

DEVIATIONS FROM STANDARDS	
NONE.	

SEWER IMPROVEMENTS		
DESCRIPTION	PUBLIC	PRIVATE
8-INCH SEWER	33 LF	598 LF
SEWER MANHOLE UNDER 6 FEET	1 EA	6 EA
WATER AND FIRE IMPROVEMENTS		
DESCRIPTION	PUBLIC	PRIVATE
8" WATER MAIN	348 LF	LF
1.5" CU WATER LATERAL	140 LF	LF
1" CU WATER LATERAL	35 LF	LF
8" WATER LATERAL	57 LF	LF
8" RPDA	2 EA	EA
WATER MAIN TAP	7 EA	LF
WATER SERVICE TO LOTS	4 EA	EA
LANDSCAPE WATER SERVICE	1 EA	EA
FIRE HYDRANT	EA	3 EA

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 EDITION; THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA"; LATEST REVISED EDITION; THE "SUMMERLIN DRAINAGING 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 APPLIED, EXCEPT AS NOTED ON THIS SHEET AS DEVIATIONS FROM STANDARDS.
2. ALL EXISTING AND NEW CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL 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 G.L.V PLANS LIBRARY ARE APPROPRIATE 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 RISK, LOCATE AND VERIFY THE EXISTING UTILITIES. ANY CHANGES 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 NECESSARY PRECAUTIONS 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 EXTENDED-TYPE CURB.
8. AS PAVEMENT TO BE ONE-HALF INCH (1/2") ABOVE UP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.
9. CURBS 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 SUCH TRANSITIONS TO BE AS NECESSARY TO INSURE PROPER DRAINAGE.
12. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY THE NOVA GEOTECHNICAL AND INSPECTION SERVICE PROJECT-18-045, DATED 4/5/2018, APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.
13. EXACT LOCATION OF A REMOVED LINE MAY BE ADJUSTED OR DETERMINED IN THE FIELD BY A CITY OF LAS VEGAS ENGINEER. LOCATION OF PLANS IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRES RELOCATION.
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. 200.010 OF LATEST EDITION.
15. 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. 200.010 OF LATEST EDITION.
16. ANY 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 WALK NOTES.
17. ALL UTILITIES NOW 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.
18. ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT MIXTURE.
19. 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.
20. MANHOLE MANHOLE, STORM DRAIN, PORTS AND TRANSITION STRUCTURES SHALL BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF THE MDT OR THE CLARK COUNTY AREA SPECIFICATIONS (AS APPLICABLE) AND THE PLANS AND DETAILS SHOWN HEREON.
21. 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 BORE.
22. AFTER HAUNCHING AND PRIOR TO BACKFILL OPERATIONS WHICH WOULD COVER SANITARY SEWER AND STORM DRAIN FACILITIES, CONTRACTOR IS REQUIRED TO SCHEDULE GUY OPEN-TRENCH UTILITY SURVEY INSPECTION FOR DETERMINATION OF FINAL LOCATION COORDINATES. FACILITIES TO BE LOCATED BY GUY SHALL INCLUDE AT A MINIMUM THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF THE EXISTING PUBLIC UTILITY AND SEWER LATERAL NETWORKS OF THE CITY OF LAS VEGAS. EXISTING LOCATION MAPS MUST BE AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DRAIN INLET. THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIST IN THE PUBLIC RIGHT-OF-WAY, SEWER AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS.
23. (1) SANITARY SEWER ONLY ON PROJECTS ASSOCIATED WITH A TENTATIVE MAP CONTAINING 5 LOTS OR MORE)
(2) SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S) SHALL BE PROVIDED TO THE CITY AND APPROVED PRIOR TO ACCEPTANCE OF FACILITY VERTICAL ALIGNMENT. THE MAP(S) SHALL INCLUDE THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF THE EXISTING MANHOLE, STORM DRAIN, PORTS AND TRANSITION STRUCTURES AND SEWER SERVICE LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DRAIN INLET. THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIST IN THE PUBLIC RIGHT-OF-WAY, SEWER AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS. THE LOCATION SHALL BE DESCRIBED BY COORDINATES WHICH SHALL BE BASED ON THE EXISTING HORIZONTAL AND VERTICAL (INVERT) NETWORKS OF THE CITY OF LAS VEGAS. EXISTING LOCATION MAPS MUST BE SEALED AND CERTIFIED BY A LICENSED PROFESSIONAL LAND SURVEYOR TO HAVE POSITIONAL CERTAINTY 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).
24. CITY ENGINEER INSPECTION AND TESTING SHALL BE REQUIRED TO VERIFY THE LOCATION OF THE SANITARY SEWER AND STORM DRAIN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS LATEST EDITION.
25. A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.

CITY OF LAS VEGAS STREETLIGHT NOTES

1. ALL STREET LIGHTING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STREET LIGHTING PLANS, THE "UNIFORM STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION (USS), AND THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA" (USD), LATEST REVISION.
2. DESIGN PROFESSIONAL AND CONTRACTOR SHALL VERIFY CITY'S LATEST LED FIXTURE SPECIFICATIONS AND APPROVED FIXTURES PER CLW WEBSITE, UNDER BUILDING AND SAFETY FORMS, PRIOR TO ORDERING MATERIALS.
3. NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUTIS, ETC., LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE TRAFFIC AND CITY ENGINEER. ANY DEVIATION FROM THE PLAN LOCATION WILL REQUIRE COMPLIANCE WITH SECTION 623.3 OF THE USS.
4. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 623.3 G.0.0.01 OF THE USS.
5. IF EMPTY CONDUIT SHALL HAVE AT LEAST ONE GREEN NO. 10 AWG WIRE INSTALLED AS TRACER WIRE IN ACCORDANCE WITH SECTION 623.6 G.0.0.01 OF THE USS PRIOR TO BACKFILLING AND FINAL INSPECTION.
6. ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE IN COMPLIANCE WITH UDO 30.02A WHEN POLE IS INSTALLED BETWEEN SIDEWALK, AND SHALL AT NO TIME COMPLETELY ENCLOSE THE STREET LIGHT POLE.
7. AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE TRAFFIC ENGINEERING DIVISION PRIOR TO ANY PRE-FINAL INSPECTION. THE AS-BUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.
8. SERVICE POINTS SHALL BE COORDINATED WITH NV ENERGY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CURB. SERVICE POINTS SHALL BE SHOWN ON THE PLANS.
9. WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREETLIGHTING CIRCUITS AND/OR POLES, THESE CONFLICTS MUST BE RESOLVED BETWEEN THE DEVELOPER AND THE UTILITIES INVOLVED BEFORE STREETLIGHTING BASES ARE INSTALLED. AT NO EXCEPT TO THE CITY OF LAS VEGAS.
10. THE CONTRACTOR SHALL FURNISH COMPLETE CONDUIT, WIRE, ETC. FROM SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON THE PLANS.

CITY OF LAS VEGAS TRAFFIC SIGNAL NOTES

1. ALL WORK PERFORMED ON ANY TRAFFIC SIGNAL COMPONENT MUST BE UNDER THE DIRECT ON-SITE SUPERVISION OF AN INNSA CERTIFIED TECHNICIAN. THE LEVEL OF CERTIFICATION REQUIRED SHALL BE LEVEL II.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ALL EXISTING UTILITIES, THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN ON THE CITY RECORDS AND/OR FIELD SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFY ALL UTILITY COMPANIES TO VERIFY IN THE FIELD THE LOCATIONS OF THEIR INSTALLATIONS 72 HOURS PRIOR TO CONSTRUCTION.
CALL-BEFORE-YOU-OVERHEAD 1-702-227-2929
CALL-BEFORE-YOU-DIG 1-800-227-2600
STREETLIGHTS 1-702-226-6331
FAST 1-702-432-5300
3. ALL TRAFFIC SIGNAL INSTALLATIONS SHALL CONFORM TO THE UNIFORM STANDARD DRAWINGS SPECIFICATIONS AND SPECIAL PROVISIONS FOR PUBLIC TRANSPORTATION OFF-SITE IMPROVEMENTS, 2006 COUNCIL ACTION PLAN, VOLUMES I AND ADOPTED BY THE REGIONAL TRANSPORTATION COMMISSION APRIL 8, 1992 WITH ALL SUBSEQUENT REVISIONS. BRACKET MOUNTED (SIDE-MOUNTED) VEHICLE SIGNAL ASSEMBLIES WITH 2 OR MORE SIGNAL HEADS SHALL HAVE AN ADDITIONAL ELBOW AS SHOWN IN UNIFORM STANDARD DRAWING NUMBER 663 AND SHOW AS OPTION B IN UNIFORM STANDARD DRAWING NUMBER 664. ALSO SHOW A MENUSALL SIGNAGE AS SHOWN IN UNIFORM STANDARD DRAWING NUMBER 663 IF ONE OF THE SIGNAL HEADS FEATURES 2 OR MORE SIGNAL MODULES.
4. SERVICE SHALL HAVE 1-60 AMP SINGLE POLE BREAKER FOR SIGNAL, AND ONE 40 AMP SINGLE POLE BREAKERS FOR STREET LIGHTS. SERVICE SHALL HAVE 1-60 AMP SINGLE POLE BREAKER FOR SIGNAL, AND ONE 40 AMP SINGLE POLE BREAKERS FOR STREET LIGHTS.
5. LINE SIDE OF METER TO BE BETWEEN 43% /#3 AWG THW LOAD SIDE SHALL BE WIRED WITH FOUR #4 AWG THW (2 BLACK, 2 WHITE) AND ONE #6 AWG THW (GREEN).
6. LUMINAIRES ON ALL SIGNAL POLES SHALL BE LED'S. AS APPROVED BY THE CITY OF LAS VEGAS (CLV), DESIGN PROFESSIONAL AND CONTRACTOR SHALL VERIFY CITY'S LATEST FIELD SPECIFICATIONS AND APPROVED FIXTURES PER CLV WEBSITE. UNDER BUILDING AND SAFETY FORMS, TYPE 1, TO OBTAIN MATERIALS, INTERSECTION LIGHTING SHALL MEET THE REQUIREMENTS OF UNIFORM STANDARD DRAWING NUMBER 300.5.3. EACH LUMINAIRE SHALL HAVE AN INDIVIDUAL 100 WATT P.E. CONTROL FOR LUMINAIRES THERE SHALL BE 2(W)/#4 AWG THW CONDUCTORS FROM THE SERVICE TO THE CABINET. IN THE CABINET, THE #4 AWG THW CONDUCTORS SHALL BRANCH OUT INTO #10 AWG THW CONDUCTORS INDIVIDUALLY FUSED TO 10 AMP FUSES. THERE SHALL BE NO SPLICES BETWEEN THE CABINET AND LUMINAIRE FIXTURES.
7. THE INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE WIRED TO THE LUMINAIRES PHOTO CELL FOR CONTROL WITH #10 AWG THW COPPER STRANDS WIRE (TYPICAL). THE SIGN SHALL BE WIRED TO THE LUMINAIRE DIRECTLY ABOVE IT. IN THE EVENT THERE IS NO LUMINAIRE DIRECTLY ABOVE THE SIGN, THE SIGN SHALL BE WIRED TO THE NEXT LUMINAIRE ABOVE THE SIGN. CAP. ALL NEW ILLUMINATED STREET NAME SIGNS SHALL HAVE LIGHT EMITTING DIODE (LED) LAMPS PER SECTION 623.10.2.16 OF THE SPECIAL PROVISIONS.
8. CHECK CONDUIT AND CABLE SCHEDULE FOR CONDUIT, CABLE, AND WIRE SIZE. VERIFY ALL EXISTING CONDUIT RUNS.
9. ALL PULLBOXES SHALL BE IN ACCORDANCE WITH UNIFORM STANDARD DRAWINGS NOS. 705, NO. 706, AND NO. 707.
10. TRAFFIC SIGNAL CABLE SHALL BE 15 OR 25 CONDUCTOR #14 AWG SIGNAL (TYPICAL) CABLE AND SHALL CONFORM TO INNSA SPEC. NO. 20-1.
11. PEDESTRIAN PUSH BUTTON SHALL BE ADJUSTABLE TACTILE "POLARA NAVIGATOR" TYPE (2-WIRE PEDESTRIAN PUSHBUTTON SYSTEM WITH N2 PUSH BUTTON -CTIONS AND SELF-HOLDING BUIO CONTROL WITH SOLID CABLE) OR CAMPBELL COMPANY WAAPS WIRELESS PULSRARIAN PUSHBUTTON SYSTEM WITH APC IN ACCORDANCE WITH CITY OF LAS VEGAS SPECIAL PROVISIONS AND SECTION 623 OF THE C.V.A. URBAN PUSH BUTTON SIGNS SHALL BE R10-36 PER MTD. 2009 EDITION, WITH FULL POINTING BRACKETS, AS MODIFY BY THE MANUFACTURER. ALL R10-36 SIGNS SHALL BE ALUMINUM EXTRUSION WITH ANODIZED METAL. ALL SIGNS SHALL BE MOUNTED 42" ABOVE SIDEWALK. THE MAXIMUM HORIZONTAL REAR DISTANCE IS TO BE 10". SIDEWALK RAMPS WILL BE ACCORDING TO U.S.D. NO. 235 (4-1) LATEST EDITION, WHEN AN EXISTING SIGNAL WITH EXISTING ADJUSTABLE-TACTILE PUSH BUTTONS IS MODIFIED. THE CONTRACTOR SHALL VERIFY NEW PEDESTRIAN PUSH BUTTONS OR CABINET EQUIPMENT MATCHES THE MANUFACTURE OF ANY EXISTING EQUIPMENT. ALL EQUIPMENT SHALL BE SCHEDULED TO REMAIN, TO PROVIDE A FULLY FUNCTIONING SYSTEM. THE CONTRACTOR SHALL PROVIDED AND INSTALL ALL CABINET EQUIPMENT, INCLUDING THE PEDESTRIAN PUSH BUTTON CONTROL UNIT, INTERFACE PANEL, AND ANY REQUIRED HARNESSSES, TO PROVIDE A FULLY FUNCTIONING SYSTEM.

CITY OF LAS VEGAS TRAFFIC NOTES

1. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" LATEST EDITION.
2. THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT prior TO CONSTRUCTION.
3. BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION OF WORK. THE CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING CITY STREETS WHERE WARRANTED IMMEDIATELY AFTER FIRST GRADING WORK IS ACCOMPLISHED, AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.
4. WHEN A DESIGNATED "SUGGESTED ROUTE TO SCHOOL" IS ENCLOSED UPON BY A CONSTRUCTION WORK ZONE AND PUBLIC WORKS STAFF DURING THE CONSTRUCTION PERIOD, A SIGNPOST SHALL BE PLACED AT THE ENTRANCE TO THE WORK ZONE. THE SIGNPOST SHALL BE REQUIRED TO PROVIDE A QUALIFIED "CROSSING GUARD". THE GUARD SHALL BE PRESENT FOR THE FULL DURATION OF TIME THAT CHILDREN ARE LIKELY TO BE PRESENT.
5. TO THE IMPROVEMENTS INCLUDING THE CULBERTATION, TEMPORARY OBSTRUCTION, TEMPORARY REMOVAL, OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED WITH LAKE MATERIALS TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. ALL NEW TRAFFIC SIGNS SHALL BE UTILIZED IN THE FIELD OF RETROREFLECTIVE SHEETING IN ACCORDANCE WITH 827 AND 8716 AND SHALL HAVE AN ANTI-DRAFT/PROTECTIVE OVERLAY FILM THAT IS A MATCHING COMPONENT TO, AND OF THE SAME MANUFACTURER AS THE RETROREFLECTIVE SHEETING TO WHICH IT IS APPLIED. STREET NAME SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CURRENT CITY STANDARDS. ALL OTHER SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY STANDARDS.
7. WHEN A PROPOSED STREET LIGHT STANDARD IS LOCATED WITHIN FIVE (5') FEET OF ANY PROPOSED SIGN SHOWN ON THE PLANS TO BE MOUNTED ON A SIGNPOST, THE SIGN SHALL BE MOUNTED ON THE STREET LIGHT STANDARD AND THE SIGNPOST SHALL BE ELIMINATED.
8. ALL PERMANENT TRAFFIC CONTROL DEVICES FOR ALL WORK SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE PORTIONS OF THE ROAD(S) BEING IMPROVED UNDER HERE, REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.
9. STREET SIGNS AND STOP SIGNS SHALL BE INSTALLED PER CITY STANDARD SPECIFICATIONS FOR PLACEMENT OF STREET NAME SIGNS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL TRAFFIC DEVICES AND PLACING THEM TO PROTECT THE SAFETY OF THE PUBLIC IN OR AROUND THE WORK AREA. THE CONTRACTOR SHALL HAVE A CERTIFIED ATSSA TRAFFIC CONTROL TECHNICIAN OR IMSA WORK ZONE SAFETY SPECIALIST SET UP, MAINTAIN AND/OR REMOVE ALL TRAFFIC CONTROL DEVICES IN AS TO CITY OF LAS VEGAS RIGHT OF WAY.
11. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE EXPEDITED TO COMPLETION SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT BUSINESS AND HOME OWNERS AND RESIDENTS.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING CITIZENS AREA TRANSIT (C.A.T.) IF THE CONSTRUCTION INTERRUPTS OR RELOCATES A BUS STOP OR HAS AN ADVERSE EFFECT ON BUS SERVICE ON THAT STREET TO ARRANGE FOR TEMPORARY RELOCATION OF STOP.
13. GUARDS SHALL BE OBTAINED BY CONTACTING THE METROPOLITAN POLICE DEPARTMENT SPECIAL EVENTS UNIT (PHONE # 829-3442) WHICH WILL BE ISSUED PROPERLY TRAINED IN TRAFFIC CONTROL. FEES FOR THE USE OF THESE OFFICERS SHALL BE SET BY METRO AND WILL BE PAID BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL ARRANGEMENTS WITH METRO.
14. ANY WORK WITHIN 300' OF A SIGNALIZED INTERSECTION WILL BE NIGHT WORK, UNLESS DIRECTED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.
15. THE CONTRACTOR SHALL CONTACT THE TRAFFIC ENGINEERING DIVISION (TRANSPORTATION SECTION) THROUGH THE PROJECT'S OFFSITE INSPECTOR PRIOR TO INITIATING PAVEMENT TO RECEIVE DIRECTION FOR ANY PERMANENT OR TEMPORARY MODIFICATIONS TO THE APPROVED DRAWINGS REGARDING FINAL PAVEMENT TRANSITIONS, MARKINGS AND SIGNING THAT ARE REQUIRED TO MATCH ADJACENT ROADWAY SEGMENTS.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL TRAFFIC DEVICES AND PLACING THEM TO PROTECT THE SAFETY OF THE PUBLIC IN THE FINAL PAVEMENT MARKINGS AND SIGNAGE, WHICH MAY INCLUDE OMITTING, ADJOINING OR MODIFYING PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS SUCH THAT ADEQUATE TRANSITIONS AND LANE TERMINATIONS BETWEEN ADJACENT ROADWAY SEGMENTS ARE CONSTRUCTED.

LAS VEGAS FIRE & RESCUE FIRE PREVENTION FIRE HYDRANT AND ACCESS 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. ON-SITE HYDRANTS THAT ARE ON THE LAS VEGAS VALLEY WATER DISTRICTS' APPROVED PRODUCTS LIST ARE ALLOWED TO BE INSTALLED.
3. A PERMIT IS REQUIRED FOR LAS VEGAS FIRE AND RESCUE FOR THE INSTALLATION OF ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTORS MATERIAL TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER BEFORE THE COMMENCEMENT OF WORK.
4. ON ANY RESIDENTIAL OR COMMERCIAL INSTALLATIONS, FIRE HYDRANTS SHALL BE INSTALLED AND FIRE APPARATUS ACCESS ROADS 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.
5. TO IDENTIFY THE LOCATION OF CONNECTIONS, THE CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF THE STREET ADJACENT TO THE FIRE HYDRANTS.
6. ALL UNDERGROUND INSPECTIONS, PRESSURE AND FLUSH VERIFICATIONS OF ALL FIRE HYDRANTS AND FIRE LINES, SHALL BE CONDUCTION BEFORE COVERING THE LINES. CENTER LOADING IS ACCEPTABLE FOR THE HYDRO TEST WITH PRIOR FIRE PREVENTION APPROVAL.
7. ALL ON-SITE UNDERGROUND WATER MAINS AND MATERIALS SHALL BE U.L. LISTED, A.N.S.I. APPROVED AND SHALL BE RATED FOR THE APPROPRIATE WORKING PRESSURE.
8. PAINTING OF CURBS, FIRE HYDRANTS, PADS, PROTECTION OF SIRE HYDRANTS FROM PHYSICAL DAMAGE, AND ALL OTHER WORK NECESSARY FOR PROTECTION OF THE WATER MAINS SHALL BE COMPLETED BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION.
9. PRIVATE HYDRANTS SHALL BE PAINTED RED.
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.
11. FIRE HYDRANT SPACING SHALL BE AS FOLLOWS:
 - a. RESIDENTIAL-500 FT UNSPRINKLERED; 600 FT SPRINKLERED.
 - b. COMMERCIAL-300 FT UNSPRINKLERED; 400 FT SPRINKLERED.
12. WHERE FIRE WATER MAINS ARE EXTENDED ALONG STREETS OR NEW STREETS ARE INSTALLED WHERE FIRE HYDRANTS ARE NOT NEEDED FOR PROTECTION OF THE STRUCTURES, FIRE HYDRANTS SHALL BE INSTALLED AT A MAXIMUM OF 1000 FT SPACING, TO PROVIDE FOR

[illegible]

THIS QUANTITY ESTIMATE IS FOR BONDING PURPOSES ONLY. CONTRACTOR TO DETERMINE INDEPENDENT ESTIMATES.

SOUTHWEST GAS CONSTRUCTION NOTES

1. IN THE EVENT OF NATURAL GAS EMERGENCIES CALL 911 AND 1-877-860-6020

2. MINIMUM HORIZONTAL AND VERTICAL CLEARANCES BETWEEN NATURAL GAS FACILITIES AND ANY UNDERGROUND UTILITIES AND/OR STRUCTURES, INCLUDING BUT NOT LIMITED TO WATER, SEWER, STORM DRAIN, COMMUNICATIONS, AND ELECTRIC SHALL BE AT LEAST 12-INCHES OR GREATER AS DICTATED BY LOCAL CODES AND STANDARDS

3. ANY DEVIATION FROM SPECIFIED MINIMUM CLEARANCES MUST BE APPROVED BY ALL AFFECTED UTILITIES AND/OR MUNICIPALITIES

4. FOR VALVE ADJUSTMENT CONTACT 702-668-5107 48 HOURS PRIOR TO CONSTRUCTION

5. IN THE EVENT OF A NATURAL GAS CONFLICT WITH PROPOSED UTILITIES AND/OR STRUCTURES CONTACT 702-365-2099

CAUTION, HIGH PRESSURE GAS

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

Angie Stewart

SOUTHWEST GAS APPROVAL

2/24/15
DATE

STORMWATER MANAGEMENT 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 RIGHT-OF-WAY AS WELL AS ANY OTHER AREAS OF THE SITE DURING THE CONSTRUCTION DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE SPECIFIC BEST MANAGEMENT PRACTICES MAY BE REQUIRED BY THE OWNER OR HIS/HER AGENTS TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN THE CITY OF 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 AFTER THE COMPLETION OF THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA CONSTRUCTION ACTIVITY BEST MANAGEMENT PRACTICES MANUAL FOR THE NEVADA STORMWATER MANAGEMENT ACTIVITY. THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE, AND EXIT LOCATIONS, AND ALL BERTS, WEEKLY, AND MONTHLY AFTER EACH RAINFALL EVENT OF 0.3 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 SUPPRESSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NR0000000, SECTION II.A.12.
4. 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 NOTES

LVVWD PROJECT # 136089

REVISED 08/01/2017

1. NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE LVVWD. FOLLOWING WATER PLAN APPROVAL, NOTICE SHALL BE GIVEN TO THE LVVWD COMMUNICATION SUPPORT CENTER (258-7171) TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION. FOR FUTURE INSPECTIONS, NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO THE REQUESTED LVVWD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT # IDENTIFIED ABOVE.
2. ALL WORK SHALL CONFORM TO LVVWD STANDARD PLATS, DRAWINGS, AND SPECIFICATIONS; AND TO THE 2010 EDITION OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS). THE LATEST EDITION OF UDACS SHALL SUPERSEDE ANY CONFLICTS CONTAINED IN THE APPROVED DRAWINGS AND/OR SPECIFICATIONS.
3. ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2 ABOVE, SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENT, CLARK COUNTY AREA.
4. A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVVWD.
5. ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING WITH LVVWD APPROVED SERVICE SADDLES.
6. ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
7. ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB OUTTERS.
8. ALL WATER AND STORM DRAIN OR SANITARY SEWER CROSSINGS SHALL CONFORM TO SECTION 2.22 OF THE 2010 EDITION OF THE UDACS.
9. ALL WATER FACILITIES AND APPURTENANCES SHALL BE DISINFECTED, PRESSURE TESTED, AND HAVE AN ACCEPTABLE PASSING HEALTH WATER SAMPLE OBTAINED, PRIOR TO OPERATION AND USE.
10. THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 OR 258-3802, TWO (2) WORKING DAYS PRIOR TO METER PICKUP.
11. ANY INTERRUPTION OF SERVICE MUST BE PERFORMED IN ACCORDANCE WITH UDACS SECTION 3.14.01, AND APPROVED BY THE LVVWD INSPECTION DIVISION PRIOR TO SHUTDOWN. PROPER WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.
12. ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVVWD APPROVED PRODUCT'S LIST FOR NEW FACILITIES, LATEST REVISION, OR SPECIALLY APPROVED ON THESE PLANS BY SUBMITTING SHOP DRAWINGS.
13. TELEPHONE "CALL BEFORE YOU DIG" AT "811" OR 1-800-227-2600.
14. THE INSTALLATION OF LVVWD MUNICIPAL WATER FACILITIES WITHIN ALL STREETS IS ASSUMED TO BE IN COMPLIANCE WITH THE UNIFORM STANDARDS, INCLUDING THE PLACEMENT OF ASPHALT PAVING SURFACE. 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 ADJUTING 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 PLAN FINISH CONCRETE PATCH. THE LVVWD WILL NOT RESTORE, AND WILL NOT BE RESPONSIBLE FOR THE RESTORATION, OF ANY DECORATIVE PAVING SURFACE WITHIN THE STREET. THE LVVWD WILL NOT ATTEMPT TO MATCH COLOR OR FINISH OF ANY ADJACENT MATERIALS.

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

APPROVED FOR CONSTRUCTION


LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT No. 136089 FIRST APPROVED DATE: 3-6-19
LVVWD APPROVED FIRE FLOW: TOTAL 2,750 GPM / ONSITE 2,750 GPM

13. ALL CHANGES SHALL BE APPROVED BY THE ENGINEER.

14. THE TRAFFIC SIGNAL SHALL BE ADJACENT (NO GAP) TO THE W-5 SIGNAL HEAD, WHERE FLASHING YELLOW ARROW LEFT TURN SIGNALS ARE USED, A MAST ARM SHALL BE "12" LEFT TURN LAMP ON FLASHING YELLOW ARROW" SIGN SHALL BE MOUNTED ADJACENT TO THE W-5 SIGNAL HEAD.

15. TRAFFIC SIGNAL CABLE SHALL BE TYPE VII CABLE UNLESS OTHERWISE SPECIFIED IN THE PLANS. THIS IS COMMONLY REFERRED TO AS AN "R" CABLE. THE CABLE SHALL CONFORM TO THE CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS AND THE CITY OF LAS VEGAS SPECIAL PROVISIONS. INSTALL CABLE NEAR THE R.O.W. LINE OR AS SHOWN ON THE PLANS. THE TRAFFIC SIGNAL SHALL BE INSTALLED IN THE CENTER OF THE SIGNAL HEAD. THE CABLE SHALL BE INSTALLED IN CHANNEL R CABLEB AND SHALL INCLUDE TWO (2) RACK-MOUNTED, 12 SLOT, LOW DETECTION RACKS, WITH 2 DETECTOR LOOP CHANNELS PER SLOT FULLY WIRED SO THAT ALL CHANNELS ARE USABLE AND 4 CHANNEL SLOTS THAT CAN ACCOMMODATE VIDEO DETECTION CABLES. THE CABLEB SHALL CONTAIN A 768 OPTIC FIBER PHASE SELECTOR IN A 760 RACK, WITH A 768 AUXILIARY PHASE SELECTOR IN A 768 RACK. THE CABLE SHALL BE INSTALLED IN THE CENTER OF THE SIGNAL HEAD.

16. THE CONTRACTOR SHALL SUPPLY A MAINTENANCE MANAGEMENT UNIT (MMU) AND TRAFFIC SIGNAL CONTROLLER TO THE CITY OF LAS VEGAS TRAFFIC SIGNAL REPAIR SHOP A MINIMUM OF FOURTEEN DAYS PRIOR TO SIGNAL TURN-ON OR PRIOR TO CONVERTING TO A NEW PHASING SCHEME, FOR TESTING AND PROGRAMMING PURPOSES. THE CONTROLLER SHALL BE A NATECO 980 ARTI TYPE 2 OR EQUIVALENT. THE MMU SHALL BE A MODEL MMU-1600GE AS MANUFACTURED BY RENEO, OR APPROVED EQUIV. THE CONTRACTOR SHALL DELIVER THE CONTROLLER AND MMU TO, AND PICKUP THE CONTROLLER AT 2805 RENEUS DRIVE. CONTRACTOR SHALL NOTIFY THE TRAFFIC SIGNAL REPAIR SHOP (702-76076) SEVEN DAYS PRIOR TO PICK UP. THE CITY, AT ITS DISCRETION, MAY PROVIDE A DIFFERENT TYPE OF MMU OR CONTROLLER FOR FUTURE TURN-ON OF OTHER CITY PERSONNEL. THE CITY CONTRACTOR OR MMU AFTER THE PROJECT IS ACCEPTED.

17. CONTRACTOR SHALL POTHOLE SIGNAL POLE LOCATIONS PRIOR TO ORDERING OF POLES.

18. MAST ARMS SHALL BE 12' LONG. THE MAST SHALL BE 12' LONG. THE MAST SHALL BE TO BE FABRICATED WITH END TENON ONLY. THE END TENON SHALL BE FACTORY INSTALLED AND THE REMAINING TENONS SHALL BE FABRICATED IN THE FIELD AT THE LOCATION SHOWN ON THE PLANS OR AS DIRECTED BY THE TRAFFIC ENGINEER AND/OR HIS AUTHORIZED REPRESENTATIVE. FOR TOWER FABRICATION DETAILS SEE CLARK COUNTY AREA U.S.D. NO. 808 SHEET 2, ALL WELDING SHALL CONFORM TO AWS D 2.0, 2001 SPECIFICATIONS FOR WELDING OF STEEL STRUCTURES, AND TO THE CITY OF LAS VEGAS SPECIAL PROVISIONS AND ALL OF THE SPECIFICATIONS. ALL EXPOSED WELDS, SHALL BE PAINTED AS PROVIDED FOR REPAIRING DAMAGED GALVANIZED SURFACES.

19. ALL VEHICLE AND PEDESTRIAN SIGNAL INDICATIONS SHALL HAVE LIGHT EMITTING DIODE (LED) TYPE INDICATIONS, IN CONFORMANCE TO THE CITY OF LAS VEGAS SPECIAL PROVISIONS AND TO SECTION 623 OF THE C.O.A. U.S.S. ALL PEDESTRIAN SIGNALS SHALL BE "WALK" AND "DON'T WALK" SIGNALS. ALL VEHICLE SIGNALS SHALL BE "LEFT TURN", "THROUGH", "RIGHT TURN", OR "DAUGHT" MODEL #330-6479-001, APPROVED EQUIV. THE "COUNTDOWN" MESSAGE SHALL NOT FLASH. WHERE EXISTING SIGNALS ARE MODIFIED, THE CONTRACTOR SHALL VERIFY THAT LED PEDESTRIAN INDICATORS FOR A SPECIFIC PHASE ARE OF THE SAME MANUFACTURE SO THAT THEY FUNCTION CORRECTLY, OR SHALL REPLACE ALL COUNTDOWN PEDESTRIAN INDICATORS FOR THAT PHASE.

20. VIDEO DETECTION SYSTEMS SHALL BE TS2 COMPATIBLE AND SHALL INPUT DETECTOR CALLS TO THE CONTROLLER THROUGH AN SDC CABLE. SYSTEMS WILL BE EITHER TYPES E2-2IN PROCESSORS WITH WRACKS-P5, EDE2-12-IN-PAK AND EDGECONNECT (P6, IP ADDRESSABLE), PE2K IDEOTRAK (Q WITH ETHERNET PORT AND SDC), OR TRACON VPI WITH VERCON (IP ADDRESSABLE), AND PIM (SDC). WHEN VIDEO DETECTION IS SPECIFIED ON THE TRAFFIC SIGNAL PLANS, ALL VIDEO DETECTION SYSTEMS WILL BE STAND ALONE SYSTEMS TO INCLUDE ALL NECESSARY EQUIPMENT TO PROGRAM THE VIDEO DETECTION SYSTEM. A PROGRAMMING "SOFTWARE", KEYPAD OR LAPTOP COMPUTER (IF REQUIRED FOR PROGRAMMING THE VIDEO DETECTION SYSTEM) AND APPROPRIATE SENSORS WILL BE SUPPLIED. EACH VIDEO SYSTEM, PERSONAL COMPUTER (PC) SHALL NOT BE INSTALLED UNDER THE CABLES. A VIDEO CAMERA (COLOR OR B/W SCREEN OR B/W) SHALL BE USED WITH EACH DETECTOR. THE VIDEO CAMERA SHALL BE A VIDEO CAMERA WILL HAVE POWER AND VIDEO CABLE DIRECTLY FROM THE CABINET. COAXIAL CABLE WILL BE TYPE 8291 (SINGLE CENTER CONDUCTOR), CAMERAS THAT USE A PREFABRICATED CABLE INTEGRATING POWER AND COAXIAL CABLE INTO A SINGLE WEATHERPROOF MANUFACTURE ARE ACCEPTABLE. "BNC" ARE THE ONLY ACCEPTABLE TERMINATION OF COAXIAL CABLES; CAMERAS WILL BE MOUNTED PER CONTRACTOR'S RECOMMENDATIONS AND THE CLV TRAFFIC ENGINEERING DIVISION APPROVAL. VIDEO CAMERAS SHALL BE COLOR. CAMERAS SHALL BE MOUNTED AT A MINIMUM 6' FEET RISSER ON THE MAST ARM WITH EXTENSION BRACKETS (TYPE AG-0175-74-62 OR EQUIVALENT). THE LOCATION OF THE CAMERA ON THE MAST ARM SHALL BE APPROVED BY THE TETO TRAFFIC ENGINEERING DIVISION. A VIDEO FILTER (COX6-BNYC OR EQUIVALENT) WILL BE INSTALLED IN THE SIGNAL CABINET FOR EACH CAMERA VIDEO INPUT. VIDEO DETECTION PROCESSORS AND COMMUNICATIONS CARDS SHALL BE PROVIDED WITH THE LATEST VERSIONS OF THE SOFTWARE. THE CONTRACTOR SHALL PROVIDE SOFTWARE FOR THE CAMERAS AND PROGRAM AND CONFIGURE THE VIDEO DETECTION PROCESSORS TO PROVIDE A FULLY FUNCTIONING SYSTEM.

21. WHERE NEW LOOPS WILL BE OVERLAP WITH NEW PAVEMENT, LOOP DETECTORS SHALL BE PREFORMED LOOPS AS MANUFACTURED BY THE CITY OF LAS VEGAS. IF NEW OR NEVER-ALL LOOP SYSTEMS, AND ALL NEW SHALL BE INSTALLED TO THE PLACEMENT OF THE FINAL PAVEMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE NEW PAVEMENT. LOOPS SHALL BE CABLE-IN-DUCT PER SECTION 623.10.2.04.C OF THE CITY OF LAS VEGAS SPECIAL PROVISIONS. LOOP LEAD-IN CABLE SHALL BE 6-PAIR 18 AWG MULTIPLE CONDUCTOR CABLE AS SPECIFIED IN SECTION 623.10.2.04.C OF THE CLV SPECIAL PROVISIONS. ALL WIRING SHALL BE IN CONFORMANCE WITH THE CITY OF LAS VEGAS SPECIAL PROVISIONS AND THE CITY OF LAS VEGAS SPECIAL PROVISIONS DESIGNATION TO WHICH IT BELONGS AS SHOWN ON THE TRAFFIC SIGNAL PLANS. LOOPS SHALL BE LOCATED AS SHOWN ON THE TRAFFIC SIGNAL PLANS AND APPROVED BY THE CLV TRAFFIC ENGINEERING DIVISION PRIOR TO INSTALLATION. REFER TO SECTION 623.10.2.04.C OF THE CITY OF LAS VEGAS SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

22. OPTICAL PREEMPTION TUNES WILL BE GLOBAL TRAFFIC TECHNOLOGIES (ENCODING CAPABLE), MODEL 764 OPTICOM PHASE SELECTOR INSTALLED IN A MODEL 760 RACK WITH A MODEL 768 AUXILIARY INTERFACE PANEL (AP) MOUNTED IN THE CABINET AND FULLY WIRED FOR GREEN SEAS CAPABILITIES. OPTICAL SENSORS WILL BE MODEL 721 WITH ONE DETECTOR PER DETECTION, UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF THE OPTICAL SENSORS. THE SOUTHWEST OPTICOM DETECTOR SHALL BE WIRED TO INPUT PREEMPTS ON CHANNEL 1 IN THE PHASE SELECTOR, EASTBOUND ON CHANNEL 2, NORTHBOUND ON CHANNEL 3, AND WESTBOUND ON CHANNEL 4, UNLESS VARIATIONS ARE APPROVED BY THE TRAFFIC SIGNAL SUPERVISOR. WHEN 764 PHASE SELECTORS ARE ADDED TO A CABINET WITHOUT A 768 AP, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF THE 768 AP.

23. IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY CONSTRUCTION, TEMPORARY REMOVAL, OR RELOCATION OF ANY EXISTING TRAFFIC PAYMENT MARKING, SUCH PAYMENT MARKING SHALL BE RESTORED OR REPLACED AT THE CONTRACTORS EXPENSE.

24. INTERCONNECT CABLE SHALL BE AS SHOWN IN THE WIRE SCHEDULE.

25. THE CONTRACTOR SHALL PROVIDE CROSSWALKS, STOP BARS, STRIPING AND SIGNS AS IDENTIFIED ON THE PLANS.

26. WHERE THE PLANS CALL FOR REMOVAL AND SALVAGE OF EXISTING TRAFFIC SIGNAL EQUIPMENT, THE CONTRACTOR SHALL CALL 702-624-6222 TO 2222-624-6222 FOR THE CITY OF LAS VEGAS SPECIAL PROVISIONS.

27. THE CONTRACTOR SHALL MAINTAIN EXISTING SIGNALS THROUGH THE LIFE OF THE PROJECT PER SECTION 623.6.0.3.01.M OF THE CLV SPECIAL PROVISIONS.

TRANSFORMATION 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.

AN ALTERNATING BASIS. [FC § C102.4]

13. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN THE RADII OF A CUL-DE-SAC OR WITHIN 20 FT OF THE PERIMETER OF THE RADII 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. [FC § 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. [FC § 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. [FC § C102.7]

17. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FT. [FC § C102.6]

18. TWO (2) SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE IS 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 FAILURE IN A WATER MAIN. [FC § 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. [FC § 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 FT PRIOR TO OR AFTER THE GRADE CHANGE. ADJACENT TO THE STRUCTURES GRADIENT SHALL NOT EXCEED 6%. [FC § 503.2.2]

21. THE TURNING RADII OF THE FIRE APPARATUS ACCESS ROADS SHALL BE NO LESS THAN 52 FT OUTSIDE AND 28 FT INSIDE TURNING RADII. [FC § 503.2.4]

22. VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROADS SHALL NOT BE LESS THAN 13FT 6 INS. [FC § 503.2.1]

23. THE 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 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. [FC § 503.2.1.1]

24. 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. THIS DISTANCE COULD BE INCREASED TO 250 FT IF THE BUILDING IS SPRINKLERED. [FC § 503.3.1]

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. [FC § 503.3.2]

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. [FC § 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 FT ALONG THE DESIGNATED FIRE LANES. SIGNS TO BE PLACED ON BOTH SIDES OF AN ACCESS ROADWAY IF NEEDED TO PREVENT PARKING ON EITHER SIDE. SIGNS TO BE INSTALLED NO HIGHER THAN 10 FT OR LESS THAN 6 FT FROM THE ROADWAY LEVEL. THE CURB ALONG OR ON THE PAVEMENT OR CEMENT (IF NO CURB IS PROVIDED) SHALL BE PAINTED WITH A RED WEATHER RESISTANT PAINT IN ADDITION TO THE SIGNS. [FC § 503.3.3]

28. ELECTRONICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED DETECTOR/RECEIVER SYSTEM THAT SHALL BE INSTALLED IN ACCORDANCE WITH THE FC § 503.6 AND FC APPENDIX M.

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 5" OR 6" R/W GUBBS 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 PAVED DOES NOT CONFORM TO CITY STANDARDS AT THE MANHOLE.
6. TREE SHOULDS 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. 6 IN LINES "S" SHALL BE USED ON LINES TWELVE INCHES (12") OR ABOVE.
7. WATER MAINS SHALL BE PROTECTED IN ACCORDANCE WITH LVWD 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.

ELEVATION: 2558.08 (US SURVEY FEET) 779.704
(METERS)

**BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988
(NAVD 88).**

PROFESSIONAL ENGINEER - STATE OF CALIFORNIA
NOE WOMEN
Exp: 12/31/19
CIVIL STRUCTURAL
NO. 127352

02/05/2019

LEGEND

CL OR SECTION LINE		
PROPERTY LINE		
RIGHT OF WAY LINE		
EASEMENT LINE		
SAWCUT LINE		
HEAVY AC PAVEMENT		
CONCRETE PAVEMENT		
	EXISTING	PROPOSED
EDGE OF PAVEMENT		
"A" TYPE CURB		
"L" TYPE CURB		
WALLS		
FENCE		
SIGN		
CONTOUR		
SPOT ELEVATION		
MANHOLE - SEE DESCRIPTION BELOW		
100W HPS SLT.		
150W HPS SLT.		
200W HPS SLT.		
250W HPS SLT.		
400W HPS SLT.		
FIRE HYDRANT		
GATE VALVE		
REDUCER		
CLEAN OUT		
UTILITY BOX/ VAULT		
S=SANITARY SEWER, D=STORM DRAIN, E=ELECTRICAL, T=TELEPHONE		

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

Before You Overhead

1-702-432-5300

1-702-227-2929

Call before you Dig
 AVOID HITTING OVERHEAD UTILITY LINES. IT'S COSTLY.

811

OR

1-800-227-2600

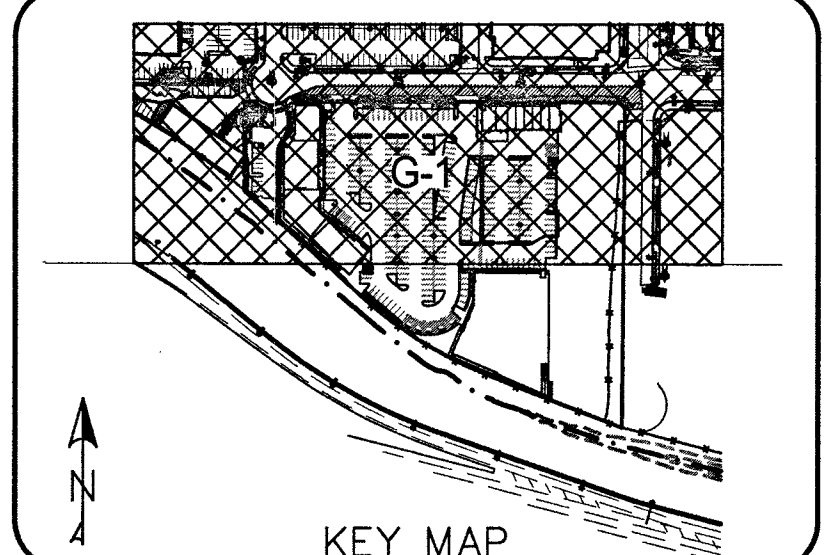
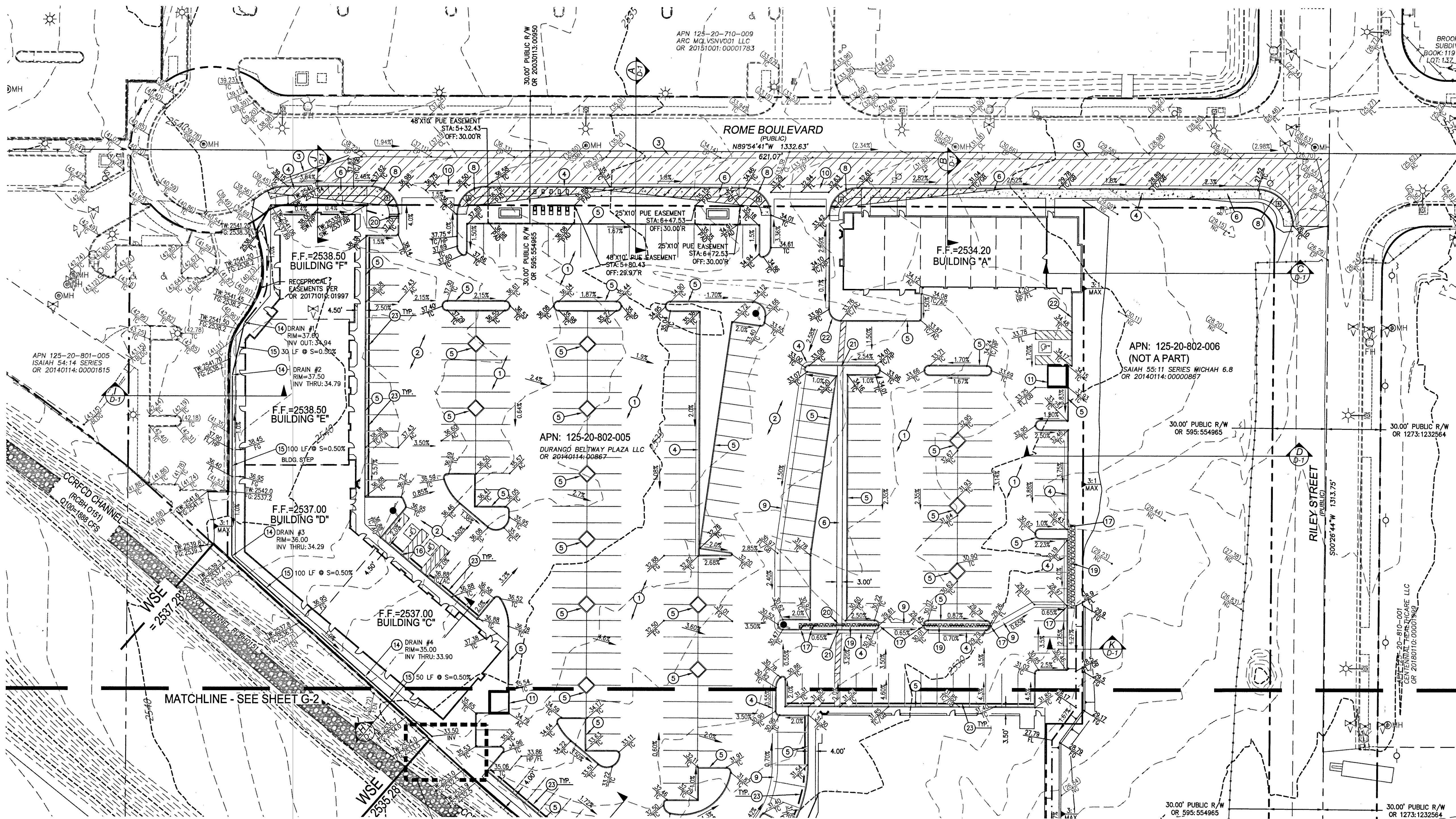
PROJECT: DURANGO BELTWAY PLAZA
 CITY OF LAS VEGAS
 SWC OF ROME BLVD. AND RILEY ST.

NOTES + QUANTITIES

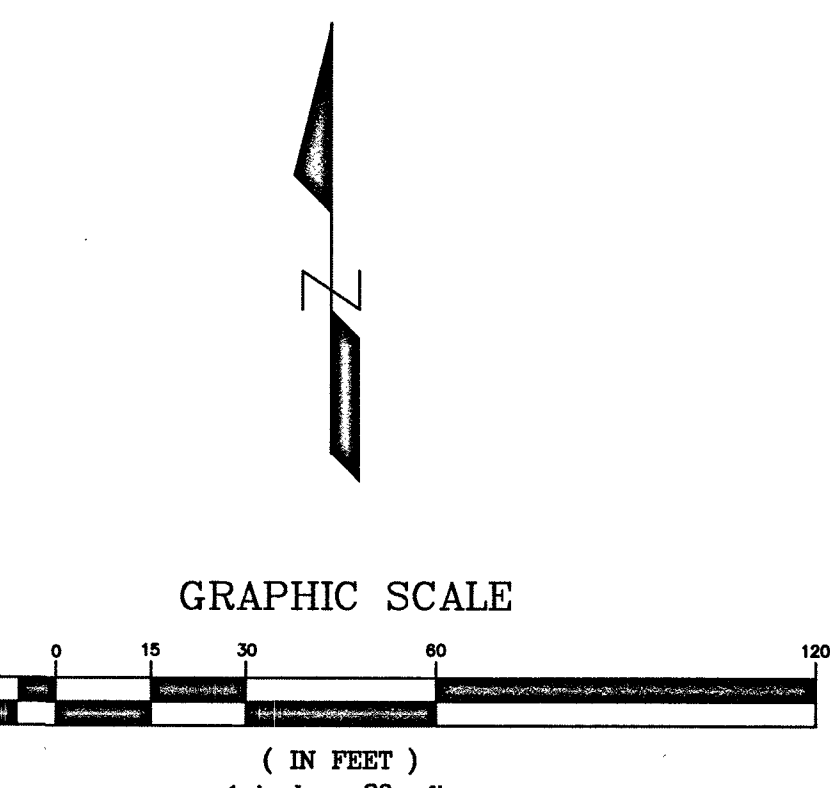
SHEET:

C-2

2 OF 13



- CONSTRUCTION NOTES:**
- 1. ALL CONSTRUCTION TO BE DONE IN ACCORDANCE WITH "CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS" (CCAUD) LATEST EDITION AND/OR REGULATING ENTITY HAVING JURISDICTION.
 - 2. CONSTRUCT LIGHT ASPHALT PAVEMENT PER DETAIL 1 ON SHEET D-2.
 - 3. CONSTRUCT HEAVY ASPHALT PAVEMENT PER DETAIL 1 ON SHEET D-2.
 - 4. SAWCUT AND MATCH EXISTING ASPHALT AT LIMITS SHOWN.
 - 5. CONSTRUCT "L" TYPE CURB PER CCAUD No. 216.
 - 6. CONSTRUCT "A" TYPE CURB PER DETAIL 2 ON SHEET D-2.
 - 7. CONSTRUCT 5' CONC. SIDEWALK PER CCAUD No. 234.
 - 8. CONSTRUCT SIDEWALK DRAIN PER DETAIL 8, SHEET D-2.
 - 9. CONSTRUCT SIDEWALK RAMP PER CCAUD No. 235, CASE 1. SEE SIDEWALK RAMP TABLE ON SHEET G-1 FOR "A" AND "B" DIMENSIONS.
 - 10. CONSTRUCT CONC. VALLEY GUTTER PER DETAIL 4 ON SHEET D-2.
 - 11. CONSTRUCT 8" CROSS GUTTER PER CCAUD No. 228.
 - 12. TRASH ENCLOSURE W/ GATES. REFER TO ARCH. PLANS FOR DETAILS.
 - 13. LANDSCAPE. REFER TO LANDSCAPE ARCH. PLANS FOR DETAILS.
 - 14. CONSTRUCT STEPS. REFER TO ARCH. PLANS FOR SPECIFICATIONS.
 - 15. INSTALL NYLOPLAST DRAIN INLET OR APPROVED EQUAL.
 - 16. INSTALL 12" SDR-35 PVC STORM DRAIN.
 - 17. CONSTRUCT HANDICAP STALL CURB. SEE DETAIL 3 ON SHEET D-2.
 - 18. CONSTRUCT 3' CURB OPENING. SEE DETAIL 6 ON SHEET D-2.
 - 19. CONSTRUCT CONCRETE SIDEWALK, SIZE PER PLAN.
 - 20. INSTALL RIPRAP, D50=3", THICKNESS=6".
 - 21. INSTALL 2' SIDEWALK UNDERDRAIN, PER CCAUD NO. 236.
 - 22. CONSTRUCT SIDEWALK RAMP. SEE DETAIL 5 ON SHEET D-2.
 - 23. CONSTRUCT DEPRESSIONED CURB TRANSITION. SEE DETAIL 9 ON SHEET D-2.
 - 24. INSTALL CONCRETE WHEEL STOP.



BASIS OF BEARINGS:
SOUTH 00°16'37" WEST, BEING THE BEARING OF THE CENTERLINE OF DURANGO DRIVE AND THE WEST LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 20, TOWNSHIP 19 NORTH, RANGE 60 EAST, N.M.S., CLARK COUNTY, NEVADA, AS SHOWN IN FILE 206 OF SURVEYS, AT PAGE 97, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA.

BENCHMARK:
CITY OF LAS VEGAS BENCHMARK "51V802056" RIVET & PLATE IN TOP OF RAMP.
ELEVATION: 2558.08 (US SURVEY FEET)
779.704 (METERS)
BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

GRADING PLAN CERTIFICATION:
I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED FLOOD STUDY DS# D550180 ON FILE AT THE CITY OF LAS VEGAS FOR THE SUBJECT PROJECT.

MOE MOMEN, P.E. #12732

Call Before You Dig
811
1-702-227-2929

Call before you dig
1-702-432-5300
1-800-227-2600

SIDEWALK RAMP TABLE

	"A" (FT.) MIN.	"B" (FT.) MIN.
1	4.5'	12.0'
2	4.5'	9.5'
3	8.0'	8.0'
4	12.0'	4.5'
5	15.0'	4.5'

- GRADING NOTES:**
1. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS OF EXISTING STRUCTURES INCLUDING LOCATION, ELEVATION, AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO MOMENI ENGINEERS PRIOR TO CONSTRUCTION.
 2. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION DURING CONSTRUCTION THROUGH THE USE OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP).
 3. ADD 2500 TO PLAN GRADES WITH THE EXCEPTION OF FINISHED FLOORS UNLESS NOTED OTHERWISE.
 4. CONTRACTOR TO VERIFY ALL HANDICAP ACCESSIBLE ROUTES AND PARKING STALLS ARE IN CONFORMANCE WITH A.D.A. ACCESSIBILITY GUIDELINES AND DO NOT EXCEED MAXIMUM SLOPES IN ANY DIRECTION PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES.
 5. MOMENI ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING ARE FROM THE BEST AVAILABLE INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES INCLUDING BUT NOT LIMITED TO, THE WATER, FIRE, SANITARY SEWER, STORM SEWER, TELEPHONE, POWER, GAS, AND IRRIGATION LINES. ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION. IF CONFLICTS EXIST IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE PROJECT ARCHITECT, OWNER'S REPRESENTATIVE, AND THE PROJECT ENGINEER IMMEDIATELY.
 6. NO WALLS, FENCES, SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL DEVICES, FIRE HYDRANTS, TREES, AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM THE TOP OF CURB, OR WHERE NO CURB EXISTS, A HEIGHT OF 27 INCHES MEASURED FROM THE TOP OF ADJACENT ASPHALT GRAVEL OR PAVEMENT STREET SURFACE. THE RESTRICTION EXTENDS ALONG THE SIGHT VISIBILITY LINE THROUGH LANDSCAPED MEDIANS.
 7. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CLARK COUNTY BUILDING DEPARTMENT.

- TRAFFIC NOTES:**
1. REPLACE ALL TRAFFIC CONTROL DEVICES (SIGNS AND/OR PAVEMENT MARKINGS), UNDER CITY OF LAS VEGAS JURISDICTION, THAT ARE DISTURBED, DESTROYED, MOVED OR MODIFIED BY TRENCHING ACTIVITIES TO THE CITY OF LAS VEGAS'S SATISFACTION. ALL MATERIAL USED SHALL MEET THE CITY OF LAS VEGAS'S SPECIFICATIONS OR WILL BE AN APPROVED EQUIVALENT.
 2. IN THE EVENT THAT THE TRAFFIC SIGNAL CONDUITS, LOOP DETECTORS OR ASSOCIATED EQUIPMENT ARE DAMAGED BY CONTRACTOR, THE CONTRACTOR WILL HIRE AN INSA LEVEL II ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 623.6.01.02.
 3. CONTRACTOR SHALL CONTACT CITY OF LAS VEGAS DIRECTLY TO SCHEDULE STAFF TO LOCATE UNDERGROUND STREET LIGHTING AND SIGNAL FACILITIES IN THE PROJECT AREA. A MINIMUM OF 48 HRS. NOTICE IS REQUIRED PRIOR TO LOCATES.

GRADING NOTE:
ALL ONSITE STORM DRAINS AND THE ASSOCIATED FACILITIES ARE PRIVATELY OWNED AND TO BE PRIVATELY MAINTAINED BY THE PROPERTY OWNER.

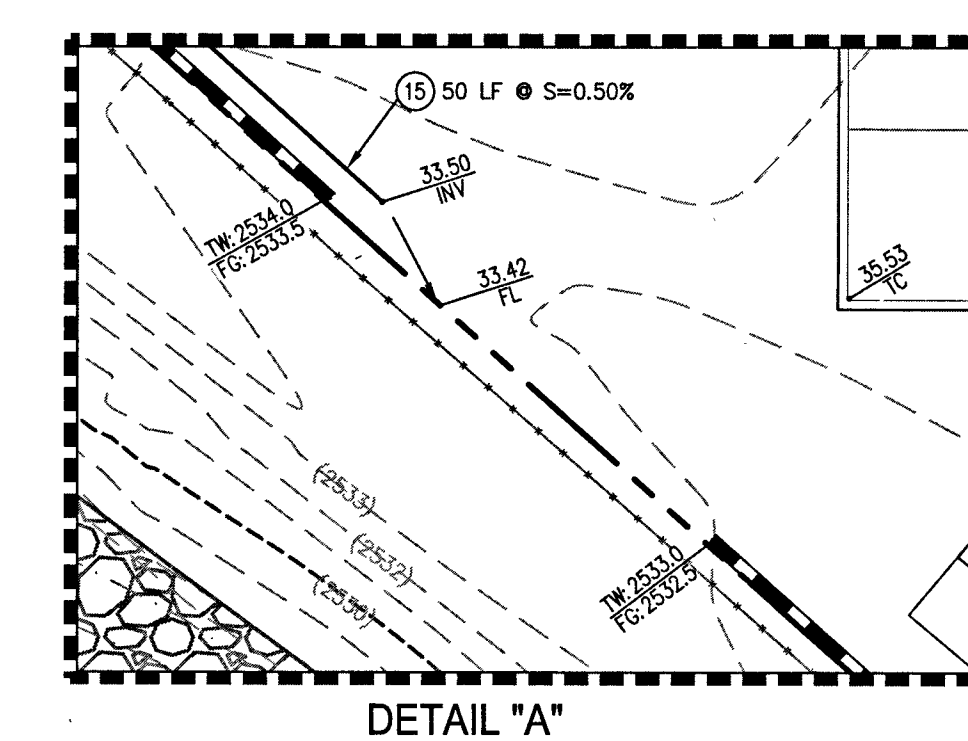
FLOOD ZONE NOTE:
THE PROJECT SITE IS LOCATED ON FEMA FLOOD INSURANCE RATE MAP (FIRM) PANEL No. 32003C1745F. EFFECTIVE DATE: NOVEMBER 27, 2002. THE SITE IS LOCATED WITHIN FEMA DESIGNATED ZONE X (UNSHADED). A ZONE X (UNSHADED) IS DESCRIBED AS AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN.

GEOTECHNICAL ENGINEER:
PREPARED BY: NOVA GEOTECHNICAL
4400 WEST HAZEN AVE
SUITE 104
PHONE: (702) 873-3478
PROJECT G-18-045
DATED: 4/5/18

EARTHWORK QUANTITIES:
EARTHWORK QUANTITIES:
CUT = 3,684 C.Y.
FILL = 7,329 C.Y.
A. THE ABOVE QUANTITIES DO NOT REFLECT LOSSES DUE TO SHRINKAGE.
B. ALL ONSITE GRADING SHALL COMPLY WITH THE CONDITIONS SET FORTH IN THE PROJECT GEOTECHNICAL REPORT.

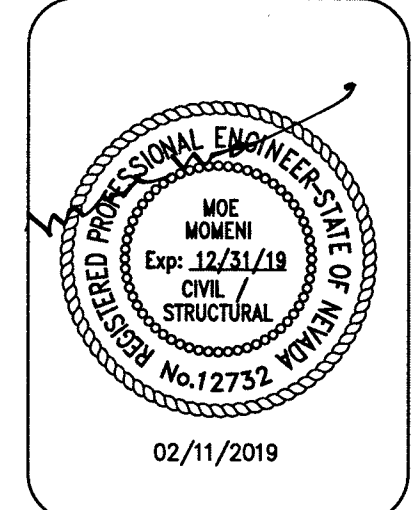
DRAINAGE QUANTITIES:

	PUBLIC QUANTITY	PRIVATE QUANTITY	
2-INCH ASPHALTIC CONCRETE PAVING		98,704	SY
3-INCH ASPHALTIC CONCRETE PAVING		1,722	SY
4-INCH ASPHALTIC CONCRETE PAVING	10,656		SY
RIP RAP D50=3" T=6"		345	SF
TYPE II GRAVEL	130	1,228	CY
CONCRETE VALLEY GUTTER		261	LF
CURB & GUTTER "L" TYPE	424	431	LF



REVISIONS	DESCRIPTION	DATE	BY	APPROVAL

momeni ENGINEERS, LLC.
CIVIL & STRUCTURAL ENGINEERING
3110 S. DURANGO DRIVE, SUITE 205
LAS VEGAS, NEVADA 89117
TEL: (702) 802-2444 | FAX: (702) 248-8495 | MOE@MOMENIENGINEERS.COM

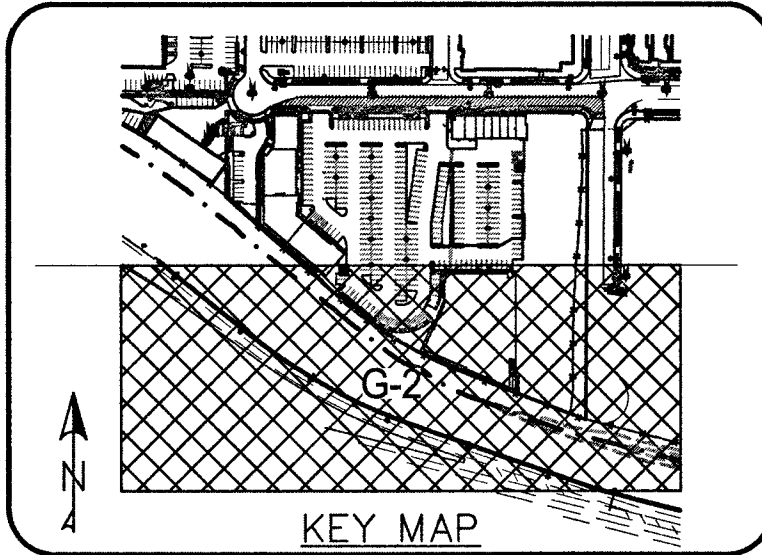
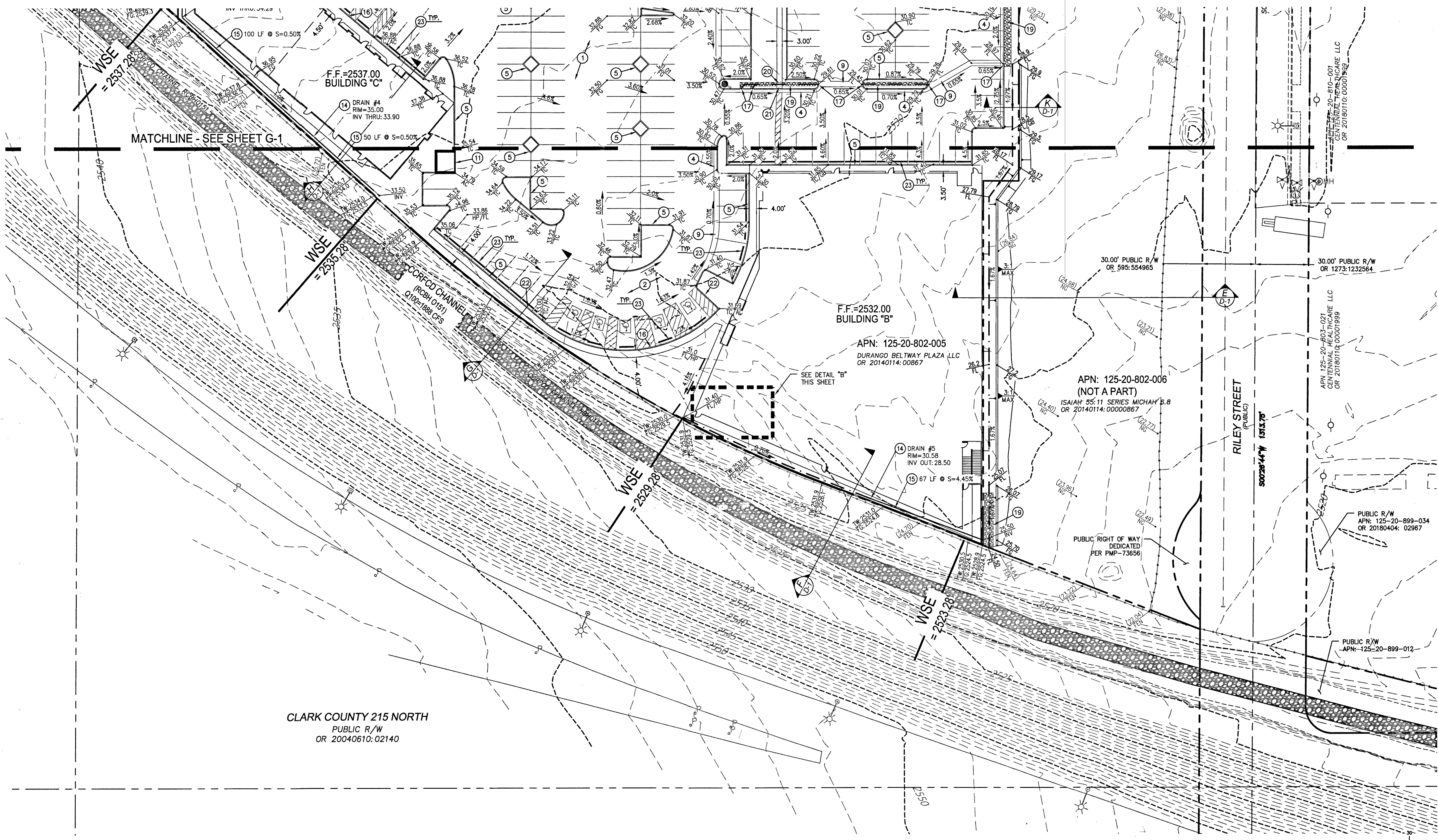


02/11/2019	DATE
103109	PROJECT NUMBER
RM	DRAWN BY
MM	CHECKED BY

DURANGO BELTWAY PLAZA
CITY OF LAS VEGAS
S.W. CORNER OF DURANGO DR. & RILEY ST.

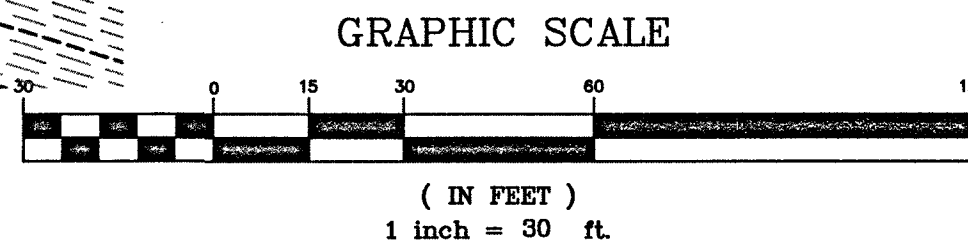
GRADING PLAN I

SHEET: **G-1**
3 OF 13



- CONSTRUCTION NOTES:**
- ALL CONSTRUCTION TO BE DONE IN ACCORDANCE WITH "CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS" (CCAUSSD) LATEST EDITION AND/OR REGULATING ENTITY HAVING JURISDICTION.
 - CONSTRUCT LIGHT ASPHALT PAVEMENT PER DETAIL 1 ON SHEET D-2.
 - CONSTRUCT HEAVY ASPHALT PAVEMENT PER DETAIL 1 ON SHEET D-2.
 - SAW CUT AND MATCH EXISTING ASPHALT AT LIMITS SHOWN.
 - CONSTRUCT "L" TYPE CURB PER CCAUSD No. 216.
 - CONSTRUCT "A" TYPE CURB PER DETAIL 2 ON SHEET D-2.
 - CONSTRUCT 5' CONC. SIDEWALK PER CCAUSD No. 234.
 - CONSTRUCT SIDEWALK DRAIN PER DETAIL 8, SHEET D-2.
 - CONSTRUCT SIDEWALK RAMP PER CCAUSD No. 235, CASE 1. SEE SIDEWALK RAMP TABLE ON SHEET G-1 FOR "A" AND "B" DIMENSIONS.
 - CONSTRUCT CONC. VALLEY GUTTER PER DETAIL 4 ON SHEET D-2.
 - CONSTRUCT 8" CROSS GUTTER PER CCAUSD No. 228.
 - TRASH ENCLOSURE W/ GATES. REFER TO ARCH. PLANS FOR DETAILS.
 - LANDSCAPE. REFER TO LANDSCAPE ARCH. PLANS FOR DETAILS.
 - CONSTRUCT STEPS. REFER TO ARCH. PLANS FOR SPECIFICATIONS.
 - INSTALL NYLOPLAST DRAIN INLET OR APPROVED EQUAL.
 - INSTALL 12" SDR-35 PVC STORM DRAIN.
 - CONSTRUCT HANDICAP STALL CURB, SEE DETAIL 3 ON SHEET D-2.
 - CONSTRUCT 3' CURB OPENING, SEE DETAIL 6 ON SHEET D-2.
 - CONSTRUCT CONCRETE SIDEWALK, SIZE PER PLAN.
 - INSTALL RIPRAP, D50=3", THICKNESS=6".
 - INSTALL 2" SIDEWALK UNDERDRAIN, PER CCAUSD NO 236.
 - CONSTRUCT SIDEWALK RAMP, SEE DETAIL 5 ON SHEET D-2.
 - CONSTRUCT DEPRESSED CURB TRANSITION, SEE DETAIL 9 ON SHEET D-2.
 - INSTALL CONCRETE WHEEL STOP.

SEE SHEET C-2 FOR CITY OF LAS VEGAS STORMWATER MANAGEMENT NOTES.



EARTHWORK QUANTITIES:

EARTHWORK QUANTITIES:
 CUT = 3,884 C.Y.
 FILL = 7,329 C.Y.

A. THE ABOVE QUANTITIES DO NOT REFLECT LOSSES DUE TO SHRINKAGE.
 B. ALL ON-SITE GRADING SHALL COMPLY WITH THE CONDITIONS SET FORTH IN THE PROJECT GEOTECHNICAL REPORT.

DRAINAGE QUANTITIES:

	PUBLIC QUANTITY	PRIVATE QUANTITY	
2-INCH ASPHALTIC CONCRETE PAVING		98,704	SY
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4-INCH ASPHALTIC CONCRETE PAVING	10,656		SY
RIP RAP D50=3" T=6"		345	SF
TYPE II GRAVEL	130	1,228	CY
CONCRETE VALLEY GUTTER		261	LF
CURB & GUTTER "L" TYPE	424	431	LF

GRADING NOTE:

ALL ON-SITE STORM DRAINS AND THE ASSOCIATED FACILITIES ARE PRIVATELY OWNED AND TO BE PRIVATELY MAINTAINED BY THE PROPERTY OWNER.

FLOOD ZONE NOTE:

THE PROJECT SITE IS LOCATED ON FEMA FLOOD INSURANCE RATE MAP (FIRM) PANEL No. 33003C0174SF. EFFECTIVE DATE: NOVEMBER 27, 2002. THE SITE IS LOCATED WITHIN FEMA DESIGNATED ZONE X (UNSHADED). A ZONE X (UNSHADED) IS DESCRIBED AS AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN.

GEOTECHNICAL ENGINEER:

PREPARED BY: NOVA GEOTECHNICAL
 4480 WEST HACIENDA AVE
 SUITE 104
 PHONE: (702) 873-3478
 PROJECT G-18-01
 DATED: 4/5/18

- TRAFFIC NOTES:**
- REPLACE ALL TRAFFIC CONTROL DEVICES (SIGNS AND/OR PAVEMENT MARKINGS), UNDER CITY OF LAS VEGAS JURISDICTION, THAT ARE DISTURBED, DESTROYED, MOVED OR MODIFIED BY TRENCHING ACTIVITIES TO THE CITY OF LAS VEGAS'S SATISFACTION. ALL MATERIAL USED SHALL MEET THE CITY OF LAS VEGAS'S SPECIFICATIONS OR WILL BE AN APPROVED EQUIVALENT.
 - IN THE EVENT THAT THE TRAFFIC SIGNAL CONDUITS, LOOP DETECTORS OR ASSOCIATED EQUIPMENT ARE DAMAGED BY CONTRACTOR, THE CONTRACTOR WILL HIRE AN INSA LEVEL II ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 823.G.01.02.
 - CONTRACTOR SHALL CONTACT CITY OF LAS VEGAS DIRECTLY TO SCHEDULE STAFF TO LOCATE UNDERGROUND STREET LIGHTING AND SIGNAL FACILITIES IN THE PROJECT AREA. A MINIMUM 48 HRS. NOTICE IS REQUIRED PRIOR TO LOCATES.

- GRADING NOTES:**
- THE CONTRACTOR SHALL VERIFY ALL CONDITIONS OF EXISTING STRUCTURES INCLUDING LOCATION, ELEVATION, AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO MOMENI ENGINEERS PRIOR TO CONSTRUCTION.
 - ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION DURING CONSTRUCTION THROUGH THE USE OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP).
 - ADD 2500 TO PLAN GRADES WITH THE EXCEPTION OF FINISHED FLOORS UNLESS NOTED OTHERWISE.
 - CONTRACTOR TO VERIFY ALL HANDICAP ACCESSIBLE ROUTES AND PARKING STALLS ARE IN CONFORMANCE WITH A.D.A. ACCESSIBILITY GUIDELINES AND DO NOT EXCEED MAXIMUM SLOPES IN ANY DIRECTION PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES.
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 - NO WALLS, FENCES, SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL DEVICES, FIRE HYDRANTS, TREES, AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM THE TOP OF CURB, OR WHERE NO CURB EXISTS, A HEIGHT OF 27 INCHES MEASURED FROM THE TOP OF ADJACENT ASPHALT GRAVEL OR PAVEMENT STREET SURFACE. THE RESTRICTION EXTENDS ALONG THE SIGHT VISIBILITY LINE THROUGH LANDSCAPED MEDIANS.
 - CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CLARK COUNTY BUILDING DEPARTMENT.

BASIS OF BEARINGS:

SOUTH 00°16'37" WEST, BEING THE BEARING OF THE CENTERLINE OF DURANGO DRIVE AND THE WEST LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 80 EAST, 11N-4E, CLARK COUNTY, NEVADA, AS SHOWN IN FILE 206 OF SURVEYS, AT PAGE 97, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA.

BENCHMARK:

CITY OF LAS VEGAS BENCHMARK "5LV902056" RIVET & PLATE IN TOP OF CURB AT SW CORNER OF DURANGO DR. & WESTBOUND HIGHWAY 215 ON RAMP.

ELEVATION: 2558.08 (US SURVEY FEET)
 779.704 (METERS)

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

GRADING PLAN CERTIFICATION:

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED FLOOD STUDY DSR: D505080 ON FILE AT THE CITY OF LAS VEGAS FOR THE SUBJECT PROJECT.

Moe Momeni
 MOE MOMENI, P.E. #12732

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

Call Before You Overhead

Call before you dig. AVOID HITTING UNDERGROUND UTILITY LINES. IT'S COSTLY.

UnderGround

1-702-227-2929

1-702-432-5300

1-800-227-2600

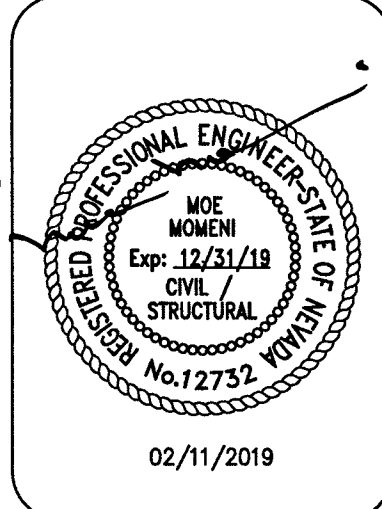
REVISIONS	DESCRIPTION	DATE	BY	APPROVAL

momeni ENGINEERS, LLC.

CIVIL & STRUCTURAL ENGINEERING

3110 S. DURANGO DRIVE, SUITE 205
 LAS VEGAS, NEVADA 89117

TEL: (702) 902-2444 | FAX: (702) 248-8485 | MOE@MOMENIENGINEERS.COM



02/11/2019
DATE
103109
PROJECT NUMBER
RM
DRAWN BY
MM
CHECKED BY

DURANGO BELTWAY PLAZA

CITY OF LAS VEGAS
 SWC OF ROME BLVD. AND RILEY ST.

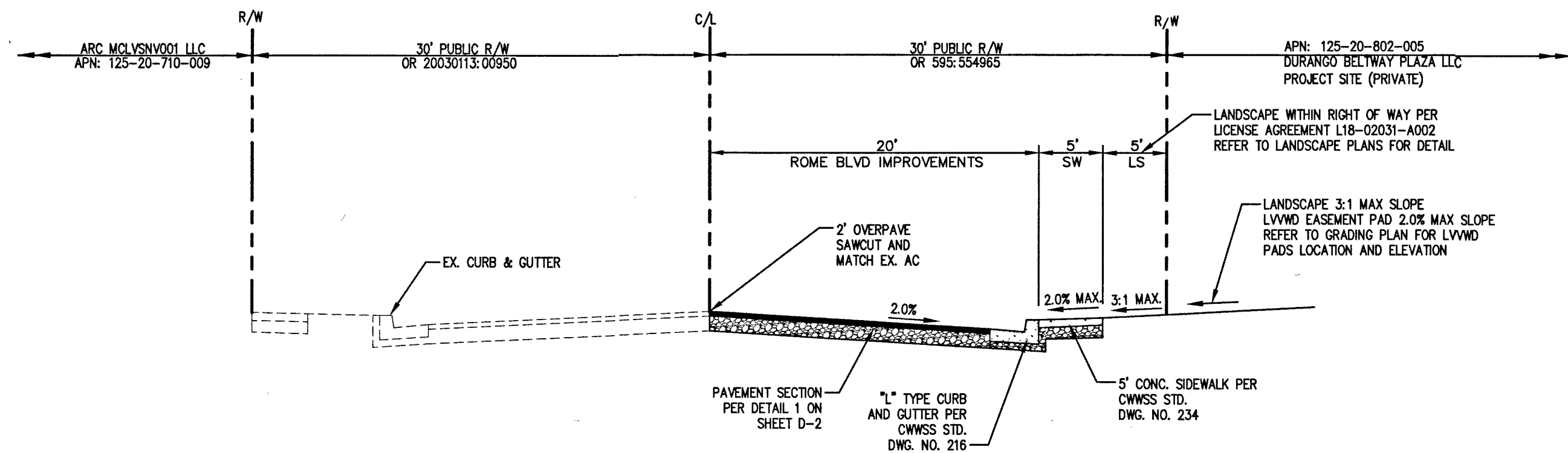
GRADING PLAN II

SHEET:

G-2

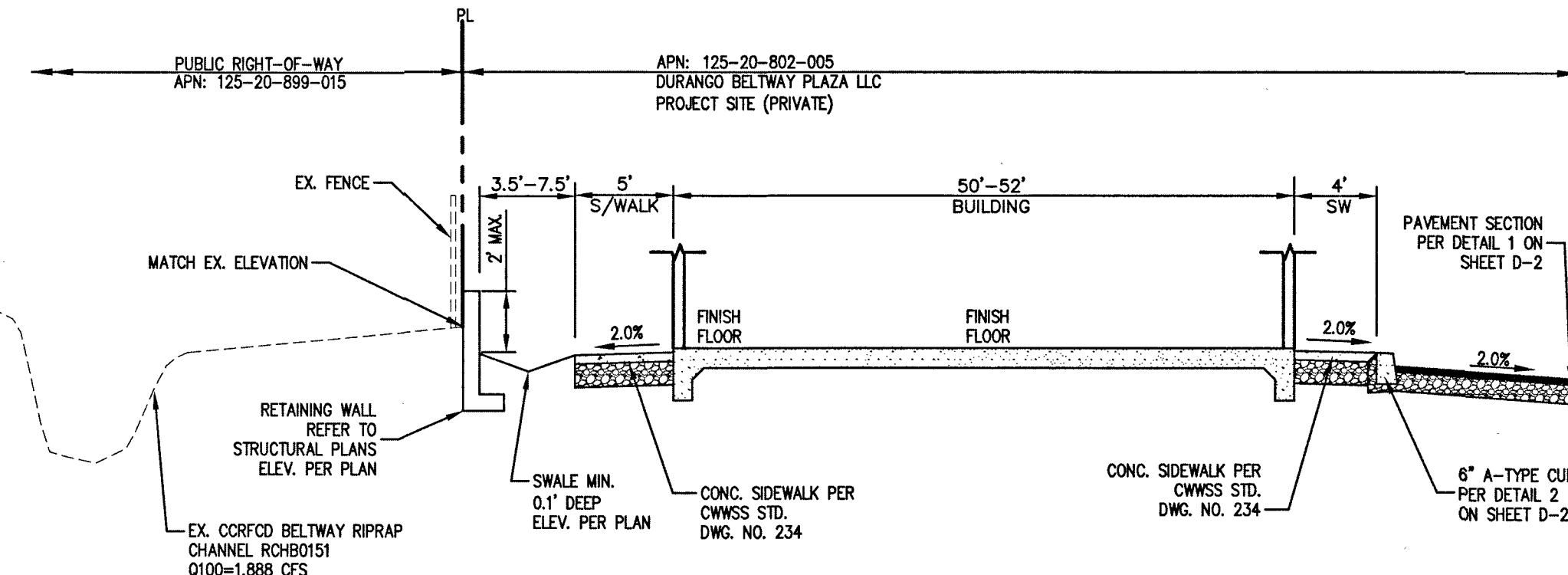
4 OF 13

NOTE: ALL AGGREGATE BASES SHALL BE COMPACTED PER GEOTECHNICAL REPORT BY NOVA GEOTECHNICAL JOB NO. G-18-045 PRELIMINARY PAVEMENT SECTIONS SHALL BE VERIFIED WITH THE FINAL PAVEMENT SECTION RECOMMENDATION REPORT (MPSR) PRIOR TO CONSTRUCTION. IF FINAL PAVEMENT SECTIONS ARE DIFFERENT, A REVISION TO THE IMPROVEMENT PLANS WILL BE REQUIRED.



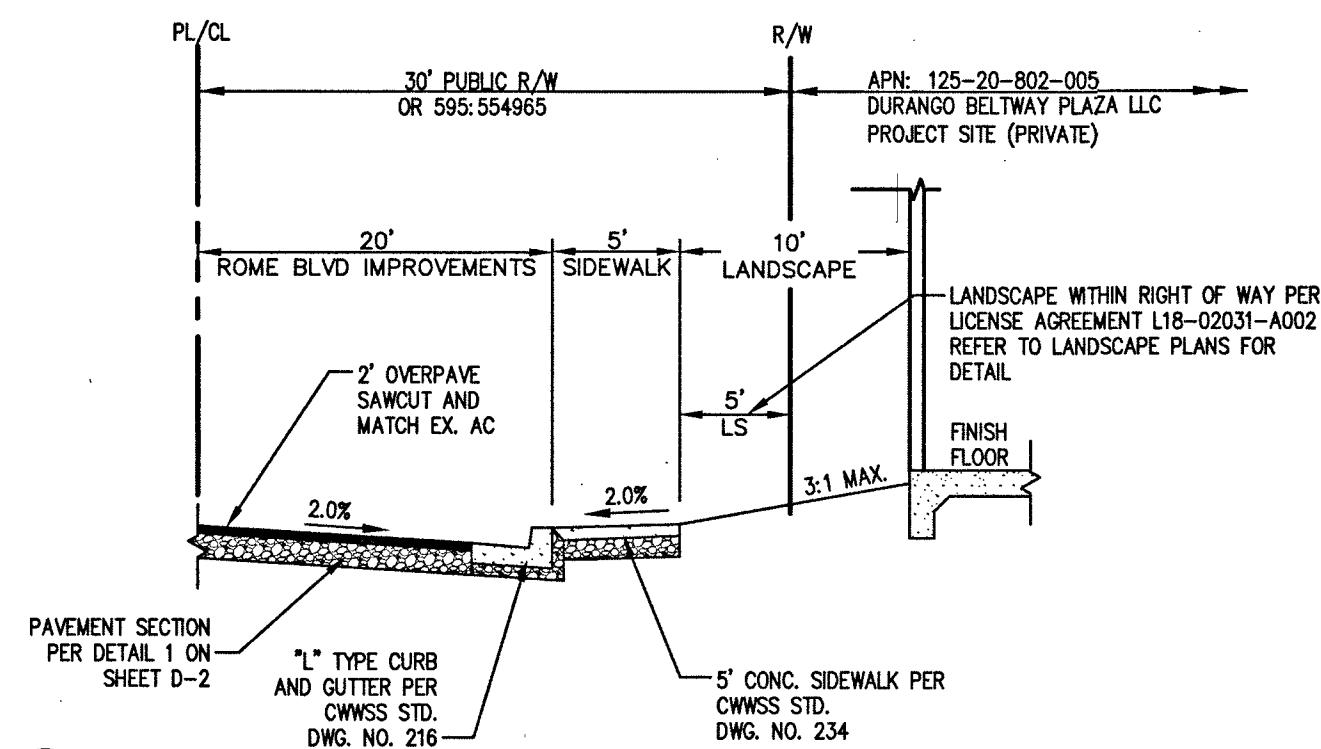
SECTION A

NOTE: ALL AGGREGATE BASES SHALL BE COMPACTED PER GEOTECHNICAL REPORT BY NOVA GEOTECHNICAL JOB NO. G-18-045 PRELIMINARY PAVEMENT SECTIONS SHALL BE VERIFIED WITH THE FINAL PAVEMENT SECTION RECOMMENDATION REPORT (MPSR) PRIOR TO CONSTRUCTION. IF FINAL PAVEMENT SECTIONS ARE DIFFERENT, A REVISION TO THE IMPROVEMENT PLANS WILL BE REQUIRED.



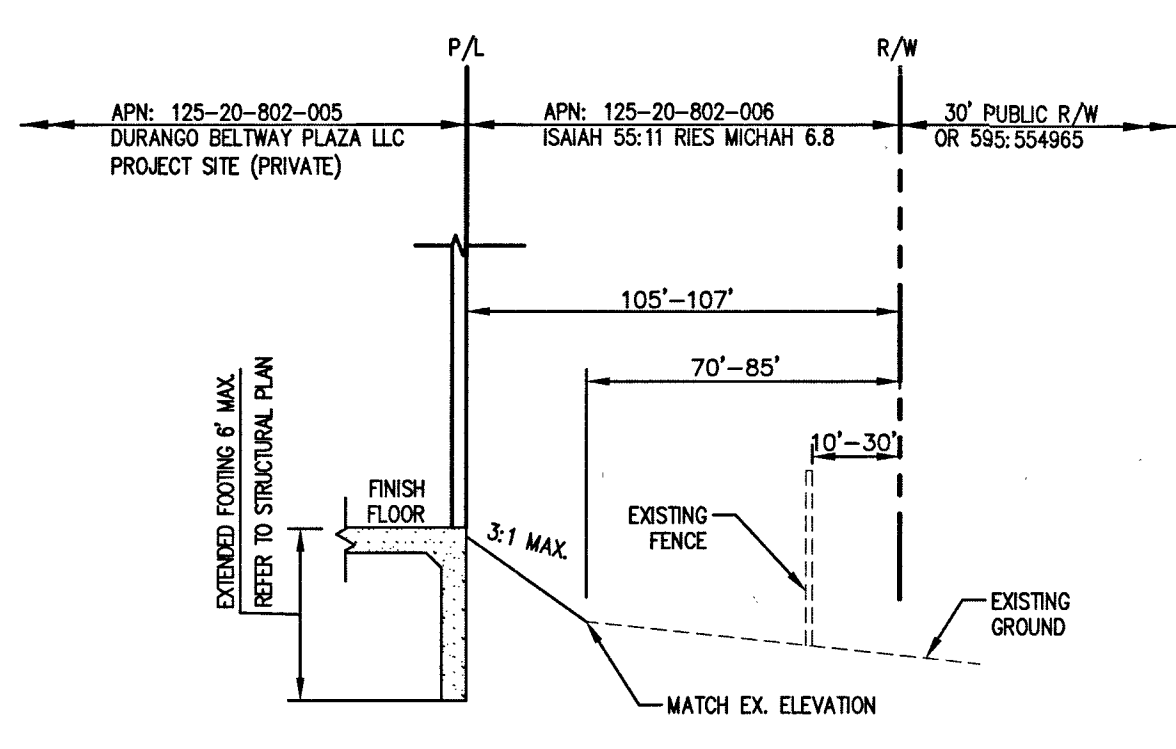
SECTION H

NOTE: ALL AGGREGATE BASES SHALL BE COMPACTED PER GEOTECHNICAL REPORT BY NOVA GEOTECHNICAL JOB NO. G-18-045 PRELIMINARY PAVEMENT SECTIONS SHALL BE VERIFIED WITH THE FINAL PAVEMENT SECTION RECOMMENDATION REPORT (MPSR) PRIOR TO CONSTRUCTION. IF FINAL PAVEMENT SECTIONS ARE DIFFERENT, A REVISION TO THE IMPROVEMENT PLANS WILL BE REQUIRED.



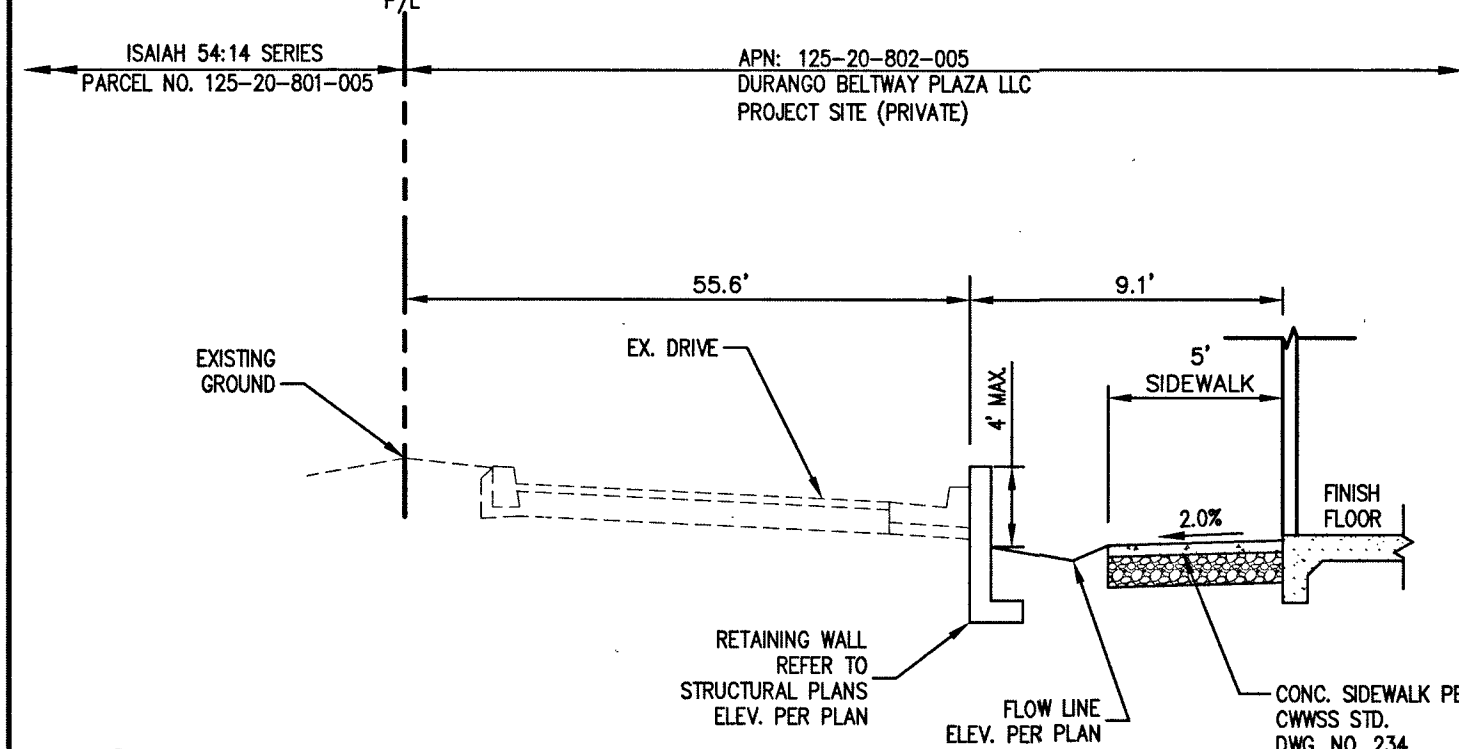
SECTION B

NOTE: ALL AGGREGATE BASES SHALL BE COMPACTED PER GEOTECHNICAL REPORT BY NOVA GEOTECHNICAL JOB NO. G-18-045 PRELIMINARY PAVEMENT SECTIONS SHALL BE VERIFIED WITH THE FINAL PAVEMENT SECTION RECOMMENDATION REPORT (MPSR) PRIOR TO CONSTRUCTION. IF FINAL PAVEMENT SECTIONS ARE DIFFERENT, A REVISION TO THE IMPROVEMENT PLANS WILL BE REQUIRED.



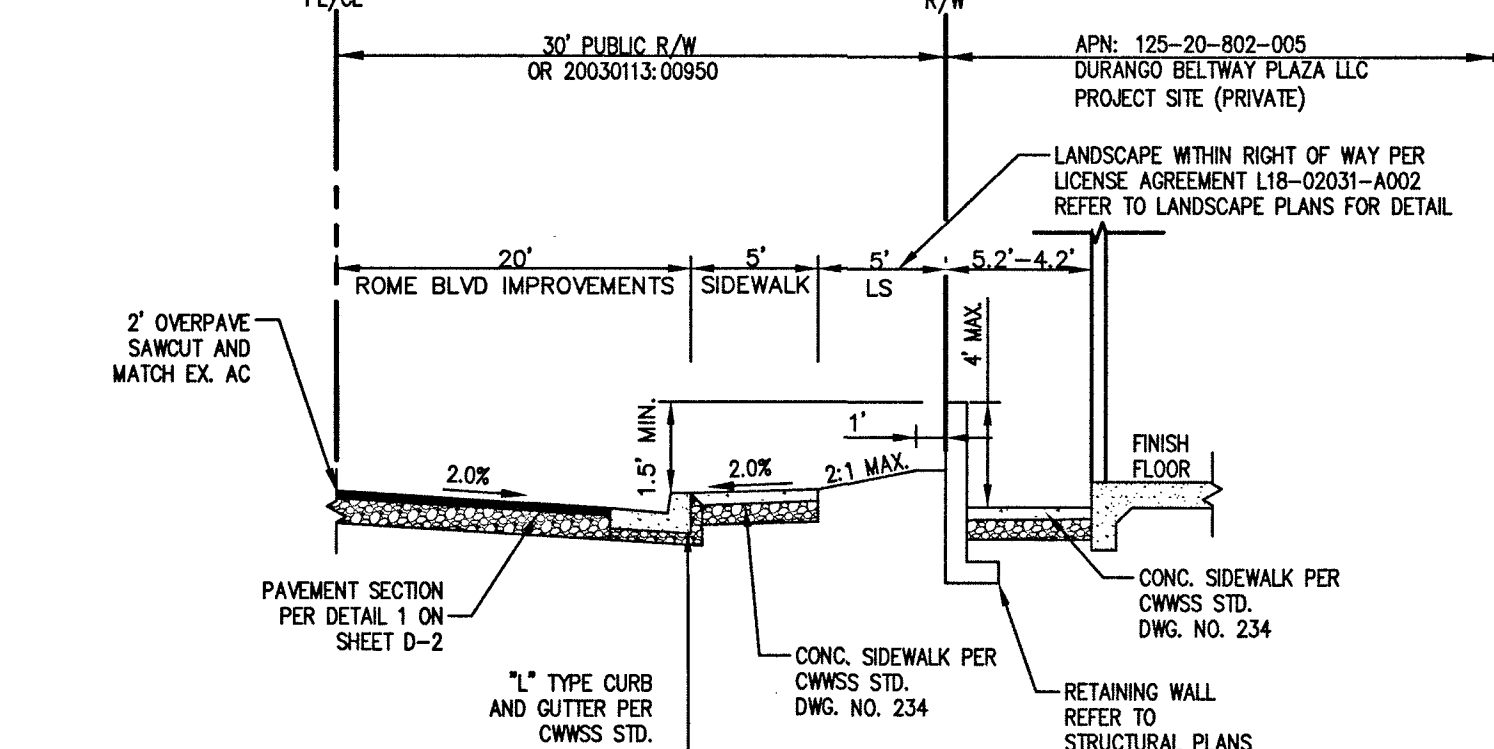
SECTION C

NOTE: ALL AGGREGATE BASES SHALL BE COMPACTED PER GEOTECHNICAL REPORT BY NOVA GEOTECHNICAL JOB NO. G-18-045 PRELIMINARY PAVEMENT SECTIONS SHALL BE VERIFIED WITH THE FINAL PAVEMENT SECTION RECOMMENDATION REPORT (MPSR) PRIOR TO CONSTRUCTION. IF FINAL PAVEMENT SECTIONS ARE DIFFERENT, A REVISION TO THE IMPROVEMENT PLANS WILL BE REQUIRED.



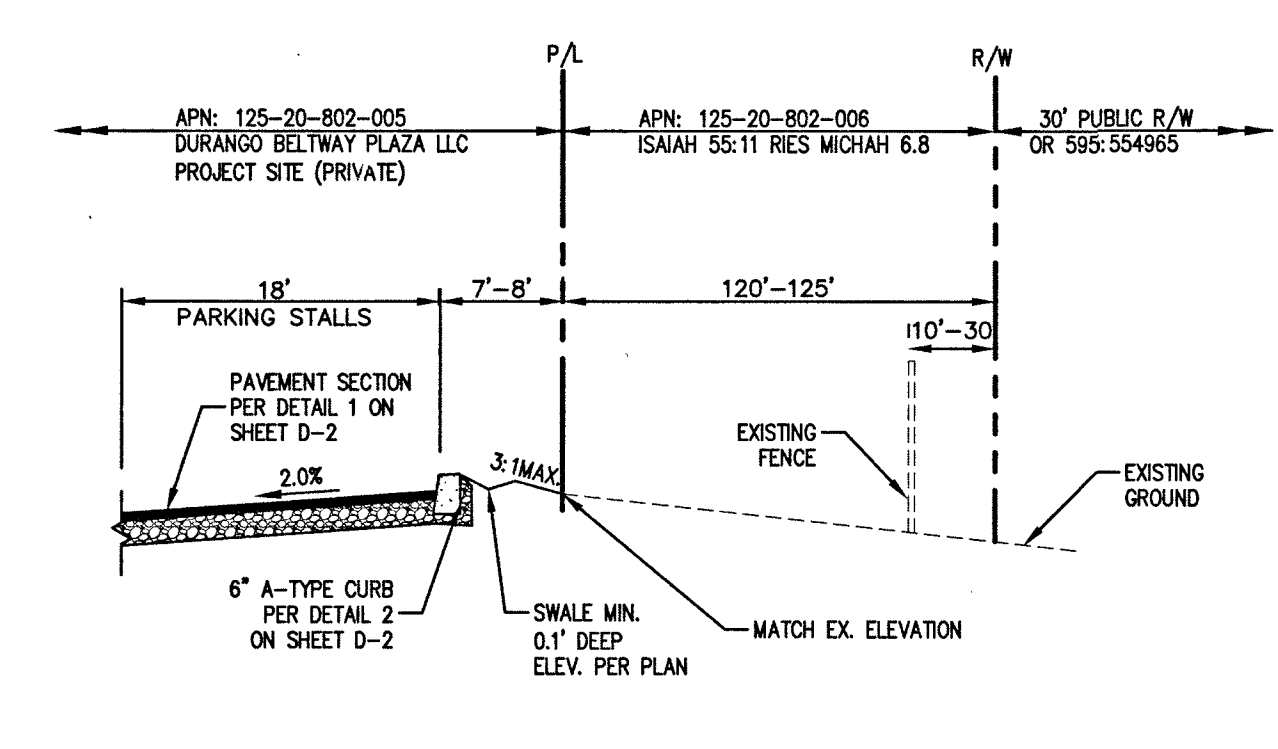
SECTION I

NOTE: ALL AGGREGATE BASES SHALL BE COMPACTED PER GEOTECHNICAL REPORT BY NOVA GEOTECHNICAL JOB NO. G-18-045 PRELIMINARY PAVEMENT SECTIONS SHALL BE VERIFIED WITH THE FINAL PAVEMENT SECTION RECOMMENDATION REPORT (MPSR) PRIOR TO CONSTRUCTION. IF FINAL PAVEMENT SECTIONS ARE DIFFERENT, A REVISION TO THE IMPROVEMENT PLANS WILL BE REQUIRED.



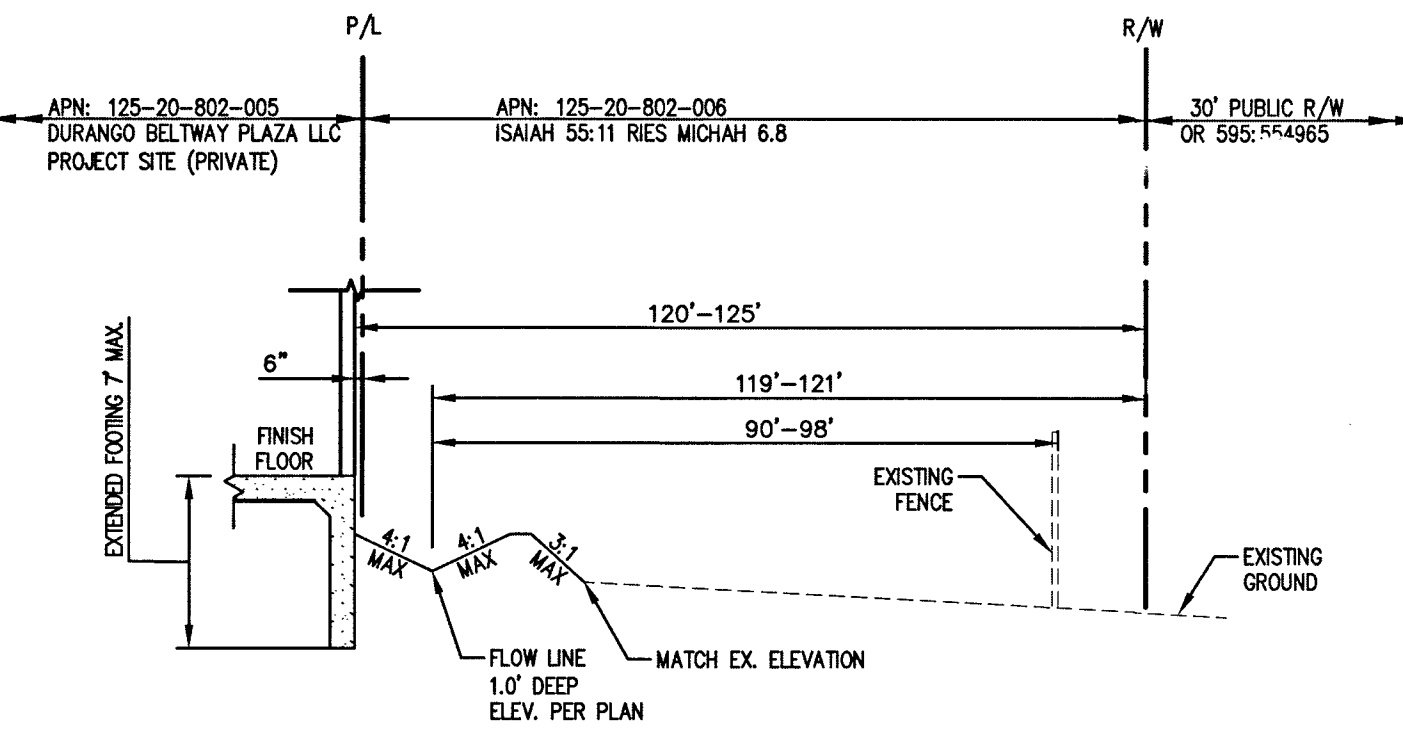
SECTION J

NOTE: ALL AGGREGATE BASES SHALL BE COMPACTED PER GEOTECHNICAL REPORT BY NOVA GEOTECHNICAL JOB NO. G-18-045 PRELIMINARY PAVEMENT SECTIONS SHALL BE VERIFIED WITH THE FINAL PAVEMENT SECTION RECOMMENDATION REPORT (MPSR) PRIOR TO CONSTRUCTION. IF FINAL PAVEMENT SECTIONS ARE DIFFERENT, A REVISION TO THE IMPROVEMENT PLANS WILL BE REQUIRED.

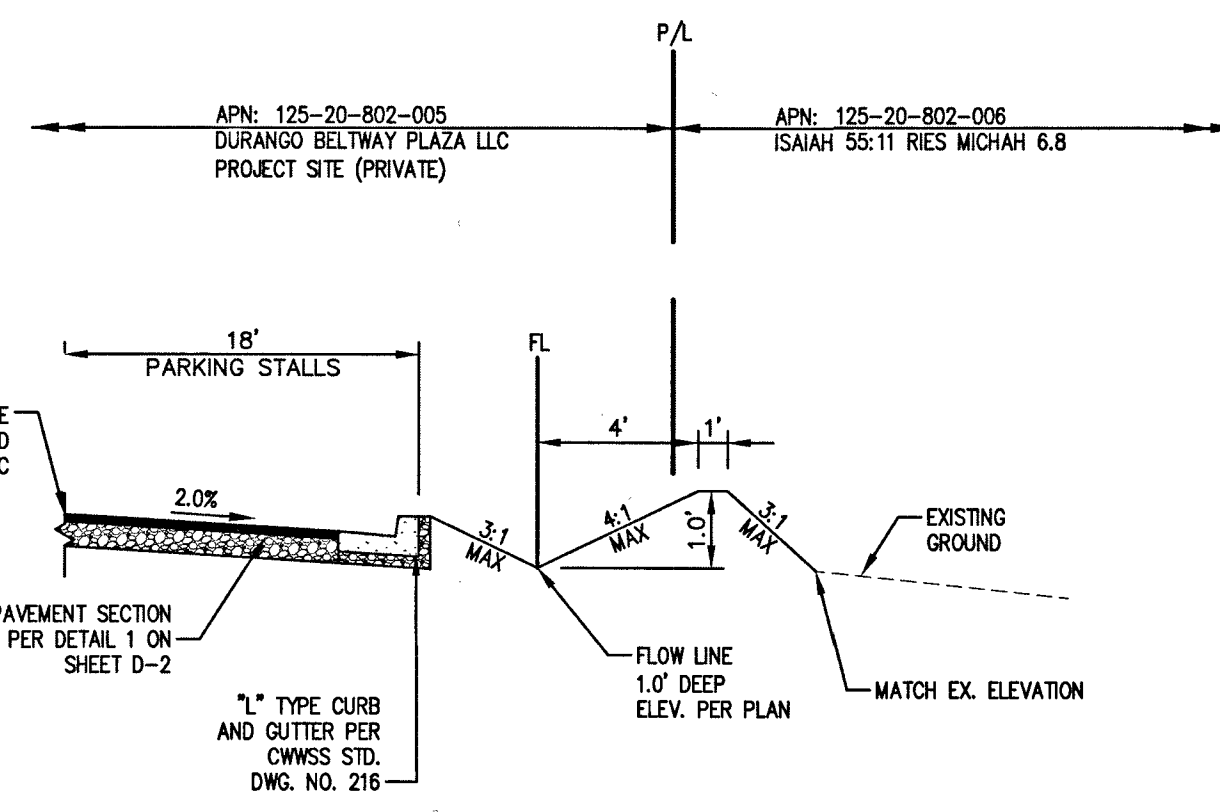


SECTION D

NOTE: ALL AGGREGATE BASES SHALL BE COMPACTED PER GEOTECHNICAL REPORT BY NOVA GEOTECHNICAL JOB NO. G-18-045 PRELIMINARY PAVEMENT SECTIONS SHALL BE VERIFIED WITH THE FINAL PAVEMENT SECTION RECOMMENDATION REPORT (MPSR) PRIOR TO CONSTRUCTION. IF FINAL PAVEMENT SECTIONS ARE DIFFERENT, A REVISION TO THE IMPROVEMENT PLANS WILL BE REQUIRED.

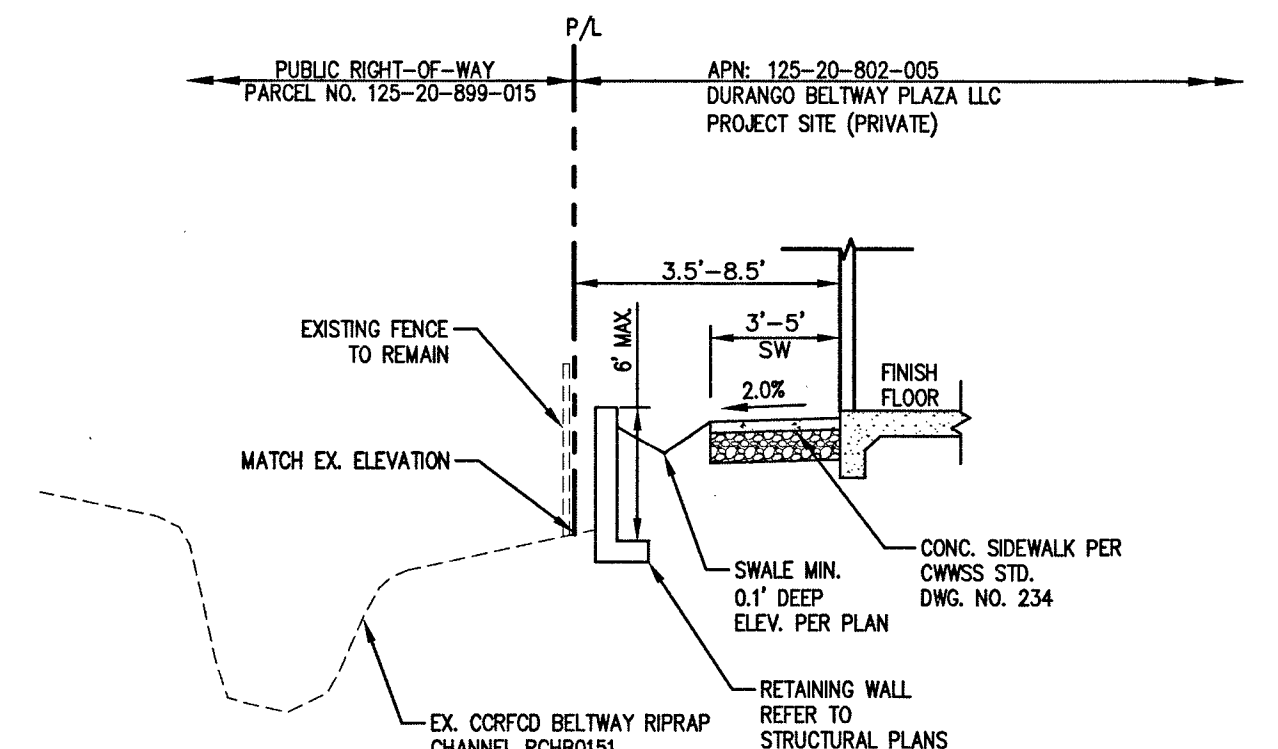


SECTION E



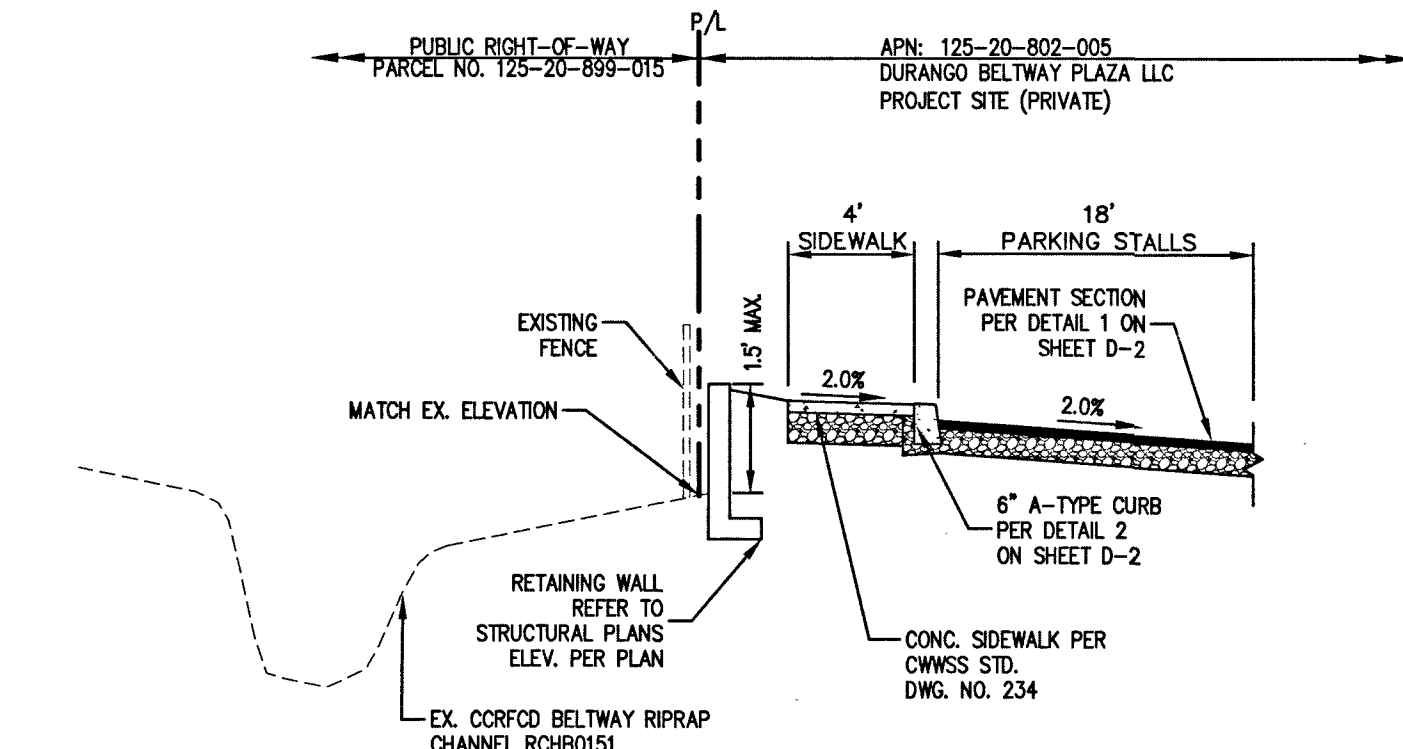
SECTION K

NOTE: ALL AGGREGATE BASES SHALL BE COMPACTED PER GEOTECHNICAL REPORT BY NOVA GEOTECHNICAL JOB NO. G-18-045 PRELIMINARY PAVEMENT SECTIONS SHALL BE VERIFIED WITH THE FINAL PAVEMENT SECTION RECOMMENDATION REPORT (MPSR) PRIOR TO CONSTRUCTION. IF FINAL PAVEMENT SECTIONS ARE DIFFERENT, A REVISION TO THE IMPROVEMENT PLANS WILL BE REQUIRED.

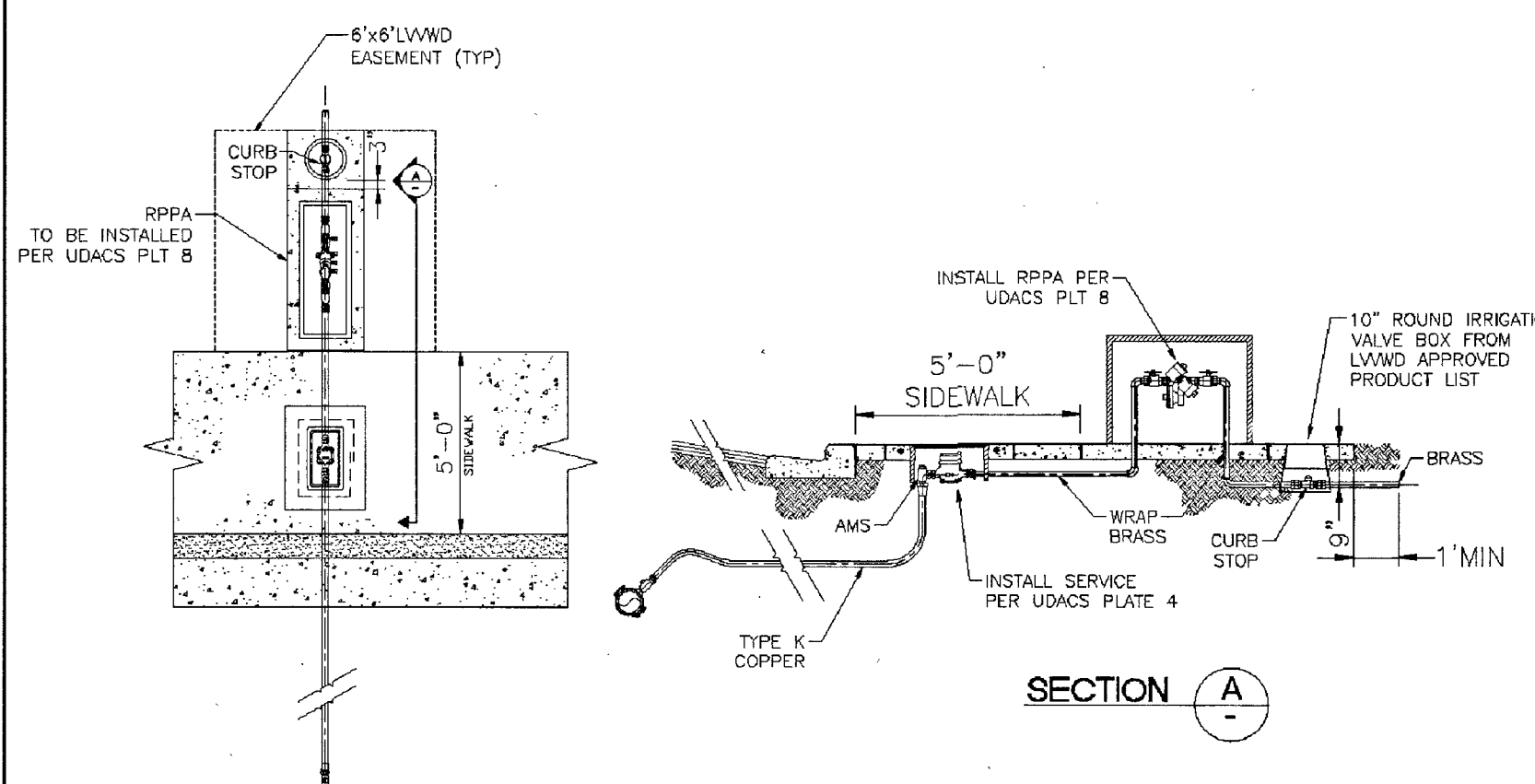


SECTION F

NOTE: ALL AGGREGATE BASES SHALL BE COMPACTED PER GEOTECHNICAL REPORT BY NOVA GEOTECHNICAL JOB NO. G-18-045 PRELIMINARY PAVEMENT SECTIONS SHALL BE VERIFIED WITH THE FINAL PAVEMENT SECTION RECOMMENDATION REPORT (MPSR) PRIOR TO CONSTRUCTION. IF FINAL PAVEMENT SECTIONS ARE DIFFERENT, A REVISION TO THE IMPROVEMENT PLANS WILL BE REQUIRED.



SECTION G



SECTION L SERVICE INSTALLATION - CURB-STOP

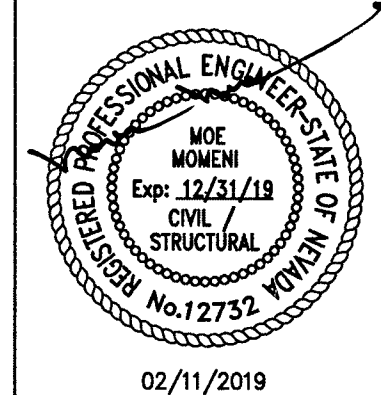
APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136089 FIRST APPROVED DATE: 3-6-19
LVWD APPROVED FIRE FLOW: TOTAL 2,750 GPM / ON SITE 2,750 GPM
SHEETS: C-1, C-2, D-1, P-1, MU, U-1, U-2

REVISIONS	DATE	DESCRIPTION	BY	APPROVAL

momeni ENGINEERS, LLC.
CIVIL & STRUCTURAL ENGINEERING
3110 S. DURANGO DRIVE, SUITE 205
LAS VEGAS, NEVADA 89117
TEL: (702) 902-2444 | FAX: (702) 248-8495 | MDE@MHENGINEERS.COM



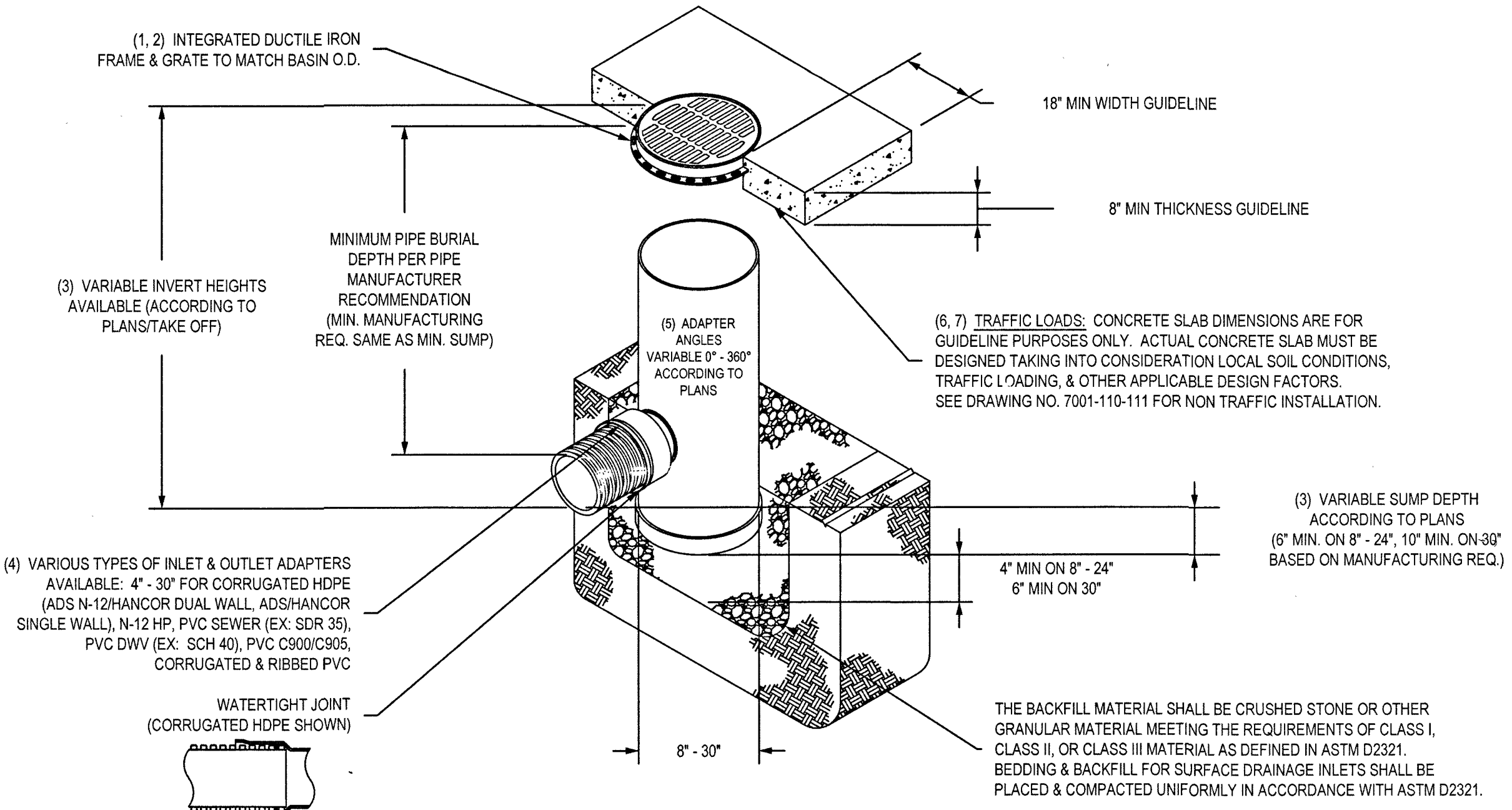
02/11/2019
DATE
103109
PROJECT NUMBER
RM
DRAWN BY
MM
CHECKED BY

DURANGO BELTWAY PLAZA
CITY OF LAS VEGAS
SWO OF ROME BLVD. AND RILEY ST.
DETAIL SHEET 1

SHEET:
D-1
5 OF 13
CLV L18-02031

PROJ: 136089A QS: 125-20-5E

NYLOPLAST DRAIN BASIN WITH STANDARD GRATE

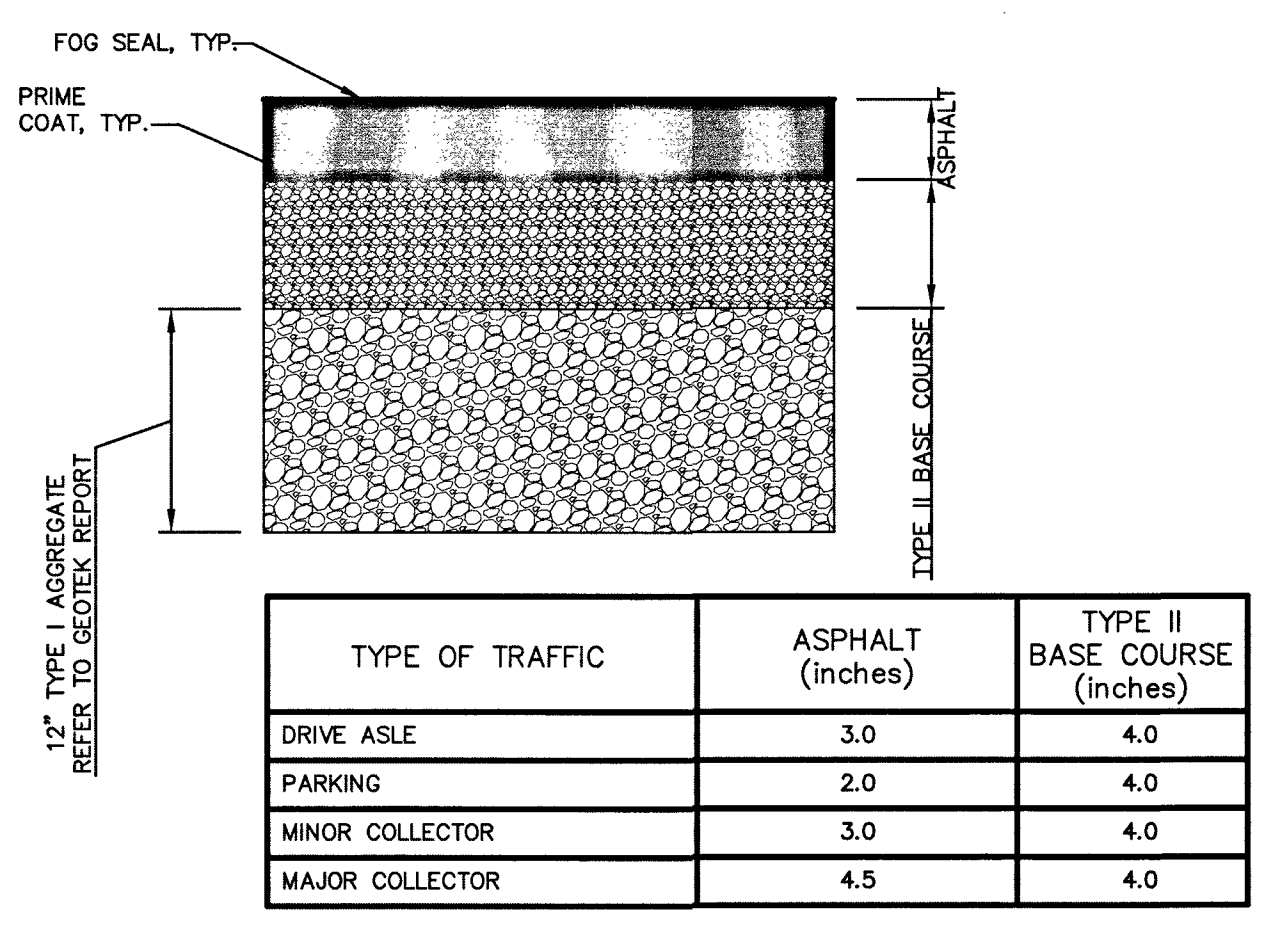


- 1 - 8" - 30" STANDARD GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
- 2 - 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05. 8" & 10" STANDARD GRATES FIT DIRECTLY ONTO DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
- 3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
- 4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL, N-12 HP, & PVC SEWER (EX. SCH 35), N-12 HP, & PVC SEWER (EX. SCH 40), PVC C900/C905, CORRUGATED & RIBBED PVC).
- 5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
- 6 - 12" - 30" STANDARD GRATES SHALL MEET H-20 LOAD RATING.
- 7 - 8" & 10" STANDARD GRATES ARE RATED FOR LIGHT DUTY APPLICATIONS ONLY; NO CONCRETE COLLAR NEEDED FOR LIGHT DUTY RATING.

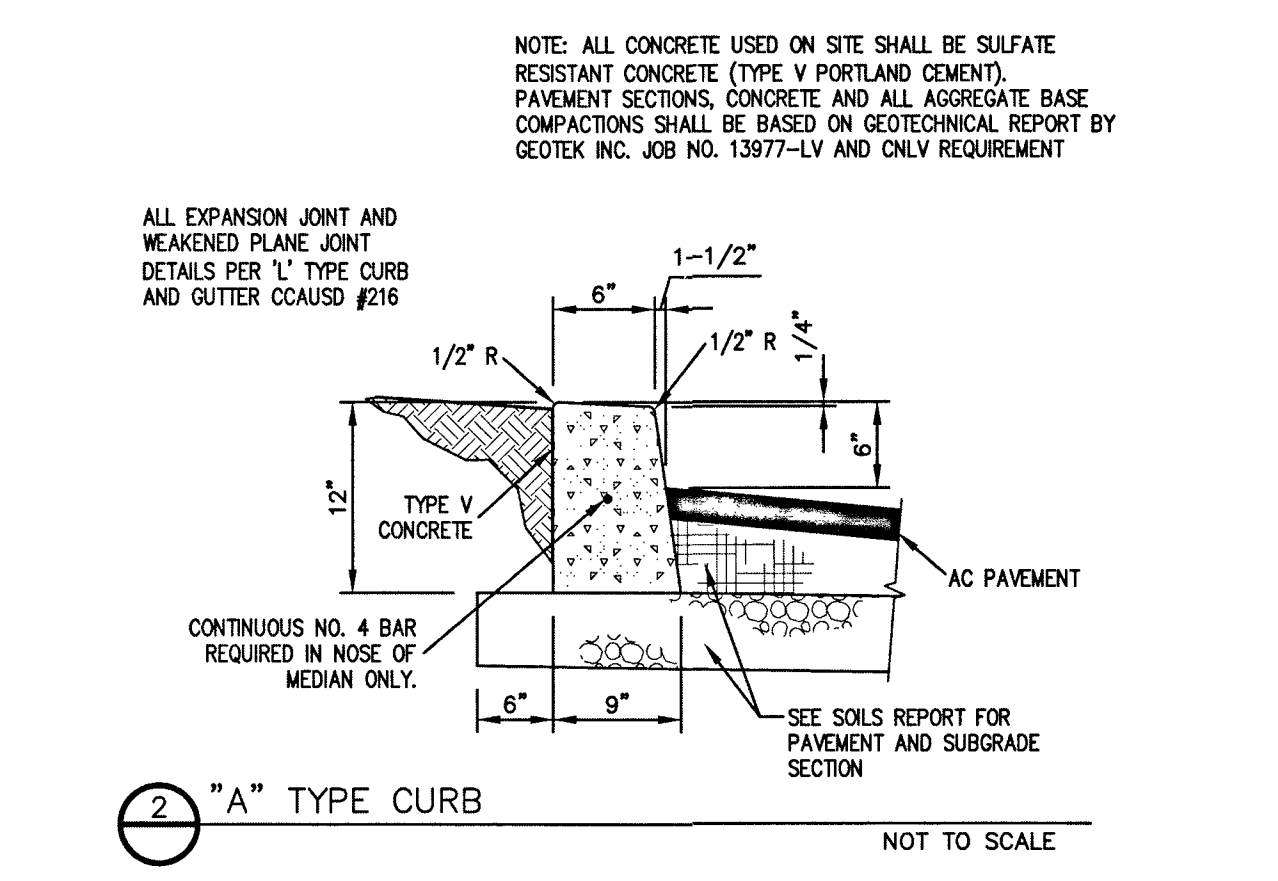
THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.

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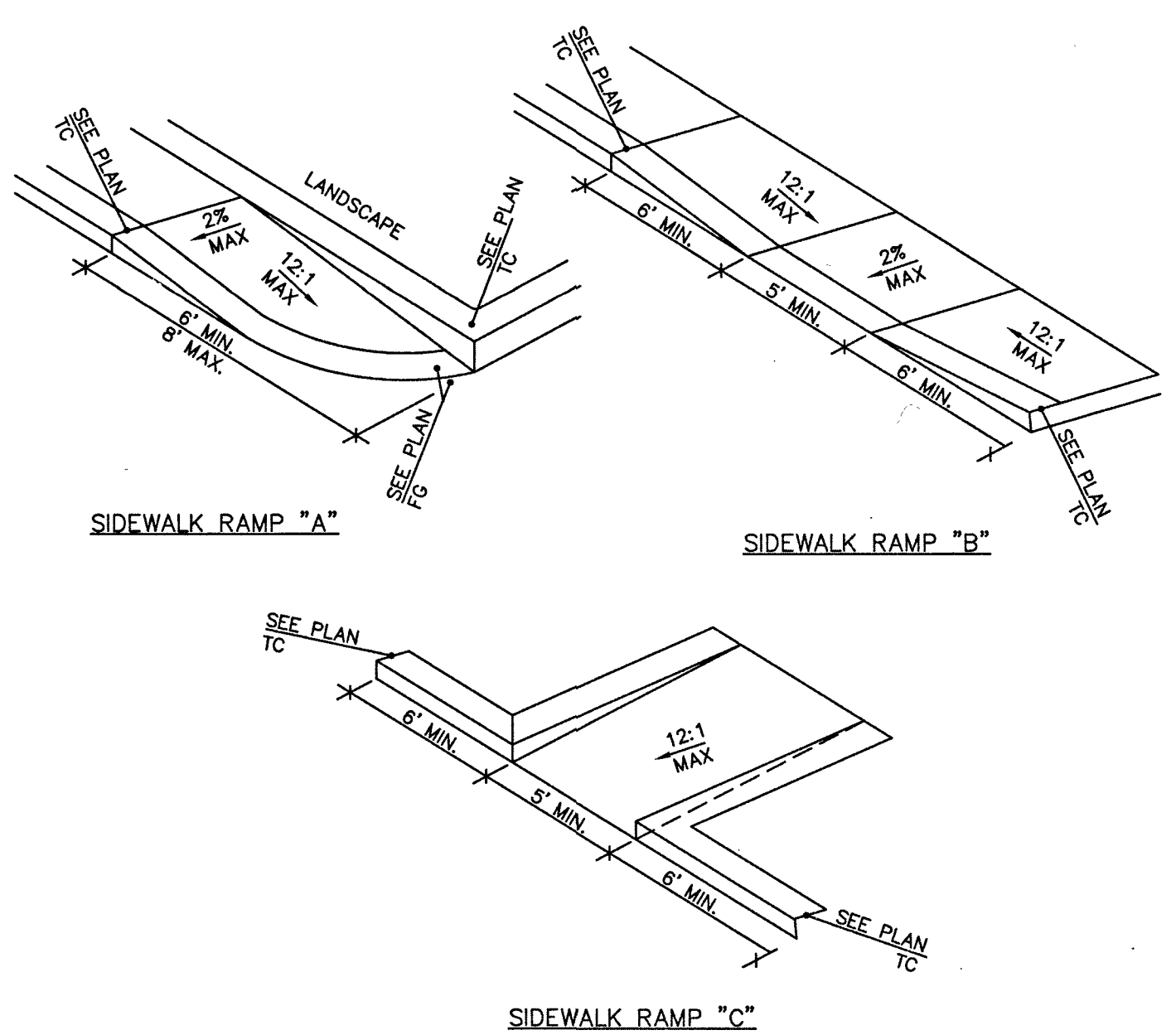
DRAWN BY	EBC	MATERIAL	3130 VERONA AVE BURLINGTON, MA 01803 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
DATE	1-23-06	PROJECT NO./NAME	
REVISED BY	NMH	TITLE	DRAIN BASIN WITH STANDARD GRATE QUICK SPEC INSTALLATION DETAIL
DATE	03-11-16	DWG NO.	7001-110-144
DWG SIZE	A	SCALE	1:40
SHEET	1 OF 1	REV	H



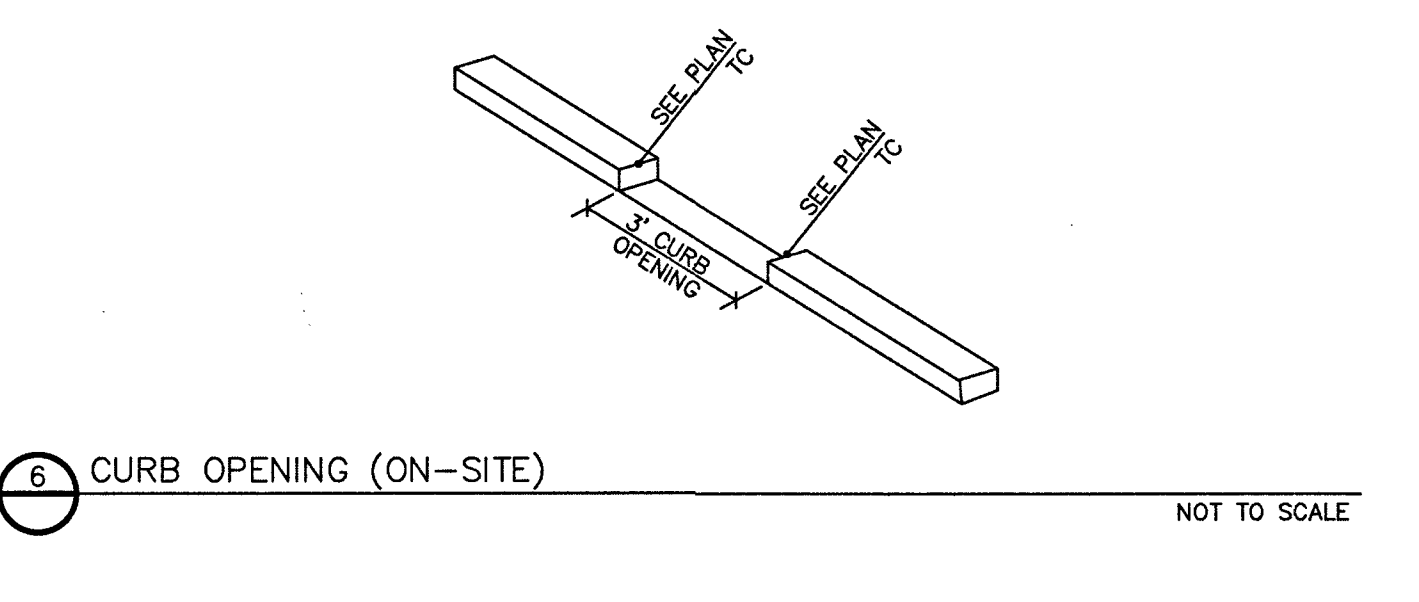
1 ASPHALT PAVEMENT SECTIONS (ON-SITE) NOT TO SCALE



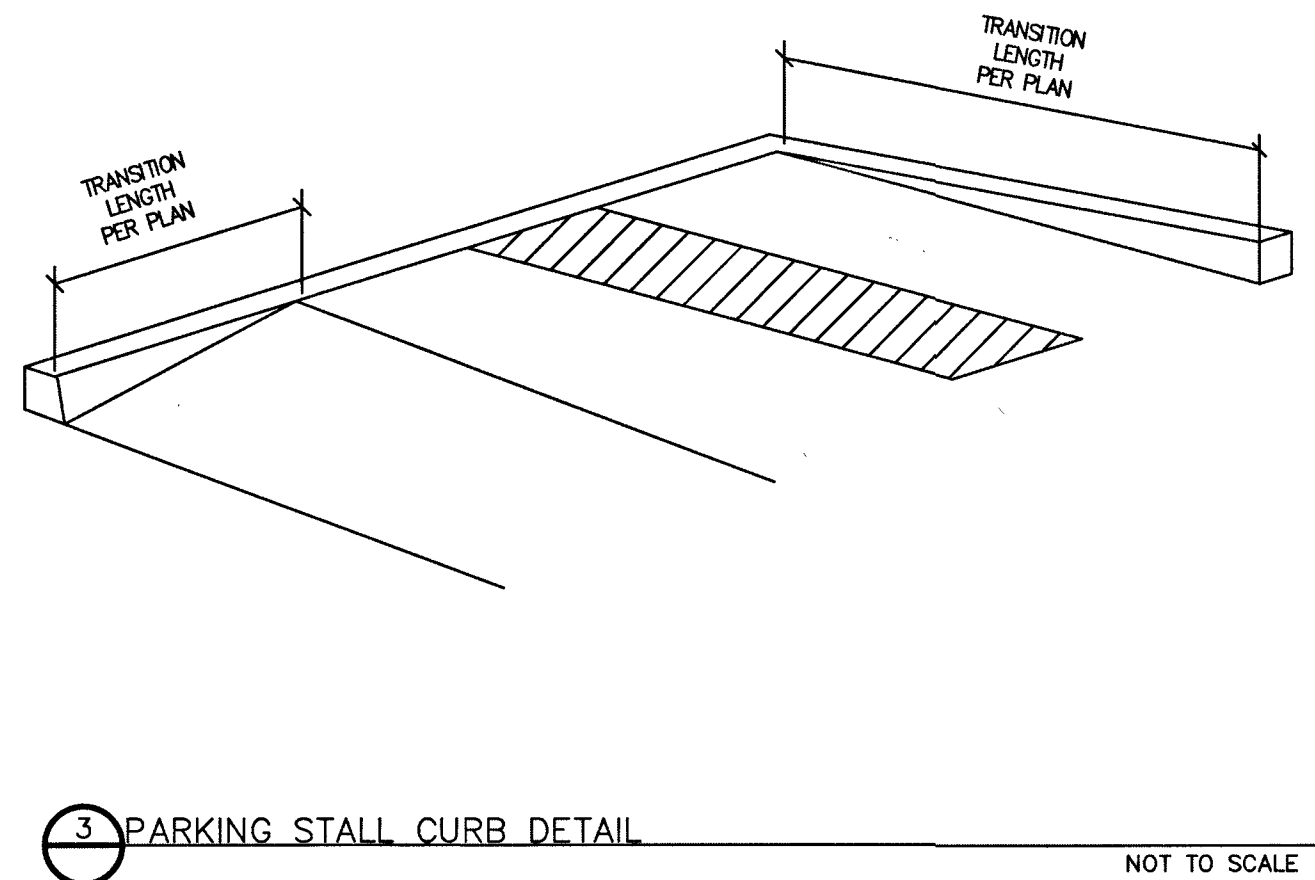
2 "A" TYPE CURB NOT TO SCALE



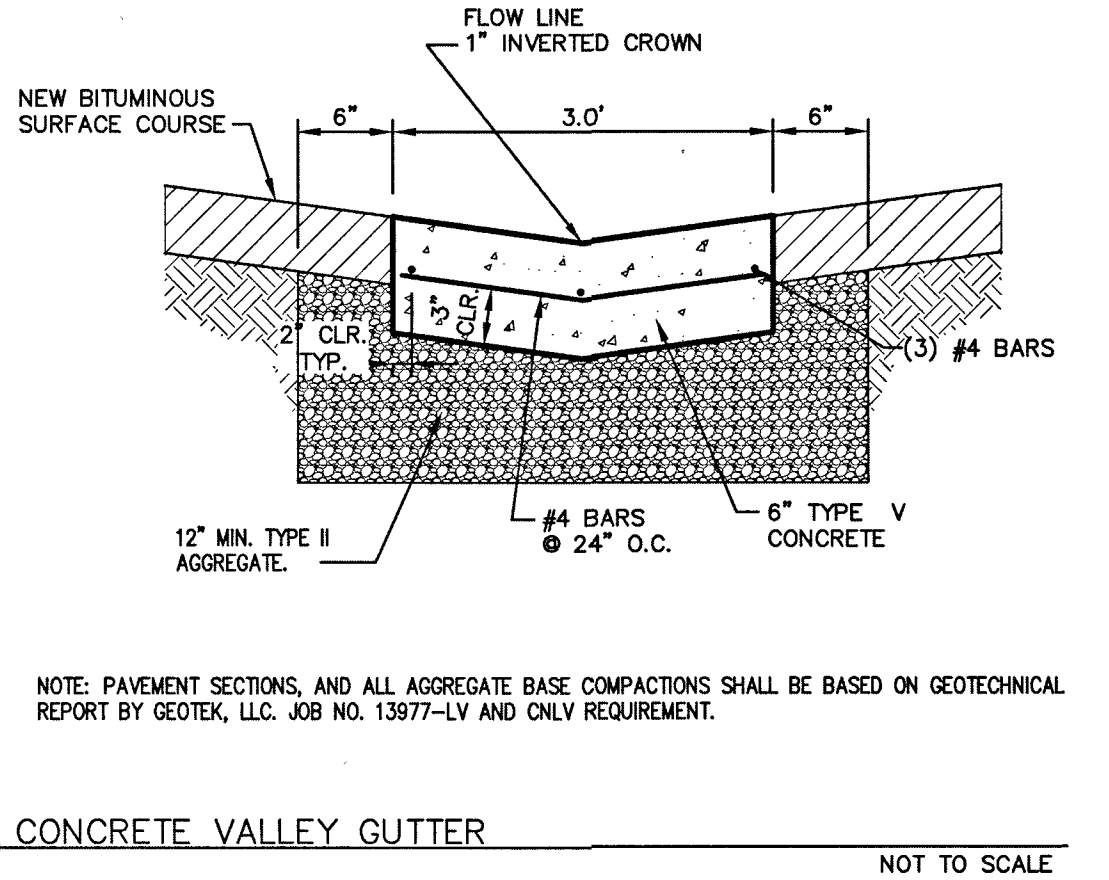
5 SIDEWALK RAMPS (ON-SITE) NOT TO SCALE



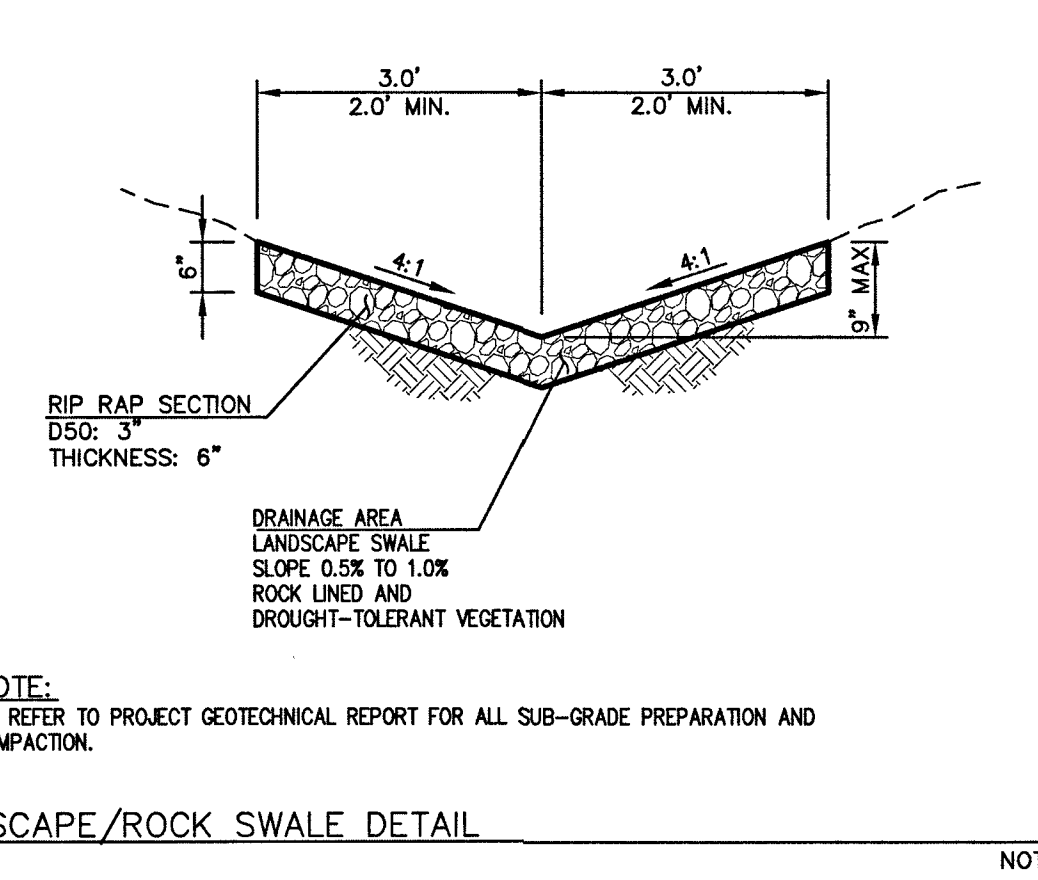
6 CURB OPENING (ON-SITE) NOT TO SCALE



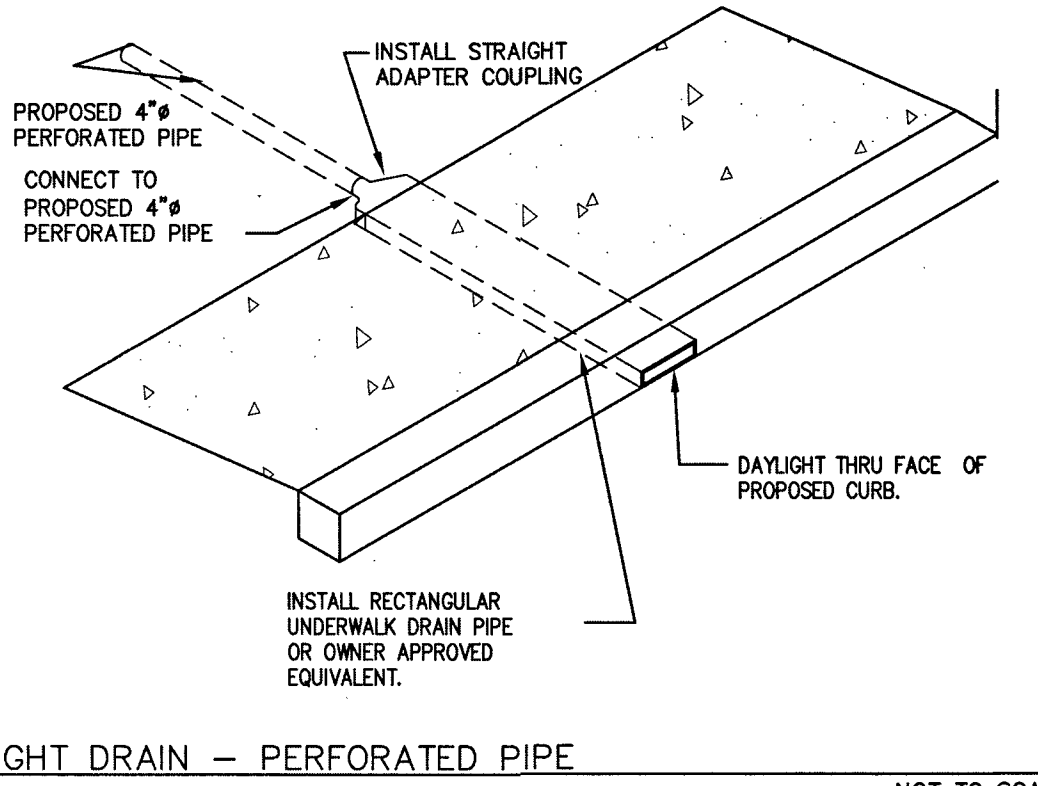
3 PARKING STALL CURB DETAIL NOT TO SCALE



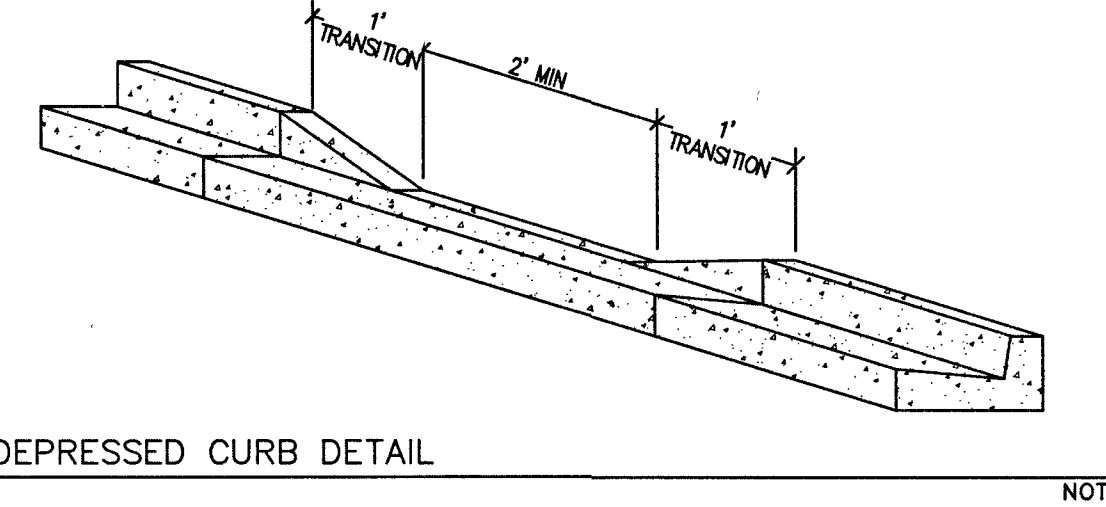
4 CONCRETE VALLEY GUTTER NOT TO SCALE



7 XERISCAPE/ROCK SWALE DETAIL NOT TO SCALE



8 DAYLIGHT DRAIN - PERFORATED PIPE NOT TO SCALE



9 DEPRESSED CURB DETAIL NOT TO SCALE

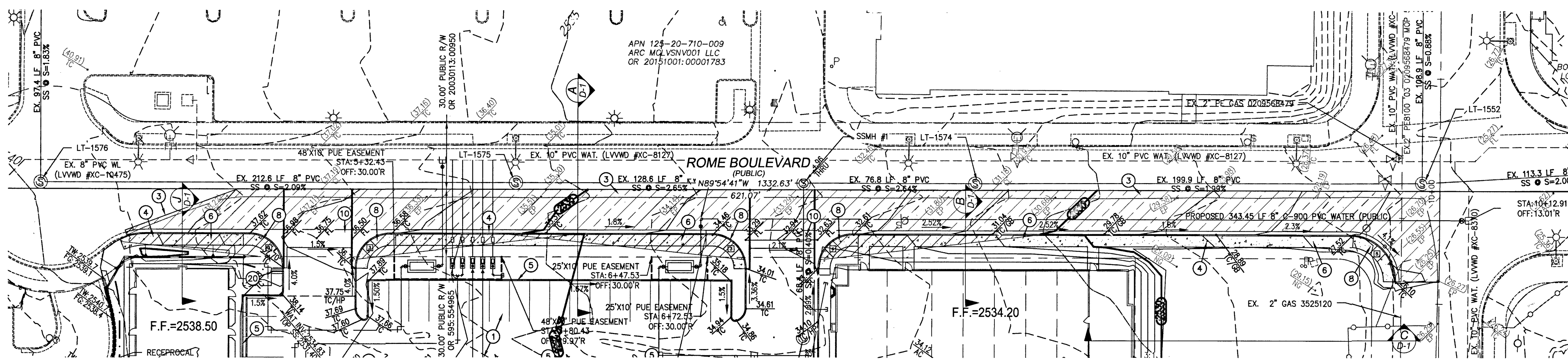
REVISIONS	DESCRIPTION	DATE	BY	APPROVAL

momeni ENGINEERS, LLC.
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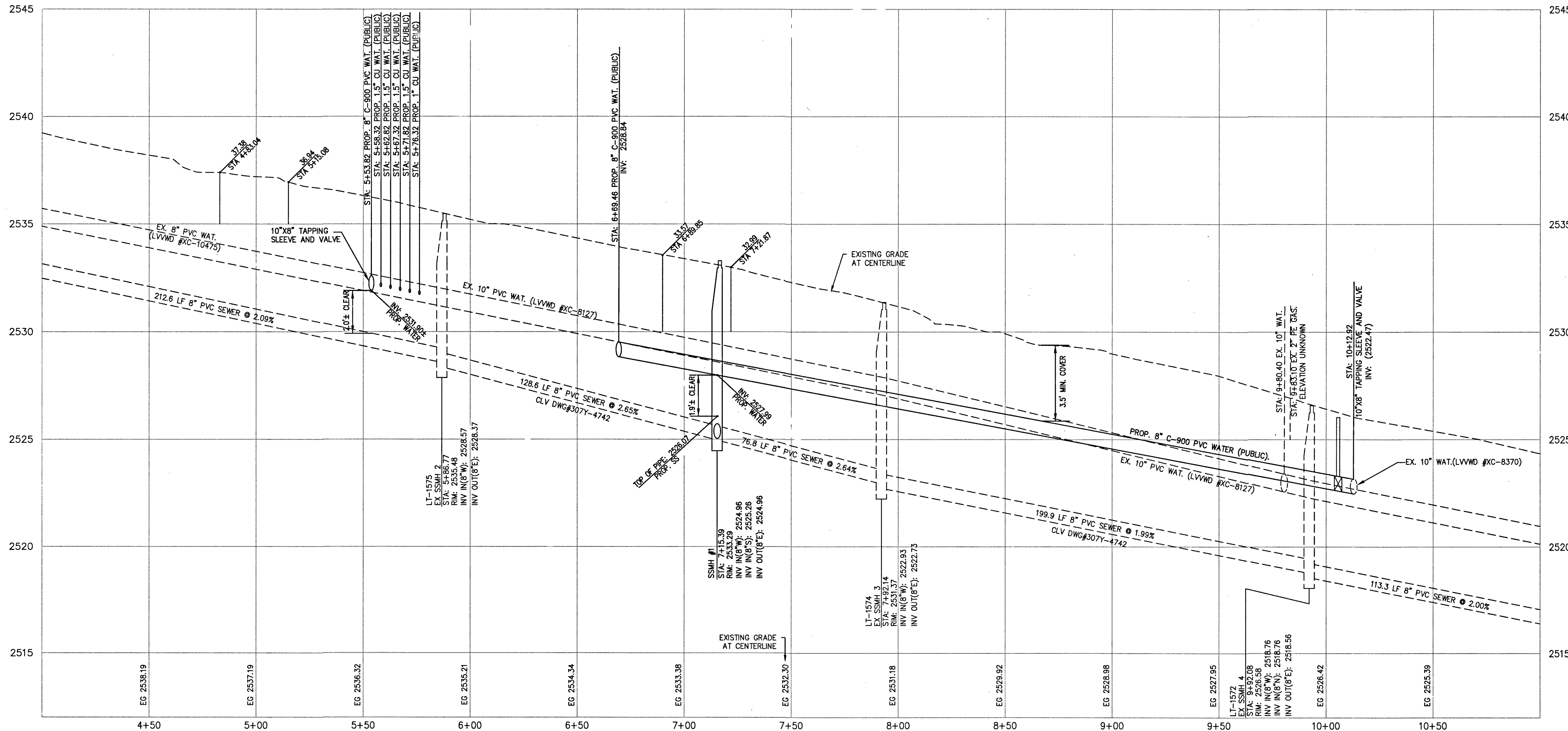
Professional Engineer
Momeni
Exp: 12/31/18
Civil Structural
No. 12731
02/11/2019

02/11/2019
DATE
103109
PROJECT NUMBER
RM
DRAWN BY
NM
CHECKED BY

PROJECT: **DURANGO BELTWAY PLAZA**
CITY OF LAS VEGAS
SWC OF ROME BLVD. AND RILEY ST.
DETAIL SHEET II



ROME PROFILE



PROTECT IN PLACE AND ADJUST LVWD EXISTING FACILITIES TO FINISH GRADE PER LOADS. ALL LVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES

FIRE DEPARTMENT APPROVAL
APPROVAL BY THE FIRE DEPARTMENT HAVING JURISDICTION IS REQUIRED PRIOR TO OBTAINING FINAL APPROVAL FROM THE LVWD.

APPROVED FOR CONSTRUCTION

James Shashy
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136089 - FIRST APPROVED DATE: 2-6-19
LVWD APPROVED FIRE FLOW: TOTAL 2,750 GPM / ON SITE 2,750 GPM
SHEETS: C-1, C-2, D-1, P-1, MU, U-1, U-2

APPROVAL

Byron Atkins
SOUTHWEST GAS

DATE
2/21/19

GRADING NOTES:

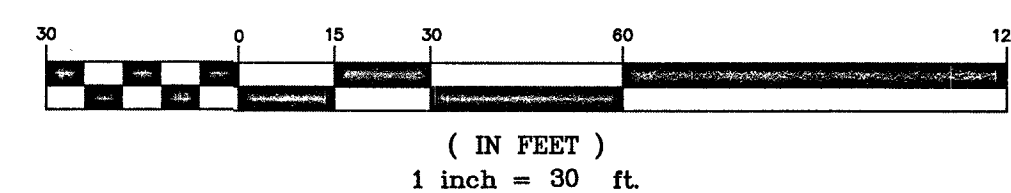
- THE CONTRACTOR SHALL VERIFY ALL CONDITIONS OF EXISTING STRUCTURES INCLUDING LOCATION, ELEVATION, AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO MOMEN ENGINEERS PRIOR TO CONSTRUCTION.
- ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION DURING CONSTRUCTION THROUGH THE USE OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP).
- ADD 2500 TO PLAN GRADES WITH THE EXCEPTION OF FINISHED FLOORS UNLESS NOTED OTHERWISE.
- CONTRACTOR TO VERIFY ALL HANDICAP ACCESSIBLE ROUTES AND PARKING STALLS ARE IN CONFORMANCE WITH ADA ACCESSIBILITY GUIDELINES AND DO NOT EXCEED MAXIMUM SLOPES IN ANY DIRECTION PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES.
- MOMEN ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING ARE FROM THE BEST AVAILABLE INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES, INCLUDING BUT NOT LIMITED TO, WATER, FIRE, SANITARY SEWER, STORM SEWER, TELEPHONE, POWER, GAS, AND IRRIGATION LINES. ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION. IF CONFLICTS EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE PROJECT ARCHITECT, OWNER'S REPRESENTATIVE, AND THE PROJECT ENGINEER IMMEDIATELY.
- NO WALLS, FENCES, SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL DEVICES, FIRE HYDRANTS, TREES, AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT MEASURED FROM THE TOP OF CURB, OR WHERE NO CURB EXISTS, A HEIGHT OF 27 INCHES MEASURED FROM THE TOP OF ADJACENT ASPHALT, GRAVEL OR PAVEMENT STREET SURFACE. THE RESTRICTION EXTENDS ALONG THE SIGHT VISIBILITY LINE THROUGH LANDSCAPED MEDIANS.
- CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CLARK COUNTY BUILDING DEPARTMENT.

CONSTRUCTION NOTES:

- ALL CONSTRUCTION TO BE DONE IN ACCORDANCE WITH "CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS" (CCAUDS) LATEST EDITION AND/OR REGULATING ENTITY HAVING JURISDICTION.
- CONSTRUCT LIGHT ASPHALT PAVEMENT PER DETAIL 1 ON SHEET D-2.
 - CONSTRUCT HEAVY ASPHALT PAVEMENT PER DETAIL 1 ON SHEET D-2.
 - SAW CUT AND MATCH EXISTING ASPHALT AT LIMITS SHOWN.
 - CONSTRUCT "L" TYPE CURB PER CCAUSD NO. 216.
 - CONSTRUCT "A" TYPE CURB PER DETAIL 2 ON SHEET D-2.
 - CONSTRUCT 5' CONC. SIDEWALK PER CCAUSD NO. 234.
 - CONSTRUCT SIDEWALK DRAIN PER DETAIL 8, SHEET D-2.
 - CONSTRUCT SIDEWALK RAMP PER CCAUSD NO. 235, CASE 1. SEE SIDEWALK RAMP TABLE ON SHEET G-1 FOR "A" AND "B" DIMENSIONS.
 - CONSTRUCT CONC. VALLEY GUTTER PER DETAIL 4 ON SHEET D-2.
 - CONSTRUCT 8' CROSS GUTTER PER CCAUSD NO. 228.
 - TRASH ENCLOSURE W/ GATES. REFER TO ARCH. PLANS FOR DETAILS.
 - LANDSCAPE. REFER TO LANDSCAPE ARCH. PLANS FOR DETAILS.
 - CONSTRUCT STEPS. REFER TO ARCH. PLANS FOR SPECIFICATIONS.
 - INSTALL NYLOPLAST DRAIN INLET OR APPROVED EQUAL.
 - INSTALL 12" SDR-35 PVC STORM DRAIN.
 - CONSTRUCT HANDICAP STALL CURB, SEE DETAIL 3 ON SHEET D-2.
 - CONSTRUCT 3' CURB OPENING, SEE DETAIL 6 ON SHEET D-2.
 - CONSTRUCT CONCRETE SIDEWALK, SIZE PER PLAN.
 - INSTALL RIPRAP, D50=3", THICKNESS=6".
 - INSTALL 2" SIDEWALK UNDERDRAIN, PER CCAUSD NO. 236.
 - CONSTRUCT SIDEWALK RAMP, SEE DETAIL 5 ON SHEET D-2.
 - CONSTRUCT DEPRESSIONED CURB TRANSITION, SEE DETAIL 9 ON SHEET D-2.
 - INSTALL CONCRETE WHEEL STOP.

SEE SHEET C-2 FOR CITY OF LAS VEGAS STORMWATER MANAGEMENT NOTES.

GRAPHIC SCALE



BASIS OF BEARINGS:

SOUTH 00°16'37" WEST, BEING THE BEARING OF THE CENTERLINE OF DURANGO DRIVE AND THE WEST LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 60 EAST, ALAM, CLARK COUNTY, NEVADA, AS SHOWN IN FILE 206 OF SURVEYS, AT PAGE 37, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA.

BENCHMARK:

CITY OF LAS VEGAS BENCHMARK "SLV02056" RIVET & PLATE IN TOP OF CURB AT SW CORNER OF DURANGO DR. & WESTBOND HIGHWAY 215 ON RAMP.
ELEVATION: 2558.08 (US SURVEY FEET)
779.704 (METERS)
BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

GRADING PLAN CERTIFICATION:

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

Mac Momen 2-5-19
MOE MOMEN, P.E. #12732

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

Call Before You Overhead
1-702-227-2929

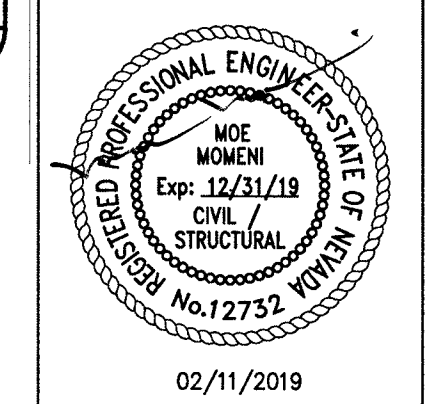
AVOID HITTING UNDERGROUND UTILITY LINES. IT'S COSTLY.

Call Before You Underhead
1-702-432-5300

Call before you dig
1-800-227-2600

REVISIONS	DESCRIPTION	DATE	BY	APPROVAL

momen ENGINEERS, LLC.
CIVIL & STRUCTURAL ENGINEERING
3110 S. DURANGO DRIVE, SUITE 205
LAS VEGAS, NEVADA 89117
TEL: (702) 902-2444 | FAX: (702) 248-8495 | MOE@MHENGINEERS.COM

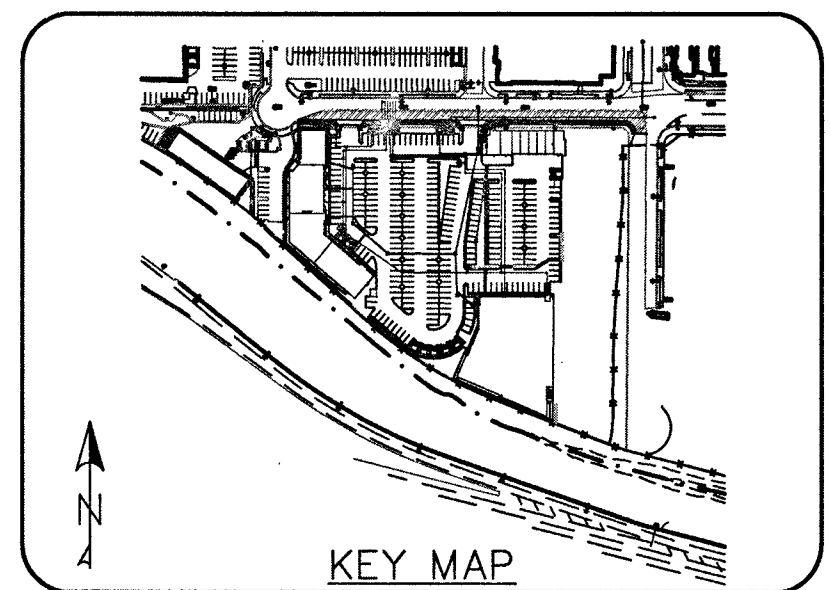
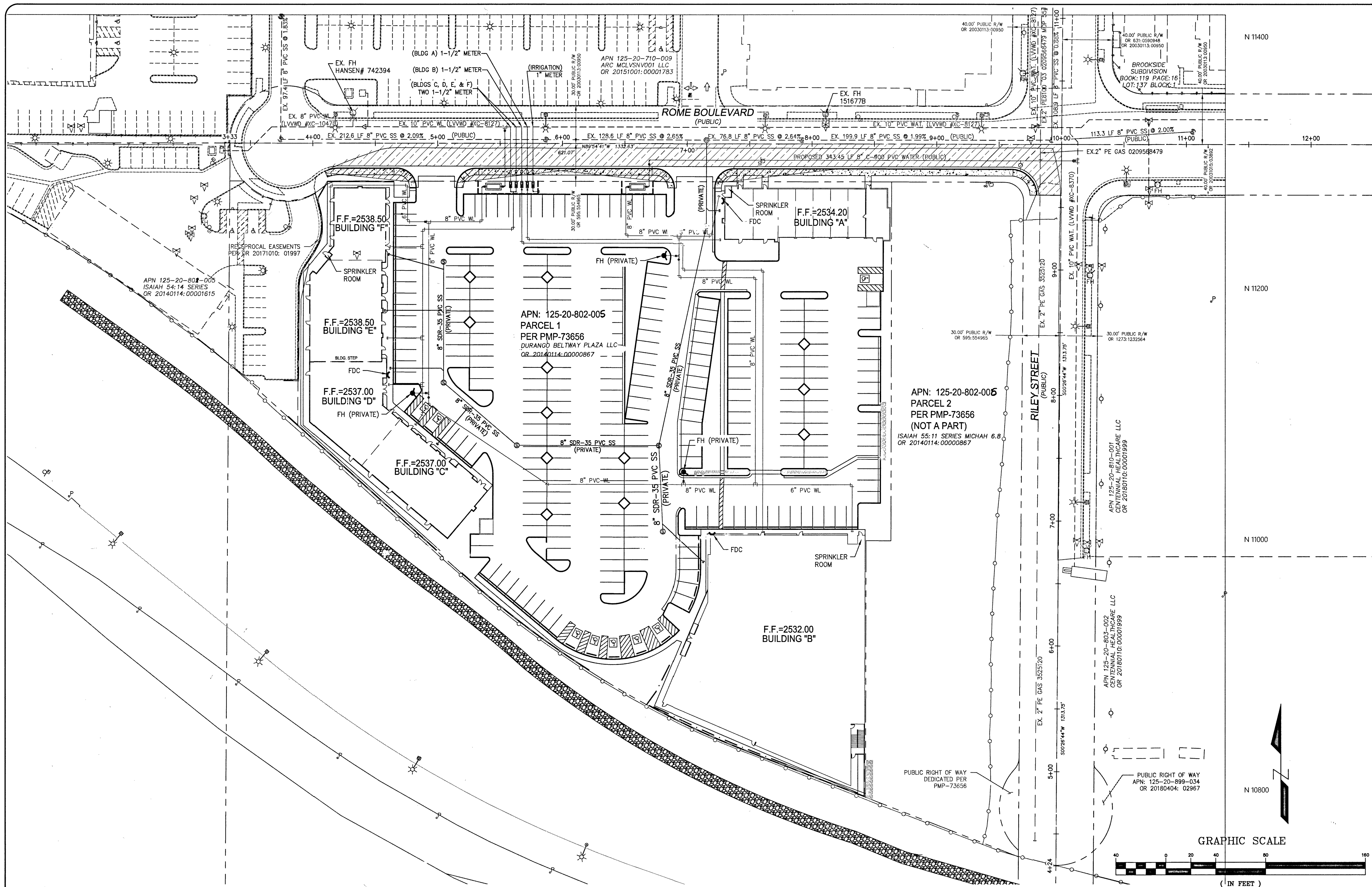


02/11/2019
DATE
103109
PROJECT NUMBER
RM
DRAWN BY
MM
CHECKED BY

PROJECT: **DURANGO BELTWAY PLAZA**
CITY OF LAS VEGAS
SVC OF ROME BLVD. AND RILEY ST.
ROME BLVD PLAN + PROFILE

SHEET: **P-1**
7 OF 13
CLV L18-02031

PROJ. #136089, QS:125-20-SE



LAS VEGAS FIRE & RESCUE NOTES:

FIRE FLOW IS BASED ON TABLE B 105.1 IFC 2012, APPENDIX B

BUILDING HEIGHT, NUMBER OF STORIES, AND TYPE OF CONSTRUCTION ARE ALL DETERMINED BASED ON THE GUIDELINES AND DEFINITIONS OUTLINE IN IFC APPENDIX B

ANY PERMITTED REDUCTIONS IN THE REQUIRED FIRE FLOW ARE OUTLINED IN SNFC 8105.2

IN DETERMINING THE MINIMUM NUMBER OF HYDRANTS REQUIRED, THE MAXIMUM FLOW FROM EACH HYDRANT SHALL BE 1500 GPM. HYDRANT SPACING SHALL BE PER IFC APPENDIX C / SNFC SECTION C105.1

DEVELOPMENT WITH MULTIPLE BUILDINGS: THIS CHART SHALL BE PROVIDED FOR THE LARGEST BUILDING FOR EACH CONSTRUCTION TYPE, AND FOR EACH SPRINKLERED/NON SPRINKLERED BUILDING TYPE IF APPLICABLE

FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENT IS 2,750 GALLONS PER MINUTE AT 20 P.S.I. RESIDUAL PRESSURE.

BASED ON:

SQUARE FOOTAGE:	40,000 S.F.
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION FIRE WALLS:	40,000 S.F.
BUILDING HEIGHT:	35 FEET
NUMBER OF STORIES:	2 FLOORS
TYPE OF CONSTRUCTION:	V-B
OCCUPANCY:	A-3
AUTOMATIC FIRE SPRINKLER SYSTEM: Y (NFPA 13) - DEMAND 360 GPM	

REVIEWED BY: *[Signature]* DATE: 2/14/19

EASEMENT WITH TREES, SHRUBS, FENCE, BLOCK WALLS, OR DECORATIVE ROCKS

TREES, SHRUBS, OR DECORATIVE ROCKS, AND ANY BLOCK WALL OR OTHER FENCE MATERIAL, SHALL BE DESIGNED AND CONSTRUCTED AROUND THE EASEMENT(S) TO ALLOW THE CITY DIRECT ACCESS TO THE VAULT(S), BACKFLOW ASSEMBLIES, AND PIPING FROM THE ADJACENT RIGHT-OF-WAY.

UTILITY CONSTRUCTION NOTE:

WE ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS PLAN ARE FROM THE BEST AVAILABLE INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES, INCLUDING BUT NOT LIMITED TO, THE WATER, FIRE, SANITARY SEWER, STORM SEWER, TELEPHONE, POWER, GAS, AND IRRIGATION LINES PRIOR TO THE START OF CONSTRUCTION. IF CONFLICTS EXIST IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE PROJECT ARCHITECT, OWNER'S REPRESENTATIVE, AND THE PROJECT ENGINEER IMMEDIATELY.

BASIS OF BEARINGS:

SOUTH 00°16'37" WEST, BEING THE BEARING OF THE CENTERLINE OF DURANGO DRIVE AND THE WEST LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 20, TOWNSHIP 19 NORTH, RANGE 12 EAST, CLARK COUNTY, NEVADA, AS SHOWN IN FILE 205 OF SURVEYS, AT PAGE 97, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA.

BENCHMARK:

CITY OF LAS VEGAS BENCHMARK "SLV802056" RIVET & PLATE IN TOP OF CURB AT SW CORNER OF DURANGO DR. & WESTBOUND HIGHWAY 215 ON RAMP.

ELEVATION: 2558.08 (US SURVEY FEET) 779.704 (METERS)

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

Call Before You Dig

Call before you dig. Avoid hitting underground utility lines. Call 1-800-227-2600 or 1-702-432-5300.

PRESSURE REDUCING VALVE (PRV) NOTE:

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

LVVWD SURVEY NOTE:

CONTRACTOR SHALL EMPLOY A NEVADA LICENSED PROFESSIONAL LAND SURVEYOR (PLS) TO FIELD STAKE THE EXTEND OF THE PROPOSED/EXISTING LVVWD EASEMENT WITHIN THE PROJECT SITE. THESE STAKES SHALL BE CONTINUOUSLY MAINTAINED DURING THE CONSTRUCTION OF THE PROJECT. THE PLS SHALL ALSO FIELD STAKE THE PROPOSED EXTEND OF ADJACENT PROJECT BUILDING IMPROVEMENTS IMMEDIATELY ADJACENT TO THE EASEMENT. CONTRACTOR SHALL NOTIFY THE LVVWD INSPECTOR AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO PROPOSED INITIAL BUILDING EXCAVATION AND FOUNDATION CONSTRUCTION ACTIVITY. LVVWD WILL INSPECT THE FIELD STAKING FOR COMPLIANCE WITH SEPARATION REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY LVVWD PRIOR TO UTILITY TRENCHING OR ANY OTHER SUBGRADE EFFORTS WITHIN THE PROPOSED/EXISTING LVVWD EASEMENTS.

TO ENSURE LVVWD ACCESS WITHIN EASEMENT

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

WARNING FIRE LINE (NON-POTABLE WATER) ALL EXISTING, RELOCATED OR PROPOSED DCDA/RPDA INSTALLATIONS:

"TO COMPLY WITH THE FEDERAL SAFE DRINKING WATER ACT, THE FIRE LINE OR ANY OF ITS COMPONENTS, SHALL NOT BE USED FOR POTABLE DRINKING WATER AT ANY TIME"

PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISH GRADE PER UDACS.

ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES

NOTE: ABOVE UTILITY

ALL ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF TITLE 19.06 & 19.08

ESTIMATED DAILY SEWER CONTRIBUTIONS (MGD)

(LIGHT COMMERCIAL)
3.95 ACRES X 4,500 GPD/ACRE = 17,775 GPD
TOTAL AVERAGE CONTRIBUTION = 0.018 MGD
TOTAL PEAK FLOW = 0.018 MGD X 3.4 (PEAK FACTOR) = 0.061 MGD
TOTAL PEAK + 25% MET WEATHER FLOW = 0.061 MGD X 1.25 = 0.077 MGD

(2) 8" REDUCED PRESSURE DETECTOR ASSEMBLY RPDA

THE REDUCED PRESSURE DETECTOR ASSEMBLY SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE NO. 56.

ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) SO AS TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY.

EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION. INSTALL VEHICULAR PROTECTION BOLLARDS AS NEEDED PER UDACS PLATE NO. 75.

(4) 1.5" & (1) 1" PRIVATE REDUCED PRESSURE PRINCIPLE ASSEMBLY RPPA

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

APPROVAL

[Signature] 2/14/19
DATE

APPROVAL

[Signature] 2/14/19
DATE

APPROVED FOR CONSTRUCTION

[Signature]
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136089 FIRST APPROVED DATE: 3-6-19
LVVWD APPROVED FIRE FLOW: TOTAL 2,750 GPM / ON SITE 2,750 GPM
SHEETS: C-1, C-2, D-1, P-1, MU, U-1, U-2

FIRE DEPARTMENT APPROVAL

APPROVAL BY THE FIRE DEPARTMENT HAVING JURISDICTION IS REQUIRED PRIOR TO OBTAINING FINAL APPROVAL FROM THE LVVWD.

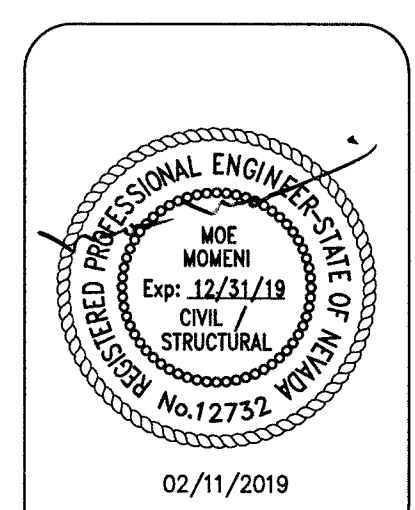
REVISIONS	DESCRIPTION	DATE	BY	APPROVAL

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LAS VEGAS, NEVADA 89117

TEL: (702) 902-2444 | FAX: (702) 248-8485 | MOE@MHMEENGINEERS.COM



02/11/2019
DATE

103109
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DRAWN BY

MM
CHECKED BY

DURANGO BELTWAY PLAZA

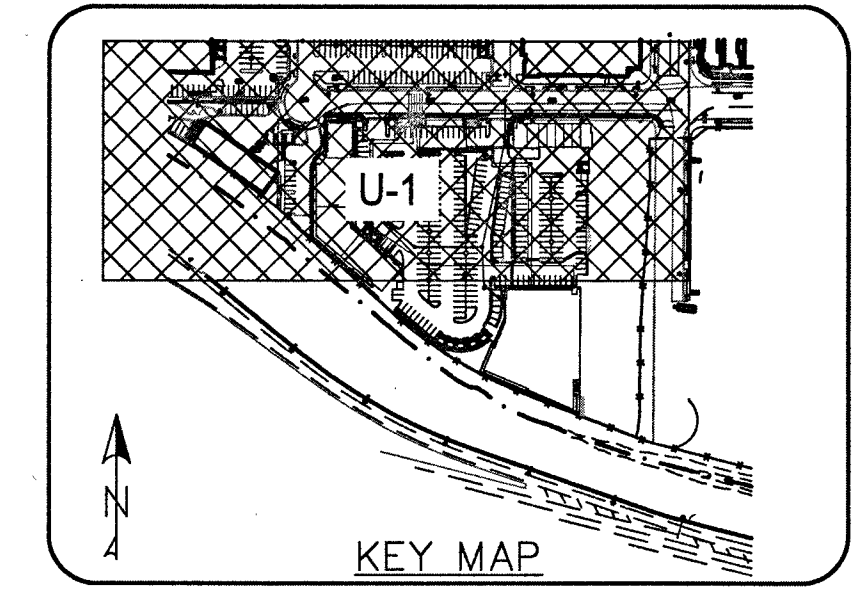
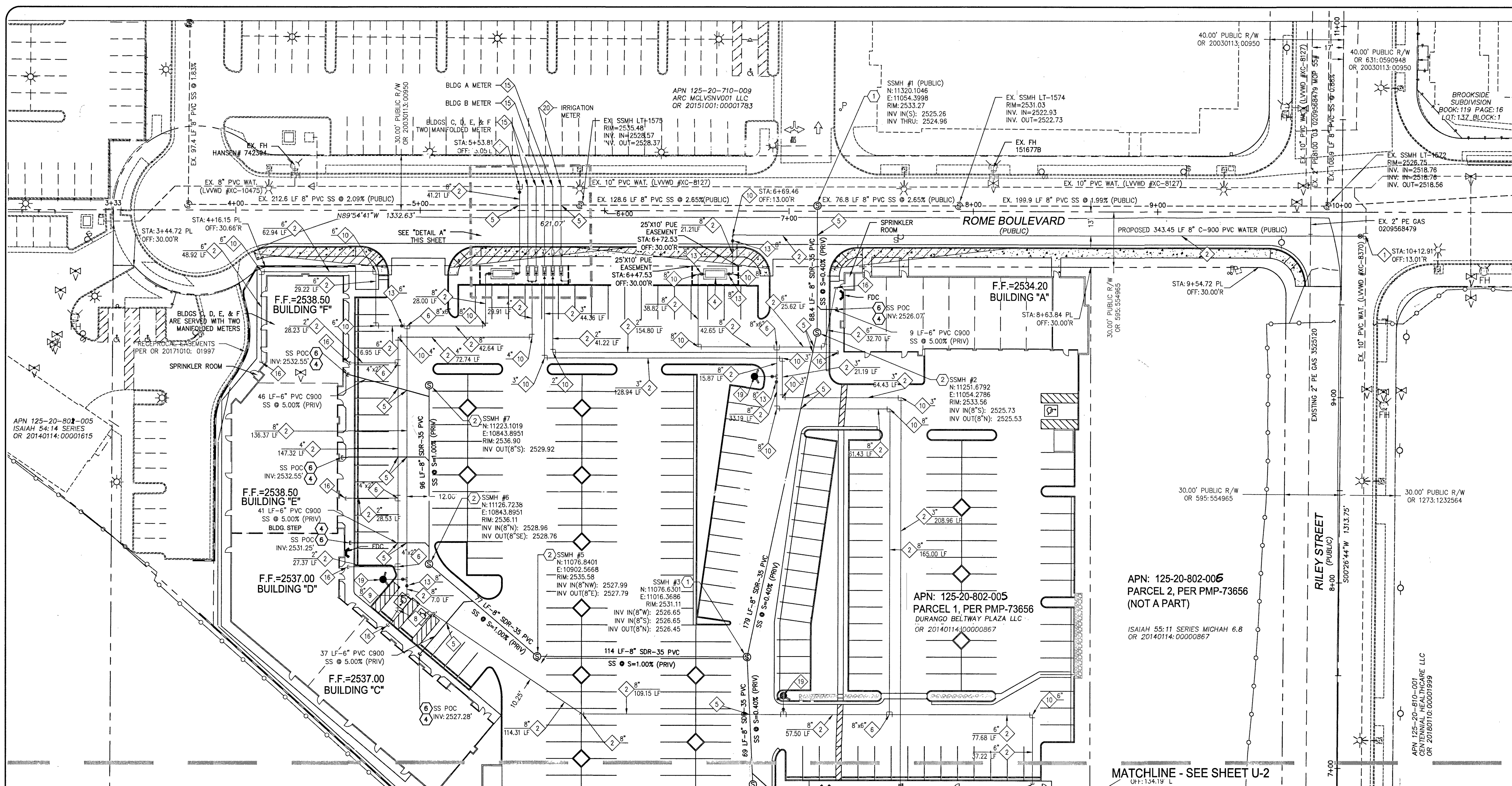
CITY OF LAS VEGAS
SVC OF ROME BLVD. AND RILEY ST.

MASTER UTILITY PLAN

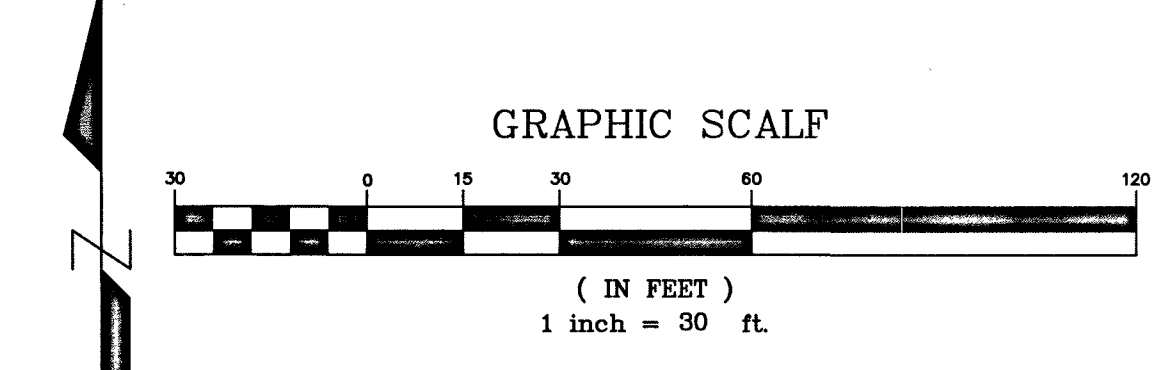
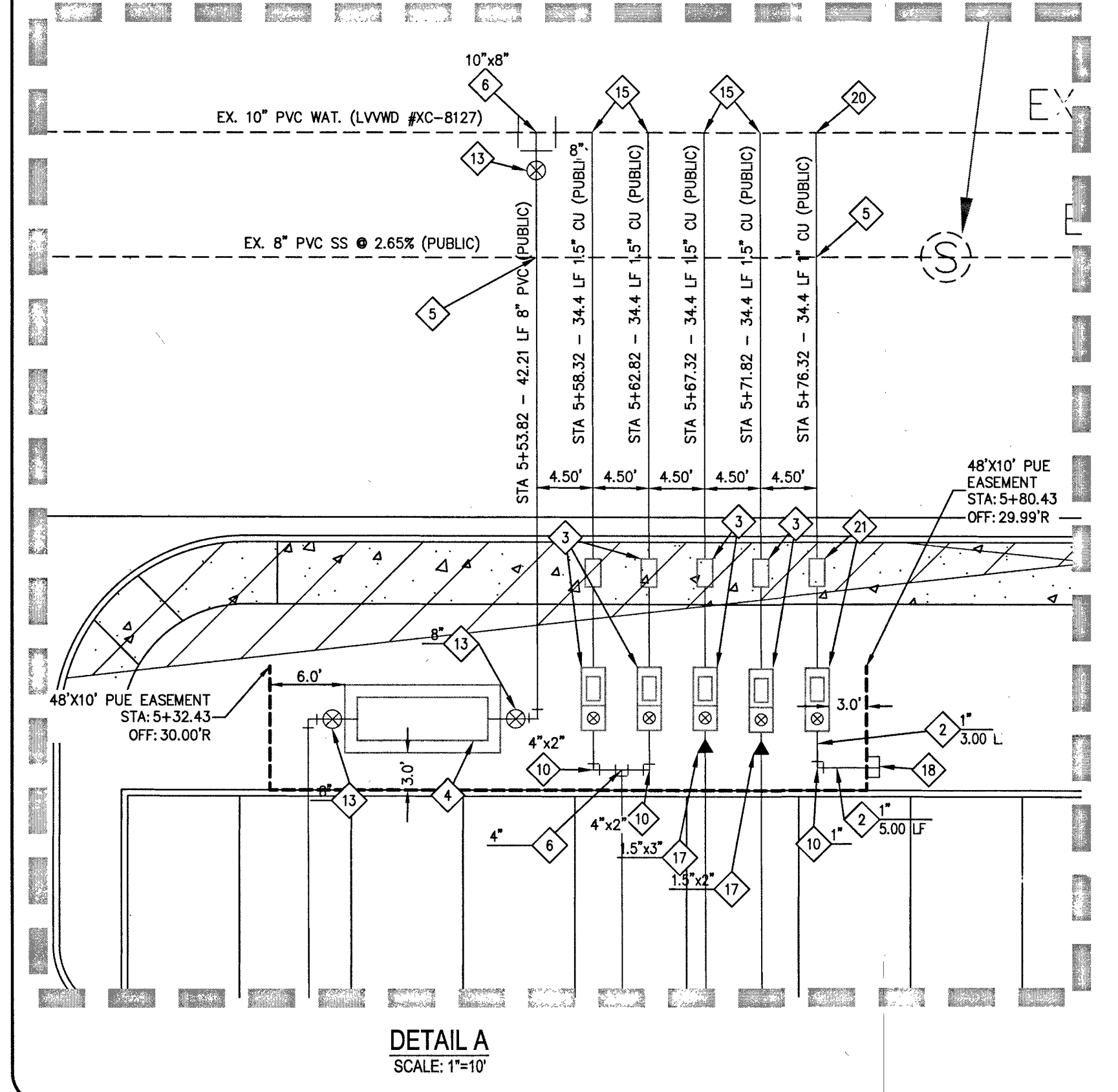
SHEET: **MU**

8 OF 13
CLV L18-02031

PROJ.#: 136089A QS:125-20-5E



- WATER CONSTRUCTION NOTES:**
- 1. ALL WATER CONSTRUCTION TO BE DONE IN ACCORDANCE WITH UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) LATEST EDITION AND ALL APPLICABLE ORDINANCES ADOPTED BY THE CITY OF LAS VEGAS.
 - 2. INSTALL TAPPING SLEEVE & TAPPING VALVE PER UDACS PLATE NO. 34, 39, & UDACS SECTION 2.24.01 B
 - 3. INSTALL C-900 PVC WATER LINE, SIZE PER PLAN
 - 4. INSTALL 1.5" METER WITH 1.5" RPPA TO BE INSTALLED OUTSIDE ROW, PER UDACS PLATE #4 AND #6
 - 5. INSTALL 8" RPPA PER UDACS PLATE #56. RPPA ARE TO BE INSTALLED OUTSIDE OF THE R.O.W.
 - 6. CONSTRUCT WATER MAIN CROSSING PER UDACS SECTION 2.22 AND PLATES 21, 22, & 23 AS APPLICABLE.
 - 7. INSTALL TEE W/ THRUST BLOCKS PER UDACS PLATE #31
 - 8. INSTALL 11.25" BEND W/ THRUST BLOCKS PER UDACS PLATE #31, SIZE PER PLAN
 - 9. INSTALL 22.5" BEND W/ THRUST BLOCKS PER UDACS PLATE #31, SIZE PER PLAN
 - 10. INSTALL 45" BEND W/ THRUST BLOCKS PER UDACS PLATE #31, SIZE PER PLAN
 - 11. INSTALL 90" BEND W/ THRUST BLOCKS PER UDACS PLATE #31, SIZE PER PLAN
 - 12. STUB & CAP WATER SERVICE REFER TO PLUMBING PLANS FOR CONTINUATION. CONTRACTOR TO INSTALL INCREASERS / DECREASERS AS NECESSARY.
 - 13. INSTALL 45" VERTICAL BEND W/THRUST BLOCKS PER UDACS PLATE #31
 - 14. INSTALL GATE VALVE, SIZE PER PLAN, W/ THRUST BLOCKS PER UDACS PLATE #30
 - 15. INSTALL CAP, SIZE PER PLAN, W/ THRUST BLOCKS PER UDACS PLATE #31
 - 16. INSTALL 1-1/2" SERVICE SADDLE WITH 1-1/2" WATER LATERAL PER DETAIL L ON SHEET D-1
 - 17. STUB & CAP WATER SERVICE REFER TO PLUMBING AND/OR FIRE SPRINKLER PLANS FOR CONTINUATION. CONTRACTOR TO INSTALL REDUCERS/INCREASERS AS NECESSARY.
 - 18. INSTALL REDUCER, SIZE PER PLAN, WITH ANCHOR BLOCK PER UDACS PLATE #30
 - 19. STUB & CAP WATER SERVICE FOR LANDSCAPING. REFER TO LANDSCAPE ARCH. PLANS FOR BACKFLOW PREVENTION AND CONTINUATION.
 - 20. INSTALL FIRE HYDRANT ASSEMBLY & 6" GATE VALVE PER UDACS PLATE #40.
 - 21. INSTALL 1" SERVICE SADDLE WITH 1" WATER LATERAL PER DETAIL L ON SHEET D-1
 - 22. INSTALL 1" IRRIGATION METER AND WITH 1" RPPA PER UDACS PLATE #4 AND #6
- SEWER CONSTRUCTION NOTES:**
- 1. ALL SEWER CONSTRUCTION TO BE DONE IN ACCORDANCE WITH THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS (DCSWS) LATEST EDITION AND ALL APPLICABLE ORDINANCES ADOPTED BY THE CITY OF LAS VEGAS.
 - 2. INSTALL 48" SANITARY SEWER MANHOLE PER DCSWS No. SD-1A & SD-1B W/ CONC. COLLAR PER DCSWS No. SD-4, AND COVER AND RING W/ SINGLE 24" I.D. REFER TO DCSWS No. SD-7 FOR STANDARD MANHOLE BASE.
 - 3. INSTALL 48" SANITARY SEWER MANHOLE PER DCSWS No. SD-1A & SD-1B W/ CONC. COLLAR PER DCSWS No. SD-4, AND COVER AND RING PER DCSWS No. SD-2.
 - 4. INSTALL 8" SDR-35 PVC SANITARY SEWER PIPE PER DCSWS No. SD-14, SD-15 & SD-16
 - 5. INSTALL 6" SANITARY SEWER LATERAL PER DCSWS No. SD-22, SD-23 & SD-25
 - 6. INSTALL 48" SHALLOW MANHOLE PER DCSWS No. SD-13 W/ CONC. COLLAR PER DCSWS No. SD-4, AND COVER AND RING PER DCSWS No. SD-2 (SPECIAL MANHOLE "B")
 - 7. STUB & CAP SEWER SERVICE. REFER TO PLUMBING PLANS FOR CONTINUATION. CONTRACTOR TO INSTALL REDUCERS & CLEAN-OUTS AS NECESSARY.
- SEE SHEET C-2 FOR CITY OF LAS VEGAS GENERAL NOTES.



PRESSURE REDUCING VALVE (PRV) NOTE:

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

- GENERAL NOTES:**
1. REPLACE ALL TRAFFIC CONTROL DEVICES (SIGNS AND/OR PAYMENT MARKINGS), UNDER CLARK COUNTY'S JURISDICTION, THAT ARE DISTURBED, DESTROYED, MOVED OR MODIFIED BY TRADING ACTIVITIES TO CLARK COUNTY'S SATISFACTION. ALL MATERIAL USED SHALL MEET CLARK COUNTY'S SPECIFICATIONS OR WILL BE AN APPROVED EQUIVALENT.
 2. IN THE EVENT THAT THE TRAFFIC SIGNAL CONDUITS, LOOP DETECTORS OR ASSOCIATED EQUIPMENT ARE DAMAGED BY CONTRACTOR, THE CONTRACTOR WILL HIRE AN IMSA LEVEL II ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 623.01.02.
 3. CONTRACTOR SHALL CONTACT CLARK COUNTY TRAFFIC OPERATIONS DIRECTLY AT 455-6200 TO SCHEDULE COUNTY STAFF TO LOCATE UNDERGROUND STREETLIGHTING AND SIGNAL FACILITIES IN THE PROJECT AREA A MINIMUM OF 48 HRS NOTICE IS REQUIRED PRIOR TO LOCATES. HOURS OF OPERATION: 6:30 AM - 3:00 PM, MONDAY THROUGH FRIDAY EXCLUDING HOLIDAYS.
 4. THE PROJECT SITE LIES ALONG THE BOUNDARY BETWEEN THE AGENCY'S 2745 PRESSURE ZONES.
 5. ALL SEWER / STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.
 6. ALL ON-SITE WATER IS "PRIVATE" UNLESS NOTED OTHERWISE.
 7. THE CONTRACTOR IS TO VERIFY THE ACTUAL FIELD CONDITIONS OF THE LOT AND INSTALL SEWER CHECK VALVE WHEN REQUIRED PER THE LATEST EDITION OF THE UNIFORM PLUMBING CODE.
 8. FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALK.
 9. INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE NO. 15.
 10. ALL LOCATIONS OF EXISTING UTILITIES DEPICTED ON THESE PLANS ARE APPROXIMATIONS ONLY.

LAS VEGAS FIRE & RESCUE NOTES:

FIRE FLOW IS BASED ON TABLE B 105.1 IFC 2012, APPENDIX B

BUILDING HEIGHT, NUMBER OF STORIES, AND TYPE OF CONSTRUCTION ARE ALL DETERMINED BASED ON THE GUIDELINES AND DEFINITIONS OUTLINE IN IFC APPENDIX B

ANY PERMITTED REDUCTIONS IN THE REQUIRED FIRE FLOW ARE OUTLINED IN SNEC B105.2

IN DETERMINING THE MINIMUM NUMBER OF HYDRANTS REQUIRED, THE MAXIMUM FLOW FROM EACH HYDRANT SHALL BE 1500 GPM. HYDRANT SPACING SHALL BE PER IFC APPENDIX C / SNEC SECTION C105.1

DEVELOPMENT WITH MULTIPLE BUILDINGS: THIS CHART SHALL BE PROVIDED FOR THE LARGEST BUILDING FOR EACH CONSTRUCTION TYPE; AND FOR EACH SPRINKLERED/NON SPRINKLERED BUILDING TYPE IF APPLICABLE

ESTIMATED DAILY SEWER CONTRIBUTIONS (MGD)

(LIGHT COMMERCIAL)
3.95 ACRES X 4,500 GPD/ACRE = 17,775 GPD
TOTAL AVERAGE CONTRIBUTION = 0.018 MGD

TOTAL PEAK FLOW = 0.018 MGD X 3.4 (PEAK FACTOR) = 0.061 MGD
TOTAL PEAK + 25% MET WEATHER FLOW = 0.061 MGD X 1.25 = 0.077 MGD

NOTE: ABOVE UTILITY

ALL ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF TITLE 19.06 & 19.08

FIRE DEPARTMENT APPROVAL

APPROVAL BY THE FIRE DEPARTMENT HAVING JURISDICTION IS REQUIRED PRIOR TO OBTAINING FINAL APPROVAL FROM THE LVVWD.

FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENT IS 2,750 GALLONS PER MINUTE AT 20 P.S.I. RESIDUAL PRESSURE.

BASED ON:

- SQUARE FOOTAGE: 40,000 S.F.
- LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION FIRE WALLS: 40,000 S.F.
- BUILDING HEIGHT: 35 FEET
- NUMBER OF STORIES: 2 FLOORS
- TYPE OF CONSTRUCTION: A-B
- OCCUPANCY: A-3
- AUTOMATIC FIRE SPRINKLER SYSTEM: Y (NFPA 13) - DEMAND 360 GPM

REVIEWED BY: [Signature] DATE: 2/4/19

TO ENSURE LVVWD ACCESS WITHIN EASEMENT

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

NOTE:

INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO.15

WARNING FIRE LINE (NON-POTABLE WATER)

ALL EXISTING, RELOCATED OR PROPOSED DCD/DPDA INSTALLATIONS:

"TO COMPLY WITH THE FEDERAL SAFE DRINKING WATER ACT, THE FIRE LINE OR ANY OF ITS COMPONENTS, SHALL NOT BE USED FOR POTABLE DRINKING WATER AT ANY TIME"

APPROVAL

[Signature] 2/21/19 DATE

SOUTHWEST GAS

APPROVAL

[Signature] 2/4/19 DATE

LAS VEGAS FIRE & RESCUE

APPROVED FOR CONSTRUCTION

[Signature]

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136088 FIRST APPROVED DATE: 3-6-19

LVVWD APPROVED FIRE FLOW: TOTAL 2,750 GPM / ON SITE 2,750 GPM

SHEETS: C-1, C-2, D-1, P-1, M-1, U-1, U-2

(2) 8" REDUCED PRESSURE DETECTOR ASSEMBLY RPDA

THE REDUCED PRESSURE DETECTOR ASSEMBLY SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE NO. 56.

ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) SO AS TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY.

EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION. INSTALL VEHICULAR PROTECTION BOLLARDS AS NEEDED PER UDACS PLATE NO. 75.

(4) 1.5" & (1) 1" PRIVATE REDUCED PRESSURE PRINCIPLE ASSEMBLY RPPA

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

UTILITY CONSTRUCTION NOTE:

WE ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS PLAN ARE FROM THE BEST AVAILABLE INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES, INCLUDING BUT NOT LIMITED TO, THE WATER, FIRE, SANITARY SEWER, STORM SEWER, TELEPHONE, POWER, GAS, AND IRRIGATION LINES PRIOR TO THE START OF CONSTRUCTION. IF CONFLICTS EXIST IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE PROJECT ARCHITECT, OWNER'S REPRESENTATIVE, AND THE PROJECT ENGINEER IMMEDIATELY.

BASIS OF BEARINGS:

SOUTH 091°37' WEST, BEING THE BEARING OF THE CENTERLINE OF DURANGO DRIVE AND THE WEST LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 60 EAST, N.M.D., CLARK COUNTY, NEVADA, AS SHOWN IN FILE 205 OF SURVEYS, AT PAGE 97, OFFICIAL RECORDS OF CLARK COUNTY.

BENCHMARK:

CITY OF LAS VEGAS BENCHMARK "BLV802056" RIVET & PLATE IN TOP OF CURB AT SW CORNER OF DURANGO DR. & WESTBOUND HIGHWAY 215 ON RAMP.

ELEVATION: 2558.09 (US SURVEY FEET)
779.704 (METERS)

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

Call Before You Dig

1-702-432-5300
1-702-227-2929

Call before you dig. AVOID HITTING UNDERGROUND UTILITIES. IT'S COSTLY.

Call Before You Dig

1-800-227-2600

momeni ENGINEERS, LLC.

CIVIL & STRUCTURAL ENGINEERING

3110 S. DURANGO DRIVE, SUITE 205

LAS VEGAS, NEVADA 89117

TEL: (702) 902-2444 | FAX: (702) 248-8485 | MCE@MHENGINEERS.COM

REVISIONS	DESCRIPTION	DATE	BY	APPROVAL

DURANGO BELTWAY PLAZA

CITY OF LAS VEGAS

SWC OF ROME BLVD. AND RILEY ST.

UTILITY PLAN 1

PROJECT: DURANGO BELTWAY PLAZA

CITY OF LAS VEGAS

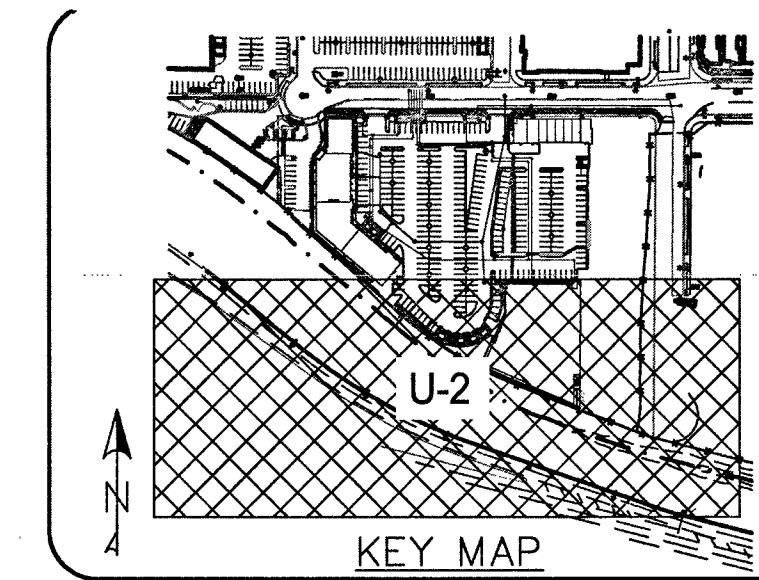
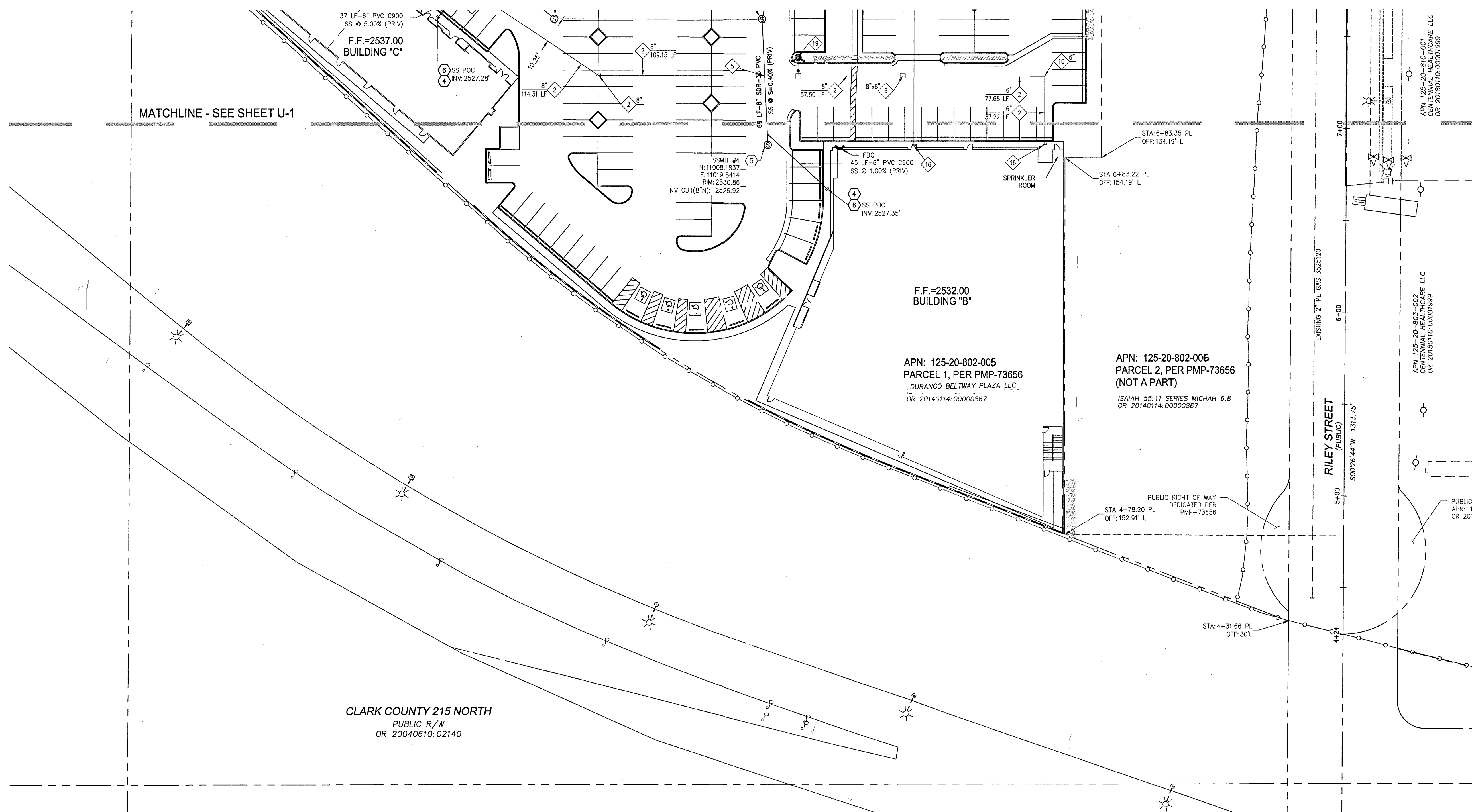
SWC OF ROME BLVD. AND RILEY ST.

UTILITY PLAN 1

SHEET: **U-1**

9 OF 13

CLV L18-02031

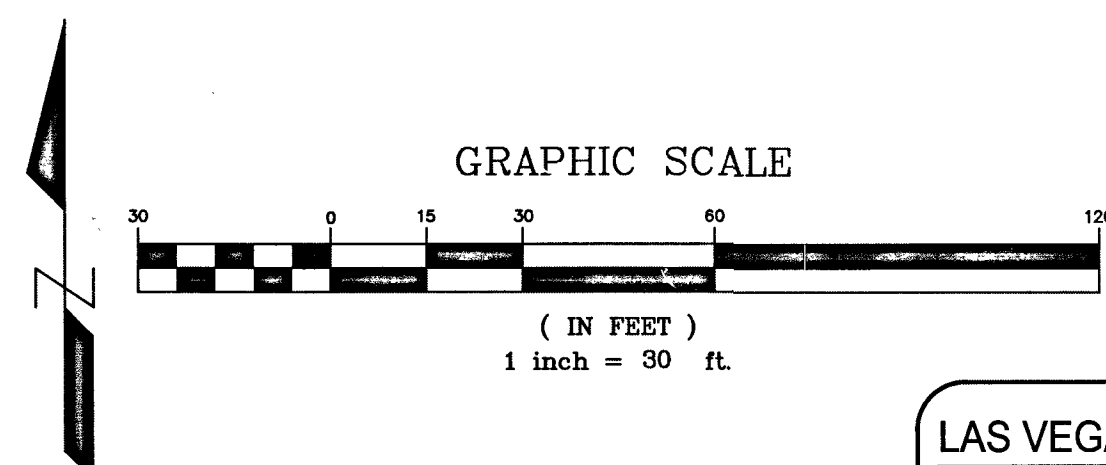


WATER CONSTRUCTION NOTES:

- ALL WATER CONSTRUCTION TO BE DONE IN ACCORDANCE WITH UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) LATEST EDITION AND ALL APPLICABLE ORDINANCES ADOPTED BY THE CITY OF LAS VEGAS.
- INSTALL TAPPING SLEEVE & TAPPING VALVE PER UDACS PLATE NO. 34, 39, & UDACS SECTION 2.24.01 B.
- INSTALL C-900 PVC WATER LINE, SIZE PER PLAN.
- INSTALL 1.5" METER WITH 1.5" RPPA, TO BE INSTALLED OUTSIDE ROW, PER UDACS PLATE #4 AND #6.
- INSTALL 8" RPDA PER UDACS PLATE #56. RPDA ARE TO BE INSTALLED OUTSIDE OF THE R.O.W.
- CONSTRUCT WATER MAIN CROSSING PER UDACS SECTION 2.22 AND PLATES 21, 22, & 23 AS APPLICABLE.
- INSTALL TEE W/ THRUST BLOCKS PER UDACS PLATE #31.
- INSTALL 11.25' BEND W/ THRUST BLOCKS PER UDACS PLATE #31, SIZE PER PLAN.
- INSTALL 22.5' BEND W/ THRUST BLOCKS PER UDACS PLATE #31, SIZE PER PLAN.
- INSTALL 45' BEND W/ THRUST BLOCKS PER UDACS PLATE #31, SIZE PER PLAN.
- INSTALL 90' BEND W/ THRUST BLOCKS PER UDACS PLATE #31, SIZE PER PLAN.
- STUB & CAP WATER SERVICE REFER TO PLUMBING PLANS FOR CONTINUATION. CONTRACTOR TO INSTALL INCREASERS / DECREASERS AS NECESSARY.
- 8" 45' VERTICAL BEND W/THRUST BLOCKS PER UDACS PLATE #31.
- INSTALL GATE VALVE, SIZE PER PLAN, W/ THRUST BLOCKS PER UDACS PLATE #30.
- INSTALL CAP, SIZE PER PLAN, W/ THRUST BLOCKS PER UDACS PLATE #31.
- INSTALL 1-1/2" SERVICE SADDLE WITH 1-1/2" WATER LATERAL PER DETAIL L ON SHEET D-1.
- STUB & CAP WATER SERVICE. REFER TO PLUMBING AND/OR FIRE SPRINKLER PLANS FOR CONTINUATION. CONTRACTOR TO INSTALL REDUCERS/INCREASERS AS NECESSARY.
- INSTALL REDUCER, SIZE PER PLAN, WITH ANCHOR BLOCK PER UDACS PLATE #30.
- STUB & CAP WATER SERVICE FOR LANDSCAPING. REFER TO LANDSCAPE ARCH. PLANS FOR BACKFLOW PREVENTION AND CONTINUATION.
- INSTALL FIRE HYDRANT ASSEMBLY & 6" GATE VALVE PER UDACS PLATE #40.
- INSTALL 1" SERVICE SADDLE WITH 1" WATER LATERAL PER DETAIL L ON SHEET D-1.
- INSTALL 1" IRRIGATION METER AND WITH 1" RPPA PER UDACS PLATE #4 AND #6.

SEWER CONSTRUCTION NOTES:

- ALL SEWER CONSTRUCTION TO BE DONE IN ACCORDANCE WITH THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS (DCSWCS) LATEST EDITION AND ALL APPLICABLE ORDINANCES ADOPTED BY THE CITY OF LAS VEGAS.
 - INSTALL 48" SANITARY SEWER MANHOLE PER DCSWCS No. SD-1A & SD-1B W/ CONC. COLLAR PER DCSWCS No. SD-4, AND COVER AND RING W/ SINGLE 24" LID. REFER TO DCSWCS No. SD-7 FOR STANDARD MANHOLE BASE.
 - INSTALL 48" SANITARY SEWER MANHOLE PER DCSWCS No. SD-1A & SD-1B W/ CONC. COLLAR PER DCSWCS No. SD-4, AND COVER AND RING PER DCSWCS No. SD-2.
 - INSTALL 8" SDR-35 PVC SANITARY SEWER PIPE PER DCSWCS No. SD-14, SD-15 & SD-16.
 - INSTALL 6" SANITARY SEWER LATERAL PER DCSWCS No. SD-22, SD-23 & SD-25.
 - INSTALL 48" SHALLOW MANHOLE PER DCSWCS No. SD-13 W/ CONC. COLLAR PER DCSWCS No. SD-4, AND COVER AND RING PER DCSWCS No. SD-2 (SPECIAL MANHOLE "B").
 - STUB & CAP SEWER SERVICE. REFER TO PLUMBING PLANS FOR CONTINUATION. CONTRACTOR TO INSTALL REDUCERS & CLEAN-OUTS AS NECESSARY.
- SEE SHEET C-2 FOR CITY OF LAS VEGAS GENERAL NOTES.



NOTE: ABOVE UTILITY
ALL ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF TITLE 19.06 & 19.08

FIRE DEPARTMENT APPROVAL
APPROVAL BY THE FIRE DEPARTMENT HAVING JURISDICTION IS REQUIRED PRIOR TO OBTAINING FINAL APPROVAL FROM THE LVVWD.

FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENT IS 2,750 GALLONS PER MINUTE AT 20 P.S.I. RESIDUAL PRESSURE.

BASED ON:

SQUARE FOOTAGE:	40,000 S.F.
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION FIRE WALLS:	40,000 S.F.
BUILDING HEIGHT:	35 FEET
NUMBER OF STORIES:	2 FLOORS
TYPE OF CONSTRUCTION:	V-B
OCCUPANCY:	A-3
AUTOMATIC FIRE SPRINKLER SYSTEM: Y (NEPA 13) - DEMAND 360 GPM	

REVIEWED BY: *[Signature]* DATE: 2/4/19

LAS VEGAS FIRE & RESCUE NOTES:

FIRE FLOW IS BASED ON TABLE B 105.1 (EC 2012, APPENDIX B).

BUILDING HEIGHT, NUMBER OF STORIES, AND TYPE OF CONSTRUCTION ARE ALL DETERMINED BASED ON THE GUIDELINES AND DEFINITIONS OUTLINE IN EC APPENDIX B.

ANY PERMITTED REDUCTIONS IN THE REQUIRED FIRE FLOW ARE OUTLINED IN SNEC B105.2.

IN DETERMINING THE MINIMUM NUMBER OF HYDRANTS REQUIRED, THE MAXIMUM FLOW FROM EACH HYDRANT SHALL BE 1500 GPM. HYDRANT SPACING SHALL BE PER EC APPENDIX C / SNEC SECTION C105.1.

DEVELOPMENT WITH MULTIPLE BUILDINGS: THIS CHART SHALL BE PROVIDED FOR THE LARGEST BUILDING FOR EACH CONSTRUCTION TYPE, AND FOR EACH SPRINKLERED/NON SPRINKLERED BUILDING TYPE IF APPLICABLE.

ESTIMATED DAILY SEWER CONTRIBUTIONS (MGD)

(LIGHT COMMERCIAL)
3.95 ACRES X 4,500 GPD/ACRE = 17,775 GPD
TOTAL AVERAGE CONTRIBUTION = 0.018 MGD
TOTAL PEAK FLOW = 0.018 MGD X 3.4 (PEAK FACTOR) = 0.061 MGD
TOTAL PEAK + 25% WET WEATHER FLOW = 0.061 MGD X 1.25 = 0.077 MGD

TO ENSURE LVVWD ACCESS WITHIN EASEMENT

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

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

APPROVAL
[Signature] 2/2/19
DATE
SOUTHWEST GAS

APPROVAL
[Signature] 2/4/19
DATE
LAS VEGAS FIRE & RESCUE

APPROVED FOR CONSTRUCTION
[Signature]
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 1360892 FIRST APPROVED DATE: 3-6-19
LVVWD APPROVED FIRE FLOW: TOTAL 2,750 GPM / ONSITE 2,750 GPM
SHEETS: C-1, C-2, D-1, P-1, MU, U-1, U-2

(2) 8" REDUCED PRESSURE DETECTOR ASSEMBLY RPDA
THE REDUCED PRESSURE DETECTOR ASSEMBLY SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE NO. 56.
ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) SO AS TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT OF WAY.
EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION. INSTALL VEHICULAR PROTECTION BOLLARDS AS NEEDED PER UDACS PLATE NO. 75.

(4) 1.5" & (1) 1" PRIVATE REDUCED PRESSURE PRINCIPLE ASSEMBLY RPPA

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

PRESSURE REDUCING VALVE (PRV) NOTE:

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

LVVWD UDACS STANDARDS (DRY UTILITIES)

MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING. MAINTAIN A MINIMUM 3' PARALLEL SEPARATION.
ANY EXCAVATION EXPOSING LVVWD FACILITIES 24" IN DIAMETER AND LARGER MUST REMAIN OPEN UNTIL INSPECTED BY LVVWD. NO BACKFILL MATERIALS IS TO BE PLACED IN THE EXCAVATION UNTIL APPROVED BY THE LVVWD INSPECTOR. ANY DAMAGE TO THE FACILITIES MUST BE REPORTED TO LVVWD IMMEDIATELY. CONTACTOR TO CALL (702) 258-7171 TO SCHEDULE LVVWD INSPECTION.

WARNING FIRE LINE (NON-POTABLE WATER) ALL EXISTING, RELOCATED OR PROPOSED DCDA/RPDA INSTALLATIONS:

"TO COMPLY WITH THE FEDERAL SAFE DRINKING WATER ACT, THE FIRE LINE OR ANY OF ITS COMPONENTS, SHALL NOT BE USED FOR POTABLE DRINKING WATER AT ANY TIME"

GENERAL NOTES:

- REPLACE ALL TRAFFIC CONTROL DEVICES (SIGNS AND/OR PAVEMENT MARKINGS), UNDER CLARK COUNTY'S JURISDICTION, THAT ARE DISTURBED, DESTROYED, MOVED, OR MODIFIED BY TRADING ACTIVITIES TO CLARK COUNTY'S SATISFACTION. ALL MATERIAL USED SHALL MEET CLARK COUNTY'S SPECIFICATIONS OR WILL BE AN APPROVED EQUIVALENT.
- IN THE EVENT THAT THE TRAFFIC SIGNAL CONDUITS, LOOP DETECTORS OR ASSOCIATED EQUIPMENT ARE DAMAGED BY CONTRACTOR, THE CONTRACTOR WILL HIRE AN MSA LEVEL II ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 623.G.01.02.
- CONTRACTOR SHALL CONTACT CLARK COUNTY TRAFFIC OPERATIONS DIRECTLY AT 455-6000 TO SCHEDULE COUNTY STAFF TO LOCATE UNDERGROUND STREETLIGHTING AND SIGNAL FACILITIES IN THE PROJECT AREA A MINIMUM OF 48 HRS NOTICE IS REQUIRED PRIOR TO LOCATES. HOURS OF OPERATION: 6:30 AM - 3:00 PM, MONDAY THROUGH FRIDAY EXCLUDING HOLIDAYS.
- THE PROJECT SITE LIES ALONG THE BOUNDARY BETWEEN THE AGENCY'S 2745 PRESSURE ZONES.
- ALL SEWER / STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.
- ALL ON-SITE WATER IS "PRIVATE" UNLESS NOTED OTHERWISE.
- THE CONTRACTOR IS TO VERIFY THE ACTUAL FIELD CONDITIONS OF THE LOT AND INSTALL SEWER CHECK VALVE WHERE REQUIRED PER THE LATEST EDITION OF THE UNIFORM PLUMBING CODE.
- FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALK.
- INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE NO. 15.
- ALL LOCATIONS OF EXISTING UTILITIES DEPICTED ON THESE PLANS ARE APPROXIMATIONS ONLY.

UTILITY CONSTRUCTION NOTE:

WE ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS PLAN ARE FROM THE BEST AVAILABLE INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES, INCLUDING BUT NOT LIMITED TO, THE WATER, FIRE, SANITARY SEWER, STORM SEWER, TELEPHONE, POWER, GAS, AND IRRIGATION LINES PRIOR TO THE START OF CONSTRUCTION. IF CONFLICTS EXIST IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE PROJECT ARCHITECT, OWNER'S REPRESENTATIVE, AND THE PROJECT ENGINEER IMMEDIATELY.

BASIS OF BEARINGS:

SOUTH 007°37' WEST, BEING THE BEARING OF THE CENTERLINE OF DURANGO DRIVE AND THE WEST LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 6 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN IN FILE 206 OF SURVEYS, AT PAGE 97, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA.

BENCHMARK:
CITY OF LAS VEGAS BENCHMARK "5LV802056" RIVET & PLATE IN TOP OF CURB AT SW CORNER OF DURANGO DR. & WESTBOUND HIGHWAY 215 ON RAMP.
ELEVATION: 2558.08 (US SURVEY FEET)
779.704 (METERS)
BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

Call before you dig
811
1-702-432-5300
1-702-227-2929

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

REVISIONS	DESCRIPTION	DATE	BY	APPROVAL

momeni ENGINEERS, LLC.
CIVIL & STRUCTURAL ENGINEERING
3110 S. DURANGO DRIVE, SUITE 205
LAS VEGAS, NEVADA 89117
TEL: (702) 902-2444 | FAX: (702) 948-9495 | MOC@MHENGINEERS.COM

PROFESSIONAL ENGINEER
MOC
No. 12732
02/11/2019

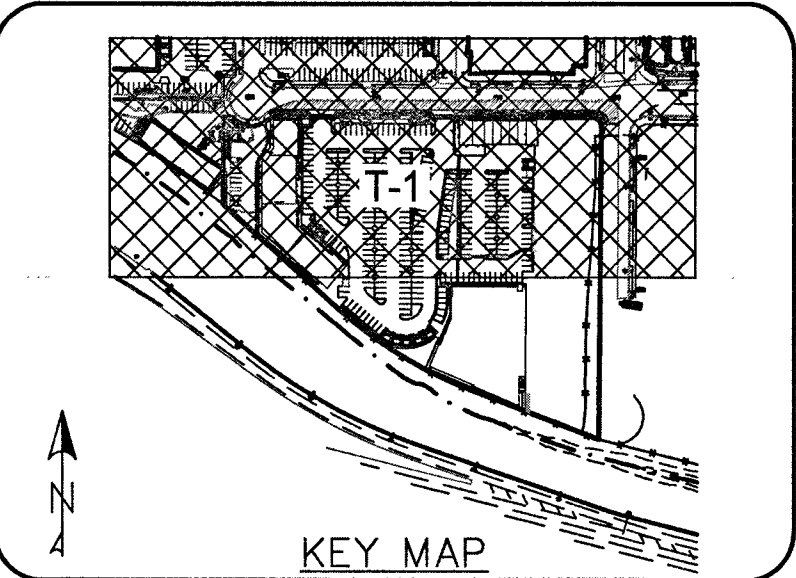
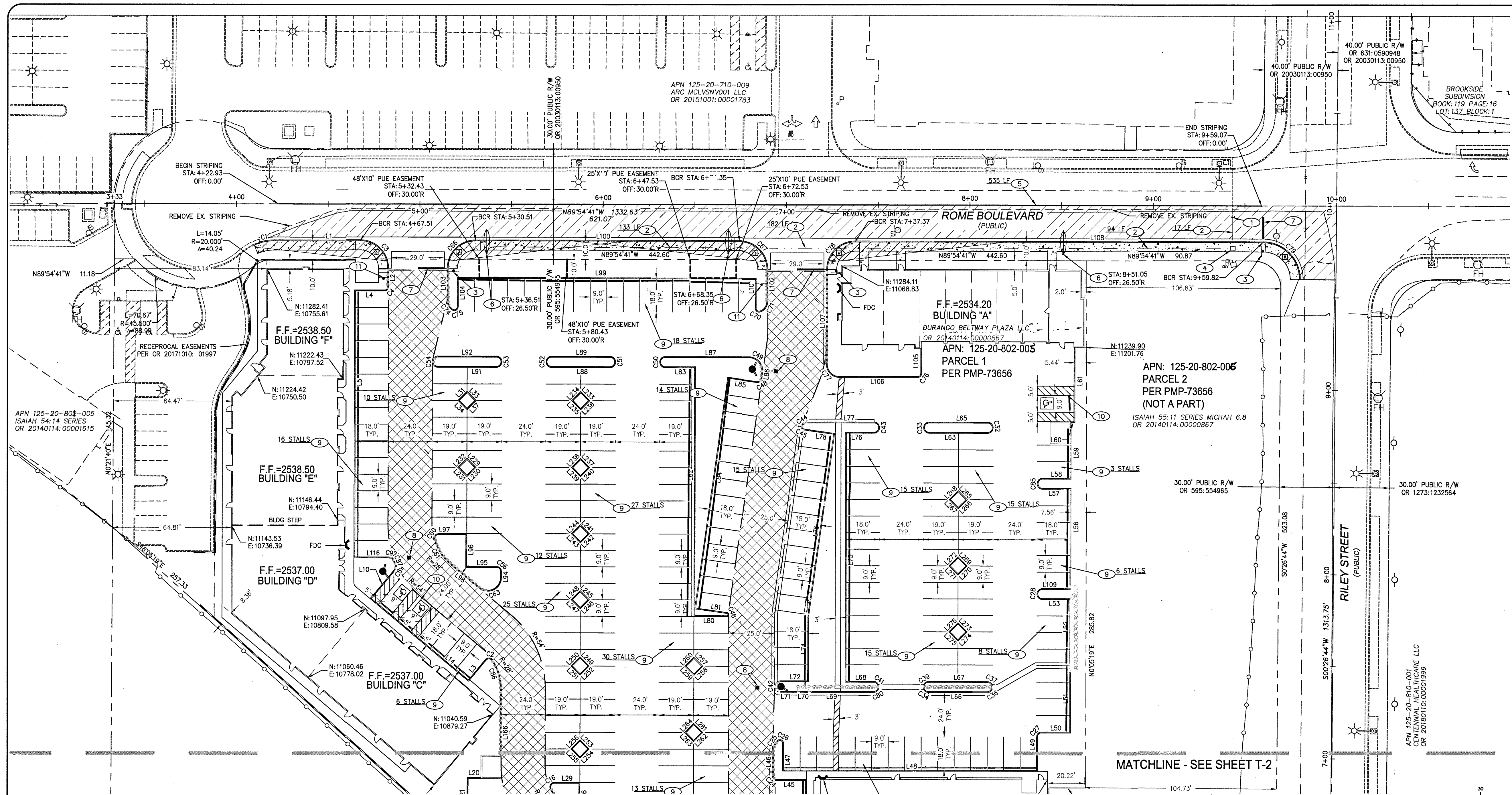
02/11/2019	DATE
103109	PROJECT NUMBER
RM	DRAWN BY
MM	CHECKED BY

DURANGO BELTWAY PLAZA
CITY OF LAS VEGAS
SVC OF ROME BLVD. AND RILEY ST.

UTILITY PLAN II

SHEET:
U-2
10 OF 13
CLV L18-02031

PROJ.#: 1360892 QSR: 125-20-5E



TRAFFIC NOTES

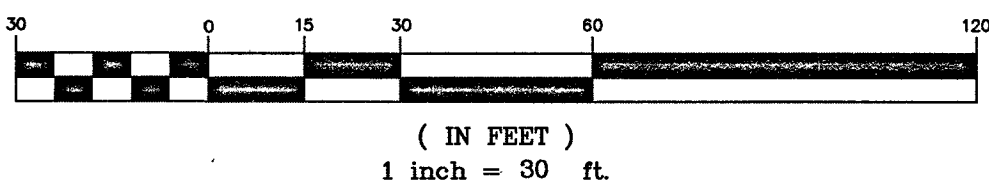
- INTERCEPT AND EXTEND EX. CONDUITS.
- INSTALL (1) 1-1/4" PVC CONDUIT W/ (2) #4 AND (1) #8 THW COPPER CONDUCTORS
- INSTALL (R1-1) "STOP" SIGN PER DWG NO. 249.1. SEE PLAN FOR SIZE.
- INSTALL NO. 3-1/2 PULLBOX PER DWG NO. 705
- INSTALL TYPE 3 CENTERLINE PER CAUSD NO. 244
- INSTALL 100W LUMINAIRE ON STANDARD STREETLIGHT POLE PER DWG NOS. 314 AND 320. CONSTRUCT FOUNDATION PER DWG NO. 321
- INSTALL STOP BAR
- INSTALL BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKER IN CENTER OF DRIVE AISLE PERPENDICULAR TO THE FIRE HYDRANT PER IFC AMENDMENTS C107.1
- STRIPE PARKING STALLS USING 4" WHITE PAINT. SEE PLAN FOR DIMENSIONS AND STALL COUNT.
- STRIPE A.D.A. PARKING IN ACCORDANCE WITH ICC/ANSI A117.1-2003 REQUIREMENTS.
- INSTALL TYPE B SIGN MINIMUM DIMENSION OF 24" WIDE BY 18" HIGH. RED LETTER ON REFLECTIVE WHITE BACKGROUND WITH 1/2" INCH RED TRIM STRIP AROUND THE ENTIRE OUTER EDGE OF SIGN. LETTERING ON SIGN SHALL BE "ON-SITE PARKING IN MARKED FIRE LANES PROHIBITED" PER CITY OF LAS VEGAS FIRE & RESCUE, FIRE PREVENTION DIVISION REQUIREMENTS.

SEE SHEET C-2 FOR CITY OF LAS VEGAS GENERAL NOTES.

TRAFFIC NOTES:

- REPLACE ALL TRAFFIC CONTROL DEVICES (SIGNS AND/OR PAVEMENT MARKINGS), UNDER CITY OF LAS VEGAS JURISDICTION, THAT ARE DISTURBED, DESTROYED, MOVED OR MODIFIED BY TRENCHING ACTIVITIES TO THE CITY OF LAS VEGAS'S SATISFACTION. ALL MATERIAL USED SHALL MEET THE CITY OF LAS VEGAS'S SPECIFICATIONS OR WILL BE AN APPROVED EQUIVALENT.
- IN THE EVENT THAT THE TRAFFIC SIGNAL CONDUITS, LOOP DETECTORS OR ASSOCIATED EQUIPMENT ARE DAMAGED BY CONTRACTOR, THE CONTRACTOR WILL HIRE AN INSA LEVEL II ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 623.01.02.
- CONTRACTOR SHALL CONTACT CITY OF LAS VEGAS DIRECTLY TO SCHEDULE STAFF TO LOCATE UNDERGROUND STREET LIGHTING AND SIGNAL FACILITIES IN THE PROJECT AREA. A MINIMUM OF 48 HRS NOTICE IS REQUIRED PRIOR TO LOCATES.

GRAPHIC SCALE



STREETLIGHT CIRCUIT CAPACITY VERIFICATION FOR CIRCUIT "A" (PRIVATE CIRCUIT)

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 LAS VEGAS AT (702) 229-6331 TO PERFORM CIRCUIT CAPACITY VERIFICATION.
	NO	INSTALL A NEW PEDESTAL.
SERVICE PEDESTAL LOCATION: ROME BOULEVARD STA: 9+40		
CITY OF LAS VEGAS (COMPLETE IF EXISTING SERVICE)		
DATE OF CAPACITY VERIFICATION		
ENGINEER OF THE OFFSITE PLANS		
PERSON WHO DID THE CALCULATIONS:		
CONSULTING ENGINEERING FIRM: MOMENI ENGINEERS, LLC.		
CAPACITY CALCULATIONS		
1. CIRCUIT CAPACITY:	60.0	AMPS
2. MAXIMUM CONTINUOUS CURRENT DRAW (80%):	48.0	AMPS
3. EXISTING CIRCUIT LOAD (ENTER 0 IF NEW):	0	AMPS
4. AVAILABLE (2 MINUS 3):	48.0	AMPS
PROPOSED LUMINAIRE LOAD TO CIRCUIT:		
5. 1" NUMBER OF 55 WATT STILTS @ 0.25 AMPS/EA:	2	AMPS
6. 0" NUMBER OF 150 WATT STILTS @ 0.70 AMPS/EA:	0	AMPS
7. 0" NUMBER OF 400 WATT STILTS @ 3.9 AMPS/EA:	0	AMPS
8. TOTAL PROPOSED ADDITIONAL LOAD (5 + 6 + 7):	2	AMPS
REMAINING AVAILABLE LOAD (4 MINUS 8):	46.0	AMPS

LEGEND:

STREET CENTERLINE	HANDICAP ACCESS ROUTE
PROPOSED STREET LIGHT CONDUIT	BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS
INSTALL RED PAINTED CURB/PAVEMENT WITH STENCIL "NO PARKING FIRE LANE" - TYPE C SIGN MINIMUM DIMENSION OF 36 INCHES WIDE BY 4 INCHES HIGH. WHITE LETTERS ON RED ENAMEL BACKGROUND PER CITY OF LAS VEGAS FIRE & RESCUE FIRE PREVENTION DIVISION REQUIREMENT	TRAFFIC SIGNS PER PLAN
FIRE ACCESS ROUTE	FIRE HYDRANT
SIGHT VISIBILITY RESTRICTION ZONE (SVRZ): NOTHING OVER 24" IN HEIGHT ALLOWED IN SVZ EXCEPT TRAFFIC CONTROL DEVICES AND STREETLIGHT POLES. SEE DETAIL THIS SHEET.	EXISTING STREET LIGHT
	FIRE DEPARTMENT CONNECTION (FDC)
	FIRE ROUTE TURNING RADIUS

SIDEWALK RAMP TABLE

	"A" (FT.) MIN.	"B" (FT.) MIN.
1	4.5'	12.0'
2	4.5'	9.5'
3	8.0'	8.0'
4	12.0'	4.5'
5	15.0'	4.5'

APPROVAL:

LAS VEGAS FIRE AND RESCUE
DATE: 2/14/19

BASIS OF BEARINGS:

SOUTH 00°16'37" WEST, BEING THE BEARING OF THE CENTERLINE OF DURANGO DRIVE AND THE WEST LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SE 1/4) OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 84 EAST, NEAD, CLARK COUNTY, NEVADA, AS SHOWN IN FILE 206 OF SURVEYS, AT PAGE 97, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA.
BENCHMARK:
CITY OF LAS VEGAS BENCHMARK "SLV802056" RIVET & PLATE IN TOP OF CURB AT SW CORNER OF DURANGO DR. & WESTBOUND HIGHWAY 215 ON RAMP.
ELEVATION: 2558.08 (US SURVEY FEET)
779.704 (METERS)
BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

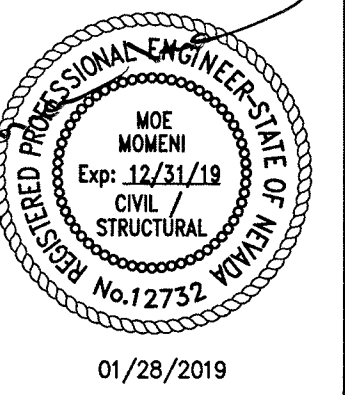
AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

Call before you dig
Before you dig
Underground
1-702-432-5300
1-702-227-2929

Call before you dig

Call before you dig
Underground
1-702-432-5300
1-800-227-2600

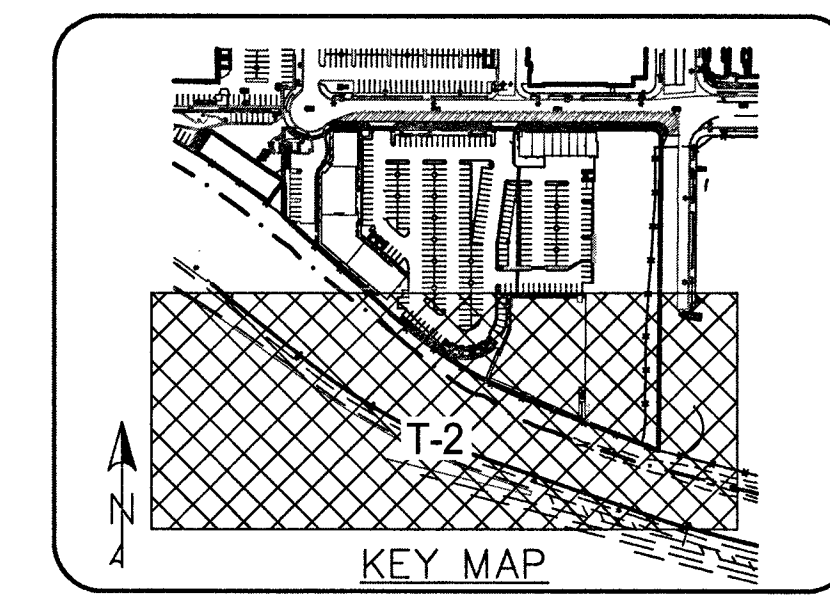
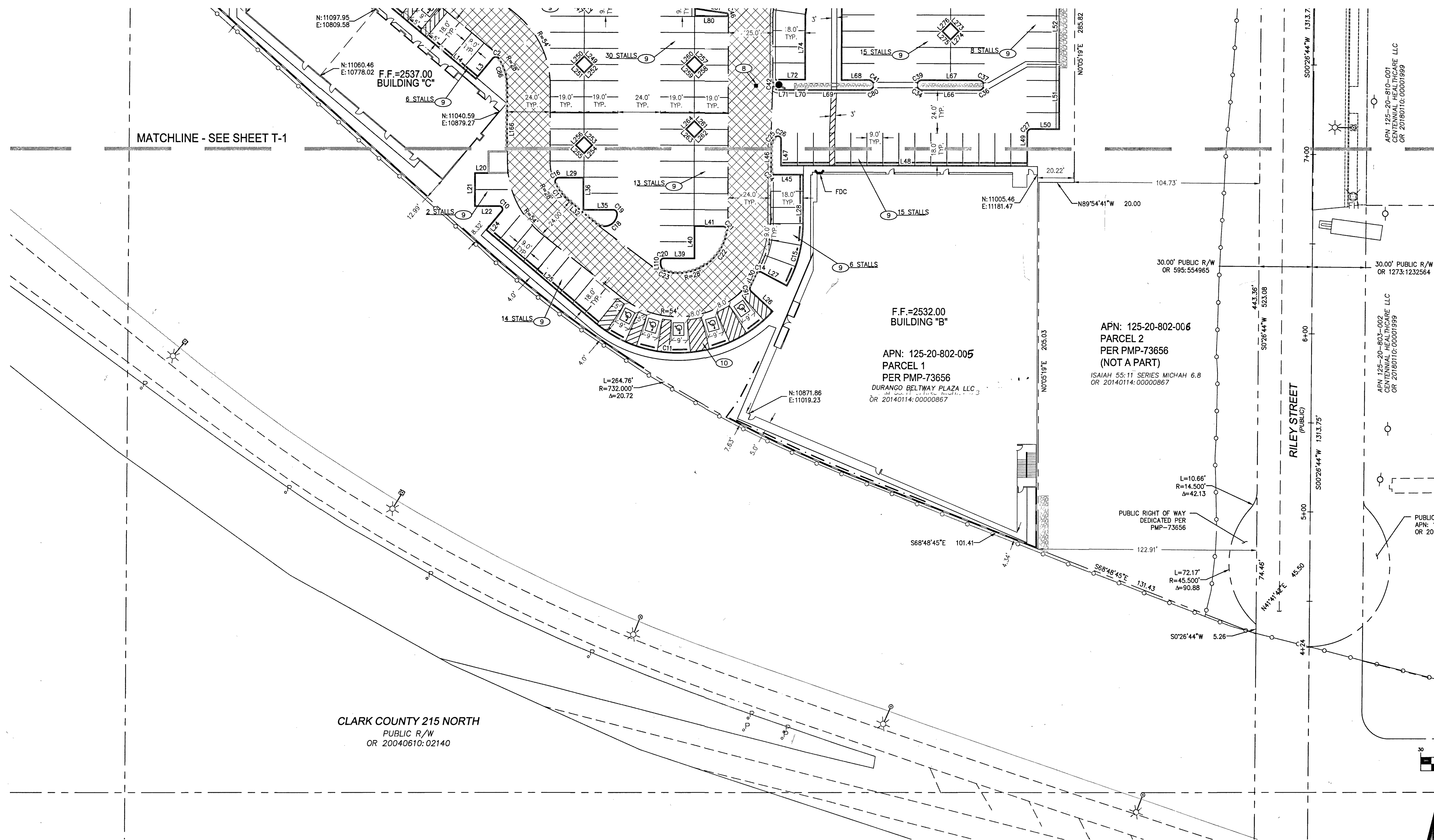
momeni ENGINEERS, LLC.
CIVIL & STRUCTURAL ENGINEERING
3110 S. DURANGO DRIVE, SUITE 205
LAS VEGAS, NEVADA 89117
TEL: (702) 902-2444 | FAX: (702) 248-8495 | MJOE@MOMENIENGINEERS.COM



01/28/2019
DATE
103109
PROJECT NUMBER
RM
DRAWN BY
MM
CHECKED BY

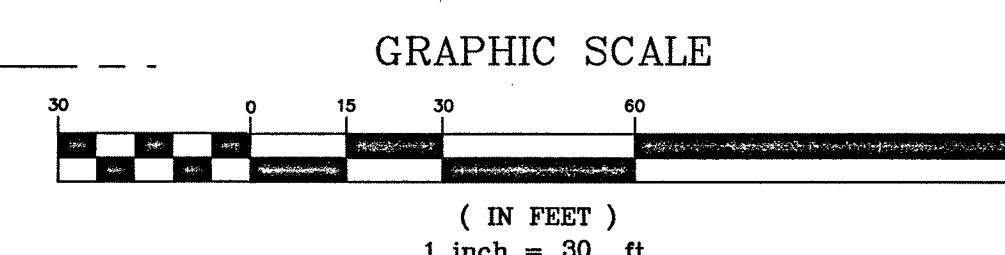
DURANGO BELTWAY PLAZA
CITY OF LAS VEGAS
SWC OF ROME BLVD. AND RILEY ST.
TRAFFIC-HORIZONTAL CONTROL PLAN 1

SHEET:
T-1
11 of 13
107V24720 CLV L18-02031



- TRAFFIC NOTES**
- INTERCEPT AND EXTEND EX. CONDUITS.
 - INSTALL (1) 1-1/4" PVC CONDUIT W/ (2) #4 AND (1) #8 THW COPPER CONDUCTORS
 - INSTALL (R1-1) "STOP" SIGN PER DWG NO. 249.1. SEE PLAN FOR SIZE.
 - INSTALL NO. 3 1/2 PULLBOX PER DWG NO. 705
 - INSTALL TYPE 3 CENTERLINE PER CAUSD NO. 244
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 - INSTALL STOP BAR
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 - STRIPE PARKING STALLS USING 4" WHITE PAINT. SEE PLAN FOR DIMENSIONS AND STALL COUNT.
 - STRIPE A.D.A. PARKING IN ACCORDANCE WITH ICC/ANSI A117.1-2003 REQUIREMENTS.
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- SEE SHEET C-2 FOR CITY OF LAS VEGAS GENERAL NOTES.

- TRAFFIC NOTES:**
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 - CONTRACTOR SHALL CONTACT CITY OF LAS VEGAS DIRECTLY TO SCHEDULE STAFF TO LOCATE UNDERGROUND STREET LIGHTING AND SIGNAL FACILITIES IN THE PROJECT AREA. A MINIMUM OF 48 HRS NOTICE IS REQUIRED PRIOR TO LOCATES.



- LEGEND:**
- STREET CENTERLINE
 - PROPOSED STREET LIGHT CONDUIT
 - INSTALL RED PAINTED CURB/PAVEMENT WITH STENCIL "NO PARKING FIRE LANE" - TYPE C SIGN MINIMUM DIMENSION OF 36 INCHES WIDE BY 4 INCHES HIGH. WHITE LETTERS ON RED ENAMEL BACKGROUND PER CITY OF LAS VEGAS FIRE & RESCUE FIRE PREVENTION DIVISION REQUIREMENT
 - FIRE ACCESS ROUTE
 - SIGHT VISIBILITY RESTRICTION ZONE (SVRZ): NOTHING OVER 24" IN HEIGHT ALLOWED IN SVZ EXCEPT TRAFFIC CONTROL DEVICES AND STREETLIGHT POLES. SEE DETAIL THIS SHEET.
 - HANDICAP ACCESS ROUTE
 - BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS
 - TRAFFIC SIGNS PER PLAN
 - FIRE HYDRANT
 - EXISTING STREET LIGHT
 - FIRE DEPARTMENT CONNECTION (FDC)
 - FIRE ROUTE TURNING RADIUS

SIDEWALK RAMP TABLE

	"A" (FT.) MIN.	"B" (FT.) MIN.
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3	8.0'	8.0'
4	12.0'	4.5'
5	15.0'	4.5'

APPROVAL:

[Signature] 2/14/19
LAS VEGAS FIRE AND RESCUE DATE

BASIS OF BEARINGS:

SOUTH 00°16'37" WEST, BEING THE BEARING OF THE CENTERLINE OF DURANGO DRIVE AND THE WEST LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 20, TOWNSHIP 19 SOUTH, RANGE 60 EAST, MAP 4, CLARK COUNTY, NEVADA, AS SHOWN IN FILE 206 OF SURVEYS, AT PAGE 97, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA.

BENCHMARK:

CITY OF LAS VEGAS BENCHMARK "SLV82056" RIVET & PLATE IN TOP OF CURB AT SW CORNER OF DURANGO DR. & WESTBOUND HIGHWAY 215 ON RAMP.

ELEVATION: 2558.08 (US SURVEY FEET)
779.704 (METERS)

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

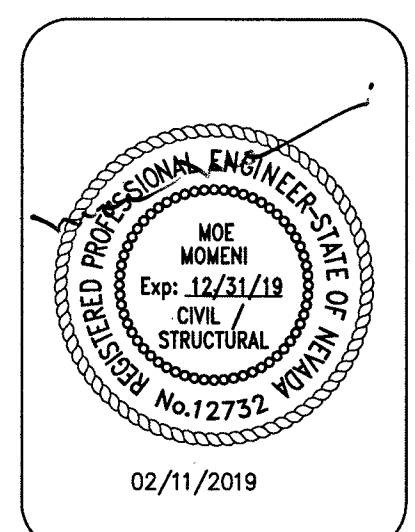
Call before you dig! 1-800-4-A-SAFE

Call before you dig! 1-800-4-A-SAFE

Call before you dig! 1-800-4-A-SAFE

REVISIONS	DATE	DESCRIPTION	APPROVAL

momeni ENGINEERS, LLC.
CIVIL & STRUCTURAL ENGINEERING
3110 S. DURANGO DRIVE, SUITE 205
LAS VEGAS, NEVADA 89117
TEL: (702) 902-2444 | FAX: (702) 248-8495 | MCE@MHENGINEERS.COM



02/11/2019
DATE
103109
PROJECT NUMBER
RM
DRAWN BY
MM
CHECKED BY

DURANGO BELTWAY PLAZA
CITY OF LAS VEGAS
SVC OF ROME BLVD. AND RILEY ST.
TRAFFIC-HORIZONTAL CONTROL PLAN II

T-2
12 OF 13
CLV L18-02031

Parcel Line Table		
Line #	Length	Direction
L1	46.27	S89° 54' 40.90"E
L2	10.31	S0° 05' 19.10"W
L3	14.95	N39° 54' 48.98"E
L4	16.52	N89° 54' 40.90"W
L5	145.00	S0° 04' 40.00"W
L10	20.88	S39° 54' 48.98"E
L14	70.00	S50° 05' 11.02"E
L20	7.50	N89° 54' 40.98"W
L21	19.00	S0° 05' 19.32"W
L22	14.07	S89° 54' 40.68"E
L24	13.83	S40° 02' 12.94"W
L25	80.36	S49° 57' 47.06"E
L26	16.64	S47° 09' 12.99"E
L27	16.14	S62° 21' 24.17"E
L28	27.50	N0° 05' 18.95"E
L29	13.39	N89° 54' 41.04"W
L30	7.92	S25° 52' 39.41"W
L31	6.00	S45° 05' 19.10"W
L32	20.20	S49° 57' 47.06"E
L33	6.00	N44° 54' 40.90"W

Parcel Line Table		
Line #	Length	Direction
L34	6.00	S44° 54' 40.90"E
L35	16.99	N89° 54' 40.82"W
L36	18.00	N0° 05' 19.18"E
L37	6.00	N45° 05' 19.10"E
L39	17.50	N89° 54' 41.02"W
L40	18.00	S0° 05' 18.02"W
L41	15.70	N89° 54' 40.82"W
L45	16.00	N89° 58' 32.42"W
L46	13.09	S0° 05' 19.10"W
L47	14.97	S0° 05' 19.22"W
L48	139.03	S89° 54' 45.45"E
L49	18.79	N0° 05' 19.22"E
L50	15.97	S89° 54' 00.33"E
L51	35.50	N0° 05' 19.11"E
L52	35.50	N0° 05' 19.12"E
L53	15.50	N89° 54' 40.90"W
L56	52.50	S0° 05' 19.11"W
L57	15.50	S89° 54' 40.90"E
L58	15.50	S89° 54' 40.90"E
L59	30.67	N0° 05' 19.09"E

Parcel Line Table		
Line #	Length	Direction
L60	2.00	S89° 54' 40.27"E
L61	40.51	N0° 05' 19.09"E
L63	32.00	S89° 54' 41.04"E
L65	32.00	N89° 54' 41.04"W
L68	32.00	S89° 54' 41.04"E
L67	32.00	N89° 54' 41.04"W
L68	15.50	S89° 54' 41.01"W
L69	33.87	S89° 54' 40.95"E
L70	4.00	S89° 54' 40.95"E
L71	9.00	S89° 54' 40.95"E
L72	15.37	N89° 54' 40.82"W
L73	136.00	N0° 05' 19.11"E
L74	35.63	N0° 05' 19.09"E
L75	100.38	N8° 05' 18.62"E
L76	15.50	S89° 54' 40.97"E
L77	36.73	N89° 54' 40.99"W
L78	16.40	S81° 54' 40.99"E
L80	17.38	S89° 54' 40.82"E
L81	17.63	N81° 54' 41.38"W
L82	135.00	S0° 05' 19.01"W

Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C1	8.40	30.00	16.05	N82° 03' 45"E	8.38
C2	3.72	2.00	106.51	S86° 49' 58"E	3.21
C3	23.56	15.00	90.00	S44° 54' 41"E	21.21
C4	2.36	1.50	90.00	S45° 05' 19"W	2.12
C10	3.40	1.50	129.95	S24° 56' 14"E	2.72
C11	110.83	72.50	87.59	N86° 14' 39"E	100.35
C14	2.97	2.00	85.22	S75° 02' 08"W	2.71
C15	36.53	70.50	29.69	N14° 52' 07"E	36.12
C16	4.05	2.00	115.90	S32° 08' 14"W	3.39
C17	11.80	28.00	24.15	S37° 53' 19"E	11.71
C18	15.47	7.00	126.62	N66° 43' 34"E	12.51
C19	3.26	2.00	93.33	N43° 14' 53"W	2.91
C20	2.36	1.50	90.00	S45° 05' 19"W	2.12
C21	3.45	2.00	98.75	N40° 32' 05"W	3.04
C22	45.02	27.50	93.80	N55° 44' 36"E	40.16
C23	6.08	4.50	77.44	S38° 38' 00"E	5.63
C24	3.14	2.00	90.06	S44° 56' 37"E	2.83
C25	6.31	7.50	48.19	S24° 10' 55"W	6.12
C26	3.45	1.50	131.81	N65° 49' 05"W	2.74
C27	3.14	2.00	90.00	S45° 05' 19"W	2.83

Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C28	7.85	2.50	180.00	N0° 05' 19"E	5.00
C31	7.85	2.50	180.00	S0° 05' 19"W	5.00
C32	7.85	2.50	180.00	N0° 05' 19"E	5.00
C33	7.85	2.50	180.00	S0° 05' 19"W	5.00
C34	2.90	2.50	66.42	S56° 42' 02"E	2.74
C36	2.90	2.50	66.42	N56° 52' 40"E	2.74
C37	2.90	2.50	66.42	N56° 42' 02"W	2.74
C39	2.90	2.50	66.42	S56° 52' 40"W	2.74
C41	2.90	2.50	66.43	N56° 41' 47"W	2.74
C42	8.27	2.63	180.00	S0° 05' 19"W	5.27
C43	7.85	2.50	180.00	N0° 05' 19"E	5.00
C44	2.43	2.50	55.59	S62° 17' 44"W	2.33
C45	3.05	1.50	116.41	S23° 42' 16"E	2.55
C46	1.75	0.58	172.00	N4° 05' 19"E	1.16
C48	3.14	2.00	90.00	N53° 05' 19"E	2.83
C49	11.97	7.00	98.00	N40° 54' 41"W	10.57
C50	7.85	2.50	180.00	S0° 05' 19"W	5.00
C51	7.85	2.50	180.00	N0° 05' 19"E	5.00
C52	7.85	2.50	180.00	S0° 05' 19"W	5.00
C53	7.85	2.50	180.00	S0° 05' 19"W	5.00

Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C54	7.85	2.50	180.00	N0° 05' 19"E	5.00
C56	3.14	2.00	90.00	N44° 54' 41"W	2.83
C60	3.73	2.00	106.91	S36° 37' 57"W	3.21
C61	16.26	28.00	33.26	S33° 27' 18"E	16.03
C63	15.86	7.00	129.82	N65° 00' 04"E	12.68
C66	23.56	15.00	90.00	S45° 05' 19"W	21.21
C67	23.56	15.00	90.00	N44° 54' 41"W	21.21
C70	2.80	1.50	106.84	S53° 19' 57"E	2.41
C71	7.02	5.50	73.16	N36° 40' 03"E	6.56
C74	5.76	5.50	60.00	S29° 54' 41"E	5.50
C75	3.14	1.50	120.00	N60° 05' 19"E	2.60
C76	2.36	1.50	90.00	N45° 05' 19"E	2.12
C77	10.21	6.50	90.00	S44° 54' 41"E	9.19
C78	23.56	15.00	90.00	S45° 05' 19"W	21.21
C79	31.54	20.00	90.36	N44° 43' 29"W	28.37
C80	2.90	2.50	66.41	N56° 52' 54"E	2.74
C84	7.85	2.50	180.00	S0° 05' 19"W	5.00
C85	7.85	2.50	180.00	S0° 05' 19"W	5.00
C86	16.16	27.50	33.67	S16° 44' 43"E	15.93
C87	3.09	59.50	2.98	S23° 15' 29"E	3.09

Parcel Line Table		
Line #	Length	Direction
L83	16.50	S89° 54' 40.99"E
L84	126.36	N8° 05' 18.62"E
L85	16.00	S81° 54' 41.38"E
L86	3.19	N8° 05' 18.62"E
L87	45.70	N89° 54' 40.90"W
L88	32.00	S89° 54' 41.04"E
L89	32.00	N89° 54' 41.04"W
L91	32.00	N89° 54' 41.04"W
L92	32.00	S89° 54' 41.04"E
L94	3.45	N0° 05' 19.18"E
L95	17.00	N89° 54' 40.82"W
L96	18.00	N0° 05' 18.95"E
L97	14.88	N89° 54' 41.02"W
L98	20.12	S50° 05' 11.02"E
L99	163.00	S89° 54' 40.90"E
L100	143.84	N89° 54' 40.90"W
L101	16.33	S0° 05' 19.10"W
L102	17.50	N0° 05' 19.10"E
L103	17.50	S0° 05' 19.10"W
L104	15.96	N0° 05' 19.10"E

Parcel Line Table		
Line #	Length	Direction
L105	13.47	N0° 05' 19.11"E
L106	43.00	S89° 54' 40.99"E
L107	51.47	S0° 05' 19.10"W
L108	222.64	N89° 54' 40.90"W
L109	15.50	N89° 54' 40.90"W
L110	1.07	S0° 05' 19.10"W
L116	19.46	S89° 54' 34.26"E
L166	36.04	S0° 05' 19.32"W
L229	6.00	N44° 54' 40.90"W
L230	6.00	N45° 05' 19.10"E
L231	6.00	S44° 54' 40.90"E
L232	6.00	S45° 05' 19.10"W
L233	6.00	N44° 54' 40.90"W
L234	6.00	S45° 05' 19.10"W
L235	6.00	S44° 54' 40.90"E
L236	6.00	N45° 05' 19.10"E
L237	6.00	N44° 54' 40.90"W
L238	6.00	S45° 05' 19.10"W
L239	6.00	S44° 54' 40.90"E
L240	6.00	N45° 05' 19.10"E

Parcel Line Table		
Line #	Length	Direction
L241	6.00	N44° 54' 40.90"W
L242	6.00	N45° 05' 19.10"E
L243	6.00	S44° 54' 40.90"E
L244	6.00	S45° 05' 19.10"W
L245	6.00	N44° 54' 40.90"W
L246	6.00	N45° 05' 19.10"E
L247	6.00	S44° 54' 40.90"E
L248	6.00	S45° 05' 19.10"W
L249	6.00	N44° 54' 40.90"W
L250	6.00	S45° 05' 19.10"W
L251	6.00	S44° 54' 40.90"E
L252	6.00	N45° 05' 19.10"E
L253	6.00	N44° 54' 40.90"W
L254	6.00	N45° 05' 19.10"E
L255	6.00	S44° 54' 40.90"E
L256	6.00	S45° 05' 19.10"W
L257	6.00	N44° 54' 40.90"W
L258	6.00	N45° 05' 19.10"E
L259	6.00	S44° 54' 40.90"E
L260	6.00	S45° 05' 19.10"W

Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C89	2.20	2.00	64.66	S7° 34' 59"W	2.14
C91	2.55	2.00	73.03	S10° 38' 17"E	2.38
C92	2.33	2.00	66.71	S55° 07' 22"E	2.20

Parcel Line Table		
Line #	Length	Direction
L261	6.00	N44° 54' 40.90"W
L262	6.00	N45° 05' 19.10"E
L263	6.00	S44° 54' 40.90"E
L264	6.00	S45° 05' 19.10"W
L265	6.00	N44° 54' 40.90"W
L266	6.00	N45° 05' 19.10"E
L267	6.00	S44° 54' 40.90"E
L268	6.00	S45° 05' 19.10"W
L269	6.00	N44° 54' 40.90"W
L270	6.00	N45° 05' 19.10"E
L271	6.00	S44° 54' 40.90"E
L272	6.00	S45° 05' 19.10"W
L273	6.00	N44° 54' 40.90"W
L274	6.00	N45° 05' 19.10"E
L275	6.00	S44° 54' 40.90"E
L276	6.00	S45° 05' 19.10"W

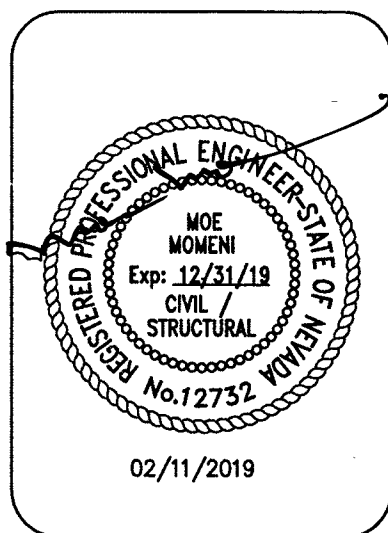
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02/11/2019
DATE
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PROJECT NUMBER
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PROJECT:
DURANGO BELTWAY PLAZA
CITY OF LAS VEGAS
SWC OF ROME BLVD. AND RILEY ST.

**TRAFFIC-HORIZONTAL
CONTROL PLAN III**

SHEET:
T-3
13 OF 13
CLV L18-02031

DURANGO BELTWAY PLAZA

LANDSCAPE IMPROVEMENT PLANS

STANDARD ABBREVIATIONS

⊗	AND	L.A.	LANDSCAPE ARCHITECT
①	AT	L.C.	LANDSCAPE CONTRACTOR
2-1	DEGREE & DIRECTION OF SLOPE	LT.	LIGHT
3-	EXISTING CONTOURS	M	METER
#	NUMBER OR POUND	MAX.	MAXIMUM
5-	REVISED CONTOURS	MID.	MIDDLE
A.C.	AIR CONDITIONER	MIN.	MINIMUM
A.D.	AREA DRAIN	MISC.	MISCELLANEOUS
AGG.	AGGREGATE	ML	MAIN LINE
ARCH.	ARCHITECT OR ARCHITECTURAL	MULTI.	MULTI-BRANCHED
ASPH.	ASPHALTIC CONCRETE	NAT.	NATURAL
BD.	BOARD	N.I.C.	NOT IN CONTRACT
BLDG.	BUILDING	NO.	NUMBER
BLK.	BLOCK	N.T.S.	NOT TO SCALE
B.O.S.	BOTTOM OF SLOPE	O.C.	ON CENTER
B.S.	BOTTOM OF STEP	P.A.	PLANTING AREA
BOT.	BOTTOM	P.L.	PROPERTY LINE
B.W.	BOTTOM OF WALL	P.S.I.	POUNDS PER SQUARE INCH
C.B.	CATCH BASIN	PT.	POINT
C.I.	CAST IRON	P.O.C.	POINT OF CONNECTION
CJ	COLD JOINT	P.V.C.	POLYVINYL CHLORIDE
CONT. J.	CONTROL JOINT	Q.C.	QUICK COUPLER
CL	CENTER LINE	QT.	QUART
CLR.	CLEAR	RAD. or R.	RADIUS
CONC.	CONCRETE	R.C.V.	REMOTE CONTROL VALVE
CTR.	CENTER	RDWD.	REDWOOD
CU.	CUBIC	RE	REGARDING
D.D.	DECK DRAIN	RE S.	RESAWN
D.F.	DOUGLAS FIR	REF.	REFERENCE
D.G.	DECOMPOSED GRANITE	REINF.	REINFORCED
D.I.	DRAIN INLET	RET.	RETAINING
DIA.	DIAMETER	REQ.	REQUIRED
D.L.	DRAIN LINE	RI.	RISER
DWG.	DRAWING	ROW	RIGHT OF WAY
EA.	EACH	R.S.	ROUGH SAWN
E.J.	EXPANSION JOINT	SCHED.	SCHEDULE
EL.	ELEVATION	SECT.	SECTION
ELEC.	ELECTRICAL	SHT.	SHEET
ENCL.	ENCLOSURE	SL	SLEEVE
ESP.	ESPALIERED	SP	SPREAD
EQ.	EQUAL	SPECS.	SPECIFICATIONS
EX.	EXISTING	SQ.	SQUARE
EXP.	EXPOSED	S.S.	SURFACED FOUR SIDES
E.W.	EACH WAY	STD.	STANDARD STEEL
F.F.	FINISH FLOOR ELEVATION	STL.	STEEL
F.G.	FINISH GRADE	T.B.	TOP OF BERM
FIN.	FINISH	T.C.	TOP OF CURB
F.L.	FLOW LINE	T.F.	TOP OF FOOTING
FLT.	FLATS	T.G.	TOP OF GRADE
F.S.	FINISH SURFACE	THK.	THICK
FT.	FOOT OR FEET	T.O.S.	TOP OF SLOPE
FTG.	FOOTING	TRD.	TREAD
GA.	GAUGE	T.S.	TOP OF STEP
GAL.	GALLON CONTAINER	T.W.	TOP OF WALL
GALV.	GALVANIZED	TYP.	TYPICAL
G.C.	GROUND COVER	VERT.	VERTICAL
G.P.M.	GALLONS PER MINUTE	WI	WITH
GRD.	GRADE	W.I.	WROUGHT IRON
H.B.	HOSE BIB	WID	WITH OUT
HDR.	HEADER	WWM.	WELDED WIRE MESH
HORIZ.	HORIZONTAL		
HT.	HEIGHT		
INV.	INVERT		

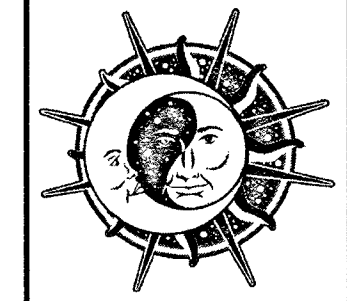
VICINITY MAP



INDEX

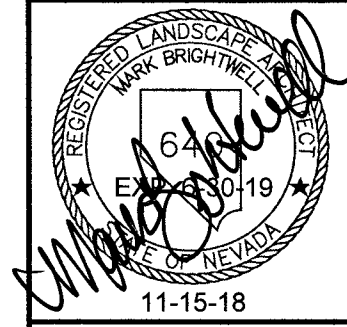
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GENERAL NOTES	L2.01
INTENTIONALLY OMITTED FROM THIS SET	L3.01
INTENTIONALLY OMITTED FROM THIS SET	L4.01
IRRIGATION PLAN	L5.01
IRRIGATION DETAILS	L6.01
IRRIGATION SPECIFICATIONS	L6.02
PLANTING PLAN	L7.01
PLANTING DETAILS	L8.01
PLANTING SPECIFICATIONS	L8.02

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COVER SHEET
DIURANGO BELTWAY PLAZA
8699 W ROME BLVD
LAS VEGAS, NV



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DESCRIPTION	PLAN CHECK COMMENTS		
REV.	DATE		
1	01-28-19		
SCALE		HORZ.	1"=20'
		VERT.	
DATE	11-15-18		
PROJ. NO.	1819		
DRAWING NO.			
L1.01			
SHEET		1 OF 8	

1.0 GENERAL SITE

1.0 GENERAL SITE

- 3.0 CAST-IN-PLACE CONCRETE
- 3.1 REFERENCES AND STANDARDS.
- A. APPLICABLE LAWS, CODES AND REGULATIONS REQUIRED BY THE CITY, CLARK COUNTY AND THE STATE OF NEVADA.
- B. "STANDARD SPECIFICATIONS": UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS - CLARK COUNTY, 2010.
- C. ASTM STANDARDS.
- D. AMERICAN CONCRETE INSTITUTE (ACI): TELEPHONE (313) 532-2600.

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- 3.8 ACID WASH FINISHES, ALL AGGREGATE FINISHES OR SANDBLASTED AREAS.
- A. PROVIDE ACID CONTAINMENT AREA. DO NOT ALLOW ACID OR ACID TAINTED RUN-OFF TO ABOORB INTO PLANTING AREAS.
- B. ALL ACID FINISHES SHALL BE DONE UPON FINAL COMPLETION OF ALL WORK.

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- A. AFTER INITIAL SURFACE AGGREGATE EXPOSURE, THE CONCRETE SURFACE SHALL BE COVERED WITH 6 MIL PLASTIC SHEETING WITH ALL EDGES AND JOINTS SEALED TO RETAIN MOISTURE. OPTIONAL SPRINKLING OR FOGGING WITH WATER MAY BE PERFORMED IN LIEU OF PLASTIC SHEETING AT THE DISCRETION OF THE INSTALLING CONTRACTOR.

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- 3.14 EXECUTION
- A. EXPANSION JOINTS: FOR WALKWAYS, INSTALL JOINTS A MAXIMUM OF 12' APART, OR WHERE INDICATED ON THE DRAWINGS. TOOL CORNERS OF PAVING AT JOINTS.
- B. SCORE JOINTS. SCORE AT LEAST 1/8" THE DEPTH OF PAVING AT INTERVAL INDICATED ON THE DRAWINGS. THE WIDTH OF CONTROL JOINTS SHALL NOT EXCEED 1/8" AND THE EDGES SHALL BE FINISHED WITH A "T" BAR FOR A ROUNDED EDGE. C. CONCRETE PLACEMENT

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- 8.1 THE IRRIGATION PLAN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS ARE FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS. AVOID CONFLICTS BETWEEN THE IRRIGATION SYSTEM, PLANTING AND ARCHITECTURAL FEATURES.
- 8.2 THE IRRIGATION CONTRACTOR SHALL VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCES BETWEEN WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READINGS AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S REPRESENTATIVE IN WRITING.
- 8.3 DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED IN WRITING, THE IRRIGATION CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY NECESSARY REVISIONS.
- 8.4 THE IRRIGATION CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, LOCATIONS OF WALLS, RETAINING WALLS, ETC. HE SHALL COORDINATE HIS WORK WITH THE GENERAL CONTRACTOR AND OTHER SUBCONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADWAYS, PAVING, STRUCTURES, ETC.
- 8.5 INSTALL EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS. REFER TO DETAIL SHEETS L6.01 AND L6.02.

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 - B. GATE VALVE
 - C. CONTROLLER

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- 10.1 WALKS, SIDEWALKS, AND RAMPS LEADING TO AND FROM REQUIRED ACCESSIBLE FACILITIES OR HANDICAPPED PARKING STALLS SHALL BE AS FOLLOWS
- A. WIDTH TO BE 48" MINIMUM BUT NO LESS THAN THE REQUIRED WIDTH OF AN EXIT SERVING THE FACILITY. (SEE PLANS FOR DIMENSIONS). RAMPS SERVING THE PRIMARY ENTRANCE OF A BUILDING WITH OCCUPANCY OF 300 OR MORE SHALL BE 60" MINIMUM WIDTH.
 - B. A WALK OR SIDEWALK MAY SLOPE FROM 1:20 (5.0%) MAXIMUM WITH A MAXIMUM CROSS SLOPE OF 2% AND MINIMUM 1/4". 6" HIGH WARNING CURBS ARE REQUIRED WHERE A 4" OR GREATER DROPP-OFF OCCURS NEXT TO RAMP (EXCEPT AT STREET OR DRIVEWAY).
 - C. RAMPS MAY SLOPE FROM 1:20 (5%) TO 1:12 (8.3%) MAXIMUM. RAMP SLOPES OF 1:16 TO 1:12 MUST BE SLIP RESISTANT. RAMPS MAY HAVE A MAXIMUM CROSS SLOPE OF 2% AND MINIMUM OF 1/4".
 - D. LANDINGS ARE REQUIRED AT THE TOP AND BOTTOM OF EVERY RAMP AT INTERVALS NOT EXCEEDING 30' VERTICAL RISE AND EACH CHANGE IN DIRECTION.
 - 1. TOP LANDINGS ARE TO BE NOT LESS THAN 60" WIDE AND NOT LESS THAN 60" LONG IN THE DIRECTION OF TRAVEL.
 - 2. INTERMEDIATE LANDINGS SHALL BE 60" LONG, MINIMUM, IN DIRECTION OF TRAVEL AND 60" LONG AT A CHANGE IN DIRECTION EXCEEDING 30 DEGREES.
 - 3. BOTTOM LANDINGS ARE TO BE 30" AND MINIMUM.

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- 10717430 118-02

- 3. BOTTOM LANDINGS ARE TO BE 12" LONG MINIMUM.
- 4. WHERE A DOOR OR GATE SWINGS INTO A LANDING, THE LANDING SHALL BE 60" MINIMUM (VERIFY WITH WIDTH OF DOOR) ON SIDE WITH OPENING AND SHALL EXTEND AT LEAST 24" BEYOND THE STRIKE SIDE OF THE DOOR (18" AT INTERIOR RAMP). THE DOOR IN ANY POSITION SHALL NOT REDUCE THE REQUIRED WIDTH BY MORE THAN 3-1/2" WHEN FULLY OPEN.
- E. RAMPS MORE THAN 10 FEET LONG NOT BOUNDED BY A WALL OR FENCE ARE TO HAVE 2" HIGH CURBS OR WHEEL GUIDE RAILS CENTERED 2' TO 4" ABOVE RAMP SURFACE. 6" HIGH WARNING CURBS ARE REQUIRED WHERE A 4" OR GREATER DROP-OFF OCCURS NEXT TO RAMP (EXCEPT AT STREET OR DRIVEWAY).
- F. HANDRAILS ARE REQUIRED ON EACH SIDE OF A RAMP WHICH EXCEEDS A SLOPE OF 1:20 (5%). LOCATE RAILS 34" TO 38" ABOVE RAMP SURFACE. GRIP PORTION OF HANDRAIL TO BE 1-1/4" TO 2" WIDE. SPACE 1-1/2" OR MORE FROM ANY ADJACENT WALL. MOUNT HANDRAILS POSTS ON CURBS WHERE REQUIRED OR PROVIDE ADDITIONAL LOW GUARD RAIL. EXTEND HANDRAILS AND CURBS, 12" BEYOND RAMP AT TOP AND BOTTOM LANDINGS AND RETURN ENDS OF HANDRAILS.
- G. GUARD RAILS PER UBC SECTION 509 ARE REQUIRED IN ADDITION TO HANDRAILS WHERE VERTICAL DROP-OFF NEXT TO RAMP EXCEEDS 30".
- H. RAMPS WITH A RISE OF 6 INCHES AND LESS OR A HORIZONTAL PROJECTION OF 72 INCHES AND LESS DO NOT REQUIRE HANDRAILS. PROVIDE A 4 INCH HIGH BY A 4 INCH WIDE WARNING CURB ON EACH SIDE RUNNING THE FULL LENGTH OF THE RAMP.

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NV CL #48225A
NV LA #640
www.Moon-SunLandscapes.com

- NOTES
-
- ELTWA

TES
ELTWAY PLAZA

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LAS VEGAS, NV

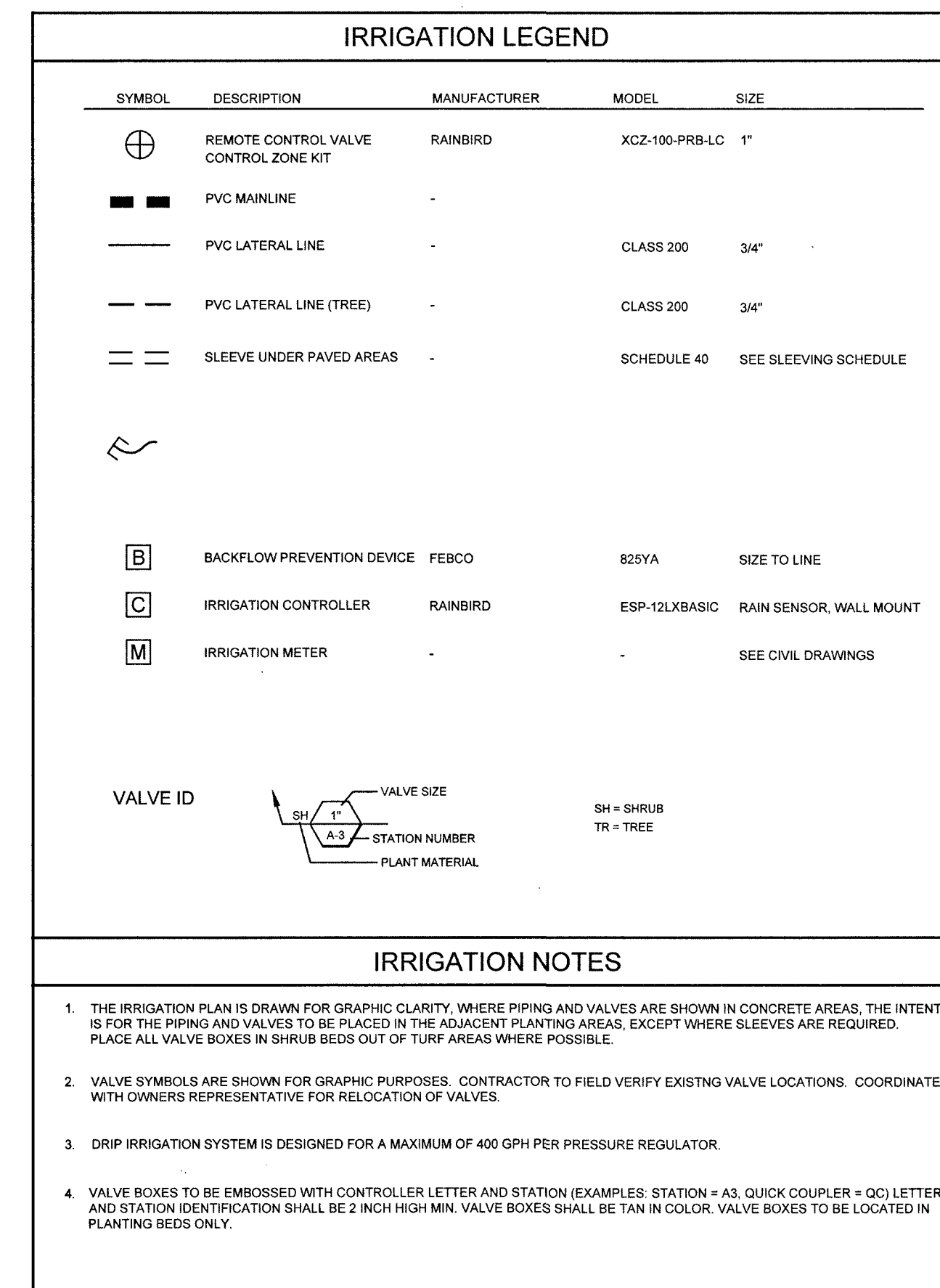


These drawings and all information contained herein, is the sole copyright of Moon-Sun Landscapes, LLC. These drawings are for project specific and shall not be used for any other work without written permission from Moon-Sun Landscapes, LLC.

SCALE	HORIZ.	1"=20'
	VERT.	-
DATE	11-15-18	
PROJ. NO.	1819	
DRAWING NO.		
L2.01		

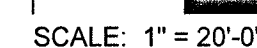
SCALE: HORIZ. 1"=20'
VERT. -
DATE: 11-15-18
PROJ. NO. 1819
DRAWING NO.
L2.01

107V7670 418-02031

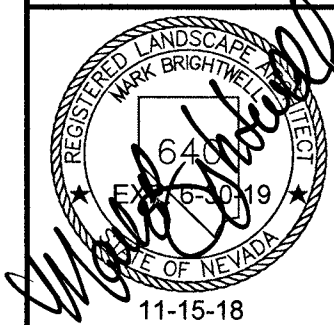


TWO WORKING DAYS BEFORE YOU DIG

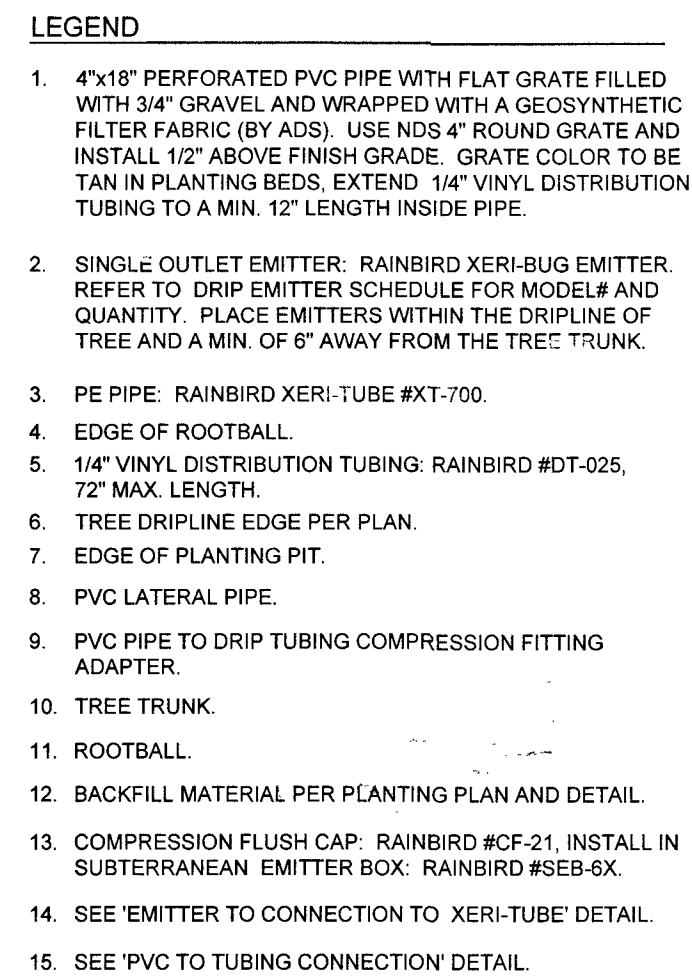
SCALE: 1" = 20'-0"



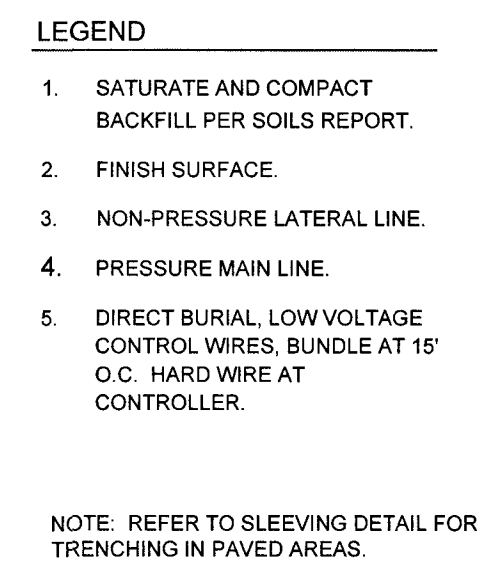
IRRIGATION PLAN
DIURANGO BELTWAY PLAZA
8699 W ROME BLVD
LAS VEGAS, NV

[illegible]

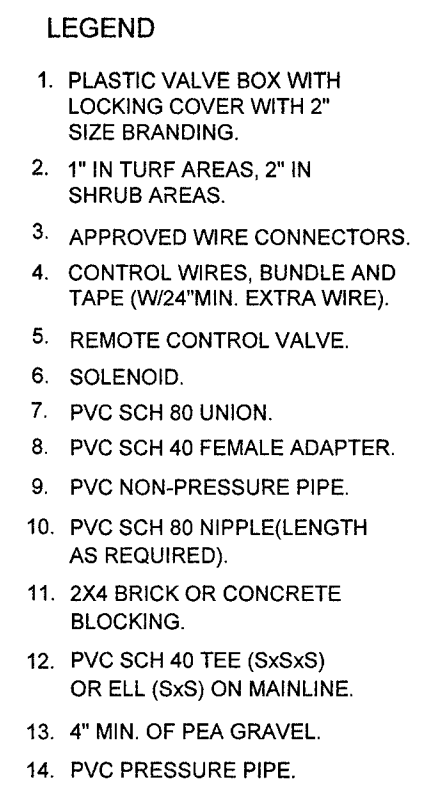
L5.01



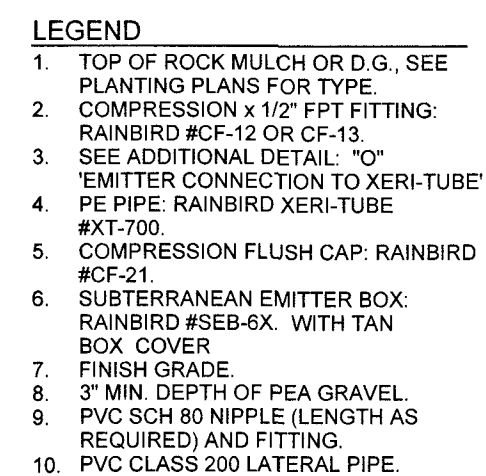
(G) DRIP EMITTER FOR TREE



D TRENCHING



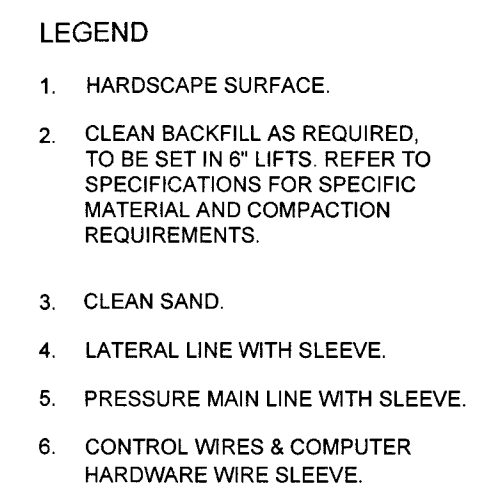
(A) REMOTE CONTROL VALVE



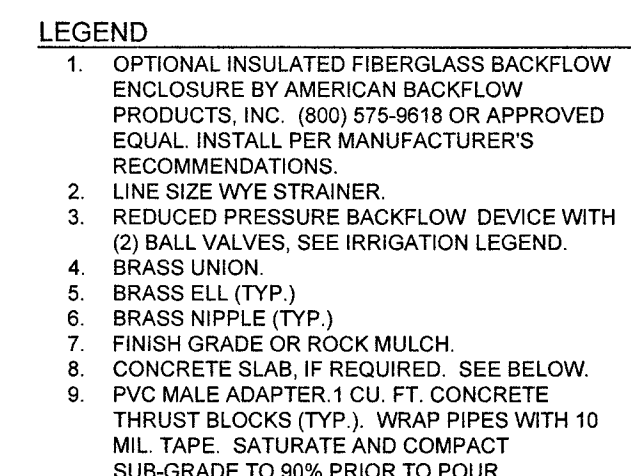
NOTES

- a. USE RAINBIRD XM-TOOL TO INSERT EMITTER DIRECTLY INTO XERI-TUBE.
- b. SEE 'EMITTER CONNECTION TO XERI-TUBE' DETAIL FOR MORE INFORMATION.

(H) PVC TO TUBING CONNECTION



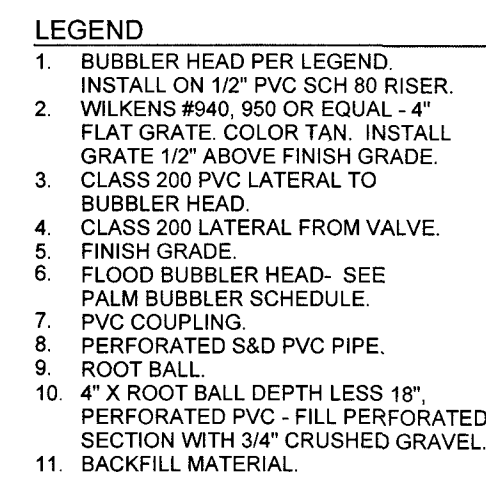
(E) SLEEVING



NOTES

- IF WYE STRAINER OR PRESSURE REGULATOR IS SPECIFIED, INSTALL ON EITHER THE HORIZONTAL PIPING OR ON THE DOWNSTREAM LEG AS SPACE PERMITS.
- CONCRETE SLAB SHALL BE MINIMUM 4" THICK, 18" WIDE AND EXTEND AT LEAST 8" PAST THE BACKFLOW ASSEMBLY PIPING. THE CONCRETE SLAB SHALL BE THE SIZE REQUIRED BY THE MANUFACTURER.

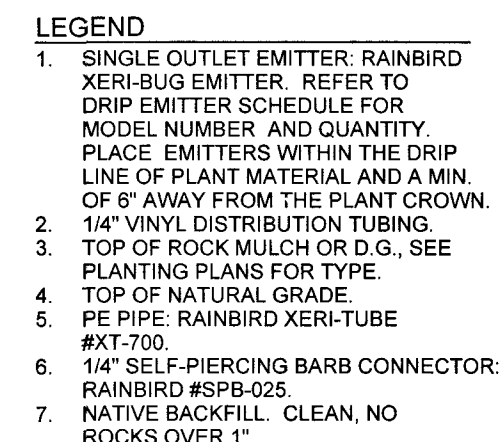
(B) BACKFLOW PREVENTER W/ ENCLOSURE



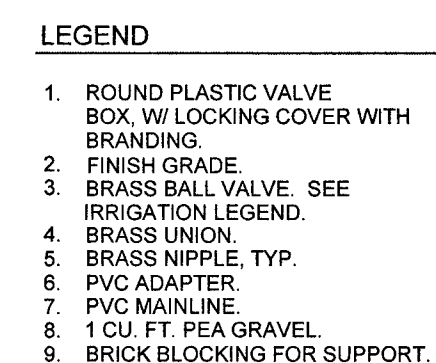
NOTES

- ADD (1) SHALLOW BUBBLER IF DATE PALM IS REQUIRED. REFER TO PALM SCHEDULE.
- ELIMINATE SHALLOW PIPES IF ROOT BALL IS SET WITHIN 6" OF FINISH GRADE AND INSTALL SHALLOW EMITTERS ON GRADE.

J BUBBLERS - PALM AND LARGE TREES



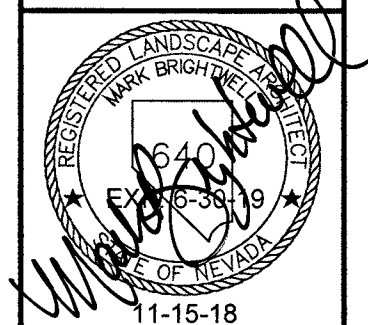
(F) EMITTER CONNECTION TO XERI-TUBE



NOTE

a. COLOR OF VALVE BOX SHALL BE GREEN IN ALL TURF AREAS AND TAN IN ALL AREAS WITH MULCH OR ROCK MULCH.

(C) BALL VALVE

[illegible]

PART 1 - GENERAL

1.01 SCOPE

- ## 1.02 GENERAL CONDITIONS

- ### 1.03 SUBMITTAL

- 1.04 GUARANTEE

- ## PART 2 - PRODUCTS

2.01 GUARANTEE

A. PRO

- ## 2.02 IRRIGATION EQUIPMENT

- ## 2.03 PLASTIC PIPE AND FITTINGS

- ## 2.04 OTHER PIPE AND FITTINGS

- ## 2.05 CONTROL WIRING

- ## 2.06 VALVE BOX

- ### PART 3 - EXECUTION

3.01 GENERAL

A. IF N

- ### 3.02 WATER SUPPLY

- ### 3.03 ELECTRICAL SUPPLY

- ### 3.04 TRENCHING

- ### C. PIPING UNDER PAVING

- D. WATER SUPPLY AND POINT OF CONNECTION - WATER SUPPLY SHALL BE EXTENDED AS SHOWN FROM WATER SUPPLY LINES.

3.05 CONTROL WIRING

- ### 3.06 HYDROSTATIC PRESSURE TEST

- ### 3.07 BACKFILLING

- ### 3.08 LINE CLEARANCE

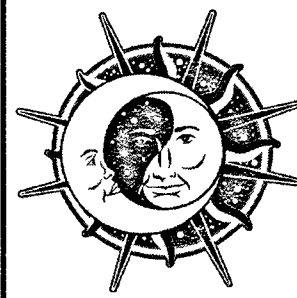
- ### 3.09 IRRIGATION EQUIPMENT

- A. INSTALL AS PER DETAILS.

- ### 3.11 ADJUSTING THE SYSTEM - NOT A PART

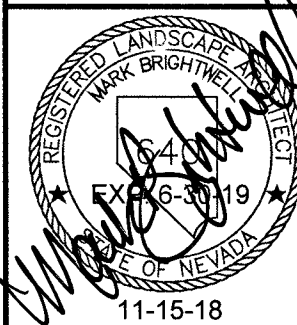
- ### 3.12 OBSERVATION SCHEDULE

- DESIGNED BY _____
DRAWN BY _____
CHECKED BY _____



Moon-Sun Landscapes
6430 McGill Way
Las Vegas, NV 89122
(702) 464-6780 TEL
(702) 382-6838 FAX
NV CL #48225A
NV LA #640
www.Moon-SunLandscapes.com

IRRIGATION NOTES
DIURANGO BELTWAY PLAZA
8699 W ROME BLVD
LAS VEGAS, NV

[illegible]

L6.02

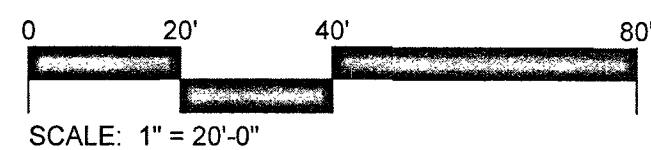


PLANTING LEGEND				
BOTANICAL NAME	COMMON NAME	COMMENT	SIZE	QTY
TREES				
PINUS HALEPENSIS	ALEPPO PINE	STD. TRUNK	24" BOX	9
PROSOPIS 'COLORADO'	THORNLESS MESQUITE	MULTI TRUNK	24" BOX	90
WASHINGTONIA ROBUSTA	MEXICAN FAN PALM		12" BTH	6
SHRUBS				
HESPERALOE PARVIFLORA	RED YUCCA		5-GAL	759
ROCK MULCH AND MISCELLANEOUS				
3/4" VISTA GOLD DECOMPOSED GRANITE ROCK MULCH				
1/4 TON BOULDER				

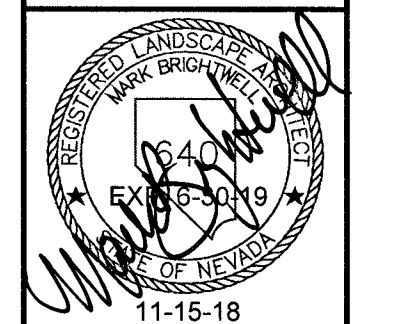
Underground Service Alert

Call: TOLL FREE
1-800
227-2600

TWO WORKING DAYS BEFORE YOU DIG



PLANTING PLAN
DIURANGO BELTWAY PLAZA
8699 W ROME BLVD
LAS VEGAS, NV



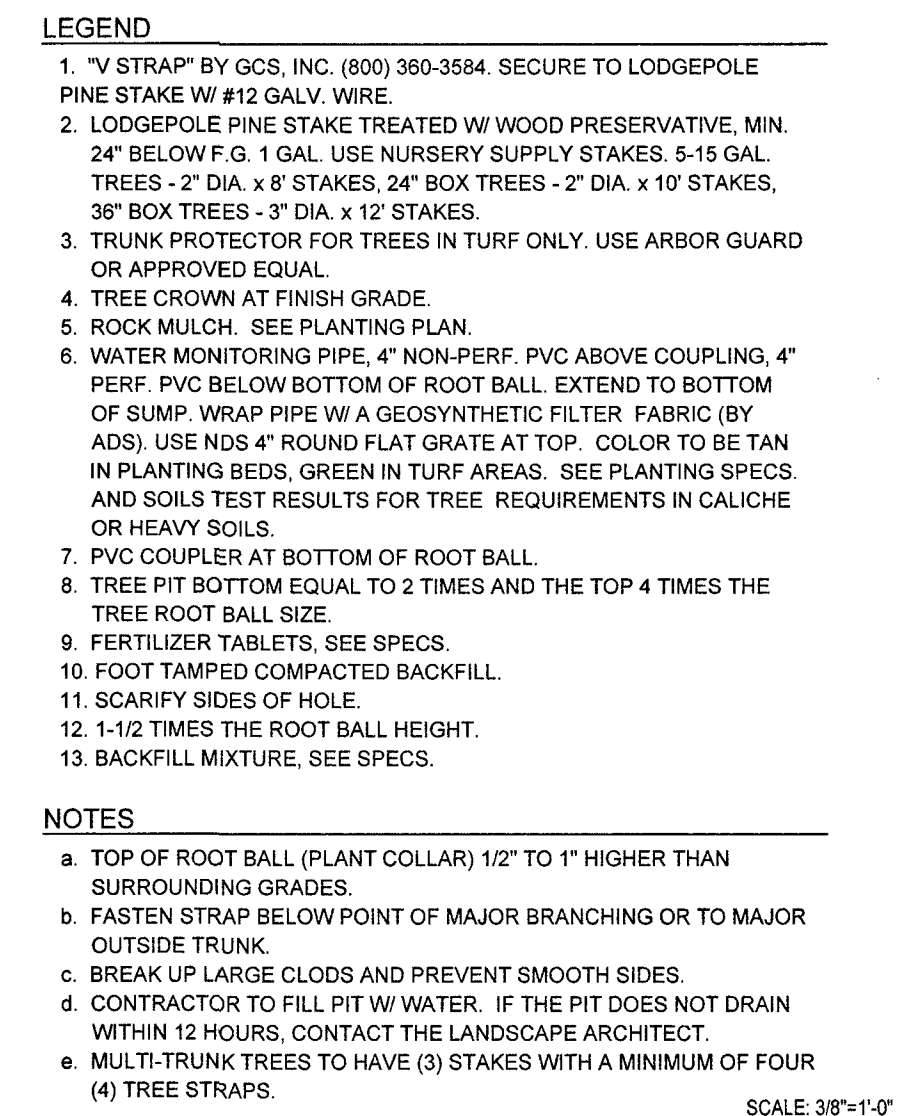
REV.	DATE	DESCRIPTION
1	01-28-19	PLAN CHECK COMMENTS
SCALE		
HORIZ.		1"=20'
VERT.		1"=10'
DATE		
11-15-18		
PROJ. NO.		
1819		
DRAWING NO.		

L7.01

SHEET 6 OF 8

DESIGNED BY
DRAWN BY
CHECKED BY

Moon-Sun Landscapes
6430 McGill Way
Las Vegas, NV 89122
(702) 464-6780 TEL
(702) 382-6838 FAX
NV CL #48225A
NV LA #640
www.Moon-SunLandscapes.com



A cross-sectional diagram of a tree pit. The diagram shows a tree with a canopy (1) and trunk (2) growing in a pit. The pit is filled with topsoil (3) and has a drainage layer (4) at the bottom. The pit is lined with a filter layer (5) and a subsoil layer (6). The pit is surrounded by a concrete or masonry wall (7) and a concrete or masonry floor (8). The pit is filled with a material (9) and has a concrete or masonry edge (10) and a concrete or masonry rim (11).

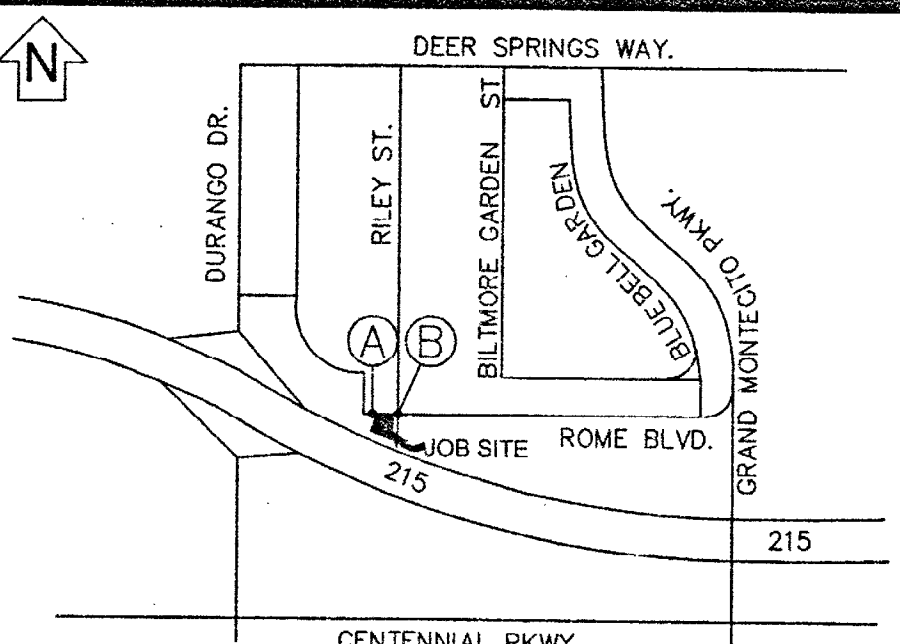
The diagram illustrates a staggered grid pattern. It consists of three horizontal rows of points. The top row has four points, the middle row has five points, and the bottom row has four points. The points in the middle row are offset horizontally from the points in the top and bottom rows. Dimension lines indicate the following:

- 1**: The vertical distance between the top and middle horizontal rows.
- 2**: The vertical distance between the middle and bottom horizontal rows.
- 3**: The horizontal distance between the first point of the top row and the first point of the middle row.
- EQUAL O.C.**: Two labels indicating equal spacing. One label is placed along a diagonal line connecting points in the top and middle rows. The other label is placed along a horizontal line connecting points in the middle and bottom rows.

C GROUND COVER SPACING



T.R.S: 19-60-20
APN: 12520802005



VICINITY MAP

(NOT TO SCALE)

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

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DO OVERHEAD

CALL 1-702-402-2929

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

CALL 811

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

REVISIONS

NO.	DESCRIPTION	DATE	REV BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

STANDARD

PROJECT PURPOSE:

TO SERVE:
(1) 1200AMP 277/480V, 3Ø PANEL
(1) 1200AMP 120/208V, 3Ø MULTI-METER PANEL
(1) 1200AMP 120/208V, 3Ø PANEL
NEW SHOPPING CENTER

EXHIBIT 'A'

NVEnergy INFORMATION:

COORDINATOR: KING, JANE
PHONE: (702) 275-6263 D.F. LOWELL, KEN
DESIGNER: MONROE, STEVEN
DCA: N/A
INSPECTOR: 702-402-3008 OR UG@NVEENERGY.COM
STAND BY: (702) 402-4450, 4150, 4114, 4117, 4118
DISTRICT: LAS VEGAS NORTH DISTRICT
JPA INFORMATION:
JPA ADMIN PHONE: N/A JPA#: N/A
CUSTOMER INFORMATION:
APPLICANT: DURANGO BELTWAY PLAZA LLC
ENGINEER: HPA ENG.
CONTACT: MOMENI, MOE ** 702-248-8004
APPROVAL DATE: 5/16/2019

GOVERNMENT INFORMATION:

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



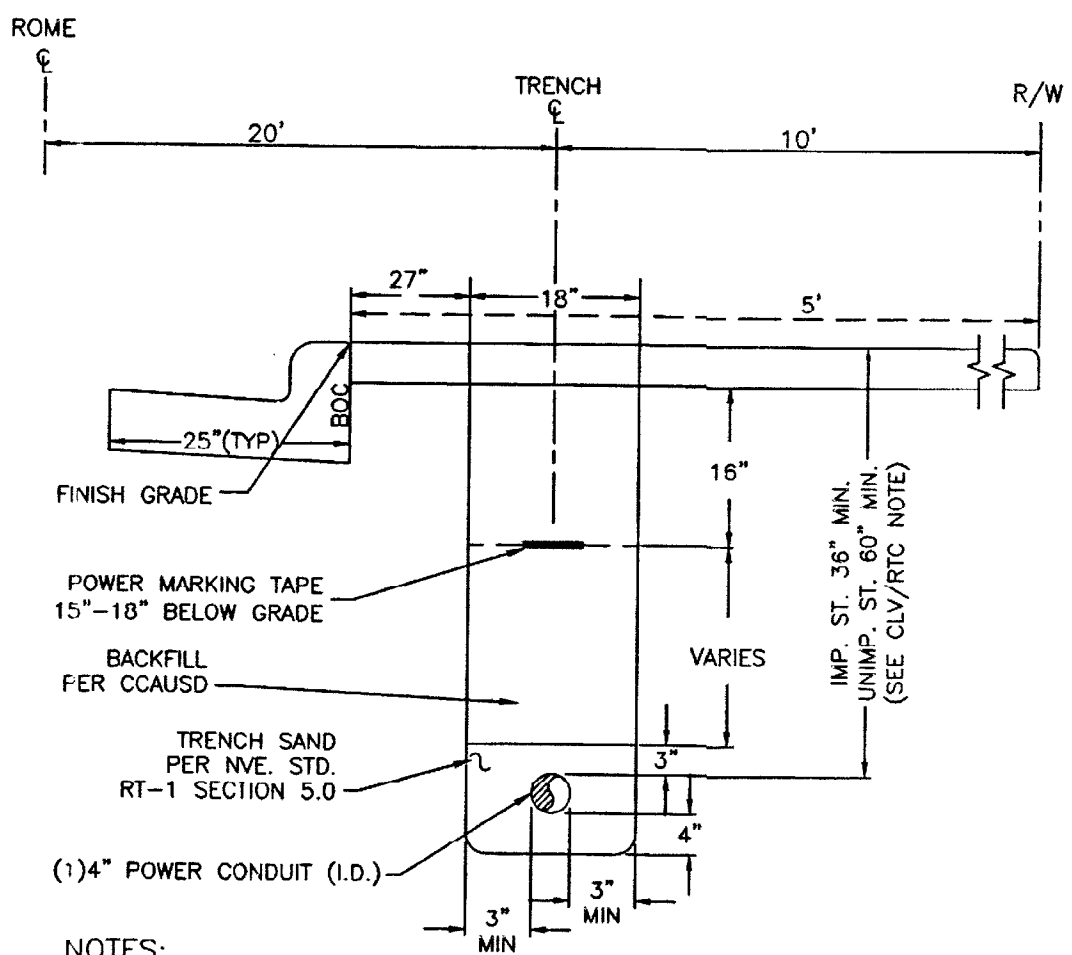
DURANGO BELTWAY PLAZA

Sheet 16 ROME BLVD / RILEY ST

PROJ #3003249776 SCALE: 1"=30'

SHEET # 3 OF 3 DATE: 3/29/2019

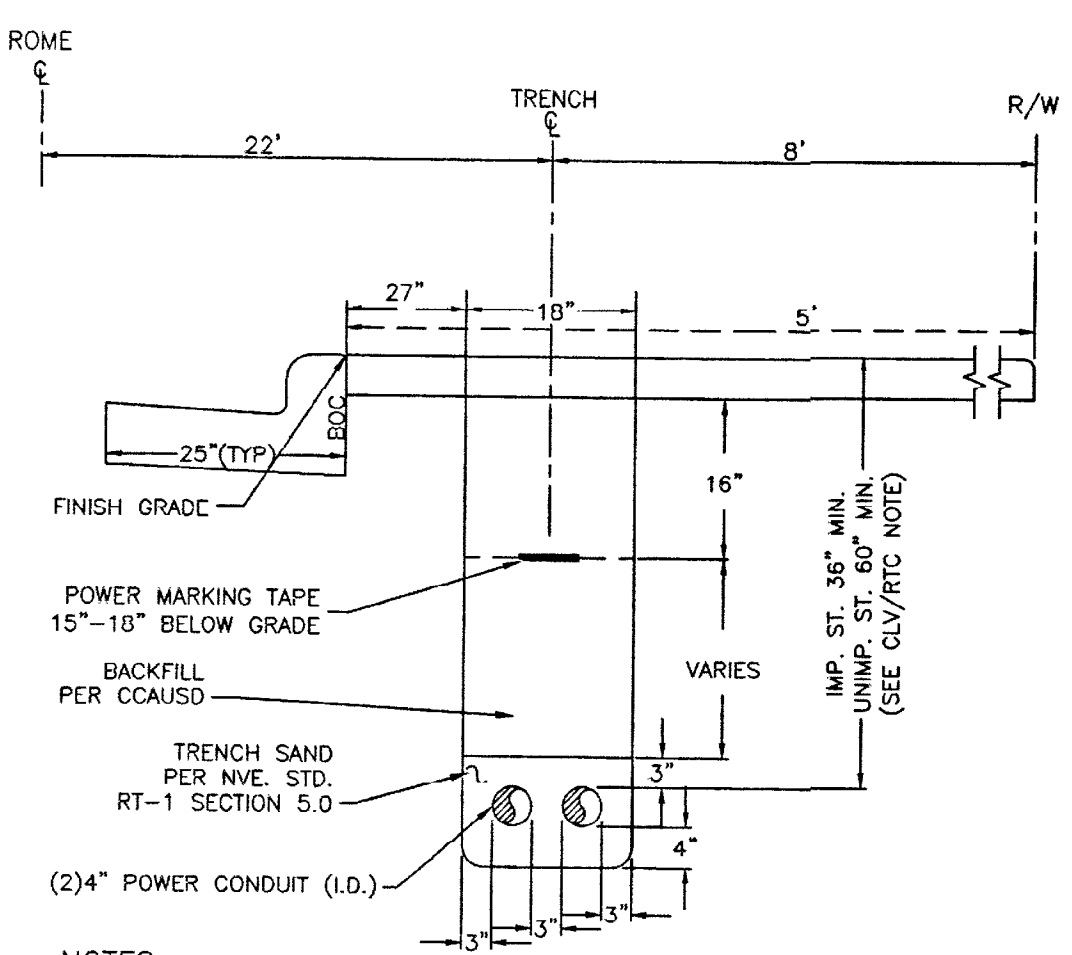
0 REVISION(S)



NOTES:

CLV REQUIREMENTS (APPLICABLE WITHIN CITY OF LAS VEGAS LIMITS ONLY):
IMPROVED AREA (IMP. ST.): (LOCATION OF TRENCH)
AREA WILL BE CONSIDERED IMPROVED IF IT MEETS ONE OR MORE OF THE FOLLOWING CRITERIA(S):
- EXISTING PERMANENT PAVEMENT WITH CURB & GUTTER AND/OR ADJACENT PERMANENT SIDEWALK.
- WITHIN AN IMPROVED TRAIL AREA.
- LIMITS OF CONSTRUCTION INSTALLED CONCURRENT WITH A PRIVATE OR PUBLIC PROJECT.
UNIMPROVED AREA (UNIMP. ST.): (LOCATION OF TRENCH)
ANY OTHER SCENARIO THAT FAILS TO MEET THE IMPROVED AREA CRITERIA(S) WILL BE CONSIDERED AN UNIMPROVED AREA.
NVE REQUIREMENTS:
FOR ALL OTHER JURISDICTIONS REFER TO NVE STANDARDS.
BACKFILL REQUIREMENTS NVE. STD. RT-1.
TRENCH DEPTH REQUIREMENTS NVE. STD. RT-5.

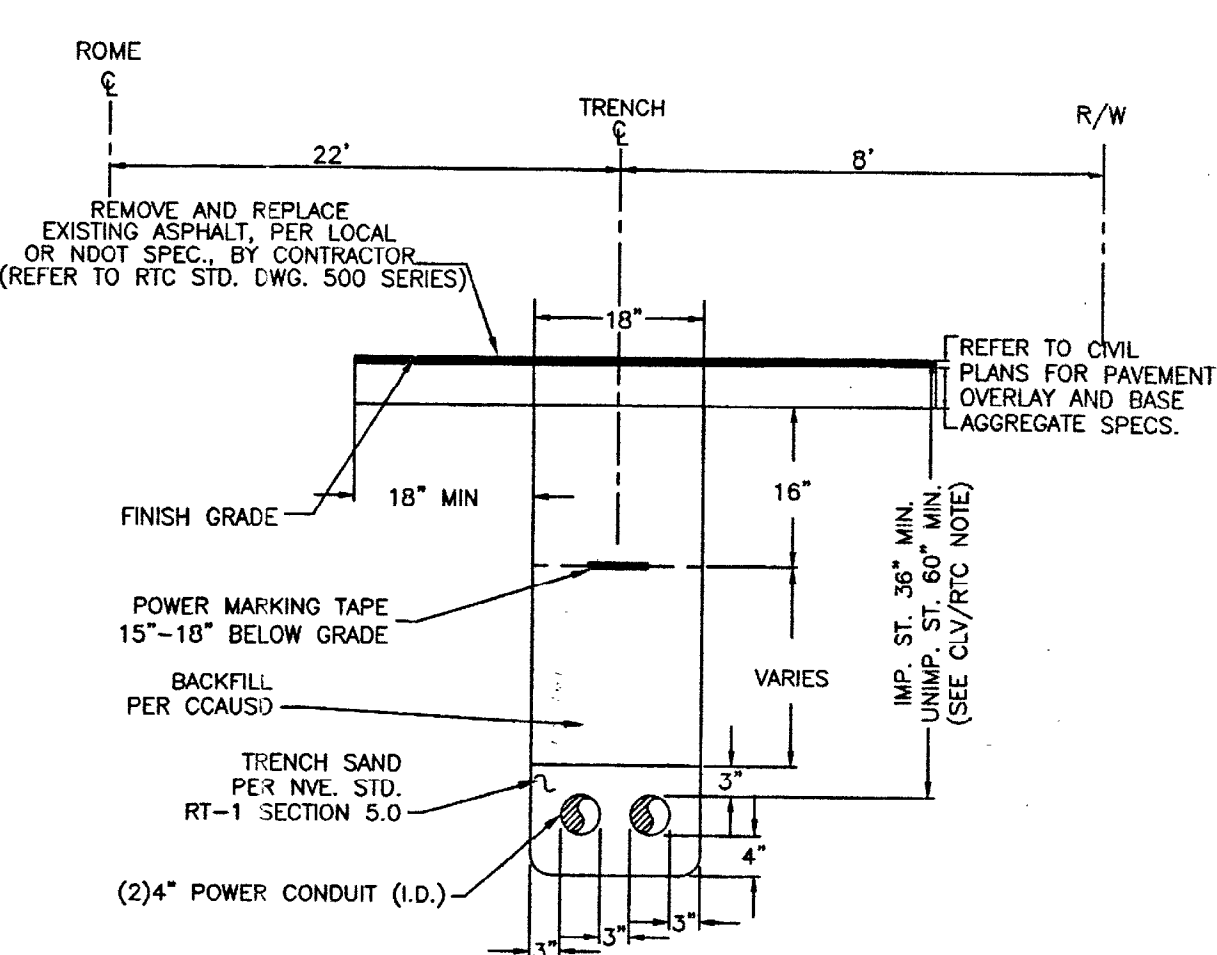
TRENCH DETAIL SECTION "AA" 1-4" CONDUITS



NOTES:

CLV REQUIREMENTS (APPLICABLE WITHIN CITY OF LAS VEGAS LIMITS ONLY):
IMPROVED AREA (IMP. ST.): (LOCATION OF TRENCH)
AREA WILL BE CONSIDERED IMPROVED IF IT MEETS ONE OR MORE OF THE FOLLOWING CRITERIA(S):
- EXISTING PERMANENT PAVEMENT WITH CURB & GUTTER AND/OR ADJACENT PERMANENT SIDEWALK.
- WITHIN AN IMPROVED TRAIL AREA.
- LIMITS OF CONSTRUCTION INSTALLED CONCURRENT WITH A PRIVATE OR PUBLIC PROJECT.
UNIMPROVED AREA (UNIMP. ST.): (LOCATION OF TRENCH)
ANY OTHER SCENARIO THAT FAILS TO MEET THE IMPROVED AREA CRITERIA(S) WILL BE CONSIDERED AN UNIMPROVED AREA.
NVE REQUIREMENTS:
FOR ALL OTHER JURISDICTIONS REFER TO NVE STANDARDS.
BACKFILL REQUIREMENTS NVE. STD. RT-1.
TRENCH DEPTH REQUIREMENTS NVE. STD. RT-5.

TRENCH DETAIL SECTION "BB" 2-4" CONDUITS



NOTES:

CLV REQUIREMENTS (APPLICABLE WITHIN CITY OF LAS VEGAS LIMITS ONLY):
IMPROVED AREA (IMP. ST.): (LOCATION OF TRENCH)
AREA WILL BE CONSIDERED IMPROVED IF IT MEETS ONE OR MORE OF THE FOLLOWING CRITERIA(S):
- EXISTING PERMANENT PAVEMENT WITH CURB & GUTTER AND/OR ADJACENT PERMANENT SIDEWALK.
- WITHIN AN IMPROVED TRAIL AREA.
- LIMITS OF CONSTRUCTION INSTALLED CONCURRENT WITH A PRIVATE OR PUBLIC PROJECT.
UNIMPROVED AREA (UNIMP. ST.): (LOCATION OF TRENCH)
ANY OTHER SCENARIO THAT FAILS TO MEET THE IMPROVED AREA CRITERIA(S) WILL BE CONSIDERED AN UNIMPROVED AREA.
NVE REQUIREMENTS:
FOR ALL OTHER JURISDICTIONS REFER TO NVE STANDARDS.
BACKFILL REQUIREMENTS NVE. STD. RT-1.
TRENCH DEPTH REQUIREMENTS NVE. STD. RT-5.

TRENCH DETAIL SECTION "CC" 2-4" CONDUITS

CENTERLINE STATION TABLE									
(A)	STREET INTERSECTION				STA	HEADED			
	ROME				37+00	EAST			
(B)	RILEY				47+98.44	EAST			
	ROME				43+21.32	NORTH			
STATION TABLE									
MAXIMO STATION	CORNER	CENTER LINE STATION	SIDE	OFFSET CL TO BOC	OFFSET CL TO ROW	OFFSET CL TO SUBSTRUCTURE	SUBSTRUCTURE INFORMATION		
(0002)	EAST	40+55.52 FIELD MARK	RT	19.5'	30'	20.45'	RS-82 - 7.67' X 3.57' W/ 6" COLLAR OPERATING NUMBER: UGMR/504 PAGE NUMBER: 2 EASEMENT NUMBER: FUTURE TYP. EASEMENT LAYOUT: FUTURE		
	WEST	40+88.25 FIELD MARK	RT	19.5'	30'	20.45'	RS-82 - 7.67' X 3.57' W/ 6" COLLAR OPERATING NUMBER: UGMR/504 PAGE NUMBER: 2 EASEMENT NUMBER: FUTURE TYP. EASEMENT LAYOUT: FUTURE		
(0005)	EAST	39+25.84 FIELD MARK	RT	19.5'	30'	25.45'	RS-35 - 8.25' X 8.25' OPERATING NUMBER: PM025534 PAGE NUMBER: 2 EASEMENT NUMBER: FUTURE TYP. EASEMENT LAYOUT: FUTURE		
	WEST	39+17.58 FIELD MARK	RT	19.5'	30'	25.45'	RS-35 - 8.25' X 8.25' OPERATING NUMBER: PM025534 PAGE NUMBER: 2 EASEMENT NUMBER: FUTURE TYP. EASEMENT LAYOUT: FUTURE		
(0009)	EAST	41+52.05 FIELD MARK	RT	19.5'	30'	28.3'	RS-35 - 8.25' X 8.25' OPERATING NUMBER: PM223210 PAGE NUMBER: 2 EASEMENT NUMBER: FUTURE TYP. EASEMENT LAYOUT: FUTURE		
	WEST	41+53.80 FIELD MARK	RT	19.5'	30'	28.3'	RS-35 - 8.25' X 8.25' OPERATING NUMBER: PM223210 PAGE NUMBER: 2 EASEMENT NUMBER: FUTURE TYP. EASEMENT LAYOUT: FUTURE		

CITY OF LAS VEGAS
PERMIT REQUIRED*

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

107V7670
HANSEN L18-02031

DATE: 8/7/19

*NVE INSPECTOR MUST BE NOTIFIED BY FAX 48 HOURS PRIOR TO COMMENCING CONSTRUCTION & WILL VERIFY CITY PERMIT FOR WORK DONE IN STREETS OR SIDEWALK.

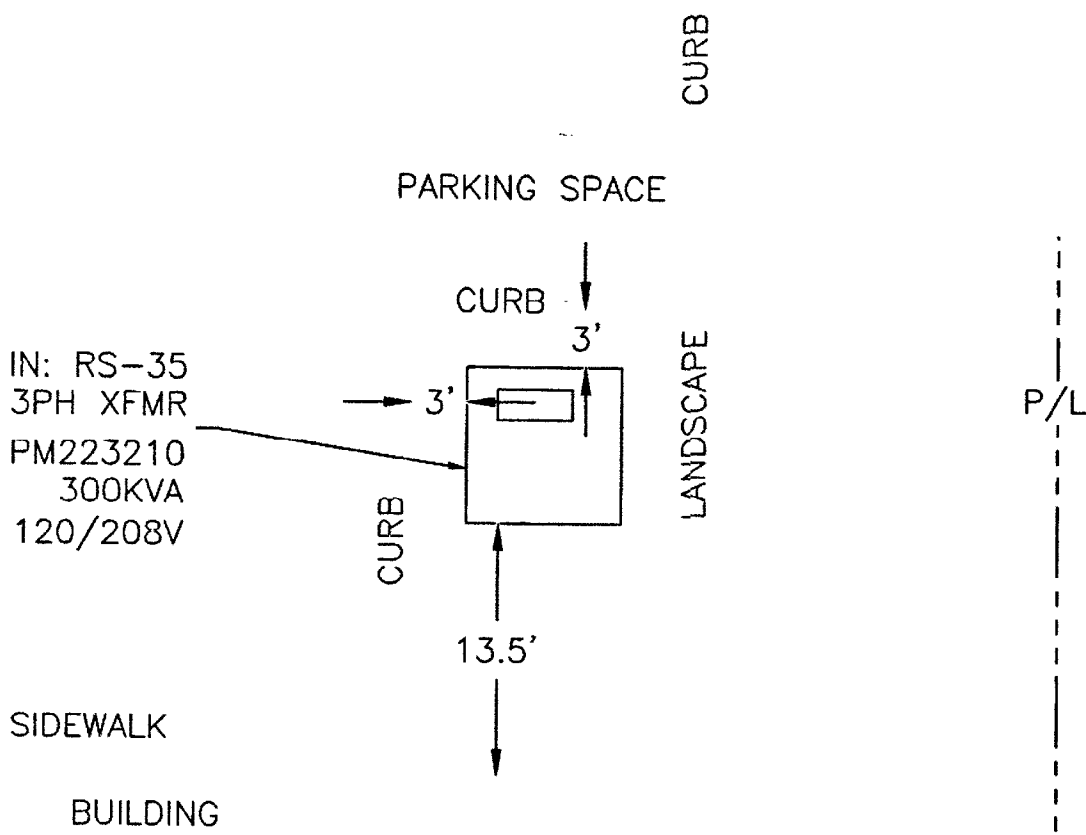
FAX PERMIT TO:
LAS VEGAS NORTH (RYAN CENTER): 402-4354
LAS VEGAS SOUTH (BELTWAY CENTER): 402-6864

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

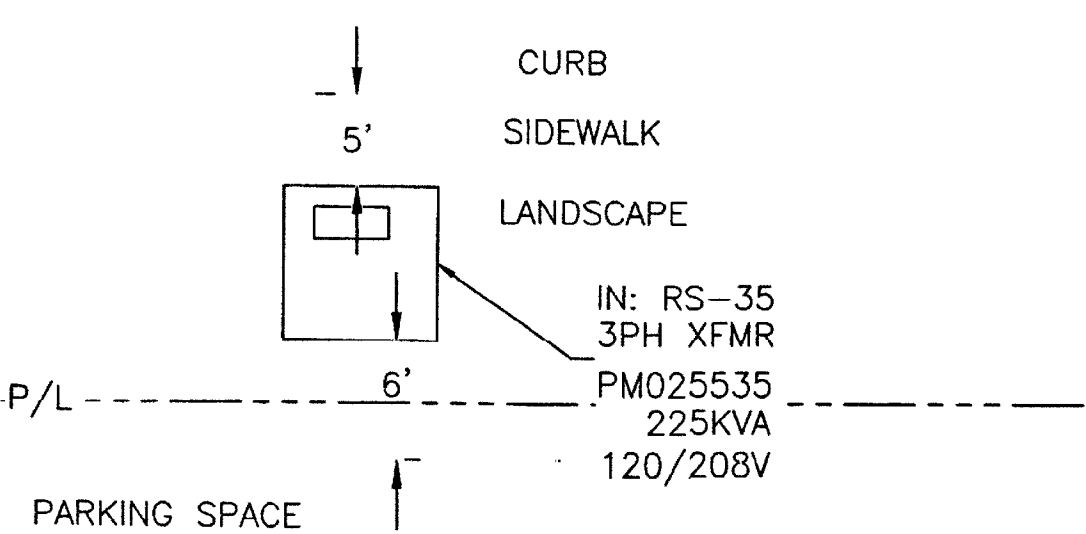
APPROVED FOR CONSTRUCTION

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

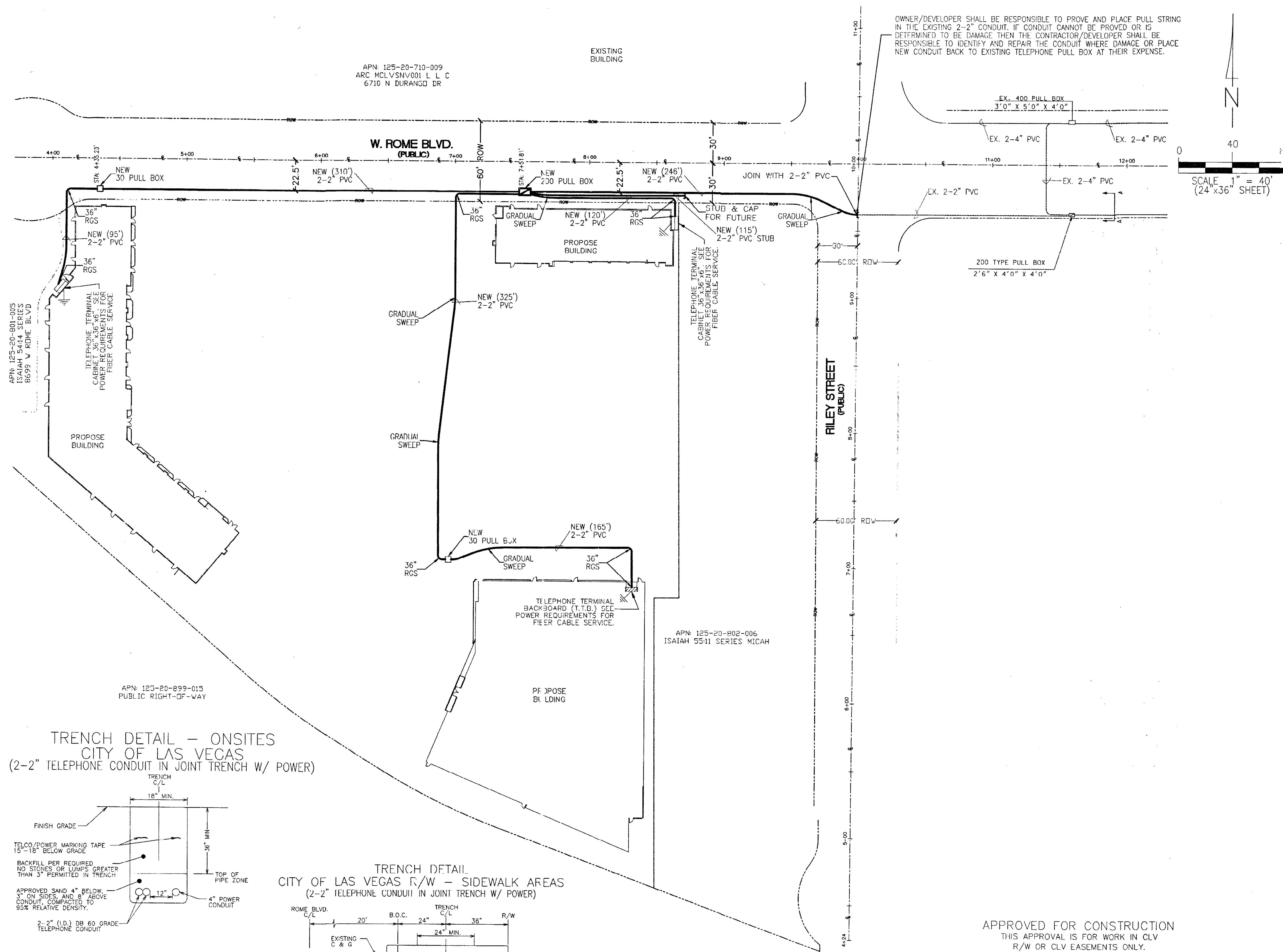
APPROVAL BY: DATE: 8/7/19



TRANSFORMER LOCATION DETAIL "DD" SCALE: 1"=10'



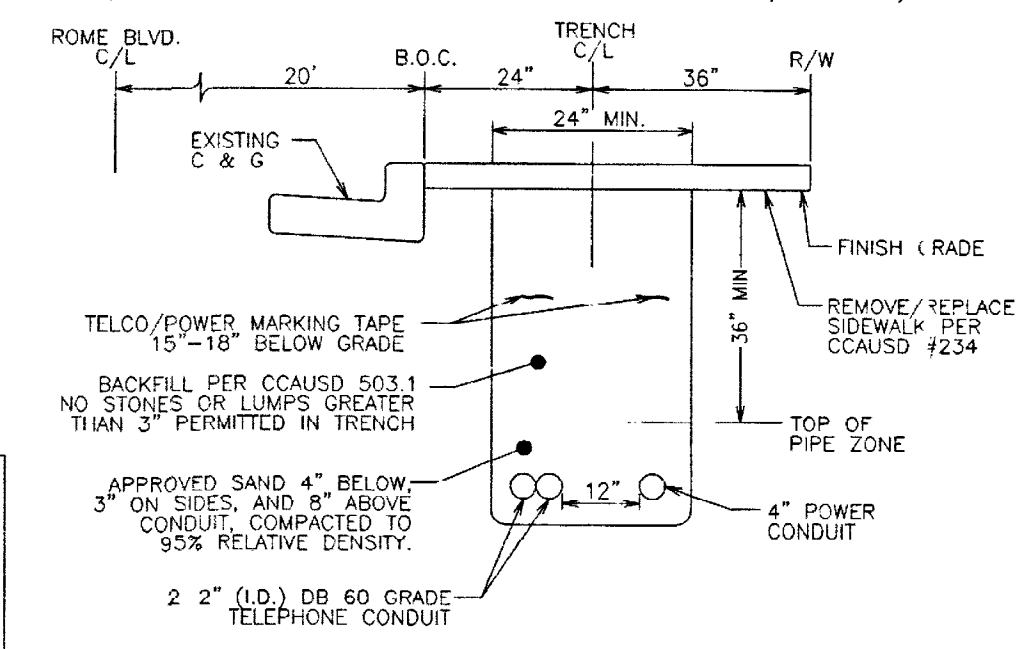
TRANSFORMER LOCATION DETAIL "CC" SCALE: 1"=10'



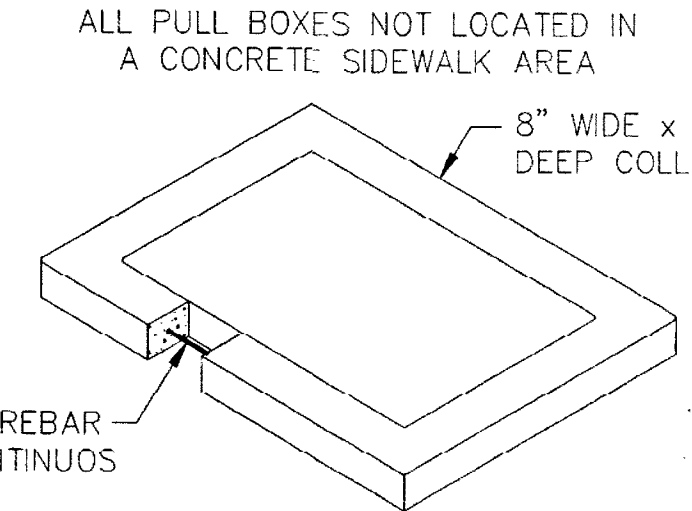
RTC SOUTHERN NEVADA NOTES:

- FOR ASPHALT CUT AND RESTORATION REQUIREMENTS, SEE RTC UNIFORM STANDARD DRAWING SERIES 500.1, 500.2, 500.3, 500.4 AND 500.5
- FOR SIDEWALK REMOVAL AND REPLACEMENT REQUIREMENTS SEE RTC UNIFORM STANDARD DRAWING 234
- FOR TYPICAL U.G. UTILITY LOCATIONS UNDER STREETS AND SIDEWALKS, SEE RTC UNIFORM STANDARD DRAWINGS 501 AND 501.1
- FOR BACKFILL REQUIREMENTS SEE RTC UNIFORM STANDARD DRAWING 503.1
- SEE COMPLETE RTC UNIFORM STANDARD DRAWINGS FOR FURTHER AGENCY REQUIREMENTS

TRENCH DETAIL - CITY OF LAS VEGAS R/W - SIDEWALK AREAS
(2-2" TELEPHONE CONDUIT IN JOINT TRENCH W/ POWER)



PULL BOX COLLAR DETAIL
ALL PULL BOXES NOT LOCATED IN A CONCRETE SIDEWALK AREA



THIS DRAWING MAY SHOW APPROXIMATE LOCATIONS OF KNOWN UTILITIES IN THE IMMEDIATE VICINITY OF THE WORK TO BE DONE, BUT CENTURYLINK DOES NOT GUARANTEE OR ASSUME LIABILITY FOR THE LOCATION OR DEPTH. CONTRACTORS SHALL DETERMINE THEIR SATISFACTION THE ACTUAL POSITION AND DEPTH OF EXISTING UTILITIES AS THEY WILL ASSUME THIS LIABILITY DURING THE PERFORMANCE OF THIS WORK.

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

APPROVAL: *[Signature]* DATE: 8/7/19
ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA", LATEST ISSUE; THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST ISSUE; AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY; ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE.

SERVICE CANNOT BE PROVIDED WITHOUT APPROVED OPEN TRENCH AND FINAL INSPECTION BY A CENTURYLINK INSPECTOR.

LEGEND

PROPOSED CONDUIT: P.V.C. - D.B. (DIRECT BURIAL) GRADE: D.B. 60 FOR 1", 2", & 3" D.B. 100 FOR 4", 6", & 8"

EXISTING CONDUIT

RADIAL BENDS: SCHEDULE 40 PVC (TYPICAL) OR RIGID GALVANIZED STEEL (RGS) WITH DOUBLE WRAPPED 10 MIL CORROSION PROTECTION TAPE (AS SHOWN) 24" RADIUS FOR 1", 36" RADIUS FOR 2", 48" RADIUS FOR 3" & 4".

EXISTING, PROPOSED

- MANHOLE - INCLUDE REQUIRED GRADE RINGS, RACKING, GROUNDING, STEP RUNGS AND LADDER - REFER TO DRAWING FOR SIZE/TYPE.
- 400 PULL BOX (3'0" x 5'0" x 4'0" I.D.) - WITH TWO (2) HINGED ALUMINUM TORSION-ASSISTED TRAFFIC RATED LIDS MARKED "TELCO", GALVANIZED STEEL ANCHORING FRAME, AND FOUR (4) 18 HOLE CABLE RACKS (2 EA. SIDE).
- 200 PULL BOX (2'6" x 4'0" x 4'0" I.D.) - WITH TWO (2) H-20-44 LOADING, HOT DIP GALVANIZED BOLT DOWN BEAM & PLATE TRAFFIC COVERS MARKED "TELCO" AND FOUR (4) 18 HOLE CABLE RACKS (2 EACH SIDE).
- 100 PULL BOX (2'0" x 3'0" x 3'0" I.D.) - WITH TWO (2) H-20-44 LOADING, HOT DIP GALVANIZED BOLT DOWN BEAM & PLATE TRAFFIC COVERS MARKED "TELCO" AND FOUR (4) 18 HOLE CABLE RACKS (2 EACH SIDE).
- 30 PULL BOX (1'7" x 3'0" x 3'0" I.D.) - P.C.C. TYPE PULL BOX (CS-30 or T-30CC)
- 16 HAND HOLE (9" x 15" x 12" I.D.)
- TERMINAL CABINET 48" x 48" x 6" UNDERWRITER LABORATORY APPROVED, RAIN-TIGHT WITH A NON-LOCKING, SIDE-HINGED DOOR EQUIPPED INSIDE WITH A 1/2" PLYWOOD BACKBOARD (1" SMALLER ON ALL SIDES, CENTERED IN CABINET) SECURED WITH RECESSED MOUNTING HARDWARE AND A # 6 GROUND WIRE CONNECTED TO THE APPROVED COMMUNICATION GROUNDING SOURCE AND AT 20AMPS OUTLET WITHIN 6" AS DETERMINED BY THE ELECTRICAL ENGINEER FOR THIS BUILDING OR DEVELOPMENT. MOUNT CABINET AT EYE LEVEL A MINIMUM OF 48" ABOVE FINISH GRADE.
- TERMINAL CABINET 36" x 36" x 6"
- TELEPHONE TERMINAL BACKBOARD (T.T.B.) - SEE PLAN FOR SIZE REQUIREMENTS: 3/4" PLYWOOD BACKBOARD TREATED WITH FIRE RETARDANT PAINT OR SEALER AND A # 6 GROUND WIRE CONNECTED TO THE APPROVED COMMUNICATION GROUNDING SOURCE AND AT 20AMPS OUTLET WITHIN 6" AS DETERMINED BY THE ELECTRICAL ENGINEER FOR THIS BUILDING OR DEVELOPMENT. MOUNT CABINET AT EYE LEVEL A MINIMUM OF 48" ABOVE FINISH GRADE.

VICINITY MAP
T-R-S: 19S-60E-20

NOT USED

RISER DETAIL (TYPICAL)

- CONSTRUCTION NOTES**
- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST ISSUE OF THE CENTURYLINK UNDERGROUND SPECIFICATIONS.
 - ALL CONDUIT, TRENCHING AND SUBSTRUCTURES ARE TO BE PROVIDED BY THE DEVELOPER AND CONFORM WITH CENTURYLINK STANDARDS. ALL BACKFILLING AND RESTORATION WORK SHALL CONFORM TO THE REGIONAL TRANSPORTATION COMMISSION OF SOUTHERN NEVADA (RTIC) UNIFORM STANDARD DRAWINGS.
 - WHEN EXISTING TELEPHONE FACILITIES (i.e. POLES, MANHOLES, PULL BOXES, CONDUIT, TERMINALS, etc.) ARE AFFECTED BY IMPROVEMENTS AS REQUIRED BY LOCAL ORDINANCE (i.e. STREETS, SIDEWALKS, GUTTERS, SEWERS, STORM DRAINS etc.), THE DEVELOPER SHALL BE RESPONSIBLE FOR THE ADJUSTMENT OF THESE FACILITIES AS REQUIRED.
 - TELEPHONE BOXES ARE TO BE PLACED BEHIND THE CURB LINE AND/OR IN THE SIDEWALK AREA WHENEVER POSSIBLE AND SITUATED TO AVOID DRIVEWAYS AND HANDICAP RAMPS. ALL TRENCHING WILL BE OF A MINIMUM DEPTH TO MAINTAIN 30" COVER FROM FINAL GRADES TO TOP OF PIPE (EXCEPT WHEN ENTERING TELEPHONE BOXES), MAINTAIN 12" MINIMUM SEPARATION FROM FOREIGN UTILITIES. BOXES WILL BE ESTABLISHED TO FINISH GRADE.
 - ALL PULL BOXES (2'-0" x 3'-0" AND LARGER) AND MANHOLES ARE TO BE GROUNDING WITH A 3/8" x 1/16" TINNED SOFT COPPER BONDING RIBBON PLACED VERTICALLY AROUND THE BOTTOM OF THE BOX WITH 3" ENDS STUBBED INSIDE.
 - ALL TELEPHONE BOXES NOT IN SIDEWALK AREAS WILL BE REQUIRED TO HAVE A PROTECTIVE CONCRETE COLLAR, RE-ENFORCED WITH REBAR, POURED AROUND THE TOP PORTION OF THE BOX PER CENTURYLINK SPECIFICATIONS.
 - USE EXISTING PRECAST TERMINATORS TO JOIN SUBSTRUCTURES WHENEVER POSSIBLE. IF EXISTING TERMINATORS ARE NOT AVAILABLE THEN THE CONTRACTOR SHALL CORE DRILL, PLACE END BELL AND PROPERLY GROUT THE CONDUIT INTO THE PRE-DETERMINED LOCATION. CONTACT THE CENTURYLINK INSPECTOR AT 244-7811, 24 HOURS IN ADVANCE TO DETERMINE THE EXACT ENTRANCE LOCATION. ENTERING THE SIDE OF A CENTURYLINK MANHOLE OR PULL BOX IS NOT PERMITTED UNLESS APPROVED BY CENTURYLINK.
 - WHEN A PULL BOX OR MANHOLE IS SITUATED WITHIN 50' OF A POWER TRANSFORMER, THE DEVELOPER/ CONTRACTOR SHALL PROVIDE AND INSTALL A #6 STRANDED COPPER WIRE WITH GREEN PVC INSULATION FROM THE PULL BOX OR MANHOLE TO THE POWER TRANSFORMER (EXCLUDING 30 BOXES AND SMALLER). LEAVE A 4 FOOT TAILING END INSIDE THE SUBSTRUCTURE AND INCLUDE ALL CLAMPS NECESSARY TO FASTEN THE GROUNDING WIRE TO THE TRANSFORMER GROUND ROD OR COUNTERPOISE. THE GROUND WIRE SHALL ENTER THE SUBSTRUCTURE THROUGH THE 1" PVC GROUND SLEEVE.
 - WHEN JOINING EXISTING STUB-OUTS, THE LOCATION AND VALIDITY OF THE STUB-OUTS ARE ASSUMED AND BASED OFF RECORDS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF THE EXISTING CONDUIT STUB-OUT. THE CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE, PROVE AND PLACE PULL STRING IN THE EXISTING CONDUIT AS PART OF CONNECTING TO THE STUB FOR EXTENSION TO THIS PROJECT. IF THE CONDUIT CANNOT BE IDENTIFIED AS BEING DAMAGED THEN THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR THE DUCTS WHERE DAMAGED OR INSTALL NEW CONDUIT BACK TO THE EXISTING TRUE POINT OF RE-ENFORCABLE SERVICE (i.e. POLE, MANHOLE OR PULL BOX) AT THE DEVELOPER'S EXPENSE.
 - THE CONTRACTOR SHALL PROVE AND MANHOLE ALL CONDUIT AFTER BACKFILLING WHILE A CENTURYLINK INSPECTOR IS PRESENT. MANHOLE SIZE IS TO BE 1/4" SMALLER THAN THE INSIDE DIAMETER OF THE CONDUIT.
 - THE CONTRACTOR SHALL PROVIDE AND INSTALL A MEASURING TAPE CONSISTING OF WATER PROOF, 400 POUND TENSILE STRENGTH, MARKED IN ONE FOOT OR LESS INCREMENTS IN AT LEAST ONE DUCT OF ALL CONDUIT SECTIONS. ALL OTHER DUCTS IN A MULTIPLE DUCT SYSTEM WILL HAVE A 3/32" JET LINE PULL STRING WITH 400 POUND TENSILE STRENGTH.
 - A POLYETHYLENE DUCT PLUG SHALL BE INSTALLED IN ALL CONDUIT WHERE TERMINATED OR STUBBED.
 - CONCRETE ENCASEMENTS SHALL CONSIST OF 3/4" AGGREGATE, TYPE V, PORTLAND CEMENT CONCRETE. THE ENCASEMENT SHALL BE A MINIMUM OF 2" BETWEEN THE CONDUIT AND A MINIMUM OF 3" ON THE TOP, BOTTOM AND SIDES OF THE DUCT BANK.
 - PROTECTIVE POSTS SHALL BE 4" RIGID STEEL PIPE, SIX FEET IN LENGTH, FILLED AND SET IN CONCRETE AT LOCATIONS SHOWN. THE TOP OF THE PROTECTIVE POST SHALL BE 36 INCHES ABOVE THE PROPOSED FINISHED GRADE AND PAINTED WITH YELLOW STREET MARKING PAINT.
 - PLYWOOD BACKBOARDS ARE TO BE TREATED WITH FIRE RETARDANT MATERIAL, PAINT, OR SEALER.
 - ALL TERMINALS, BACKBOARDS, CABINETS, ETC., SHALL BE EQUIPPED WITH A #6 GAUGE GROUND WIRE, RUN TO AN APPROVED GROUND SOURCE.
 - IN ORDER TO INSURE ADEQUATE FACILITIES ARE PROVIDED FOR THIS PROJECT, IT IS IMPERATIVE THAT THIS CONDUIT RECOMMENDATION NOT BE CHANGED WITHOUT CENTURYLINK OUTSIDE PLANT ENGINEERING APPROVAL.
 - CENTURYLINK WILL REQUIRE "AS-BUILT" FOOTAGES PRIOR TO ORDERING CABLE TO SERVE THIS DEVELOPMENT. THESE FOOTAGES MUST BE RECEIVED SIX WEEKS PRIOR TO SERVICE INSTALLATION DUE DATES.
 - CALL 244-7811 TO SCHEDULE INSPECTIONS 24 HOURS IN ADVANCE. REQUESTS RECEIVED AFTER 11:00 AM MAY NOT BE SCHEDULED FOR THE FOLLOWING WORKDAY.

CONTRACTOR / DEVELOPER NOTE

- THE DEVELOPER/CONTRACTOR SHALL CALL 244-7811 TO SCHEDULE INSPECTIONS 24 HOURS IN ADVANCE. REQUESTS RECEIVED AFTER 11:00 AM MAY NOT BE SCHEDULED FOR THE FOLLOWING WORKDAY.
- ANY MODIFICATIONS TO THE CENTURYLINK DESIGN MUST BE APPROVED BY THE ENGINEER.
- THESE PLANS WILL BE VALID FOR SIX MONTHS FROM DATE OF ISSUE.

CITY OF LAS VEGAS PERMIT REQUIRED DEVELOPER/CONTRACTOR SHALL OBTAIN A CITY PERMIT BEFORE ANY EXCAVATION WORK WITHIN CITY OF LAS VEGAS RIGHT-OF-WAY * CENTURYLINK INSPECTOR WILL VERIFY CITY PERMIT FOR WORK DONE WITHIN CITY OF LAS VEGAS RIGHT-OF-WAY INSPECTOR: _____ DATE: _____		PROJECT REQUIREMENTS: NOT PERMIT: ☐ BOR GRANT: ☐ U.S.F.S.: ☐ U.P.R.R. PERMIT: ☐ SHAW PERMIT: ☐ 3rd PARTY EXAM: ☐ OTHER: ☐ NOT REQUIRED: ☐ REMARKS: _____	OWNER/CONTACT: MOE MOMONI P.E. TELEPHONE: 702 248-8004 TOWNSHIP: 19S RANGE: 60E SECTION: 20 CONTRACT ENGINEER: NAME: E. CORREA COMPANY: OUTSOURCE, INC.
--	--	--	--

NO.	REVISION	ENGR. MGR.	DATE
1			
2			
3			

CENTURYLINK PROPRIETARY

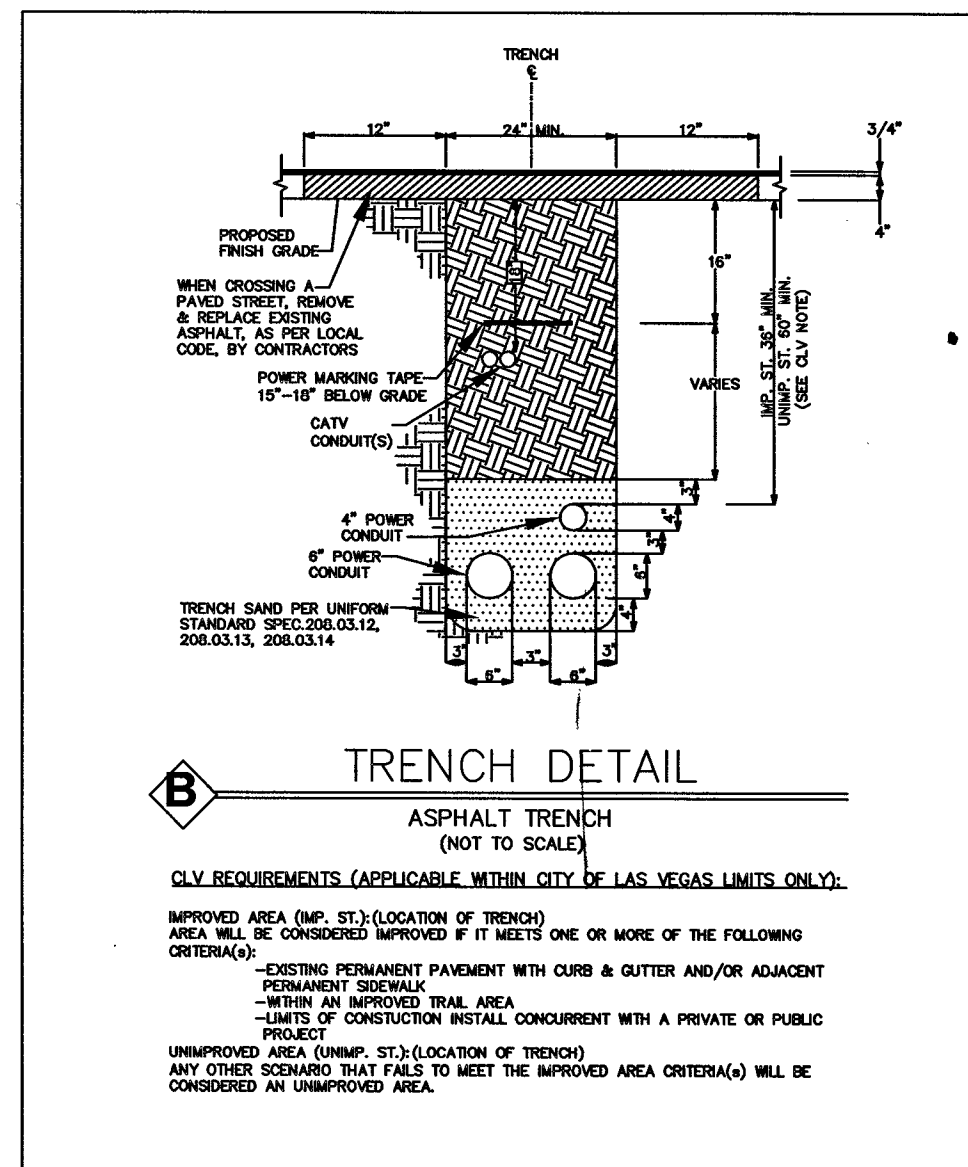
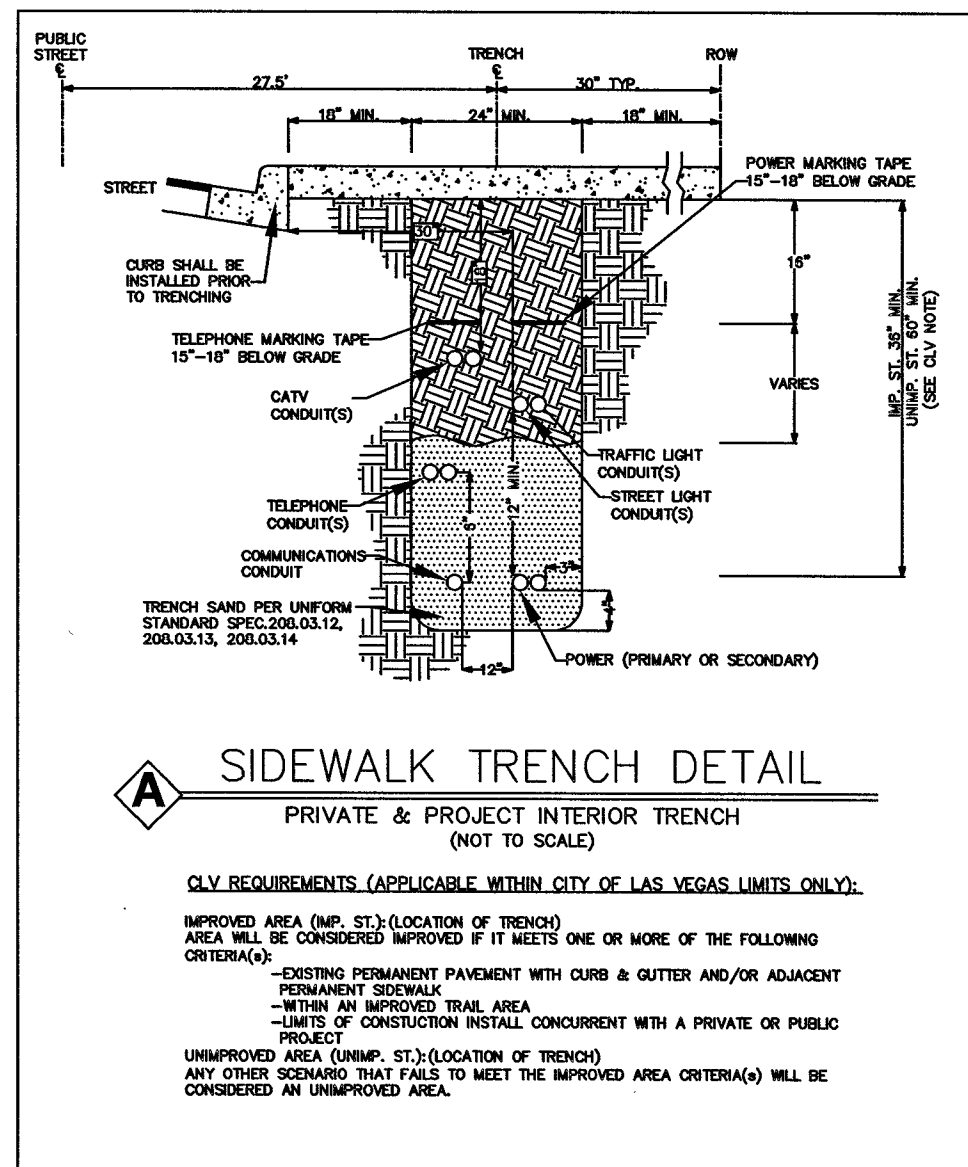
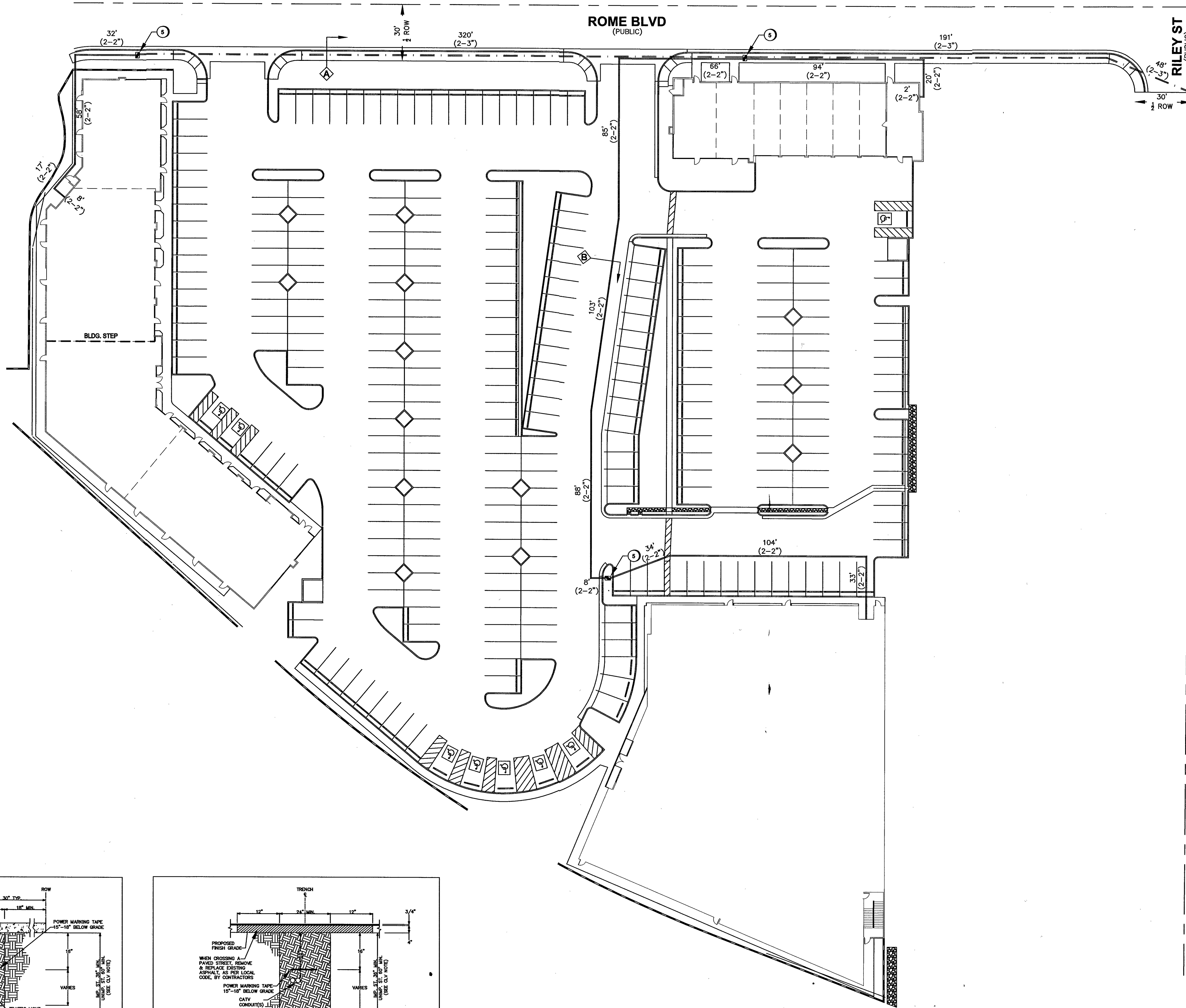
CONSTRUCTION PERMIT REQUIRED BY CONTRACTOR

L18-02031 107V7670

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

CenturyLink

TITLE: UNDERGROUND CONDUIT
 PROJECT: REQUIREMENT for
 LOC: DURANGO BELTWAY PLAZA
 ROME BLVD. & RILEY ST.
 DATE: 06/24/19
 SCALE: 1" = 40'
 SHEET: 1 of 1



LEGEND	
1	INSTALL B-36 PULL BOX (24"x36"x24")
2	EXISTING B-36 PULL BOX (24"x36"x24")
3	INSTALL B-50 PULL BOX (13"x24"x24")
4	EXISTING B-50 PULL BOX (13"x24"x24")
5	INSTALL B-100 PULL BOX (24"x36"x24")
6	EXISTING B-100 PULL BOX (24"x36"x24")
7	INSTALL T-200 CATV VAULT (30"x48"x36")
8	EXISTING T-200 CATV VAULT (30"x48"x36")
9	INSTALL T-400 CATV VAULT (36"x60"x36")
10	EXISTING T-400 CATV VAULT (36"x60"x36")
11	INSTALL T-600 CATV VAULT (48"x72"x36")
12	EXISTING T-600 CATV VAULT (48"x72"x36")
13	INSTALL NEW CATV PEDESTAL
14	EXISTING CATV PEDESTAL
15	R&R S/W SLAB(S)
16	POTHOLE
17	SIDEWALK/DIRT TRENCH INSTALL WITH FIBER/COAX PULL
18	ASPHALT MITIGATION/STREET TRENCH WITH FIBER/COAX PULL
19	PROPOSED BORE WITH FIBER/COAX PULL
20	EXISTING CATV CONDUIT(S)
21	PROPOSED OVERHEAD FIBER OPTIC CABLE OR COAX INSTALL
22	EXISTING OVERHEAD FIBER OPTIC CABLE OR COAX
23	U.G. FIBER/COAX PULL THROUGH EXISTING CONDUIT
24	RIGHT OF WAY LINE
25	LOT/PROPERTY LINE
26	EDGE OF PAVEMENT/ SIDEWALK/CONCRETE
27	EXISTING NVE PULL BOX
28	EXISTING TELCO PULL BOX
29	EXISTING COMMUNICATION MANHOLE
30	EXISTING TELCO POLE
31	EXISTING NVE POLE
32	EXISTING NVE TRANSMISSION POLE
33	EXISTING JOINT POLE
34	EXISTING JOINT POLE WITH TRANSFORMER
35	POLE ANCHOR
36	EXISTING NVE TRANSFORMER TRANSFORMER PAD
37	SNWA TEST STATION
38	COX POWER SUPPLY (49"x24"x52")
39	CABINET (RHINO,ODN,OLM)
40	RISER POLE/QUADRANT DETAIL RISER OWNERSHIP NOTED
41	RAILROAD
42	EXISTING MANHOLE (SS),(SD)...ECT
43	1in CONDUIT LATERAL
44	STORMWATER ASSETS
45	

DISCLAIMER NOTE	
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 AND 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 LOCATIONS. AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. CALL BEFORE YOU DIG OR 1-800-227-2600 UNDERGROUND SERVICE USA	AVOID OVERHEAD POWER LINE CONTACT CALL BEFORE YOU OVERHEAD 1-702-227-2929 NEVADA POWER ENVIRONMENT AND SAFETY SERVICE DEPARTMENT
TOTAL BORE 0' TOTAL DIRT TRENCH 0' TOTAL ASPHALT TRENCH 0' TOTAL TRENCH 0' SIDEWALK REMOVAL/REPAIR 0 TOTAL S/W PANELS 0 TOTAL LINEAR FOOTAGE 0'	

T19S R60E SEC20

VICINITY MAP

REVISIONS			
REV	DESCRIPTION	DATE	BY
0			

ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA" LATEST ISSUE; THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA" LATEST ISSUE; AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY; ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE.

APPROVED FOR CONSTRUCTION

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

L18-02031-R002

APPROVAL _____ DATE _____

PERMIT # _____

DRAWN BY: *ldn/n6/n6*

DATE: 7/31/2019

SCALE: 1:30

MODE: V2533

PROJECT # 406201900000TRSTRC

TECH # 702-210-7014

APPROVED BY: GARY BAUMAN

COX

BRINGING US CLOSER

1700 VEGAS DRIVE

LAS VEGAS, NEVADA 89106

PHONE: (702) 545-1606

FAX: (702) 545-2606

CITY OF LAS VEGAS

333 N. RANCHO DRIVE

LAS VEGAS, NEVADA 89106

(702) 229-6885

PROJECT LOCATION: DURANGO BELTWAY PLAZA, ROME BLVD & RILEY ST

SUB-CONTRACTOR: DBA: COX COMMUNICATIONS

ENTITY NOTES: NONE

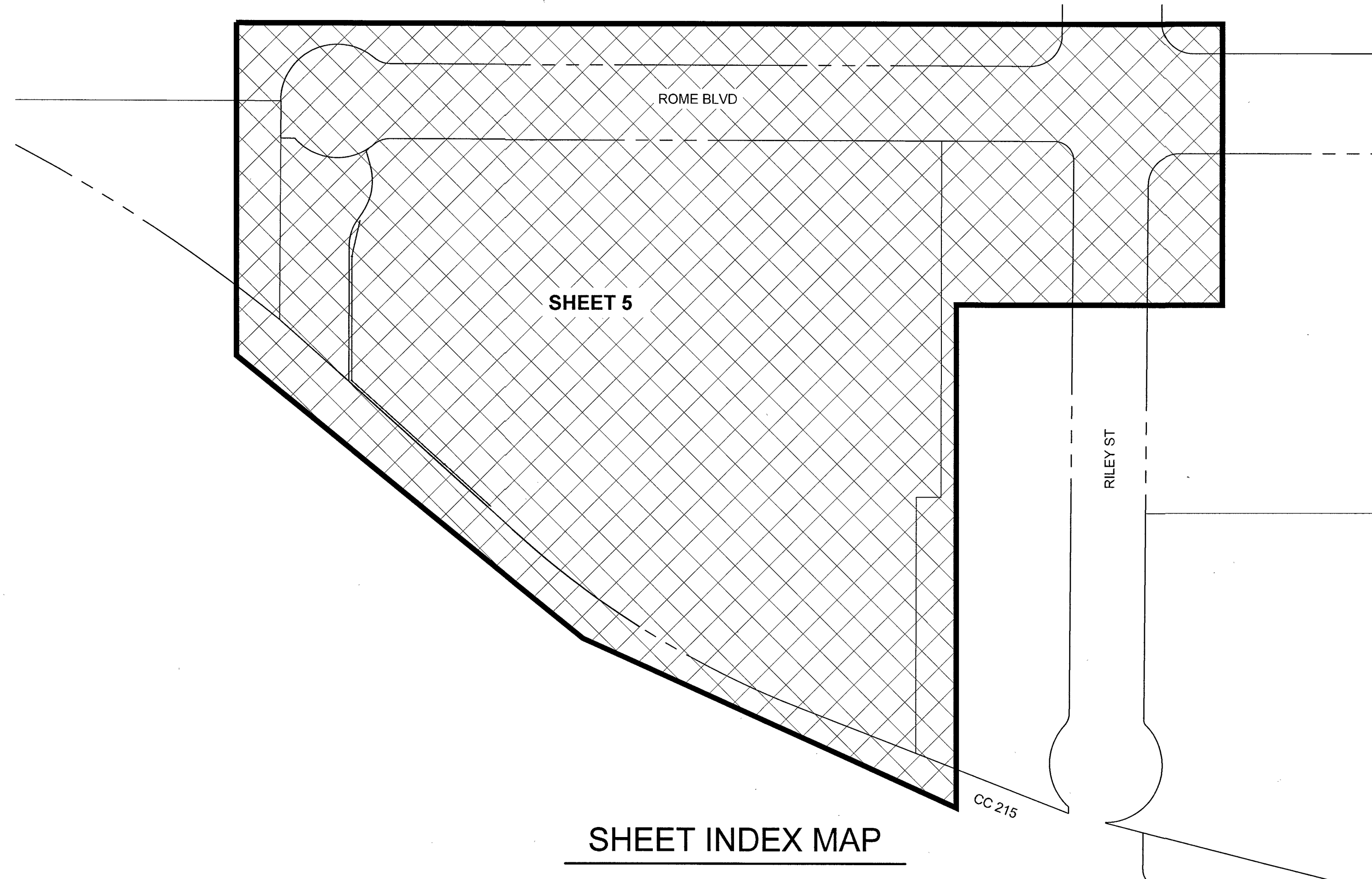
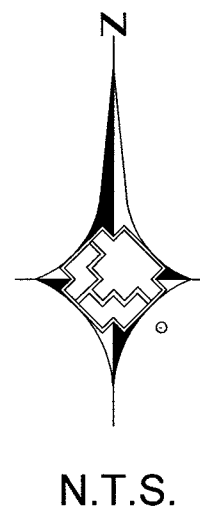
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Sheet 1 of 1

TrueNet# 14422

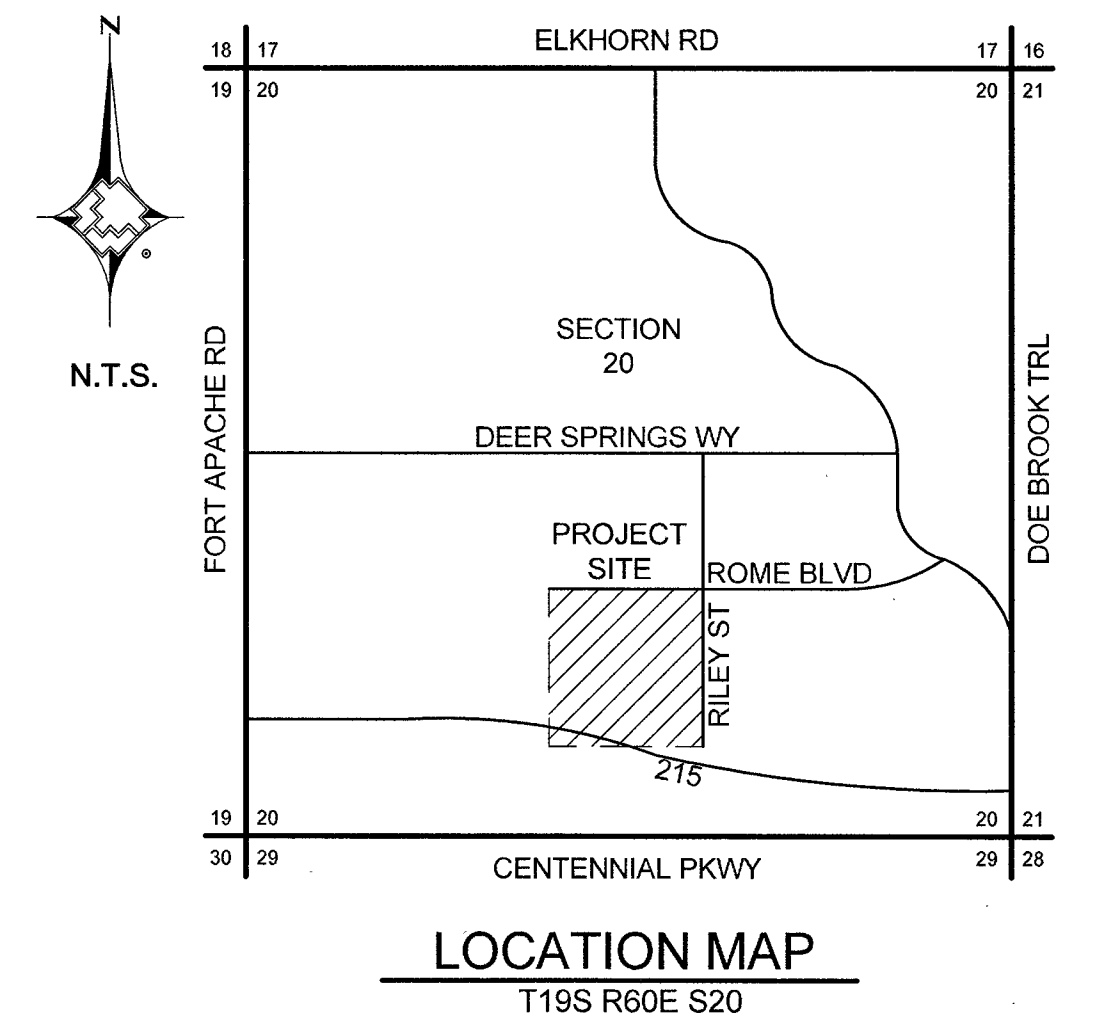
LEGEND

EXISTING GAS MAIN	
EXISTING GAS SERVICE	
GAS LINE TO BE ABANDONED	
STEEL RISER	
ANODELESS RISER	
GASLIGHT	
GAS VALVE	
EXCESS FLOW VALVE	
RELIEF VALVE	
COUPLINGS	
BOND OVER	
TEST POINT	
INSULATOR	
REGULATOR STATION	
RECTIFIER	
ANODE	
SCADA	
METER SET ASSEMBLY	
PURGE POINT	
BRANCH,CVT,LINE STOPPER	
PROPOSED GAS MAIN	
PROPOSED GAS SERVICE	
EXISTING EASEMENT	
ROW LINE	
PROPERTY LINE	
STREET CENTERLINE	
EDGE OF PAVEMENT	
CABLE LINE - UNDERGROUND	
ELECTRIC - OVERHEAD	
ELECTRIC - UNDERGROUND	
FIBER OPTIC - UNDERGROUND	
PHONE - OVERHEAD	
PHONE - UNDERGROUND	
RECLAIMED WATER	
SEWER	
STORMWATER	
WATER	
UTILITY PEDESTALS	
FIRE HYDRANT	
MANHOLE	
WATER VALVE	
SURVEY MONUMENT	
POWER POLE	
GAS FLOW ARROW	



SHEET INDEX

- 1 COVER SHEET
- 2 SIGNATURE SHEET
- 3 NOTES AND STANDARD DETAILS
- 4 NOTES AND STANDARD DETAILS
- 5 DESIGN PLAN



CUSTOMER 3

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REVISIONS			
NO.	DESCRIPTION	BY	DATE APPVD.
1	PERMIT INFORMATION		
2	ISOLATION AREA		
3	LOCATION		
4	ATLAS OR TILE		
5	CITY OF LAS VEGAS TAX CODE: 02-0200		
6	ISO_21_DIST_491		
7	T19S R60E S20 M.D.M.		
8	X585Y556 X588Y556		

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

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

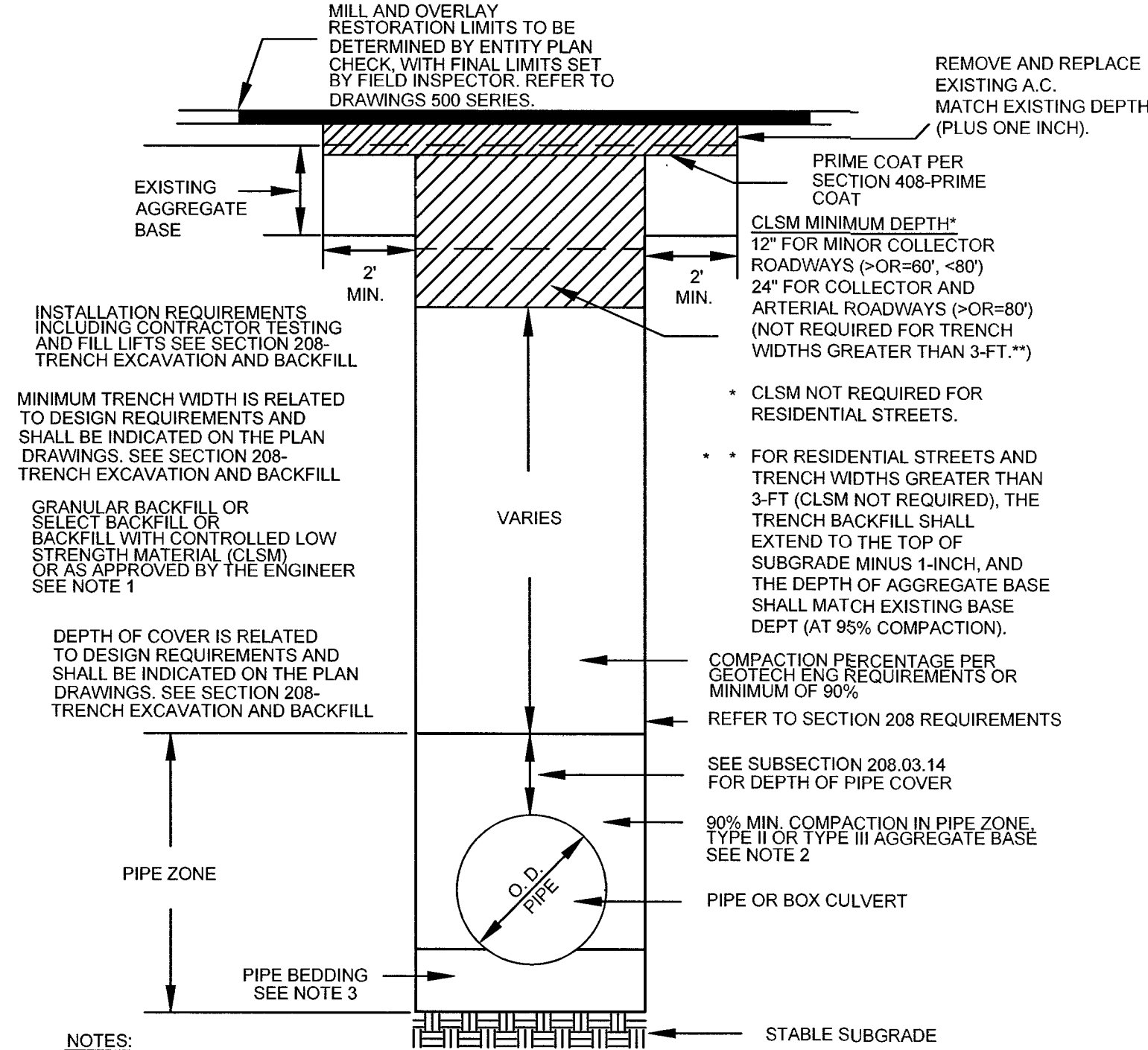
WR NO.	
3894532	
RELATED WR NO.S	
N/A	

ENGINEER/TECHNICIAN	JORDYN PENNIMAN	PHONE: (702) 365-2174
ACCOUNT REP.	DANA ASHWORTH	PHONE: (702) 364-3752
PROJECT CONTACT	MATT HUSS	PHONE: (702) 253-5371
SHEET NO.	1 OF 5	SCALE N.T.S.
DWN. BY	INFINITY	CHKD. BY CYS
DATE	10/28/2019	APPVD. BY BWJ
C CLV DURANGO BELTWAY PLAZA		

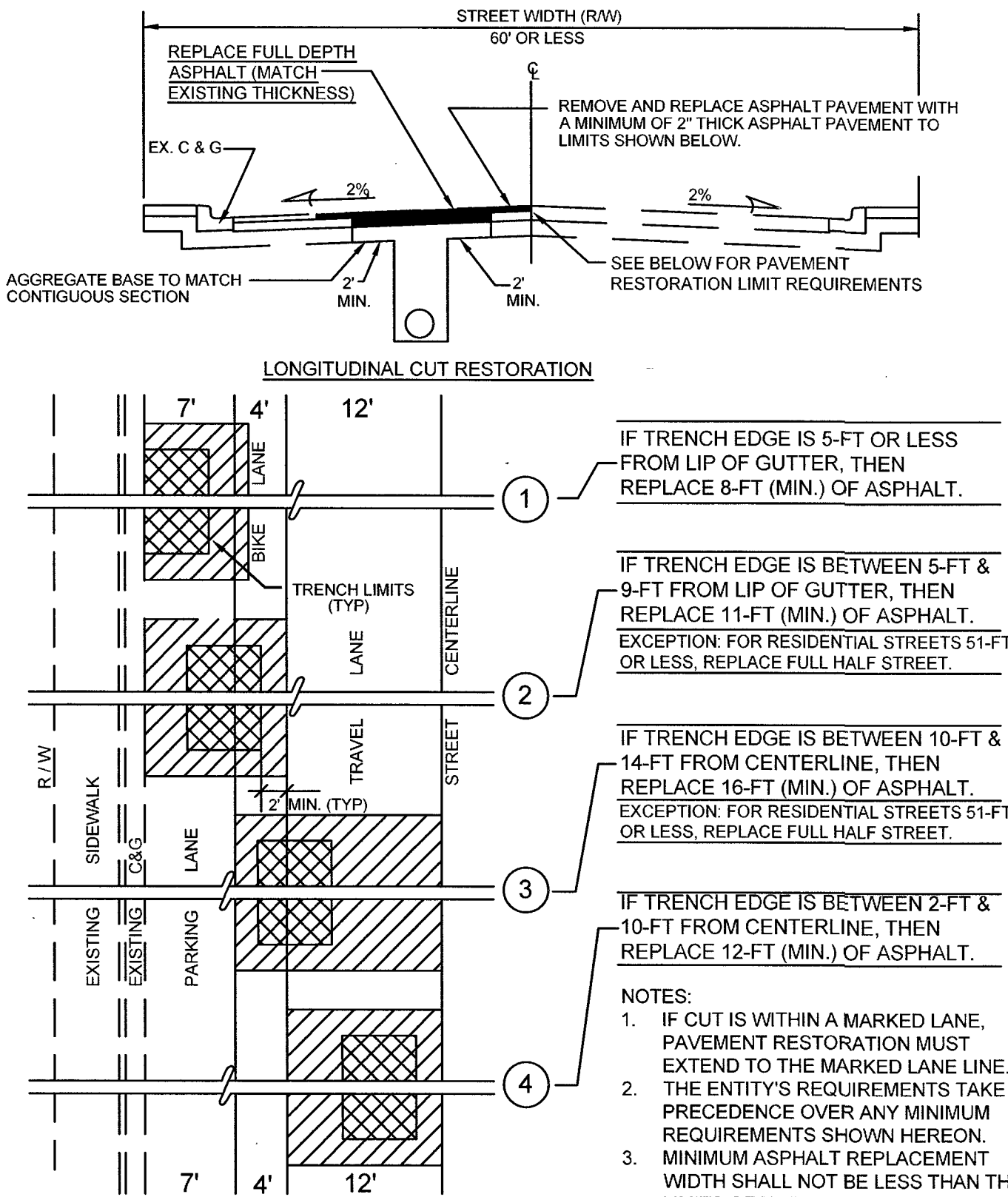
CONSTRUCTION	
INSPECTOR _____	PJQ# _____
FOREMAN _____	PJQ# _____
REVIEWED BY _____	PJQ# _____

 Know what's below. Call before you dig.	 SOUTHWEST GAS CORPORATION	Southwest Gas Corporation Confidential and Proprietary Information For Reference Only - Not Valid for Line Locating Purposes. No representation or warranty is made for the adequacy, accuracy or completeness of this information or depictions shown. This information is protected from further disclosure under the federal Freedom of Information Act and the Protected Critical Infrastructure Information Act of 2002, and Nevada Revised Statutes § 239C. This document may not be copied, distributed, or shared to any other person or entity in any manner or form without prior written consent of Southwest Gas Corporation.	REVISIONS <table border="1"> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>NO.</td> <td>DESCRIPTION</td> <td>BY</td> <td>DATE</td> <td>APPVD.</td> <td></td> </tr> </table>																						NO.	DESCRIPTION	BY	DATE	APPVD.		D_N_VALLEY_W	JOB TYPE	WR NO.	<table border="1"> <tr> <td>ENGINEER/TECHNICIAN</td> <td>JORDYN PENNIMAN</td> <td>PHONE: (702) 365-2174</td> </tr> <tr> <td>ACCOUNT REP.</td> <td>DANA ASHWORTH</td> <td>PHONE: (702) 364-3752</td> </tr> <tr> <td>PROJECT CONTACT</td> <td>MATT HUSS</td> <td>PHONE: (702) 253-5371</td> </tr> <tr> <td>SHEET NO.</td> <td>2 OF 5</td> <td>SCALE N.T.S.</td> </tr> <tr> <td>DWN. BY</td> <td>INFINITY</td> <td>CHKD. BY CYS</td> </tr> <tr> <td></td> <td></td> <td>APPVD. BY BWJ</td> </tr> </table>	ENGINEER/TECHNICIAN	JORDYN PENNIMAN	PHONE: (702) 365-2174	ACCOUNT REP.	DANA ASHWORTH	PHONE: (702) 364-3752	PROJECT CONTACT	MATT HUSS	PHONE: (702) 253-5371	SHEET NO.	2 OF 5	SCALE N.T.S.	DWN. BY	INFINITY	CHKD. BY CYS			APPVD. BY BWJ
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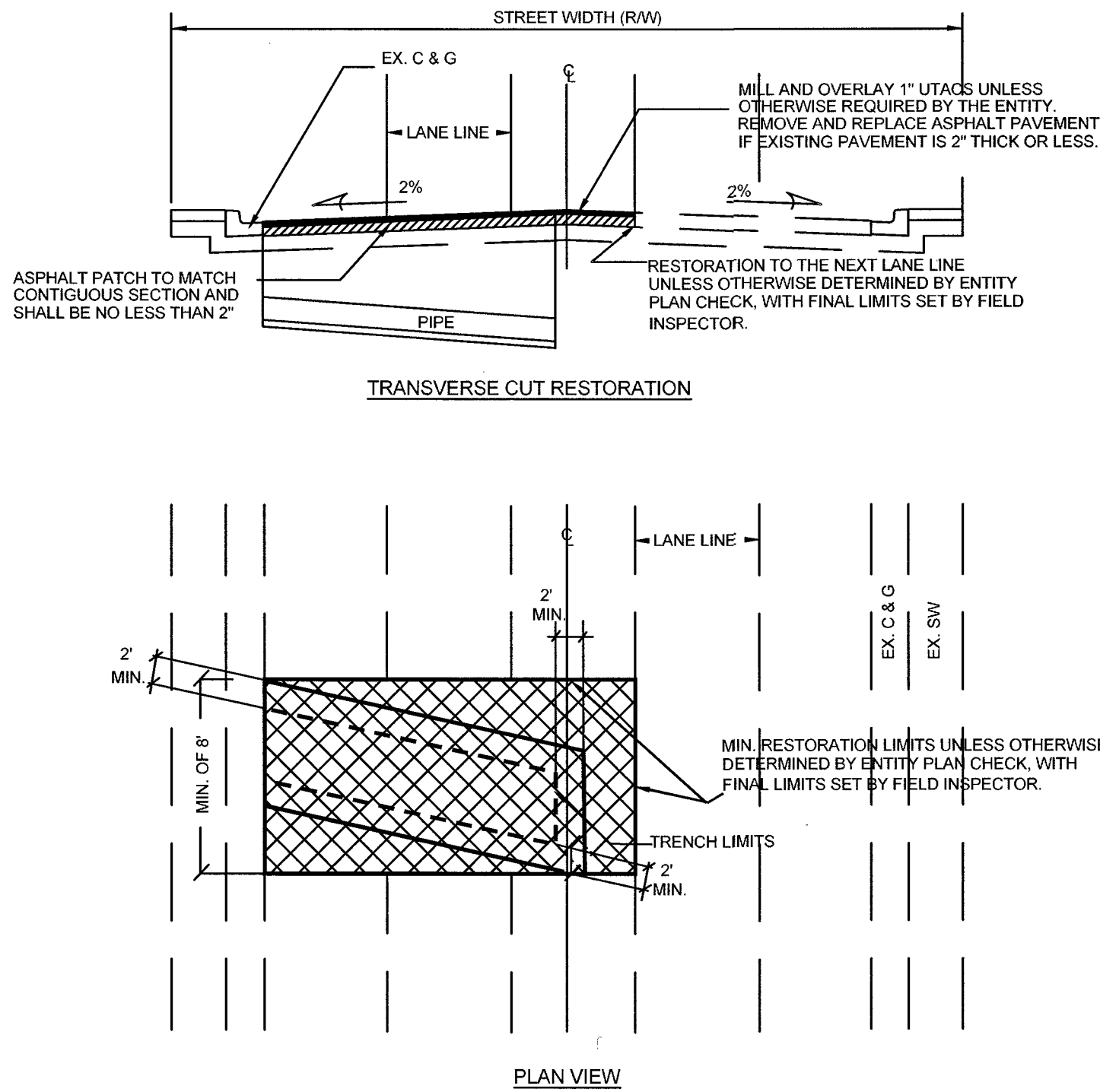
- GENERAL NOTES:
- SUGGESTED GAS LOCATIONS ARE TO CLEAR SUBSTRUCTURES LOCATED IN THE FIELD.
 - ALL PIPELINE CONSTRUCTION SHALL CONFORM TO APPLICABLE JURISDICTION SPECIFICATIONS.
 - DO NOT SCALE THIS DRAWING.
 - CHANGE IN PROPOSED MAIN LOCATION MUST BE AUTHORIZED BY SVG ENGINEER PRIOR TO INSTALLATION.
 - GAS MAINS SHALL BE PURGED PER OPERATIONS MANUAL.
 - ALL EXISTING UTILITY LOCATIONS TO BE VERIFIED PRIOR TO START OF CONSTRUCTION.
 - CONTACT ENGINEERING FOR BYPASS INFORMATION.
 - ALL MAIN TIE-INS REQUIRING TEES ARE TO BE FULL-FLOW TEES UNLESS OTHERWISE STATED.
 - ALL SHORING REQUIREMENTS SHALL CONFORM TO APPLICABLE PORTIONS OF THE OPERATIONS MANUAL.
 - REQUEST FOR SURVEYING AND/OR STAKING WILL BE SUBMITTED TO ENGINEERING 72 HOURS IN ADVANCE, MINIMUM.
 - PROPOSED MAIN SHOULD END 3' PAST THE LAST SERVICE FOR MAIN NOT BEING STUBBED FOR FUTURE PHASE(S).
 - MINIMUM TEST DURATION REQUIREMENTS AND GUIDELINES FOR MAIN INSTALLATION IN SYSTEMS <60 PSIG ARE:
 - MINIMUM TEST DURATION IS 8 HOURS FOR PIPES 1-1/4-INCHES OR GREATER, WITH FOOTAGES BETWEEN 3,001 FEET AND 10,000 FEET
 - ALL FOOTAGES GREATER THAN 3,000 FEET REQUIRE A CHART
 - CONSTRUCTION SHALL CONTACT ENGINEERING FOR MINIMUM TEST DURATIONS IF THE FOOTAGE TO BE TESTED EXCEEDS 10,000 FEET
 - TRENCHING AND BACKFILL TO CONFORM WITH RTC STANDARD 500.4, 500.5, 503 AND UNIFORM STANDARD SPECIFICATION SECTION 208.
 - MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING.
 - MAINTAIN A MINIMUM 3' PARALLEL SEPARATION.
 - ANY EXCAVATION EXPOSING LVVWD FACILITIES 24" IN DIAMETER AND LARGER MUST REMAIN OPEN UNTIL INSPECTED BY LVVWD. NO BACKFILL MATERIAL IS TO BE PLACED IN THE EXCAVATION UNTIL APPROVED BY THE LVVWD INSPECTOR. ANY DAMAGE TO THE FACILITIES MUST BE REPORTED TO LVVWD IMMEDIATELY. CONTRACTOR TO CALL (702) 258-7171 TO SCHEDULE LVVWD INSPECTION.



RTC STD DWG 503



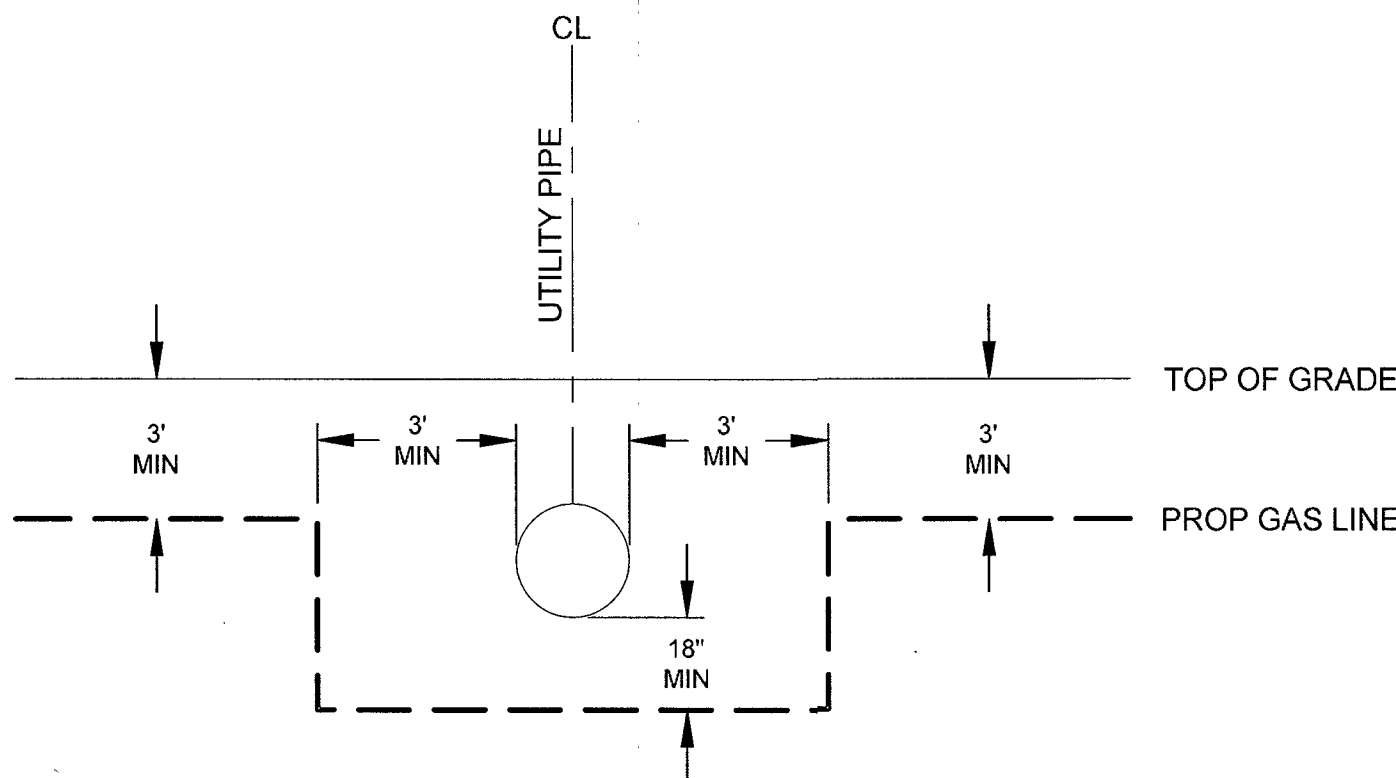
RTC STD DWG 500.4



NOTES:

- IF CUT IS WITHIN A LANE, PAVEMENT RESTORATION MUST EXTEND TO THE NEXT LANE LINE.
- THE ENTITY'S REQUIREMENTS TAKE PRECEDENCE OVER ANY MINIMUM REQUIREMENTS SHOWN HEREON.

RTC STD DWG 500.5



TYPICAL UTILITY CROSSING DETAIL
N.T.S.

ABBREVIATIONS:

AA	ALDYL-A PIPE
ABND	ABANDONED
AC	ASPHALTIC CONCRETE
AC#	ACCELERATED CONSTRUCTION
ACP	ASBESTOS CEMENT PIPE
APN	ASSESSOR PARCEL NUMBER
BLVD	BOULEVARD
BM	BENCHMARK
BO	BLOW OFF
BTU	BRITISH THERMAL UNIT
CIP	CAST IRON PIPE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CP	CATHODIC PROTECTION
D	INSIDE DIAMETER
DDCA	DESIGN DATA COLLECTION APPLICATION
DET	DETAIL
DIP	DUCTILE IRON PIPE
DIA	DIAMETER
DIMP	DISTRIBUTION INTEGRITY MANAGEMENT PROGRAM
DP	DESIGN PRESSURE
DWG	DRAWING
EFV	EXCESS FLOW VALVE
EG	EXISTING GRADE
ELEC	ELECTRICAL
ELEV	ELEVATION
EMS	ELECTRONIC MARKING SYSTEM
E.P	END POINT
EPR	ELECTRONIC PRESSURE RECORDERS
ESMT	EASEMENT
EX	EXISTING
FERC	FEDERAL ENERGY REGULATORY COMMISSION
FH	FIRE HYDRANT
GIR	GAS INFRASTRUCTURE REPLACEMENT
GPR	GAS PRESSURE REGULATOR
HCA	HIGH CONSEQUENCE AREA
HDD	HEATING DEGREE DAY
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HP	HIGH PRESSURE
HOP	HISTORIC OPERATING PRESSURE
HVT	HIGH VOLUME TAPPING TEE
IN	INCH(ES)
IPS	IRON PIPE SIZE
JT	JOINT TRENCH
MAOP	MAXIMUM ALLOWABLE OPERATING PRESSURE
M&C	MEASUREMENTS & CONTROL
MCFH	THOUSAND CUBIC FEET PER HOUR
MH	MANHOLE
MOP	MAXIMUM OPERATING PRESSURE
MP	MANUFACTURER'S PRESSURE RATING
MSA	METER SET ASSEMBLY
MVP	MAPPING VERIFICATION PROCEDURE
NAP	NOT A PART
NTSB	NATIONAL TRANSPORTATION SAFETY BOARD

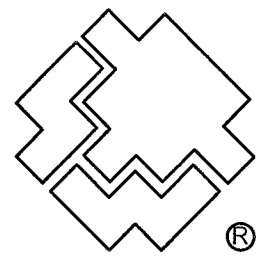
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OHE	OVERHEAD ELECTRIC
P	POWER
PAOP	POTENTIAL ALLOWABLE OPERATING PRESSURE
PCC	PORTLAND CEMENT CONCRETE
PE	POLYETHYLENE PIPE
PH	POT HOLE
PHMSA	PIPELINE & HAZARDOUS MATERIALS SAFETY ADMINISTRATION
PL	PROPERTY LINE
PIC	POTENTIAL IMPACT CIRCLE
PLS	PRESSURE LIMITING STATION
P.O.B	POINT OF BEGINNING
PP	POWER POLE
PROP	PROPOSED
PQF	PREQUALIFIED FITTING
PSIG	POUNDS PER SQUARE INCH (GAUGE)
PVC	POLYVINYL CHLORIDE
PUE	PUBLIC UTILITY EASEMENT
RC	REINFORCED CONCRETE
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT OF WAY
SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FOOT
SHT	SHEET
SLSV	SERVICE LINE SHUT-OFF VALVE
SMYS	SPECIFIED MAXIMUM YIELD STRENGTH
SS	SANITARY SEWER
SST	STAINLESS STEEL
ST	STREET
STA	STATION
STL	STEEL
SWG	SOUTHWEST GAS
TDS	TEST DATA SHEET
TEL	TELEPHONE
TB	THRUST BLOCK
TOP	TOP OF PIPE
TP	TEST POINT
TS	TECHNICAL SERVICE NOTE
TRIMP	TRANSMISSION INTEGRITY MANAGAMENT PROGRAM
TYP	TYPICAL
U.E	UTILITY EASEMENT
UGE	UNDERGROUND ELECTRIC
UOC	UNUSUAL OPERATING CONDITION
USD	UNIFORM STANDARD DRAWING
UGT	UNDERGROUND TELEPHONE
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
VG	VALLEY GUTTER
VSP	VINTAGE STEEL PIPE
W	WATER
WMS	WORK MANAGEMENT SYSTEM
WR	WORK REQUEST
WT	WALL THICKNESS
WV	WATER VALVE
YD	YARD(S)

THIS PROJECT IS NOT INSTALLING, ABANDONING, OR TYING INTO ANY STEEL GAS FACILITIES.

DESIGN PIPE SUMMARY	
DESIGN QTY.	DESCRIPTION
770'	2" PE8100 MAIN
263'	2" PE8100 SERVICE



Know what's below.
Call before you dig.



SOUTHWEST GAS CORPORATION

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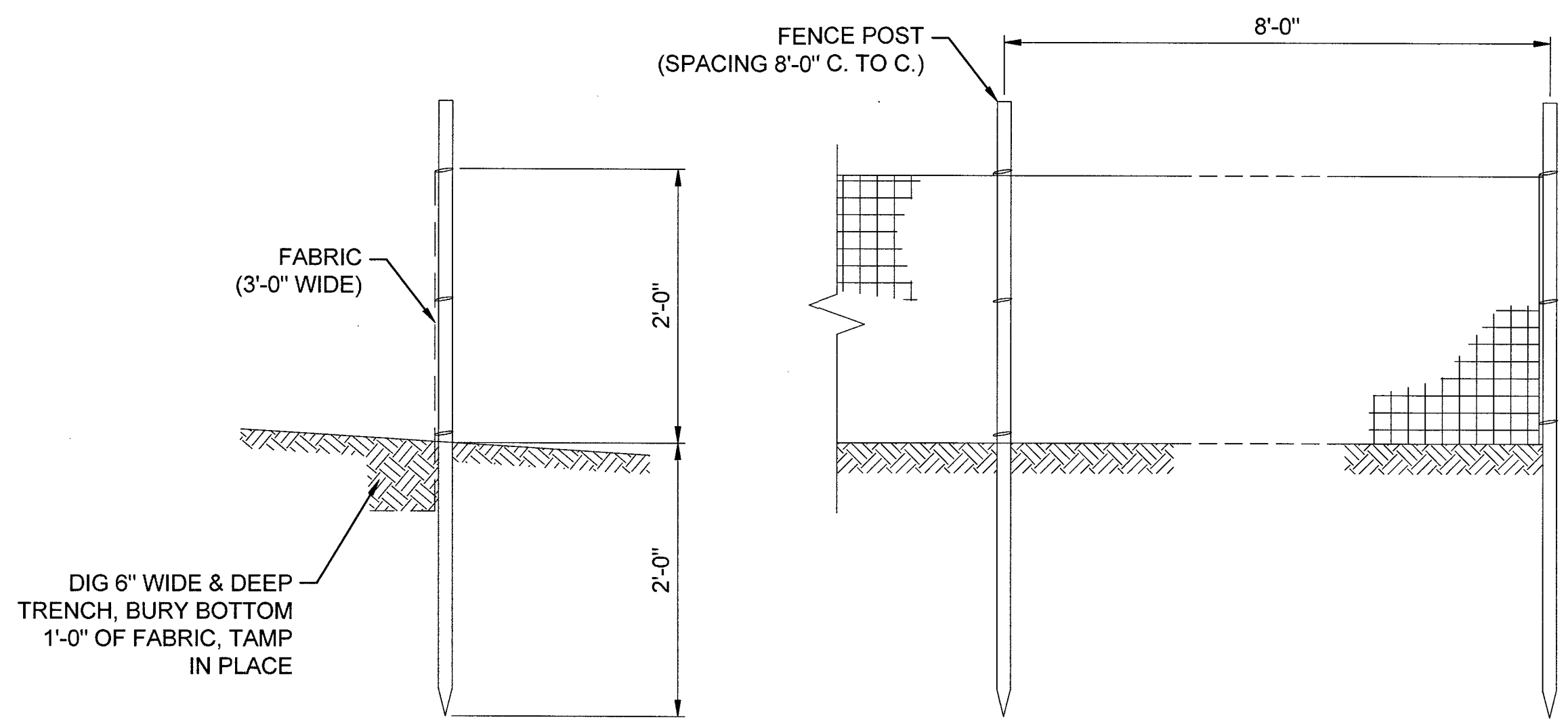
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REVISIONS						D_N_VALLEY_W		JOB TYPE		WR NO.		ENGINEER/TECHNICIAN		JORDYN PENNIMAN		PHONE: (702) 365-2174		
						SYSTEM MAOP: 60		HP SERVICE ☐		3894532		ACCOUNT REP.		DANA ASH-WORTH <td colspan="2">PHONE: (702) 364-3752</td>		PHONE: (702) 364-3752		
						SYSTEM MOP: 55		DISTRIBUTION ☒				PROJECT CONTACT		MATT HUSS <td colspan="2">PHONE: (702) 253-5371</td>		PHONE: (702) 253-5371		
												SHEET NO. 3 OF 5		SCALE N.T.S.		DATE 10/28/2019		
NO.		DESCRIPTION				BY	DATE	APPVD.					DWN. BY INFINITY		CHKD. BY CYS		APPVD. BY BWJ	
PERMIT INFORMATION		ISOLATION AREA		LOCATION		ATLAS OR TILE		N/A		FEEDER ☐		RELATED WR NO.S		C CLV DURANGO BELTWAY PLAZA				
CITY OF LAS VEGAS TAX CODE: 02-0200		ISO_21_DIST_491		T19S R60E S20 M.D.M.		X585Y556 X588Y556		SYSTEM MAOP: N/A SYSTEM MOP: N/A		TRANS. BY DEF ☐ TRANS > 20% ☐		N/A						

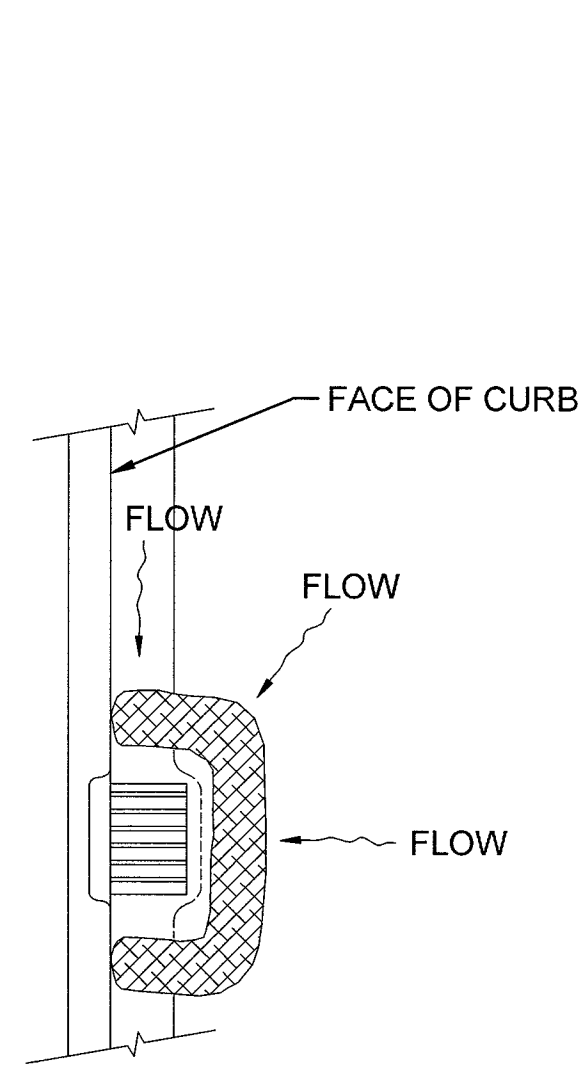
TYPICAL SWPPP BMPs DETAILS

STORMWATER NOTES

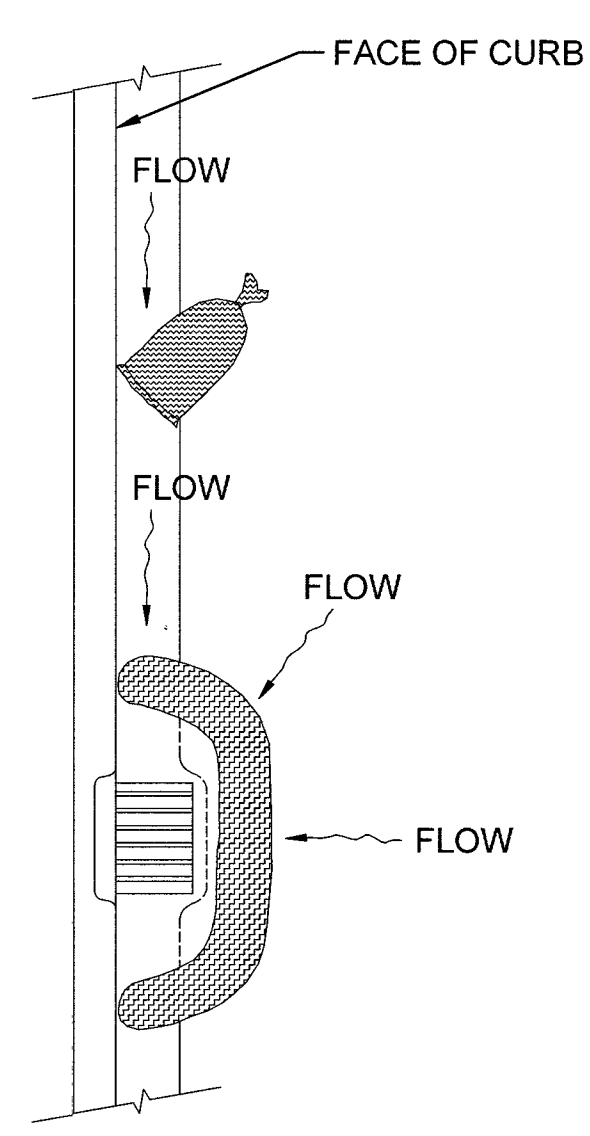
1. SOUTHWEST GAS CORPORATION, IT'S CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL INSTALL ONE OF THE APPROPRIATE BMPs FOR THE PROTECTION OF EXISTING STORM DRAIN INLETS, WITHIN OR SIGNIFICANTLY NEAR ANY IMPROVED RIGHT-OF-WAY, FROM DEBRIS AND SEDIMENT RESULTING FROM CONSTRUCTION OF NATURAL GAS FACILITIES.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



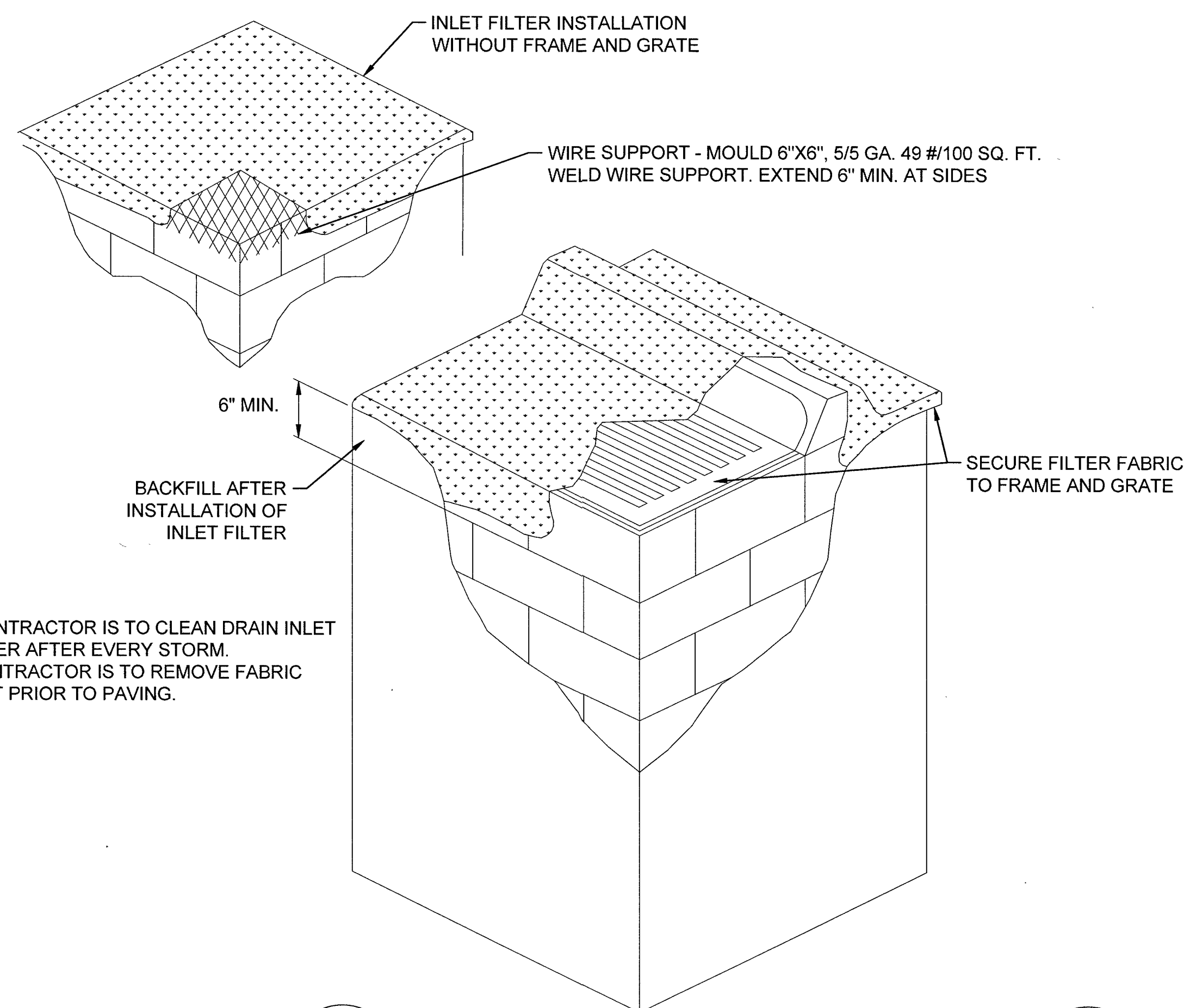
1
4
SILT FENCE
NOT TO SCALE



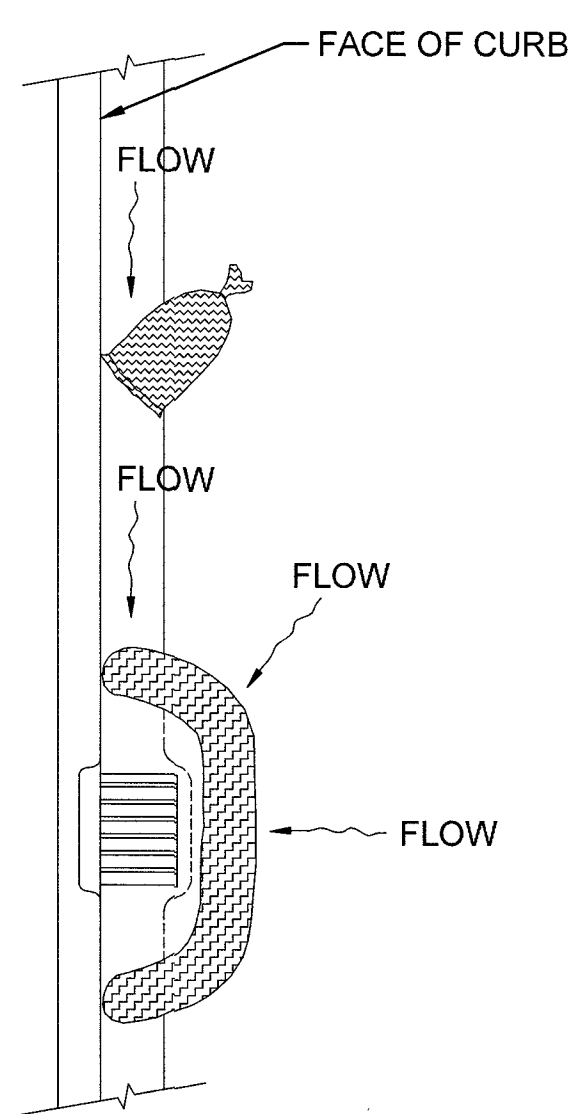
2
4
FIBER ROLL
NOT TO SCALE



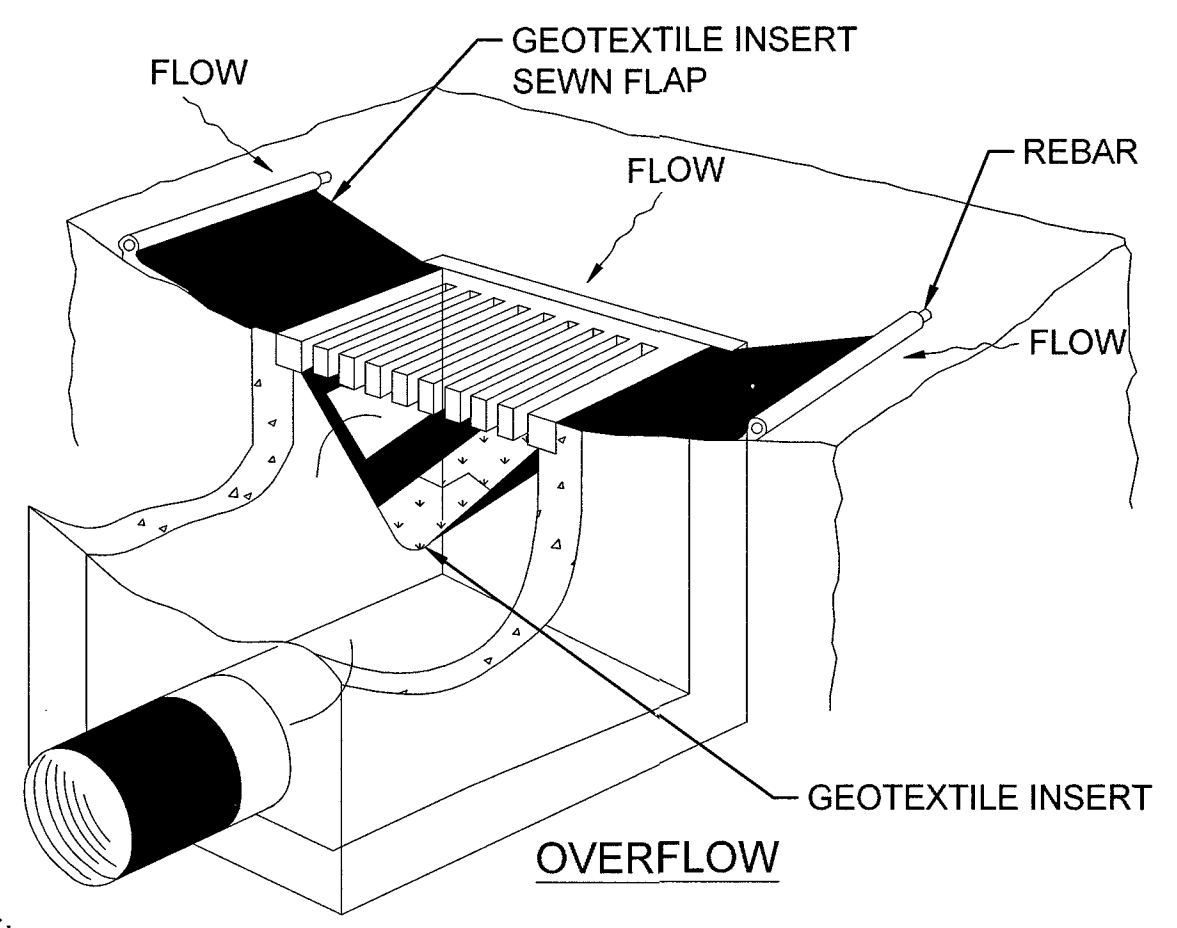
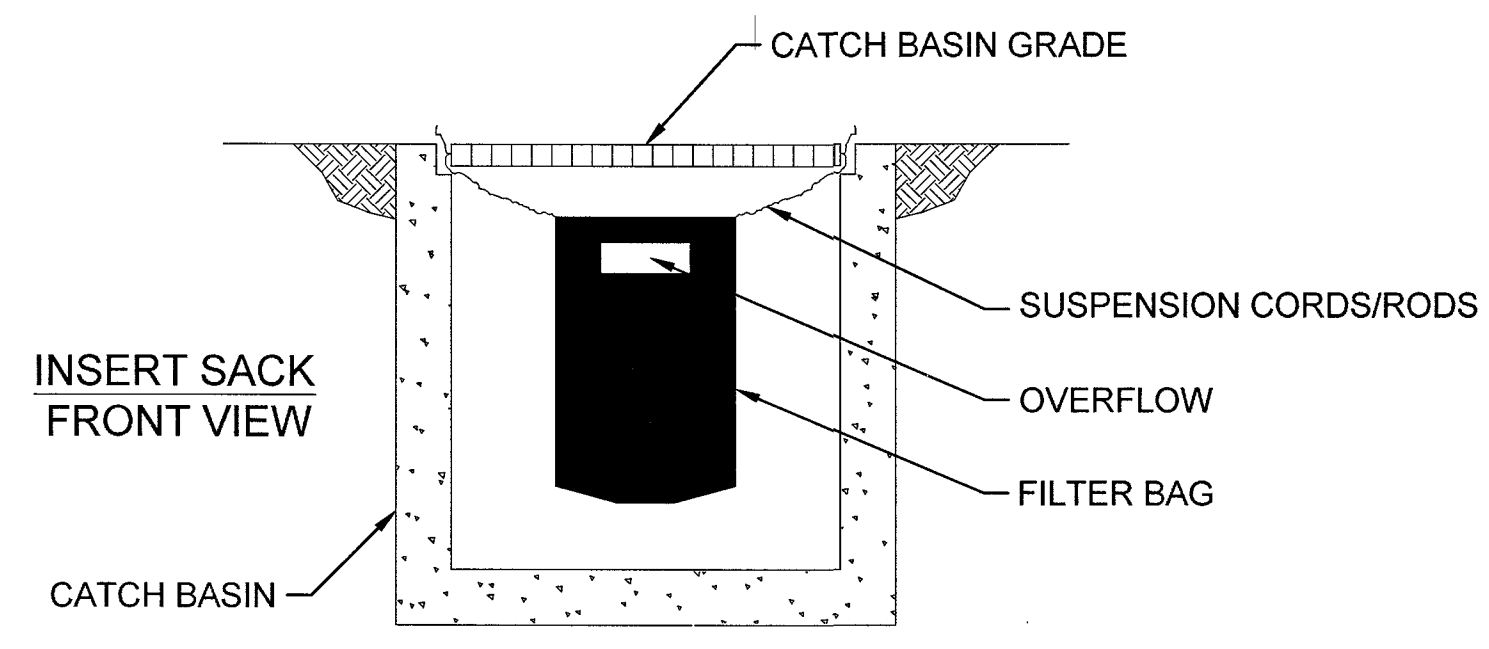
3
4
SAND BAG / ROLL
NOT TO SCALE



4
4
DRAIN INLET FILTER
NOT TO SCALE



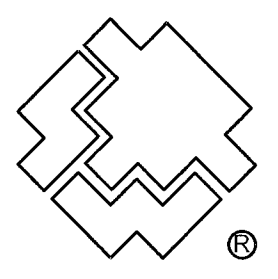
5
4
GRAVEL BAG / ROLL
NOT TO SCALE



6
4
SEDIMENT FILTER BAG
NOT TO SCALE

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

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



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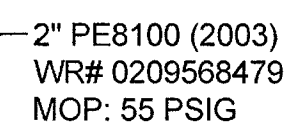
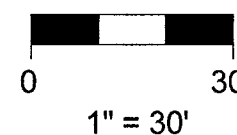
REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	PERMIT INFORMATION	ISOLATION AREA	LOCATION
2	CITY OF LAS VEGAS	ISO_21_DIST_491	T19S R60E S20 M.D.M.
3	TAX CODE: 02-0200		X585Y556 X588Y556

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

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

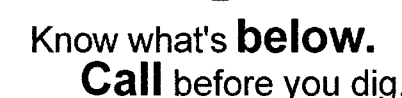
WR NO.	
3894532	
RELATED WR NO.S	
N/A	

ENGINEER/TECHNICIAN	JORDYN PENNIMAN	PHONE: (702) 365-2174
ACCOUNT REP.	DANA ASHWORTH	PHONE: (702) 364-3752
PROJECT CONTACT	MATT HUSS	PHONE: (702) 253-5371
SHEET NO.	4 OF 5	SCALE N.T.S.
DWN. BY	INFINITY	CHKD. BY CYS
DATE	10/28/2019	APPVD. BY BWJ
C CLV DURANGO BELTWAY PLAZA		



CONSTRUCTION NOTES	
1	TIE NEW 2" PE8100 TO EXISTING 2" PE8100
2	RTC 503

2" DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
2A	1	0	160-8171	HIGH VOLUME TAPPING TEE, 2" X 2" PE	N/A	N/A
2B	770'	0'	100-5101	PIPE 2" PE 8100 500 FT COIL	N/A	N/A
2C	4	0	140-3074	TEE, 2" PE	N/A	N/A
2D	1	0	140-3067	ELBOW, 2" PE, 90 DEGREE	N/A	N/A
2E	2	0	140-2884	CAP, 2" LYCO RWLY	N/A	N/A
2F	263'	0'	100-5101	PIPE 2" PE 8100 500 FT COIL	N/A	N/A
2G	1	0	161-7662	RISER 2" STRAIGHT PE W/1" BYPASS, CFH 1,068	N/A	N/A
2H	1	0	161-7662	RISER 2" STRAIGHT PE W/1" BYPASS, CFH 3,000	N/A	N/A
2I	1	0	161-7662	RISER 2" STRAIGHT PE W/1" BYPASS, CFH 1,600	N/A	N/A
2J	3	0	160-9271	COUPLING, 2", 5500 EFV, FLOW STICK	N/A	N/A



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REVISIONS				
NO.	DESCRIPTION	BY	DATE	APPV
PERMIT INFORMATION	ISOLATION AREA	LOCATION	ATLAS OR TILE	
CITY OF LAS VEGAS TAX CODE: 02-0200	ISO_21_DIST_491	T19S R60E S20 M.D.M.	X585Y556 X588Y556	

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

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

WR NO.
3894532
RELATED WR NO.S
N/A

ENGINEER/TECHNICIAN	JORDYN PENNIMAN	PHONE: (702) 365-2174
ACCOUNT REP.	DANA ASHWORTH	PHONE: (702) 364-3752
PROJECT CONTACT	MATT HUSS	PHONE: (702) 253-5371
SHEET NO. 5 OF 5	SCALE 1" = 30'	DATE 10/28/2019
DWN. BY INFINITY	CHKD. BY CYS	APPVD. BY BWJ

C CLV DURANGO BELTWAY PLAZA

L18-02031-2003
Report