CERTIFY TO THE CITY OF NORTH LAS VEGAS CONSTRUCTION SERVICES DIVISION THAT ALL FILLS, FOUNDATIONS AND SUBGRADES MEET THE MINIMUM COMPACTION REQUIREMENTS. CERTIFICATION SHALL BE MADE PRIOR TO POURING CONCRETE.
8. ALL STATIONS & OFFSETS REFERENCE GRAND TETON CENTERLINE UNLESS OTHERWISE NOTED.
9. FOR LIMITS OF DEMOLITION SEE DM–1 THROUGH DM–5

SNWA NOTES:

1. ALL REPAIRS OR RELOCATIONS OF SNWA CATHODIC PROTECTION STATIONS OR APPURTENANCES WILL BE DONE BY A CERTIFIED NACE CATHODIC PROTECTION SPECIALIST AND INACCORDANCE WITH SNWA STANDARDS
2. CAUTION SNWA TEST LEADS ARE SHALLOW
3. ALL SNWA TEST STATIONS TO BE TESTED BY CONTRACTOR AND WITNESSED BY SNWA PRIOR TO CONSTRUCTION IN THE AREA. COORDINATE WITH SNWA INSPECTOR
4. IF EXPOSED, CONTRACTOR TO PAY FOR AND REPLACE SNWA CATHODIC PROTECTION TEST STATION GROUND MATS, MAGNESIUM RIBBONS, OR ZINC RIBBONS WITH NEW GROUND MATS, MAGNESIUM RIBBONS OR ZINC RIBBONS.
5. LANDSCAPE AND IRRIGATION PLANS (BY OTHERS) SHALL BE SUBMITTED AND APPROVED BY SNWA.
6. CAUTION SNWA FIBER OPTICS CONDUIT RUNS ALONG THE WEST AND SOUTH SIDES OF THE SNWA 72" LATERAL AT VARIOUS DEPTHS.

SNWA CONSTRUCTION NOTES:

CONTRACTOR SHALL FIELD LOCATE AND PROTECT ALL SNWA/SNWS APPURTENANCES INCLUDING, BUT NOT LIMITED TO; AV/AR, ACCESS MANWAYS AND CATHODIC PROTECTION SYSTEMS. ALL ABOVE GROUND STRUCTURES AND AT GRADE STRUCTURES MUST BE ADJUSTED TO NEW GRADE AT CONTRACTOR'S EXPENSE. CATHODIC PROTECTION TEST STATIONS, RECTIFIERS, AND AV/AR'S MUST BE RELOCATED TO THE SIDEWALK PER SNWA STANDARDS AND AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO NOTIFY SOUTHERN NEVADA WATER AUTHORITY, DEVELOPMENT PLAN REVIEW, AT (702) 691–5372 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY.

SOUTHERN NEVADA WATER AUTHORITY — DATE 9/5/18

DPR# 2016–0060

SNWA APPROVAL IS VALID FOR ONE (1) YEAR FROM THE SIGNATURE DATE. IF CONSTRUCTION WITHIN THE EASEMENT OR RESTRICTED PIPE SAFETY ZONE IS NOT COMPLETE, PLANS MUST BE RESUBMITTED TO SNWA FOR APPROVAL.

CNLV DEVELOPMENT AND FLOOD CONTROL DIVISION

MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM — DATE:

GRADING PLAN CERTIFICATION

DERICK D.J. YORO — PE # 16396 — DATE: 5/7/18

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF NORTH LAS VEGAS.

POTHOLE TABLE PER AZTEC PROJECT NUMBER NVSUE1614					
NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
PH22	SNWA ELEC	4.10			
PH23	72" SNWA W	8.50			

LATERAL RUN PROFILE INDEX	
LATERAL RUN NO	SEE SHEET
1 THRU 8	LAT–SD–01
9 THRU 16	LAT–SD–02
17 THRU 22	LAT–SD–03
23 THRU 28	LAT–W–01
29 THRU 33	LAT–W–02

MATCHLINE STA: 39+50 SEE SHT. PP–05

MATCHLINE STA: 46+00 SEE SHT. PP–07

APN 124–07–813–028 FF = 13.2
APN 124–07–813–029 FF = 12.7
APN 124–07–813–030 FF = 12.2
APN 124–07–813–031 FF = 11.9
APN 124–07–813–032 FF = 11.6
APN 124–07–813–033 FF = 11.3
APN 124–07–813–034 FF = 11.0
APN 124–07–813–035
APN 124–07–813–036 FF = 10.2
APN 124–07–813–037 FF = 09.8
APN 124–07–813–038 FF = 09.5
APN 124–07–813–039 FF = 09.3

EX. F.H. STA: 39+74.10 O/S: 51.73' LT
EX. F.H. STA: 44+73.54 O/S: 52.51' LT
WATER/ALL HOME OWNERS ASSOCIATION APN 124–07–813–079
EX. 4" PE GAS
EX. 10" PVC WL
EX. SSMH
EX. 10" PVC SEWER
EX. EDGE OF PVMT
PC STA 40+04.75 O/S: 3.67' RT
PT STA 41+04.25 O/S: 6.33' LT
PRC STA 40+54.50 O/S: 1.33' LT
SECTION LINE
PH22
PH23
EX. 72" SNWA MLCP
EX. 30" MLCP
EX. 20" MLCP W.
EX. 30" MLCP W.
C.E. 2.1A PH WEST HOLDINGS INC. APN 124–18–510–005
DRAINAGE SPILLWAY
PROPERTY LINE & NV POWER GRANT
54' COMMON ELEMENT, PEDESTRIAN ACCESS, & PUBLIC UTILITY ESMT TO BE MAINTAINED BK. 134, PAGE 82
AMBER OWL HOLDINGS LLC APN 124–18–510–002
PERMISSION TO GRADE HAS BEEN ACQUIRED AND IS ON FILE WITH THE CITY OF NORTH LAS VEGAS
CITY OF NORTH LAS VEGAS APN 124–18–501–001
PERMISSION TO GRADE HAS BEEN ACQUIRED AND IS ON FILE WITH THE CITY OF NORTH LAS VEGAS
NO TREES OR DEEP ROOTED PLANTS WITHIN 15' OF 30" WL
SNWA STA: STA. 355+00 40+83.64±, 12.8' RT RELOCATE TO STATION 40+83.70, 50.0' RT
EX. POWER POLE 6 STA: 41+44.80 O/S: 57.55' RT, ELEV: 11.36
DRAINAGE BASIN GRADING PER SHEETS G–05 THRU G–06
EX. SEWER MH STA: 41+06.44 RIM: 2307.24 IN: 2293.41 OUT: 2293.35

GRAND TETON DRIVE
(PUBLIC)

PVI STA = 39+50.00
PVI ELEV = 2310.65
PROP. DG ℄
EX. GROUND ℄
–0.92%
39+74.10 EX 10"X6" TEE (N)
40+49.42 10"X6" TEE
EX. 10" W
EX. 30" MLCP
EX. 10" PVC SS
EX. SEWER MH STA: 41+06.44 RIM: 2307.24 IN: 2293.41 OUT: 2293.35
EX. VAULT 4'E 43'S 4.85' RT STA: 41+08.07 2108.07 RT OUT: 2299.86 EX. ANGLE PIPE = 23.08° ACUTE ANGLE PIPE = 2307.88
EX. 10" W
44+73.54 EX 10"X6" TEE (N)
EX. SNWA 72" MLCP
EX. 10" PVC SS
EX. SNWA 72" MLCP
EX. GROUND ℄
PROP. DG ℄

2320 2310 2300 2290 2280 2270

(2310.2) 2310.53 | (2309.8) 2310.09 | (2309.4) 2309.63 | (2308.8) 2309.17 | (2308.4) 2308.71 | (2307.7) 2308.25 | (2307.5) 2307.79 | (2307.0) 2307.33 | (2306.8) 2306.87 | (2306.3) 2306.41 | (2305.8) 2305.95 | (2305.5) 2305.49 | (2304.9) 2305.03 | (2304.4) 2304.57

40+00 41+00 42+00 43+00 44+00 45+00 46+00

LATERAL RUN NO	NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
1 THRU 8	PH22	SNWA ELEC	4.10			
9 THRU 16	PH23	72" SNWA W	8.50			
17 THRU 22						
23 THRU 28						
29 THRU 33						

CLV 731–98

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

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

NO.	DESCRIPTION	DATE	BY	APP.	APP. DATE

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

S18 T19S R61E

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
ROADWAY PLAN & PROFILE STA 39+50 TO 46+00

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000

PROFESSIONAL ENGINEER – STATE OF NEVADA – DERICK D.J. YORO – Exp: 06/30/2020 – CIVIL – No. 16396 – 5/7/18

PP-06
SHEET 20 OF 125

PROJ#:124070 AGREE#:115666 QS:124-07-SWINE,124-18-NWINE

I:\sun1403-000 grand teton national flood control facility\dwg\xmerc\xsun1403-000rpp-road.dwg 5/7/2018 7:52 AM Jong Castly

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DO OVERHEAD

1-702-227-2929

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.

Call before you do UnderGround

1-702-455-6000

CLARK COUNTY TRAFFIC OPERATIONS AND

1-702-432-5300

FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.

Call 811

OR

1-800-227-2600

AND

CLARK COUNTY TRAFFIC OPERATIONS

1-702-455-6000

DISCLAIMER:

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND OR OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION. CONTRACTOR TO NOTIFY ENGINEER OF ANY CHANGES OR DISCREPANCIES.

BENCHMARK:

NLV9117NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
699.511 METERS, 2294.98 FEET
RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLV9117NWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

LEGAL DESCRIPTION:

GOVERNMENT LOTS 5, 7, 10, 12, 14, 18, 19, 21, 24, 25, & 28 THROUGH 37, INCLUSIVE, OF SECTION 18, TOGETHER WITH GOVERNMENT LOT 7 OF SECTION 19, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA.

BASIS OF BEARINGS:

SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

CNLV UTILITY NOTE:

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CNLV PAVEMENT NOTE:

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N.P.C. NOTE:

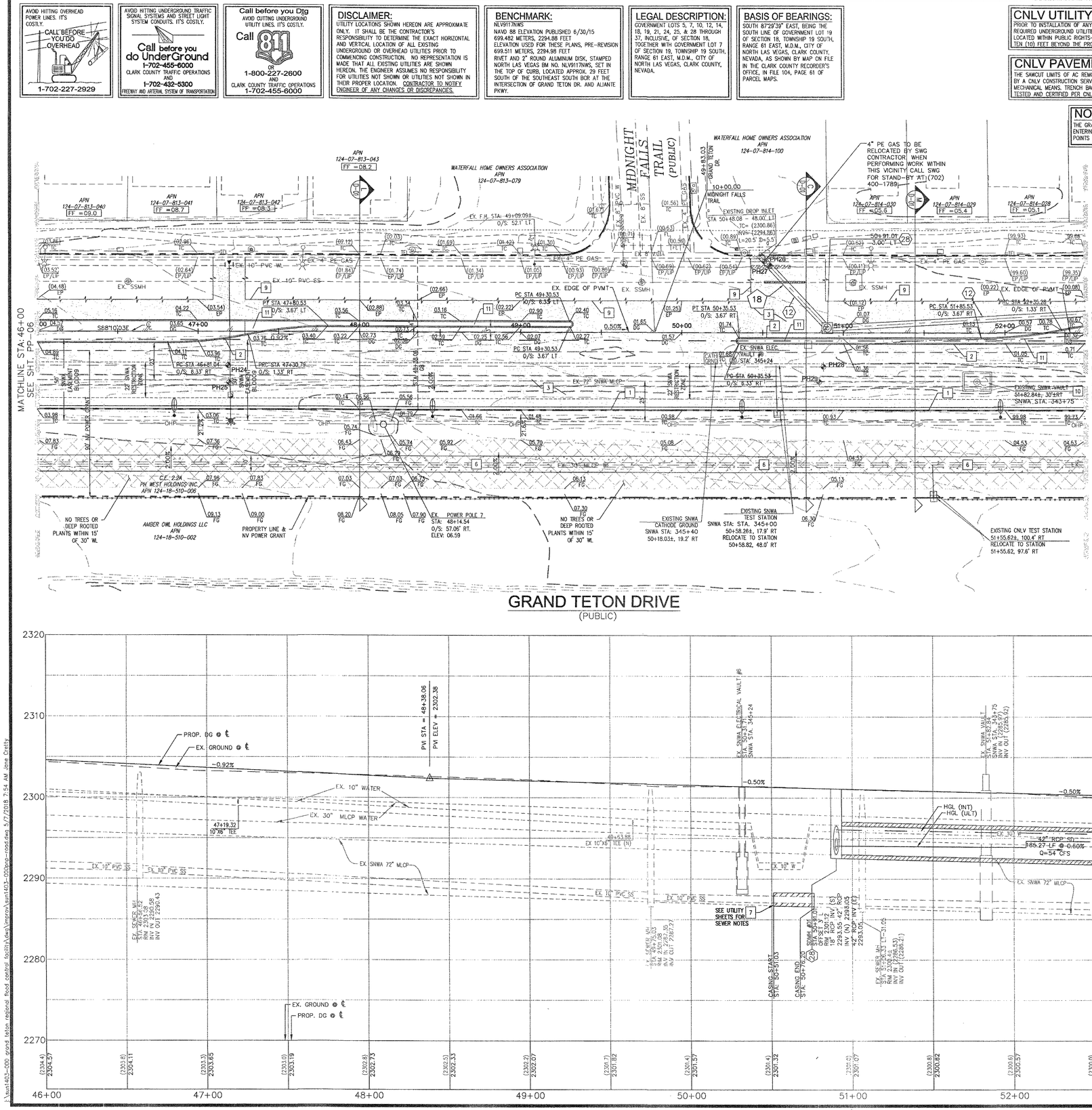
POLE KEYS ALONG GRAND TETON; SEE NEVADA POWER CO. DRAWING NUMBER 442.230.2IKEYS, PROJ. ID. TLS881RPKH FOR DETAILS

GAS NOTE:

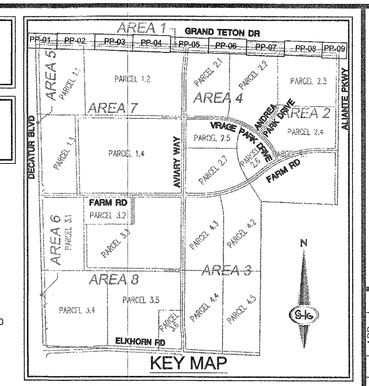
CALL SOUTHWEST GAS AT (702) 400-1789 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES

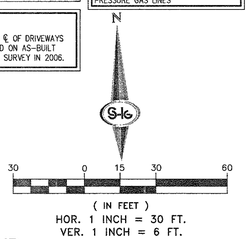
NOTE:

THE GRAND TETON & GRADES AND ℄ OF DRIVEWAYS ENTERING GRAND TETON ARE BASED ON AS-BUILT POINTS SHOT BY CARTER BURGESS SURVEY IN 2006.



GRAND TETON DRIVE
(PUBLIC)





LEGEND:

PROP. ASPHALT | PROP. SIDEWALK | PROP. RIP-RAP | NO TREES OR DEEP ROOTED PLANTS | PROP. GROUTED RIP-RAP

CONSTRUCTION NOTES:

– ALL CONSTRUCTION TO BE DONE IN ACCORDANCE WITH "CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS (CCAUSD)" LATEST EDITION AND/OR REGULATING ENTITY HAVING JURISDICTION.
– NOT ALL NOTES USED ON THIS SHEET –

1. CONSTRUCT "L" TYPE CURB PER CCAUSD No. 216.
2. CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD No. 219.
3. INSTALL AC PAVEMENT PER STREET SECTIONS ON SHEET D-01.
4. 2' OF COVER OVER WATER MAIN SHALL BE MAINTAINED AT ALL TIME. CONTRACTOR SHALL USE EXTREME CAUTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY DAMAGES TO WATER LINE REGARDLESS OF METHODS UTILIZED.
5. ADJUST TO FINISH GRADE WITH GRADE RINGS
6. CONSTRUCT CONC. SIDEWALK PER CCAUSD No. 234 (OR 234.3PER PLAN).
7. CONSTRUCT TYPICAL BUS TURNOUT PER CCAUSD No. 234.1, 234.4 & LOADING PAD PER CCAUSD No. 234.2.
8. CONSTRUCT CASE II SIDEWALK RAMP W/ TRUNCATED DOMES FOR 2' MIN. PER CCAUSD No. 235. A & B=8.0' UNLESS NOTED OTHERWISE ON PLANS.
9. THE SAWCUT LINES AND LIMITS OF AC REMOVAL AND REPLACEMENT SHALL BE DETERMINED BY A CNLV CONSTRUCTION SERVICES INSPECTOR.
10. ADJUST WTR MANHOLE TO GRADE PER DETAIL 4 ON SHEET D-03
11. INSTALL STAMPED CONCRETE. SOLOMON COLOR: BAMBOO #288 AND STAMP PATTERN NEW BRICK HERRINGBONE OR APPROVED EQUAL
12. CONSTRUCT TEMPORARY AC SIDEWALK

STORM DRAIN NOTES:

1. CONSTRUCT 60" TYPE III MANHOLE (CCAUSD STD. DWG. NO. 406.1)
2. CONSTRUCT RCB MANHOLE (SEE STRUCTURAL DETAIL 7 SHEET S0.2)
3. CONSTRUCT RCA MANHOLE (SEE STRUCTURAL DETAIL 2 SHEET S3.2)
4. CONSTRUCT SPECIAL MANHOLE (PER STRUCTURAL PLANS)
5. CONSTRUCT 12.5-FOOT TYPE "DM" DROP INLET (CCAUSD STD. DWG. NO. 412.1& 421)
6. CONSTRUCT TYPE "CM2" DROP INLET LENGTH PER CALLOUT (CCAUSD STD. DWG. NO. 412.1& 421)
7. CONSTRUCT TRENCH DRAIN (L=34') (17 NEENAH R-4999-LX TYPE C HEAVY DUTY BOLT DOWN GRATES) (SEE STRUCTURAL DETAILS ON S2.1 & S2.2)
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18. CONSTRUCT 12' X 5' PRECAST RCB
19. CONSTRUCT 6' X 5' PRECAST RCB
20. CONSTRUCT 12' X 7' RCA (SEE STRUCTURAL DETAILS)
21. CONSTRUCT BRICK AND MORTAR PLUG (SEE DETAIL 7, SHEET D-05)
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23. INSTALL WATER/SEWER LINE PER SHEETS PP-UTL-01 THROUGH PP-UTL-09
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27. INSTALL PULL BOX PER DETAIL SHEET D-08
28. INSTALL NDOT TYPE 4MANHOLE, SEE SHEET D-02
29. INSTALL 48" TYPE II MH PER CCAUSD DWG NO. 406
30. PROTECT EXISTING DI WITH BOARDS, STRAW BALE, ETC.

POTHOLE TABLE
PER AZTEC PROJECT NUMBER NVSUE1614

NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
PH24	SNWA ELEC	4.60	PH29	72" SNWA W	8.50
PH25	72" SNWA W	10.30			
PH26	4" PE GAS	3.20			
PH27	10" PVC W	8.10			
PH27A	NVE	3.10			
PH28	SNWA ELEC	3.50			

LATERAL RUN PROFILE INDEX

LATERAL RUN NO	SEE SHEET
1 THRU 8	LAT-SD-01
9 THRU 16	LAT-SD-02
17 THRU 22	LAT-SD-03
23 THRU 28	LAT-W-01
29 THRU 33	LAT-W-02

GEOTECHNICAL NOTE:

PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL, INC., PROJECT No: E-06-022, DATED: APRIL 26, 2006, REVISED: JULY 14, 2006
UPDATE PREPARED BY: NOVA GEOTECHNICAL & INSPECTION SERVICES LETTER DATED: AUGUST 29, 2016.

GENERAL GRADING AND DRAINAGE NOTES:

1. PURSUANT TO CITY OF NORTH LAS VEGAS ORDINANCE NUMBER 1172, THE CONTRACTOR IS REQUIRED TO SECURE A GRADING PERMIT PRIOR TO COMMENCING WORK.
2. THE CONTRACTOR SHALL SECURE A PERMIT FOR ANY OFF-SITE CONSTRUCTION.
3. THE CONTRACTORS OPERATIONS SHALL NOT TRESPASS BEYOND THE PROJECT PROPERTY LINES UNLESS A PERMIT OR WRITTEN AUTHORIZATION HAS BEEN OBTAINED FROM THE PROPERTY OWNER(S) INVOLVED. COPIES OF SUCH WRITTEN AUTHORIZATION SHALL BE FURNISHED TO THE CITY OF NORTH LAS VEGAS' REPRESENTATIVE PRIOR TO START OF CONSTRUCTION.
4. THE CITY OF NORTH LAS VEGAS CONSTRUCTION SERVICES SHALL BE NOTIFIED ONE (1) WORKING DAY BEFORE ANY ON-SITE CONSTRUCTION WORK BEGINS.
5. AN APPROVED GRADING AND DRAINAGE PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THE APPROVED PLAN WILL REQUIRE SUBMITTAL OF A FORMAL REVISED PLAN FOR REVIEW AND APPROVAL.
6. ALL CONSTRUCTION SURVEY CONTROL SHALL BE DONE BY A LICENSED PROFESSIONAL LAND SURVEYOR IN ACCORDANCE WITH APPLICABLE STATUTES AND CODES. THE CONTRACTOR SHALL PROVIDE COMPETENT RESOURCES TO ASSURE BUILDING PAD AND BUILDING FLOOR ELEVATIONS CONFORM TO THOSE SHOWN ON THE CONSTRUCTION DRAWINGS. FURTHERMORE, THE CONTRACTOR SHALL PROVIDE THE CITY OF NORTH LAS VEGAS BUILDING DEPARTMENT WITH:
   A. CERTIFICATION OF "BUILDING FLOOR ELEVATIONS" IN CRITICAL DRAINAGE AREAS.
   B. CERTIFICATES OF "BUILDING PAD ELEVATIONS" IN NONCRITICAL AREAS.
7. THE CONTRACTOR SHALL CERTIFY TO THE CITY OF NORTH LAS VEGAS CONSTRUCTION SERVICES DIVISION THAT ALL FILLS, FOUNDATIONS AND SUBGRADES MEET THE MINIMUM COMPACTION REQUIREMENTS. CERTIFICATION SHALL BE MADE PRIOR TO POURING CONCRETE.
8. ALL STATIONS & OFFSETS REFERENCE GRAND TETON CENTERLINE UNLESS OTHERWISE NOTED.
9. FOR LIMITS OF DEMOLITION SEE DM-1 THROUGH DM-5

SNWA NOTES:

1. ALL REPAIRS OR RELOCATIONS OF SNWA CATHODIC PROTECTION STATIONS OR APPURTENANCES WILL BE DONE BY A CERTIFIED NACE CATHODIC PROTECTION SPECIALIST AND INACCORDANCE WITH SNWA STANDARDS
2. CAUTION SNWA TEST LEADS ARE SHALLOW
3. ALL SNWA TEST STATIONS TO BE TESTED BY CONTRACTOR AND WITNESSED BY SNWA PRIOR TO CONSTRUCTION IN THE AREA. COORDINATE WITH SNWA INSPECTOR
4. IF EXPOSED, CONTRACTOR TO PAY FOR AND REPLACE SNWA CATHODIC PROTECTION TEST STATION GROUND MATS, MAGNESIUM RIBBONS, OR ZINC RIBBONS WITH NEW GROUND MATS, MAGNESIUM RIBBONS OR ZINC RIBBONS.
5. LANDSCAPE AND IRRIGATION PLANS (BY OTHERS) SHALL BE SUBMITTED AND APPROVED BY SNWA.
6. CAUTION SNWA FIBER OPTICS CONDUIT RUNS ALONG THE WEST AND SOUTH SIDES OF THE SNWA 72" LATERAL AT VARIOUS DEPTHS.

SNWA CONSTRUCTION NOTES:

CONTRACTOR SHALL FIELD LOCATE AND PROTECT ALL SNWA/SNWS APPURTENANCES INCLUDING, BUT NOT LIMITED TO; AV/AR, ACCESS MANWAYS AND CATHODIC PROTECTION SYSTEMS. ALL ABOVE GROUND STRUCTURES AND AT GRADE STRUCTURES MUST BE ADJUSTED TO NEW GRADE AT CONTRACTOR'S EXPENSE. CATHODIC PROTECTION TEST STATIONS, RECTIFIERS, AND AV/AR'S MUST BE RELOCATED TO THE SIDEWALK PER SNWA STANDARDS AND AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO NOTIFY SOUTHERN NEVADA WATER AUTHORITY, DEVELOPMENT PLAN REVIEW, AT (702) 691-5372 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY.

SOUTHERN NEVADA WATER AUTHORITY — DATE 9/5/18

DPR# 2016-0060

SNWA APPROVAL IS VALID FOR ONE (1) YEAR FROM THE SIGNATURE DATE. IF CONSTRUCTION WITHIN THE EASEMENT OR RESTRICTED PIPE SAFETY ZONE IS NOT COMPLETE, PLANS MUST BE RESUBMITTED TO SNWA FOR APPROVAL.

CNLV DEVELOPMENT AND FLOOD CONTROL DIVISION

MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM — DATE:

GRADING PLAN CERTIFICATION

DERICK D.J. YORO — PE #: 16396 — DATE: 5/7/18

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH APPROVED DRAINAGE STUDY(S) FOR THIS SITE ON FILE AT CITY OF NORTH LAS VEGAS.

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

ROADWAY PLAN & PROFILE STA 46+00 TO 52+50

VALLEY VISTA

S18 T19S R61E

DATE: 5/07/2018
DRAFTER: OO/JC
DESIGNER: OO/JC
CHECKED: DY

PROJECT NO.
SUN1403-000

DERICK D.J. YORO — EXP: 06/30/2020 — CIVIL — No. 16396 — STATE OF NEVADA — PROFESSIONAL ENGINEER — 5/7/18

PP-07
SHEET 21 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ.#:124070 AGREE#:115666 QS:124-07-SWINE,124-18-NWINE

I:\sun1403-000 grand teton regional flood control facility\Civil\Xrefs\XsunX1403-000pp-road.dwg 5/7/2018 7:54 AM Jose Costly

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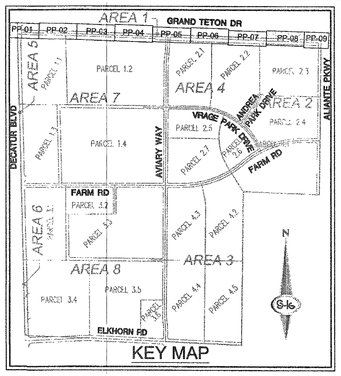

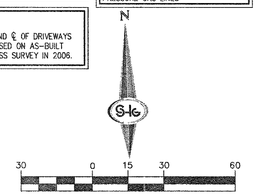

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POTHOLE TABLE
PER AZTEC PROJECT NUMBER NVSUE1614

NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
PH30	72" SNWA W	8.90			
PH31	SNWA ELEC	6.10			

LATERAL RUN PROFILE INDEX

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9 THRU 16	LAT–SD–02
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2. THE CONTRACTOR SHALL SECURE A PERMIT FOR ANY OFF–SITE CONSTRUCTION.
3. THE CONTRACTORS OPERATIONS SHALL NOT TRESPASS BEYOND THE PROJECT PROPERTY LINES UNLESS A PERMIT OR WRITTEN AUTHORIZATION HAS BEEN OBTAINED FROM THE PROPERTY OWNER(S) INVOLVED. COPIES OF SUCH WRITTEN AUTHORIZATION SHALL BE FURNISHED TO THE CITY OF NORTH LAS VEGAS' REPRESENTATIVE PRIOR TO START OF CONSTRUCTION.
4. THE CITY OF NORTH LAS VEGAS CONSTRUCTION SERVICES SHALL BE NOTIFIED ONE (1) WORKING DAY BEFORE ANY ON–SITE CONSTRUCTION WORK BEGINS.
5. AN APPROVED GRADING AND DRAINAGE PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THE APPROVED PLAN WILL REQUIRE SUBMITTAL OF A FORMAL REVISED PLAN FOR REVIEW AND APPROVAL.
6. ALL CONSTRUCTION SURVEY CONTROL SHALL BE DONE BY A LICENSED PROFESSIONAL LAND SURVEYOR IN ACCORDANCE WITH APPLICABLE STATUTES AND CODES. THE CONTRACTOR SHALL PROVIDE COMPETENT RESOURCES TO ASSURE BUILDING PAD AND BUILDING FLOOR ELEVATIONS CONFORM TO THOSE SHOWN ON THE CONSTRUCTION DRAWINGS. FURTHERMORE, THE CONTRACTOR SHALL PROVIDE THE CITY OF NORTH LAS VEGAS BUILDING DEPARTMENT WITH:
   A. CERTIFICATION OF "BUILDING FLOOR ELEVATIONS" IN CRITICAL DRAINAGE AREAS.
   B. CERTIFICATES OF "BUILDING PAD ELEVATIONS" IN NONCRITICAL AREAS.
7. THE CONTRACTOR SHALL CERTIFY TO THE CITY OF NORTH LAS VEGAS CONSTRUCTION SERVICES DIVISION THAT ALL FILLS, FOUNDATIONS AND SUBGRADES MEET THE MINIMUM COMPACTION REQUIREMENTS. CERTIFICATION SHALL BE MADE PRIOR TO POURING CONCRETE.
8. ALL STATIONS & OFFSETS REFERENCE GRAND TETON CENTERLINE UNLESS OTHERWISE NOTED.
9. FOR LIMITS OF DEMOLITION SEE DM–1 THROUGH DM–5

SNWA NOTES:

1. ALL REPAIRS OR RELOCATIONS OF SNWA CATHODIC PROTECTION STATIONS OR APPURTENANCES WILL BE DONE BY A CERTIFIED NACE CATHODIC PROTECTION SPECALIST AND INACCORDANCE WITH SNWA STANDARDS
2. CAUTION SNWA TEST LEADS ARE SHALLOW
3. ALL SNWA TEST STATIONS TO BE TESTED BY CONTRACTOR AND WITNESSED BY SNWA PRIOR TO CONSTRUCTION IN THE AREA. COORDINATE WITH SNWA INSPECTOR
4. IF EXPOSED, CONTRACTOR TO PAY FOR AND REPLACE SNWA CATHODIC PROTECTION TEST STATION GROUND MATS,, MAGNESIUM RIBBONS, OR ZINC RIBBONS WITH NEW GROUND MATS, MAGNESIUM RIBBONS OR ZINC RIBBONS.
5. LANDSCAPE AND IRRIGATION PLANS (BY OTHERS) SHALL BE SUBMITTED AND APPROVED BY SNWA.
6. CAUTION SNWA FIBER OPTICS CONDUIT RUNS ALONG THE WEST AND SOUTH SIDES OF THE SNWA 72" LATERAL AT VARIOUS DEPTHS.

SNWA CONSTRUCTION NOTES:

CONTRACTOR SHALL FIELD LOCATE AND PROTECT ALL SNWA/SNWS APPURTENANCES INCLUDING, BUT NOT LIMITED TO; AV/AR, ACCESS MANWAYS AND CATHODIC PROTECTION SYSTEMS. ALL ABOVE GROUND STRUCTURES AND AT GRADE STRUCTURES MUST BE ADJUSTED TO NEW GRADE AT CONTRACTOR'S EXPENSE. CATHODIC PROTECTION TEST STATIONS, RECTIFIERS, AND AV/AR'S MUST BE RELOCATED TO THE SIDEWALK PER SNWA STANDARDS AND AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO NOTIFY SOUTHERN NEVADA WATER AUTHORITY, DEVELOPMENT PLAN REVIEW, AT (702) 691–5372 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY.

SOUTHERN NEVADA WATER AUTHORITY — DATE 9/5/18

DPR# 2016–0060

SNWA APPROVAL IS VALID FOR ONE (1) YEAR FROM THE SIGNATURE DATE. IF CONSTRUCTION WITHIN THE EASEMENT OR RESTRICTED PIPE SAFETY ZONE IS NOT COMPLETE, PLANS MUST BE RESUBMITTED TO SNWA FOR APPROVAL.

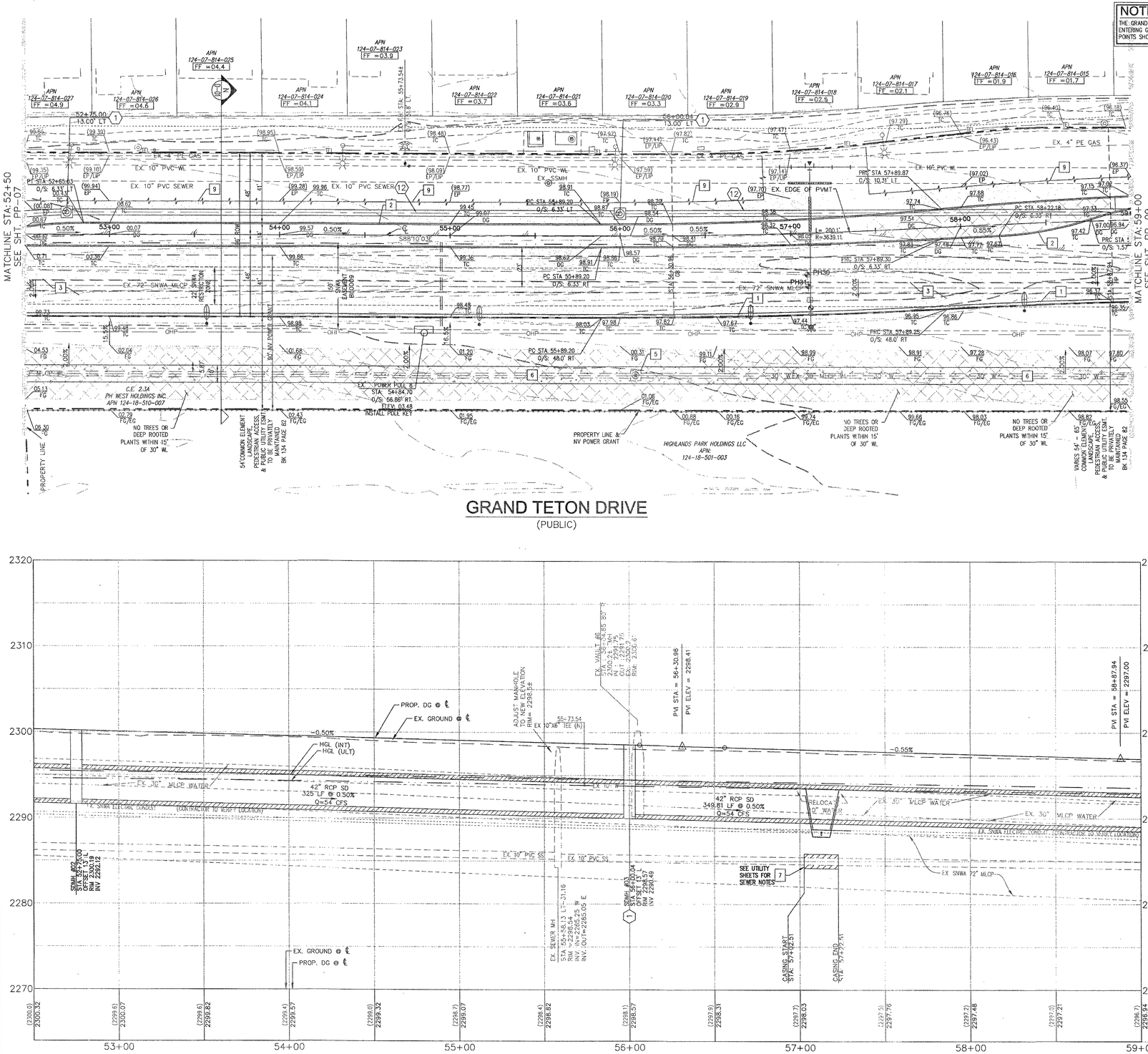
CNLV DEVELOPMENT AND FLOOD CONTROL DIVISION

MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM — DATE:

GRADING PLAN CERTIFICATION

DERICK D.J. YORO — PE #: 16396 — DATE: 5/7/18

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF NORTH LAS VEGAS.



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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
ROADWAY PLAN & PROFILE STA 52+50 TO 59+00

S18 T19S R61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000

DERICK D. YORO — No. 16396 — CIVIL — Exp: 08/30/2020 — STATE OF NEVADA — PROFESSIONAL ENGINEER — 5/7/18

PP-08
SHEET 22 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

CLV 731-98

PROJ.#:124070 AGREE#:115666 QS:124-07-SW/NE,124-18-NW/NE

J:\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403_000rip-road.dwg 5/7/2018 7:56 AM John Crotty

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DO OVERHEAD

1-702-227-2929

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.

Call before you do UnderGround

1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS
AND
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig

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Call 811

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

DISCLAIMER:

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND OR OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION. CONTRACTOR TO NOTIFY ENGINEER OF ANY CHANGES OR DISCREPANCIES.

BENCHMARK:

NLV911/NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.89 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
699.511 METERS, 2294.98 FEET
RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLV911/NWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

LEGAL DESCRIPTION:

GOVERNMENT LOTS 5, 7, 10, 12, 14, 18, 19, 21, 24, 25, & 28 THROUGH 37, INCLUSIVE, OF SECTION 18, TOGETHER WITH GOVERNMENT LOT 7 OF SECTION 19, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA.

BASIS OF BEARINGS:

SOUTH 87°28'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

CNLV UTILITY NOTE:

PRIOR TO INSTALLATION OF ANY SUBGRADE STREET IMPROVEMENTS, ALL REQUIRED UNDERGROUND UTILITIES (I.E. TELEPHONE, POWER, WATER, ETC.) LOCATED WITHIN PUBLIC RIGHTS-OF WAY, SHALL BE EXTENDED A MINIMUM OF TEN (10) FEET BEYOND THE PROJECT BOUNDARY.

CNLV PAVEMENT NOTE:

THE SAWCUT LIMITS OF AC REMOVAL AND REPLACEMENT SHALL BE DETERMINED BY A CNLV CONSTRUCTION SERVICES INSPECTOR; AC SHALL BE REPLACED BY MECHANICAL MEANS. TRENCH BACKFILL MATERIAL SHALL BE SAMPLED, DESIGNED, TESTED AND CERTIFIED PER CNLV TRENCH BACK FILL POLICY.

NOTE:

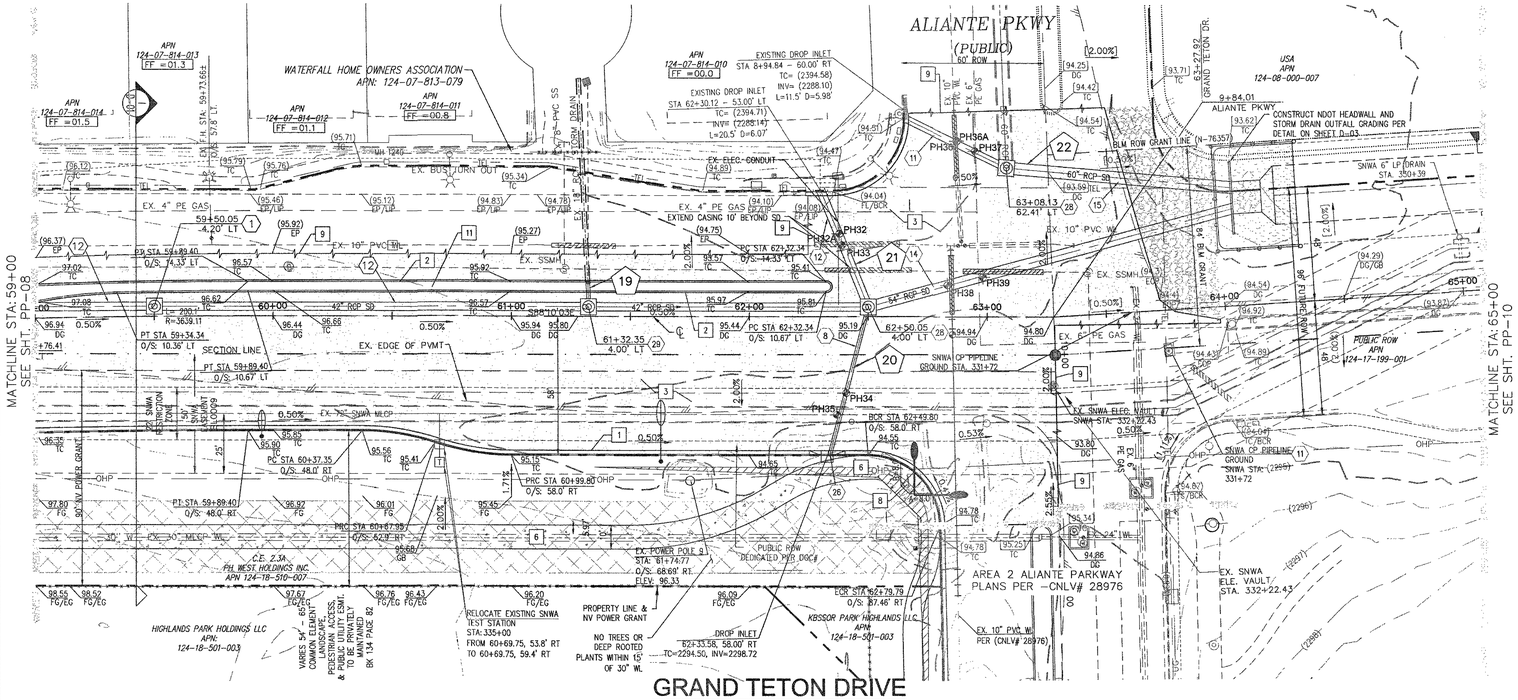
THE GRAND TETON & GRADES AND & OF DRIVEWAYS ENTERING GRAND TETON ARE BASED ON AS-BUILT POINTS SHOT BY CARTER BURGESS SURVEY IN 2008.

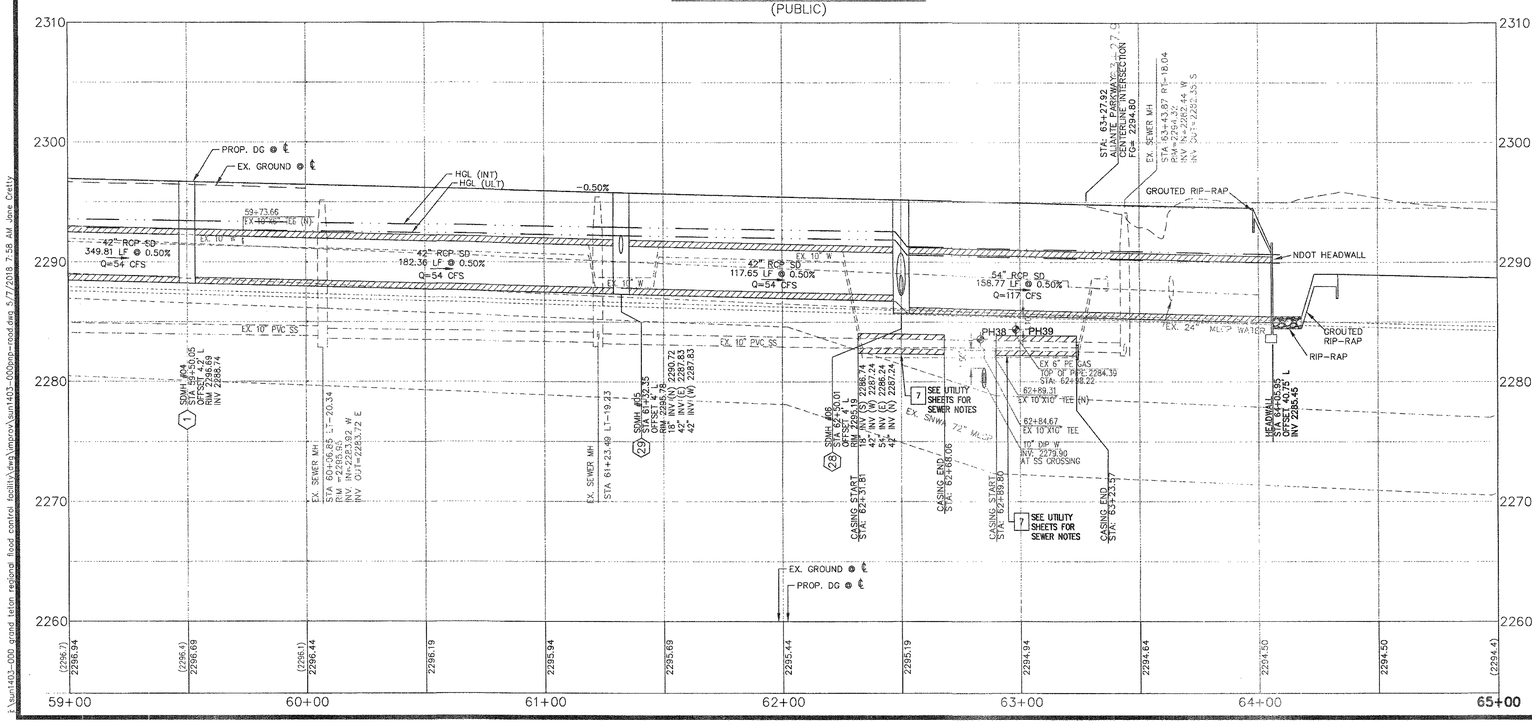
N.P.C. NOTE:

POLE KEYS ALONG GRAND TETON; SEE NEVADA POWER CO. DRAWING NUMBER 442.230.21KEYS, PROJ. ID. TL588TRPKH FOR DETAILS

GAS NOTE:

CALL SOUTHWEST GAS AT (702) 400-1789 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES





LEGEND:

PROP. ASPHALT | PROP. SIDEWALK | PROP. RIP-RAP | NO TREES OR DEEP ROOTED PLANTS | PROP. GROUTED RIP-RAP

CONSTRUCTION NOTES:

– ALL CONSTRUCTION TO BE DONE IN ACCORDANCE WITH "CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS (CCAUSD)" LATEST EDITION AND/OR REGULATING ENTITY HAVING JURISDICTION.
– NOT ALL NOTES USED ON THIS SHEET –

1. CONSTRUCT "L" TYPE CURB PER CCAUSD No. 216.
2. CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD No. 219.
3. INSTALL AC PAVEMENT PER STREET SECTIONS ON SHEET D-01.
4. 2" OF COVER OVER WATER MAIN SHALL BE MAINTAINED AT ALL TIME. CONTRACTOR SHALL USE EXTREME CAUTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY DAMAGES TO WATER LINE REGARDLESS OF METHODS UTILIZED.
5. ADJUST TO FINISH GRADE WITH GRADE RINGS
6. CONSTRUCT CONC. SIDEWALK PER CCAUSD No. 234 (OR 234.3PER PLAN).
7. CONSTRUCT TYPICAL BUS TURNOUT PER CCAUSD No. 234.1, 234.4 & LOADING PAD PER CCAUSD No. 234.2.
8. CONSTRUCT CASE II SIDEWALK RAMP W/ TRUNCATED DOMES FOR 2' MIN. PER CCAUSD No. 235. A & B=8.0' UNLESS NOTED OTHERWISE ON PLANS.
9. THE SAWCUT LINES AND LIMITS OF AC REMOVAL AND REPLACEMENT SHALL BE DETERMINED BY A CNLV CONSTRUCTION SERVICES INSPECTOR.
10. ADJUST WTR MANHOLE TO GRADE PER DETAIL 4 ON SHEET D-03
11. INSTALL STAMPED CONCRETE. SOLOMON COLOR: BAMBOO #288 AND STAMP PATTERN NEW BRICK HERRINGBONE OR APPROVED EQUAL
12. CONSTRUCT TEMPORARY AC SIDEWALK

STORM DRAIN NOTES:

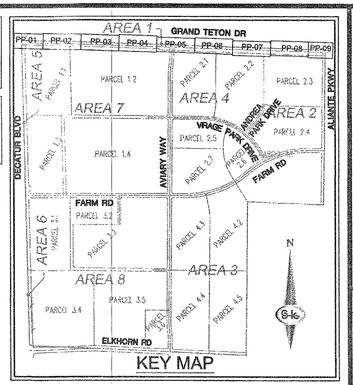
1. CONSTRUCT 60" TYPE III MANHOLE (CCAUSD STD. DWG. NO. 405.1)
2. CONSTRUCT RCB MANHOLE (SEE STRUCTURAL DETAIL 7 SHEET S0.2)
3. CONSTRUCT RCA MANHOLE (SEE STRUCTURAL DETAIL 2 SHEET S3.2)
4. CONSTRUCT SPECIAL MANHOLE (PER STRUCTURAL PLANS)
5. CONSTRUCT 12.5-FOOT TYPE "DM" DROP INLET (CCAUSD STD. DWG. NO. 412.1& 421)
6. CONSTRUCT TYPE "CM2" DROP INLET LENGTH PER CALLOUT (CCAUSD STD. DWG. NO. 412.1& 421)
7. CONSTRUCT TRENCH DRAIN (L=34') (17 NEENAH R-4999-LX TYPE C HEAVY DUTY BOLT DOWN GRATES) (SEE STRUCTURAL DETAILS ON S2.1 & S2.2)
8. INSTALL 18" RCP (CCAUSD STD. DWG. NO. 503.2)
9. INSTALL 24" RCP (CCAUSD STD. DWG. NO. 503.2)
10. CONSTRUCT 14' X 7' RCA (SEE STRUCTURAL DETAILS)
11. INSTALL 36" RCP (CCAUSD STD. DWG. NO. 503.2)
12. INSTALL 42" RCP (CCAUSD STD. DWG. NO. 503.2)
13. INSTALL 48" RCP (CCAUSD STD. DWG. NO. 503.2)
14. INSTALL 54" RCP (CCAUSD STD. DWG. NO. 503.2)
15. INSTALL 60" RCP (CCAUSD STD. DWG. NO. 503.2)
16. INSTALL 66" RCP (CCAUSD STD. DWG. NO. 503.2)
17. INSTALL 72" RCP (CCAUSD STD. DWG. NO. 503.2)
18. CONSTRUCT 12' X 5' PRECAST RCB
19. CONSTRUCT 6' X 5' PRECAST RCB
20. CONSTRUCT 12' X 7' RCA (SEE STRUCTURAL DETAILS)
21. CONSTRUCT BRICK AND MORTAR PLUG (SEE DETAIL 7, SHEET D-05)
22. CONSTRUCT RCB PLUG (NDOT STD. PLAN B-20.1.7)
23. INSTALL WATER/SEWER LINE PER SHEETS PP-UTL-01 THROUGH PP-UTL-09
24. ADJUST STORM DRAIN MANHOLE TO PROPOSED FINISH GRADE PER CCAUSD STANDARDS
25. REFER TO STRUCTURAL PLANS FOR CONNECTION TO RCA/RCB, SHEETS S1.1 THROUGH S1.6
26. CONSTRUCT 4' TYPE "C" DI PER CCAUSD NO 421
27. INSTALL PULL BOX PER DETAIL SHEET D-08
28. INSTALL NDOT TYPE 4MANHOLE, SEE SHEET D-02
29. INSTALL 48" TYPE II MH PER CCAUSD DWG NO. 406
30. PROTECT EXISTING DI WITH BOARDS, STRAW BALE, ETC.

POTHOLE TABLE
PER AZTEC PROJECT NUMBER NVSUE1614

NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
PH32	4" PE GAS	10.20	PH36A	NVE	3.50
PH32A	NVE	4.80	PH37	4" PE GAS	10.30
PH33	10" PVC W	8.10	PH38	10" PVC W	11.20
PH34	SNWA ELEC	7.70	PH39	4" PE GAS	10.40
PH35	72" SNWA W	13.10			
PH36	10" PVC W	6.10			

LATERAL RUN PROFILE INDEX

LATERAL RUN NO	SEE SHEET
1 THRU 9	LAT-SD-01
9 THRU 16	LAT-SD-02
17 THRU 22	LAT-SD-03
23 THRU 28	LAT-W-01
29 THRU 33	LAT-W-02



30 0 15 30 60
(IN FEET)
HOR. 1 INCH = 30 FT.
VER. 1 INCH = 6 FT.

GEOTECHNICAL NOTE:

PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL, INC., PROJECT No: E-06-022, DATED: APRIL 26, 2006, REVISED: JULY 14, 2006
UPDATE PREPARED BY: NOVA GEOTECHNICAL & INSPECTION SERVICES LETTER DATED: AUGUST 29, 2016.

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DPR# 2018-0060

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CNLV DEVELOPMENT AND FLOOD CONTROL DIVISION

MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM — DATE:

GRADING PLAN CERTIFICATION

DERICK D.J. YORO — PE #: 16396 — DATE: 5/7/18

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF NORTH LAS VEGAS.

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP.	APP. DATE

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
ROADWAY PLAN & PROFILE STA 59+00 TO 65+00

S18 T19S R61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000

PROFESSIONAL ENGINEER — STATE OF NEVADA — DERICK D.J. YORO — Exp: 06/30/2020 — CIVIL — No. 16396 — 5/7/18

PP-09
SHEET 23 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ.#:124070 AGREE#:115666 QS:124-07-SWINE,124-18-NWINE

I:\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403-000prp-road.dwg 5/7/2018 7:58 AM Jose Cetty

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BENCHMARK:

NLV9117NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
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ELEVATION USED FOR THESE PLANS, PRE-REVISION
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LEGAL DESCRIPTION:

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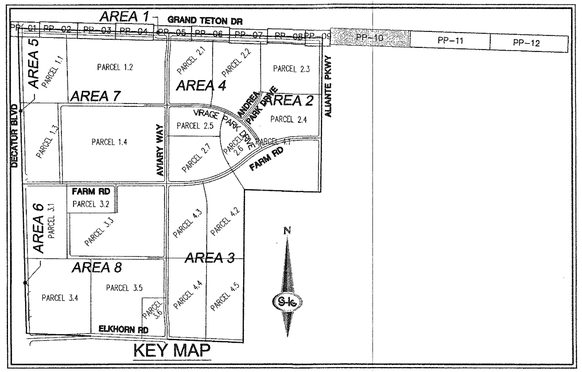
BASIS OF BEARINGS:

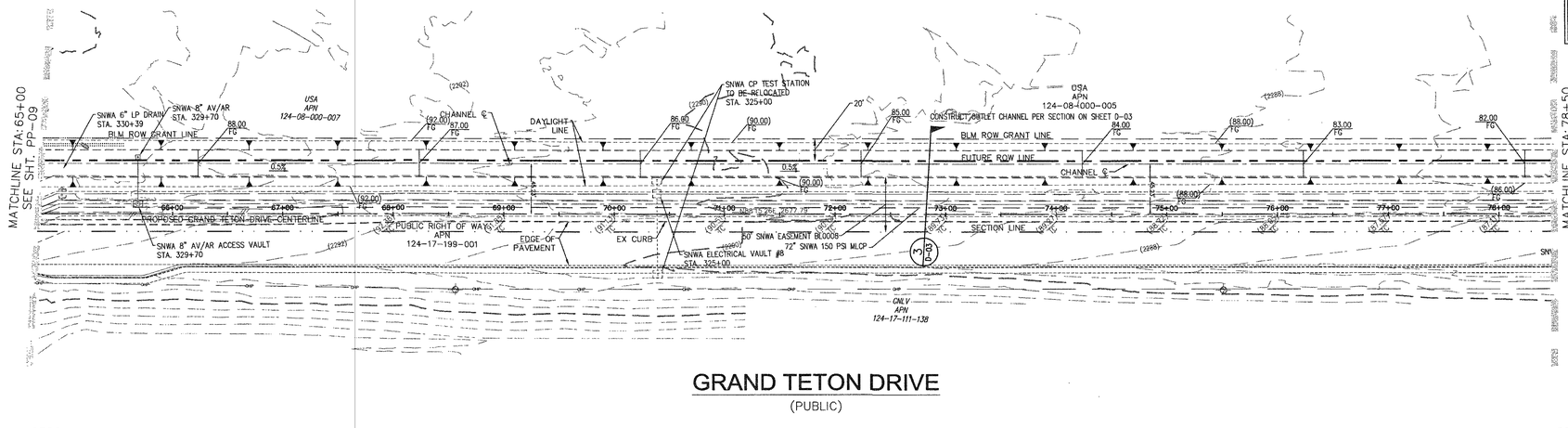
SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

N

60 0 30 60 120

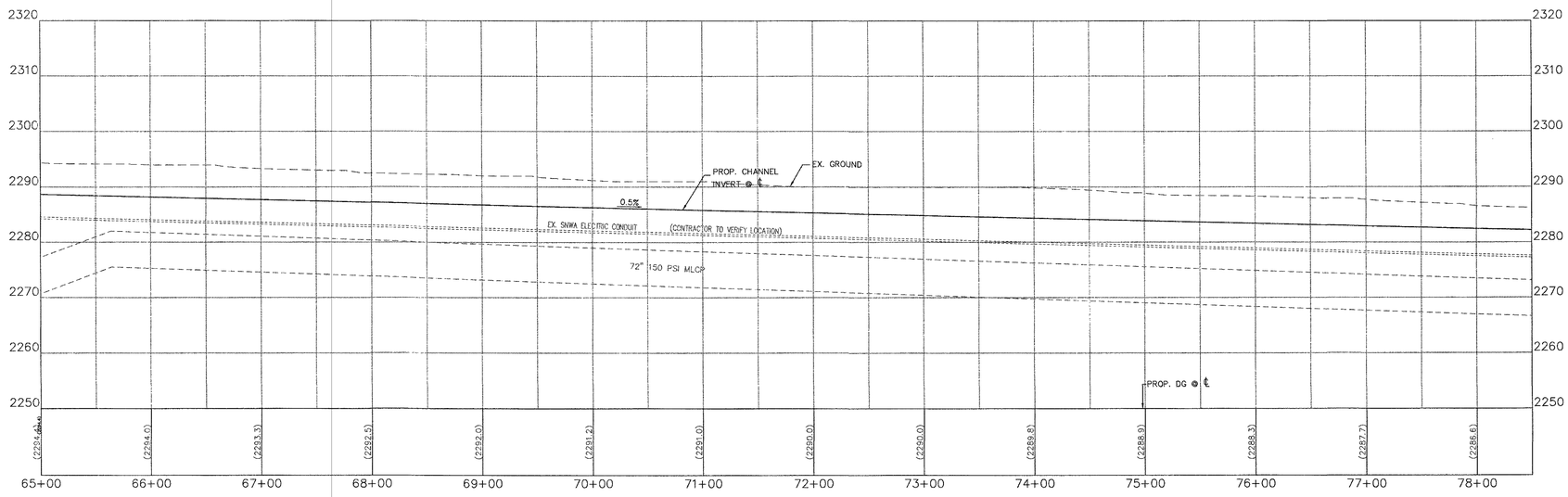
(IN FEET)
HOR. 1 INCH = 60 FT.
VER. 1 INCH = 12 FT.





GRAND TETON DRIVE

(PUBLIC)



GEOTECHNICAL NOTE:

PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL, INC., PROJECT No: E-06-022, DATED: APRIL 26, 2006, REVISED: JULY 14, 2006
UPDATE PREPARED BY: NOVA GEOTECHNICAL & INSPECTION SERVICES LETTER DATED: AUGUST 29, 2016.

GENERAL GRADING AND DRAINAGE NOTES:

1. PURSUANT TO CITY OF NORTH LAS VEGAS ORDINANCE NUMBER 1172, THE CONTRACTOR IS REQUIRED TO SECURE A GRADING PERMIT PRIOR TO COMMENCING WORK.
2. THE CONTRACTOR SHALL SECURE A PERMIT FOR ANY OFF-SITE CONSTRUCTION.
3. THE CONTRACTORS OPERATIONS SHALL NOT TRESPASS BEYOND THE PROJECT PROPERTY LINES UNLESS A PERMIT OR WRITTEN AUTHORIZATION HAS BEEN OBTAINED FROM THE PROPERTY OWNER(S) INVOLVED. COPIES OF SUCH WRITTEN AUTHORIZATION SHALL BE FURNISHED TO THE CITY OF NORTH LAS VEGAS' REPRESENTATIVE PRIOR TO START OF CONSTRUCTION.
4. THE CITY OF NORTH LAS VEGAS CONSTRUCTION SERVICES SHALL BE NOTIFIED ONE (1) WORKING DAY BEFORE ANY ON-SITE CONSTRUCTION WORK BEGINS.
5. AN APPROVED GRADING AND DRAINAGE PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THE APPROVED PLAN WILL REQUIRE SUBMITTAL OF A FORMAL REVISED PLAN FOR REVIEW AND APPROVAL.
6. ALL CONSTRUCTION SURVEY CONTROL SHALL BE DONE BY A LICENSED PROFESSIONAL LAND SURVEYOR IN ACCORDANCE WITH APPLICABLE STATUTES AND CODES. THE CONTRACTOR SHALL PROVIDE COMPETENT RESOURCES TO ASSURE BUILDING PAD AND BUILDING FLOOR ELEVATIONS CONFORM TO THOSE SHOWN ON THE CONSTRUCTION DRAWINGS. FURTHERMORE, THE CONTRACTOR SHALL PROVIDE THE CITY OF NORTH LAS VEGAS BUILDING DEPARTMENT WITH:
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   B. CERTIFICATES OF "BUILDING PAD ELEVATIONS" IN NONCRITICAL AREAS.
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8. ALL STATIONS & OFFSETS REFERENCE GRAND TETON CENTERLINE UNLESS OTHERWISE NOTED.
9. FOR LIMITS OF DEMOLITION SEE DM-1 THROUGH DM-5

SNWA NOTES:

1. ALL REPAIRS OR RELOCATIONS OF SNWA CATHODIC PROTECTION STATIONS OR APPURTENANCES WILL BE DONE BY A CERTIFIED NACE CATHODIC PROTECTION SPECIALIST AND INACCORDANCE WITH SNWA STANDARDS
2. CAUTION SNWA TEST LEADS ARE SHALLOW
3. ALL SNWA TEST STATIONS TO BE TESTED BY CONTRACTOR AND WITNESSED BY SNWA PRIOR TO CONSTRUCTION IN THE AREA. COORDINATE WITH SNWA INSPECTOR
4. IF EXPOSED, CONTRACTOR TO PAY FOR AND REPLACE SNWA CATHODIC PROTECTION TEST STATION GROUND MATS, MAGNESIUM RIBBONS, OR ZINC RIBBONS WITH NEW GROUND MATS, MAGNESIUM RIBBONS OR ZINC RIBBONS.
5. LANDSCAPE AND IRRIGATION PLANS (BY OTHERS) SHALL BE SUBMITTED AND APPROVED BY SNWA.
6. CAUTION SNWA FIBER OPTIC CONDUIT RUNS ALONG THE WEST AND SOUTH SIDES OF THE SNWA 72" LATERAL AT VARIOUS DEPTHS.

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SOUTHERN NEVADA WATER AUTHORITY — DATE 9/5/18

DPR# 2016-0060

SNWA APPROVAL IS VALID FOR ONE (1) YEAR FROM THE SIGNATURE DATE. IF CONSTRUCTION WITHIN THE EASEMENT OR RESTRICTED PIPE SAFETY ZONE IS NOT COMPLETE, PLANS MUST BE RESUBMITTED TO SNWA FOR APPROVAL.

CNLV DEVELOPMENT AND FLOOD CONTROL DIVISION

MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM — DATE:

GRADING PLAN CERTIFICATION

DERICK D.J. YORO — PE #: 16396 — DATE: 5/7/18

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF NORTH LAS VEGAS.

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

S 18
T 19S
R 61E

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
INT. DAYLIGHT CHANNEL STA 65+00 TO 78+50

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000

DERICK D.J YORO — Exp: 06/30/2020 — CIVIL — No. 16396 — STATE OF NEVADA — PROFESSIONAL ENGINEER — 5/7/18

PP-10
SHEET 24 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PRO.#:124070 AGREE#:115666 QS:124-07-SW/NE,124-18-NW/NE

I:\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403-000anp-stm.dwg, 5/7/2018 8:02 AM, Jone Gretty

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DO OVERHEAD

1-702-227-2929

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.

Call before you do UnderGround
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DISCLAIMER:

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BENCHMARK:

NLV9117NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
699.511 METERS, 2294.98 FEET
RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLV9117NWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

LEGAL DESCRIPTION:

GOVERNMENT LOTS 5, 7, 10, 12, 14, 18, 19, 21, 24, 25, & 28 THROUGH 37, INCLUSIVE, OF SECTION 18, TOGETHER WITH GOVERNMENT LOT 7 OF SECTION 19, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA.

BASIS OF BEARINGS:

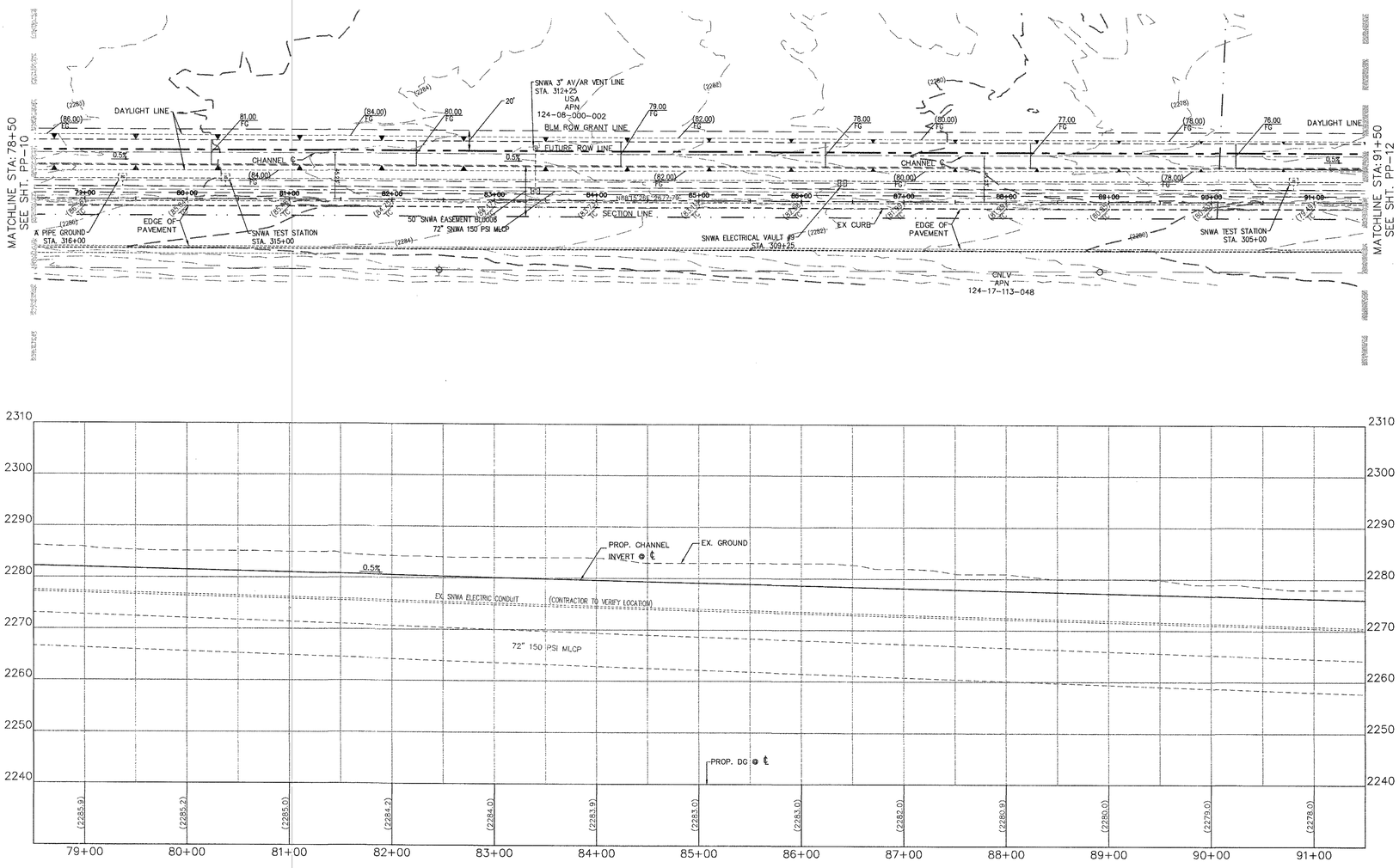
SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

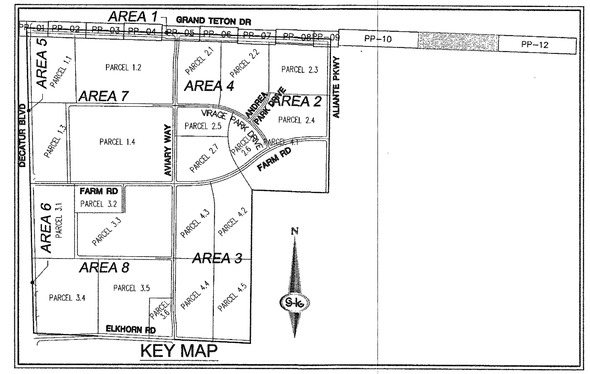
N

S-16

60 0 30 60 120

(IN FEET)
HOR. 1 INCH = 60 FT.
VER. 1 INCH = 12 FT.





KEY MAP

GEOTECHNICAL NOTE:

PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL, INC., PROJECT No: E-06-022, DATED: APRIL 26, 2006, REVISED: JULY 14, 2006
UPDATE PREPARED BY: NOVA GEOTECHNICAL & INSPECTION SERVICES LETTER DATED: AUGUST 29, 2016.

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DPR# 2016-0060

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CLV 731-98

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PROFESSIONAL ENGINEER STATE OF NEVADA
DERICK D.J YORO
Exp: 06/30/2020
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No. 16396
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PP-11
SHEET 25 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ#:124070 AGREE#:115666 QS:124-07-SW/NE, 124-18-NW/NE

J:\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403-000pp-stm.dwg 5/7/2018 8:03 AM Jose Cetty

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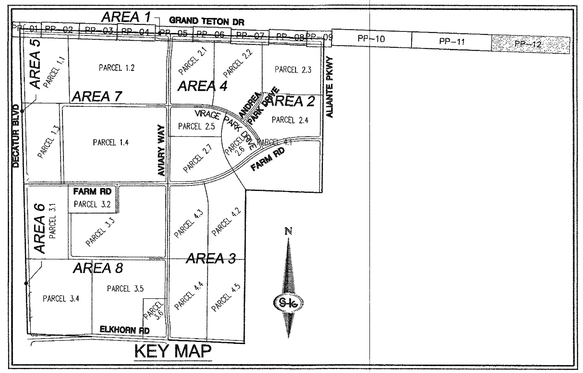

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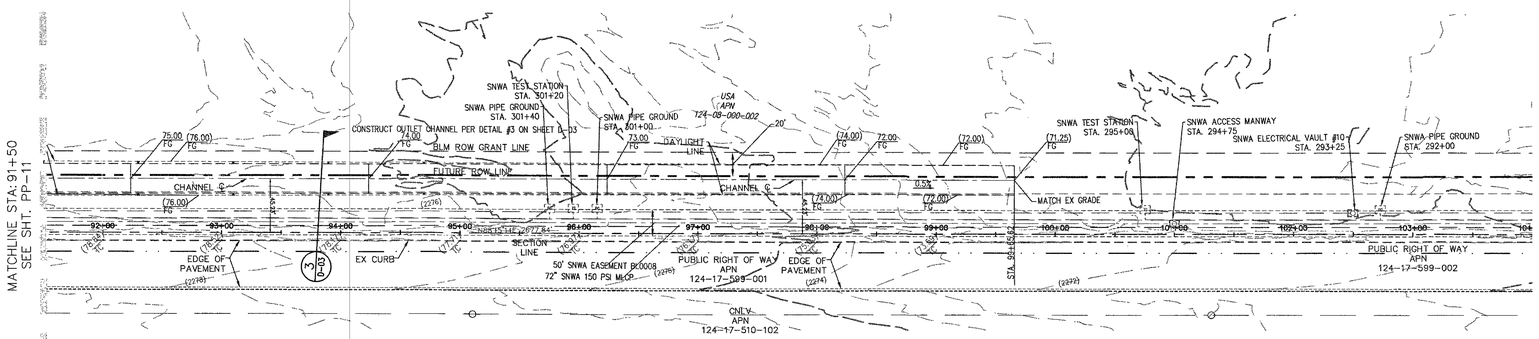

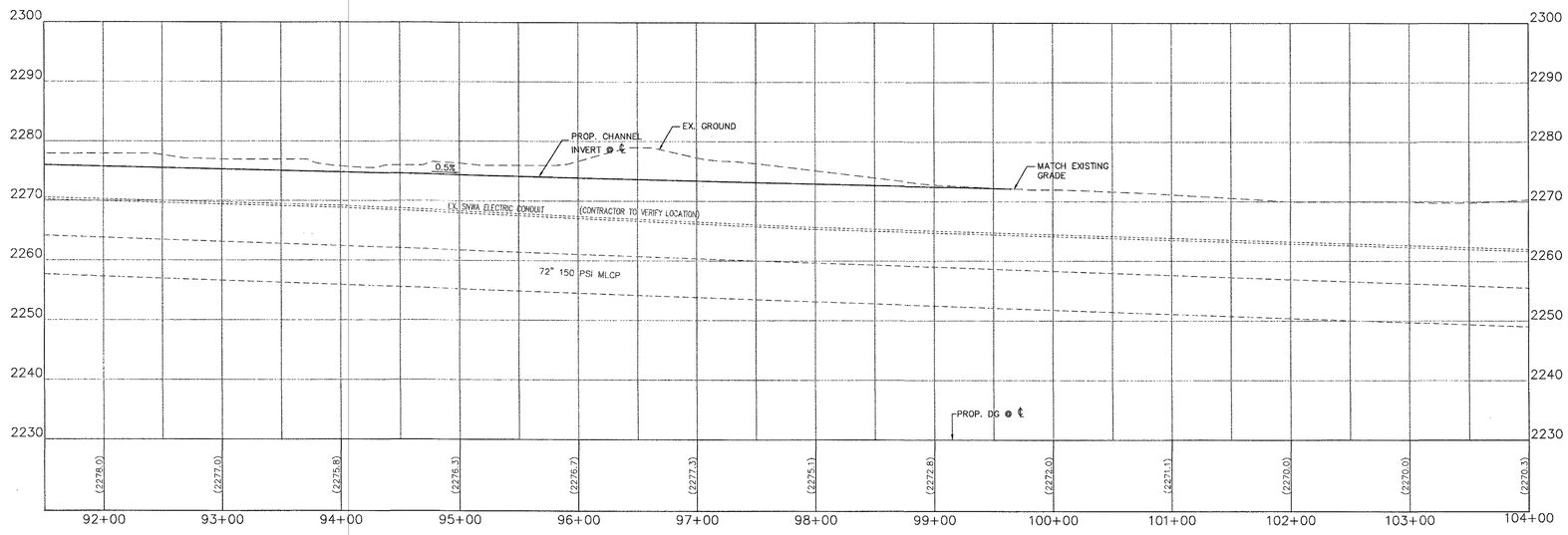

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PP-12
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GOVERNMENT LOTS 5, 7, 10, 12, 14, 18, 19, 21, 24, 25, & 28 THROUGH 37, INCLUSIVE, OF SECTION 18, TOGETHER WITH GOVERNMENT LOT 7 OF SECTION 19, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA.

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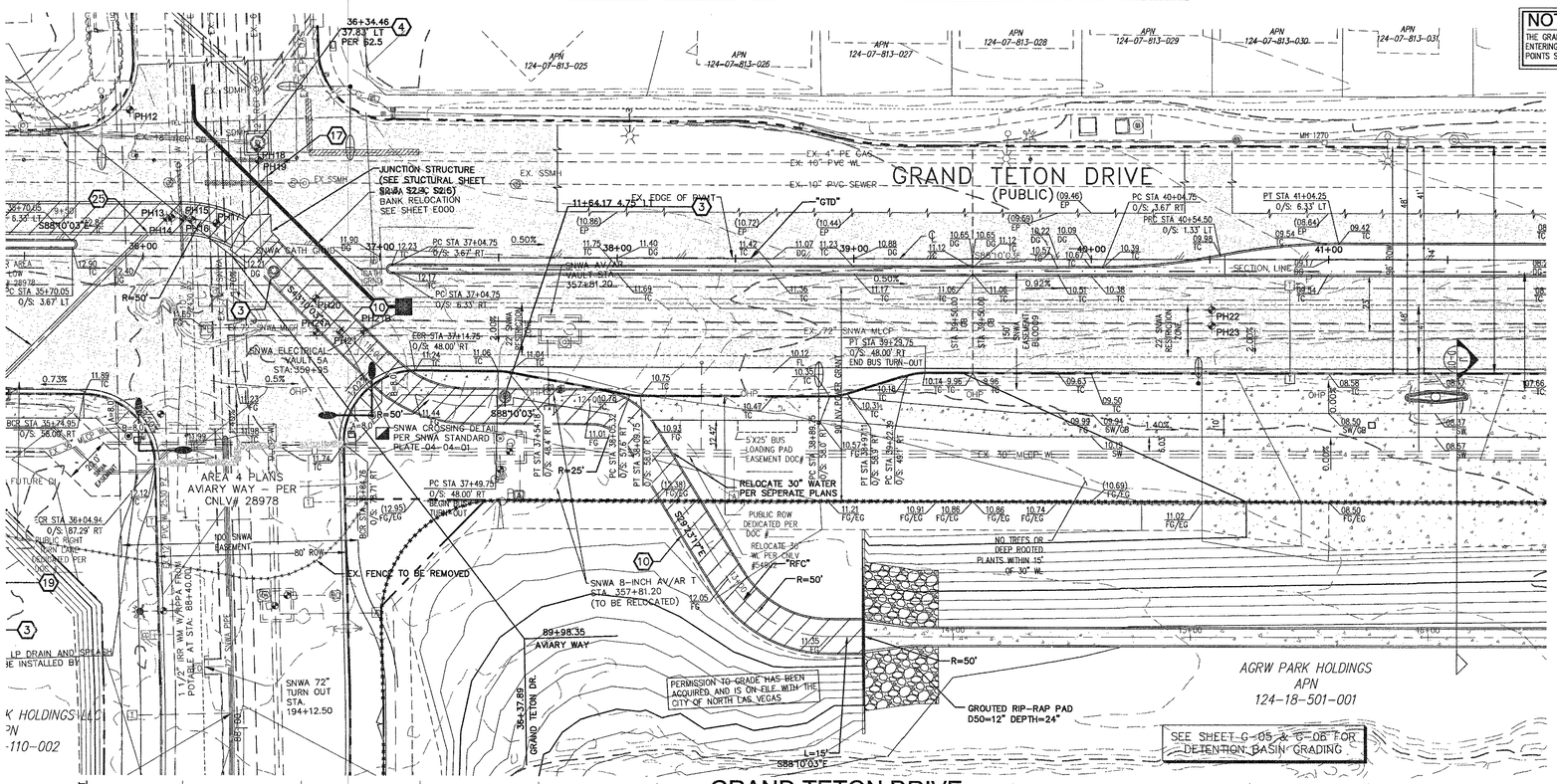

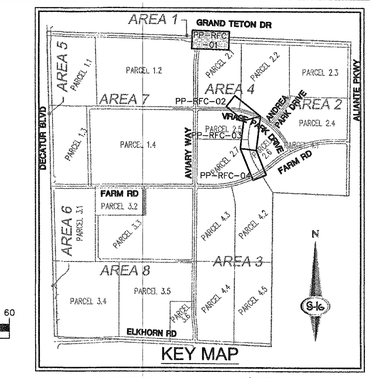

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(IN FEET)

HOR. 1 INCH = 30 FT.

VER. 1 INCH = 6 FT.

LEGEND:

PROP. ASPHALT | PROP. SIDEWALK | PROP. RIP-RAP | NO TREES OR DEEP ROOTED PLANTS | PROP. GROUTED RIP-RAP

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25. REFER TO STRUCTURAL PLANS FOR CONNECTION TO RCA/RCB, SHEETS S1.1 THROUGH S1.6
26. CONSTRUCT 4' TYPE "C" DI PER CCAUSD NO 421
27. INSTALL PULL BOX PER DETAIL SHEET D–08
28. INSTALL NDOT TYPE 4MANHOLE, SEE SHEET D–02
29. INSTALL 48" TYPE II MH PER CCAUSD DWG NO. 406
30. PROTECT EXISTING DI WITH BOARDS, STRAW BALE, ETC.

POTHOLE TABLE

PER AZTEC PROJECT NUMBER NVSUE1614

NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
PH12	10" PVC W	13.60	PH18	4" PE GAS	NOT FOUND
PH13	10" PVC W	NOT FOUND	PH19	10" PVC W	NOT FOUND
PH14	4" PE GAS	NOT FOUND	PH20	SNWA ELEC	7.00
PH15	10" PVC W	NOT FOUND	PH21	72" SNWA W	12.50
PH16	SNWA ELEC	7.10	PH21A*	72" SNWA W	15.25
PH17	72" SNWA W	16.20	PH21B*	72" SNWA W	14.92

*POTHOLES PERFORMED BY WESTERN STATE CONTRACTING

GEOTECHNICAL NOTE:

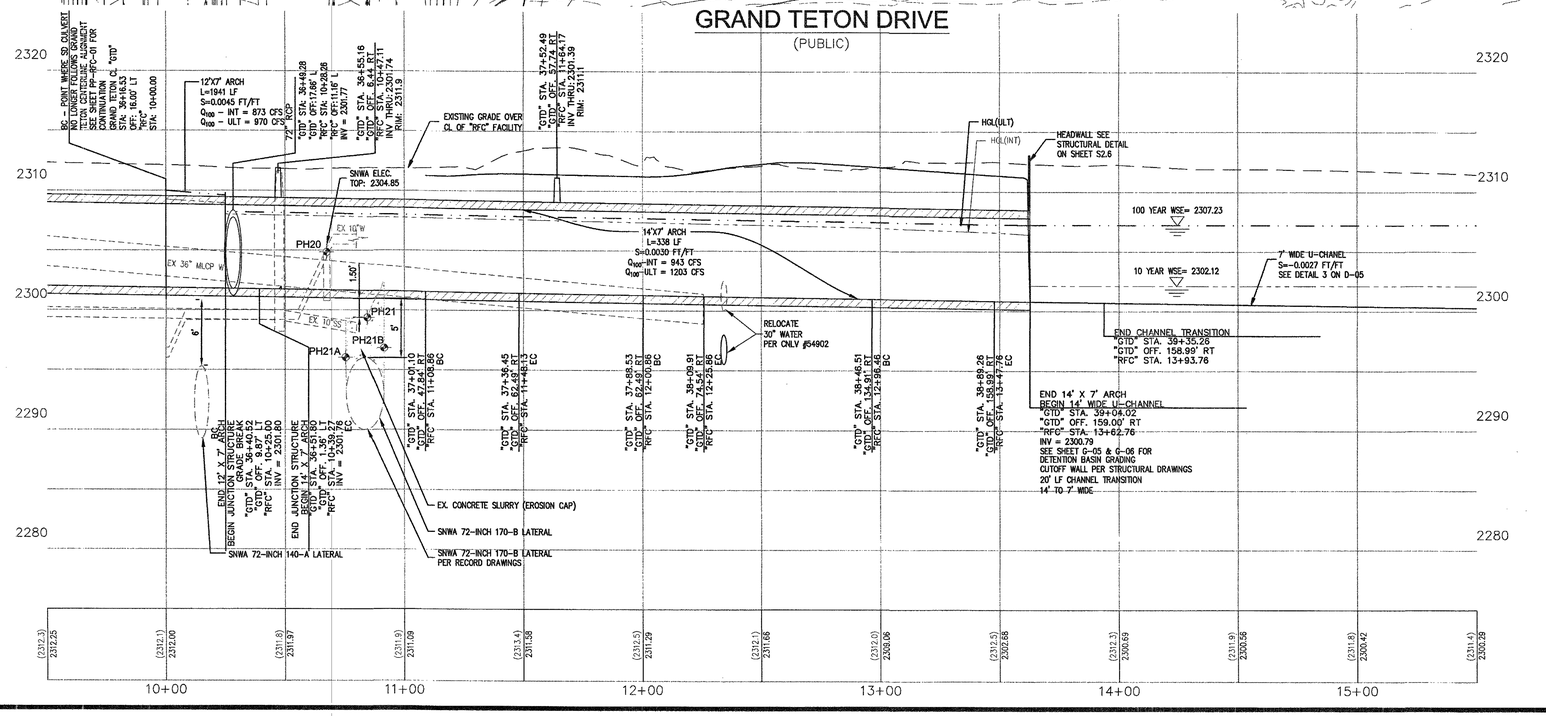
PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL, INC., PROJECT No: E–06–022, DATED: APRIL 26, 2006, REVISED: JULY 14, 2006
UPDATE PREPARED BY: NOVA GEOTECHNICAL & INSPECTION SERVICES LETTER DATED: AUGUST 29, 2016.

GENERAL GRADING AND DRAINAGE NOTES:

1. PURSUANT TO CITY OF NORTH LAS VEGAS ORDINANCE NUMBER 1172, THE CONTRACTOR IS REQUIRED TO SECURE A GRADING PERMIT PRIOR TO COMMENCING WORK.
2. THE CONTRACTOR SHALL SECURE A PERMIT FOR ANY OFF–SITE CONSTRUCTION.
3. THE CONTRACTORS OPERATIONS SHALL NOT TRESPASS BEYOND THE PROJECT PROPERTY LINES UNLESS A PERMIT OR WRITTEN AUTHORIZATION HAS BEEN OBTAINED FROM THE PROPERTY OWNER(S) INVOLVED. COPIES OF SUCH WRITTEN AUTHORIZATION SHALL BE FURNISHED TO THE CITY OF NORTH LAS VEGAS' REPRESENTATIVE PRIOR TO START OF CONSTRUCTION.
4. THE CITY OF NORTH LAS VEGAS CONSTRUCTION SERVICES SHALL BE NOTIFIED ONE (1) WORKING DAY BEFORE ANY ON–SITE CONSTRUCTION WORK BEGINS.
5. AN APPROVED GRADING AND DRAINAGE PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. DEMATIONS FROM THE APPROVED PLAN WILL REQUIRE SUBMITTAL OF A FORMAL REVISED PLAN FOR REVIEW AND APPROVAL.
6. ALL CONSTRUCTION SURVEY CONTROL SHALL BE DONE BY A LICENSED PROFESSIONAL LAND SURVEYOR IN ACCORDANCE WITH APPLICABLE STATUTES AND CODES. THE CONTRACTOR SHALL PROVIDE COMPETENT RESOURCES TO ASSURE BUILDING PAD AND BUILDING FLOOR ELEVATIONS CONFORM TO THOSE SHOWN ON THE CONSTRUCTION DRAWINGS. FURTHERMORE, THE CONTRACTOR SHALL PROVIDE THE CITY OF NORTH LAS VEGAS BUILDING DEPARTMENT WITH:
   A. CERTIFICATION OF "BUILDING FLOOR ELEVATIONS" IN CRITICAL DRAINAGE AREAS.
   B. CERTIFICATES OF "BUILDING PAD ELEVATIONS" IN NONCRITICAL AREAS.
7. THE CONTRACTOR SHALL CERTIFY TO THE CITY OF NORTH LAS VEGAS CONSTRUCTION SERVICES DIVISION THAT ALL FILLS, FOUNDATIONS AND SUBGRADES MEET THE MINIMUM COMPACTION REQUIREMENTS. CERTIFICATION SHALL BE MADE PRIOR TO POURING CONCRETE.
8. ALL STATIONS & OFFSETS REFERENCE GRAND TETON CENTERLINE UNLESS OTHERWISE NOTED.
9. FOR LIMITS OF DEMOLITION SEE DM–1 THROUGH DM–5

SNWA NOTES:

1. ALL REPAIRS OR RELOCATIONS OF SNWA CATHODIC PROTECTION STATIONS OR APPURTENANCES WILL BE DONE BY A CERTIFIED NACE CATHODIC PROTECTION SPECIALIST AND INACCORDANCE WITH SNWA STANDARDS
2. CAUTION SNWA TEST LEADS ARE SHALLOW
3. ALL SNWA TEST STATIONS TO BE TESTED BY CONTRACTOR AND WITNESSED BY SNWA PRIOR TO CONSTRUCTION IN THE AREA. COORDINATE WITH SNWA INSPECTOR
4. IF EXPOSED, CONTRACTOR TO PAY FOR AND REPLACE SNWA CATHODIC PROTECTION TEST STATION GROUND MATS, MAGNESIUM RIBBONS, OR ZINC RIBBONS WITH NEW GROUND MATS, MAGNESIUM RIBBONS OR ZINC RIBBONS.
5. LANDSCAPE AND IRRIGATION PLANS (BY OTHERS) SHALL BE SUBMITTED AND APPROVED BY SNWA.
6. CAUTION SNWA FIBER OPTICS CONDUIT RUNS ALONG THE WEST AND SOUTH SIDES OF THE SNWA 72" LATERAL AT VARIOUS DEPTHS.



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

NO.	DESCRIPTION	DATE	BY	APP.	APP. DATE

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

PLAN & PROFILE - RFC STA 10+00 TO 16+50

S-18 R-61E

SLATER HANIFAN GROUP

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO. SUN1403-000

REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA DERICK D.J YORO No. 16396 CIVIL 5/7/18

PP-RFC-01
SHEET 27 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ.#:124070 AGREE#:115666 QS:124-07-SW/NE,124-18-NW/NE

SOUTHERN NEVADA WATER AUTHORITY — DISHARI — 9/5/18 DATE

DPR# 2016–0060

SNWA APPROVAL IS VALID FOR ONE (1) YEAR FROM THE SIGNATURE DATE. IF CONSTRUCTION WITHIN THE EASEMENT OR RESTRICTED PIPE SAFETY ZONE IS NOT COMPLETE, PLANS MUST BE RESUBMITTED TO SNWA FOR APPROVAL.

CNLV DEVELOPMENT AND FLOOD CONTROL DIVISION

MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM — DATE:

GRADING PLAN CERTIFICATION

DERICK D.J YORO — PE #: 16396 — 5/7/18 DATE:

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF NORTH LAS VEGAS.

CLV 731–98

J:\sun1403–000 grand teton regional flood control facility\dwg\improv\sun1403–000prp–stm.dwg 5/7/2018 8:07 AM Jone Cretty

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DO OVERHEAD

1-702-227-2929

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.

Call before you do UnderGround

1-702-455-6000

CLARK COUNTY TRAFFIC OPERATIONS AND

1-702-432-5300

FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.

Call 811 OR

1-800-227-2600 AND

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BENCHMARK:

NLV9117NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
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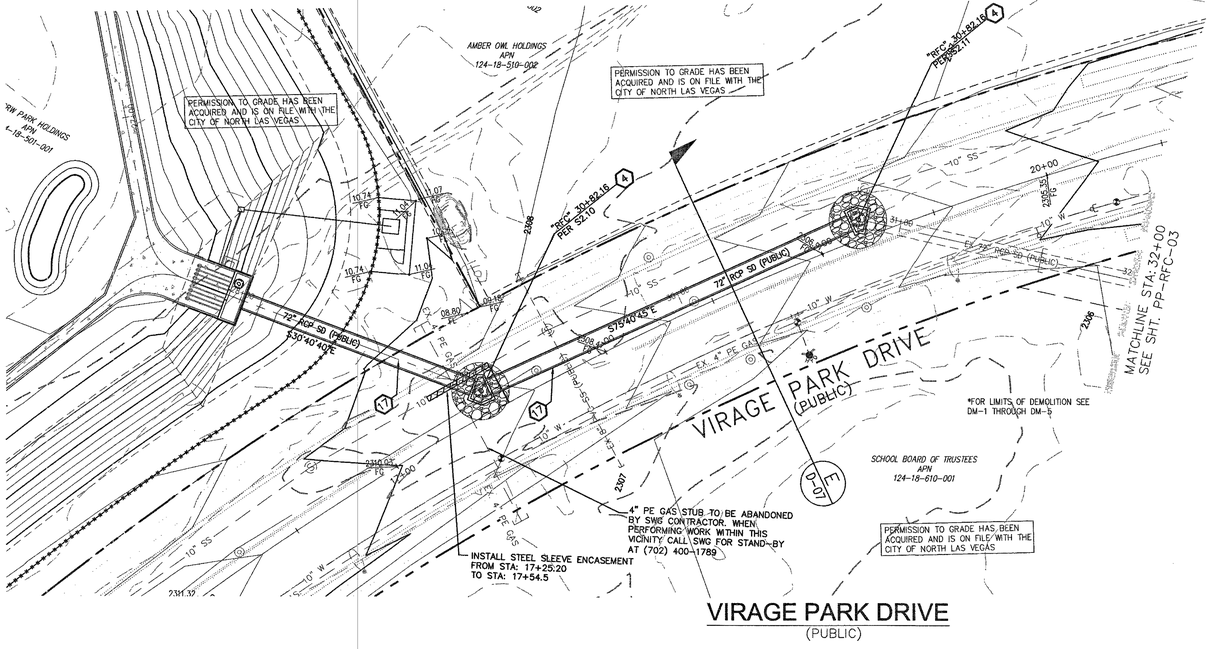
AMBER OWL HOLDINGS APN 124-18-510-002
PERMISSION TO GRADE HAS BEEN ACQUIRED AND IS ON FILE WITH THE CITY OF NORTH LAS VEGAS
"RFC" 30+92.16 PER SHT. S2.11
"RFC" 30+92.16 PER SHT. S2.10
72" RCP SD (PUBLIC)
S75°40'45"E
S30°40'40"E
VIRAGE PARK DRIVE (PUBLIC)
MATCHLINE STA. 32+00 SEE SHT. PP-RFC-03
*FOR LIMITS OF DEMOLITION SEE DM-1 THROUGH DM-5
SCHOOL BOARD OF TRUSTEES APN 124-18-610-001
4" PE GAS STUB TO BE ABANDONED BY SWG CONTRACTOR. WHEN PERFORMING WORK WITHIN THIS VICINITY CALL SWG FOR STAND-BY AT (702) 400-1789
INSTALL STEEL SLEEVE ENCASEMENT FROM STA: 17+25.20 TO STA: 17+54.5
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10" SS
8" W
8" G
EX. 4" PE GAS
EX. 10" W
EX. 8" W
EX. 8" G
EX. 10" SS
EX. 8" SS
EX. 12" SS
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20+00
30+00
31+00
32+00
2305.35 INV
2306.59 INV
2307.75 INV
2308.49 INV
2308.64 INV
2309.04 INV
2309.06 INV
2310.06 INV
2307.8
2308.6
2307.75
2308.49
2308.64
2309.04
2309.06
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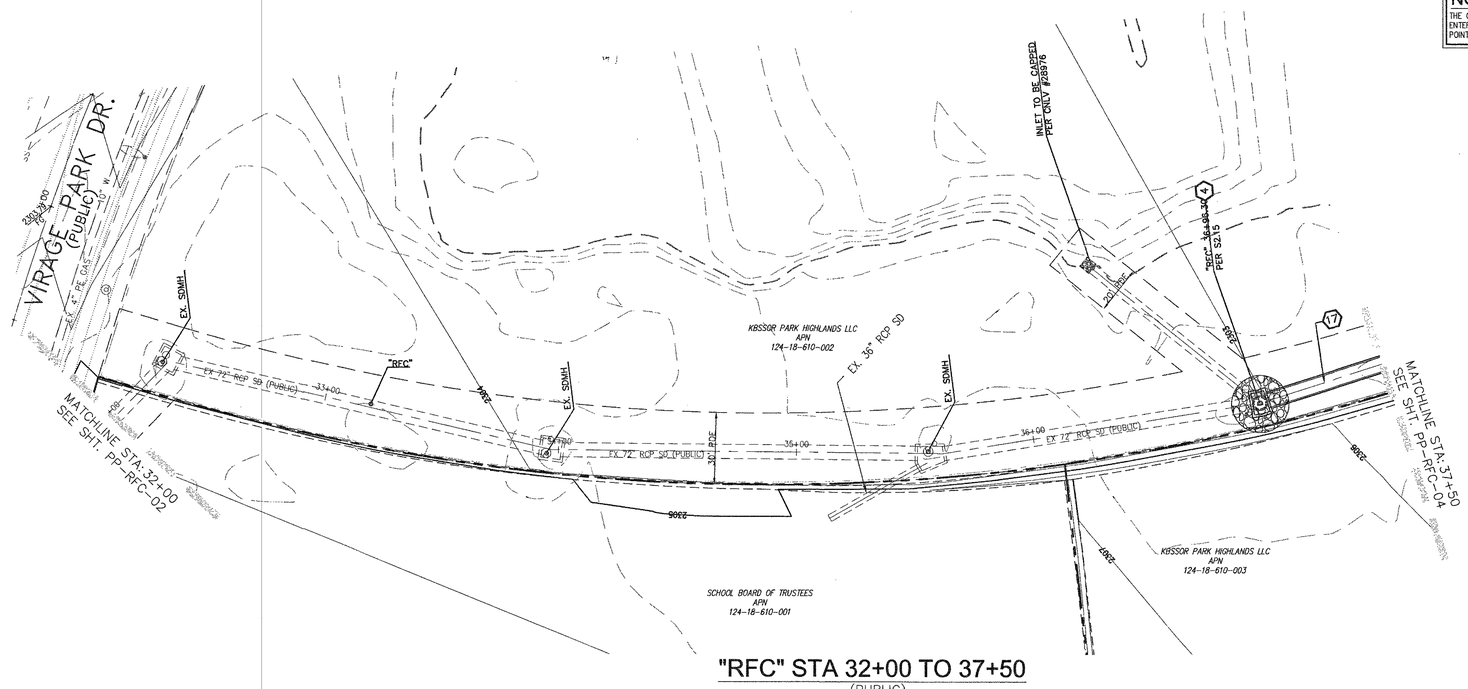

"RFC" STA 32+00 TO 37+50
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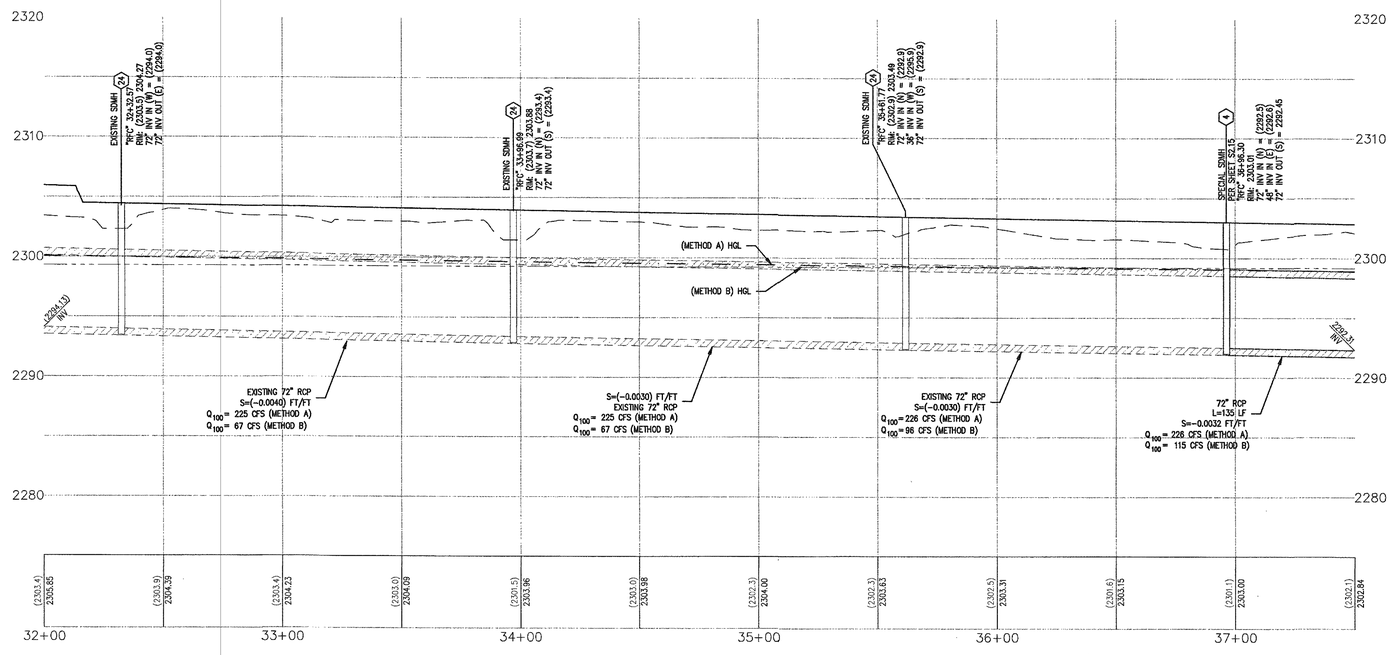

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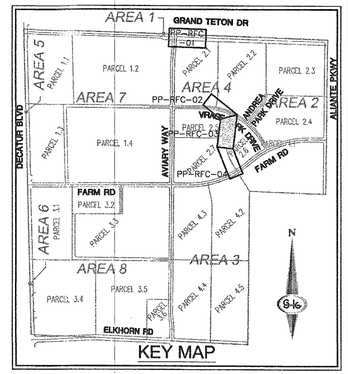

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27. INSTALL PULL BOX PER DETAIL SHEET D–08
28. INSTALL NDOT TYPE 4MANHOLE, SEE SHEET D–02
29. INSTALL 48" TYPE II MH PER CCAUSD DWG NO. 406
30. PROTECT EXISTING DI WITH BOARDS, STRAW BALE, ETC.

GEOTECHNICAL NOTE:

PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL, INC., PROJECT No: E–06–022, DATED: APRIL 26, 2006, REVISED: JULY 14, 2006
UPDATE PREPARED BY: NOVA GEOTECHNICAL & INSPECTION SERVICES LETTER DATED: AUGUST 29, 2016.

GENERAL GRADING AND DRAINAGE NOTES:

1. PURSUANT TO CITY OF NORTH LAS VEGAS ORDINANCE NUMBER 1172, THE CONTRACTOR IS REQUIRED TO SECURE A GRADING PERMIT PRIOR TO COMMENCING WORK.
2. THE CONTRACTOR SHALL SECURE A PERMIT FOR ANY OFF–SITE CONSTRUCTION.
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6. ALL CONSTRUCTION SURVEY CONTROL SHALL BE DONE BY A LICENSED PROFESSIONAL LAND SURVEYOR IN ACCORDANCE WITH APPLICABLE STATUTES AND CODES. THE CONTRACTOR SHALL PROVIDE COMPETENT RESOURCES TO ASSURE BUILDING PAD AND BUILDING FLOOR ELEVATIONS CONFORM TO THOSE SHOWN ON THE CONSTRUCTION DRAWINGS. FURTHERMORE, THE CONTRACTOR SHALL PROVIDE THE CITY OF NORTH LAS VEGAS BUILDING DEPARTMENT WITH:
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8. ALL STATIONS & OFFSETS REFERENCE GRAND TETON CENTERLINE UNLESS OTHERWISE NOTED.
9. FOR LIMITS OF DEMOLITION SEE DM–1 THROUGH DM–5

CITY OF NORTH LAS VEGAS
FIRE PREVENTION
BY: DATE:

CNLV DEVELOPMENT
AND FLOOD CONTROL DIVISION
MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM DATE:

GRADING PLAN CERTIFICATION
DERICK D.J. YORO PE #: 16396 DATE: 5/7/18
I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF NORTH LAS VEGAS.

CLV 731–98

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

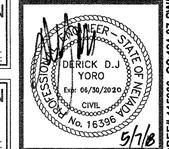
VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

PLAN & PROFILE - RFC STA 32+00 TO 37+50

S 18
T 19S
R 61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO.
SUN1403-000



PP-RFC-03
SHEET 29 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PRO.J#:124070 AGREE#:115666 QS-124-07-SW/NE,124-18-NW/NE

i:\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403-000prpn-stm.dwg 5/7/2018 8:10 AM Jona Crotty

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DO OVERHEAD

1-702-227-2929

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.

Call before you do UnderGround

1-702-455-6000

CLARK COUNTY TRAFFIC OPERATIONS

AND

1-702-432-5300

FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig

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Call 811

OR

1-800-227-2600

AND

CLARK COUNTY TRAFFIC OPERATIONS

1-702-455-6000

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BENCHMARK:

NLV9117NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
699.511 METERS, 2294.98 FEET
RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLV9117NWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

LEGAL DESCRIPTION:

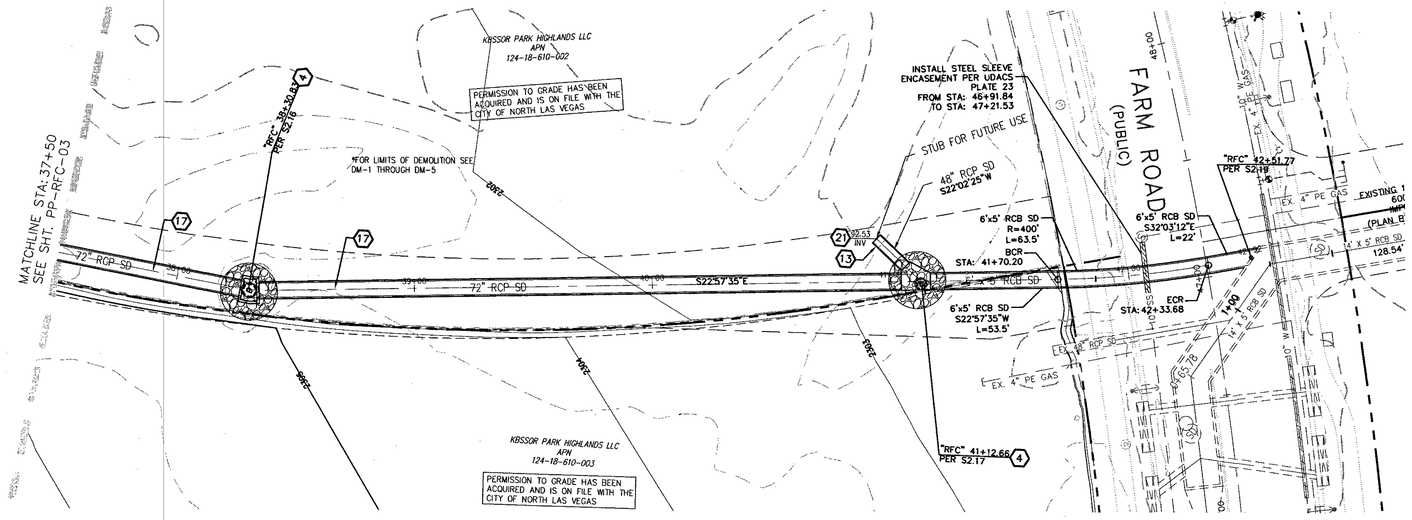
GOVERNMENT LOTS 5, 7, 10, 12, 14, 18, 19, 21, 24, 25, & 28 THROUGH 37, INCLUSIVE, OF SECTION 18, TOGETHER WITH GOVERNMENT LOT 7 OF SECTION 19, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA.

BASIS OF BEARINGS:

SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

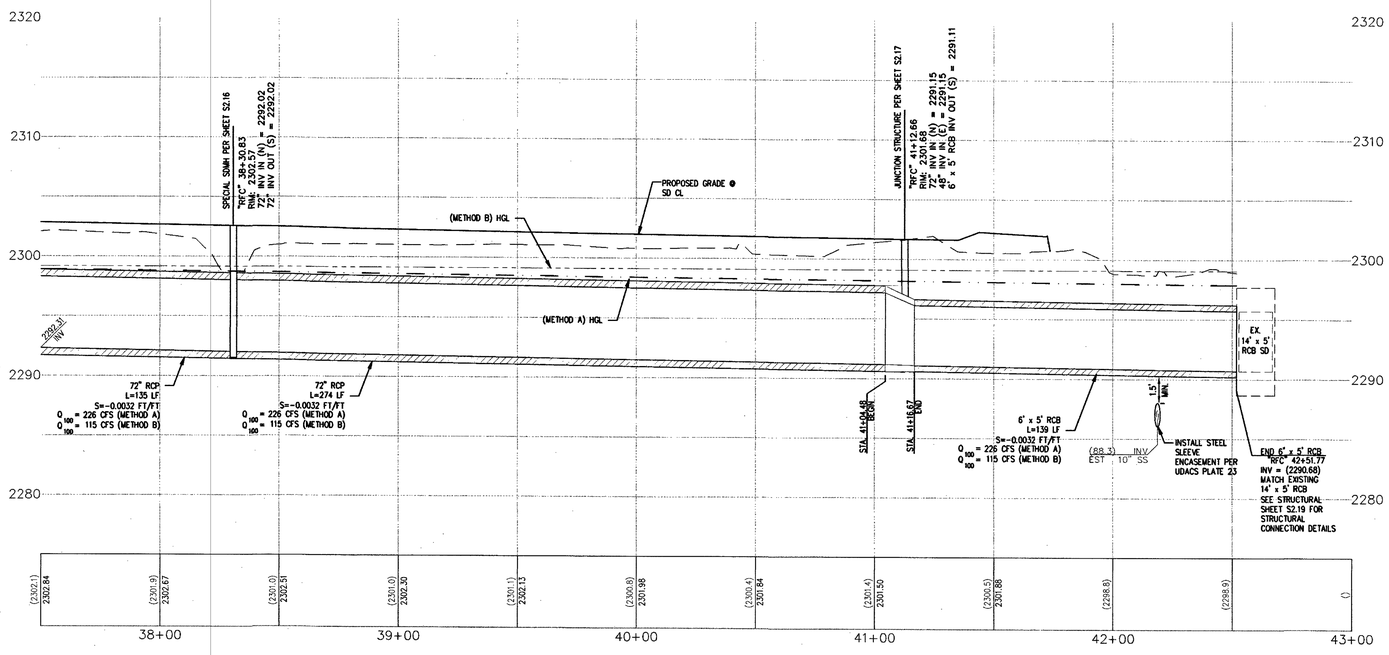
NOTE:

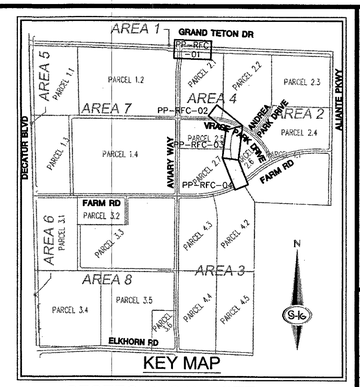
THE GRAND TETON ℄ GRADES AND ℄ OF DRIVEWAYS ENTERING GRAND TETON ARE BASED ON AS-BUILT POINTS SHOT BY CARTER BURGESS SURVEY IN 2006.



"RFC" STA: 37+50 TO 43+00

(PUBLIC)





(IN FEET)
HOR. 1 INCH = 30 FT.
VER. 1 INCH = 6 FT.

LEGEND:

PROP. ASPHALT | PROP. SIDEWALK | PROP. RIP-RAP | NO TREES OR DEEP ROOTED PLANTS | PROP. GROUTED RIP-RAP

CONSTRUCTION NOTES:

– ALL CONSTRUCTION TO BE DONE IN ACCORDANCE WITH "CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS (CCAUSD)" LATEST EDITION AND/OR REGULATING ENTITY HAVING JURISDICTION.
– NOT ALL NOTES USED ON THIS SHEET –

1. CONSTRUCT "L" TYPE CURB PER CCAUSD No. 216.
2. CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD No. 219.
3. INSTALL AC PAVEMENT PER STREET SECTIONS ON SHEET D-01.
4. 2' OF COVER OVER WATER MAIN SHALL BE MAINTAINED AT ALL TIME. CONTRACTOR SHALL USE EXTREME CAUTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY DAMAGES TO WATER LINE REGARDLESS OF METHODS UTILIZED.
5. ADJUST TO FINISH GRADE WITH GRADE RINGS
6. CONSTRUCT CONC. SIDEWALK PER CCAUSD No. 234 (OR 234.3PER PLAN)
7. CONSTRUCT TYPICAL BUS TURNOUT PER CCAUSD No. 234.1, 234.4 & LOADING PAD PER CCAUSD No. 234.2.
8. CONSTRUCT CASE II SIDEWALK RAMP W/ TRUNCATED DOMES FOR 2' MIN. PER CCAUSD No. 235. A & B=8.0' UNLESS NOTED OTHERWISE ON PLANS.
9. THE SAWCUT LINES AND LIMITS OF AC REMOVAL AND REPLACEMENT SHALL BE DETERMINED BY A CNLV CONSTRUCTION SERVICES INSPECTOR.
10. ADJUST WITH MANHOLE TO GRADE PER DETAIL 4 ON SHEET D-03
11. INSTALL STAMPED CONCRETE, SOLOMON COLOR: BAMBOO #288 AND STAMP PATTERN NEW BRICK HERRINGBONE OR APPROVED EQUAL
12. CONSTRUCT TEMPORARY AC SIDEWALK

STORM DRAIN NOTES:

1. CONSTRUCT 60" TYPE III MANHOLE (CCAUSD STD. DWG. NO. 406.1)
2. CONSTRUCT RCB MANHOLE (SEE STRUCTURAL DETAIL 7 SHEET S0.2)
3. CONSTRUCT RCA MANHOLE (SEE STRUCTURAL DETAIL 2 SHEET S3.2)
4. CONSTRUCT SPECIAL MANHOLE (PER STRUCTURAL PLANS)
5. CONSTRUCT 12.5-FOOT TYPE "DM" DROP INLET (CCAUSD STD. DWG. NO. 412.1& 421)
6. CONSTRUCT TYPE "CM2" DROP INLET LENGTH PER CALLOUT (CCAUSD STD. DWG. NO. 412.1& 421)
7. CONSTRUCT TRENCH DRAIN (L=34') (17 NEENAH R-4999-LX TYPE C HEAVY DUTY BOLT DOWN GRATES) (SEE STRUCTURAL DETAILS ON S2.1 & S2.2)
8. INSTALL 18" RCP (CCAUSD STD. DWG. NO. 503.2)
9. INSTALL 24" RCP (CCAUSD STD. DWG. NO. 503.2)
10. CONSTRUCT 14' X 7' RCA (SEE STRUCTURAL DETAILS)
11. INSTALL 36" RCP (CCAUSD STD. DWG. NO. 503.2)
12. INSTALL 42" RCP (CCAUSD STD. DWG. NO. 503.2)
13. INSTALL 48" RCP (CCAUSD STD. DWG. NO. 503.2)
14. INSTALL 54" RCP (CCAUSD STD. DWG. NO. 503.2)
15. INSTALL 60" RCP (CCAUSD STD. DWG. NO. 503.2)
16. INSTALL 66" RCP (CCAUSD STD. DWG. NO. 503.2)
17. INSTALL 72" RCP (CCAUSD STD. DWG. NO. 503.2)
18. CONSTRUCT 12' X 5' PRECAST RCB
19. CONSTRUCT 6' X 5' PRECAST RCB
20. CONSTRUCT 12' X 7' RCA (SEE STRUCTURAL DETAILS)
21. CONSTRUCT BRICK AND MORTAR PLUG (SEE DETAIL 7, SHEET D-05)
22. CONSTRUCT RCB PLUG (NDOT STD. PLAN B-20.1.7)
23. INSTALL WATER/SEWER LINE PER SHEETS PP-UTL-01 THROUGH PP-UTL-09
24. ADJUST STORM DRAIN MANHOLE TO PROPOSED FINISH GRADE PER CCAUSD STANDARDS
25. REFER TO STRUCTURAL PLANS FOR CONNECTION TO RCA/RCB, SHEETS S1.1 THROUGH S1.6
26. CONSTRUCT 4" TYPE "C" DI PER CCAUSD NO 421
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29. INSTALL 48" TYPE II MH PER CCAUSD DWG NO. 406
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GEOTECHNICAL NOTE:

PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL, INC., PROJECT No: E-06-022, DATED: APRIL 26, 2006, REVISED: JULY 14, 2006
UPDATE PREPARED BY: NOVA GEOTECHNICAL & INSPECTION SERVICES LETTER DATED: AUGUST 29, 2016.

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CITY OF NORTH LAS VEGAS
FIRE PREVENTION
BY: DATE:

CNLV DEVELOPMENT
AND FLOOD CONTROL DIVISION
MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM DATE:

GRADING PLAN CERTIFICATION
DERRICK D.J. YORO PE #: 16396 DATE: 8/15/18
I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF NORTH LAS VEGAS.

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

PLAN & PROFILE - RFC STA 37+50 TO 43+00

S 18
T 19S
R 61E

DATE: 5/07/2018
DRAFTER: OO/JC
DESIGNER: OO/JC
CHECKED: DY
PROJECT NO. SUN1403-000

DERRICK D.J. YORO — PROFESSIONAL ENGINEER — STATE OF NEVADA — Exp: 06/30/2020 — CIVIL — No. 16396 — 8/15/18

PP-RFC-04
SHEET 30 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ#:124070 AGREE#:115666 QS:124-07-SWNE,124-18-NWNE

J:\sun1403-000 grand teton regional flood control facility\dwg\mxrox\sun1403-000pp-stm.dwg 8/13/2018 8:54 AM Jons Crelly

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

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BENCHMARK:

NLV5117NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
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RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLV5117NWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

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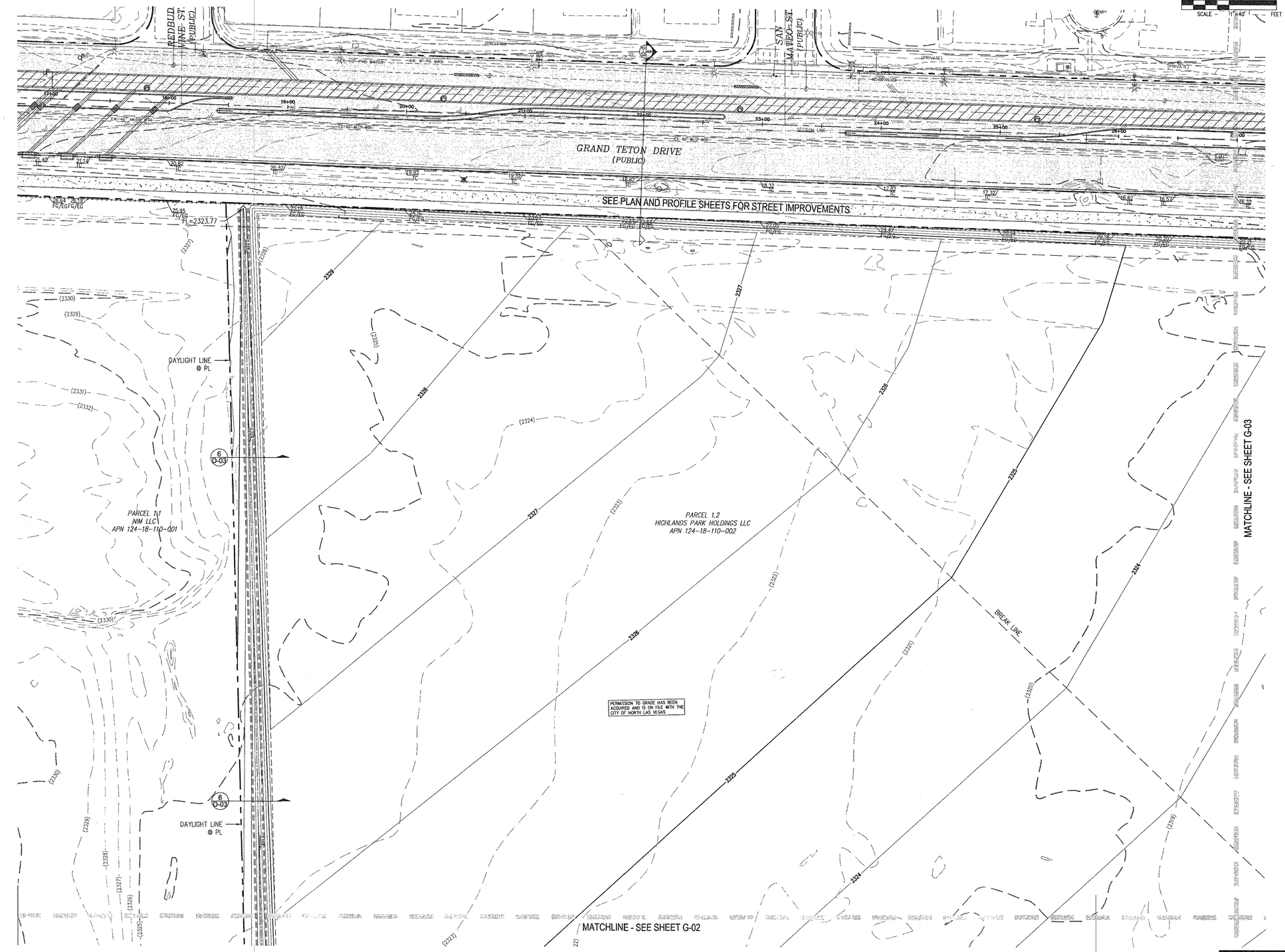
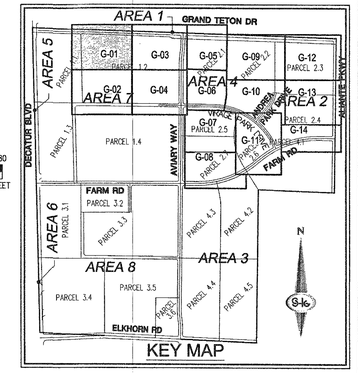
N
S-16
0 40 80
SCALE - 1" = 40' - FEET





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PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL, INC., PROJECT No: E-06-022, DATED: APRIL 26, 2006, REVISED: JULY 14, 2006
UPDATE PREPARED BY: NOVA GEOTECHNICAL & INSPECTION SERVICES LETTER DATED: AUGUST 29, 2016.
CUT TOTAL: 30,259 CY FILL TOTAL: 1,243 NET EXPORT: 29,016

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8. THE CONTRACTOR SHALL CLEAN PIPE PRIOR TO FINAL INSPECTION PER CNLV INSPECTOR.

STORM DRAIN NOTES:

(4) CONSTRUCT SPECIAL MANHOLE (PER PLANS)
(6) CONSTRUCT 20-FOOT TYPE "CM2" DROP INLET WITH B-GRATES (CCAUSD STD. DWG. NO. 412.1& 421)
(11) INSTALL 36" RCP (CCAUSD STD. DWG. NO. 503.2)
(14) INSTALL 54" RCP (CCAUSD STD. DWG. NO. 503.2)
(16) INSTALL 66" RCP (CCAUSD STD. DWG. NO. 503.2)
(19) CONSTRUCT 6' X 5' PRECAST RCB
(21) CONSTRUCT BRICK AND MORTAR PLUG (SEE DETAIL 7, SHEET DT-05)
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CNLV DEVELOPMENT AND FLOOD CONTROL DIVISION

MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM DATE:

GRADING PLAN CERTIFICATION

DERICK D.J. YORO PE #: 16396 DATE: 5/7/18

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CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

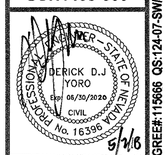
VALLEY VISTA

S18 T19S R61E

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
PARCEL GRADING PLAN I

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000



G-01
SHEET 31 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ.#:124070 AGREE#:115666 QS:124-07-SWINE,124-18-NWINE

J:\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403-000grd.dwg 5/7/2018 8:14 AM Jone Crotty

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1-702-455-6000

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BENCHMARK:

NLV9117NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.462 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
699.511 METERS, 2294.98 FEET
RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLV9117NWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

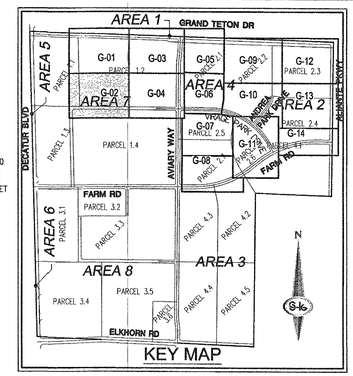
LEGAL DESCRIPTION:

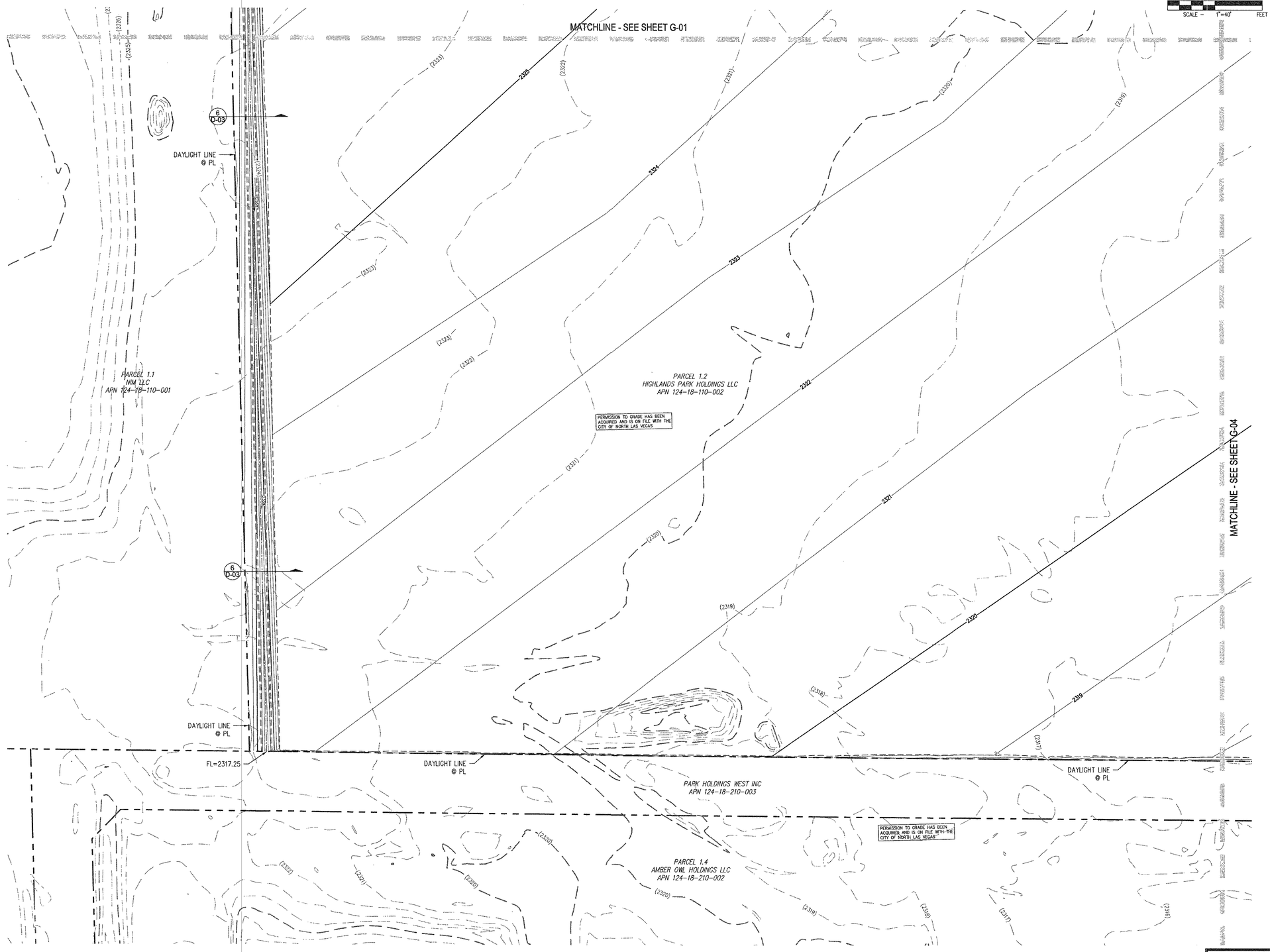
GOVERNMENT LOTS 5, 7, 10, 12, 14, 18, 19, 21, 24, 25, & 28 THROUGH 37, INCLUSIVE, OF SECTION 18, TOGETHER WITH GOVERNMENT LOT 7 OF SECTION 19, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA.

BASIS OF BEARINGS:

SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

N
S-16
0 40 80
SCALE – 1"=40' FEET





GEOTECHNICAL NOTE:

PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL, INC., PROJECT No: E-06-022, DATED: APRIL 26, 2006, REVISED: JULY 14, 2006
UPDATE PREPARED BY: NOVA GEOTECHNICAL & INSPECTION SERVICES LETTER DATED: AUGUST 29, 2016.
CUT TOTAL: 30,259 CY FILL TOTAL: 1,243 NET EXPORT: 29,016

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CNLV DEVELOPMENT AND FLOOD CONTROL DIVISION
MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM DATE:

GRADING PLAN CERTIFICATION
DERICK D.J. YORO PE #: 16396 5/1/9 DATE:
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CLV 731-98

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

NO:	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

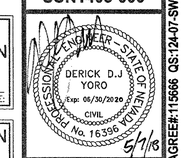
VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
PARCEL GRADING PLAN II

S18 T19S R61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000



G-02
SHEET 32 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ#:124070 AGREE#:115666 QS:124-07-SWNE,124-18-NWNE

J:\sun1403-000 grand teton regional flood control facility\dwg\mprov\sun1403-000grd.dwg 5/7/2018 8:14 AM Jane Crelly

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DO OVERHEAD

1-702-227-2929

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Call before you do UnderGround

1-702-455-6000

CLARK COUNTY TRAFFIC OPERATIONS AND 1-702-432-5300 FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

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N

S-16

0 40 80
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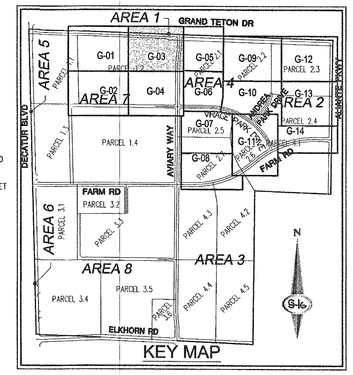

KEY MAP

GEOTECHNICAL NOTE:

PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL INC., PROJECT No: E-06-022, DATED: APRIL 26, 2006, REVISED: JULY 14, 2006
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SOUTHERN NEVADA WATER AUTHORITY DATE 9/5/18

DPR# 2016-0060

SNWA APPROVAL IS VALID FOR ONE (1) YEAR FROM THE SIGNATURE DATE. IF CONSTRUCTION WITHIN THE EASEMENT OR RESTRICTED PIPE SAFETY ZONE IS NOT COMPLETE, PLANS MUST BE RESUBMITTED TO SNWA FOR APPROVAL.

CNLV DEVELOPMENT AND FLOOD CONTROL DIVISION

MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM DATE:

GRADING PLAN CERTIFICATION

DERICK D.J. YORO PE #: 16396 DATE: 5/7/18

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF NORTH LAS VEGAS.

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
PARCEL GRADING PLAN III

S 18 T 19S R 61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000

PROFESSIONAL ENGINEER STATE OF NEVADA DERICK D.J. YORO Exp: 06/30/2020 CIVIL No. 16396 PROJECT SHOWN HEREON 5/7/18

G-03
SHEET 33 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PRO.#:124070 AGREE#:115666 QS:124-07-SW/NE,124-18-NW/NE

J:\sun1403-000 grand teton regional flood control facility\dwg\mxrov\sun1403-000grd.dwg 5/7/2018 8:14 AM Jane Crotty

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CLARK COUNTY TRAFFIC OPERATIONS AND

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AND

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N

S-Ic

0 40 80
SCALE 1"=40' FEET

MATCHLINE - SEE SHEET G-03

MATCHLINE - SEE SHEET G-02

PARCEL 1.2
HIGHLANDS PARK HOLDINGS LLC
APN 124-18-110-002

PARCEL 1.4
AMBER OWL HOLDINGS LLC
APN 124-18-210-002

PARK HOLDINGS WEST INC
APN 124-18-210-003

PARK HOLDINGS WEST INC
APN 124-18-110-007

PERMISSION TO GRADE HAS BEEN ACQUIRED AND IS ON FILE WITH THE CITY OF NORTH LAS VEGAS

BREAK LINE

DAYLIGHT LINE @ PL

42" RCP PER AREA 4 PLANS CNLV#28978

INSTALL DETENTION BASIN IDENTIFIER SIGN PER DETAIL 9 & 10, SHEET D-05

SNWA CP STATION 186+10

100' SNWA ESMT BL0005

70' R/W PER PERMIT #N-63388

AVIARY WAY (PUBLIC)

24' LS/PED ESMT

16' SNWA ESMT

VARIES 3:1 MAX

30"

2% MATCHLINE - SEE SHEET G-06

B D-07

AVIARY WAY MAINTENANCE ROAD (SEE DETAIL 4, SHEET D-05)

EX 4" PE GAS

EX 6" PE GAS

EX 12" W, ONLY 250 PSI (PUBLIC)

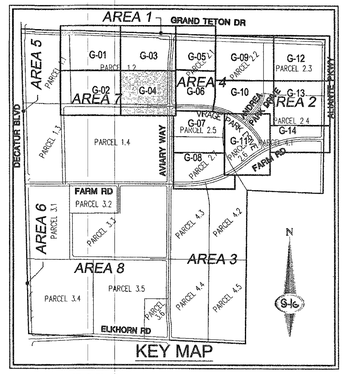
10" SS

10" W

15" LS/PED ESMT

52' R/W

KEY MAP



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9/5/18
SOUTHERN NEVADA WATER AUTHORITY DATE

DPR# 2016-0060

SNWA APPROVAL IS VALID FOR ONE (1) YEAR FROM THE SIGNATURE DATE. IF CONSTRUCTION WITHIN THE EASEMENT OR RESTRICTED PIPE SAFETY ZONE IS NOT COMPLETE, PLANS MUST BE RESUBMITTED TO SNWA FOR APPROVAL.

CNLV DEVELOPMENT AND FLOOD CONTROL DIVISION

MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM DATE:

GRADING PLAN CERTIFICATION

5/7/18
DERICK D.J. YORO PE #: 16396 DATE:

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF NORTH LAS VEGAS.

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

PARCEL GRADING PLAN IV

S 18 T 19S R 61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000

PROFESSIONAL ENGINEER — STATE OF NEVADA
DERICK D.J. YORO
Expr: 06/30/2020
CIVIL
No. 16396
5/7/18

G-04
SHEET 34 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ.#:124070 AGREE#:115666 QS:124-07-SW/NE,124-18-NW/NE

F:\sun1403-000 grand teton regional flood control facility\dwg\progrsv\sun1403-000grd.dwn 5/7/2018 8:14 AM Jose Cretty

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DIG OVERHEAD

1-702-227-2929

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.

Call before you do UnderGround

1-702-455-6000

CLARK COUNTY TRAFFIC OPERATIONS

AND

1-702-432-5300

FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.

Call 811

OR

1-800-227-2600

AND

CLARK COUNTY TRAFFIC OPERATIONS

1-702-455-6000

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BENCHMARK:

NLV9117NWS

NAVD 88 ELEVATION PUBLISHED 6/30/15

699.482 METERS, 2294.88 FEET

ELEVATION USED FOR THESE PLANS, PRE-REVISION

699.511 METERS, 2294.98 FEET

RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLV9117NWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

LEGAL DESCRIPTION:

GOVERNMENT LOTS 5, 7, 10, 12, 14, 18, 19, 21, 24, 25, & 28 THROUGH 37, INCLUSIVE, OF SECTION 18, TOGETHER WITH GOVERNMENT LOT 7 OF SECTION 19, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA.

BASIS OF BEARINGS:

SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

SNWA NOTES:

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2. CAUTION SNWA TEST LEADS ARE SHALLOW
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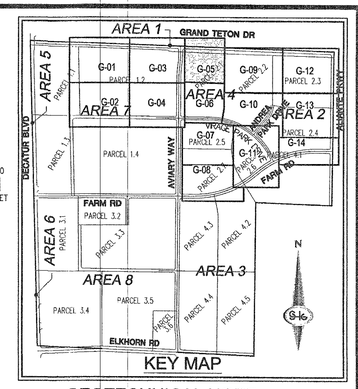
8. CAUTION SNWA FIBER OPTIC CONDUIT RUNS ALONG THE WEST SIDE OF THE SNWA 72" LATERAL AT VARIOUS DEPTHS.

N

S-16

0 40 80

SCALE - 1"=40' FEET



KEY MAP

GEOTECHNICAL NOTE:

PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL, INC., PROJECT No: E-06-022, DATED: APRIL 26, 2006, REVISED: JULY 14, 2006

UPDATE PREPARED BY: NOVA GEOTECHNICAL & INSPECTION SERVICES LETTER DATED: AUGUST 29, 2016.

CUT TOTAL: 30,259 CY FILL TOTAL: 1,243 NET EXPORT: 29,016

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(4) CONSTRUCT SPECIAL MANHOLE (PER PLANS)
(6) CONSTRUCT 20'-FOOT TYPE "CM2" DROP INLET WITH 8-GRATES (CCAUSD STD. DWG. NO. 412.1& 421)
(11) INSTALL 36" RCP (CCAUSD STD. DWG. NO. 503.2)
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J. DISHARI 9/5/18
SOUTHERN NEVADA WATER AUTHORITY DATE

DPR# 2016-0060

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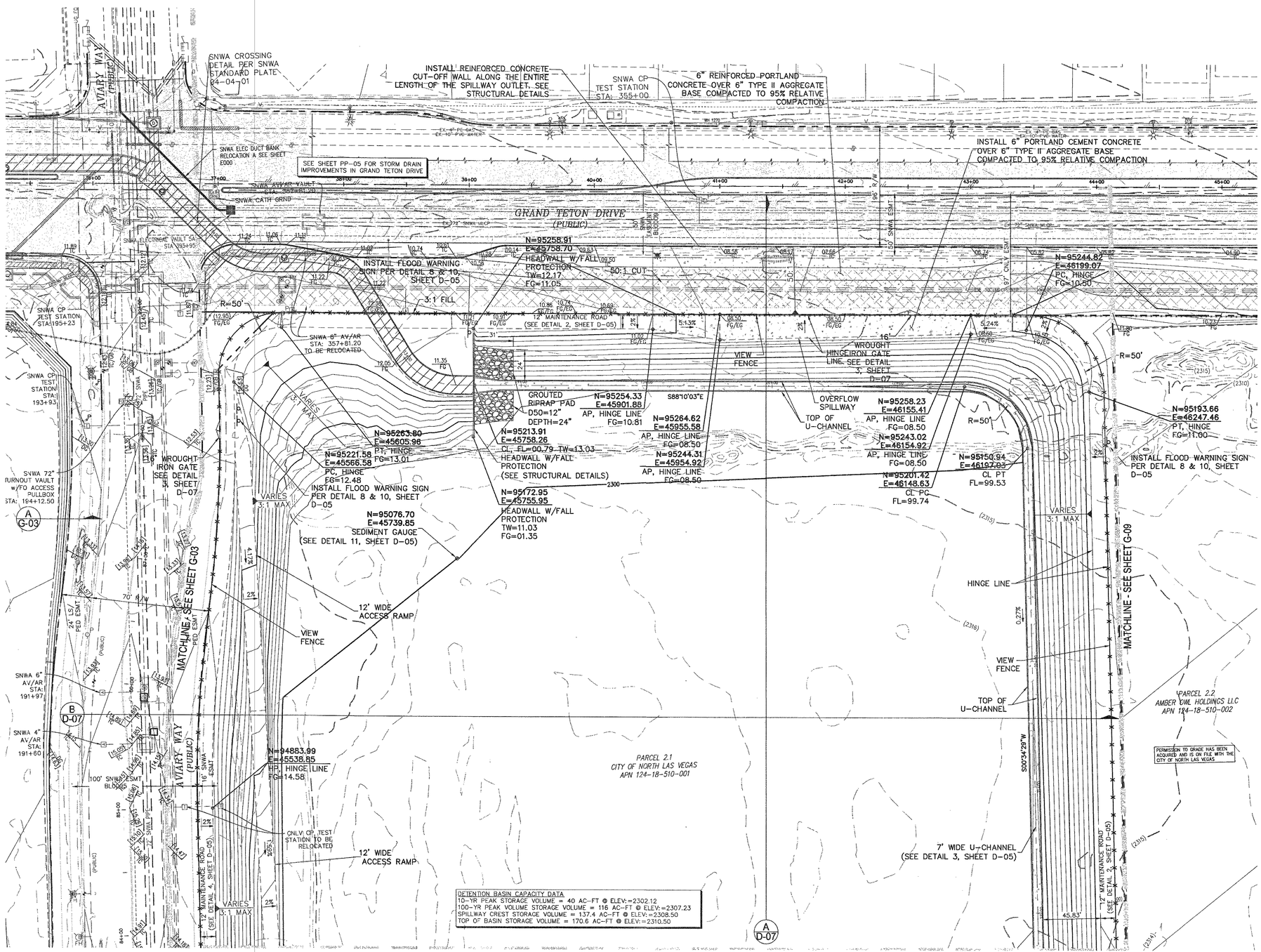
CLV 731-98



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NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

PARCEL & DRAINAGE BASIN GRADING PLAN V

VALLEY VISTA

S 18 T 19S R 61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO. SUN1403-000

DERICK D.J. YORO Expr: 06/30/2020 CIVIL No. 16396 PROFESSIONAL ENGINEER - STATE OF NEVADA 5/7/18

G-05
SHEET 35 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PRO.#:124070 AGREE#:115666 QS:124-07-SWINE,124-18-NWINE

J:\sun1403-000 grand teton regional flood control facility\dwg\Improv\Sun1403-000grd.dwg 5/7/2018 8:14 AM Jane Crettol

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NLV9117NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
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POTHOLE TABLE

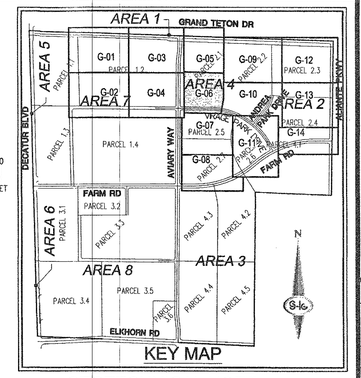
NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
PH40	4" PE GAS	4.10			
PH41	8" PVC W	4.20			

LATERAL RUN PROFILE INDEX	
LATERAL RUN NO	SEE SHEET
(9) THRU (16)	LAT-SD-02

N

S-IG

0 40 80
SCALE - 1"=40' FEET



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PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL, INC., PROJECT No: E-06-022, DATED: APRIL 26, 2006, REVISED: JULY 14, 2006
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SOUTHERN NEVADA WATER AUTHORITY — DATE 9/5/18
DPR# 2016-0060

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CNLV DEVELOPMENT AND FLOOD CONTROL DIVISION
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I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF NORTH LAS VEGAS.

CLV 731-98

MATCHLINE - SEE SHEET G-05
MATCHLINE - SEE SHEET G-04
MATCHLINE - SEE SHEET G-09
MATCHLINE - SEE SHEET G-10
MATCHLINE - SEE SHEET G-07

SEDIMENT GAUGE (SEE DETAIL 11, SHEET D-05) N=94732.81 E=46136.62
VIEW FENCE
INSTALL FLOOD WARNING SIGN PER DETAIL 8 & 10, SHEET D-05
3:1 FILL
HINGE LINE
7' WIDE U-CHANNEL (SEE DETAIL 3, SHEET D-05)
INSTALL BASIN DEPTH GAUGE PER DETAIL 1, SHEET D-05
INSTALL 2" DIA. PIPE COATED RIGID STEEL CONDUIT WITH PULL WIRE AND 4" D.I.P. PER DETAIL SHEET D-08
INSTALL PULL BOX PER DETAIL 1 ON SHEET D-08
FLOOD THREAT RECOGNITION STATION, DETAILS PER SHEETS D-08, 09, & 10
"RFC" 30+82.16 PER S2.10
TEMPORARY RIP D=6" (TYP)
INSTALL DETENTION BASIN IDENTIFIER SIGN PER DETAIL 9 & 10, SHEET D-05
HEADWALL W/FALL PROTECTION (SEE STRUCTURAL DETAILS)
JUNCTION STRUCTURE (SEE STRUCTURAL DETAILS) RELOCATE WL PER UDACS PLATE NO. 22
48" RCP TO REMAIN
INSTALL FLOOD WARNING SIGN PER DETAIL 8 & 10, SHEET D-05
OUTLET STRUCTURE (SEE DETAILS ON SHEET D-06)
FOR SD DESIGN SEE SHEET PP-RFC-02
4" PE GAS STUB TO BE ABANDONED BY SWG CONTRACTOR. WHEN PERFORMING WORK WITHIN THIS VICINITY CALL SWG FOR STAND-BY AT (702) 400-1789
4" PE GAS TO BE RELOCATED BY SWG CONTRACTOR. WHEN PERFORMING WORK WITHIN THIS VICINITY CALL SWG FOR STAND-BY AT (702) 400-1789

DETENTION BASIN CAPACITY DATA
10-YR PEAK STORAGE VOLUME = 40 AC-FT @ ELEV.=2302.12
100-YR PEAK VOLUME STORAGE VOLUME = 116 AC-FT @ ELEV.=2307.23
SPILLWAY CREST STORAGE VOLUME = 137.4 AC-FT @ ELEV.=2308.50
TOP OF BASIN STORAGE VOLUME = 170.6 AC-FT @ ELEV.=2310.50

PARCEL 2.1 CITY OF NORTH LAS VEGAS APN 124-18-510-001
PARCEL 2.2 AMBER DIM. HOLDINGS LLC/ APN_124-18-510-002
PERMISSION TO GRADE HAS BEEN ACQUIRED AND IS ON FILE WITH THE CITY OF NORTH LAS VEGAS
PARCEL 2.5 SCHOOL BOARD OF TRUSTEES APN 124-18-610-001
PERMISSION TO GRADE HAS BEEN ACQUIRED AND IS ON FILE WITH THE CITY OF NORTH LAS VEGAS

VIRAGE PARK DRIVE (PUBLIC)
AVERY WAY (PUBLIC)
72" RCP SD (PUBLIC)
12" MAINTENANCE ROAD (SEE DETAIL 4, SHEET D-05)
16' WROUGHT IRON GATE SEE DETAIL 3, SHEET D-07
SNWA CP STATION 186+10
100' SNWA ESMT BL0005
70' R/W PER PERMIT #N-63388
VARIES 3:1 MAX
R=50'
R=25'
R=75'
N=94231.30 E=45533.35 PC, HINGE FG=11.50
N=94180.88 E=45582.93 PC, HINGE FG=11.50
N=94220.51 E=45787.53 CL PC FL=00.00
N=94234.86 E=45823.01 CL PT FL=99.67
N=94199.69 E=45766.36 FL=00.24 TW=05.41
N=94286.23 E=46100.20 SEDIMENT GAUGE (SEE DETAIL 11, SHEET D-05)
SEDIMENT BERM (SEE DETAIL 6, SHEET D-05)
N=94232.44 E=46110.07 CL PC FL=97.27
N=94250.48 E=46143.66 CL PC FL=97.08
N=94289.74 E=46238.36 TOP OF BERM FG=11.00
N=94230.74 E=46227.53 PC, HINGE FG=10.50
N=94219.27 E=46140.64 CL PT FL=97.09
N=94182.40 E=46221.85 CENTER OF PAD
N=94347.46 E=46193.13 DEPTH GAUGE ELEV=97.87
N=94347.50 E=46188.97 CL PC FL=97.37 R=50'
N=94324.48 E=46183.10 CL PT FL=97.31
N=94141.16 E=45668.50
N=94089.26 E=45656.07
N=94169.66 E=46145.54 PT, HINGE FG=10.50
TOP OF U-CHANNEL (SEE DETAIL 3, SHEET D-05)
5' WIDE U-CHANNEL (SEE DETAIL 3, SHEET D-05)
RIPRAP PAD D50=10" DEPTH=20"
INSTALL FLOOD WARNING SIGN PER DETAIL 8 & 10, SHEET D-05
N45°28'58"E
N89°31'02"W
S00°03'15"W
S00°34'29"W
0.45%
0.30%
0.25%
0.84%
0.27%
2%
4%
PH40
PH41

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA
S18 T19S R61E

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
PARCEL & DRAINAGE BASIN GRADING PLAN VI

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000

NEVADA — DERICK D. YORO — Exp: 06/30/2020 — CIVIL — No. 16396 — PROFESSIONAL ENGINEER — STATE OF NEVADA — 5/7/18

G-06
SHEET 36 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PRO.#:124070 AGREE#:115666 QS:124-07-SWINE,124-18-WINE

\\sun1403-009 grand teton regional flood control facility\dwg\Vmirror\sun1403-000grd.dwg 5/7/2018 8:15 AM Jons Zaretsky

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

1-702-227-2929

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.

Call before you do UnderGround
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS
AND
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811
OR
1-800-227-2600
AND
CLARK COUNTY TRAFFIC OPERATIONS
1-702-455-6000

DISCLAIMER:
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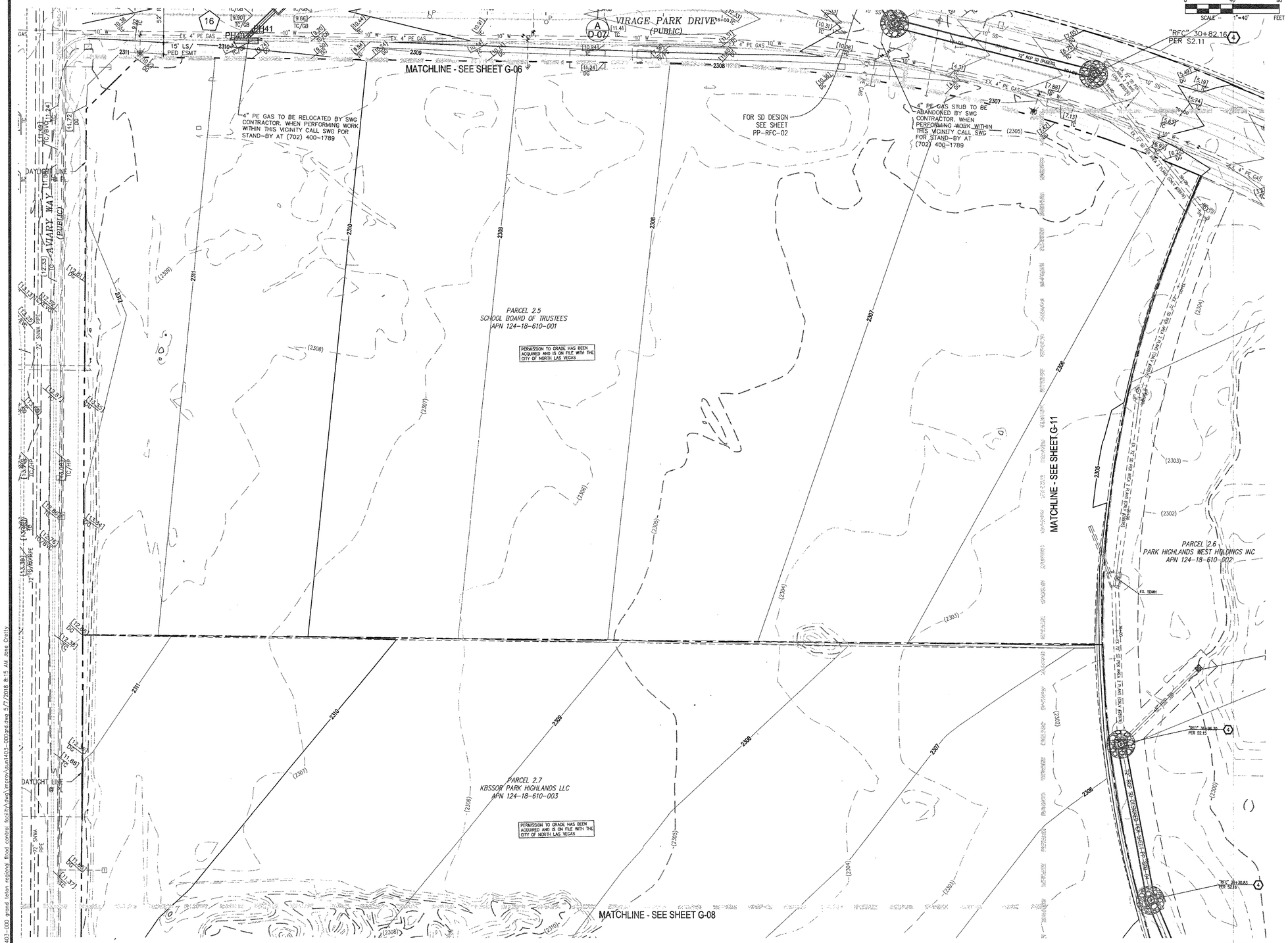
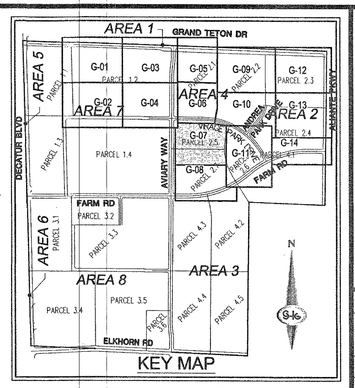
BENCHMARK:
NLV9117NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
699.511 METERS, 2294.98 FEET
RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO: NLV9117NWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

LEGAL DESCRIPTION:
GOVERNMENT LOTS 5, 7, 10, 12, 14, 18, 19, 21, 24, 25, & 28 THROUGH 37, INCLUSIVE, OF SECTION 18, TOGETHER WITH GOVERNMENT LOT 7 OF SECTION 19, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA.

BASIS OF BEARINGS:
SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

SNWA NOTES:
1. ALL REPAIRS OR RELOCATIONS OF SNWA CATHODIC PROTECTION STATIONS OR APPURTENANCES WILL BE DONE BY A CERTIFIED NACE CATHODIC PROTECTION SPECIALIST AND INACCORDANCE WITH SNWA STANDARDS
2. CAUTION SNWA TEST LEADS ARE SHALLOW
3. ALL SNWA TEST STATIONS TO BE TESTED BY CONTRACTOR AND WITNESSED BY SNWA PRIOR TO CONSTRUCTION IN THE AREA. COORDINATE WITH SNWA INSPECTOR
4. IF EXPOSED, CONTRACTOR TO PAY FOR AND REPLACE SNWA CATHODIC PROTECTION TEST STATION GROUND MATS, MAGNESIUM RIBBONS, OR ZINC RIBBONS WITH NEW GROUND MATS, MAGNESIUM RIBBONS OR ZINC RIBBONS.
5. LANDSCAPE AND IRRIGATION PLANS (BY OTHERS) SHALL BE SUBMITTED AND APPROVED BY SNWA.
6. SNWA FIBER OPTIC CONDUIT FOLLOWS ALONG THE SNWA PIPELINE.
7. NO IN-GROUND POSTS OR SIGNS SHALL BE PLACED WITHIN 11' HORIZONTALLY FROM THE OUTSIDE DIAMETER OF THE SNWA 72" TRANSMISSION MAIN.
8. CAUTION SNWA FIBER OPTIC CONDUIT RUNS ALONG THE WEST SIDE OF THE SNWA 72" LATERAL AT VARIOUS DEPTHS.





GEOTECHNICAL NOTE:

PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL, INC., PROJECT No: E-06-022, DATED: APRIL 26, 2005, REVISED: JULY 14, 2006.
UPDATE PREPARED BY: NOVA GEOTECHNICAL & INSPECTION SERVICES LETTER DATED: AUGUST 29, 2016.
CUT TOTAL: 30,259 CY FILL TOTAL: 1,243 NET EXPORT: 29,016

GENERAL GRADING AND DRAINAGE NOTES:

1. PURSUANT TO CITY OF NORTH LAS VEGAS ORDINANCE NUMBER 1172, THE CONTRACTOR IS REQUIRED TO SECURE A GRADING PERMIT PRIOR TO COMMENCING WORK.
2. THE CONTRACTOR SHALL SECURE A PERMIT FOR ANY OFF-SITE CONSTRUCTION.
3. THE CONTRACTORS OPERATIONS SHALL NOT TRESPASS BEYOND THE PROJECT PROPERTY LINES UNLESS A PERMIT OR WRITTEN AUTHORIZATION HAS BEEN OBTAINED FROM THE PROPERTY OWNER(S) INVOLVED. COPIES OF SUCH WRITTEN AUTHORIZATION SHALL BE FURNISHED TO THE CITY OF NORTH LAS VEGAS' REPRESENTATIVE PRIOR TO START OF CONSTRUCTION.
4. THE CITY OF NORTH LAS VEGAS CONSTRUCTION SERVICES SHALL BE NOTIFIED ONE (1) WORKING DAY BEFORE ANY ON-SITE CONSTRUCTION WORK BEGINS.
5. AN APPROVED GRADING AND DRAINAGE PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THE APPROVED PLAN WILL REQUIRE SUBMITTAL OF A FORMAL REVISED PLAN FOR REVIEW AND APPROVAL.
6. ALL CONSTRUCTION SURVEY CONTROL SHALL BE DONE BY A LICENSED PROFESSIONAL LAND SURVEYOR IN ACCORDANCE WITH APPLICABLE STATUTES AND CODES. THE CONTRACTOR SHALL PROVIDE COMPETENT RESOURCES TO ASSURE BUILDING PAD AND BUILDING FLOOR ELEVATIONS CONFORM TO THOSE SHOWN ON THE CONSTRUCTION DRAWINGS. FURTHERMORE, THE CONTRACTOR SHALL PROVIDE THE CITY OF NORTH LAS VEGAS BUILDING DEPARTMENT WITH:
   A. CERTIFICATION OF "BUILDING FLOOR ELEVATIONS" IN CRITICAL DRAINAGE AREAS.
   B. CERTIFICATES OF "BUILDING PAD ELEVATIONS" IN NONCRITICAL AREAS.
7. THE CONTRACTOR SHALL CERTIFY TO THE CITY OF NORTH LAS VEGAS CONSTRUCTION SERVICES DIVISION THAT ALL FILLS, FOUNDATIONS AND SUBGRADES MEET THE MINIMUM COMPACTION REQUIREMENTS. CERTIFICATION SHALL BE MADE PRIOR TO POURING CONCRETE.
8. THE CONTRACTOR SHALL CLEAN PIPE PRIOR TO FINAL INSPECTION PER CNLV INSPECTOR.

STORM DRAIN NOTES:

4. CONSTRUCT SPECIAL MANHOLE (PER PLANS)
8. CONSTRUCT 20-FOOT TYPE "CM2" DROP INLET WITH 8-GRATES (CCAUSD STD. DWG. NO. 412.1& 421)
11. INSTALL 36" RCP (CCAUSD STD. DWG. NO. 503.2)
14. INSTALL 54" RCP (CCAUSD STD. DWG. NO. 503.2)
16. INSTALL 66" RCP (CCAUSD STD. DWG. NO. 503.2)
19. CONSTRUCT 6' X 5' PRECAST RCB
21. CONSTRUCT BRICK AND MORTAR PLUG (SEE DETAIL 7, SHEET DT-05)
27. INSTALL PULL BOX PER DETAIL SHEET DT-08
30. PROTECT EXISTING DI WITH BOARDS, STRAW BALE, ETC.

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SOUTHERN NEVADA WATER AUTHORITY DATE
DPR#: 2016-0060

SNWA APPROVAL IS VALID FOR ONE (1) YEAR FROM THE SIGNATURE DATE. IF CONSTRUCTION WITHIN THE EASEMENT OR RESTRICTED PIPE SAFETY ZONE IS NOT COMPLETE, PLANS MUST BE RESUBMITTED TO SNWA FOR APPROVAL.

CNLV DEVELOPMENT AND FLOOD CONTROL DIVISION

MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM DATE:

GRADING PLAN CERTIFICATION

DERICK D.J. YORO PE #: 16396 DATE: 5/7/18

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF NORTH LAS VEGAS.

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP.	APP. DATE

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

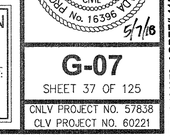
VALLEY VISTA

S18 T18 R61E

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
PARCEL GRADING PLAN VII

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000



G-07
SHEET 37 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PRO.#:124070 AGREE#:115666 QS:124-07-SW/NE,124-18-NW/NE

\sun1403-000 grand teton regional flood control facility\data\improv\sun1403-000grd dwg 5/7/2018 8:15 AM Jane Crotty

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DO OVERHEAD

1-702-227-2929

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.

Call before you do UnderGround

1-702-455-6000

CLARK COUNTY TRAFFIC OPERATIONS AND

1-702-432-5300

FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

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OR

1-800-227-2600

AND

CLARK COUNTY TRAFFIC OPERATIONS

1-702-455-6000

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BENCHMARK:

NLV911TNWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
699.511 METERS, 2294.98 FEET
RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLV911TNWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

LEGAL DESCRIPTION:

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SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

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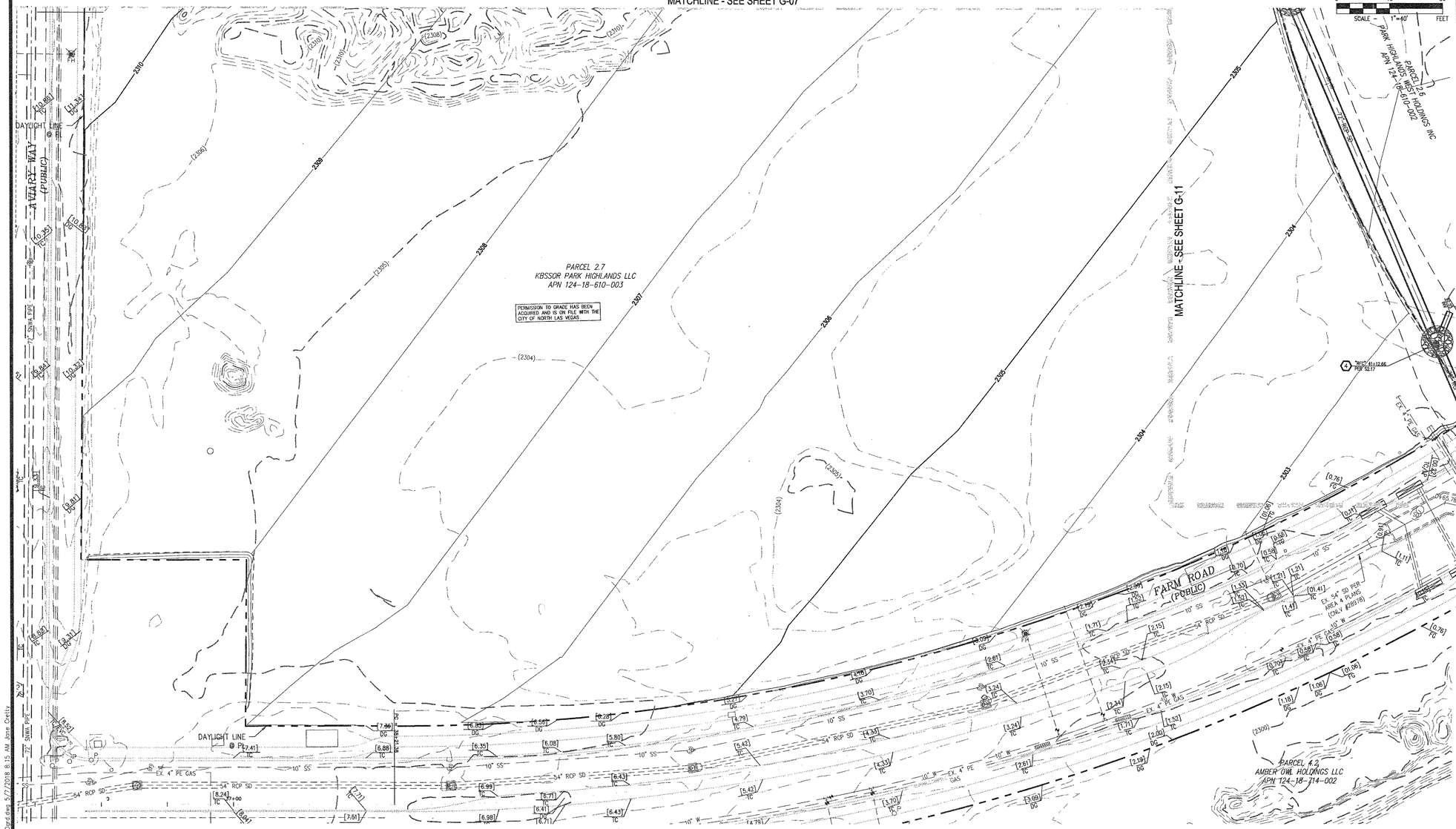

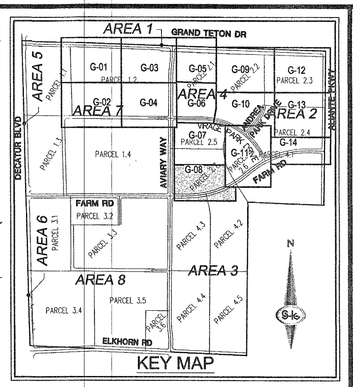

0 40 80
SCALE – 1"=40' FEET

GEOTECHNICAL NOTE:

PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL, INC., PROJECT No: E-06-022, DATED: APRIL 26, 2006, REVISED: JULY 14, 2006
UPDATE PREPARED BY: NOVA GEOTECHNICAL & INSPECTION SERVICES LETTER DATED: AUGUST 29, 2016.
CUT TOTAL: 30,259 CY FILL TOTAL: 1,243 NET EXPORT: 29,016

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STORM DRAIN NOTES:

(4) CONSTRUCT SPECIAL MANHOLE (PER PLANS)
(8) CONSTRUCT 20-FOOT TYPE "CM2" DROP INLET WITH 8-GRATES (CCAUSD STD. DWG. NO. 412 & 421)
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(21) CONSTRUCT BRICK AND MORTAR PLUG (SEE DETAIL 7, SHEET DT-05)
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(30) PROTECT EXISTING DI WITH BOARDS, STRAW BALE, ETC.

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SOUTHERN NEVADA WATER AUTHORITY — DATE 9/5/18

DPR# 2016-0060

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CNLV DEVELOPMENT AND FLOOD CONTROL DIVISION

MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM — DATE:

GRADING PLAN CERTIFICATION

DERICK D.J. YORO — PE #: 16396 — DATE: 5/7/18

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF NORTH LAS VEGAS.

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
PARCEL GRADING PLAN VIII

S18 T19S R61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000

PROFESSIONAL ENGINEER STATE OF NEVADA
DERICK D.J. YORO
No. 16396
EXP: 06/30/2020
CIVIL
5/7/18

G-08
SHEET 38 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ#:124070 AGREE#:115666 QS:124-07-SWINE; 124-18-NWINE

J:\sun1403-000 grand teton regional flood control fcility\dwg\mpro\sun1403-000grd.dwg 5/7/2018 8:15 AM Jane Derby

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DO OVERHEAD

1-702-227-2929

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.

Call before you do UnderGround

1-702-455-6000

CLARK COUNTY TRAFFIC OPERATIONS

AND

1-702-432-5300

FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

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OR

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AND

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1-702-455-6000

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BENCHMARK:

NLV9117NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
699.511 METERS, 2294.98 FEET
RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLV9117NWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

LEGAL DESCRIPTION:

GOVERNMENT LOTS 5, 7, 10, 12, 14, 18, 19, 21, 24, 25, & 28 THROUGH 37, INCLUSIVE, OF SECTION 18, TOGETHER WITH GOVERNMENT LOT 7 OF SECTION 19, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA.

BASIS OF BEARINGS:

SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

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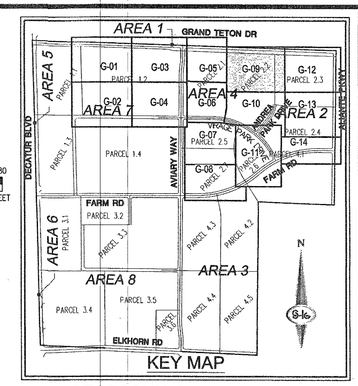
N

S-1G

0 40 80

SCALE - 1"=40' FEET



GEOTECHNICAL NOTE:

PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL, INC., PROJECT No: E-06-022, DATED: APRIL 26, 2006, REVISED: JULY 14, 2006
UPDATE PREPARED BY: NOVA GEOTECHNICAL & INSPECTION SERVICES LETTER DATED: AUGUST 29, 2016.
CUT TOTAL: 30,259 CY FILL TOTAL: 1,243 NET EXPORT: 29,016

GENERAL GRADING AND DRAINAGE NOTES:

1. PURSUANT TO CITY OF NORTH LAS VEGAS ORDINANCE NUMBER 1172, THE CONTRACTOR IS REQUIRED TO SECURE A GRADING PERMIT PRIOR TO COMMENCING WORK.
2. THE CONTRACTOR SHALL SECURE A PERMIT FOR ANY OFF-SITE CONSTRUCTION.
3. THE CONTRACTORS OPERATIONS SHALL NOT TRESPASS BEYOND THE PROJECT PROPERTY LINES UNLESS A PERMIT OR WRITTEN AUTHORIZATION HAS BEEN OBTAINED FROM THE PROPERTY OWNER(S) INVOLVED. COPIES OF SUCH WRITTEN AUTHORIZATION SHALL BE FURNISHED TO THE CITY OF NORTH LAS VEGAS' REPRESENTATIVE PRIOR TO START OF CONSTRUCTION.
4. THE CITY OF NORTH LAS VEGAS CONSTRUCTION SERVICES SHALL BE NOTIFIED ONE (1) WORKING DAY BEFORE ANY ON-SITE CONSTRUCTION WORK BEGINS.
5. AN APPROVED GRADING AND DRAINAGE PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THE APPROVED PLAN WILL REQUIRE SUBMITTAL OF A FORMAL REVISED PLAN FOR REVIEW AND APPROVAL.
6. ALL CONSTRUCTION SURVEY CONTROL SHALL BE DONE BY A LICENSED PROFESSIONAL LAND SURVEYOR IN ACCORDANCE WITH APPLICABLE STATUTES AND CODES. THE CONTRACTOR SHALL PROVIDE COMPETENT RESOURCES TO ASSURE BUILDING PAD AND BUILDING FLOOR ELEVATIONS CONFORM TO THOSE SHOWN ON THE CONSTRUCTION DRAWINGS. FURTHERMORE, THE CONTRACTOR SHALL PROVIDE THE CITY OF NORTH LAS VEGAS BUILDING DEPARTMENT WITH:
   A. CERTIFICATION OF "BUILDING FLOOR ELEVATIONS" IN CRITICAL DRAINAGE AREAS.
   B. CERTIFICATES OF "BUILDING PAD ELEVATIONS" IN NONCRITICAL AREAS.
7. THE CONTRACTOR SHALL CERTIFY TO THE CITY OF NORTH LAS VEGAS CONSTRUCTION SERVICES DIVISION THAT ALL FILLS, FOUNDATIONS AND SUBGRADES MEET THE MINIMUM COMPACTION REQUIREMENTS. CERTIFICATION SHALL BE MADE PRIOR TO POURING CONCRETE.
8. THE CONTRACTOR SHALL CLEAN PIPE PRIOR TO FINAL INSPECTION PER CNLV INSPECTOR.

STORM DRAIN NOTES:

4. CONSTRUCT SPECIAL MANHOLE (PER PLANS)
6. CONSTRUCT 20-FOOT TYPE "CM2" DROP INLET WITH 8-GRATES (CCAUSD STD. DWG. NO. 412.1& 421)
11. INSTALL 36" RCP (CCAUSD STD. DWG. NO. 503.2)
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19. CONSTRUCT 6' X 5' PRECAST RCB
21. CONSTRUCT BRICK AND MORTAR PLUG (SEE DETAIL 7, SHEET DT-05)
27. INSTALL PULL BOX PER DETAIL SHEET DT-08
30. PROTECT EXISTING DI WITH BOARDS, STRAW BALE, ETC.

SNWA CONSTRUCTION NOTES:
CONTRACTOR SHALL FIELD LOCATE AND PROTECT ALL SNWA/SNWS APPURTENANCES INCLUDING, BUT NOT LIMITED TO; AV/AR, ACCESS MANWAYS AND CATHODIC PROTECTION SYSTEMS. ALL ABOVE GROUND STRUCTURES AND AT GRADE STRUCTURES MUST BE ADJUSTED TO NEW GRADE AT CONTRACTOR'S EXPENSE. CATHODIC PROTECTION TEST STATIONS, RECTIFIERS, AND AV/AR'S MUST BE RELOCATED TO THE SIDEWALK PER SNWA STANDARDS AND AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO NOTIFY SOUTHERN NEVADA WATER AUTHORITY, DEVELOPMENT PLAN REVIEW, AT (702) 258-3165 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY.

SOUTHERN NEVADA WATER AUTHORITY — DATE 9/5/18

DPR# 2018-0060

SNWA APPROVAL IS VALID FOR ONE (1) YEAR FROM THE SIGNATURE DATE. IF CONSTRUCTION WITHIN THE EASEMENT OR RESTRICTED PIPE SAFETY ZONE IS NOT COMPLETE, PLANS MUST BE RESUBMITTED TO SNWA FOR APPROVAL.

CNLV DEVELOPMENT AND FLOOD CONTROL DIVISION

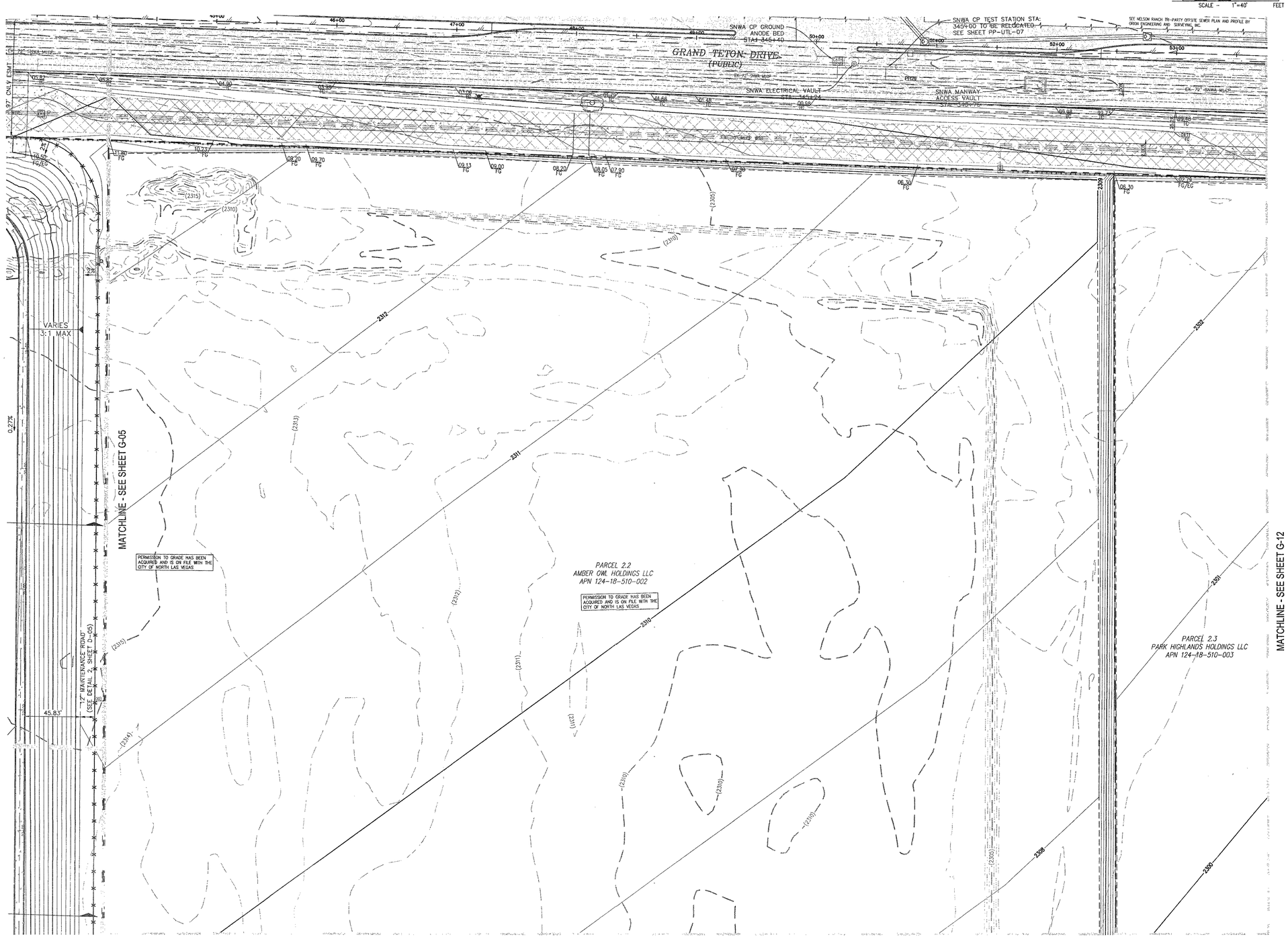
MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM — DATE:

GRADING PLAN CERTIFICATION

DERICK D.J. YORO — PE #: 16396 — DATE: 5/7/18

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF NORTH LAS VEGAS.

CLV 731-98



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

NO.	DESCRIPTION	DATE	BY	APP.	APP. DATE

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
PARCEL GRADING PLAN IX

S 18 R 61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000

DERICK D.J. YORO — STATE OF NEVADA — No. 16396 — 05/30/2020 — CIVIL — PROFESSIONAL ENGINEER — 5/7/18

G-09
SHEET 39 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ#:124070 AGREE#:115666 QS:124-07-SW/NE,124-18-NW/NE

I:\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403-000grd.dwg, 5/7/2018 8:15 AM, Jose Cretty

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

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.
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BENCHMARK:

NLV9117NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
699.511 METERS, 2294.98 FEET
RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLV9117NWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

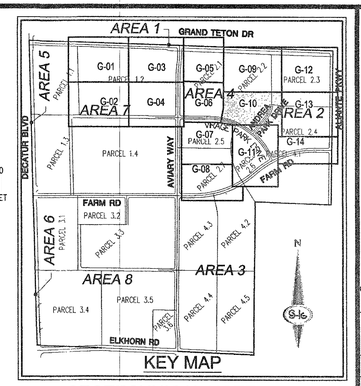
LEGAL DESCRIPTION:

GOVERNMENT LOTS 5, 7, 10, 12, 14, 16, 19, 21, 24, 25, & 28 THROUGH 37, INCLUSIVE, OF SECTION 18, TOGETHER WITH GOVERNMENT LOT 7 OF SECTION 19, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA.

BASIS OF BEARINGS:

SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

N
SCALE – 1"=40' (0 40 80 FEET)



MATCHLINE - SEE SHEET G-09

INSTALL FLOOD WARNING SIGN PER DETAIL B & 10, SHEET D-05

12' MAINTENANCE ROAD (SEE DETAIL 2, SHEET D-05)

45.83'

VARIES 3:1 MAX

2%

PERMISSION TO GRADE HAS BEEN ACQUIRED AND AUTHORIZATION SHALL BE WITH THE CITY OF NORTH LAS VEGAS

INSTALL BASIN DEPTH GAUGE PER DETAIL 1, SHEET D-05

MATCHLINE - SEE SHEET G-06

N=94289.74
E=46238.36
TOP OF BERM
FG=11.00

INSTALL 2" DIA. PIPE COATED RIGID STEEL CONDUIT WITH PULL WIRE AND 4" D.I.P. PER DETAIL SHEET D-08

INSTALL CULVERT BOX PER DETAIL 1 ON SHEET D-08

N=94230.74
E=46227.53
PC, HINGE
FG=10.50

FLOOD THREAT RECOGNITION STATION, DETAILS PER SHEETS D-08, 09, & 10

N=94182.40
E=46221.85
CENTER OF PAD

R=75'

"RFC" 30+82.16 (4) PER S2.10
TEMPORARY RIP RAP D=6" T=12" (TYP) (6)

"RFC" 30+82.16 (4) PER S2.11

MATCHLINE - SEE SHEET G-07

4" PE GAS STUB TO BE ABANDONED BY SWG CONTRACTOR. WHEN PERFORMING WORK WITHIN THIS VICINITY CALL SWG FOR STAND-BY AT (702) 400-1789

PARCEL 2.2
AMBER OWL HOLDINGS LLC
APN 124-18-510-002

PERMISSION TO GRADE HAS BEEN ACQUIRED AND IS ON FILE WITH THE CITY OF NORTH LAS VEGAS

PARCEL 2.3
PARK HIGHLANDS HOLDINGS LLC
APN 124-18-510-003

PARCEL 2.4
PARK HIGHLANDS HOLDINGS LLC
APN 124-18-510-004

ANDREA PARK DRIVE (PUBLIC)

VIRAGE PARK DRIVE (PUBLIC)

PARCEL 2.5
SCHOOL BOARD OF TRUSTEES
APN 124-18-610-001

PARCEL 2.6
PARK HIGHLANDS WEST HOLDINGS INC
APN 124-18-610-002

MATCHLINE - SEE SHEET G-11

MATCHLINE - SEE SHEET G-13

CLV 731-98

GEOTECHNICAL NOTE:

PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL, INC., PROJECT No: E-06-022, DATED: APRIL 26, 2006, REVISED: JULY 14, 2006
UPDATE PREPARED BY: NOVA GEOTECHNICAL & INSPECTION SERVICES LETTER DATED: AUGUST 29, 2016.
CUT TOTAL: 30,259 CY FILL TOTAL: 1,243 NET EXPORT: 29,016

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CNLV DEVELOPMENT AND FLOOD CONTROL DIVISION
MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM DATE:

GRADING PLAN CERTIFICATION
DERICK D. J. YORO PE #: 16396 DATE: 5/7/18
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SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

S 18 T 19S R 61E

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
PARCEL GRADING PLAN X

DATE: 5/07/2018
DRAFTER: OO/JC
DESIGNER: OO/JC
CHECKED: DY
PROJECT NO. SUN1403-000

DERICK D. J. YORO
Exp: 06/30/2020
CIVIL
No. 16396
STATE OF NEVADA
PROFESSIONAL ENGINEER
5/7/18

G-10
SHEET 40 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ#:124070 AGREE#:115666 OS:124-07-SWINE,124-18-NWINE

J:\sun1403-000 grand teton detention\ flood control facility\dwg\improvs\sun1403-000grd.dwg, 5/7/2018 8:15 AM, Jose Cretty

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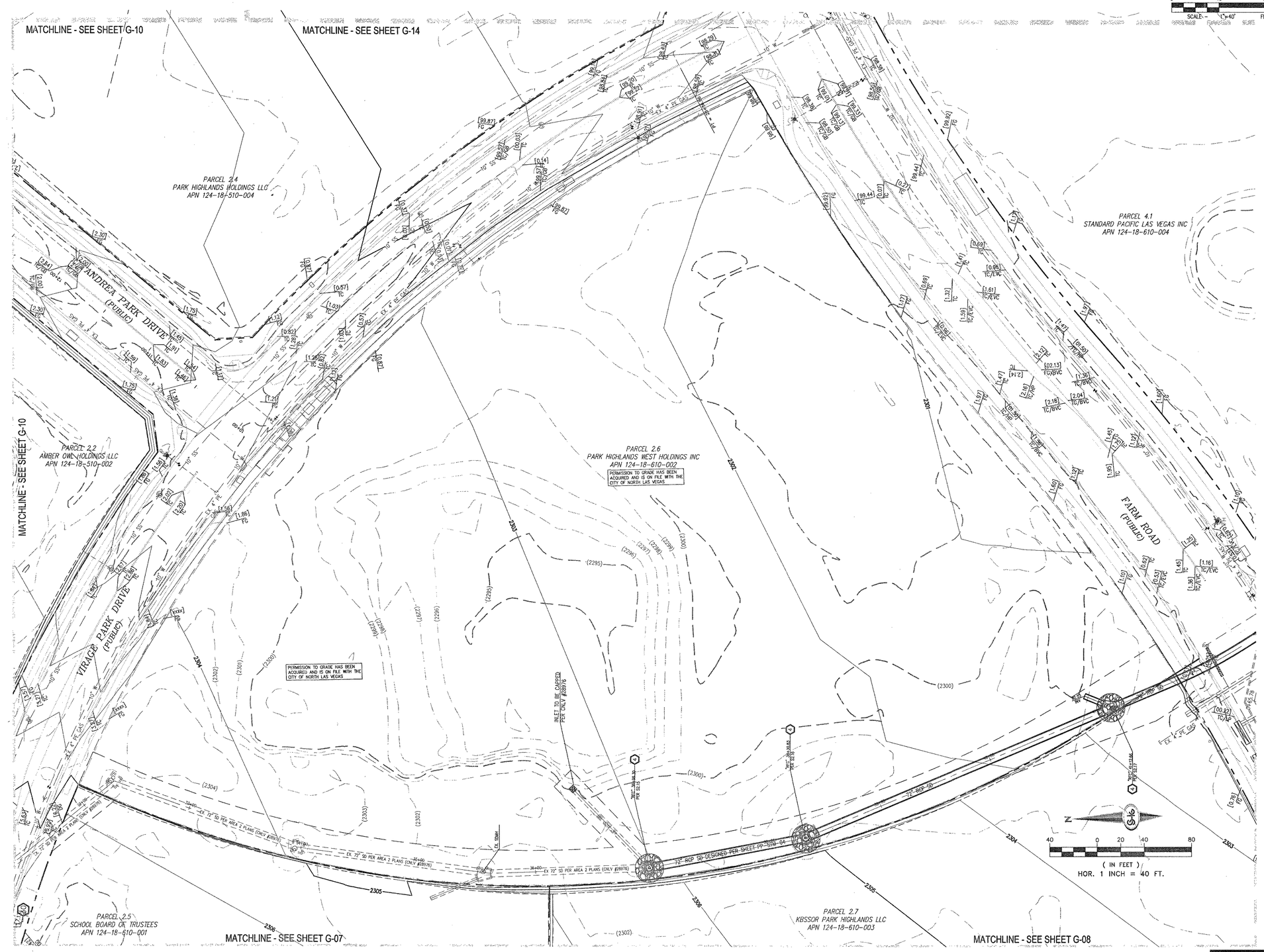

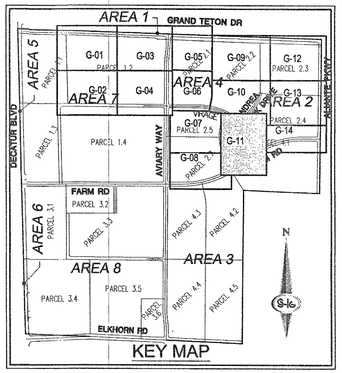

Z
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NO.	DESCRIPTION	DATE	BY	APP DATE	APP

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

PARCEL GRADING PLAN XI

S 18 T 19S R 61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000

DERICK D.J. YORO Exp: 06/30/2020 CIVIL No. 16396 STATE OF NEVADA PROFESSIONAL ENGINEER

G-11
SHEET 41 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PRO.#:124070 AGREE#:115666 QS:124-07-SWINE,124-18-NWINE

J:\sun1403-000 grand teton regional flood control facility\civil\masterxsun1403-000grddwg 5/7/2018 8:16 AM Jose Cotty

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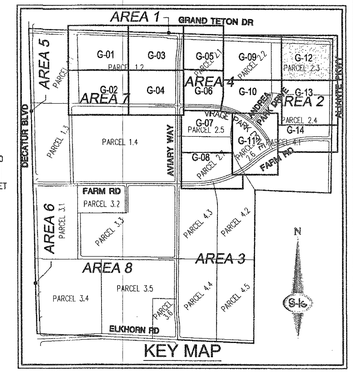
2. CAUTION SNWA TEST LEADS ARE SHALLOW
3. ALL SNWA TEST STATIONS TO BE TESTED BY CONTRACTOR AND WITNESSED BY SNWA PRIOR TO CONSTRUCTION IN THE AREA. COORDINATE WITH SNWA INSPECTOR
4. IF EXPOSED, CONTRACTOR TO PAY FOR AND REPLACE SNWA CATHODIC PROTECTION TEST STATION GROUND MATS, MAGNESIUM RIBBONS, OR ZINC RIBBONS WITH NEW GROUND MATS, MAGNESIUM RIBBONS OR ZINC RIBBONS.
5. LANDSCAPE AND IRRIGATION PLANS (BY OTHERS) SHALL BE SUBMITTED AND APPROVED BY SNWA.
6. SNWA FIBER OPTIC CONDUIT FOLLOWS ALONG THE SNWA PIPELINE.
7. NO IN-GROUND POSTS OR SIGNS SHALL BE PLACED WITHIN 11' HORIZONTALLY FROM THE OUTSIDE DIAMETER OF THE SNWA 72" TRANSMISSION MAIN.
8. CAUTION SNWA FIBER OPTIC CONDUIT RUNS ALONG THE WEST SIDE OF THE SNWA 72" LATERAL AT VARIOUS DEPTHS.

N

S-16

0 40 80
SCALE 1"=40' FEET



GEOTECHNICAL NOTE:

PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL, INC., PROJECT No: E-06-022, DATED: APRIL 26, 2006, REVISED: JULY 14, 2006
UPDATE PREPARED BY: NOVA GEOTECHNICAL & INSPECTION SERVICES LETTER DATED: AUGUST 29, 2016.
CUT TOTAL: 30,259 CY FILL TOTAL: 1,243 NET EXPORT: 29,016

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8. THE CONTRACTOR SHALL CLEAN PIPE PRIOR TO FINAL INSPECTION PER CNLV INSPECTOR.

STORM DRAIN NOTES:

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(6) CONSTRUCT 20-FOOT TYPE "CM2" DROP INLET WITH B-GRATES (CCAUSD STD. DWG. NO. 412.1& 421)
(11) INSTALL 36" RCP (CCAUSD STD. DWG. NO. 503.2)
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(16) INSTALL 66" RCP (CCAUSD STD. DWG. NO. 503.2)
(19) CONSTRUCT 6' X 5' PRECAST RCB
(21) CONSTRUCT BRICK AND MORTAR PLUG (SEE DETAIL 7, SHEET DT-05)
(27) INSTALL PULL BOX PER DETAIL SHEET DT-08
(30) PROTECT EXISTING DI WITH BOARDS, STRAW BALE, ETC.

SNWA CONSTRUCTION NOTES:

CONTRACTOR SHALL FIELD LOCATE AND PROTECT ALL SNWA/SNWS APPURTENANCES INCLUDING, BUT NOT LIMITED TO; AV/AR, ACCESS MANWAYS AND CATHODIC PROTECTION SYSTEMS. ALL ABOVE GROUND STRUCTURES AND AT GRADE STRUCTURES MUST BE ADJUSTED TO NEW GRADE AT CONTRACTOR'S EXPENSE. CATHODIC PROTECTION TEST STATIONS, RECTIFIERS, AND AV/AR'S MUST BE RELOCATED TO THE SIDEWALK PER SNWA STANDARDS AND AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO NOTIFY SOUTHERN NEVADA WATER AUTHORITY, DEVELOPMENT PLAN REVIEW, AT (702) 258-3165 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY.

SOUTHERN NEVADA WATER AUTHORITY — DATE 9/5/18

DPR#: 2018-0060

SNWA APPROVAL IS VALID FOR ONE (1) YEAR FROM THE SIGNATURE DATE. IF CONSTRUCTION WITHIN THE EASEMENT OR RESTRICTED PIPE SAFETY ZONE IS NOT COMPLETE, PLANS MUST BE RESUBMITTED TO SNWA FOR APPROVAL.

CNLV DEVELOPMENT AND FLOOD CONTROL DIVISION

MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM — DATE:

GRADING PLAN CERTIFICATION

DERICK D.J. YORO — PE #: 16396 — DATE: 5/1/18

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT CITY OF NORTH LAS VEGAS.

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
PARCEL GRADING PLAN XII

S 18 T 19S R 61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO. SUN1403-000

DERICK D.J. YORO — No. 16396 — Exp: 06/30/2020 — CIVIL — STATE OF NEVADA — PROFESSIONAL ENGINEER — 5/1/18

G-12
SHEET 42 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PRO.#:124070 AGREE#:115666 QS:124-07-SWINE,124-18-NWINE

\\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403-000grd.dwg 5/7/2018 8:16 AM Joce Coity

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DO OVERHEAD

1-702-227-2929

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.

Call before you do UnderGround
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS
AND
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811
OR
1-800-227-2600
AND
CLARK COUNTY TRAFFIC OPERATIONS
1-702-455-6000

DISCLAIMER:

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BENCHMARK:

NLV9117NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
699.511 METERS, 2294.98 FEET
RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLV9117NWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

LEGAL DESCRIPTION:

GOVERNMENT LOTS 5, 7, 10, 12, 14, 18, 19, 21, 24, 25, & 28 THROUGH 37, INCLUSIVE, OF SECTION 18, TOGETHER WITH GOVERNMENT LOT 7 OF SECTION 19, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA.

BASIS OF BEARINGS:

SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

N

SCALE 1"=40' 0 40 80 FEET

MATCHLINE - SEE SHEET G-12

MATCHLINE - SEE SHEET G-10

MATCHLINE - SEE SHEET G-14

PARCEL 2.3
PARK HIGHLANDS HOLDINGS LLC
APN 124-18-510-003

PERMISSION TO GRADE HAS BEEN ACQUIRED AND IS ON FILE WITH THE CITY OF NORTH LAS VEGAS

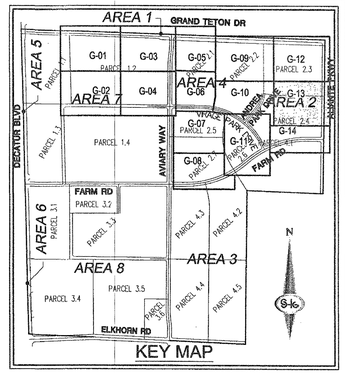
PARCEL 2.4
PARK HIGHLANDS HOLDINGS LLC
APN 124-18-510-004

PERMISSION TO GRADE HAS BEEN ACQUIRED AND IS ON FILE WITH THE CITY OF NORTH LAS VEGAS

ALIANTE PARKWAY (PUBLIC)

BREAK LINE

CLV 731-98



KEY MAP

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PROJECT COMPLIES WITH SOILS REPORT PREPARED BY: OWENS GEOTECHNICAL, INC., PROJECT No: E-06-022, DATED: APRIL 26, 2006, REVISED: JULY 14, 2006
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CNLV DEVELOPMENT AND FLOOD CONTROL DIVISION

MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM DATE:

GRADING PLAN CERTIFICATION

DERICK D.J. YORO PE #: 16396 5/7/18 DATE:

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

NO.	DESCRIPTION	DATE	BY	APP.	APP. DATE

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

PARCEL GRADING PLAN XIII

S 18 T 19S R 61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000

PROFESSIONAL ENGINEER – STATE OF NEVADA
DERICK D.J YORO
Expo: 06/30/2020
CIVIL
No. 16396
5/7/18

G-13
SHEET 43 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PRO.J#:124070 AGREE#:115666 QS:124-07-SW/NE,124-18-NW/NE

J:\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403-000grd.dwg 5/7/2018 8:16 AM Jane Crotty

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CALL BEFORE YOU DO OVERHEAD

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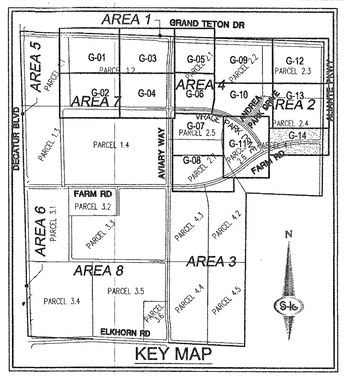
N

S-Ic

0 40 80

SCALE – 1"=40' FEET



KEY MAP

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MATCHLINE - SEE SHEET G-11

MATCHLINE - SEE SHEET G-13

PARCEL 2.4
PARK HIGHLANDS HOLDINGS LLC
APN 124-18-510-004

PERMISSION TO GRADE HAS BEEN ACQUIRED AND IS ON FILE WITH THE CITY OF NORTH LAS VEGAS

PARCEL 4.1
STANDARD PACIFIC LAS VEGAS INC
APN 124-18-610-004

PERMISSION TO GRADE HAS BEEN ACQUIRED AND IS ON FILE WITH THE CITY OF NORTH LAS VEGAS

BREAK LINE

DAYLIGHT LINE @ PL

FARM ROAD (PUBLIC)

ALIANTE PKWY (PUBLIC)

EX. 72" SD PER AREA 2 PLANS (CNLV #28976)
EX. 48" SD PER AREA 2 PLANS (CNLV #28976)
EX. 36" SD PER AREA 2 PLANS (CNLV #28976)
EX. 30" SD PER AREA 2 PLANS (CNLV #28976)
EX. 24" SD PER AREA 2 PLANS (CNLV #28976)
EX. 4" PE GAS

CNLV DEVELOPMENT AND FLOOD CONTROL DIVISION

MANAGER, ROBERT A. McLAUGHLIN, P.E. CFM DATE:

GRADING PLAN CERTIFICATION

DERICK D.J. YORO PE #: 16396 DATE: 5/1/18

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CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

S18 T19S R61E

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

PARCEL GRADING PLAN XIV

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000

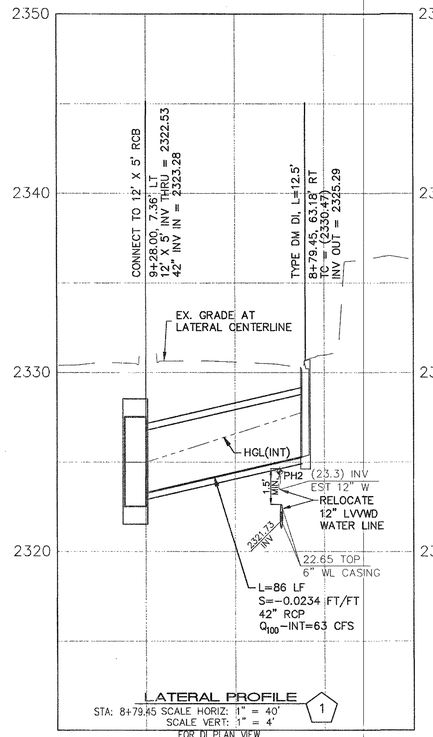
PROFESSIONAL ENGINEER STATE OF NEVADA DERICK D.J. YORO Exp: 6/30/2020 CIVIL No. 16396 5/1/18

G-14
SHEET 44 OF 125

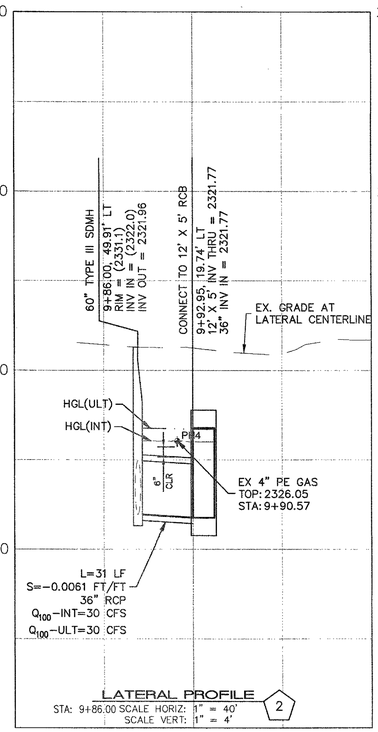
CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ#:124070 AGREE#:115666 QS:124-07-SW/NE,124-18-NW/NE

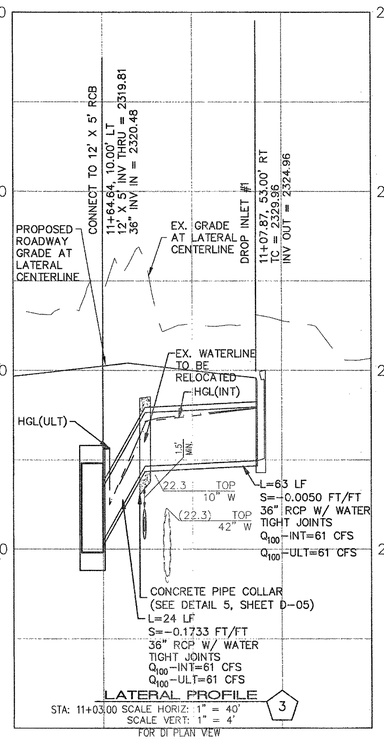
J:\sun1403-000 grand teton regional flood control facility\dwg\mpro\sun1403-000grd.dwg 5/7/2018 8:16 AM Jone Cretty



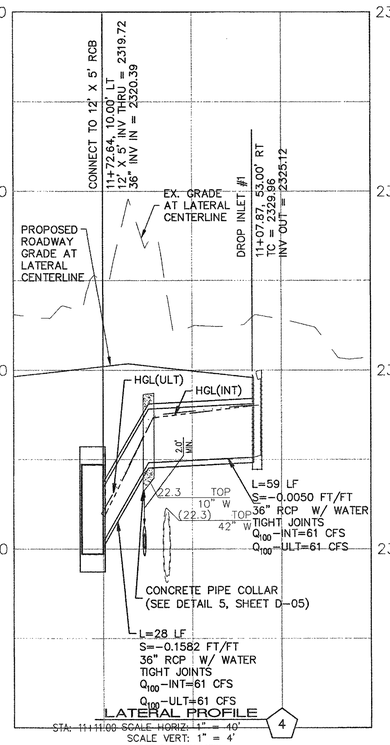
LATERAL PROFILE 1
STA: 8+79.45 SCALE HORIZ: 1" = 40'
SCALE VERT: 1" = 4'
FOR DI PLAN VIEW
SEE SHEET PP-01



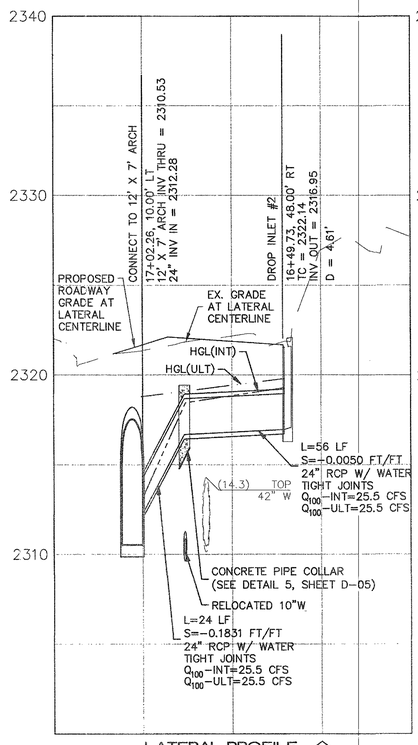
LATERAL PROFILE 2
STA: 9+86.00 SCALE HORIZ: 1" = 40'
SCALE VERT: 1" = 4'
FOR DI PLAN VIEW
SEE SHEET PP-01



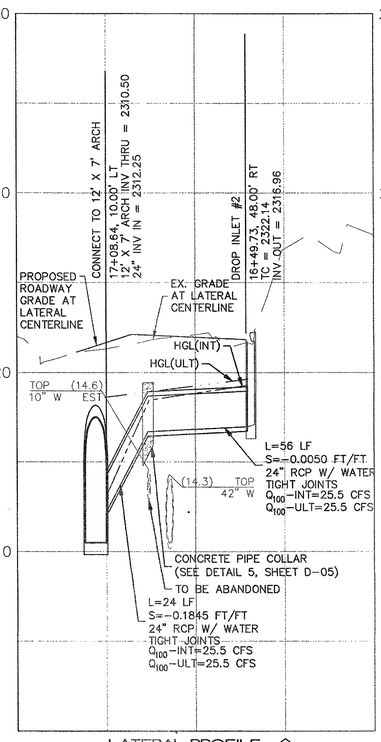
LATERAL PROFILE 3
STA: 11+03.00 SCALE HORIZ: 1" = 40'
SCALE VERT: 1" = 4'
FOR DI PLAN VIEW
SEE SHEET PP-01



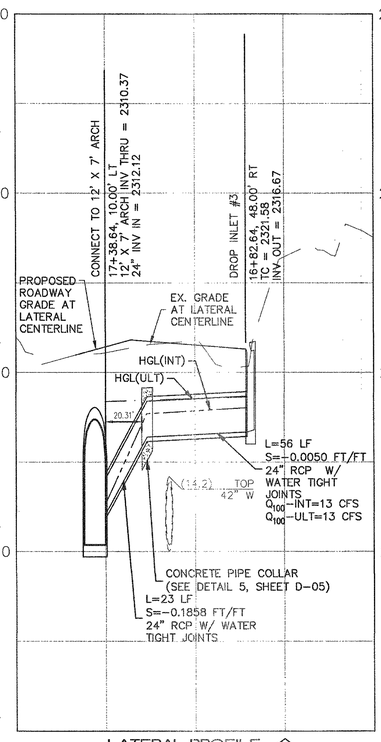
LATERAL PROFILE 4
STA: 11+11.00 SCALE HORIZ: 1" = 40'
SCALE VERT: 1" = 4'
FOR DI PLAN VIEW
SEE SHEET PP-01



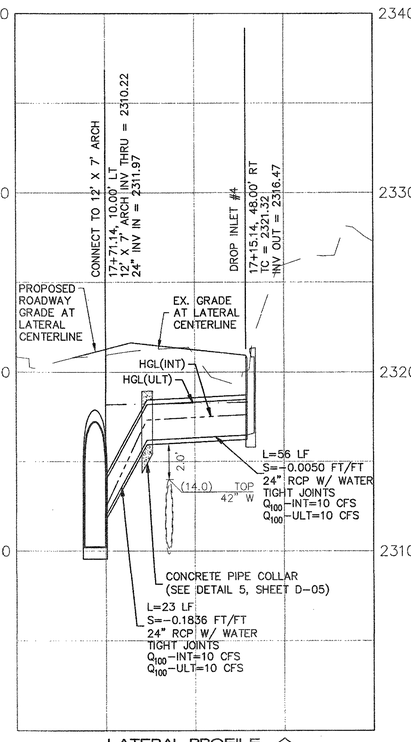
LATERAL PROFILE 5
STA: 16+45.63 SCALE HORIZ: 1" = 40'
SCALE VERT: 1" = 4'
FOR DI PLAN VIEW
SEE SHEET PP-02



LATERAL PROFILE 6
STA: 16+51.99 SCALE HORIZ: 1" = 40'
SCALE VERT: 1" = 4'
FOR DI PLAN VIEW
SEE SHEET PP-02



LATERAL PROFILE 7
STA: 16+82.00 SCALE HORIZ: 1" = 40'
SCALE VERT: 1" = 4'
FOR DI PLAN VIEW
SEE SHEET PP-02



LATERAL PROFILE 8
STA: 17+14.50 SCALE HORIZ: 1" = 40'
SCALE VERT: 1" = 4'
FOR DI PLAN VIEW
SEE SHEET PP-02

POTHOLE TABLE PER AZTEC PROJECT NUMBER NVSUE1614					
NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
PH2	12" PVC W	6.10			
PH4	4" PE GAS	5.10			

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER

DATE 9/5/18 PROJECT No. 124070

SHEETS: C-01 THRU C-04, PP-01, PP-UTL-01, LAT-SD-01

IN AREAS WHERE THE EXCAVATION OR GROUND ELEVATION IS LESS THAN THREE (3) FEET FROM THE TOP OF THE LVVWD TRANSMISSION MAIN, NO EXCAVATION EQUIPMENT, OTHER THAN HAND HELD EQUIPMENT WILL BE ALLOWED WITHIN TEN (10) FEET OF THE PIPELINE IN THESE AREAS. THE CONTRACTOR IS TO PLACE A CONCRETE BARRIER, I.E. JERSEY RAIL, TO IDENTIFY AND PROTECT THE NO EQUIPMENT ZONE.

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

NO.	DESCRIPTION	DATE	BY	APP.
				APP. DATE

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

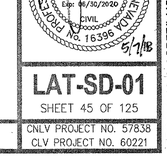
VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

STORM DRAIN LATERAL PROFILES I

S18 R61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000



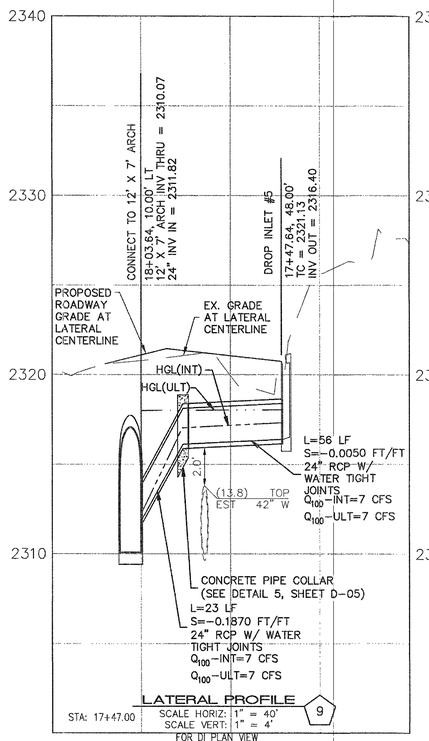
LAT-SD-01
SHEET 45 OF 125

CLV 731-98

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PRO.#:124070 AGREE#:115666 QS:124-07-SW/NE,124-18-NW/NE

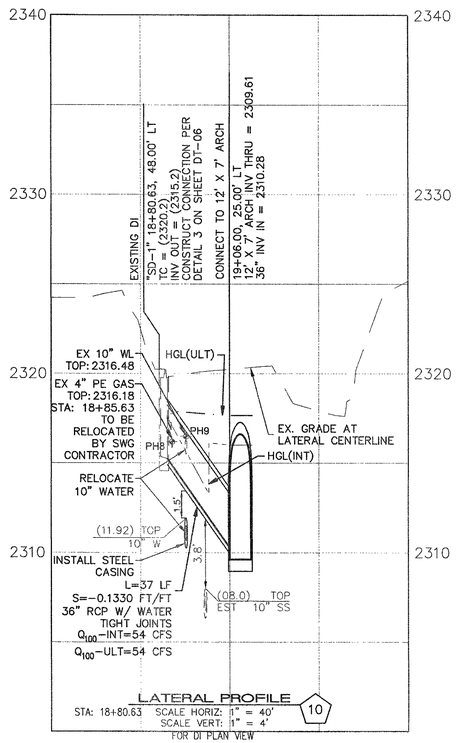
J:\sun1403-000 grand teton regional flood control facility\dwg\improv\07 1594-01-stm-lat-01.dwg 5/7/2018 8:18 AM Jane Gretty



LATERAL PROFILE 9

STA: 17+47.00 SCALE HORIZ: 1" = 40'
SCALE VERT: 1" = 4'

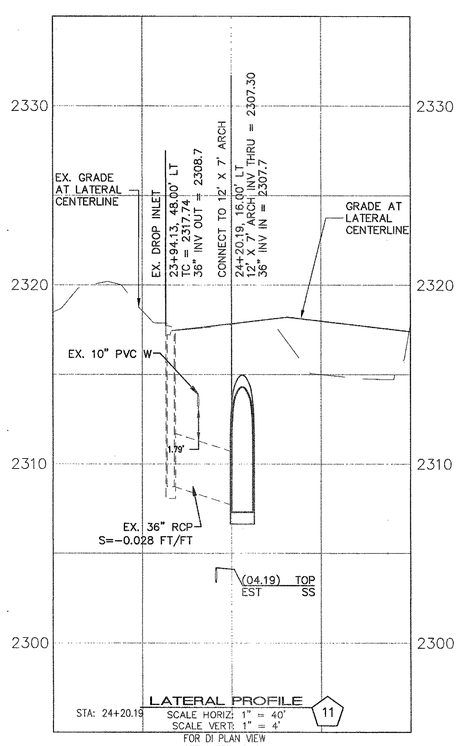
FOR DI PLAN VIEW
SEE SHEET PP-02



LATERAL PROFILE 10

STA: 18+80.63 SCALE HORIZ: 1" = 40'
SCALE VERT: 1" = 4'

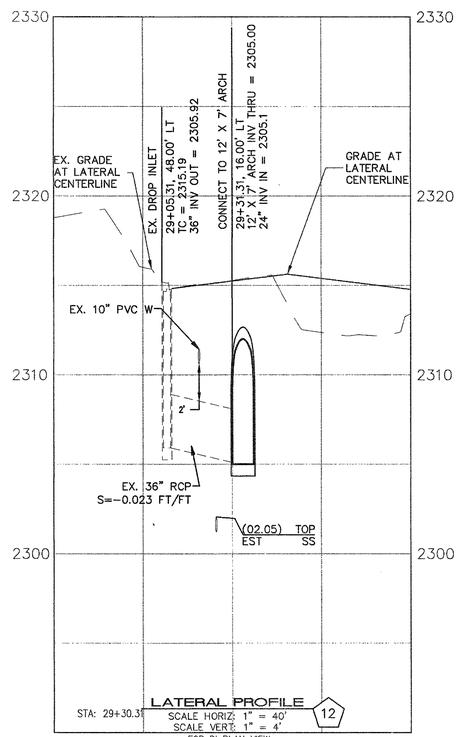
FOR DI PLAN VIEW
SEE SHEET PP-02



LATERAL PROFILE 11

STA: 24+20.19 SCALE HORIZ: 1" = 40'
SCALE VERT: 1" = 4'

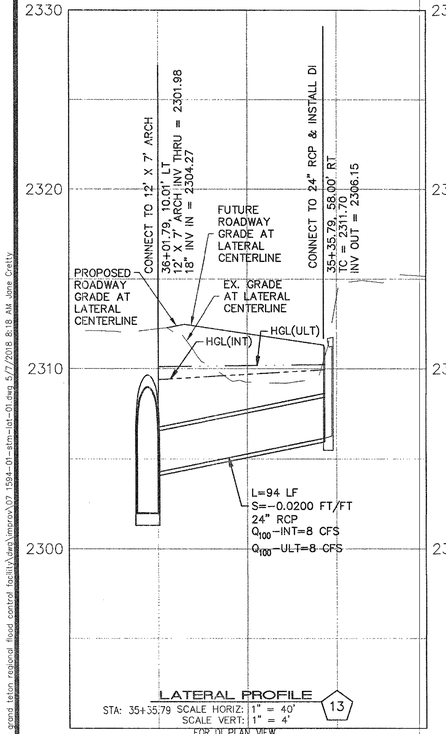
FOR DI PLAN VIEW
SEE SHEET PP-03



LATERAL PROFILE 12

STA: 29+30.31 SCALE HORIZ: 1" = 40'
SCALE VERT: 1" = 4'

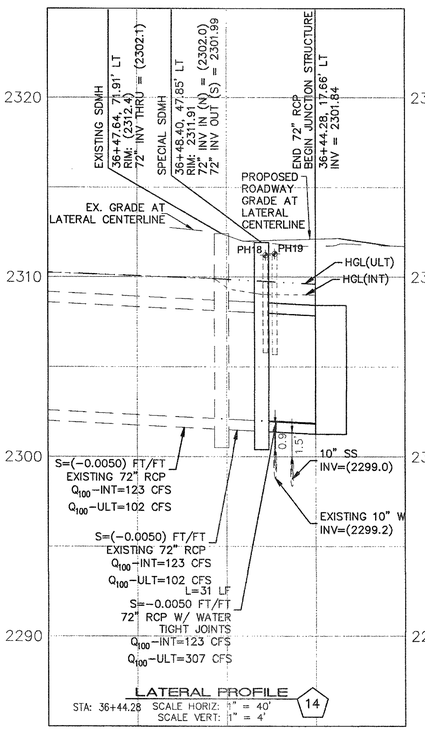
FOR DI PLAN VIEW
SEE SHEET PP-04



LATERAL PROFILE 13

STA: 35+35.79 SCALE HORIZ: 1" = 40'
SCALE VERT: 1" = 4'

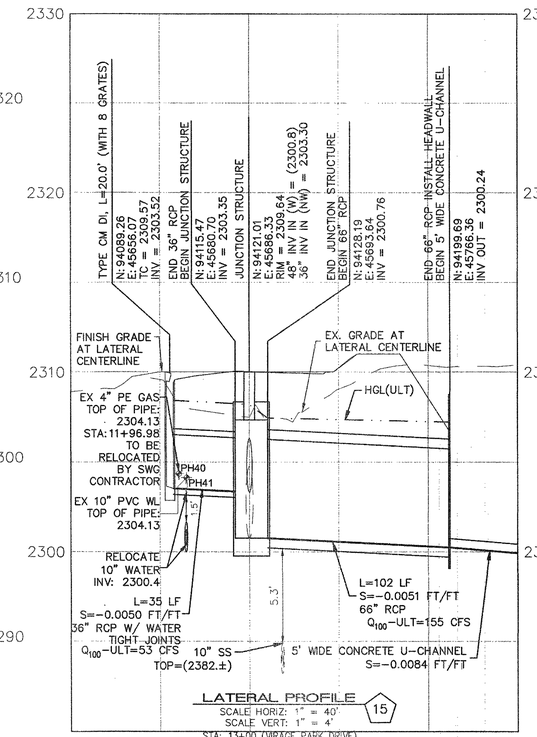
FOR DI PLAN VIEW
SEE SHEET PP-05



LATERAL PROFILE 14

STA: 36+44.28 SCALE HORIZ: 1" = 40'
SCALE VERT: 1" = 4'

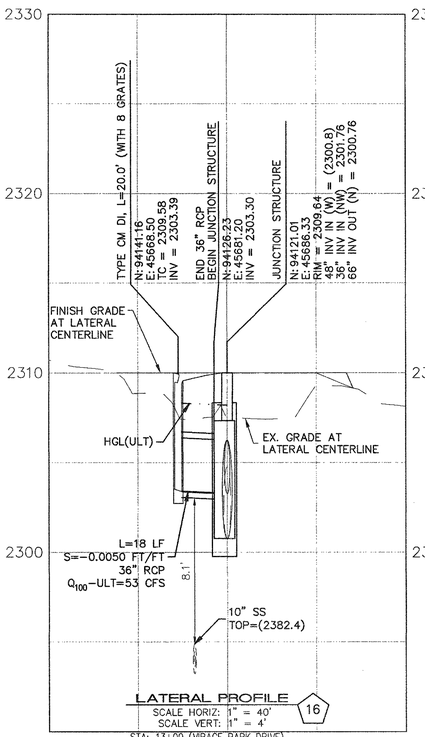
FOR DI PLAN VIEW
SEE SHEET PP-05



LATERAL PROFILE 15

SCALE HORIZ: 1" = 40'
SCALE VERT: 1" = 4'

STA: 13+00 (MIRAGE PARK DRIVE)
FOR DI PLAN VIEW
SEE SHEET PP-06



LATERAL PROFILE 16

SCALE HORIZ: 1" = 40'
SCALE VERT: 1" = 4'

STA: 13+00 (MIRAGE PARK DRIVE)
FOR DI PLAN VIEW
SEE SHEET PP-06

POTHOLE TABLE
PER AZTEC PROJECT NUMBER NVSUE1614

NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
PH8	4" PE GAS	3.60	PH41	8" PVC W	4.20
PH9	10" PVC W	3.50			
PH9	10" PVC W	3.50			
PH18					
PH19					
PH40	4" PE GAS	4.10			

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

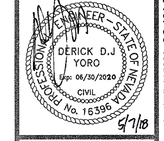
VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
STORM DRAIN LATERAL PROFILES

S 18
T 19S
R 61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000



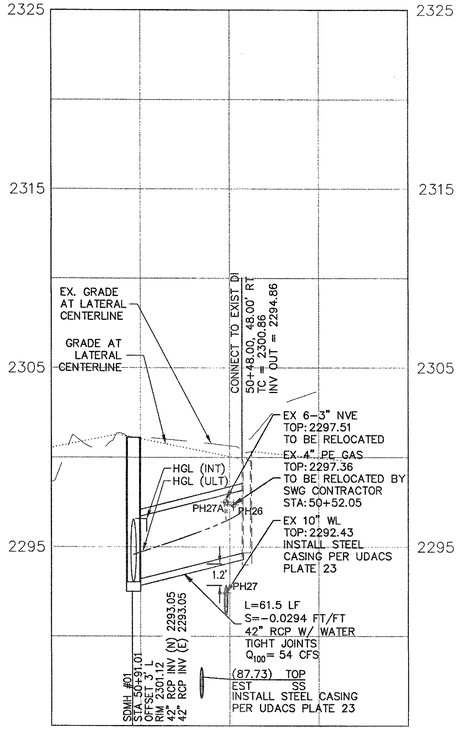
LAT-SD-02
SHEET 46 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

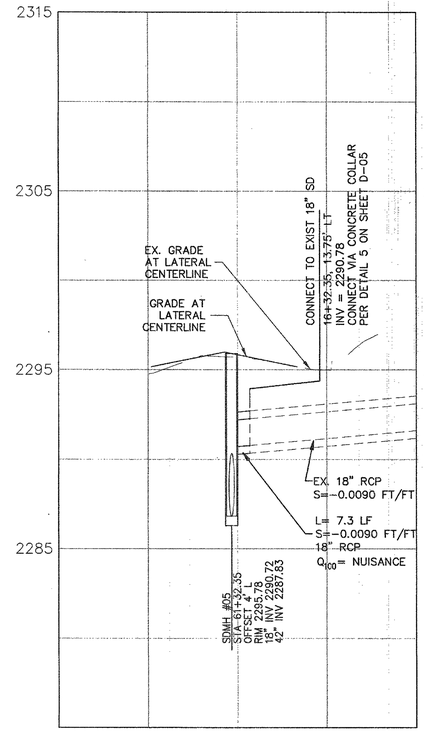
PROJ.#:124070 AGREE#:115686 QS:124-07-SWINE,124-18-WWINE

A:\sun1403-000 grand teton regional flood control facility\dwg\mirror\07 1694-01-stm-lat-01.dwg 5/7/2018 8:18 AM Jone Gretty

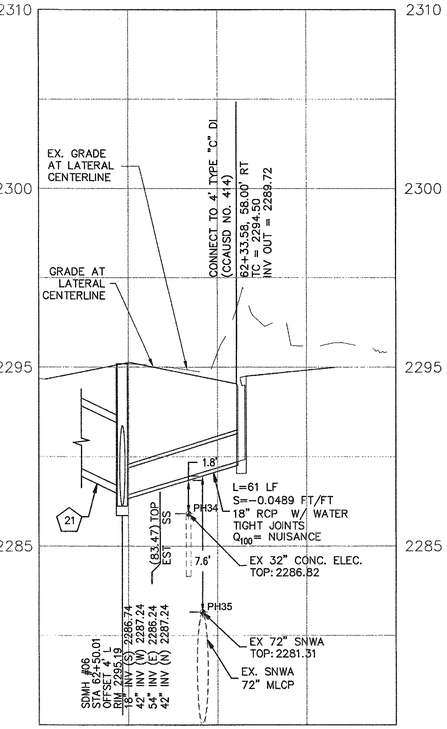
NOT USED (17)



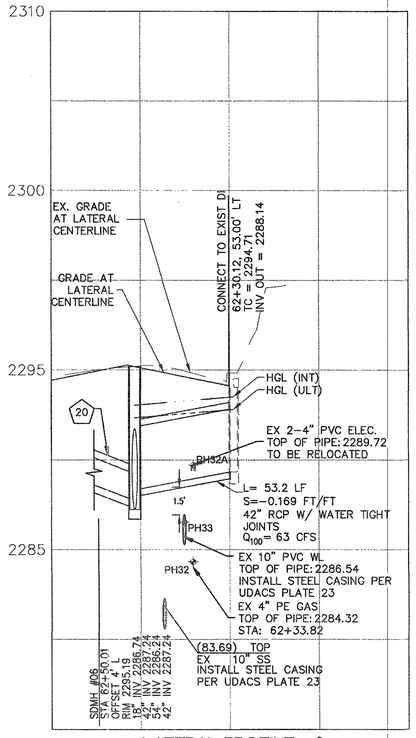
LATERAL PROFILE
STA: 16+82.00 SCALE HORIZ: 1" = 40' (18)
SCALE VERT: 1" = 4'
FOR DI PLAN VIEW
SEE SHEET PP-07



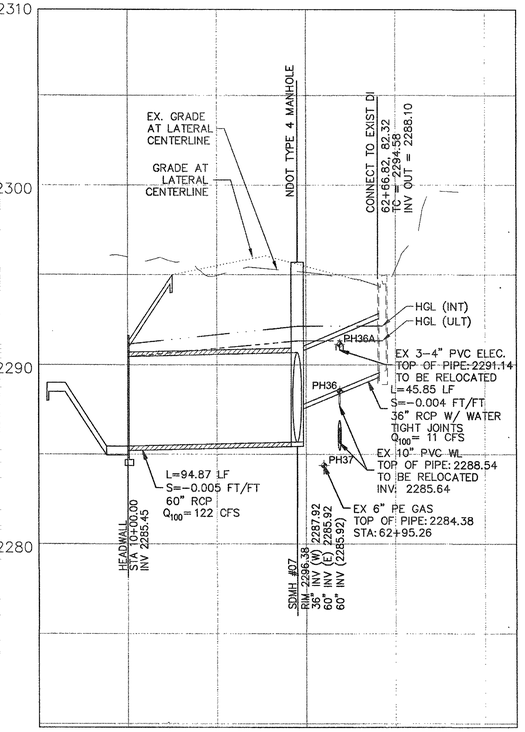
LATERAL PROFILE
STA: 61+32.35 SCALE HORIZ: 1" = 40' (19)
SCALE VERT: 1" = 4'



LATERAL PROFILE
STA: 62+50.01 SCALE HORIZ: 1" = 40' (20)
SCALE VERT: 1" = 4'
FOR DI PLAN VIEW
SEE SHEET PP-09



LATERAL PROFILE
STA: 62+50.01 SCALE HORIZ: 1" = 40' (21)
SCALE VERT: 1" = 4'
FOR DI PLAN VIEW
SEE SHEET PP-09



LATERAL PROFILE
STA: 63+50 SCALE HORIZ: 1" = 40' (22)
SCALE VERT: 1" = 4'
FOR DI PLAN VIEW
SEE SHEET PP-09

POTHOLE TABLE PER AZTEC PROJECT NUMBER NVSUE1614					
NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
PH26	4" PE GAS	3.20	PH33	10" PVC W	8.10
PH27	10" PVC W	8.10	PH34	SNWA ELEC	7.70
PH27A	NVE	3.10	PH35	72" SNWA W	13.10
PH28	SNWA ELEC	3.50	PH36	10" PVC W	6.10
PH29	72" SNWA W	8.50	PH36A	NVE	3.50
PH32	4" PE GAS	10.20	PH37	4" PE GAS	10.30
PH32A	NVE	4.80			

SNWA CONSTRUCTION NOTES:
CONTRACTOR SHALL FIELD LOCATE AND PROTECT ALL SNWA/SNWS APPURTENANCES INCLUDING, BUT NOT LIMITED TO; AV/AR, ACCESS MANWAYS AND CATHODIC PROTECTION SYSTEMS. ALL ABOVE GROUND STRUCTURES AND AT GRADE STRUCTURES MUST BE ADJUSTED TO NEW GRADE AT CONTRACTOR'S EXPENSE. CATHODIC PROTECTION TEST STATIONS, RECTIFIERS, AND AV/AR'S MUST BE RELOCATED TO THE SIDEWALK PER SNWA STANDARDS AND AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO NOTIFY SOUTHERN NEVADA WATER AUTHORITY, DEVELOPMENT PLAN REVIEW, AT (702) 691-5372 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY.

SOUTHERN NEVADA WATER AUTHORITY — DATE 9/5/18

DPR# 2016-0060

SNWA APPROVAL IS VALID FOR ONE (1) YEAR FROM THE SIGNATURE DATE. IF CONSTRUCTION WITHIN THE EASEMENT OR RESTRICTED PIPE SAFETY ZONE IS NOT COMPLETE, PLANS MUST BE RESUBMITTED TO SNWA FOR APPROVAL.

SNWA NOTES:
1. ALL REPAIRS OR RELOCATIONS OF SNWA CATHODIC PROTECTION STATIONS OR APPURTENANCES WILL BE DONE BY A CERTIFIED NACE CATHODIC PROTECTION SPECIALIST AND INACCORDANCE WITH SNWA STANDARDS
2. CAUTION SNWA TEST LEADS ARE SHALLOW
3. ALL SNWA TEST STATIONS TO BE TESTED BY CONTRACTOR AND WITNESSED BY SNWA PRIOR TO CONSTRUCTION IN THE AREA. COORDINATE WITH SNWA INSPECTOR
4. IF EXPOSED, CONTRACTOR TO PAY FOR AND REPLACE SNWA CATHODIC PROTECTION TEST STATION GROUND MATS, MAGNESIUM RIBBONS, OR ZINC RIBBONS WITH NEW GROUND MATS, MAGNESIUM RIBBONS OR ZINC RIBBONS.
5. LANDSCAPE AND IRRIGATION PLANS (BY OTHERS) SHALL BE SUBMITTED AND APPROVED BY SNWA.
6. CAUTION SNWA FIBER OPTICS CONDUIT RUNS ALONG THE WEST AND SOUTH SIDES OF THE SNWA 72" LATERAL AT VARIOUS DEPTHS.

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
STORM DRAIN LATERAL PROFILES III

S18 R61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000

DERICK D.J YORO — Exp: 06/30/2020 — CIVIL — No. 16396 — STATE OF NEVADA — PROFESSIONAL ENGINEER
5/7/18

LAT-SD-03
SHEET 47 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PRO.#:124070 AGREE#:115666 QS:124-07-SW/NE,124-18-NW/NE

j:\sun1403-000 grand teton regional flood control facility\dwg\improv\07 1594-01-strm-lat-01.dwg 5/7/2018 8:19 AM Jane Cretty

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DIG OVERHEAD

1-702-227-2929

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.

Call before you do UnderGround
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS
AND
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811
OR
1-800-227-2600
AND
CLARK COUNTY TRAFFIC OPERATIONS
1-702-455-6000

DISCLAIMER:

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND OR OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION. CONTRACTOR TO NOTIFY ENGINEER OF ANY CHANGES OR DISCREPANCIES.

BENCHMARK:

NLV9117NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
699.511 METERS, 2294.98 FEET
RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLV9117NWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

LEGAL DESCRIPTION:

GOVERNMENT LOTS 5, 7, 10, 12, 14, 18, 19, 21, 24, 25, & 28 THROUGH 37, INCLUSIVE, OF SECTION 18, TOGETHER WITH GOVERNMENT LOT 7 OF SECTION 19, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA.

BASIS OF BEARINGS:

SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

CNLV UTILITY NOTE:

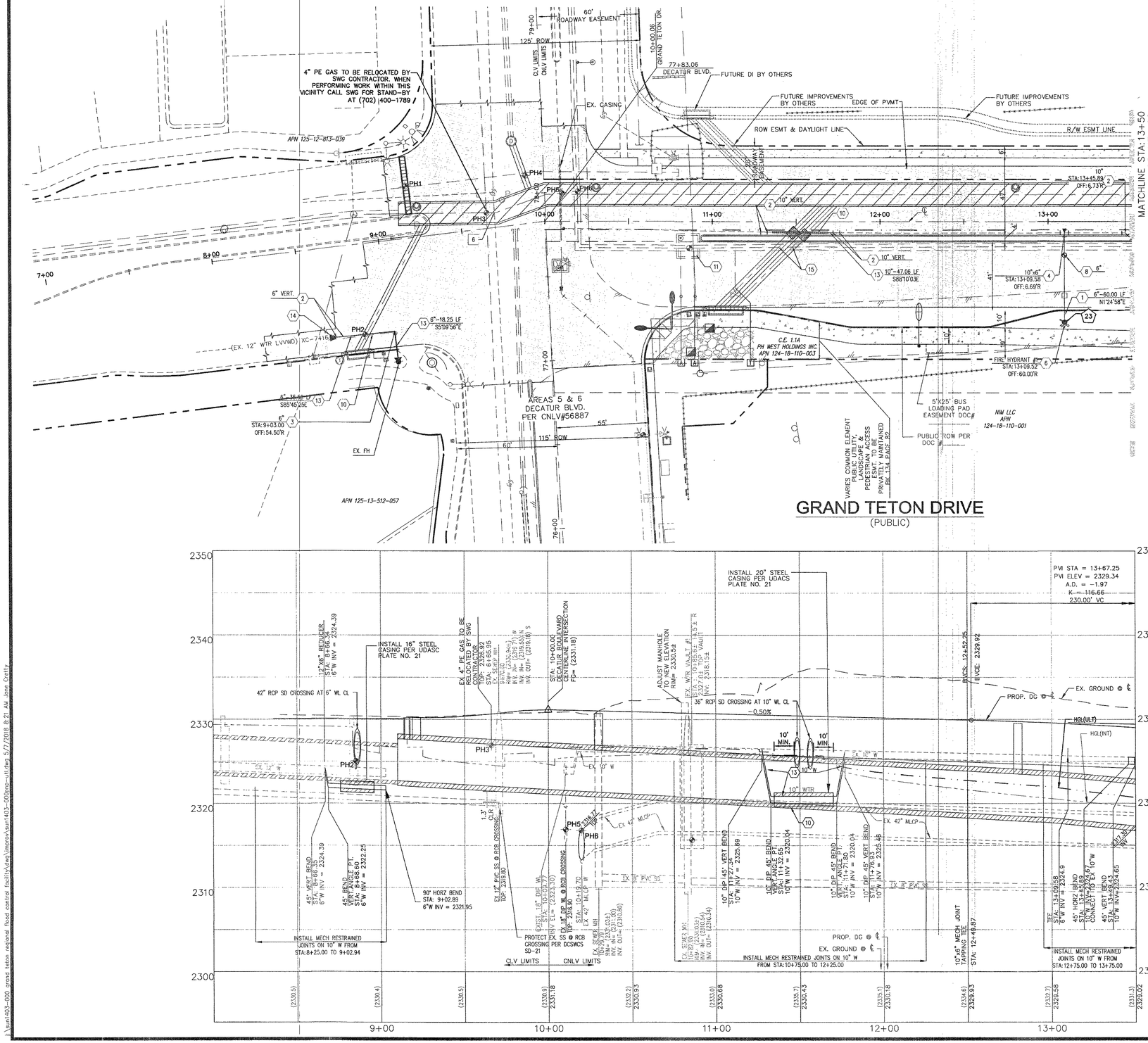
PRIOR TO INSTALLATION OF ANY SUBGRADE STREET IMPROVEMENTS, ALL REQUIRED UNDERGROUND UTILITIES (I.E. TELEPHONE, POWER, WATER, ETC.) LOCATED WITHIN PUBLIC RIGHTS-OF WAY, SHALL BE EXTENDED A MINIMUM OF TEN (10) FEET BEYOND THE PROJECT BOUNDARY.

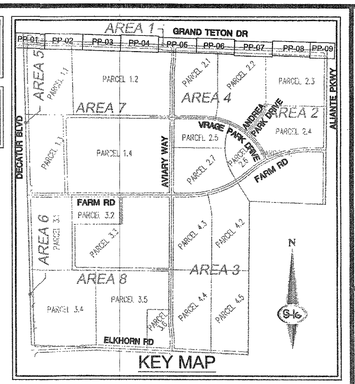
N.P.C. NOTE:

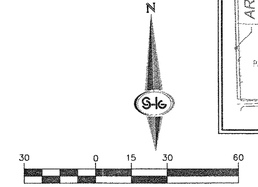
POLE KEYS ALONG GRAND TETON; SEE NEVADA POWER CO. DRAWING NUMBER 442.230.21KEYS, PROJ. ID. TLSSBTRPKH FOR DETAILS

GAS NOTE:

CALL SOUTHWEST GAS AT (702) 400-1789 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES







LEGEND:

PROP. ASPHALT | PROP. SIDEWALK | PROP. RIP-RAP | NO DEEP ROOTED TREES | PROP. GROUTED RIP-RAP

WATER NOTES:

1. INSTALL PVC PRESSURE CLASS C900 WATERLINE, SIZE PER PLAN (PUBLIC) (UDACS PLATE NO. 15, 16 AND 17)
2. INSTALL 45° BEND, SIZE PER PLAN (UDACS PLATE NO. 31)
3. INSTALL 90° BEND, SIZE PER PLAN (UDACS PLATE NO. 31)
4. INSTALL TAPPING SLEEVE W/ TAPPING VALVE, SIZE PER PLAN, PER UDACS 2.24.01 (A) (PLATES 34 & 39)
5. 6" WATER BLOW-OFF PER UDACS PLATE NO. 37
6. INSTALL FIRE HYDRANT ASSEMBLY (UDACS PLATE NO. 40). SEE DETAIL 5 ON SHEET D-03 FOR FIRE HYDRANT LOCATION.
7. INSTALL CAP WITH 2" BLOW-OFF ASSEMBLY (UDACS PLATE NO. 36)
8. INSTALL GATE VALVE, SIZE PER PLAN (UDACS PLATE NO. 30 & 39)
9. INSTALL TEE, SIZE PER PLAN (UDACS PLATE NO. 31)
10. INSTALL WATER MAIN CROSSING (UDACS PLATE NO. 21 & 23, OR 22)
11. ADJUST WATER MANHOLE TO FINISH GRADE PER LVVWD DESIGN STD. PL08-4 (LVVWD ACAD STD)
12. ADJUST VALVE BOX TO FINISH GRADE
13. INSTALL DUCTILE IRON PIPE (DIP) WATERLINE, SIZE PER PLAN (PUBLIC) (UDACS PLATE NO. 15, 16 AND 17)
14. INSTALL 12"X6" REDUCER PER UDACS PLATE NO. 30
15. 2' OF COVER OVER WATER MAIN SHALL BE MAINTAINED AT ALL TIME. CONTRACTOR SHALL USE EXTREME CAUTION. CONTRACT SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY DAMAGES TO WATER LINE REGARDLESS OF METHODS UTILIZED.
16. INSTALL TWO 4" CLASS 200 IRRIGATION SLEEVE PIPES
17. INSTALL 1" IRRIGATION WATER METER AND TAP

SEWER NOTES:

1. ADJUST SS MANHOLE TO FINISH GRADE
2. INSTALL 48" SS MANHOLE
3. INSTALL 10" C900 SS PIPE
4. NOT USED
5. NOT USED
6. PROTECT EX. SS @ SD CROSSING PER DCSWCS SD-21
7. INSTALL STEEL SLEEVE ENCASEMENT PER UDACS PLATE 23

LATERAL RUN PROFILE INDEX	
LATERAL RUN NO	SEE SHEET
1 THRU 9	LAT-SD-01
9 THRU 16	LAT-SD-02
17 THRU 22	LAT-SD-03
23 THRU 28	LAT-W-01
29 THRU 33	LAT-W-02

POTHOLE TABLE
PER AZTEC PROJECT NUMBER NVSUE1614

NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
PH1	4" PE GAS	6.10			
PH2	12" PVC W	6.10			
PH3	4" PE GAS	3.90			
PH4	4" PE GAS	5.10			
PH5	18" PVC W	14.10			
PH6	42" MLCP W	14.10			

NOTE:

THE GRAND TETON & GRADES AND ℄ OF DRIVEWAYS ENTERING GRAND TETON ARE BASED ON AS-BUILT POINTS SHOT BY CARTER BURGESS SURVEY IN 2006.

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APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES ~~MANAGER~~
SHEETS: C-01 THRU C-04, PP-01, LAT-SD-01, PP-UTL-01
DATE 9/5/18 PROJECT No. 124070

CITY OF NORTH LAS VEGAS
FIRE PREVENTION
BY: DATE:

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP.	APP. DATE

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

UTILITY PLAN & PROFILE STA 7+00 TO 13+50

S:18 R:61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO.
SUN1403-000

PROFESSIONAL ENGINEER – STATE OF NEVADA
DERICK D.J. YORO
Exp: 06/30/2020
CIVIL
No. 16396
5/7/18

PP-UTL-01
SHEET 48 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PRO.#:124070 AGREE#:115666 QS:124-07-SW/NE,124-18-NW/NE

I:\sun1403-000 grand teton regional flood control facility\dwg\marov\sun1403-000ero-utl.dwg 5/7/2018 8:21 AM Jone Crotty

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DO OVERHEAD

1-702-227-2929

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BENCHMARK:

NLV9117NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
699.511 METERS, 2294.98 FEET
RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLV9117NWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

LEGAL DESCRIPTION:

GOVERNMENT LOTS 5, 7, 10, 12, 14, 18, 19, 21, 24, 25, & 28 THROUGH 37, INCLUSIVE, OF SECTION 18, TOGETHER WITH GOVERNMENT LOT 7 OF SECTION 19, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA.

BASIS OF BEARINGS:

SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

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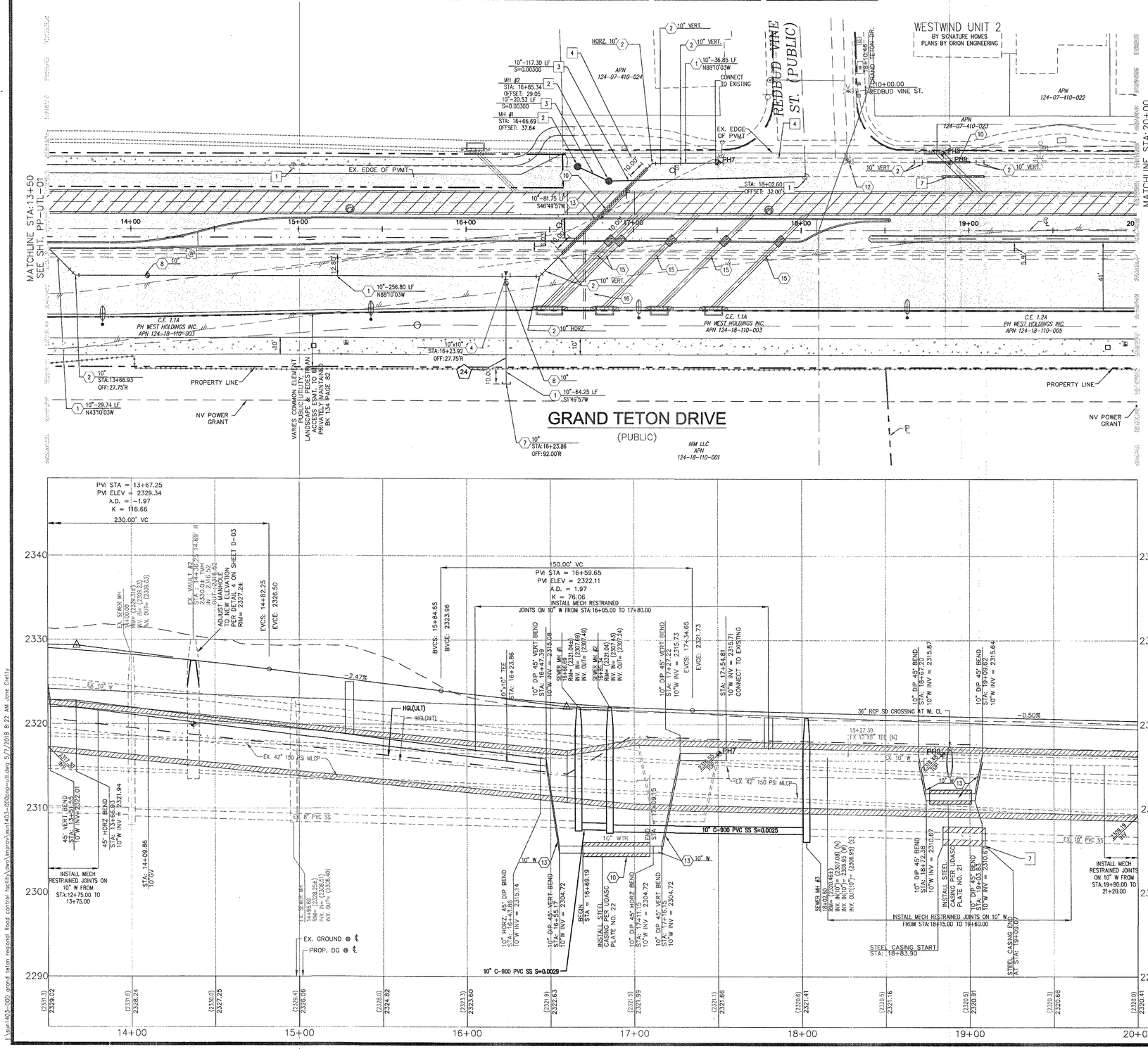
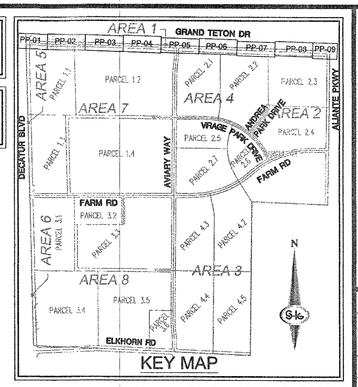
N.P.C. NOTE:

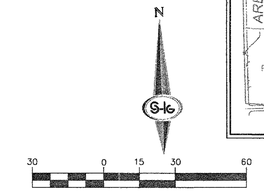
POLE KEYS ALONG GRAND TETON; SEE NEVADA POWER CO. DRAWING NUMBER 442.230.21KEYS, PROJ. ID. TL5881RPKH FOR DETAILS

GAS NOTE:

CALL SOUTHWEST GAS AT (702) 400-1789 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES







LEGEND:

PROP. ASPHALT | PROP. SIDEWALK | PROP. RIP-RAP | NO DEEP ROOTED TREES | PROP. GROUTED RIP-RAP

WATER NOTES:

1. INSTALL PVC PRESSURE CLASS C900 WATERLINE, SIZE PER PLAN (PUBLIC) (UDACS PLATE NO. 15, 16 AND 17)
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4. NOT USED
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6. PROTECT EX. SS @ SD CROSSING PER DCSWCS SD-21
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LATERAL RUN PROFILE INDEX

LATERAL RUN NO	SEE SHEET
1 THRU 8	LAT-SD-01
9 THRU 16	LAT-SD-02
17 THRU 22	LAT-SD-03
23 THRU 28	LAT-W-01
29 THRU 33	LAT-W-02

POTHOLE TABLE

PER AZTEC PROJECT NUMBER NVSUE1614

NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
PH7	10" PVC W	4.10			
PH8	4" PE GAS	3.60			
PH9	10" PVC W	3.50			

NOTE:

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FIRE PREVENTION
BY: DATE:

CLV 731-98

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CONSULTING ENGINEERS & PLANNERS
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PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP.

APP. DATE

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

S 18 T 19 R 61E

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

UTILITY PLAN & PROFILE STA 13+50 TO 20+00

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000

DERICK D.J YORO
Exp. 06/30/2020
CIVIL
No. 16396
STATE OF NEVADA
PROFESSIONAL ENGINEER
6/1/18

PP-UTL-02
SHEET 49 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ#:124070 AGREE#:115666 QS:124-07-SW/NE,124-18-NW/NE

J:\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403-000pp-utl.dwg 5/7/2018 8:22 AM Jose Cetty

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NAVD 88 ELEVATION PUBLISHED 6/30/15
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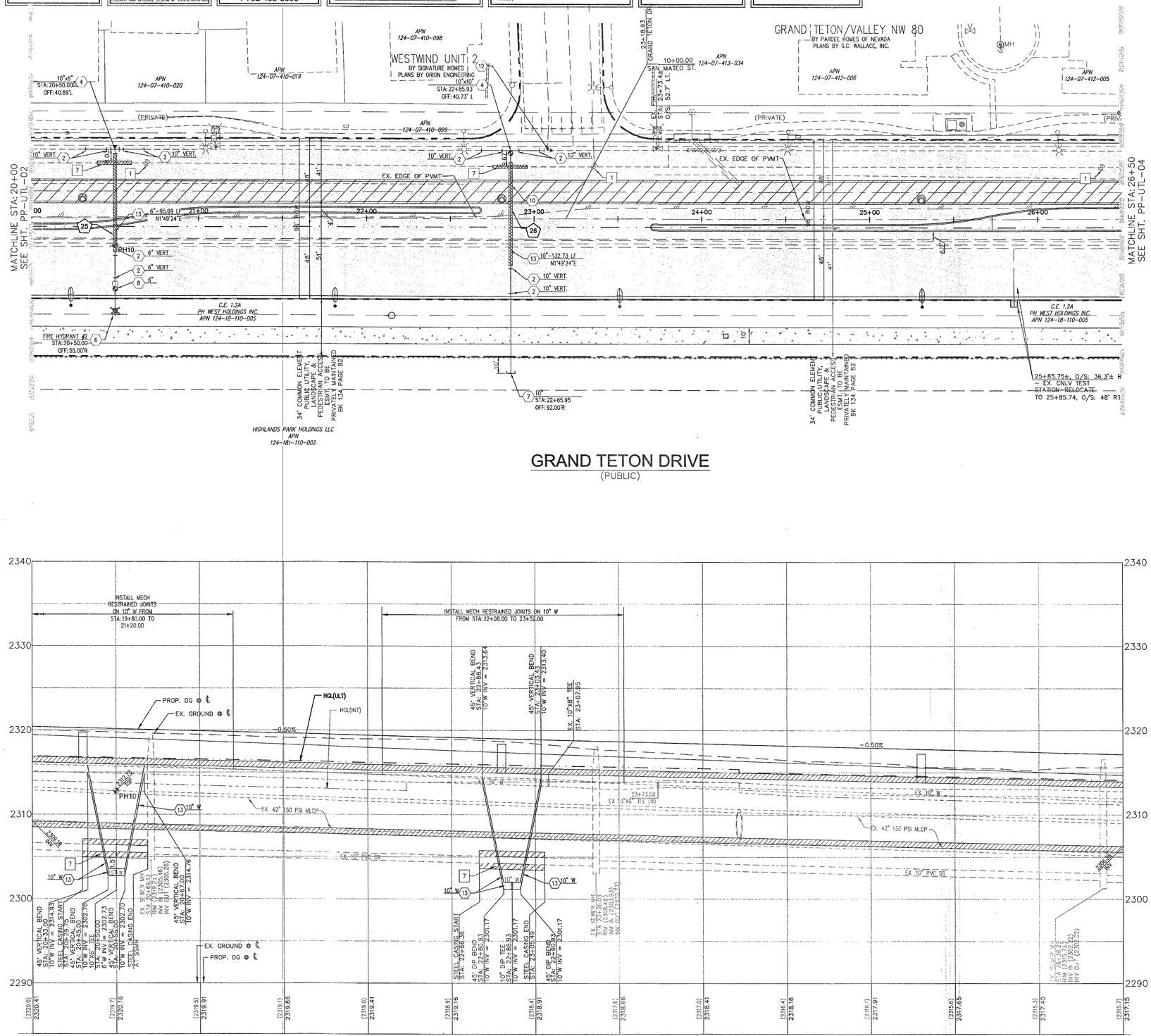

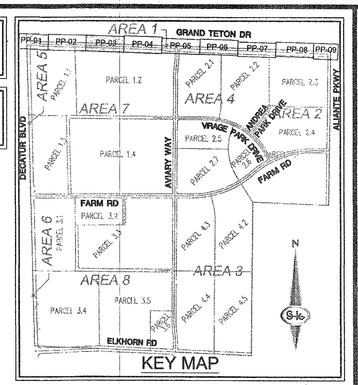

30 0 15 30 60
(IN FEET)
HOR. 1 INCH = 30 FT.
VER. 1 INCH = 6 FT.

LEGEND:

PROP. ASPHALT | PROP. SIDEWALK | PROP. RIP-RAP | NO DEEP ROOTED TREES | PROP. GROUTED RIP-RAP

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LATERAL RUN NO	SEE SHEET
1 THRU 8	LAT-SD-01
9 THRU 16	LAT-SD-02
17 THRU 22	LAT-SD-03
23 THRU 28	LAT-W-01
29 THRU 33	LAT-W-02

POTHOLE TABLE
PER AZTEC PROJECT NUMBER NVSUE1614

NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
PH10	42" MLCP W	4.70			

NOTE:

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CITY OF NORTH LAS VEGAS
FIRE PREVENTION

BY: DATE:

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP.	APP. DATE

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

S:18 T:19S R:61E

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
UTILITY PLAN & PROFILE STA 20+00 TO 26+50

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000

DERICK D.J. YORO — NEVADA — No. 16396 — CIVIL — Exp. 06/30/2020 — PROFESSIONAL ENGINEER — STATE OF — 5/7/18

PP-UTL-03
SHEET 50 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ#:124070 AGREE#:115666 QS:124-07-SWINE, 124-18-NWINE

J:\sun1403-000 grand teton regional flood control facility\dev\engrov\sun1403-000engr-utl.dwg 5/7/2018 8:22 AM Jose Cretty

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NLV911?NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
699.511 METERS, 2294.98 FEET
RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLV911/NWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

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SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

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N.P.C. NOTE:
POLE KEYS ALONG GRAND TETON; SEE NEVADA POWER CO. DRAWING NUMBER 442.230.21KEYS, PROJ. ID. TLS981RPKN FOR DETAILS

GAS NOTE:
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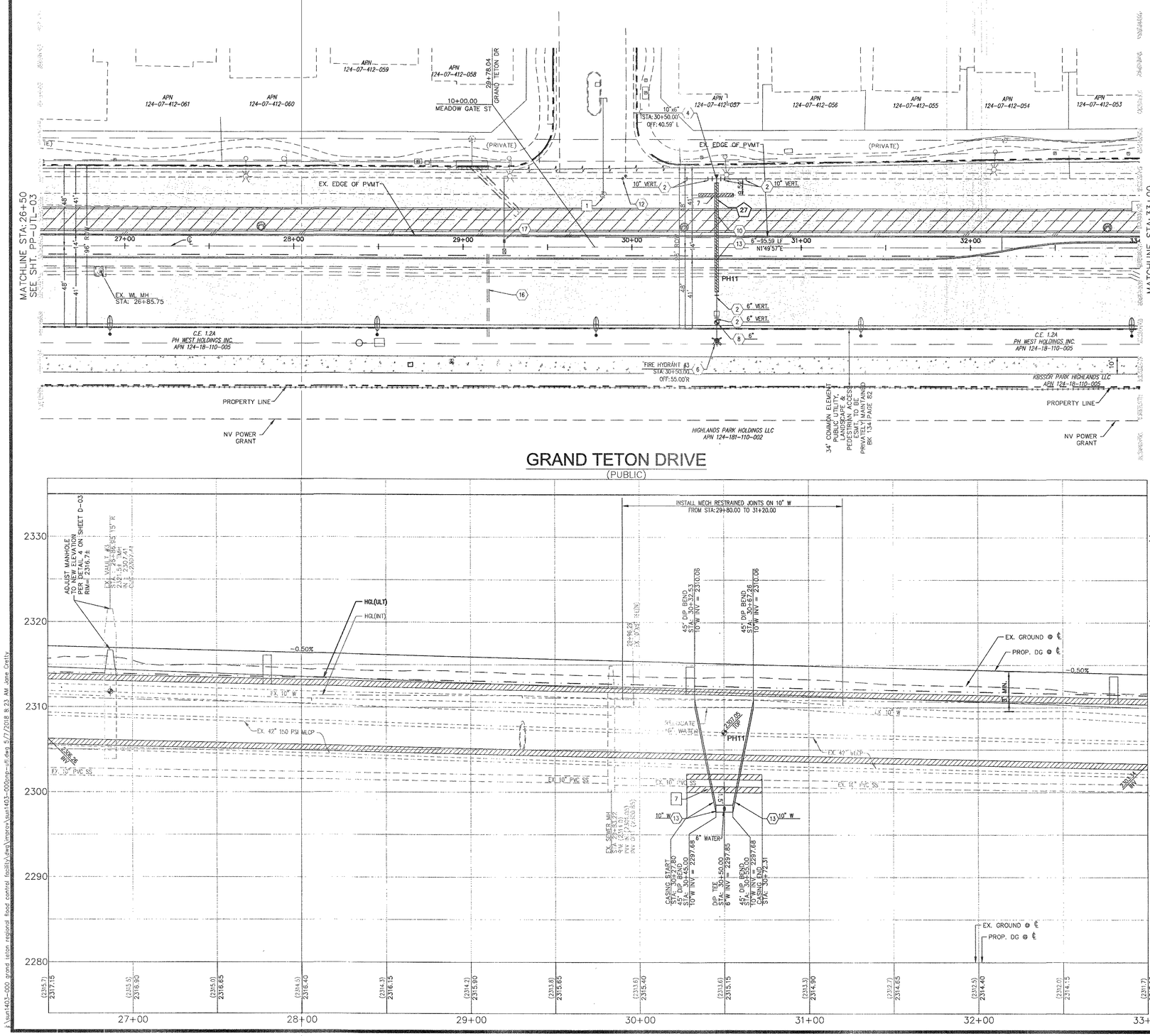

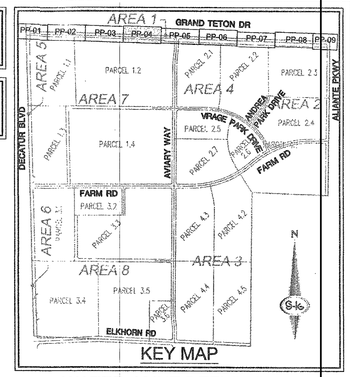

30 0 15 30 60
(IN FEET)
HOR. 1 INCH = 30 FT.
VER. 1 INCH = 6 FT.

LEGEND:

PROP. ASPHALT | PROP. SIDEWALK | PROP. RIP-RAP | NO DEEP ROOTED TREES | PROP. GROUTED RIP-RAP

WATER NOTES:

1. INSTALL PVC PRESSURE CLASS C900 WATERLINE, SIZE PER PLAN (PUBLIC) (UDACS PLATE NO. 15, 16 AND 17)
2. INSTALL 45° BEND, SIZE PER PLAN (UDACS PLATE NO. 31)
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6. INSTALL FIRE HYDRANT ASSEMBLY (UDACS PLATE NO. 40). SEE DETAIL 5 ON SHEET D-03 FOR FIRE HYDRANT LOCATION.
7. INSTALL CAP WITH 2" BLOW-OFF ASSEMBLY (UDACS PLATE NO. 36)
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9. INSTALL TEE, SIZE PER PLAN (UDACS PLATE NO. 31)
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11. ADJUST WATER MANHOLE TO FINISH GRADE PER LVVWD DESIGN STD. PL08-4 (LVVWD ACAD STD)
12. ADJUST VALVE BOX TO FINISH GRADE
13. INSTALL DUCTILE IRON PIPE (DIP) WATERLINE, SIZE PER PLAN (PUBLIC) (UDACS PLATE NO. 15, 16 AND 17)
14. INSTALL 12"x6" REDUCER PER UDACS PLATE NO. 30
15. 2' OF COVER OVER WATER MAIN SHALL BE MAINTAINED AT ALL TIME. CONTRACTOR SHALL USE EXTREME CAUTION. CONTRACT SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY DAMAGES TO WATER LINE REGARDLESS OF METHODS UTILIZED.
16. INSTALL TWO 4" CLASS 200 IRRIGATION SLEEVE PIPES
17. INSTALL 1" IRRIGATION WATER METER AND TAP

SEWER NOTES:

1. ADJUST SS MANHOLE TO FINISH GRADE
2. INSTALL 48" SS MANHOLE
3. INSTALL 10" C900 SS PIPE
4. NOT USED
5. NOT USED
6. PROTECT EX. SS @ SD CROSSING PER DCSWCS SD-21
7. INSTALL STEEL SLEEVE ENCASEMENT PER UDACS PLATE 23

WATER JOINT DEFLECTION NOTE

AS PART OF THE INSPECTION REQUIREMENT, A REGISTERED PROFESSIONAL LAND SURVEYOR SHALL CONFIRM IN WRITING/STAMPED (OFFICIAL CONFIRMATION) THAT THE HORIZONTAL/VERTICAL DEFLECTIONS OF PIPE PLACEMENT ARE WITHIN THE MAXIMUM ALLOWABLE JOINT DEFLECTION PER UDACS 2.07.01. CITY WILL ACQUIRE GPS POINTS OF THE INSTALLED WATER LINE UPON RECEIPT OF AN OFFICIAL CONFIRMATION FROM THE SURVEYOR.

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3. ALL EXISTING UTILITIES SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED.

CNLV UTILITY DEPARTMENT DISCLAIMER:

A STATEMENT OF UNDERSTANDING BETWEEN THE CITY OF NORTH LAS VEGAS UTILITY DEPARTMENT (CITY) AND ANY AND ALL SUBSEQUENT USERS OF INFORMATION OBTAINED HEREFROM: THE PLANS AND SUPPORTING INFORMATION IS FURNISHED BY THE CITY, AND IS ACCEPTED/USED BY THE RECIPIENT WITH THE UNDERSTANDING THAT THE CITY MAKES NO WARRANTIES, EXPRESS OR IMPLIED, CONCERNING THE ACCURACY, COMPLETENESS, RELIABILITY, OR SUITABILITY OF SAID PLANS OR ANY SUPPORTING DATA AND FURTHER UNDERSTANDS THAT ALL USERS ARE ACTING AT THEIR OWN RISK. THE CITY SHALL BE UNDER NO LIABILITY WHATSOEVER RESULTING FROM ANY USE OF THIS INFORMATION. THIS INFORMATION SHOULD NOT BE RELIED UPON AS THE SOLE BASIS FOR EXISTING WATER AND/OR SEWER LOCATIONS. THE ENGINEER SHALL CHECK AND VERIFY ALL DIMENSIONS AND LOCATIONS OF EXISTING UTILITIES.

LATERAL RUN PROFILE INDEX	
LATERAL RUN NO	SEE SHEET
1 THRU 8	LAT-SD-01
9 THRU 16	LAT-SD-02
17 THRU 22	LAT-SD-03
23 THRU 28	LAT-W-01
29 THRU 33	LAT-W-02

GRAND TETON DRIVE
(PUBLIC)

POTHOLE TABLE
PER AZTEC PROJECT NUMBER NVSUE1614

NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
PH11	42" MLCP W	4.90			

NOTE:
THE GRAND TETON ℄ GRADES AND ℄ OF DRIVEWAYS ENTERING GRAND TETON ARE BASED ON AS-BUILT POINTS SHOT BY CARTER BURGESS SURVEY IN 2006.

CITY OF NORTH LAS VEGAS
FIRE PREVENTION
BY: DATE:

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP.	APP. DATE

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

UTILITY PLAN & PROFILE STA 26+50 TO 33+00

VALLEY VISTA

S:18 T:19S R:61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000

DERICK D.J YORO — Exp. 06/30/2020 — CIVIL — No. 16396 — STATE OF NEVADA — PROFESSIONAL ENGINEER
5/7/18

PP-UTL-04
SHEET 51 OF 125
CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PRO.J#:124070 AGREE#:115666 QS:124-07-SW/NE,124-18-NW/NE

J:\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403-000sop-utl.dwg 5/7/2018 8:23 AM jane.crelly

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1-702-227-2929

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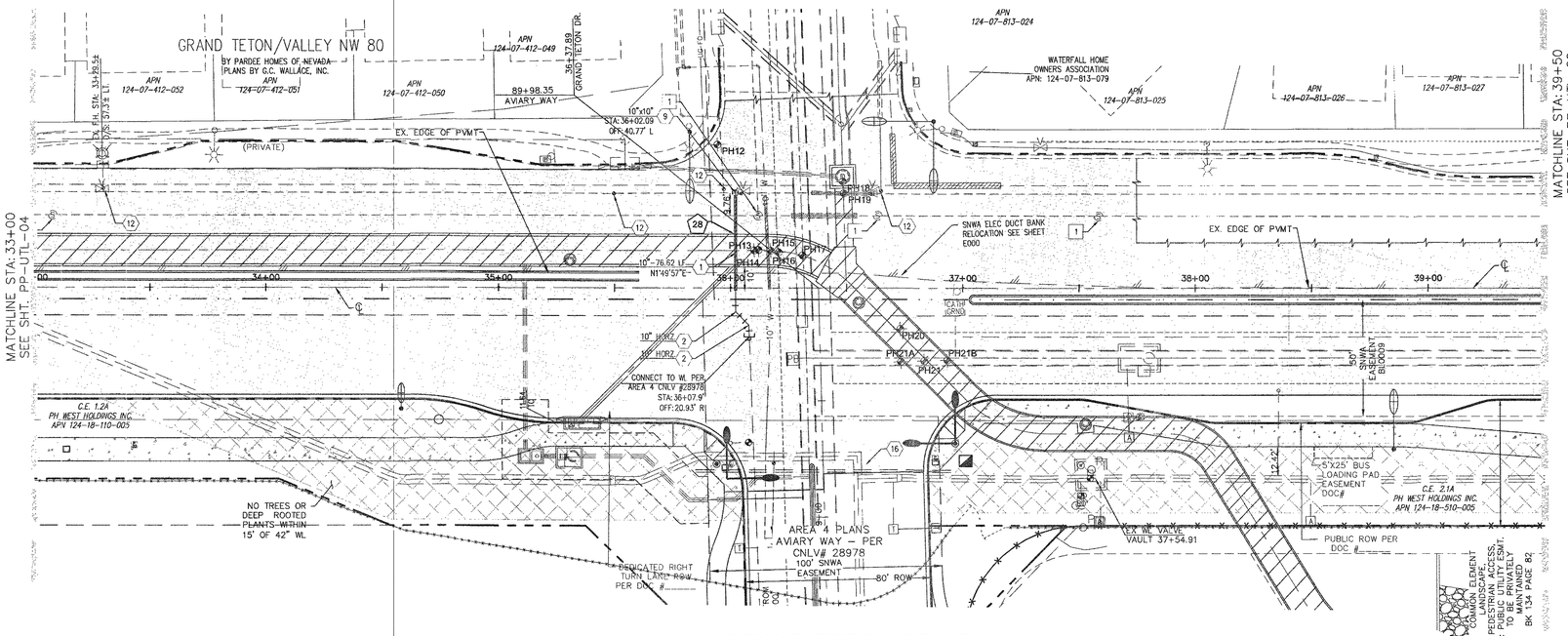
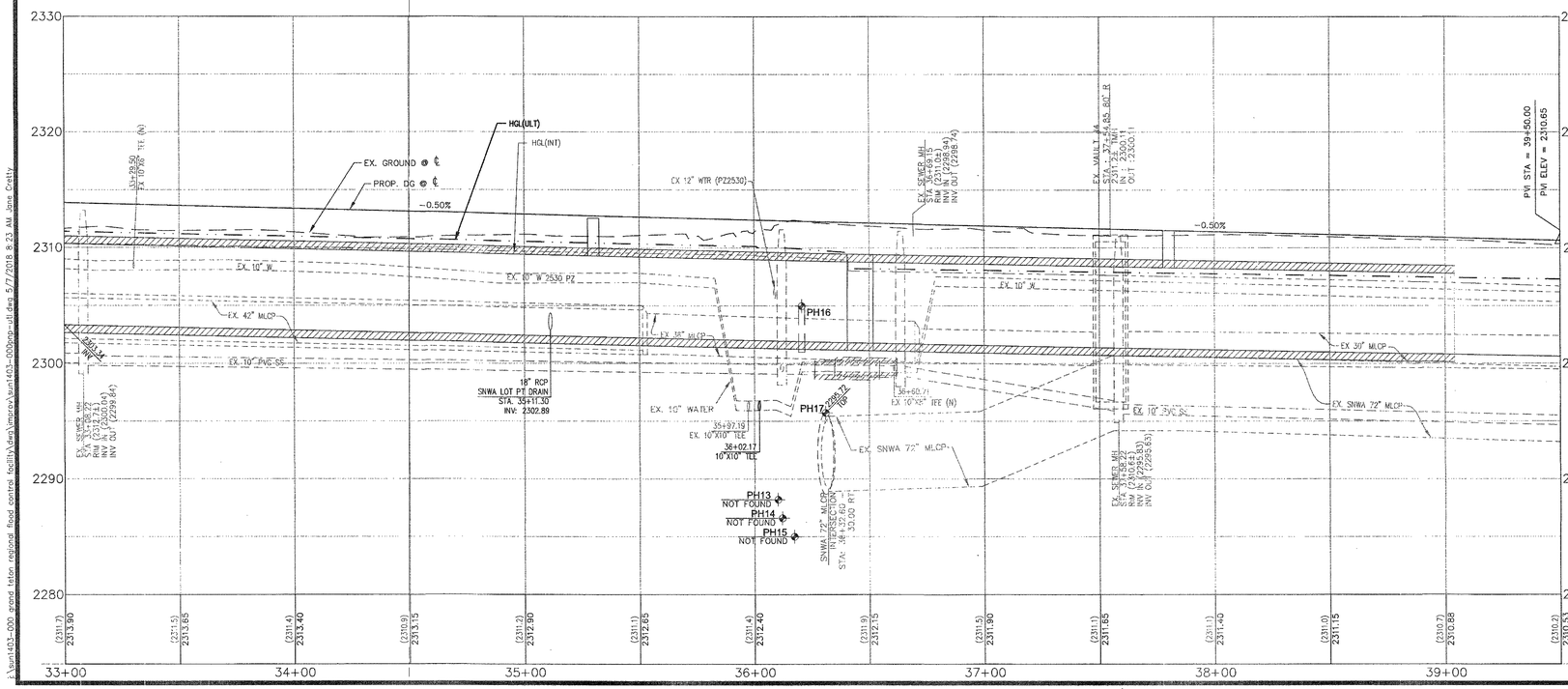
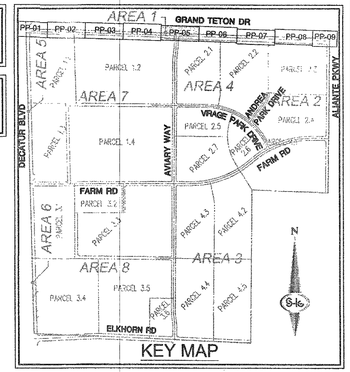
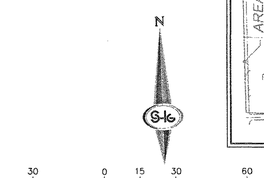


GRAND TETON DRIVE
(PUBLIC)







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LATERAL RUN PROFILE INDEX	
LATERAL RUN NO	SEE SHEET
1 THRU 8	LAT-SD-01
9 THRU 16	LAT-SD-02
17 THRU 22	LAT-SD-03
23 THRU 28	LAT-W-01
29 THRU 33	LAT-W-02

SNWA CONSTRUCTION NOTES:

CONTRACTOR SHALL FIELD LOCATE AND PROTECT ALL SNWA/SNWS APPURTENANCES INCLUDING, BUT NOT LIMITED TO; AV/AR, ACCESS MANWAYS AND CATHODIC PROTECTION SYSTEMS. ALL ABOVE GROUND STRUCTURES AND AT GRADE STRUCTURES MUST BE ADJUSTED TO NEW GRADE AT CONTRACTOR'S EXPENSE. CATHODIC PROTECTION TEST STATIONS, RECTIFIERS, AND AV/AR'S MUST BE RELOCATED TO THE SIDEWALK PER SNWA STANDARDS AND AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO NOTIFY SOUTHERN NEVADA WATER AUTHORITY, DEVELOPMENT PLAN REVIEW, AT (702) 691-5372 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY.

SOUTHERN NEVADA WATER AUTHORITY — DATE 9/5/18

DPR# 2018-0060

SNWA APPROVAL IS VALID FOR ONE (1) YEAR FROM THE SIGNATURE DATE. IF CONSTRUCTION WITHIN THE EASEMENT OR RESTRICTED PIPE SAFETY ZONE IS NOT COMPLETE, PLANS MUST BE RESUBMITTED TO SNWA FOR APPROVAL.

POTHOLE TABLE
PER AZTEC PROJECT NUMBER NVSUE1614

NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
PH12	10" PVC W	1.60	PH18	4" PE GAS	NOT FOUND
PH13	10" PVC W	NOT FOUND	PH19	10" PVC W	NOT FOUND
PH14	4" PE GAS	NOT FOUND	PH20	SNWA ELEC	7.00
PH15	10" PVC W	NOT FOUND	PH21	72" SNWA W	12.50
PH16	SNWA ELEC	7.10	PH21A*	72" SNWA W	15.25
PH17	72" SNWA W	16.20	PH21B*	72" SNWA W	14.92

*POTHOLES PERFORMED BY WESTERN STATES CONTRACTING

NOTE:

THE GRAND TETON ℄ GRADES AND ℄ OF DRIVEWAYS ENTERING GRAND TETON ARE BASED ON AS-BUILT POINTS SHOT BY CARTER BURGESS SURVEY IN 2006.

SNWA NOTES:

1. ALL REPAIRS OR RELOCATIONS OF SNWA CATHODIC PROTECTION STATIONS OR APPURTENANCES WILL BE DONE BY A CERTIFIED NACE CATHODIC PROTECTION SPECIALIST AND INACCORDANCE WITH SNWA STANDARDS
2. CAUTION SNWA TEST LEADS ARE SHALLOW
3. ALL SNWA TEST STATIONS TO BE TESTED BY CONTRACTOR AND WITNESSED BY SNWA PRIOR TO CONSTRUCTION IN THE AREA. COORDINATE WITH SNWA INSPECTOR
4. IF EXPOSED, CONTRACTOR TO PAY FOR AND REPLACE SNWA CATHODIC PROTECTION TEST STATION GROUND MATS, MAGNESIUM RIBBONS, OR ZINC RIBBONS WITH NEW GROUND MATS, MAGNESIUM RIBBONS OR ZINC RIBBONS.
5. LANDSCAPE AND IRRIGATION PLANS (BY OTHERS) SHALL BE SUBMITTED AND APPROVED BY SNWA.
6. SNWA FIBER OPTIC CONDUIT FOLLOWS ALONG THE SNWA PIPELINE.
7. NO IN-GROUND POSTS OR SIGNS SHALL BE PLACED WITHIN 1' HORIZONTALLY FROM THE OUTSIDE DIAMETER OF THE SNWA 72" TRANSMISSION MAIN.
8. CAUTION SNWA FIBER OPTICS CONDUIT RUNS ALONG THE WEST SIDE OF THE SNWA 72" LATERAL AT VARIOUS DEPTHS.

CLV 731-98

CITY OF NORTH LAS VEGAS FIRE PREVENTION

BY: DATE:

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

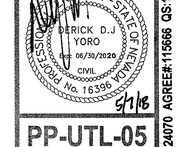
VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
UTILITY PLAN & PROFILE STA 33+00 TO 39+50

S:18 T:19S R:61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000



PP-UTL-05
SHEET 52 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ.#:124070 AGREE#:115666 QS:124-07-SW/NE,124-18-NW/NE

\sun1403-000 grand teton regional flood control facility\Area1\micro\sun1403-000pp-utl.dwg 5/7/2018 8:23 AM dara.crotty

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RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLV9117NWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

LEGAL DESCRIPTION:

GOVERNMENT LOTS 5, 7, 10, 12, 14, 18, 19, 21, 24, 25, & 28 THROUGH 37, INCLUSIVE, OF SECTION 18, TOGETHER WITH GOVERNMENT LOT 7 OF SECTION 19, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

BASIS OF BEARINGS:

SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

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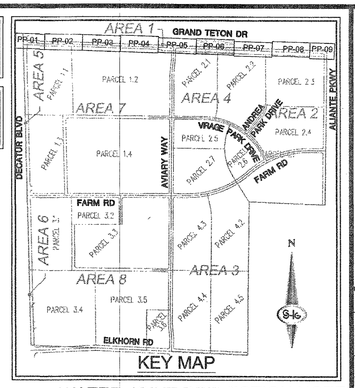
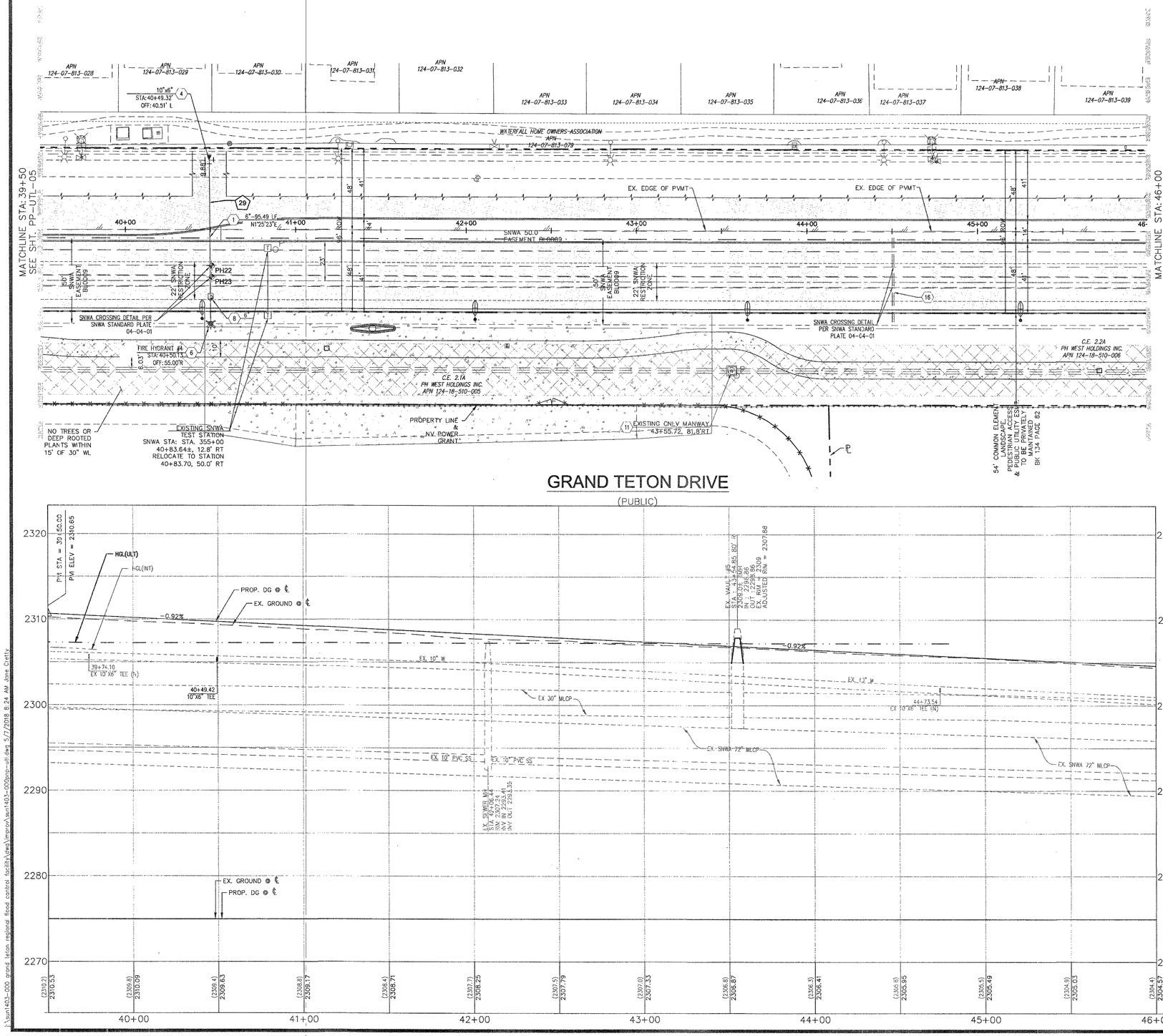
N.P.C. NOTE:

POLE KEYS ALONG GRAND TETON;
SEE NEVADA POWER CO. DRAWING NUMBER 442.230.21KEYS, PROJ. ID. TLS88TRPKH FOR DETAILS

GAS NOTE:

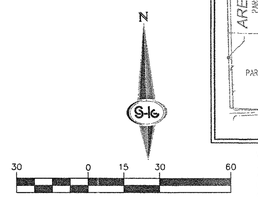
CALL SOUTHWEST GAS AT (702) 400-1789 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES





GRAND TETON DRIVE

(PUBLIC)



LEGEND:

PROP. ASPHALT | PROP. SIDEWALK | PROP. RIP-RAP | NO DEEP ROOTED TREES | PROP. GROUTED RIP-RAP

WATER NOTES:

1. INSTALL PVC PRESSURE CLASS C900 WATERLINE, SIZE PER PLAN (PUBLIC) (UDACS PLATE NO. 15, 16 AND 17)
2. INSTALL 45° BEND, SIZE PER PLAN (UDACS PLATE NO. 31)
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14. INSTALL 12"X6" REDUCER PER UDACS PLATE NO. 30
15. 2' OF COVER OVER WATER MAIN SHALL BE MAINTAINED AT ALL TIME. CONTRACTOR SHALL USE EXTREME CAUTION. CONTRACT SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY DAMAGES TO WATER LINE REGARDLESS OF METHODS UTILIZED.
16. INSTALL TWO 4" CLASS 200 IRRIGATION SLEEVE PIPES
17. INSTALL 1" IRRIGATION WATER METER AND TAP

SEWER NOTES:

1. ADJUST SS MANHOLE TO FINISH GRADE
2. INSTALL 48" SS MANHOLE
3. INSTALL 10" C900 SS PIPE
4. NOT USED
5. NOT USED
6. PROTECT EX. SS @ SD CROSSING PER DCSWCS SD-21
7. INSTALL STEEL SLEEVE ENCASEMENT PER UDACS PLATE 23

WATER JOINT DEFLECTION NOTE

AS PART OF THE INSPECTION REQUIREMENT, A REGISTERED PROFESSIONAL LAND SURVEYOR SHALL CONFIRM IN WRITING/STAMPED (OFFICIAL CONFIRMATION) THAT THE HORIZONTAL/VERTICAL DEFLECTIONS OF PIPE PLACEMENT ARE WITHIN THE MAXIMUM ALLOWABLE JOINT DEFLECTION PER UDACS 2.07.01. CITY WILL ACQUIRE GPS POINTS OF THE INSTALLED WATER LINE UPON RECEIPT OF AN OFFICIAL CONFIRMATION FROM THE SURVEYOR.

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3. ALL EXISTING UTILITIES SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED.

CNLV UTILITY DEPARTMENT DISCLAIMER:

A STATEMENT OF UNDERSTANDING BETWEEN THE CITY OF NORTH LAS VEGAS UTILITY DEPARTMENT (CITY) AND ANY AND ALL SUBSEQUENT USERS OF INFORMATION OBTAINED HEREFROM: THE PLANS AND SUPPORTING INFORMATION IS FURNISHED BY THE CITY, AND IS ACCEPTED/USED BY THE RECIPIENT WITH THE UNDERSTANDING THAT THE CITY MAKES NO WARRANTIES, EXPRESS OR IMPLIED, CONCERNING THE ACCURACY, COMPLETENESS, RELIABILITY, OR SUITABILITY OF SAID PLANS OR ANY SUPPORTING DATA AND FURTHER UNDERSTANDS THAT ALL USERS ARE ACTING AT THEIR OWN RISK. THE CITY SHALL BE UNDER NO LIABILITY WHATSOEVER RESULTING FROM ANY USE OF THIS INFORMATION. THIS INFORMATION SHOULD NOT BE RELIED UPON AS THE SOLE BASIS FOR EXISTING WATER AND/OR SEWER LOCATIONS. THE ENGINEER SHALL CHECK AND VERIFY ALL DIMENSIONS AND LOCATIONS OF EXISTING UTILITIES.

LATERAL RUN PROFILE INDEX	
LATERAL RUN NO	SEE SHEET
1 THRU 8	LAT-SD-01
9 THRU 16	LAT-SD-02
17 THRU 22	LAT-SD-03
23 THRU 28	LAT-W-01
29 THRU 33	LAT-W-02

SNWA CONSTRUCTION NOTES:

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SOUTHERN NEVADA WATER AUTHORITY — DATE 9/5/18

DPR# 2016-0060

SNWA APPROVAL IS VALID FOR ONE (1) YEAR FROM THE SIGNATURE DATE. IF CONSTRUCTION WITHIN THE EASEMENT OR RESTRICTED PIPE SAFETY ZONE IS NOT COMPLETE, PLANS MUST BE RESUBMITTED TO SNWA FOR APPROVAL.

POTHOLE TABLE

PER AZTEC PROJECT NUMBER NVSUE1614

NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
PH22	SNWA ELEC	4.10			
PH23	72" SNWA W	8.50			

NOTE:

THE GRAND TETON ℄ GRADES AND ℄ OF DRIVEWAYS ENTERING GRAND TETON ARE BASED ON AS-BUILT POINTS SHOT BY CARTER BURGESS SURVEY IN 2006.

SNWA NOTES:

1. ALL REPAIRS OR RELOCATIONS OF SNWA CATHODIC PROTECTION STATIONS OR APPURTENANCES WILL BE DONE BY A CERTIFIED NACE CATHODIC PROTECTION SPECIALIST AND INACCORDANCE WITH SNWA STANDARDS
2. CAUTION SNWA TEST LEADS ARE SHALLOW
3. ALL SNWA TEST STATIONS TO BE TESTED BY CONTRACTOR AND WITNESSED BY SNWA PRIOR TO CONSTRUCTION IN THE AREA, COORDINATE WITH SNWA INSPECTOR.
4. IF EXPOSED CONTRACTOR TO PAY FOR AND REPLACE SNWA CATHODIC PROTECTION TEST STATION GROUND MATS, MAGNESIUM RIBBONS, OR ZINC RIBBONS WITH NEW GROUND MATS, MAGNESIUM RIBBONS OR ZINC RIBBONS.
5. LANDSCAPE AND IRRIGATION PLANS (BY OTHERS) SHALL BE SUBMITTED AND APPROVED BY SNWA.
6. SNWA FIBER OPTIC CONDUIT FOLLOWS ALONG THE SNWA PIPELINE.
7. NO IN-GROUND POSTS OR SIGNS SHALL BE PLACED WITHIN 11' HORIZONTALLY FROM THE OUTSIDE DIAMETER OF THE SNWA 72" TRANSMISSION MAIN.
8. CAUTION SNWA FIBER OPTICS CONDUIT RUNS ALONG THE WEST SIDE OF THE SNWA 72" LATERAL AT VARIOUS DEPTHS.

CITY OF NORTH LAS VEGAS FIRE PREVENTION

BY: DATE:

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

UTILITY PLAN & PROFILE STA 39+50 TO 46+00

S18 R61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO. SUN1403-000

PROFESSIONAL ENGINEER STATE OF NEVADA DERICK D.J YORO 06/30/2020 CIVIL No. 16396

PP-UTL-06
SHEET 53 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PRO.#:124070 AGREE#:115666 QS:124-07-SW/NE,124-18-NW/NE

E:\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403-000np-utl.dwg 5/7/2018 8:24 AM Jone Cretty

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

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.
Call before you do UnderGround
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS AND
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

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BENCHMARK:
NLV9117NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
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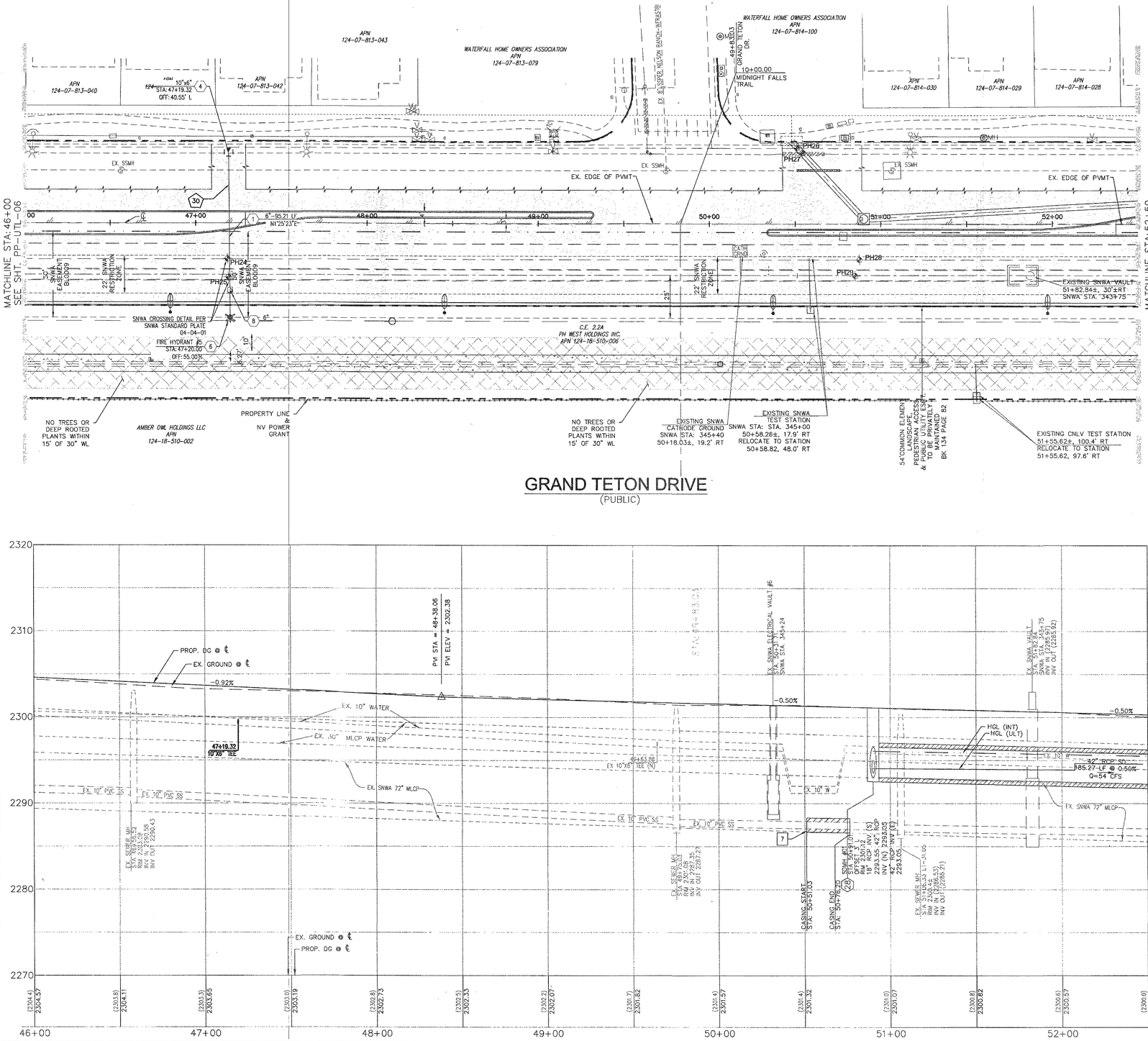

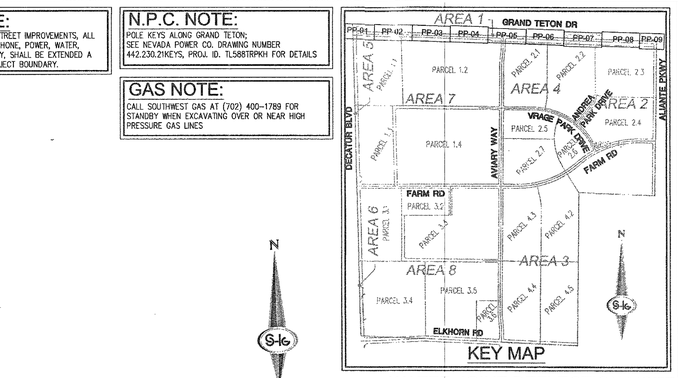

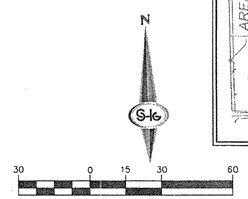

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LATERAL RUN NO	SEE SHEET
1 THRU 8	LAT-SD-01
9 THRU 16	LAT-SD-02
17 THRU 22	LAT-SD-03
23 THRU 28	LAT-W-01
29 THRU 33	LAT-W-02

POTHOLE TABLE
PER AZTEC PROJECT NUMBER NVSUE1614

NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
PH24	SNWA ELEC	4.60	PH29	72" SNWA W	8.50
PH25	72" SNWA W	10.30			
PH26	4" PE GAS	3.20			
PH27	10" PVC W	8.10			
PH27A	NVE	3.10			
PH28	SNWA ELEC	3.50			

NOTE:
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SOUTHERN NEVADA WATER AUTHORITY — DATE 7/5/18

DPR# 2018-0060

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CITY OF NORTH LAS VEGAS FIRE PREVENTION

BY: DATE:

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP.	APP. DATE

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

S:18 T:19S R:61E

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
UTILITY PLAN & PROFILE STA 46+00 TO 52+50

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000

DERICK D.J. YORO — Exp: 06/30/2020 — CIVIL — No. 16396 — STATE OF NEVADA — 5/7/18

PP-UTL-07
SHEET 54 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ#:124070 AGREE#:115666 QS:124-07-SW/NE,124-18-NW/NE

J:\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403-000proc-util.dwg 5/7/2018 8:25 AM Jane Cetty

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1-702-455-6000

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BENCHMARK:
NLV9117NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
599.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
599.511 METERS, 2294.99 FEET
RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLV9117NWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

LEGAL DESCRIPTION:
GOVERNMENT LOTS 5, 7, 10, 12, 14, 18, 19, 21, 24, 25, & 28 THROUGH 37, INCLUSIVE, OF SECTION 18, TOGETHER WITH GOVERNMENT LOT 7 OF SECTION 19, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA.

BASIS OF BEARINGS:
SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

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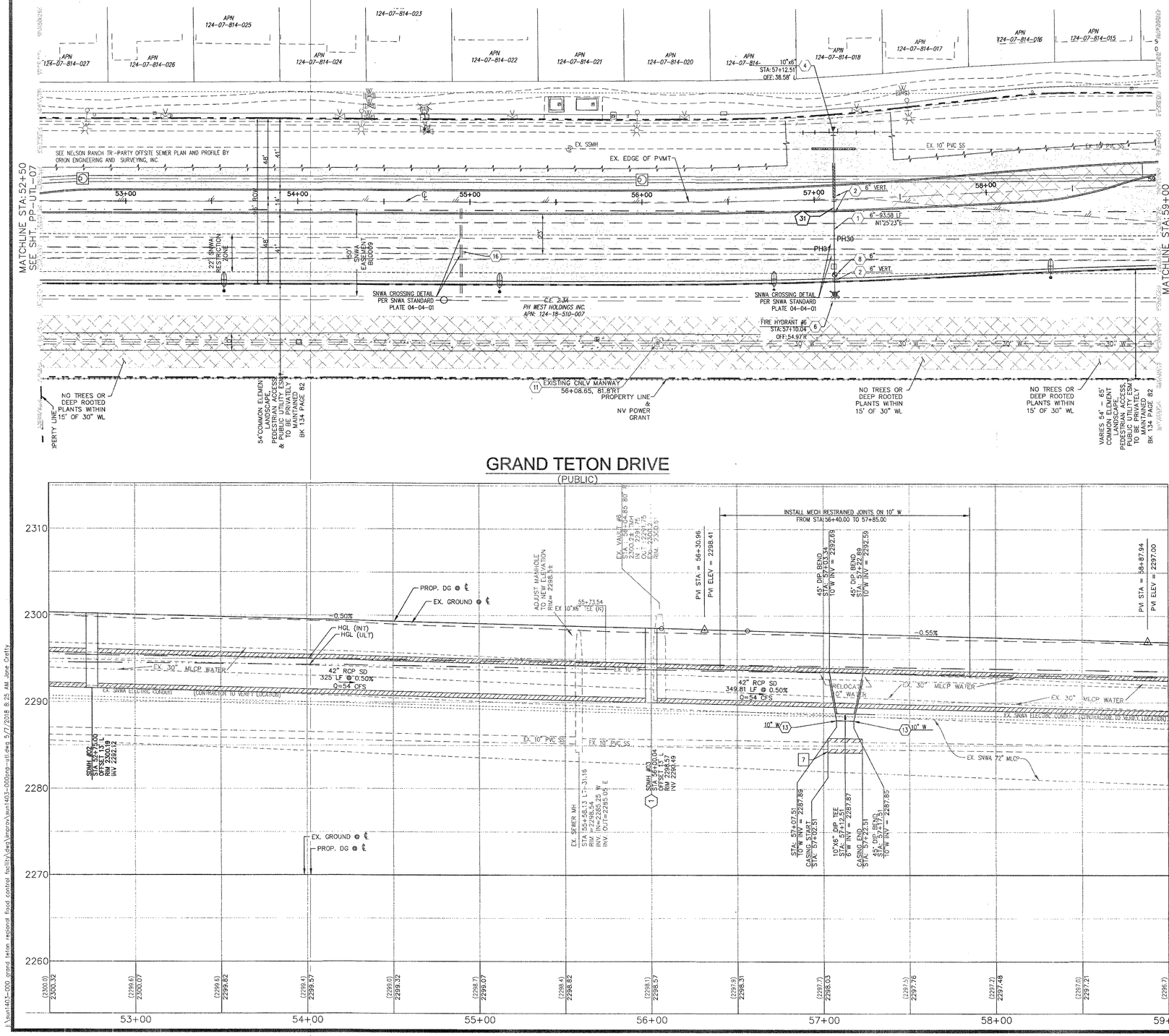
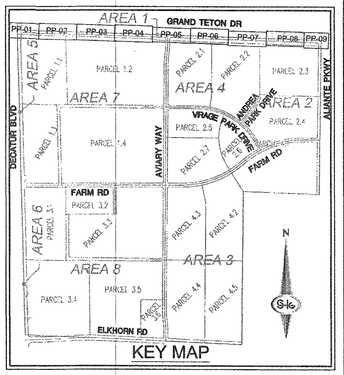
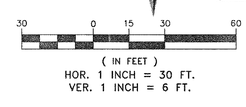
N.P.C. NOTE:
POLE KEYS ALONG GRAND TETON; SEE NEVADA POWER CO. DRAWING NUMBER 442.230.21KEYS, PROJ. ID. TLSB8TRPKH FOR DETAILS

GAS NOTE:
CALL SOUTHWEST GAS AT (702) 400-1789 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES







LEGEND:
PROP. ASPHALT | PROP. SIDEWALK | PROP. RIP-RAP | NO DEEP ROOTED TREES | PROP. GROUTED RIP-RAP

WATER NOTES:
1. INSTALL PVC PRESSURE CLASS C900 WATERLINE, SIZE PER PLAN (PUBLIC) (UDACS PLATE NO. 15, 16 AND 17)
2. INSTALL 45° BEND, SIZE PER PLAN (UDACS PLATE NO. 31)
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4. INSTALL TAPPING SLEEVE W/ TAPPING VALVE, SIZE PER PLAN, PER UDACS 2.24.01 (A) (PLATES 34 & 39)
5. 6" WATER BLOW-OFF PER UDACS PLATE NO. 37
6. INSTALL FIRE HYDRANT ASSEMBLY (UDACS PLATE NO. 40). SEE DETAIL 5 ON SHEET D-03 FOR FIRE HYDRANT LOCATION.
7. INSTALL CAP WITH 2" BLOW-OFF ASSEMBLY (UDACS PLATE NO. 36)
8. INSTALL GATE VALVE, SIZE PER PLAN (UDACS PLATE NO. 30 & 39)
9. INSTALL TEE, SIZE PER PLAN (UDACS PLATE NO. 31)
10. INSTALL WATER MAIN CROSSING (UDACS PLATE NO. 21 & 23, OR 22)
11. ADJUST WATER MANHOLE TO FINISH GRADE PER LVVWD DESIGN STD. PL08-4 (LVVWD ACAD STD)
12. ADJUST VALVE BOX TO FINISH GRADE
13. INSTALL DUCTILE IRON PIPE (DIP) WATERLINE, SIZE PER PLAN (PUBLIC) (UDACS PLATE NO. 15, 16 AND 17)
14. INSTALL 12"X6" REDUCER PER UDACS PLATE NO. 30
15. 2' OF COVER OVER WATER MAIN SHALL BE MAINTAINED AT ALL TIME. CONTRACTOR SHALL USE EXTREME CAUTION. CONTRACT SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY DAMAGES TO WATER LINE REGARDLESS OF METHODS UTILIZED.
16. INSTALL TWO 4" CLASS 200 IRRIGATION SLEEVE PIPES
17. INSTALL 1" IRRIGATION WATER METER AND TAP

SEWER NOTES:
1. ADJUST SS MANHOLE TO FINISH GRADE
2. INSTALL 48" SS MANHOLE
3. INSTALL 10" C900 SS PIPE
4. NOT USED
5. NOT USED
6. PROTECT EX. SS @ SD CROSSING PER DCSWCS SD-21
7. INSTALL STEEL SLEEVE ENCASEMENT PER UDACS PLATE 23

WATER JOINT DEFLECTION NOTE
AS PART OF THE INSPECTION REQUIREMENT, A REGISTERED PROFESSIONAL LAND SURVEYOR SHALL CONFIRM IN WRITING/STAMPED (OFFICIAL CONFIRMATION) THAT THE HORIZONTAL/VERTICAL DEFLECTIONS OF PIPE PLACEMENT ARE WITHIN THE MAXIMUM ALLOWABLE JOINT DEFLECTION PER UDACS 2.07.01. CITY WILL ACQUIRE GPS POINTS OF THE INSTALLED WATER LINE UPON RECEIPT OF AN OFFICIAL CONFIRMATION FROM THE SURVEYOR.

GENERAL GRADING AND DRAINAGE NOTES:
1. NV ENERGY, CENTURYLINK, AND SOUTHWEST GAS SHOWN FOR INFORMATION ONLY. REFERENCE NV ENERGY, CENTURYLINK, AND SOUTHWEST GAS DRAWINGS FOR CONSTRUCTION DETAILS. CONTRACTOR TO COORDINATE WITH UTILITIES FOR REMOVAL AND INSTALLATION OF FACILITIES.
2. ALL EXISTING UTILITY LOCATIONS SHOW HEREON 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 UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION. THE DEPTH BELOW GRADE OF THE VARIOUS UTILITIES DEPICTED ON THE PLANS VARIES THROUGHOUT THE PROJECT AREA. THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHERE EXCAVATING AND GRADING THE SUBBASE IN THE VICINITY OF UTILITIES TO AVOID DAMAGE TO THE LATTER.
3. ALL EXISTING UTILITIES SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED.

CNLV UTILITY DEPARTMENT DISCLAIMER:
A STATEMENT OF UNDERSTANDING BETWEEN THE CITY OF NORTH LAS VEGAS UTILITY DEPARTMENT (CITY) AND ANY AND ALL SUBSEQUENT USERS OF INFORMATION OBTAINED HEREFROM: THE PLANS AND SUPPORTING INFORMATION IS FURNISHED BY THE CITY, AND IS ACCEPTED/USED BY THE RECIPIENT WITH THE UNDERSTANDING THAT THE CITY MAKES NO WARRANTIES, EXPRESS OR IMPLIED, CONCERNING THE ACCURACY, COMPLETENESS, RELIABILITY, OR SUITABILITY OF SAID PLANS OR ANY SUPPORTING DATA AND FURTHER UNDERSTANDS THAT ALL USERS ARE ACTING AT THEIR OWN RISK. THE CITY SHALL BE UNDER NO LIABILITY WHATSOEVER RESULTING FROM ANY USE OF THIS INFORMATION. THIS INFORMATION SHOULD NOT BE RELIED UPON AS THE SOLE BASIS FOR EXISTING WATER AND/OR SEWER LOCATIONS. THE ENGINEER SHALL CHECK AND VERIFY ALL DIMENSIONS AND LOCATIONS OF EXISTING UTILITIES.

LATERAL RUN PROFILE INDEX	
LATERAL RUN NO	SEE SHEET
1 THRU 8	LAT-SD-01
9 THRU 16	LAT-SD-02
17 THRU 22	LAT-SD-03
23 THRU 28	LAT-W-01
29 THRU 33	LAT-W-02

SNWA CONSTRUCTION NOTES:
CONTRACTOR SHALL FIELD LOCATE AND PROTECT ALL SNWA/SNWS APPURTENANCES INCLUDING, BUT NOT LIMITED TO, AV/VAR, ACCESS MANWAYS AND CATHODIC PROTECTION SYSTEMS. ALL ABOVE GROUND STRUCTURES AND AT GRADE STRUCTURES MUST BE ADJUSTED TO NEW GRADE AT CONTRACTOR'S EXPENSE. CATHODIC PROTECTION TEST STATIONS, RECTIFIERS, AND AV/AR'S MUST BE RELOCATED TO THE SIDEWALK PER SNWA STANDARDS AND AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO NOTIFY SOUTHERN NEVADA WATER AUTHORITY, DEVELOPMENT PLAN REVIEW, AT (702) 691-5372 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY.

SOUTHERN NEVADA WATER AUTHORITY — DATE 9/5/18
DPR# 2016-0060
SNWA APPROVAL IS VALID FOR ONE (1) YEAR FROM THE SIGNATURE DATE. IF CONSTRUCTION WITHIN THE EASEMENT OR RESTRICTED PIPE SAFETY ZONE IS NOT COMPLETE, PLANS MUST BE RESUBMITTED TO SNWA FOR APPROVAL.

CITY OF NORTH LAS VEGAS
FIRE PREVENTION
BY: DATE:

POTHOLE TABLE PER AZTEC PROJECT NUMBER NVSUE1814					
NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
PH30	72" SNWA W	8.90			
PH31	SNWA ELEC	6.10			

NOTE:
THE GRAND TETON ℄ GRADES AND ℄ OF DRIVEWAYS ENTERING GRAND TETON ARE BASED ON AS-BUILT POINTS SHOT BY CARTER BURGESS SURVEY IN 2006.

SNWA NOTES:
1. ALL REPAIRS OR RELOCATIONS OF SNWA CATHODIC PROTECTION STATIONS OR APPURTENANCES WILL BE DONE BY A CERTIFIED NACE CATHODIC PROTECTION SPECIALIST AND INACCORDANCE WITH SNWA STANDARDS
2. CAUTION SNWA TEST LEADS ARE SHALLOW
3. ALL SNWA TEST STATIONS TO BE TESTED BY CONTRACTOR AND WITNESSED BY SNWA PRIOR TO CONSTRUCTION IN THE AREA. COORDINATE WITH SNWA INSPECTOR
4. IF EXPOSED, CONTRACTOR TO PAY FOR AND REPLACE SNWA CATHODIC PROTECTION TEST STATION GROUND MATS, MAGNESIUM RIBBONS, OR ZINC RIBBONS WITH NEW GROUND MATS, MAGNESIUM RIBBONS OR ZINC RIBBONS.
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6. SNWA FIBER OPTIC CONDUIT FOLLOWS ALONG THE SNWA PIPELINE.
7. NO IN-GROUND POSTS OR SIGNS SHALL BE PLACED WITHIN 11' HORIZONTALLY FROM THE OUTSIDE DIAMETER OF THE SNWA 72" TRANSMISSION MAIN.
8. CAUTION SNWA FIBER OPTICS CONDUIT RUNS ALONG THE WEST SIDE OF THE SNWA 72" LATERAL AT VARIOUS DEPTHS.

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
UTILITY PLAN & PROFILE STA 52+50 TO 59+00

S-16 T-19S R-61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000

DERICK D. YORO — CIVIL — No. 16396 — EXP. 06/30/2020 — 5/7/18

PP-UTL-08
SHEET 55 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ.#:124070 AGREE#:115666 QS:124-07-SW/NE,124-18-NW/NE

J:\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403-000sdp-ult.dwg 5/7/2018 8:25 AM dave Crotty

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

1-702-227-2929

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.

Call before you do UnderGround

1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS
AND
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.

Call 811

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

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BENCHMARK:

NLV911?NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION
699.511 METERS, 2294.98 FEET
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SEE NEVADA POWER CO. DRAWING NUMBER 442.230.21KEYS, PROJ. ID. TL5881?PKH FOR DETAILS

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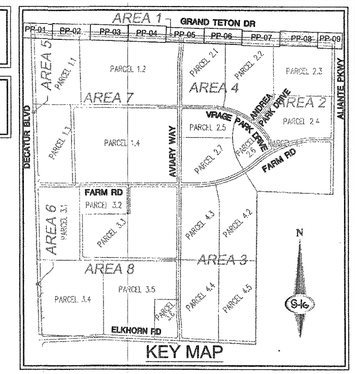

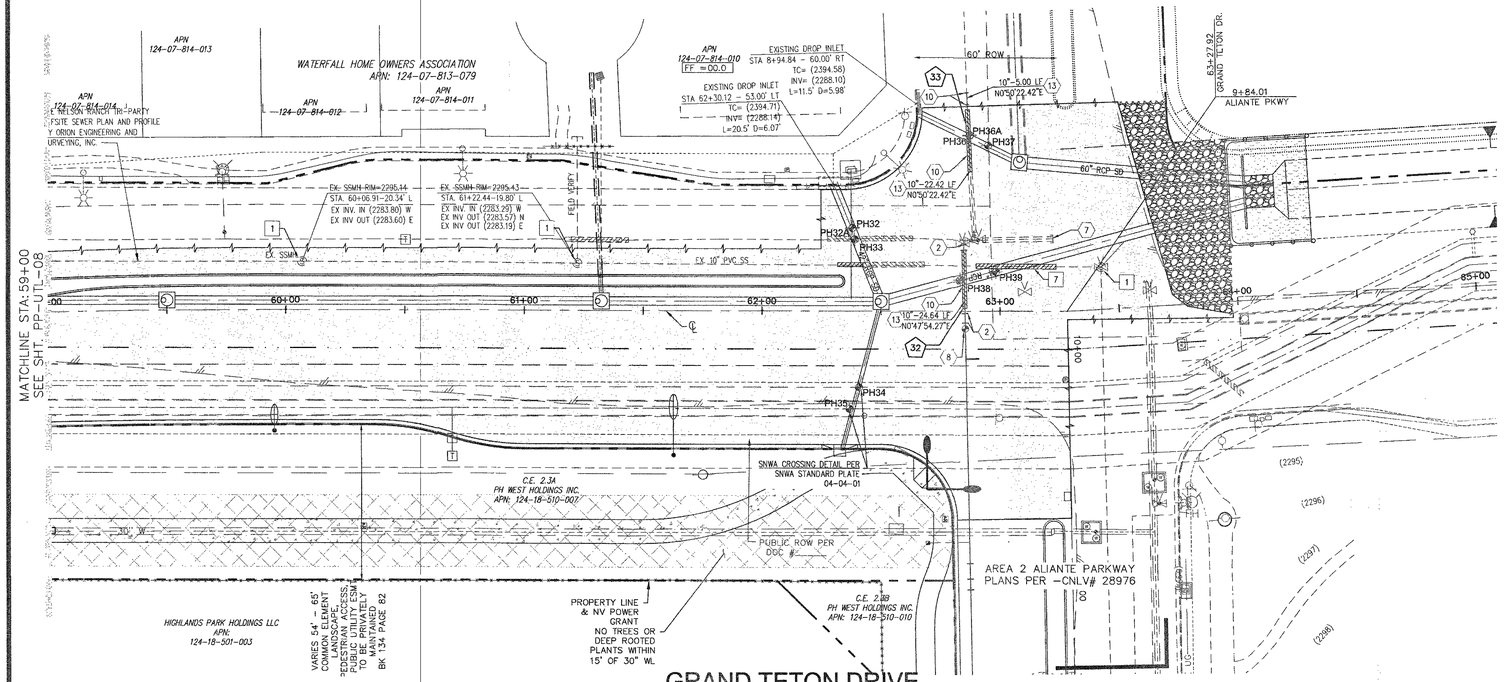

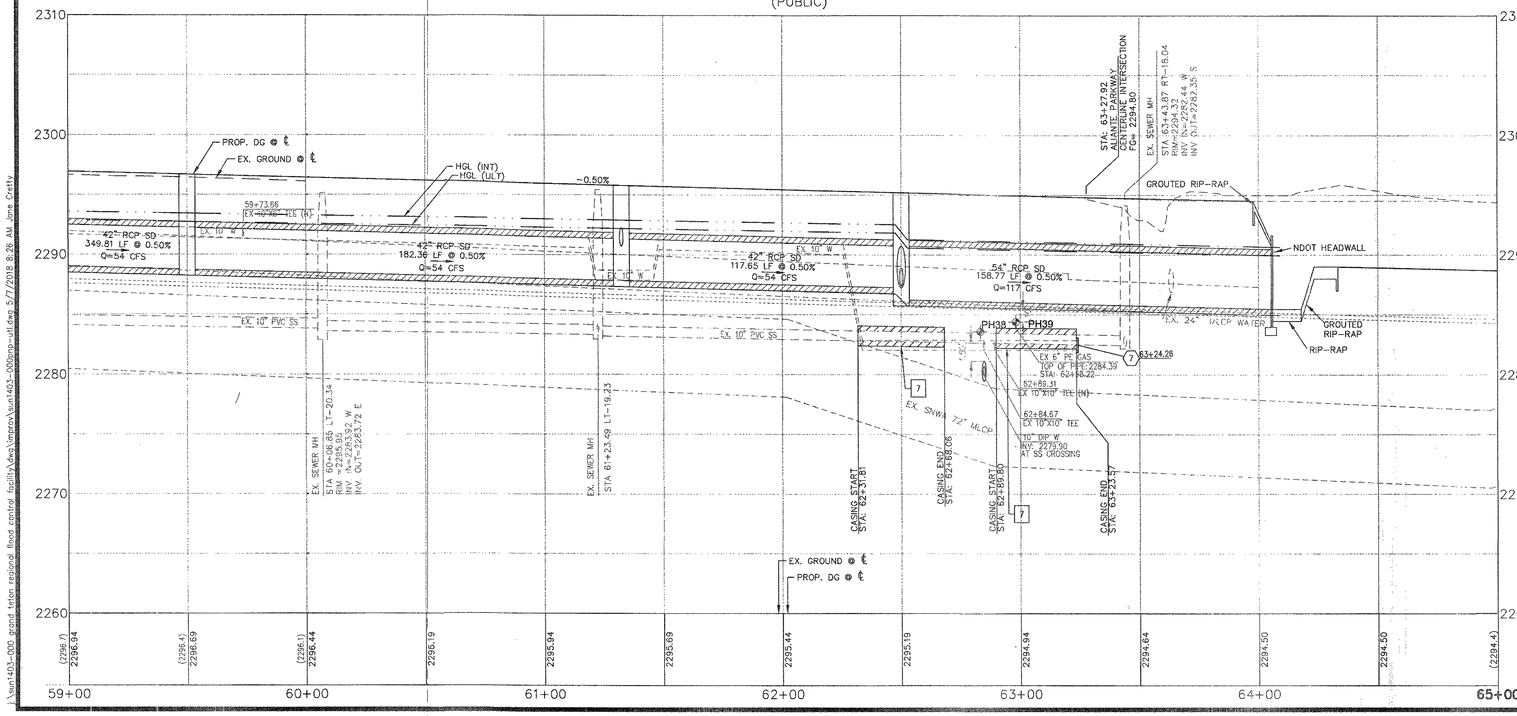

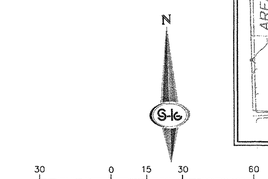

LEGEND:

PROP. ASPHALT | PROP. SIDEWALK | PROP. RIP-RAP | NO DEEP ROOTED TREES | PROP. GROUTED RIP-RAP

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5. NOT USED
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LATERAL RUN NO	SEE SHEET
1 THRU 8	LAT-SD-01
9 THRU 16	LAT-SD-02
17 THRU 22	LAT-SD-03
23 THRU 28	LAT-W-01
29 THRU 33	LAT-W-02

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Y. Disnar 9/5/18
SOUTHERN NEVADA WATER AUTHORITY DATE

DPR# 2018-0060

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POTHOLE TABLE
PER AZTEC PROJECT NUMBER NVSUE1614

NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
PH32	4" PE GAS	10.20	PH36A	NVE	3.50
PH32A	NVE	4.80	PH37	4" PE GAS	10.30
PH33	10" PVC W	8.10	PH38	10" PVC W	11.20
PH34	SNWA ELEC	7.70	PH39	4" PE GAS	10.40
PH35	72" SNWA W	13.10			
PH36	10" PVC W	6.10			

NOTE:

THE GRAND TETON ℄ GRADES AND ℄ OF DRIVEWAYS ENTERING GRAND TETON ARE BASED ON AS-BUILT POINTS SHOT BY CARTER BURGESS SURVEY IN 2006.

SNWA NOTES:

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CITY OF NORTH LAS VEGAS FIRE PREVENTION

BY: DATE:

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

UTILITY PLAN & PROFILE STA 59+00 TO 64+50

VALLEY VISTA

S 18
R 61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000

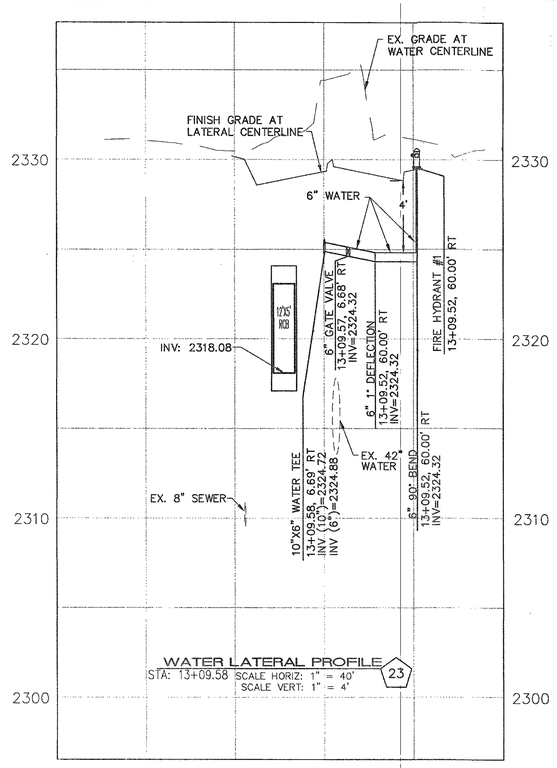
PROFESSIONAL ENGINEER - STATE OF NEVADA
DEREK D.J. YORO
Exp: 06/30/2020
CIVIL
No. 16536
9/7/18

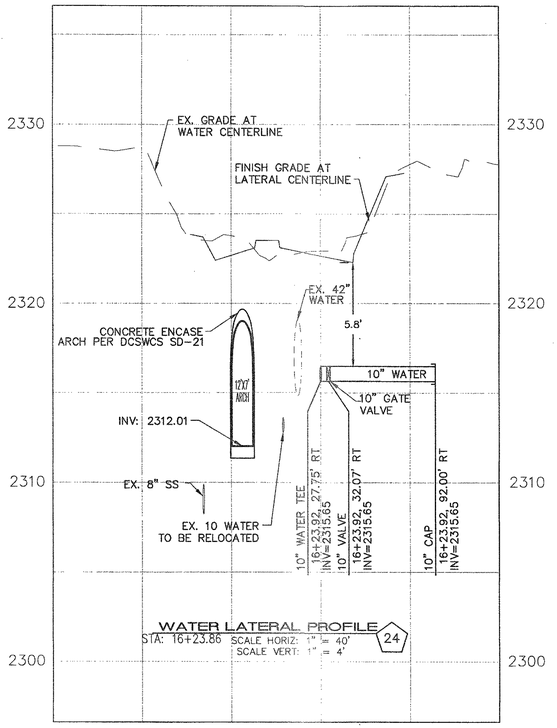
PP-UTL-09
SHEET 56 OF 125

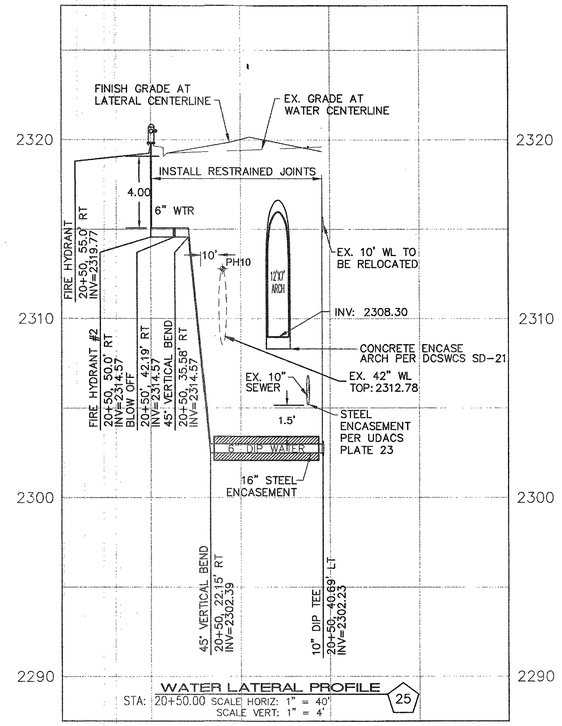
CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

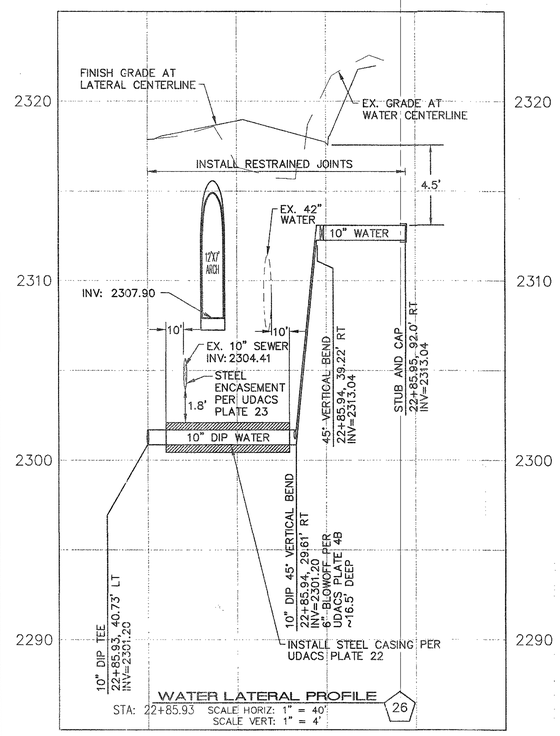
PRO.#:124070 AGREE#:115666 QS:124-07-SW/NE;124-18-NW/NE

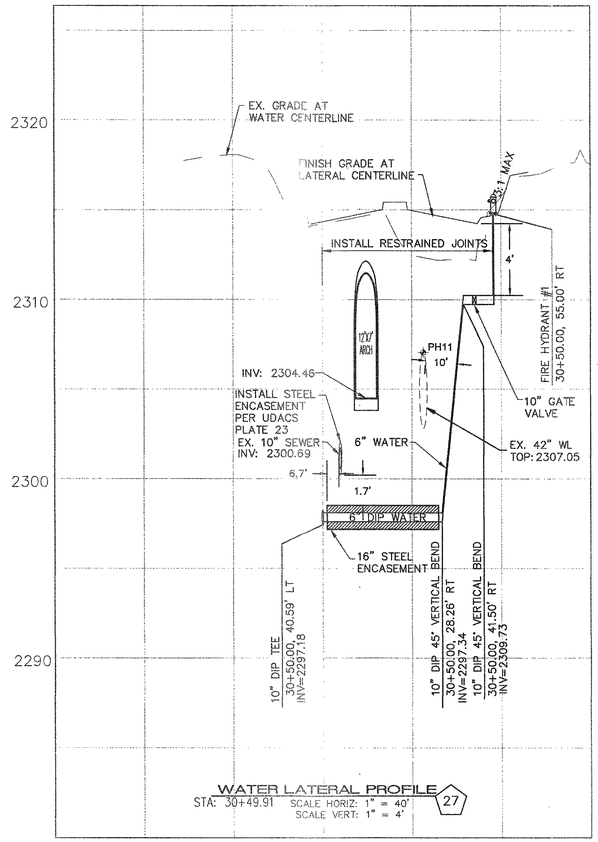
I:\sun1403-000 grand teton regional flood control facility\dwg\imperx\sun1403-000snp-utl.dwg 5/7/2018 8:26 AM Jane Cretty

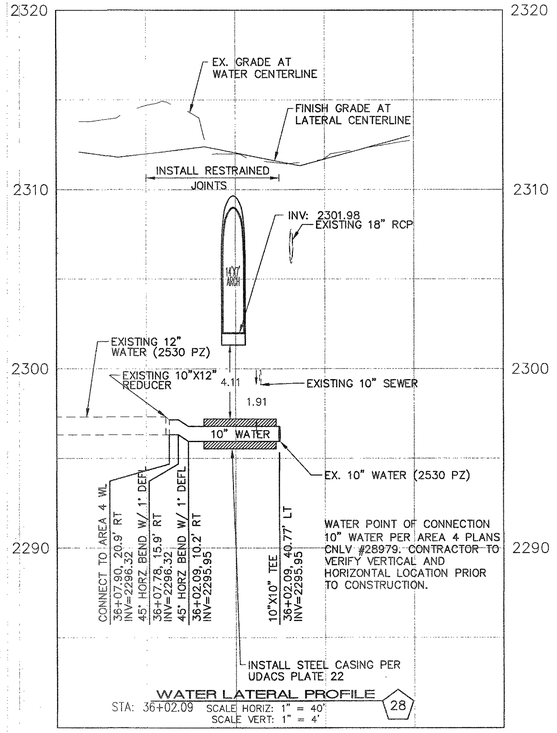












WATER JOINT DEFLECTION NOTE

AS PART OF THE INSPECTION REQUIREMENT, A REGISTERED PROFESSIONAL LAND SURVEYOR SHALL CONFIRM IN WRITING/STAMPED (OFFICIAL CONFIRMATION) THAT THE HORIZONTAL/VERTICAL DEFLECTIONS OF PIPE PLACEMENT ARE WITHIN THE MAXIMUM ALLOWABLE JOINT DEFLECTION PER UDACS 2.07.01. CITY WILL ACQUIRE GPS POINTS OF THE INSTALLED WATER LINE UPON RECEIPT OF AN OFFICIAL CONFIRMATION FROM THE SURVEYOR.

POTHOLE TABLE
PER AZTEC PROJECT NUMBER NVSUE1614

NUM	UTILITY	DEPTH OF COVER	NUM	UTILITY	DEPTH OF COVER
PH22	SNWA ELEC	4.10			
PH23	72" SNWA W	8.50			
PH24	SNWA ELEC	4.60			
PH25	72" SNWA W	10.30			
PH30	72" SNWA W	8.90			
PH31	SNWA ELEC	6.10			

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

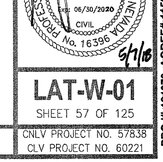
VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

WATER LATERAL PROFILES I

S:18 T:19S R:61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000



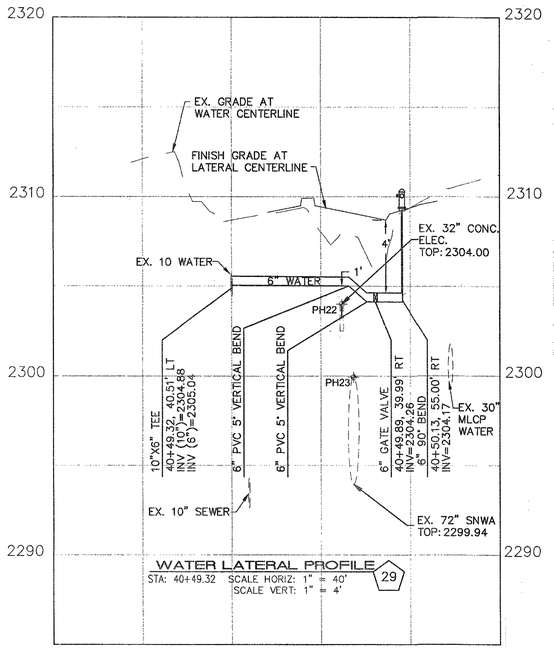
LAT-W-01
SHEET 57 OF 125

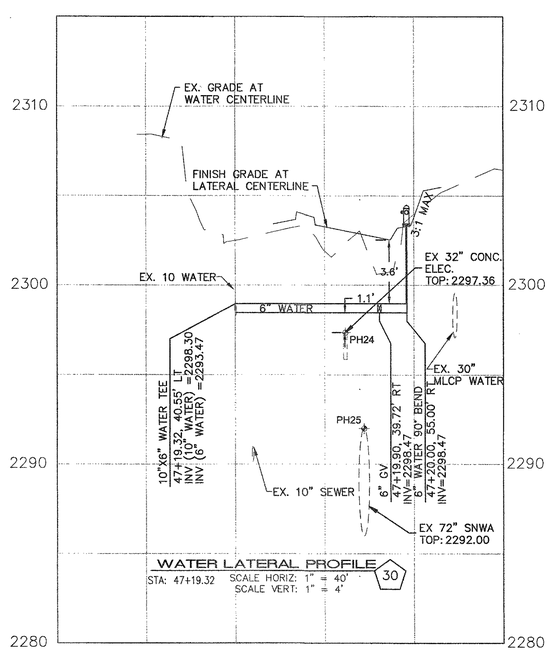
CLV 731-98

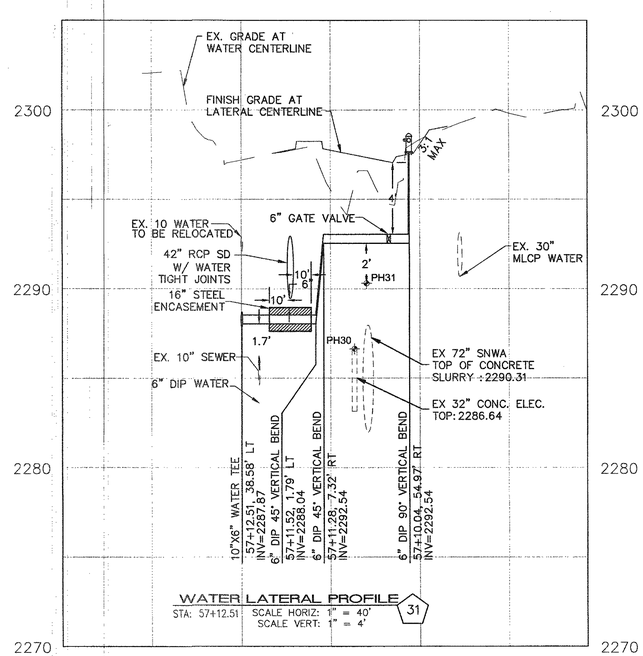
CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

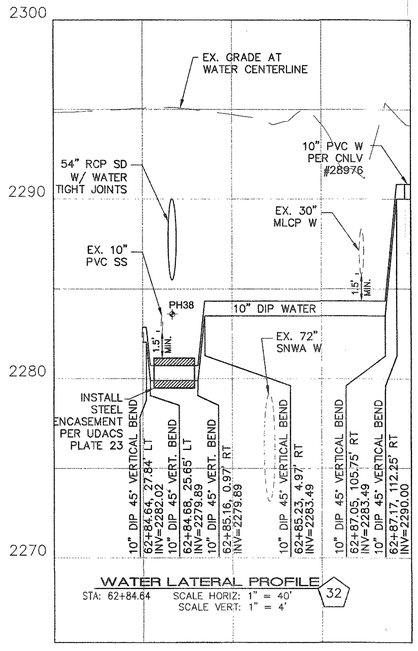
PROJ#:124070 AGREE#:115666 QS:124-07-SWINE,124-18-NWINE

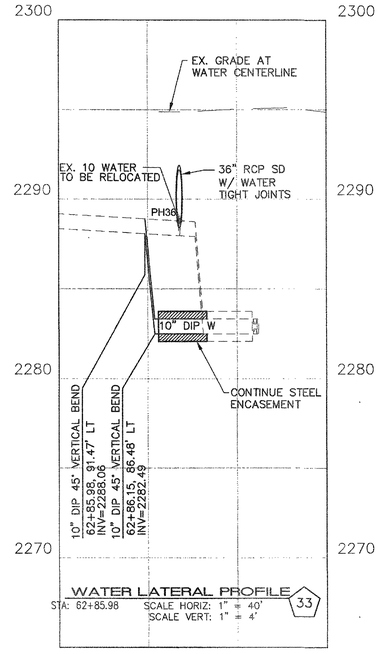
I:\sun1403-000 grand teton rdr\zonal flood control facility\data\improv\07-1594-01-storm-lat-01.dwg 5/7/2018 8:27 AM Jane Darby











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PER AZTEC PROJECT NUMBER NVSUE1614

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PH23	72" SNWA W	8.50	PH30	72" SNWA W	8.90
PH24	SNWA ELEC	4.60	PH31	SNWA ELEC	6.10
PH36	10" PVC W	6.10	PH38	–	11.20

SNWA CONSTRUCTION NOTES:
CONTRACTOR SHALL FIELD LOCATE AND PROTECT ALL SNWA/SNWS APPURTENANCES INCLUDING, BUT NOT LIMITED TO; AV/AR; ACCESS MANWAYS AND CATHODIC PROTECTION SYSTEMS. ALL ABOVE GROUND STRUCTURES AND AT GRADE STRUCTURES MUST BE ADJUSTED TO NEW GRADE AT CONTRACTOR'S EXPENSE. CATHODIC PROTECTION TEST STATIONS, RECTIFIERS, AND AV/AR'S MUST BE RELOCATED TO THE SIDEWALK PER SNWA STANDARDS AND AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO NOTIFY SOUTHERN NEVADA WATER AUTHORITY, DEVELOPMENT PLAN REVIEW, AT (702) 691-5372 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY.

SOUTHERN NEVADA WATER AUTHORITY — DATE 9/5/18

DPR# 2016-0060

SNWA APPROVAL IS VALID FOR ONE (1) YEAR FROM THE SIGNATURE DATE. IF CONSTRUCTION WITHIN THE EASEMENT OR RESTRICTED PIPE SAFETY ZONE IS NOT COMPLETE, PLANS MUST BE RESUBMITTED TO SNWA FOR APPROVAL.

SNWA NOTES:
1. ALL REPAIRS OR RELOCATIONS OF SNWA CATHODIC PROTECTION STATIONS OR APPURTENANCES WILL BE DONE BY A CERTIFIED NACE CATHODIC PROTECTION SPECIALIST AND IN ACCORDANCE WITH SNWA STANDARDS
2. CAUTION SNWA TEST LEADS ARE SHALLOW
3. ALL SNWA TEST STATIONS TO BE TESTED BY CONTRACTOR AND WITNESSED BY SNWA PRIOR TO CONSTRUCTION IN THE AREA. COORDINATE WITH SNWA INSPECTOR
4. IF EXPOSED, CONTRACTOR TO PAY FOR AND REPLACE SNWA CATHODIC PROTECTION TEST STATION GROUND MATS, MAGNESIUM RIBBONS, OR ZINC RIBBONS WITH NEW GROUND MATS, MAGNESIUM RIBBONS OR ZINC RIBBONS.
5. LANDSCAPE AND IRRIGATION PLANS (BY OTHERS) SHALL BE SUBMITTED AND APPROVED BY SNWA.
6. CAUTION SNWA FIBER OPTICS CONDUIT RUNS ALONG THE WEST AND SOUTH SIDES OF THE SNWA 72" LATERAL AT VARIOUS DEPTHS.

CLV 731-98

SLATER HANIFAN GROUP
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NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

WATER LATERAL PROFILES II

S18 R61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000

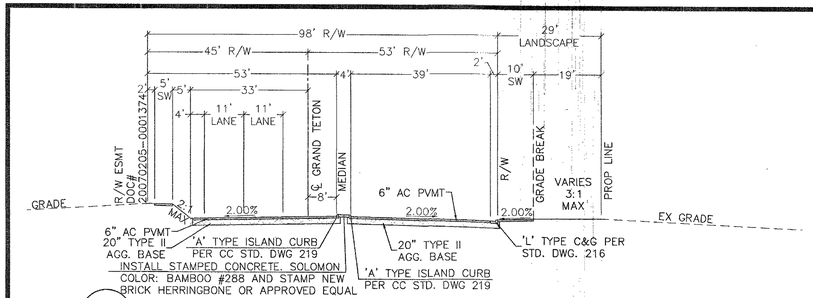
PROFESSIONAL ENGINEER - STATE OF NEVADA - DERICK D.J YORO - Exp 06/30/2020 - CIVIL - No. 16396 - 5/7/18

LAT-W-02
SHEET 58 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

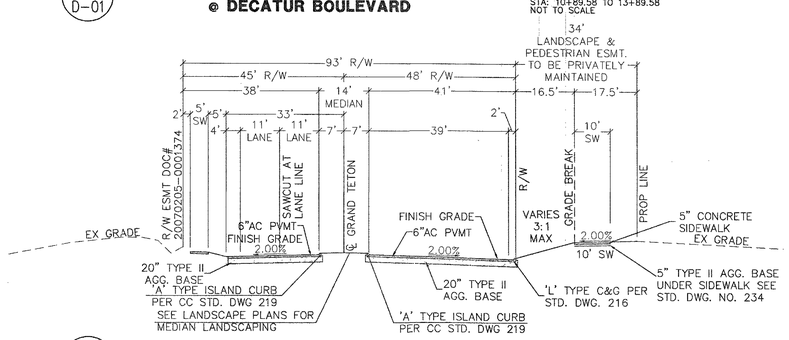
PROJ.#:124070 AGREE#:115666 QS:124-07-SW/NE,124-18-NW/NE

J:\sun1403-000 grand teton regional flood control facility\dwg\improv\07 1594-01-stm-lat1-01.dwg 5/7/2018 8:27 AM Jane Cretty



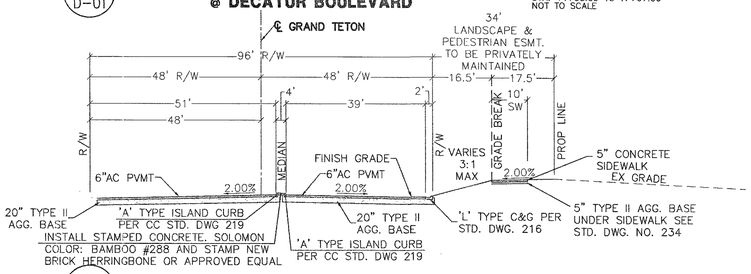
A D-01 **116' ARTERIAL WITH MEDIAN ISLAND - GRADING SECTION @ DECATUR BOULEVARD**

STA: 10+89.58 TO 13+89.58 NOT TO SCALE



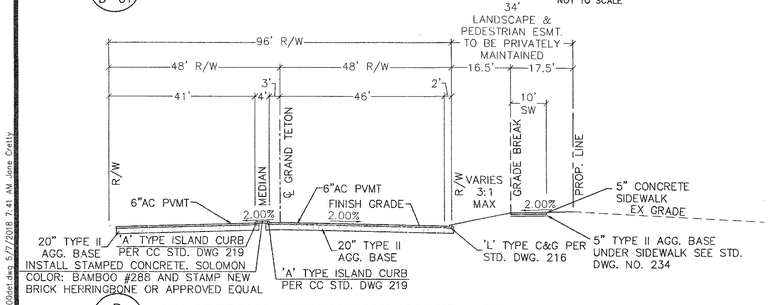
B D-01 **116' ARTERIAL WITH MEDIAN ISLAND - GRADING SECTION @ DECATUR BOULEVARD**

STA: 14+98.09 TO 17+97.96 NOT TO SCALE



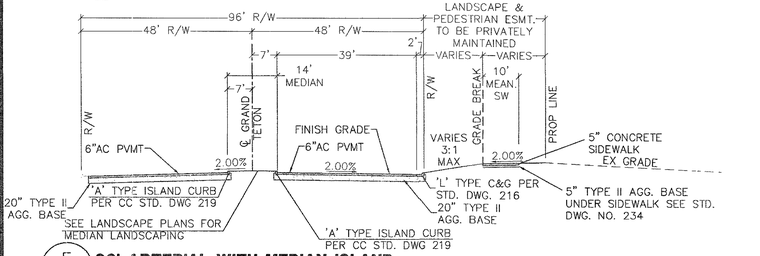
C D-01 **96' ARTERIAL WITH MEDIAN ISLAND - GRADING SECTION**

STA: 18+53.36 TO 20.11.24 NOT TO SCALE



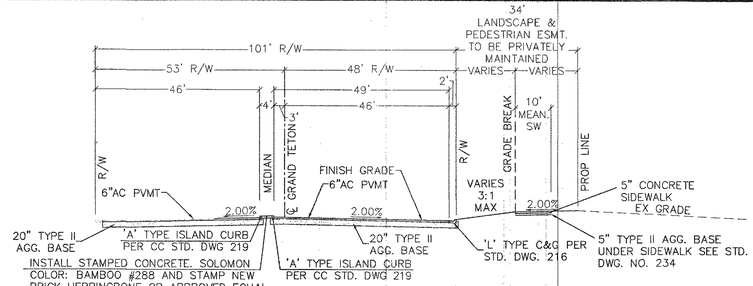
D D-01 **96' ARTERIAL WITH MEDIAN ISLAND - GRADING SECTION LEFT TURN LANE - NORTH OF CENTERLINE**

STA: 21+16.43 TO 22+66.43 NOT TO SCALE



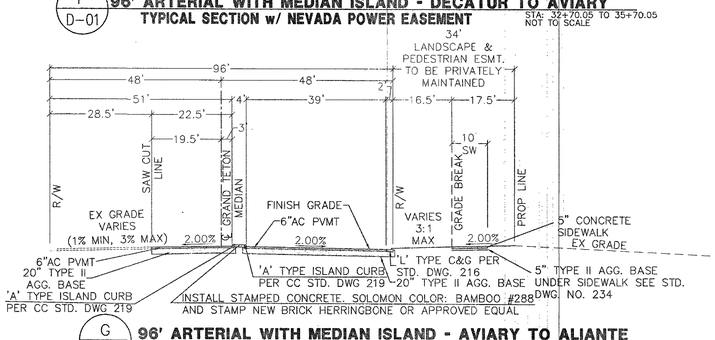
E D-01 **96' ARTERIAL WITH MEDIAN ISLAND LEFT TURN LANE - SOUTH OF CENTERLINE**

STA: 26+20.93 TO 31+70.55 NOT TO SCALE



F D-01 **96' ARTERIAL WITH MEDIAN ISLAND - DECATUR TO AVIARY TYPICAL SECTION w/ NEVADA POWER EASEMENT**

STA: 32+70.05 TO 35+70.05 NOT TO SCALE

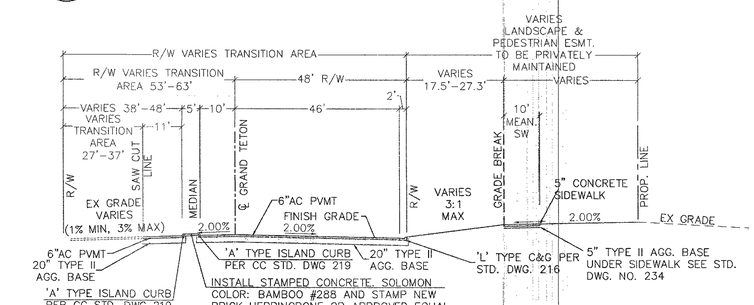


G D-01 **96' ARTERIAL WITH MEDIAN ISLAND - AVIARY TO ALIANTE TYPICAL SECTION w/ NEVADA POWER EASEMENT**

STA: 37+04.75 TO 40+54.50 NOT TO SCALE

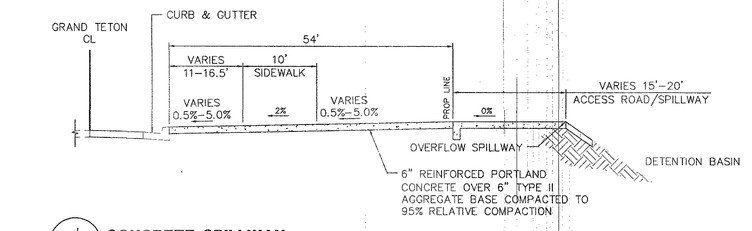
H D-01 **96' ARTERIAL WITH MEDIAN ISLAND TYPICAL SECTION**

STA: 23+71.43 TO 25+15.50 NOT TO SCALE



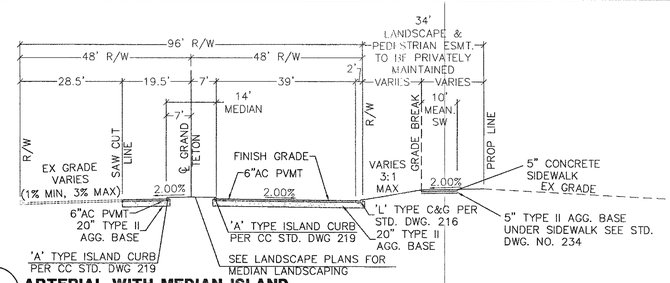
I D-01 **ARTERIAL WITH MEDIAN ISLAND TYPICAL SECTION**

STA: 59+42.39 TO 62+33.08 NOT TO SCALE



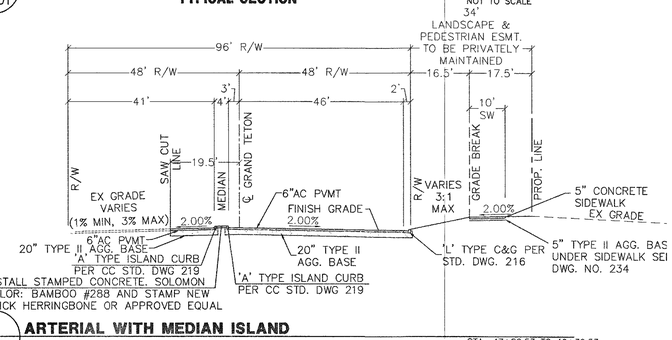
J D-01 **CONCRETE SPILLWAY TYPICAL SECTION**

STA: 40+46.57 TO 43+44.16 NOT TO SCALE



K D-01 **ARTERIAL WITH MEDIAN ISLAND TYPICAL SECTION**

STA: 52+85.03 TO 55+89.20 NOT TO SCALE

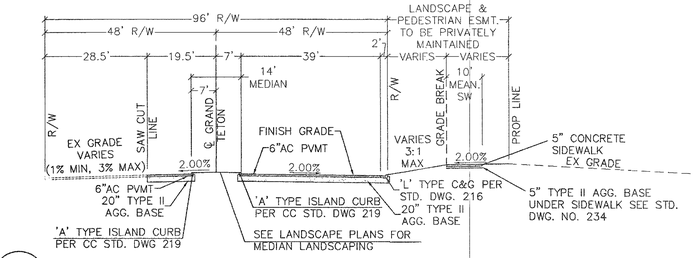


L D-01 **ARTERIAL WITH MEDIAN ISLAND TYPICAL SECTION**

STA: 47+80.53 TO 49+30.53 NOT TO SCALE

M D-01 **ARTERIAL WITH MEDIAN ISLAND TYPICAL SECTION**

STA: 50+35.53 TO 51+35.53 NOT TO SCALE



N D-01 **ARTERIAL WITH MEDIAN ISLAND TYPICAL SECTION**

STA: 59+34.34 TO 62+32.34 NOT TO SCALE

CNLV NOTE:

THE OFF-SITE PAVEMENT SECTIONS SHOWN ON THE PLANS ARE FOR REFERENCE ONLY. THE ACTUAL SECTION MUST BE DESIGNED IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 USING THE AASHTO MODEL. UPDATED SECTIONS MUST BE BASED ON TRAFFIC COUNTS PROVIDED BY THE CITY AND R-VALUE TEST RESULTS PERFORMED SUBSEQUENT TO GRADING.

SLATER HANIFAN GROUP
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NO.	DESCRIPTION	DATE	BY	APP.	APP. DATE

CITY OF NORTH LAS VEGAS

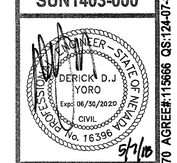
PH WEST HOLDINGS, INC.

VALLEY VISTA

S18 T19S R61E

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
DETAIL SHEET I - STREET SECTIONS

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000



D-01
SHEET 59 OF 125

CLV 731-98

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ#:124070 AGREE#:115666 QS:124-07-SWINE,124-18-NWINE

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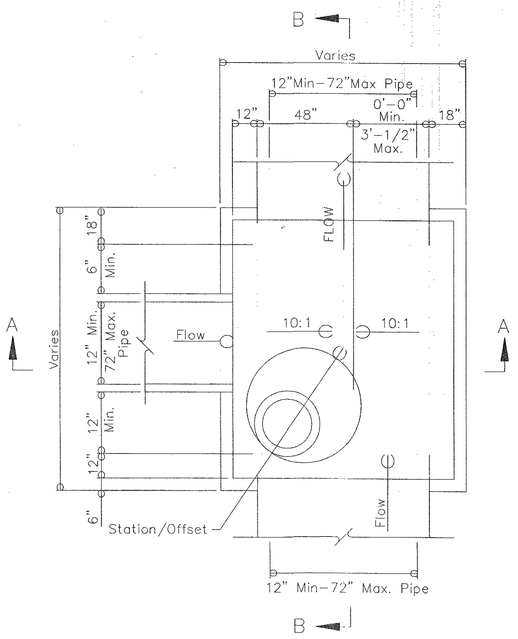
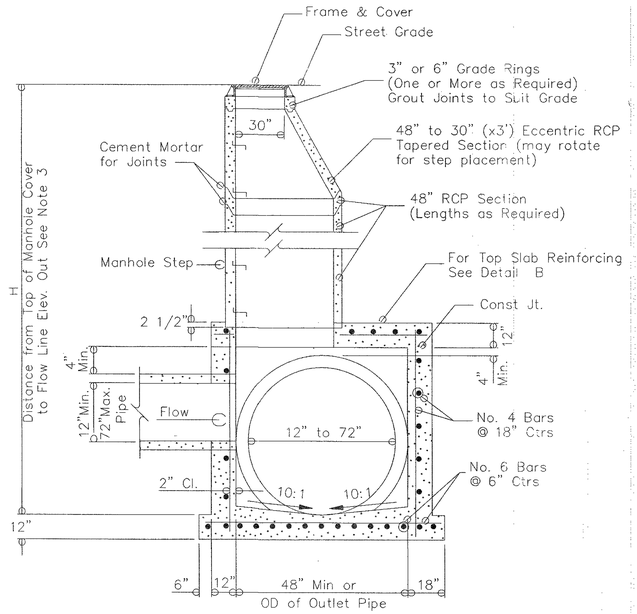


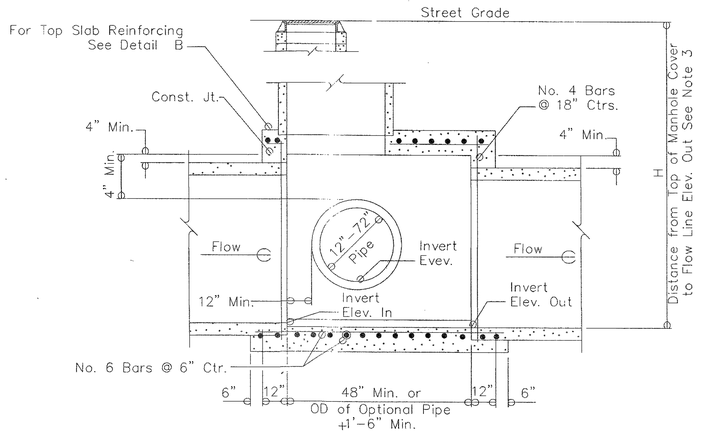
PLAN



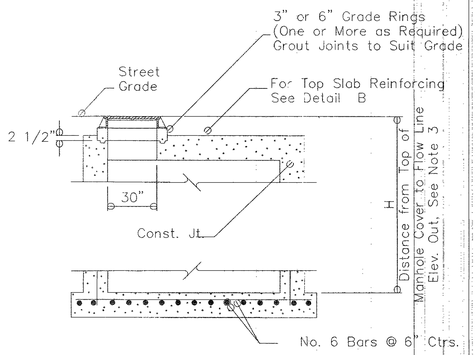
SECTION A–A
For Variable Height Situations

NOTES:

1. ALL CONCRETE SHALL BE CLASS A OR CLASS AA.
2. INFLOW PIPE INVERT ELEVATIONS SHALL BE GREATER THAN OR EQUAL TO 0.1' ABOVE THE OUTFLOW PIPE INVERT ELEVATION.
3. FOR VALUES OF "H", SEE PLANS. "H" IS THE DIFFERENCE IN ELEVATION BETWEEN THE OUTFLOW PIPE INVERT ELEVATION AND THE TOP OF MANHOLE ELEVATION AT STREET GRADE.
4. PRECAST CONCRETE PIPE SECTIONS, TAPERED SECTIONS, LIDS, GRADE RINGS, BASES, AND STEPS SHALL CONFORM TO AASHTO M 199 (ASTM C-478).
5. MANHOLE COVER SHALL BEAR ENTITY IDENTIFICATION AND SYSTEM FUNCTION (IF APPLICABLE).
6. SHAPE FLOWLINE IN MANHOLE TO OUTLET PIPE, AND PROVIDE A 10:1 SLOPE FROM ALL DIRECTIONS TOWARD FLOW LINE.
7. REFER TO SHEET R-2.9.1 FOR DETAILS IF CONNECTING TO HDPE PIPE.

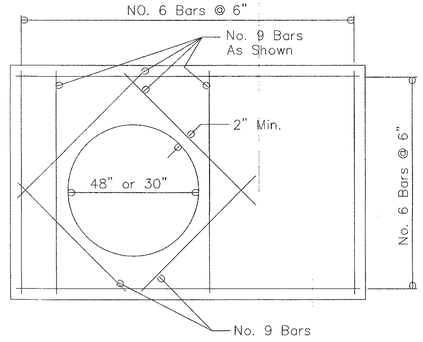


SECTION B–B



SECTION A–A
For Minimum Height Situation

Note: Hydraulic Engineer Will Look at Other Options for Extreme Minimum Cover Situations.



DETAIL B
Top Slab Reinforcing

NEVADA DEPARTMENT OF TRANSPORTATION

TYPE 4 MANHOLE

Signed Original On File	R-4.3.2	(609	
CHIEF HYDRAULICS ENGINEER	ADOPTED	10/85	REVISION 5/09

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
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NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

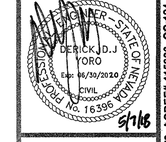
VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

DETAIL SHEET II

S 18
T 19S
R 61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000



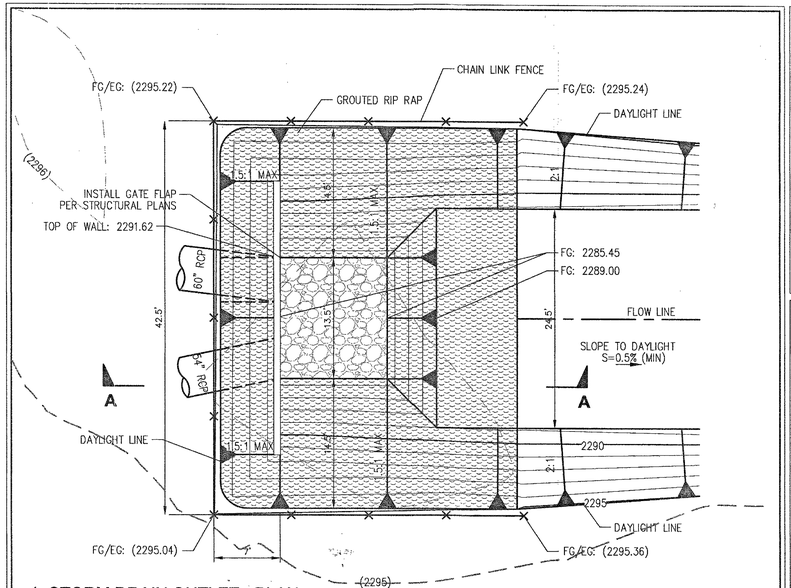
D-02
SHEET 60 OF 125

CLV 731-98

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

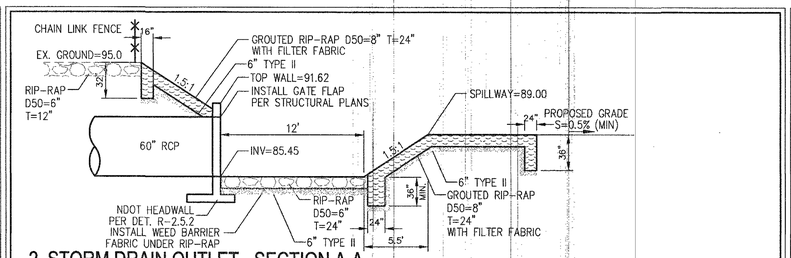
PROJ#:124070 AGREE#:115666 QS:124-07-SWINE,124-18-NWINE

S:\sun1403-000 grand teton regional flood control facility\dwg\Vmirror\Sun1403-000dst.dwg 5/7/2018 7:41 AM Jane Gratty



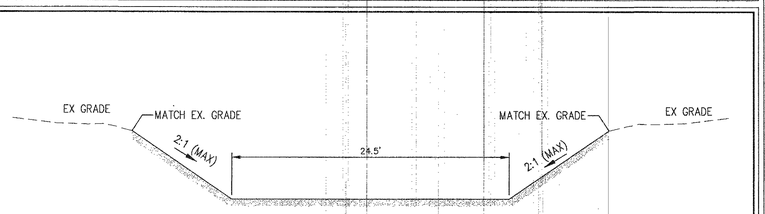
1. STORM DRAIN OUTLET - PLAN

NOT TO SCALE



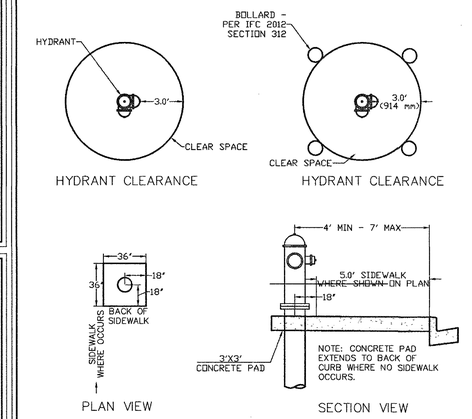
2. STORM DRAIN OUTLET - SECTION A-A

NOT TO SCALE



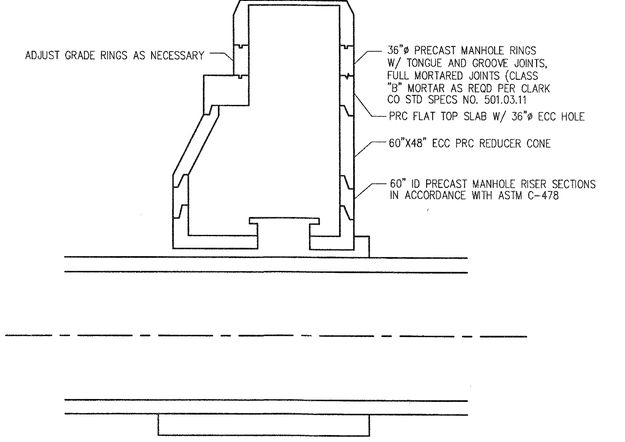
3. OUTLET CHANNEL - SECTION B-B

NOT TO SCALE



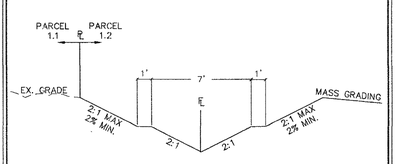
5. FIRE HYDRANT LOCATION DETAIL

NOT TO SCALE



4. WATER MANHOLE ADJUSTMENT PROFILE VIEW

NOT TO SCALE



6. PARCEL 1.2 CHANNEL

NOT TO SCALE

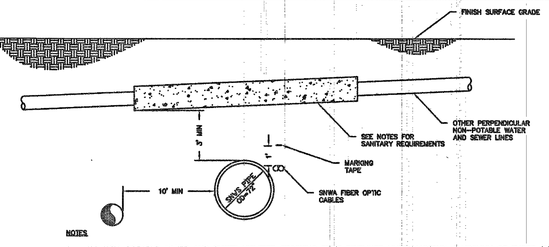
SNWA CONSTRUCTION NOTES:
CONTRACTOR SHALL FIELD LOCATE AND PROTECT ALL SNWA/SNWS APPURTENANCES INCLUDING, BUT NOT LIMITED TO; AV/AR, ACCESS MANWAYS AND CATHODIC PROTECTION SYSTEMS. ALL ABOVE GROUND STRUCTURES AND AT GRADE STRUCTURES MUST BE ADJUSTED TO NEW GRADE AT CONTRACTOR'S EXPENSE. CATHODIC PROTECTION TEST STATIONS, RECTIFIERS, AND AV/AR'S MUST BE RELOCATED TO THE SIDEWALK PER SNWA STANDARDS AND AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO NOTIFY SOUTHERN NEVADA WATER AUTHORITY, DEVELOPMENT PLAN REVIEW, AT (702) 691-5372 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY.

SOUTHERN NEVADA WATER AUTHORITY DATE

DPR# 2016-0060

SNWA APPROVAL IS VALID FOR ONE (1) YEAR FROM THE SIGNATURE DATE. IF CONSTRUCTION WITHIN THE EASEMENT OR RESTRICTED PIPE SAFETY ZONE IS NOT COMPLETE, PLANS MUST BE RESUBMITTED TO SNWA FOR APPROVAL.

CAUTION SNWA FIBER OPTIC CONDUIT RUNS ALONG THE SOUTH AND WEST SIDES OF THE SNWA 72" LATERALS AT VARIOUS DEPTHS

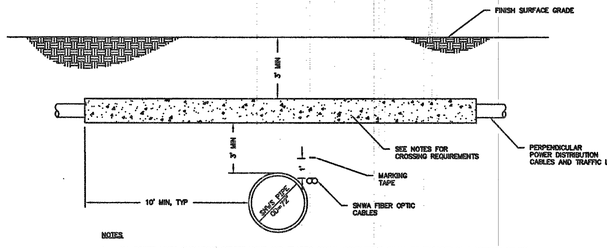


NOTES:

1. ALL NON-POTABLE WATER AND SEWER UTILITIES CROSSING SNWS PIPELINES MUST MAINTAIN A MINIMUM OF THREE (3) FEET SEPARATION WHEN INSTALLED OVER SNWS PIPELINES AND A MINIMUM OF TWO (2) FEET SEPARATION WHEN INSTALLED BELOW SNWS PIPELINES. DESIGNS THAT DO NOT MEET THE MINIMUM CLEARANCE SHALL BE COORDINATED AND APPROVED BY SNWA.
2. ALL NON-POTABLE WATER OR SEWER LINE CROSSING AT ANY DISTANCE ABOVE THE SNWS PIPELINE AND LESS THAN TWO (2) FEET BELOW THE WATERMAIN WILL BE CONSTRUCTED USING ONE OF THE FOLLOWING OPTIONS FOR A MINIMUM OF TEN (10) FEET PAST THE OUTSIDE DIAMETER ON EACH SIDE OF THE CROSSING AND AT ANY DISTANCE ABOVE THE WATER MAIN AND LESS THAN TWO (2) FEET BELOW.
   A. THE LINE WILL BE INSTALLED IN A STEEL SLEEVE WITH A MINIMUM THICKNESS OF ONE QUARTER (1/4) INCH.
   B. THE LINE WILL BE CONSTRUCTED OF WATER QUALITY MATERIALS MEETING AWWA STANDARDS.
   C. THE LINE WILL BE TOTALLY ENCASED WITH A MINIMUM OF FOUR (4) INCHES OF CLSM (300 PSI) ENCASEMENT. THIS OPTION WILL NOT BE PERMITTED FOR ASBESTOS CEMENT PIPE.
   D. STORM SEWERS TWENTY-FOUR (24) INCHES IN DIAMETER OR GRATER SHALL BE INSTALLED WITH WATER TIGHT JOINTS USING EITHER JOINT SEALANTS OR GASKETS.
3. ALL PARALLELING NON-POTABLE WATER AND SEWER LINES AND APPURTENANT STRUCTURES MUST BE LOCATED A MINIMUM OF TEN (10) FEET AWAY FROM THE OUTSIDE DIAMETER OF THE SNWS LINE.

DETAIL 1: NON-POTABLE WATERLINE CROSSING

SCALE NTS

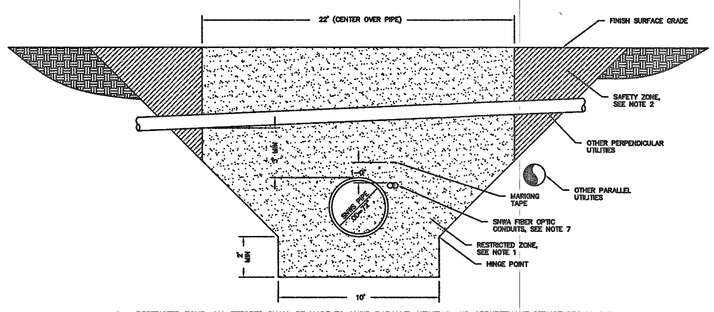


NOTES:

1. ALL POWER LINES (INCLUDING STREET LIGHT AND TRAFFIC SIGNAL CONDUIT(S)) SHALL BE ENCASED IN A MINIMUM OF SIX (6) INCHES OF RED CONCRETE (3000 PSI MINIMUM) EXTENDING A MINIMUM OF TEN (10) FEET ON EACH SIDE OF THE CROSSING FROM THE OUTSIDE DIAMETER (IN BOTH DIRECTIONS) OF THE WATER TRANSMISSION MAIN.
2. ALL POWER LINES (INCLUDING STREET LIGHT AND TRAFFIC SIGNAL CONDUIT(S)) SHALL MAINTAIN MINIMUM VERTICAL CLEARANCES OF THREE (3) FEET ABOVE AND TWO (2) BELOW SNWS PIPELINE.

DETAIL 2: POWER LINE CROSSING

SCALE NTS



1. RESTRICTED ZONE: ALL EFFORTS SHALL BE MADE TO AVOID PARALLEL UTILITIES AND APPURTENANT STRUCTURES IN THE RESTRICTED ZONE. UTILITIES MAY CROSS PERPENDICULARLY THROUGH BOTH THE SAFETY AND RESTRICTED ZONES PROVIDED THAT THE VERTICAL CLEARANCES OF 3 FEET AND 2 FEET BELOW THE SNWS FACILITIES ARE MAINTAINED. DESIGNS THAT DO NOT MEET THE MINIMUM CLEARANCE SHALL BE COORDINATED AND APPROVED BY SNWA.
2. SAFETY ZONE: ALL REASONABLE EFFORTS SHALL BE MADE TO LOCATE PARALLEL UTILITIES AND APPURTENANT STRUCTURES OUTSIDE THE SAFETY ZONE. PARALLEL UTILITIES AND APPURTENANT STRUCTURES LOCATED WITHIN THIS ZONE SHALL BE DESIGNED TO MINIMIZE IMPACT ON THE MAINTENANCE ACCESS OF SNWS FACILITIES. THE BOUNDARIES OF THE SAFETY ZONE ARE ESTABLISHED BY A 1:1 SLOPE EXTENDING FROM THE HINGE POINTS OF DIMENSION "A" TO THE FINISH SURFACE GRADE ON EACH SIDE OF THE SNWS PIPELINE. THE DESIGN OF UTILITIES IN THE SAFETY ZONE SHALL BE COORDINATED AND APPROVED BY SNWA.
3. DIMENSION "D" IS EQUAL TO THE OUTSIDE DIAMETER OF THE SNWA PIPE. DIMENSION "A" IS EQUAL TO "D" PLUS 4 FEET.
4. THE SNWS PIPELINE MAY EMPLOY A CATHODIC PROTECTION SYSTEM THAT WILL MITIGATE ADVERSE IMPACTS FROM CATHODIC PROTECTION SYSTEM ON EXISTING FACILITIES. ALL OTHER UTILITIES IN THE VICINITY OF THE SNWS WILL BE RESPONSIBLE TO COORDINATE WITH SNWS FOR THE PROTECTION OF THEIR NEW FACILITIES FROM STRAY ELECTRICAL CURRENTS.
5. HORIZONTAL AND VERTICAL SEPARATION OF SANITARY SEWERS AND STORM DRAINS FROM POTABLE WATER FACILITIES MUST COMPLY WITH THE "DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEM" FOR SOUTHERN NEVADA.
6. ALL POWER (INCLUDING STREETLIGHT AND TRAFFIC SIGNAL CONDUITS(S)) CROSSING SNWS PIPELINE SHALL BE ENCASED IN RED CONCRETE (3000 PSI MINIMUM) FOR A MINIMUM DISTANCE OF TEN (10) FEET PAST THE OUTSIDE DIAMETER OF THE SNWS PIPELINE IN BOTH DIRECTIONS.
7. SNWS FIBER OPTIC CONDUIT PARALLELS SNWS PIPELINE WITHIN THE SAME TRENCH AS THE PIPELINE.

DETAIL 3: GENERAL WATERLINE CROSSING

SCALE NTS

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP.	APP. DATE

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

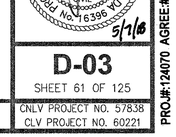
VALLEY VISTA

S18 T19S R61E

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

DETAIL SHEET III

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000

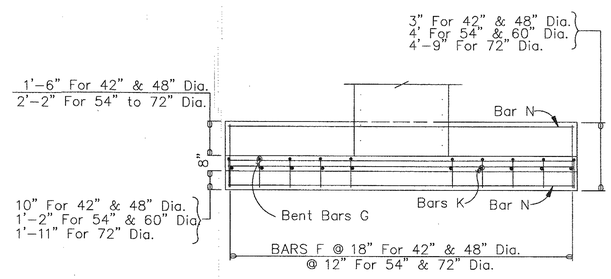


D-03
SHEET 61 OF 125

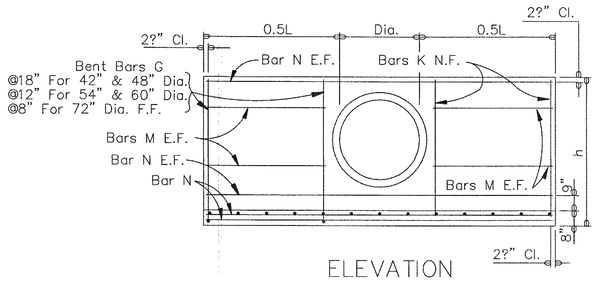
CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ#:124070 AGREE:#115666 QS:124-07-SW/NE,124-19-NW/NE

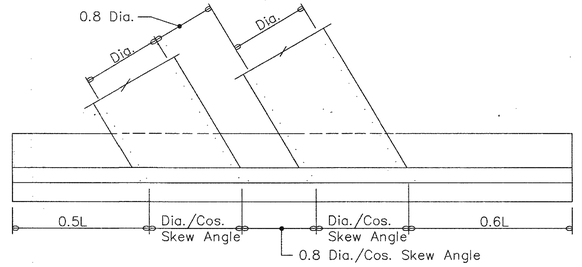
J:\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403-000det dwg 5/7/2018 9:41 AM Jose Grelly



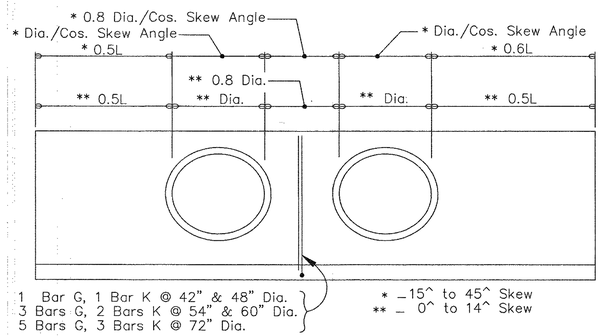
PLAN



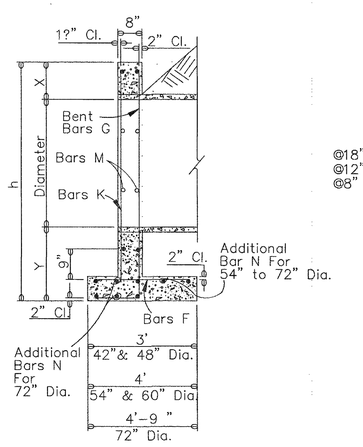
ELEVATION
SINGLE RCP/HDPE
0^ SKEW



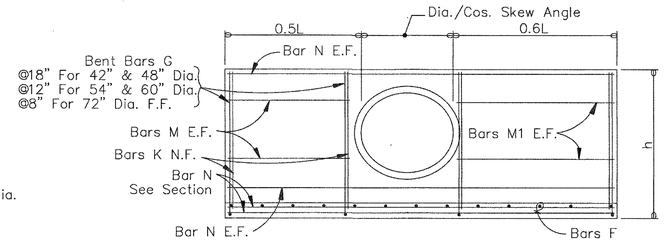
PLAN



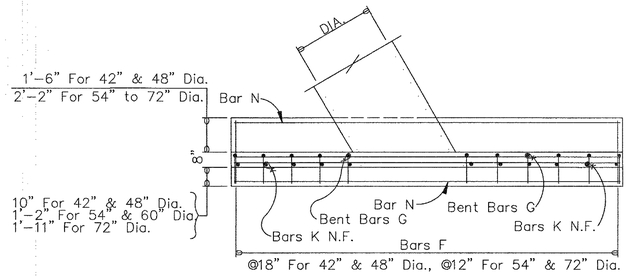
ELEVATION
DOUBLE RCP/HDPE
0^ TO 45^ SKEW



SECTION



ELEVATION
SINGLE RCP/HDPE
15^ TO 45^ SKEW



PLAN

SHEET 1 OF 2

NEVADA DEPARTMENT OF TRANSPORTATION

CULVERT HEADWALLS
42" TO 72" RCP &
42" TO 60" HDPE

Signed Original On File	R-2.5.2	(502)
CHIEF HYDRAULICS ENGINEER	ADOPTED 8/69	REVISION 5/09

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

DETAIL SHEET IV

S18 T19S R61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000

PROFESSIONAL ENGINEER STATE OF NEVADA
DERICK D.J YORO
Exp: 06/30/2020
CIVIL
No. 16396
5/7/18

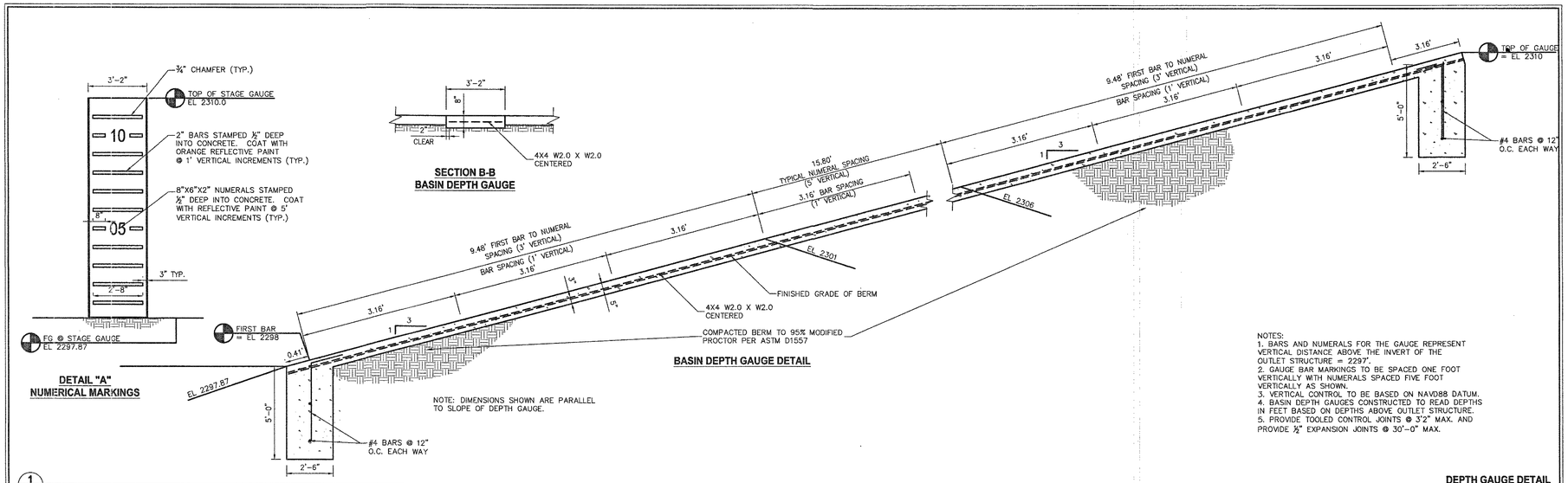
D-04
SHEET 62 OF 125

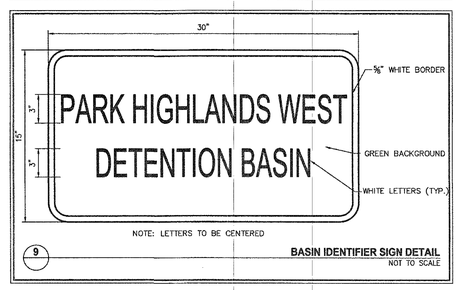
CLV 731-98

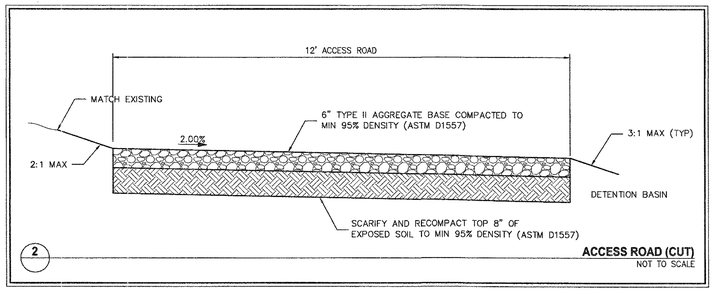
CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

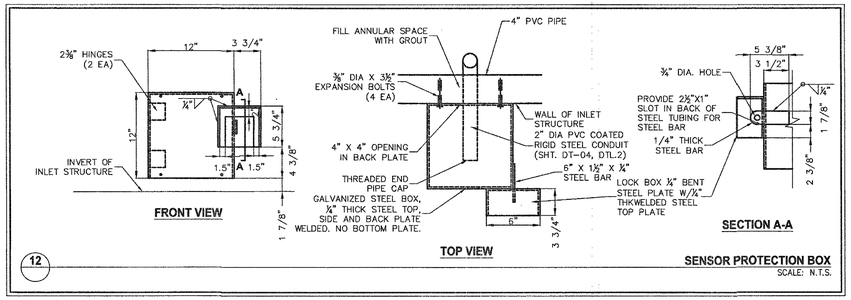
PROJ#:124070 AGREE:#115666 QS:124-07-SWINE,124-18-NWINE

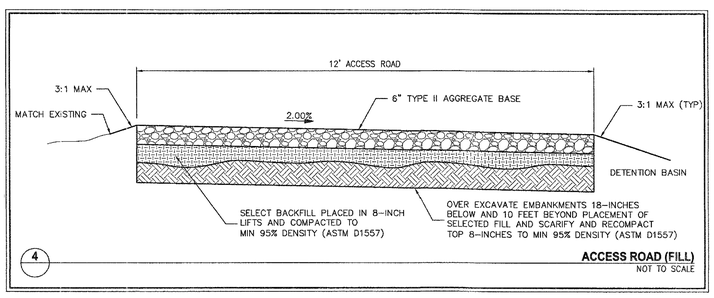
\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403-000det.dwg 5/7/2018 7:41 AM Jose Gretsy

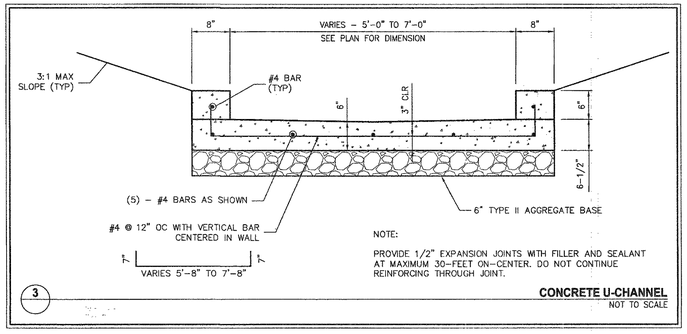


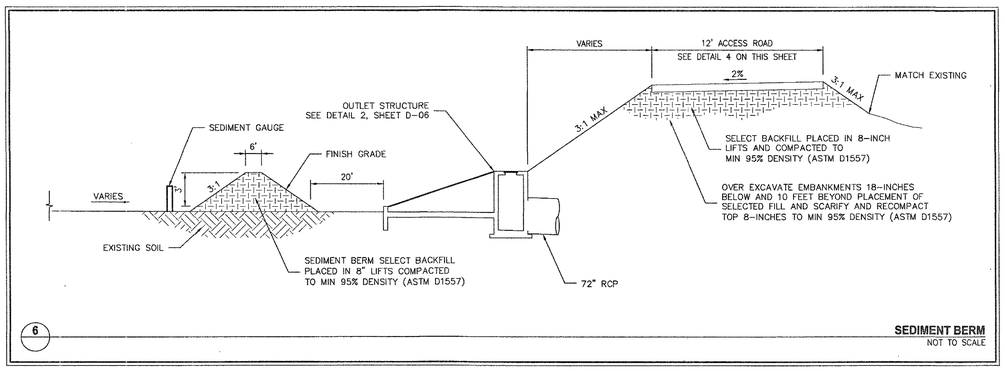


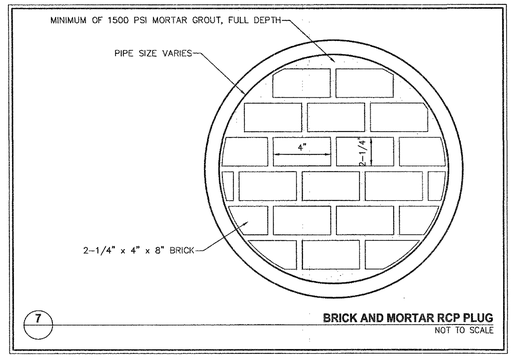


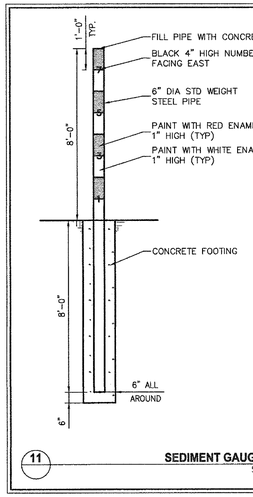


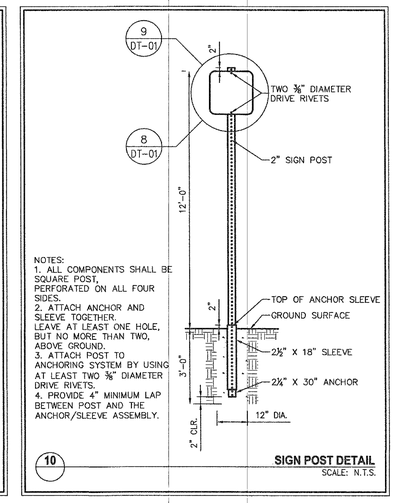












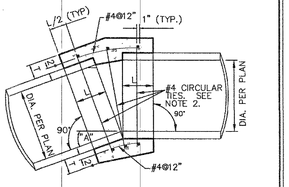
NOTES:

1. WHERE THE SLOPE OF THE UPSTREAM PIPE IS GREATER THAN THE SLOPE OF THE DOWNSTREAM PIPE, JOIN SOFFITS. WHERE THE SLOPE OF THE UPSTREAM PIPE IS LESS THAN THE SLOPE OF THE DOWNSTREAM PIPE, JOIN INVERTS.

2. WHERE THE SPACE BETWEEN THE PIPE EXTREMITIES EXCEEDS 2 1/2 INCHES, THE NUMBER OF CIRCULAR TIES SHALL BE INCREASED TO MAINTAIN A MAXIMUM SPACING OF 6 INCHES CENTER TO CENTER. CIRCULAR TIES SHALL HAVE A DIAMETER 5 INCHES GREATER THAN THE OUTSIDE DIAMETER OF THE LARGER PIPE.

CIRCULAR TIES:

PIPE DIAMETER	SPACE BETWEEN PIPE EXTREMITIES	NO. OF CIRCULAR TIES	L	T
18"	2 1/2"	3	12"	5"
24"	2 1/2"	3	12"	6"
30"	2 1/2"	3	12"	7"
36"	2 1/2" or less	4	18"	9"
60"	2 1/2" or less	5	21"	11"



5
PIPE COLLAR DETAIL
NOT TO SCALE

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP.	APP. DATE

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

DETAIL SHEET V

S 18
R 61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000

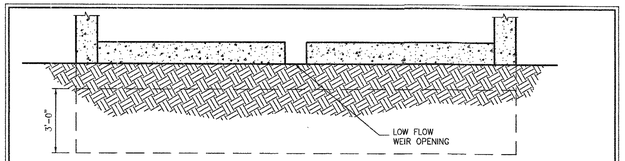
PROFESSIONAL ENGINEER - STATE OF NEVADA
DERICK D.J. YORO
Expires 05/30/2020
CIVIL
No. 16396
5/7/18

D-05
SHEET 63 OF 125

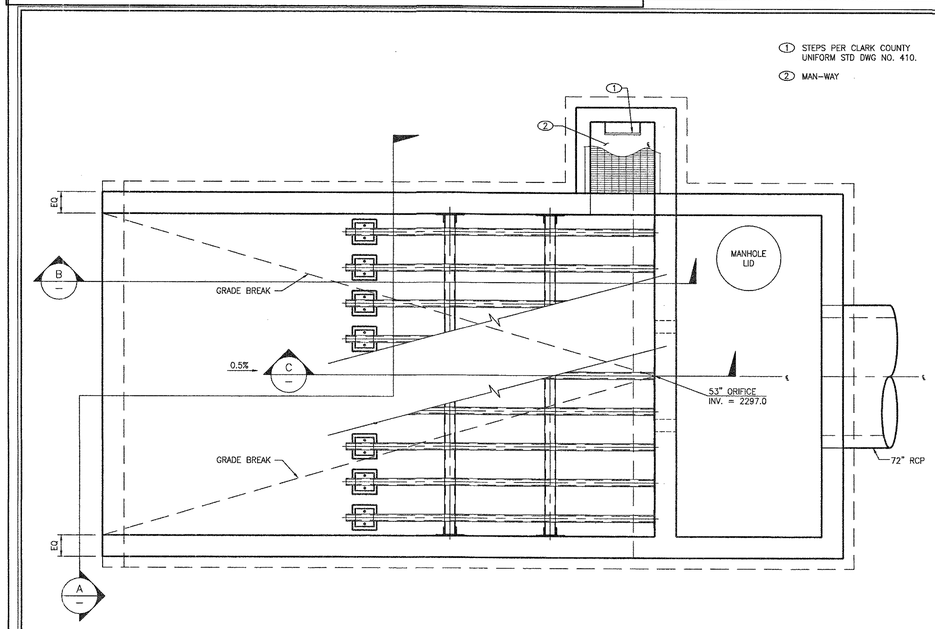
CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PRO.#:124070 AGREE:#115666 QS:124-07-SW/NE,124-18-NW/NE

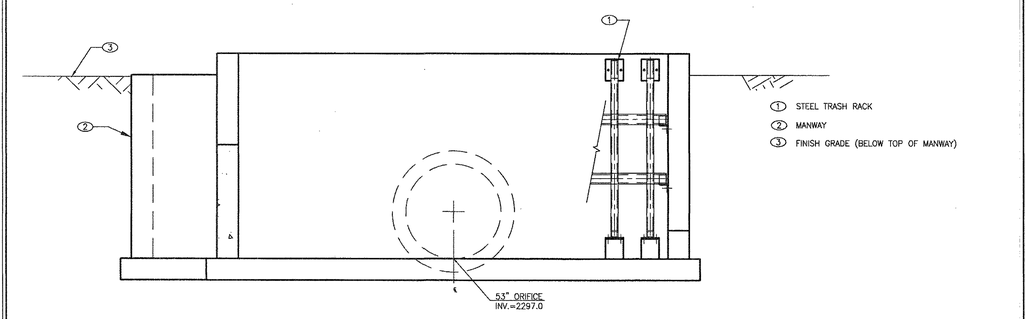
J:\sun1403-000 grand teton regional flood control facility\dwg\mgrcv\sun1403-000det-05.dwg 5/7/2018 7:42 AM Jane Crotty



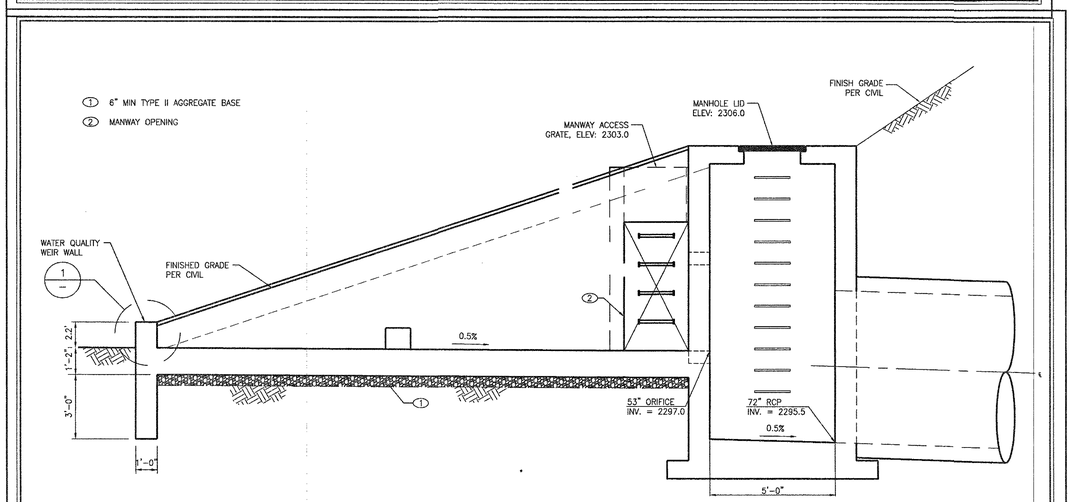
1 **WATER QUALITY WEIR WALL**
NOT TO SCALE



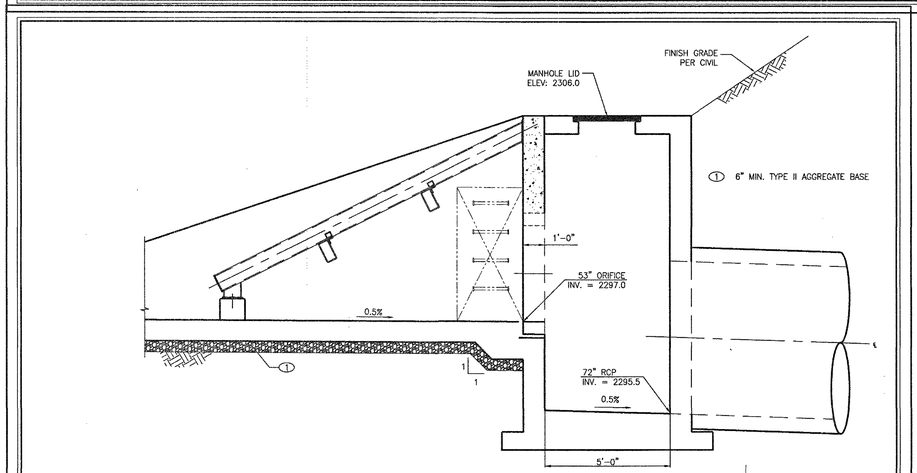
2 **OUTLET PLAN**
SCALE: 3/8" = 1'-0"



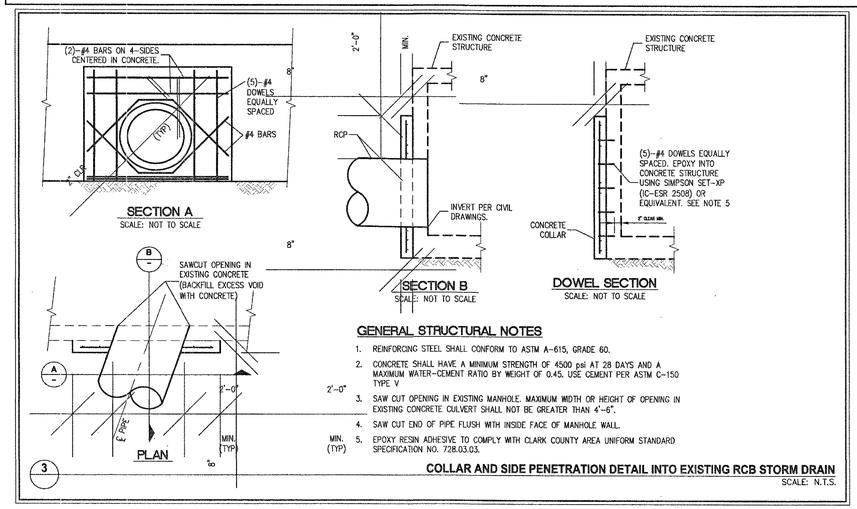
A **TRANSVERSE SECTION**
SCALE: 3/8" = 1'-0"



B **LONGITUDINAL SECTION**
SCALE: 3/8" = 1'-0"



C **LONGITUDINAL SECTION**
SCALE: 3/8" = 1'-0"



SECTION A
SCALE: NOT TO SCALE

SECTION B
SCALE: NOT TO SCALE

DOWEL SECTION
SCALE: NOT TO SCALE

GENERAL STRUCTURAL NOTES

1. REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60.
2. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4500 psi AT 28 DAYS AND A MAXIMUM WATER-CEMENT RATIO BY WEIGHT OF 0.45. USE CEMENT PER ASTM C-150 TYPE V
3. SAW CUT OPENING IN EXISTING MANHOLE. MAXIMUM WIDTH OR HEIGHT OF OPENING IN EXISTING CONCRETE CULVERT SHALL NOT BE GREATER THAN 4'-6".
4. SAW CUT END OF PIPE FLUSH WITH INSIDE FACE OF MANHOLE WALL.
5. EPOXY RESIN ADHESIVE TO COMPLY WITH CLARK COUNTY AREA UNIFORM STANDARD SPECIFICATION NO. 728.03.03.

3 **COLLAR AND SIDE PENETRATION DETAIL INTO EXISTING RCB STORM DRAIN**
SCALE: N.T.S.

NOTE:

SEE STRUCTURAL DRAWINGS FOR OUTLET STRUCTURE STRUCTURAL DESIGN AND DIMENSIONS.

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

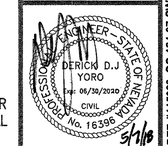
VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

DETAIL SHEET VI

S 18
T 19S
R 61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000

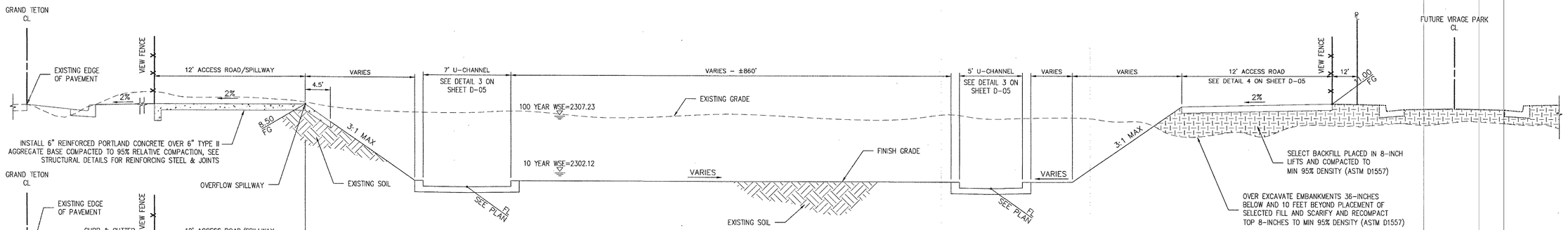


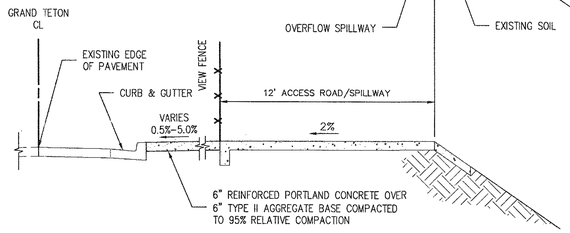
D-06
SHEET 64 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ#:124070 AGREE:#115665 QS:124-07-SWINE,124-18-NWINE

F:\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403-000det-06.dwg 5/7/2018 7:42 AM Jane Crotty



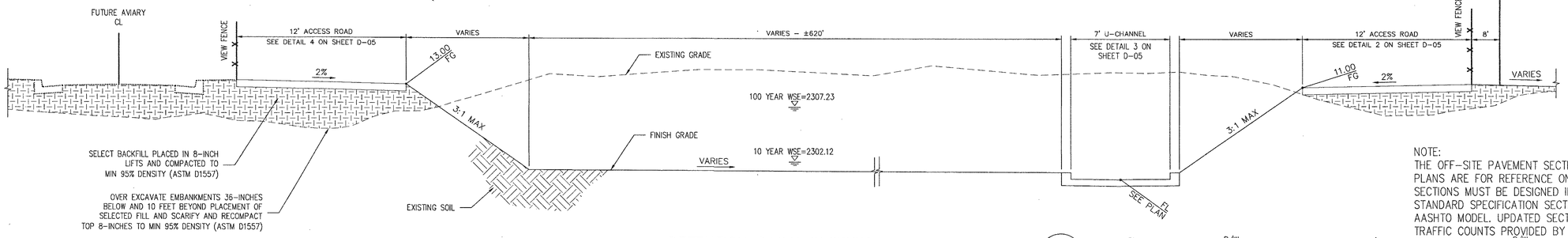


DETENTION BASIN SECTION (A)

NOT TO SCALE

NOTE:

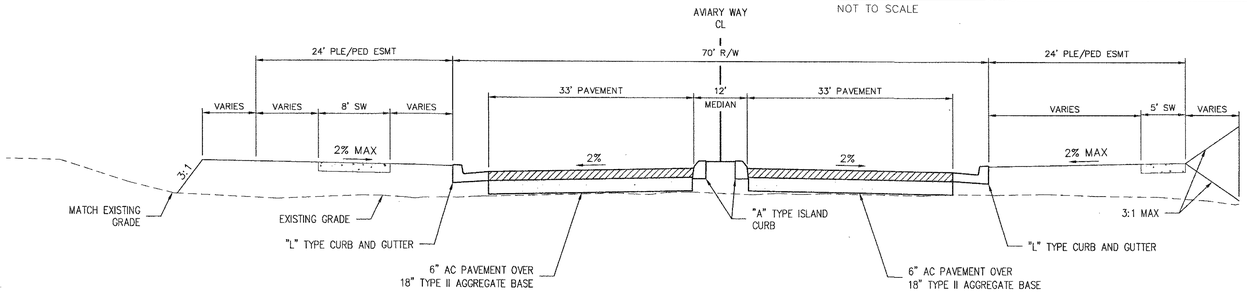
DUST PALLATIVE SURFACE TREATMENT TO BE APPLIED TO DISTURBED SURFACES OF DETENTION BASIN IN ACCORDANCE WITH CCAUSD SPECIFICATIONS, SECTION 637.



DETENTION BASIN SECTION (B)

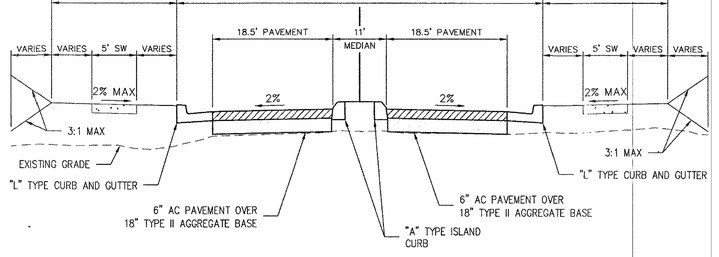
NOT TO SCALE

NOTE:
THE OFF-SITE PAVEMENT SECTION SHOWN ON THE PLANS ARE FOR REFERENCE ONLY. THE ACTUAL SECTIONS MUST BE DESIGNED IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 USING THE AASHTO MODEL. UPDATED SECTIONS MUST BE BASED ON TRAFFIC COUNTS PROVIDED BY THE CITY AND R-VALUE TEST RESULTS PERFORMED SUBSEQUENT TO GRADING.



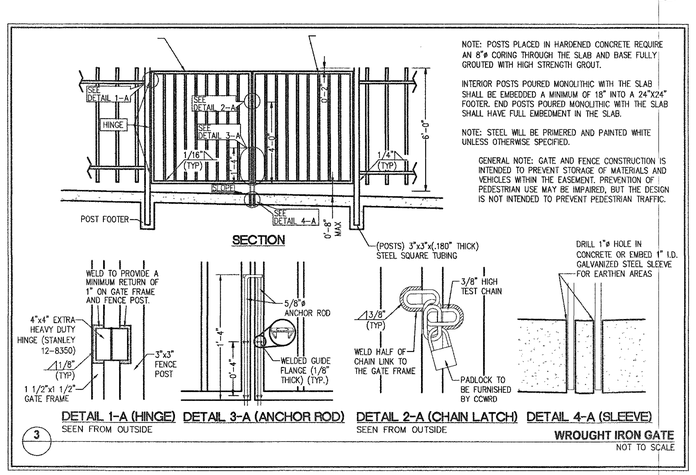
AVIARY (ULTIMATE) (D)

NOT TO SCALE



VIRAGE PARK (ULTIMATE) (E)

NOT TO SCALE



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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS, NV

PH WEST HOLDINGS, INC.

VALLEY VISTA

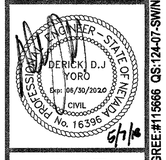
AREA 1 - GRAND TETON DRIVE & RFC FACILITY

DETAIL SHEET VII

S 18 T 19S R 61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000



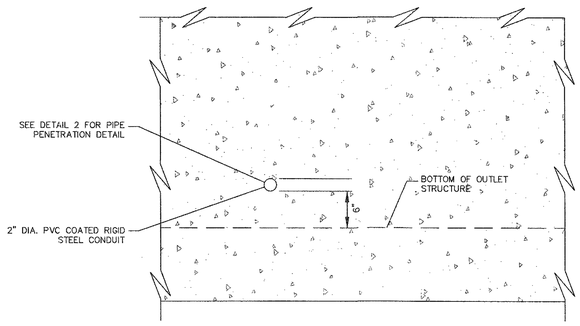
D-07
SHEET 65 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

CLV 731-98

PRO.#:124070 AGREE.#115666 QS:124-07-SW/NE,124-18-NW/NE

k:\sun1403-000 grand teton national flood control facility\dwg\xrefs\sun1403-000et-07.dwg 5/7/2018 7:43 AM Jose Cetty

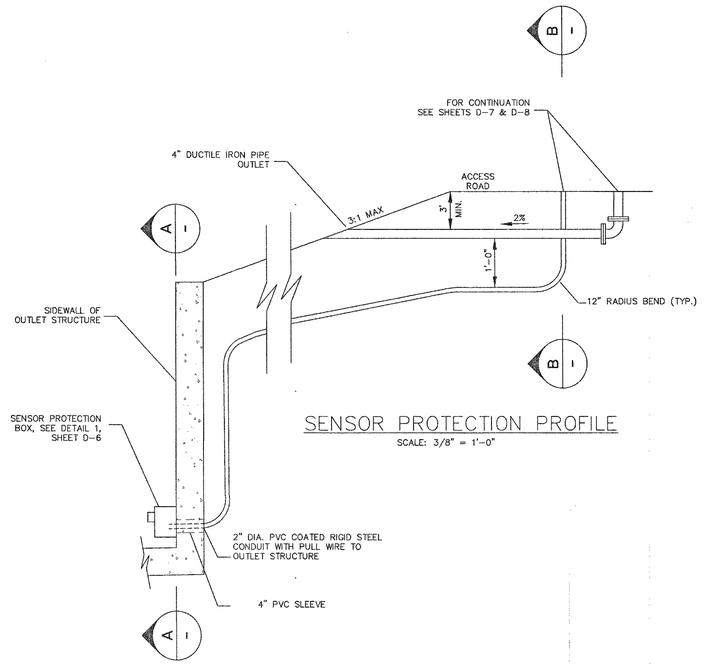


SECTION A–A
NOT TO SCALE

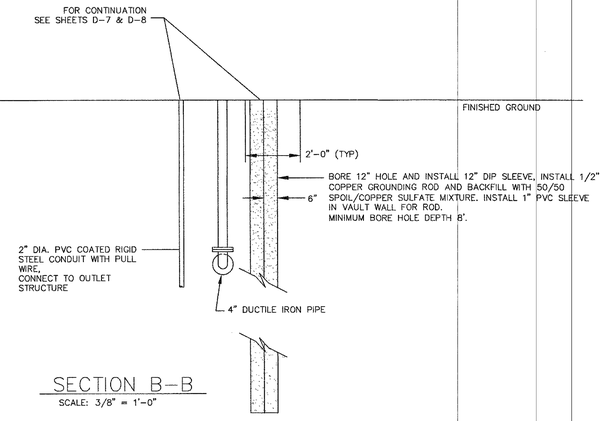
NOTES:

1.) BEDDING REQUIREMENTS FOR MONITORING STATION 6" MIN TYPE II COMPACTED TO MIN 95%

2.) FLOOR DRAIN TO BE INSTALLED AND CONNECTED TO DRAIN PIPE PER MANUFACTURER'S RECOMMENDATIONS



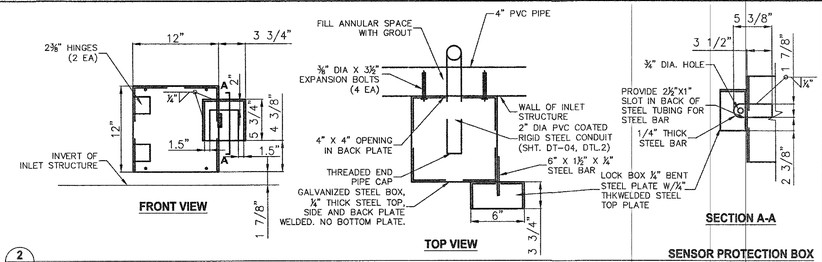
SENSOR PROTECTION PROFILE
SCALE: 3/8" = 1'-0"



SECTION B–B
SCALE: 3/8" = 1'-0"

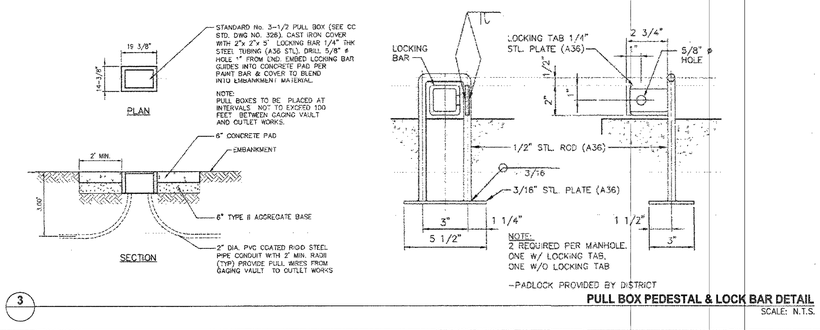
1

FLOOD THREAT RECOGNITION STATION
NOT TO SCALE



2

SENSOR PROTECTION BOX
SCALE: N.T.S.



3

PULL BOX PEDESTAL & LOCK BAR DETAIL
SCALE: N.T.S.

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS, NV

PH WEST HOLDINGS, INC.

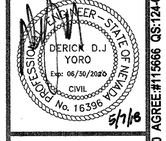
VALLEY VISTA

S 18 T 19S R 61E

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

DETAIL SHEET VIII - FLOOD THREAT RECOGNITION STATION

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000

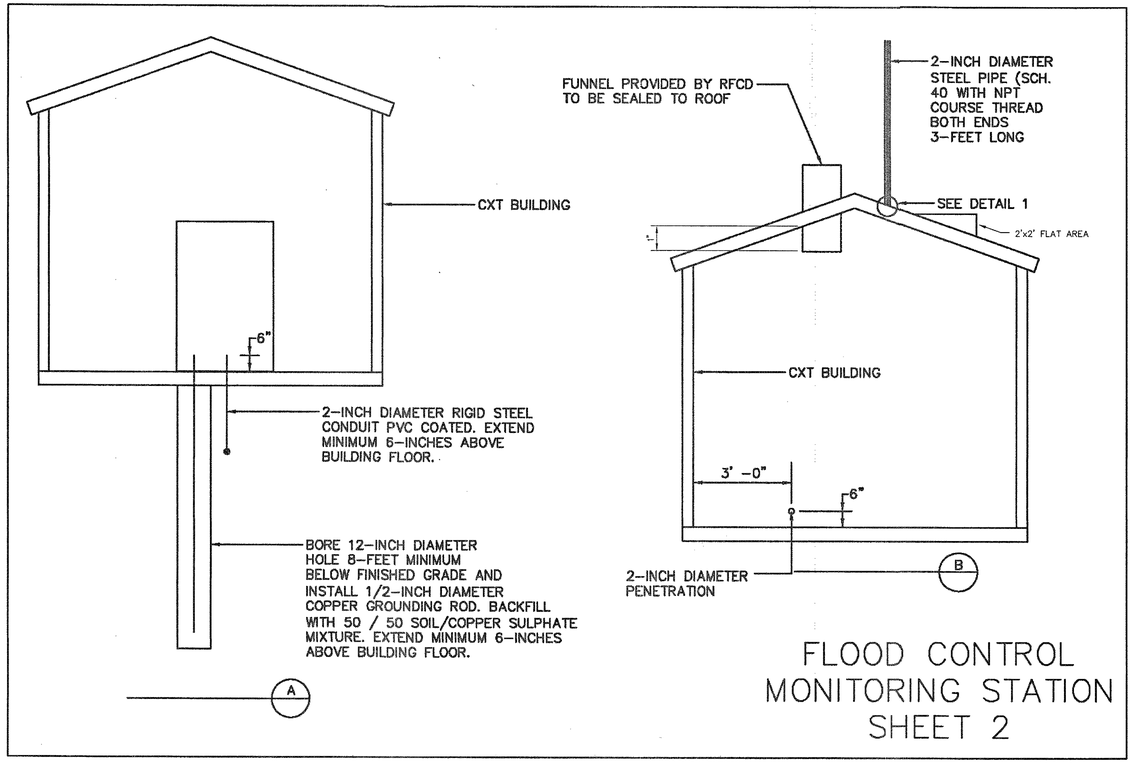


D-08
SHEET 66 OF 125

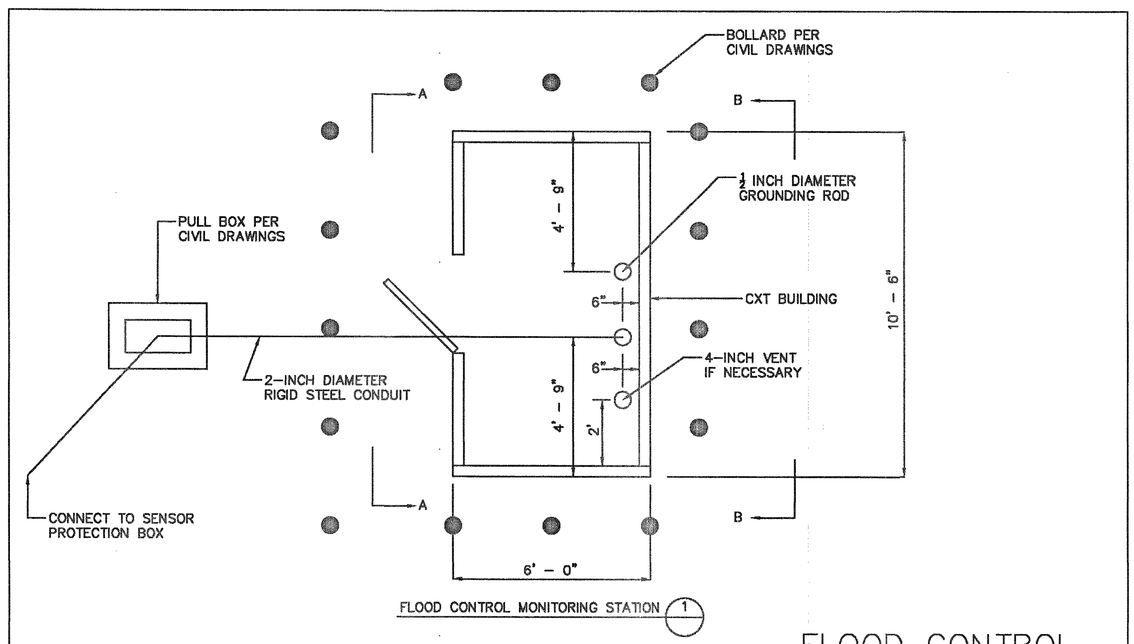
CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ.#:124070 AGREE.#115666 QS:124-07-SW/NE,124-18-NW/NE

k:\sun1403--000 grand teton regional flood control facility\dwg\micro\sun1403--000det--08.dwg 5/7/2018 7:43 AM Jane Cretty



FLOOD CONTROL MONITORING STATION SHEET 2



FLOOD CONTROL MONITORING STATION SHEET 1

NOTE:
1. CONTRACTOR TO PROVIDE 3.5"-16" DIA. MATERIAL FOR TIPPING BUCKET STAND PIPE
2. CONTACT RFCD PERSONNEL FOR BUILDING FACILITIES INSPECTION
3. CONTACT RFCD PERSONNEL PRIOR TO PUBLIC MAINTENANCE OWNERSHIP

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
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NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS, NV

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

DETAIL SHEET IX - FLOOD THREAT RECOGNITION STATION

S 18
T 19S
R 61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000

PROFESSIONAL ENGINEER STATE OF NEVADA
DERICK D.J IYORO
Exp: 06/30/2020
CIVIL
No. 16396
5/7/18

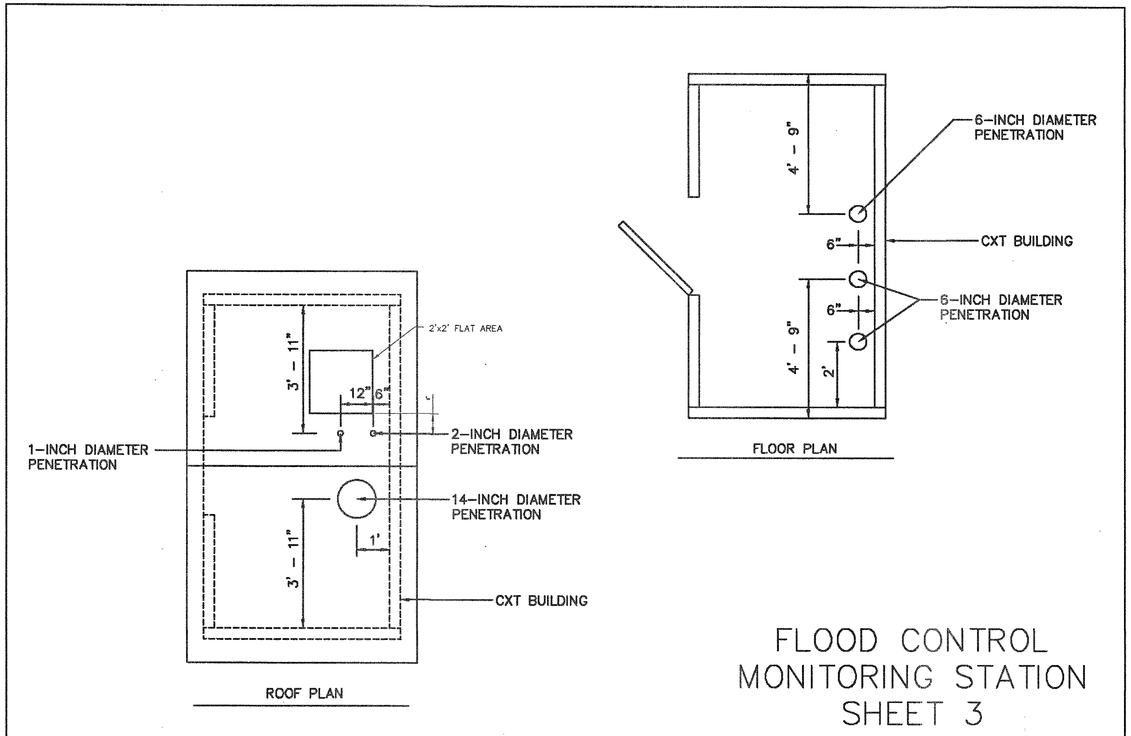
D-09
SHEET 67 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

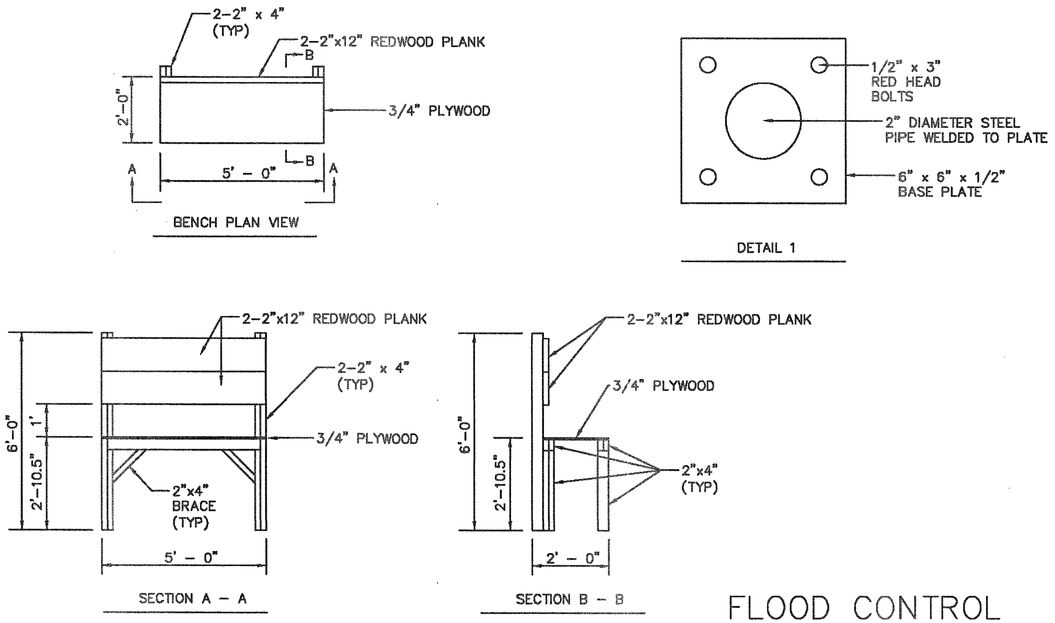
CLV 731-98

PROJ#:124070 AGREE:#115666 QS:124-07-SW/NE,124-18-NW/NE

J:\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403-000det-09.dwg 5/7/2018 7:43 AM Jane Gratty



FLOOD CONTROL MONITORING STATION SHEET 3



FLOOD CONTROL MONITORING STATION SHEET 4

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS, NV

PH WEST HOLDINGS, INC.

VALLEY VISTA

S 18
T 19S
R 61E

AREA 1 - GRAND TETON DRIVE & RFC FACILITY

DETAIL SHEET X - FLOOD THREAT RECOGNITION STATION

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY
PROJECT NO. SUN1403-000

PROFESSIONAL ENGINEER – STATE OF NEVADA
DERICK D.J YORO
Exp: 06/30/2020
CIVIL
No. 16396
PROFESSIONAL ENGINEER
9/7/18

D-10
SHEET 68 OF 125

CLV 731-98

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PRO.#:124070 AGREE.#115666 QS:124-07-SW/NE,124-18-NW/NE

k:\sun1403-000 grand teton regional flood control facility\dwg\improv\sun1403-000det-10.dwg 5/7/2018 7:43 AM Jane Crettiv

ELECTRICAL GENERAL NOTES:

1. THE CONTRACTOR SHALL PROVIDE AN ELECTRICAL INSTALLATION THAT IS COMPLETE AND ITEMS AND APPARATUS NECESSARILY REASONABLY INCIDENTAL OR CUSTOMARILY INCLUDED, EVEN THOUGH EACH AND EVERY ITEM IS NOT SPECIFICALLY CALLED OUT OR SHOWN,

2. CONTRACTOR SHALL PROVIDE ITEMS OF LABOR AND MATERIALS TO MAKE A COMPLETE EQUIPMENT INSTALLATION OF ELECTRICAL WORK AS SHOWN ON DRAWINGS AS SPECIFIED, AND AS NECESSARY FOR COMPLETE SYSTEMS, INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:
   A. BRANCH FEEDERS FOR POWER AND LIGHTING.
   B. ELECTRICAL CONDUCTORS AND CONDUIT
   C. LIGHTING FIXTURES AND LAMPS.
   D. REQUIRED CONNECTIONS AND TERMINATIONS.

3. THE ELECTRICAL PLAN DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY INDICATE EXACT AND COMPLETE ROUTES OF RACEWAYS AND WIRING. THE CONDUIT SHALL BE FIELD ROUTED AS SHOWN ON PLAN DRAWINGS IN ACCORDANCE WITH GOOD ELECTRICAL PRACTICE AND THE GOVERNING CODES AND SPECIFICATIONS.

4. PROVIDE EQUIPMENT MATERIALS, LABOR SUPERVISION AND SERVICES NECESSARY FOR THE INSTALLATION OF A COMPLETE AND OPERATING ELECTRICAL SYSTEM AS SHOWN OR INDICATED ON THE DRAWINGS AND/OR AS SPECIFIED.

5. PRECAUTIONS SHALL BE TAKEN TO PROTECT EXISTING OPERATIONS AND PROPERTY OVER WHICH CONTRACTOR MAY TRANSPORT, HOIST OR MOVE MATERIALS, EQUIPMENT, DEBRIS, ETC. CONTRACTOR SHALL REPAIR SATISFACTORILY DAMAGES CAUSED DURING CONSTRUCTION. CONTRACTOR SHALL REPLACE MATERIALS AND/OR EQUIPMENT FAILING TO GIVE SATISFACTORY SERVICE DURING THE GUARANTEED PERIOD.

6. CONTRACTOR FURNISHED MATERIAL SHALL BE NEW AND FREE OF DEFECTS. MATERIAL USED SHALL BE U.L LABELED FOR THE REQUIRED SERVICE. CONTRACTOR FURNISHED MATERIAL SHALL BE OWNER APPROVED. ANY MATERIAL OR EQUIPMENT DAMAGED DURING THE INSTALLATION SHALL BE INSPECTED BY THE OWNER PRIOR TO THE CONTRACTOR INITIATING REPAIR WORK, AND THE OWNER SHALL DETERMINE THE CORRECTIVE ACTION.

7. CONTRACTOR SHALL SUBMIT SHOP DRAWING OF ELECTRICAL EQUIPMENT I.E. LIGHT FIXTURES, SWITCHGEAR, DEVICES ETC. TO THE ENGINEER FOR APPROVAL PRIOR TO PURCHASING AND INSTALLATION OF SUCH EQUIPMENT.

8. WHERE NO INSTALLATION INSTRUCTIONS ARE PROVIDED BY THESE SPECIFICATION OR DRAWINGS, ITEMS SHALL BE INSTALLED IN A PROFESSIONAL MANNER USING THE MANUFACTURER'S RECOMMENDED INSTALLATION INSTRUCTIONS.

9. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY THE SUBMITTED EQUIPMENT FITS INTO THE SPACES ALLOTTED FOR THAT EQUIPMENT.

10. VISIT THE SITE OF THE PROPOSED CONSTRUCTION TO THOROUGHLY BECOME FAMILIAR WITH DETAILS OF THE WORK AND WORKING CONDITIONS. VERIFY DIMENSIONS IN THE FIELD, AND ADVISE ENGINEER OF ANY DISCREPANCIES BEFORE PERFORMING ANY WORK

11. THE DRAWINGS SHOW PREFERRED LOCATIONS FOR PLACEMENT OF MATERIALS AND EQUIPMENT. PHYSICAL OBSTRUCTIONS TO SUCH PLACEMENT ARE NOT NECESSARILY SHOWN. SHOULD AN OBSTRUCTION BE ENCOUNTERED, THE CONTRACTOR HAS RESPONSIBILITY FOR SATISFYING THE PURPOSE OF THE CONTRACT WITHOUT COMPROMISING FUNCTION, SERVICEABILITY, OR APPEARANCE OF EXISTING STRUCTURES OR UTILITIES.

12. THE ELECTRICAL INSTALLATION AND MATERIALS SHALL CONFORM TO THE CURRENT ISSUE OF THE FOLLOWING STANDARDS AND CODES UNLESS AMENDED BY THE DRAWINGS OR THESE SPECIFICATIONS:
   A. AMERICAN NATIONAL STANDARDS INSTITUTE
   B. NATIONAL ELECTRICAL CODE WITH SOUTHERN NEVADA AMENDMENTS
   C. NATIONAL ELECTRICAL MANUFACTURES ASSOCIATION
   D. STATE AND LOCAL ELECTRICAL CODES
   E. NATIONAL ELECTRICAL TESTING ASSOCIATION

13. RESOLVE ANY CODE VIOLATIONS DISCOVERED IN CONTRACT DOCUMENTS WITH THE OWNER PRIOR TO AWARD OF THE CONTRACT. IF NO NOTICE IS GIVEN TO OWNER PRIOR TO AWARD OF THE CONTRACT AND VIOLATIONS ARE DISCOVERED AFTER CONTRACT IS AWARDED, THE CONTRACTOR SHALL MAKE ANY CORRECTIONS AND/OR ADDITIONS NECESSARY FOR COMPLIANCE WITH APPLICABLE CODES AT NO ADDITIONAL COMPENSATION.

14. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE SAFETY PROTECTION FOR CONSTRUCTION PERSONNEL IN THE AREA OF WORK.

15. CONCEALED WORK SHALL BE LEFT OPEN FOR INSPECTION AND TEST UNTIL APPROVED BY THE OWNERS REPRESENTATIVE OR INSPECTOR.

16. METAL ARMORED CABLE SHALL NOT BE ALLOWED IN ANY PORTION OP THE ELECTRICAL INSTALLATION.

17. CONDUIT SHALL BE RUN PARALLEL OR PERPENDICULAR TO WALLS, CEILINGS OR STRUCTURAL MEMBERS. CONDUIT SHALL NOT INTERFERE WITH THE USE OF DOORWAYS.

18. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER INSTALLATION OP GROUNDING CONDUCTORS PER THE NATIONAL ELECTRICAL CODE FOR ALL CIRCUITS.

19. CONTRACTOR SHALL INSURE PROPER TIGHTENING OF WIRING TERMINALS AT CONNECTION POINTS IN THE ELECTRICAL INSTALLATION PER MANUFACTURER'S RECOMMENDED TORQUE.

20. INSTALL CONDUCTORS IN CLEAN, DRY CONDUITS. USE OF UL APPROVED PULLING LUBRICANT SHALL BE ALLOWED WHERE REQUIRED.

21. CONTINUITY AND IDENTIFICATION OF CIRCUITS SHALL BE COMPLETED BY CONTRACTOR. CONDUCTORS SHALL BE CLEARLY LABELED AS TO THE CONDUCTOR DESTINATION AND/OR POWER SOURCE.

22. CONTRACTOR SHALL VERIFY AND/OR SIZE CONDUCTORS AS TO LIMIT THE FEEDER AND BRANCH CIRCUIT VOLTAGE DROP TO 5%. THE BRANCH CIRCUIT VOLTAGE DROP SHALL NOT EXCEED 3% PER THE NEC.

23. THOROUGHLY TEST INSTALLED ELECTRICAL DEVICES, INCLUDING CIRCUIT BREAKERS AND WIRE, TO ENSURE PROPER OPERATION.

24. TESTING OF EQUIPMENT SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE UNDER THE SUPERVISION OF QUALIFIED MANUFACTURER'S REPRESENTATIVES. DOCUMENTATION OF TEST PROCEDURES AND RESULTS SHALL BE MAINTAINED BY THE CONTRACTOR AND SUBMITTED FOR THE OWNER'S INFORMATION.

25. VISUALLY INSPECT CONNECTIONS OF EVERY BRANCH CIRCUIT FOR TIGHTNESS. TERMINATIONS SHALL BE VERIFIED FOR PROPER TORQUE PER MANUFACTURER'S RECOMMENDATIONS.

26. LOCATIONS OF THE VARIOUS EXISTING ELECTRICAL SYSTEMS AND EQUIPMENT TO BE ALTERED, REMOVED, RECONNECTED, OR OTHERWISE WORKED ON HAS BEEN TAKEN FROM EXISTING PLANS AND OTHER SUBSTANTIALLY RELIABLE SOURCE AND ARE OFFERED AS A GENERAL GUIDE ONLY, WITHOUT GUARANTEE AS TO COMPLETE ACCURACY. THE DETAILED CONSIDERATIONS INVOLVED IN THE WORK REQUIRED ON THE EXISTING WORK INCLUDING CUTTING, INTERFERENCES, ETC., SHALL BE THOROUGHLY INVESTIGATED.

27. WIRING DEVICES MUST BE SUITABLE FOR USE INTENDED, HAVE VOLTAGE AND CURRENT RATINGS ADEQUATE FOR LOADS SERVED.

28. THE CONTRACTOR SHALL FURNISH A WRITTEN CERTIFICATE GUARANTEEING MATERIALS, EQUIPMENT AND LABOR FURNISHED BY CONTRACTOR TO BE FREE OF DEFECTS FOR A PERIOD OF ONE YEAR AFTER THE DATE OF FINAL ACCEPTANCE OF ELECTRICAL WORK. CONTRACTOR SHALL FURTHER GUARANTEE CORRECTION OF ANY WORKMANSHIP DEFECTS WHICH MAY APPEAR WITHIN THE STIPULATED GUARANTEED PERIOD, SUCH WORK SHALL BE REPLACED WITHOUT COST TO THE OWNER.

29. CONTRACTOR SHALL PAY FOR FEES, PERMITS, INSPECTIONS ETC., REQUIRED TO PERFORM WORK.

30. INSTALL PULL BOXES IN ACCESSIBLE LOCATIONS. POSITION ENCLOSURES SO TO PROVIDE ACCESSIBILITY PER THE NEC. POSITION ENCLOSURES SO COVERS ARE REMOVABLE.

STREETLIGHT CIRCUIT CAPACITY VERIFICATION FOR CIRCUIT "A"

IS THERE AN EXISTING SERVICE PEDESTAL IN THE FIELD (NOT PROPOSED) ADJACENT TO THIS PROPERTY THAT MIGHT BE ABLE TO BE USED TO POWER THIS PROJECT'S STREETLIGHTS? (CIRCLE)	YES	CONTACT CITY OF NORTH LAS VEGAS TRAFFIC OPERATIONS JEFF FREELS AT 702-239-2123 TO PERFORM CIRCUIT CAPACITY VERIFICATION.
	(NO)	INSTALL A NEW PEDESTAL.

SERVICE PEDESTAL LOCATION: GRAND TETON DRIVE STA. 10+98.36 OFFSET: 63.35' R

CITY OF NORTH LAS VEGAS (COMPLETE IF EXISTING SERVICE)

DATE OF CAPACITY VERIFICATION	–
PERSON WHO DID THE VERIFICATION	–

OFFSITE PLANS ENGINEER

PERSON WHO DID THE CALCULATIONS:	DERICK YORO
CONSULTING ENGINEERING FIRM:	SLATER HANIFAN GROUP

CAPACITY CALCULATIONS

1	CIRCUIT CAPACITY:	60	AMPS
2	MAXIMUM CONTINUOUS CIRCUIT DRAW (80%)	48	AMPS
3	EXISTING CIRCUIT LOAD (ENTER 0 IF NEW)	0	AMPS
4	AVAILABLE (2 MINUS 3)	48	AMPS
	PROPOSED LUMINAIRE LOAD TO CIRCUIT:		
5	NUMBER OF 150 WATT SILTS @ 1.0 AMPS/EA		AMPS
6	15 NUMBER OF 250 WATT SILTS @ 1.5 AMPS/EA	22.5	AMPS
7	TOTAL PROPOSED ADDITIONAL LOAD (5 + 6)	22.5	AMPS
	REMAINING AVAILABLE LOAD (4 MINUS 8)	25.5	AMPS

STREETLIGHT CIRCUIT CAPACITY VERIFICATION FOR CIRCUIT "B"

IS THERE AN EXISTING SERVICE PEDESTAL IN THE FIELD (NOT PROPOSED) ADJACENT TO THIS PROPERTY THAT MIGHT BE ABLE TO BE USED TO POWER THIS PROJECT'S STREETLIGHTS? (CIRCLE)	YES	CONTACT CITY OF NORTH LAS VEGAS TRAFFIC OPERATIONS JEFF FREELS AT 702-239-2123 TO PERFORM CIRCUIT CAPACITY VERIFICATION.
	(NO)	INSTALL A NEW PEDESTAL.

SERVICE PEDESTAL LOCATION: GRAND TETON DRIVE STA. 37+00.94 OFFSET: 71.69' R

CITY OF NORTH LAS VEGAS (COMPLETE IF EXISTING SERVICE)

DATE OF CAPACITY VERIFICATION	–
PERSON WHO DID THE VERIFICATION	–

OFFSITE PLANS ENGINEER

PERSON WHO DID THE CALCULATIONS:	DERICK YORO
CONSULTING ENGINEERING FIRM:	SLATER HANIFAN GROUP

CAPACITY CALCULATIONS

1	CIRCUIT CAPACITY:	60	AMPS
2	MAXIMUM CONTINUOUS CIRCUIT DRAW (80%)	48	AMPS
3	EXISTING CIRCUIT LOAD (ENTER 0 IF NEW)	0	AMPS
4	AVAILABLE (2 MINUS 3)	48	AMPS
	PROPOSED LUMINAIRE LOAD TO CIRCUIT:		
5	NUMBER OF 150 WATT SILTS @ 1.0 AMPS/EA		AMPS
6	15 NUMBER OF 250 WATT SILTS @ 1.5 AMPS/EA	22.5	AMPS
7	TOTAL PROPOSED ADDITIONAL LOAD (5 + 6)	22.5	AMPS
	REMAINING AVAILABLE LOAD (4 MINUS 8)	25.5	AMPS

LIGHTING FIXTURE SCHEDULE (SYMBOLS ARE NOT NECESSARILY USED ON THE DRAWINGS)

SYMBOL	TYPE	DESCRIPTION	POLE	ARM	LUMINAIRE	REMARKS
	A	NOT USED				
	B	NOT USED				
	C	26'-7" AMERON CONTEMPORARY SERIES POLE WITH 8' ARM AND ALUMINUM BALL CAP	2B226*	5AP8	GE EVOLVE LED ROADWAY LIGHTING SERIES (SEE LUMINAIRE TABLE)	POLE COLOR IS SONORA BEIGE (MIX 1731) ARM, LUMINAIRE, CAP, AND HANDHOLE TO BE PAINTED OLIVE BROWN (RAL 8008)
	D	SEE TRAFFIC SIGNAL PLANS				
	E	NOT USED				
	F	NOT USED				
	G	26'-3" AMERON CONTEMPORARY SERIES POLE WITH 15' STEEL CLAMP ARM AND ALUMINUM BALL CAP	MBBX08*	LMA15	GE EVOLVE LED ROADWAY LIGHTING SERIES (SEE LUMINAIRE TABLE)	POLE COLOR IS BROWN NATURAL (MIX 5131) ARM, LUMINAIRE, CAP, AND HANDHOLE TO BE PAINTED OLIVE BROWN (RAL 8008)

*SEE SHEET S1 FOR FOUNDATION DESIGN

LUMINAIRE TABLE

ROW WIDTH	GE EVOLVE LED ROADWAY LIGHTING
51' OR LESS	ERS1023B17404GREYL
52' TO 60'	ERL1004C140DGREYL
61' TO 80'	ERS10C3B15504GREYL
81' TO 100'	ERS20F3E1550DGREYL

APPROVAL:

MICHAEL HUDGEONS, P.E. DATE
CNLV TRAFFIC ENGINEER

CLV 731-98

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
STREETLIGHT PLAN

S18 T19S R61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO.
SUN1403-000

PROFESSIONAL ENGINEER - STATE OF NEVADA
DERICK DJ YORO
Exp: 06/30/2020
CIVIL
No. 16396
5/7/18

E-1
SHEET 69 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PRO.#:124070 AGREE:#115666 QS:124-07-SW/NE,124-18-NW/NE

J:\sun1403-000 grand teton replace flood control facility\dwg\improv\13 1594-01-ele-01.dwg 5/7/2018 7:44 AM Jane Crotty

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

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.
Call before you do UnderGround
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS
AND
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811
1-800-227-2600
AND
CLARK COUNTY TRAFFIC OPERATIONS
1-702-455-6000

DISCLAIMER:
UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND OR OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION. CONTRACTOR TO NOTIFY ENGINEER OF ANY CHANGES OR DISCREPANCIES.

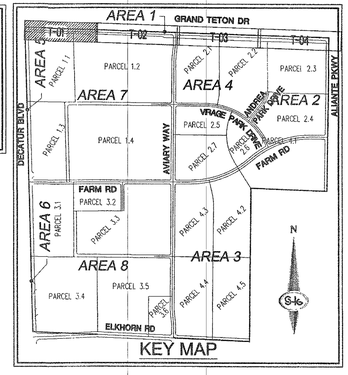
BENCHMARK:
NLV911/NWS
NAVD 88 ELEVATION PUBLISHED 6/30/15
699.482 METERS, 2294.88 FEET
ELEVATION USED FOR THESE PLANS, PRE-REVISION 699.511 METERS, 2294.98 FEET
RIVET AND 2" ROUND ALUMINUM DISK, STAMPED NORTH LAS VEGAS BM NO. NLV911/NWS, SET IN THE TOP OF CURB, LOCATED APPROX. 29 FEET SOUTH OF THE SOUTHEAST SOUTH BCR AT THE INTERSECTION OF GRAND TETON DR. AND ALIANTE PKWY.

LEGAL DESCRIPTION:
GOVERNMENT LOTS 5, 7, 10, 12, 14, 18, 19, 21, 24, 25, & 28 THROUGH 37, INCLUSIVE, OF SECTION 18, TOGETHER WITH GOVERNMENT LOT 7 OF SECTION 19, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA.

BASIS OF BEARINGS:
SOUTH 87°29'39" EAST, BEING THE SOUTH LINE OF GOVERNMENT LOT 19 OF SECTION 18, TOWNSHIP 19 SOUTH, RANGE 61 EAST, M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 104, PAGE 61 OF PARCEL MAPS.

GENERAL NOTES
A. REFER TO SHEET E-01 FOR SYMBOLS AND LEGEND.
B. BRANCH CIRCUITS AND HOME RUN CONDUITS SHALL BE 2"C-(-2)#4 AND (1)#8 GND WITH SPLICE IN BASE OF POLE WITH FUSE FOR EACH CIRCUIT AND #10 CONDUCTORS TO LIGHTING HEAD.
C. CONTRACTOR SHALL COORDINATE WITH NPCO FOR LOCATION OF CONNECTION AND SERVICE PEDESTAL SHALL BE LOCATED A MINIMUM OF 30' FROM NPCO TRANSFORMER.
D. AREA'S ARE INDICATED WITH FIRST NUMBER OF THE SHEET CALLOUT I.E. E-1.0 IS AREA 1, E-2.0 IS AREA 2 AND SO FORTH TO E-9.0 WHICH IS AREA 9
E. SEE SHEET E-01 FOR POLE AND PEDESTAL DETAILS.
F. ELECTRICAL CONDUIT TO BE INSTALLED BEHIND SNWA AVAR AND TEST STATIONS.

ALL TRAFFIC SIGNAL UNDERGROUNDS ARE SHOWN ON THE TS SHEETS OF AREAS 5/6 (CNLV #56887).



30 0 15 30 60
(IN FEET)
HOR. 1 INCH = 30 FT.

CONSTRUCTION NOTES
1. INSTALL R8-3S "NO PARKING" SIGN
2. INSTALL R2-1 "SPEED LIMIT" SIGN
3. INSTALL 1-36" R-1 STOP SIGN
4. INSTALL 2-12" D3 STREET NAME SIGN
5. INSTALL R1-4 "ALL-WAY" SIGN
6. INSTALL R7-107A SIGN WITH R.T.C. LOGO
7. INSTALL SP-1 BUS ROUTE SIGN PER USD NO. 234.3
8. INSTALL R7-107 "NO PARKING BUS STOP" SIGN
9. INSTALL R3-7R "RIGHT LANE MUST TURN RIGHT" SIGN
10. NOT USED
11. INSTALL R3-2 "NO LEFT TURN" SIGN
12. NOT USED
14. INSTALL R6-1R "ONE WAY" SIGN
15. INSTALL R5-1 "DO NOT ENTER" SIGN
16. INSTALL PAD MOUNT SERVICE PEDISTAL 125 AMP PER CCAUSD 331, 332.S1, 335.S1, AND 730
17. INSTALL 2" STREET LIGHT CONDUIT WITH 2 #4 AND 1 #8 THW COPPER CONDUCTORS
18. SEE TRAFFIC SIGNAL PLANS, TS SERIES, FOR INTERSECTION LIGHTING.
19. PROVIDE #3 1/2 PULLBOX.
20. EX. SIGN
21. INSTALL W9-2L "LANE ENDS MERGE LEFT" SIGN
22. INSTALL 1 36" R1-1 FLASHING STOP SIGN
23. INSTALL STREETLIGHT PER STANDARD ON SHEET E-1 "LIGHTING FIXTURE SCHEDULE" WITH 15' MAST ARM AND FOUNDATION LOCATION PER CCAUSD 320.
24. INSTALL STREETLIGHT PER STANDARD ON SHEET E-1 "LIGHTING FIXTURE SCHEDULE" WITH 8' MAST ARM AND FOUNDATION LOCATION PER CCAUSD 320.
25. INSTALL 4" PVC FIBER CONDUIT A #8 GREEN CONDUCTOR AND 72 STRAND SINGLE MODE FIBER
26. INSTALL P30 PULL BOXES WITH "FIBER OPTIC" INSCRIBED ON LID. TYPE 200 SPACE VAULT SHALL BE USED WHERE TRUNK LINES MEET AT INTERSECTION.
27. CONSTRUCT 5'X25' BUS STOP PASSENGER LOADING AND SHELTER PAD PER CCAUSD NO. 234.2
28. ENSURE THAT CONDUIT CROSSING WITH SWNS PIPE MEETS UTILITY SEPARATION GUIDELINE PER SNWA PLATE NO. 03-04-01

SIGN LEGEND
1. R8-3A
2. SPEED LIMIT 35 — R2-1
3. STOP — R1-1
4. GRAND TETON DR — D3
5. ALL WAY — R1-4
6. RTC — R7-107A
7. RTC (ROUTE #) — SP-1 BUS ROUTE SIGN
8. NO PARKING BUS STOP — R7-107
9. RIGHT LANE MUST TURN RIGHT — R3-7R
10. K-71 FLEXPOST BOLLARD
11. R3-2
12. BUSES EXEMPT — SP-2
14. ONE WAY — R6-1R
15. DO NOT ENTER — R5-1
21. LANE ENDS MERGE LEFT — W9-2L

STRIPING NOTES
1. INSTALL RAISED PAVEMENT MARKERS (ADDED LEFT/RIGHT TURN LANE) PER USD NO. 246
2. INSTALL TYPE 1 PAVEMENT MARKING (CROSS WALK BAR) PER USD NO. 254A
3. INSTALL RAISED PAVEMENT MARKERS (THROUGH LANES) PER USD NO. 244.1
4. INSTALL TYPE II PAVEMENT MARKING FILM (6-INCH SOLID WHITE LINE)
5. INSTALL TYPE 1 PAVEMENT MARKING FILM (STOP BAR) PER USD NO. 254A
6. RAISED PAVEMENT MARKERS AND TAPE PER USD NO. 245
7. NOT USED
8. INSTALL TYPE 1 PAVEMENT MARKING FILM (TURN ARROW) PER USD NO. 248
9. INSTALL TYPE 1 PAVEMENT MARKING FILM (BUSES ONLY) PER USD NO. 234.1
10. INSTALL YELLOW MEDIAN NOSE MARKING AND REFLECTIVE PAINT PER USD NO. 248
11. 8" SOLID WHITE LINE PER CC STD DWG 245
12. FUTURE STRIPING, BY OTHERS
13. EXISTING STRIPING
14. EXISTING STRIPING TO BE REPLACED
15. EXISTING STRIPING TO BE REMOVED
16. INSTALL BLUE REFLECTIVE MARKER

APPROVAL:
MICHAEL HUDGEONS, P.E. — DATE
CNLV TRAFFIC ENGINEER

CLV 731-98

GRAND TETON DRIVE
(PUBLIC)
INTERIM CONDITION

MATCHLINE STA 14+00 SEE ABOVE RIGHT
MATCHLINE STA 14+00 SEE BELOW LEFT
MATCHLINE STA 21+00 SEE SHEET T-02

DECATUR BLVD (PUBLIC)
SEE AREA 5 & 6 IMPROVEMENTS CNLV #56887 FOR CONTINUATION

REDBUD VINE STREET (PUBLIC)

FUTURE IMPROVEMENTS BY OTHERS
TEMPORARY AC SIDEWALK
ROW EASEMENT & DAYLIGHT LINE
EDGE OF PVMT
RIGHT OF WAY
PROPERTY LINE
NV POWER GRANT
EXISTING POWER POLE

SP-1 BUS ROUTE SIGN 12"x18"
R7-107A 12"x23"

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

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF NORTH LAS VEGAS

PH WEST HOLDINGS, INC.

VALLEY VISTA

AREA 1 - GRAND TETON DRIVE & RFC FACILITY
SIGNAGE AND STRIPING STA. 6+50 TO 14+50

S 18 T 19S R 61E

DATE: 5/07/2018
DRAFTER: OQ/JC
DESIGNER: OQ/JC
CHECKED: DY

PROJECT NO. SUN1403-000

DERICK D. YORO — Exp. 06/30/2020 — CIVIL — No. 16396 — STATE OF NEVADA — PROFESSIONAL ENGINEER
5/7/18

T-01
SHEET 70 OF 125

CNLV PROJECT NO. 57838
CLV PROJECT NO. 60221

PROJ.#:124070 AGREE.#115666 QS:124-07-SWINE,124-18-NWINE

J:\sun1403-000 grand teton regional flood control (civil)\dwg\improv\T1 1934-01-L-05-07.dwg 5/7/2018 9:46 AM Jane Gretty