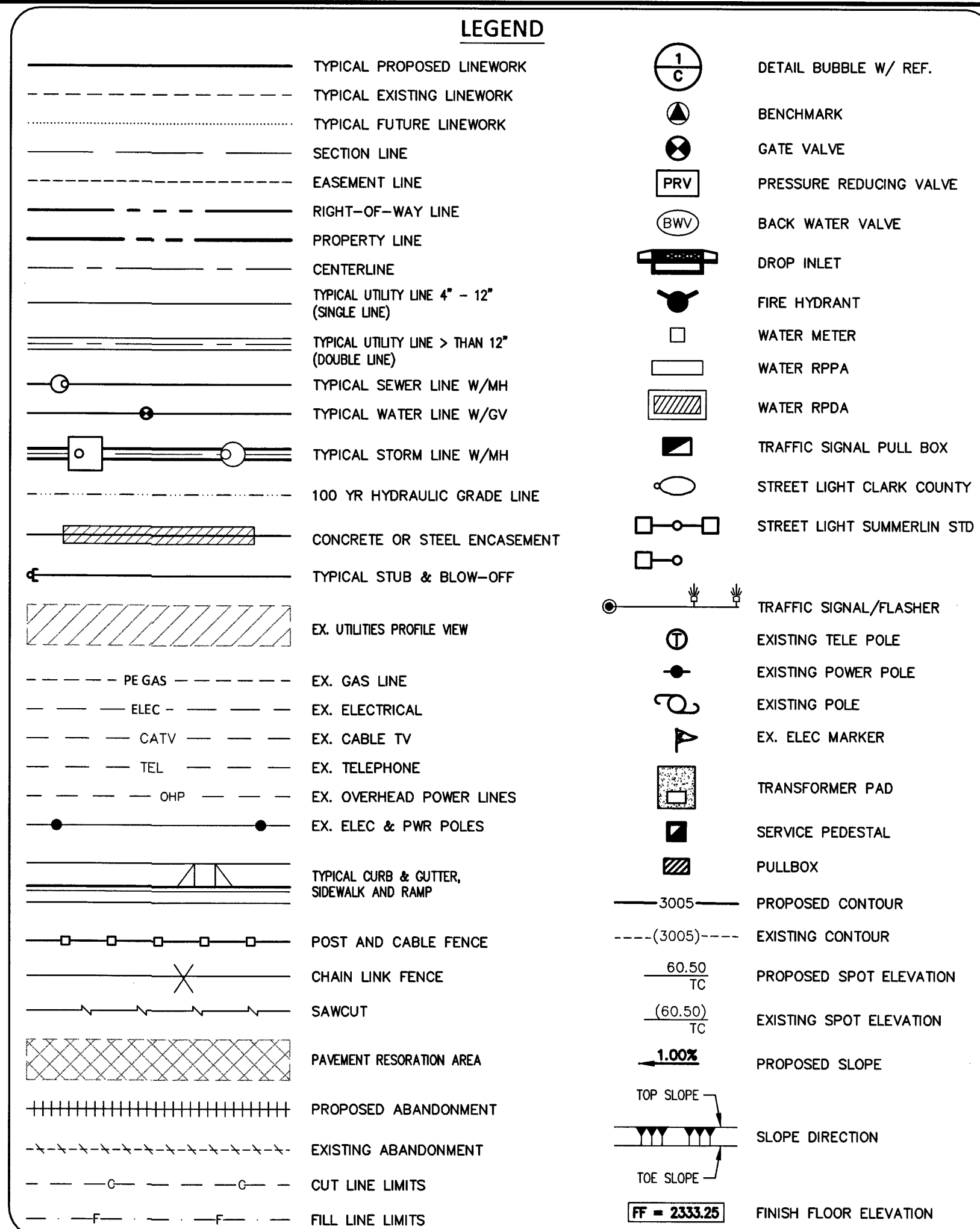


ABBREVIATIONS			
A	AIR	D/D/L	DROP INLET
AC	ASPHALT CONCRETE, ACRE	DA	DUCTILE IRON PIPE
ACP	ASBESTOS CEMENT PIPE	DI	DIST
ADD'L	ADDITIONAL	DR	DRIVE
AP	ANGLE POINT	DS	DOWNSPUT
APN	ASSESSOR'S PARCEL NUMBER	DTL	DETAL
APPROX	APPROXIMATELY	DRW	DRAWING
AASTHO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS	E	EAST
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	EOR	END CURB RETURN
AVE	AVENUE	ELE/ELEC	ELEVATION
AVR	AIR VALVE, AIR RELEASE ASSEMBLY	EP, EOP	EDGE OF PAVEMENT
AWWA	AMERICAN WATER WORKS ASSOCIATION	ESMT	EASEMENT
BC	BACK OF CURB	EVC	END VERTICAL CURVE
BOR	BEGIN CURB RETURN	EVP	END VERTICAL POINT
BLM	BUREAU OF LAND MANAGEMENT	EX	EXISTING
BLVD	BOULEVARD	EXP	EXPANSION JOINT
BM	BENCHMARK	FC	FACE OF CURB
BO	BLOW-OFF	FF, FFE	FINISH FLOOR ELEVATION
BVC	BEGIN VERTICAL CURVE ELEVATION	FD	FINISH GRADE
BYCS	BEGIN VERTICAL CURVE STATION	FH	FIRE HYDRANT
BVP	BEGIN VERTICAL POINT	FL	FLOW LINE
BW	BACK OF SIDEWALK	FRP	FIBER OPTIC
C, L	CENTERLINE	FRP	FIBERGLASS REINFORCED PLASTIC
C&G	CURB AND GUTTER	FS	FINISH SURFACE
CATV	UNDERGROUND CABLE TV	FT	FOOT/FEET
CCBM	CLARK COUNTY BENCH MARK	FTG	FOOTING
CCPW	CLARK COUNTY PUBLIC WORKS	FUT	FUTURE
CCTV	CLOSED-CIRCUIT TELEVISION	G	GAGE, GUY ANCHOR
CCWRD	CLARK COUNTY WATER RECLAMATION DISTRICT	GA	GRADE BREAK
CE	COMMON ELEMENT	GB	GRADE
CFS	CUBIC FEET PER SECOND	GND	GROUND
CIP	CAPITAL IMPROVEMENTS PROJECT, CORRUGATED IRON PIPE	GRD	GRADE, GROUND
CIPM	CURED-IN-PLACE MANHOLE	H, HST	HEIGHT
CHP	CURED-IN-PLACE PIPE	HWL	HEADWALL
CH	CIRCLE	HGL	HYDRAULIC GRADE LINE
CLR	CLEAR OR CLEARANCE	HORIZ	HORIZONTAL
CLSM	CONTROLLED LOW STRENGTH MATERIAL	HP	HIGH POINT, HIGH PRESSURE
CLV	CITY OF LAS VEGAS	HPS	HIGH PRESSURE SODIUM
CMU	CORRUGATED METAL PIPE	IBC	INTERNATIONAL BUILDING CODE
CNUV	CONCRETE MASONRY UNIT	INV	INVERT
CO	CLEANOUT	INT	INTERIM
CONC	CONCRETE	JOINT	JOINT
COND	CONDUIT	JT	JOINT
CONST	CONSTRUCT OR CONSTRUCTION	L	LENGTH
COORD	COORDINATE	L, LT	LEFT
COR	CORNER	LF	LINEAR FEET
CPEP	CORNER CORRUGATED POLYETHYLENE PIPE	LIP	UP OF GUTTER
CT	COURT	LN	LINE
CY	CUBIC YARD(S)	LP	LOW POINT, LIGHT POLE
Δ	DELTA	LSCP	LANDSCAPE
DBL	DOUBLE	LWWD	LAS VEGAS VALLEY WATER DISTRICT
DCS/DCSWS	DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEM (LATEST EDITION)	MAX	MAXIMUM
DEFL	DEFLECTION	MH	MANHOLE
DG	DESIGN GRADE	MIN	MINIMUM
		MLTWP	MORTAR LINED TAPE & MORTAR COATED PIPE
		MOD	MODIFY/MODIFIED
		MON	MONUMENT
		MPH	MILES PER HOUR
		N	NORTH
		NAP	NOT A PART
		NDOT	NEVADA DEPARTMENT OF TRANSPORTATION
		N.I.C.	NOT IN CONTRACT
		NO	NUMBER
		NOSHA	STATE OF NEVADA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
		NPC	NEVADA POWER COMPANY
		NTS	NOT TO SCALE
		NVE	NEW ENERGY
		OB	OVERBUILD
		OC	ON CENTER
		OH	OVERHEAD COX COMMUNICATION
		OHP	OVERHEAD POWER LINE
		P	POWER LINE
		PB	PULL BOX
		PBS	PLANT MIX BITUMINOUS SURFACE
		PC	POINT OF CURVE, PRESSURE GLASS
		PCC	POINT OF COMPOUND CURVE
		PE	PROJECT ENGINEER OR POLYETHYLENE PEDESTRIAN
		PED	PEDESTRIAN
		PGL	PROFILE GRADE LINE
		PH	POT HOLE
		PI	POINT OF INTERSECTION
		PW	POST INDICATOR VALVE
		R	PROPERTY LINE
		PLOC	POLYURETHANE LINED AND COATED STEEL PIPE
		PMF	PAVEMENT MARKING FILM
		POB	POINT OF BEGINNING
		POT	POINT ON CURVE, POINT OF CONNECTION
		POT	POINT ON TANGENT
		PP	POWER POLE
		PROP	PROPOSED
		PRC	POINT OF REVERSE CURVE
		PRVC	POINT OF REVERSE VERTICAL CURVE
		PSI	POUNDS PER SQUARE INCH
		PT	POINT OF TANGENCY
		PVC	POLYVINYL CHLORIDE
		PVI	POINT OF VERTICAL INTERSECTION
		PVMT	PAVEMENT
		PZ	PRESSURE ZONE
		R, RAD	RADIAL, RADIUS
		R, RT	RIGHT
		RCB	REINFORCED CONCRETE BOX
		RCP	REINFORCED CONCRETE PIPE
		RD	ROAD
		RDWY	ROADWAY
		REC	RECTANGULAR
		REF	REFERENCE
		REINF	REINFORCED
		REQD	REQUIRED
		RM	ROUND
		RND	ROUND
		ROW, R/W	RIGHT OF WAY
		RP	RADIUS POINT
		RP	RAISED PAVEMENT MARKERS
		RSOV	RESILIENT SEAT GATE VALVE
		S	SEWER, SOUTH
		SCH	SCHEDULE
		SD	STORM DRAIN
		SDMH	STORM DRAIN MANHOLE
		SECT	SECTION
		SF	SQUARE FOOT/FEET
		SHDR	SHOULDER
		SHT	SHEET
		SIS	SUMMERLIN IMPROVEMENT STANDARDS
		SL	STATE OF NEVADA
		SP	SERVICE POINT
		SQ	SQUARE
		SR	SEWER RECLAIM MAIN
		SS	SANITARY SEWER
		SSMH	SANITARY SEWER MANHOLE
		STA	STATION
		ST	STREET
		STD	STANDARD
		STL	STEEL
		STL	STRUCTURE
		SV	SKY VISTA DRIVE
		SVZ	SIGHT VISIBILITY ZONE
		SW	SIDEWALK
		SWG	SOUTHWEST GAS
		T	TELEPHONE OR TOP
		TAN	TANGENT
		TB	TOP OF BERM
		TC	TOP OF CURB
		TC	TEMPORARY CONSTRUCTION ESMT
		TEL, TELE	TELEPHONE
		TEMP	TEMPORARY
		TF	TOP OF FOOTING
		TO	TOP OF GATE
		TMH	TOP OF MANHOLE
		TP	TOP OF PIPE
		TP	TELEPHONE POLE
		TRANS	TRANSITION
		TRW	TOP OF RETAINING WALL
		TS	TEST STATION
		TS&V	TAPPING SLEEVE & VALVE
		TW	TOP OF WALL
		UT, (TYP)	UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS (LATEST EDITION)
		UDACS	UNDERGROUND
		UL	UNDERGROUND
		ULT	ULTIMATE
		USDO	UNIFORM STD. DRAWINGS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS CLARK COUNTY AREA, NEVADA (LATEST EDITION)
		USDOCA	UNIFORM STD. DRAWINGS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS CLARK COUNTY AREA, NEVADA (LATEST EDITION)
		CAUSO	UNIFORM STD. DRAWINGS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS CLARK COUNTY AREA, NEVADA (LATEST EDITION)
		UT	UNDERGROUND TELEPHONE
		VAR	VARIABLE/VARIES
		VC	VERTICAL CURVE
		VCP	VERTICAL CLAY PIPE
		VERT	VERTICAL
		VG	VALLEY GUTTER
		VOL	VOLUME
		W	WATER, WEST
		W/	WITH
		WMH	WATER MANHOLE
		WS	WATER SUPPLY
		WT	WEIGHT
		WTR	WATER CROSSING
		XNG	CROSSING
		YD	YARD, YARD DRAIN
		Z	PRESSURE ZONE



QUANTITY ESTIMATE

NOTE: CONTRACTOR TO VERIFY QUANTITIES FOR BIDDING PURPOSES

DESCRIPTION	UNIT	PUBLIC	PRIVATE
4" PVC SEWER PIPE	LF	0	580
8" PVC SEWER PIPE	LF	825	0
4" CS90 SEWER PIPE	LF	0	2085
8" CS90 SEWER PIPE	LF	0	1489
SEWER MANHOLE UNDER 6 FEET	EA	6	0
SEWER MANHOLE 6 TO 18 FEET	EA	13	0
BACKWATER VALVES	EA	0	36

DESCRIPTION	UNIT	PUBLIC	PRIVATE
6" WATER MAIN	LF	248	0
8" WATER MAIN	LF	2241	0
WATER LATERAL	LF	2259	0
LANDSCAPE WATER SERVICE	EA	2	0
WATER SERVICE TO LOTS	EA	124	0
FIRE HYDRANT	EA	5	0
1" RPPA	EA	3	0

DESCRIPTION	UNIT	PUBLIC	PRIVATE
CURB & GUTTER (TYPE "L" & "A")	LF	0	5005
CROSS GUTTER	SF	1000	3155
SIDEWALK 4"	SF	0	1882
SIDEWALK RAMP	EA	2	0
TYPE I GRAVEL BASE	CY	75	0
TYPE II GRAVEL BASE	CY	46	1066
2" ASPHALTIC CONCRETE PAVING	SY	0	9590
5" ASPHALTIC CONCRETE PAVING	SY	300	0
SURVEY MONUMENTS	EA	1	32

DESCRIPTION	UNIT	PUBLIC	PRIVATE
ADJUST/RELOCATE STREETLIGHT	EA	1	0

DESCRIPTION	UNIT	PUBLIC	PRIVATE
18" STORM DRAIN	LF	79	0
STORM DRAIN TAP	EA	1	0
12.5" CM2 DROP INLET	EA	2	0
2" VALLEY GUTTER	LF	3,172	0

DESCRIPTION	UNIT	PUBLIC	PRIVATE
EXCAVATION & EMBANKMENT	CY	0	26311
CABLE TO LOTS	EA	0	124
GAS TO LOTS	EA	0	124
PHONE TO LOTS	EA	0	124
POWER TO LOTS	EA	0	124

BENCHMARK
7LV007NWW6
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AVE
ELEVATION: 2694.63

BASIS OF BEARING
GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.
DATUM (REFERENCE FRAME): NAD 1983 (2011) EPOCH 2010.0
ZONE: LAS VEGAS ZONE
STANDARD PARALLEL AND GRID ORIGIN: 36°15'00" N
CENTRAL MERIDIAN: 114°58'00" W
FALSE NORTHING: 200,000,000 METERS (656,166,667 US FT)
FALSE EASTING: 100,000,000 METERS (328,083,333 US FT)
STANDARD PARALLEL SCALE: 1.0001 (EXACT)
LINEAR UNIT: US SURVEY FOOT (US FT)

APPROVED FOR CONSTRUCTION
Nam Giallo
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136495
FIRST APPROVED DATE: 8-20-19
LWWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

L# L19-01032 CLV DWG# 107Y5108

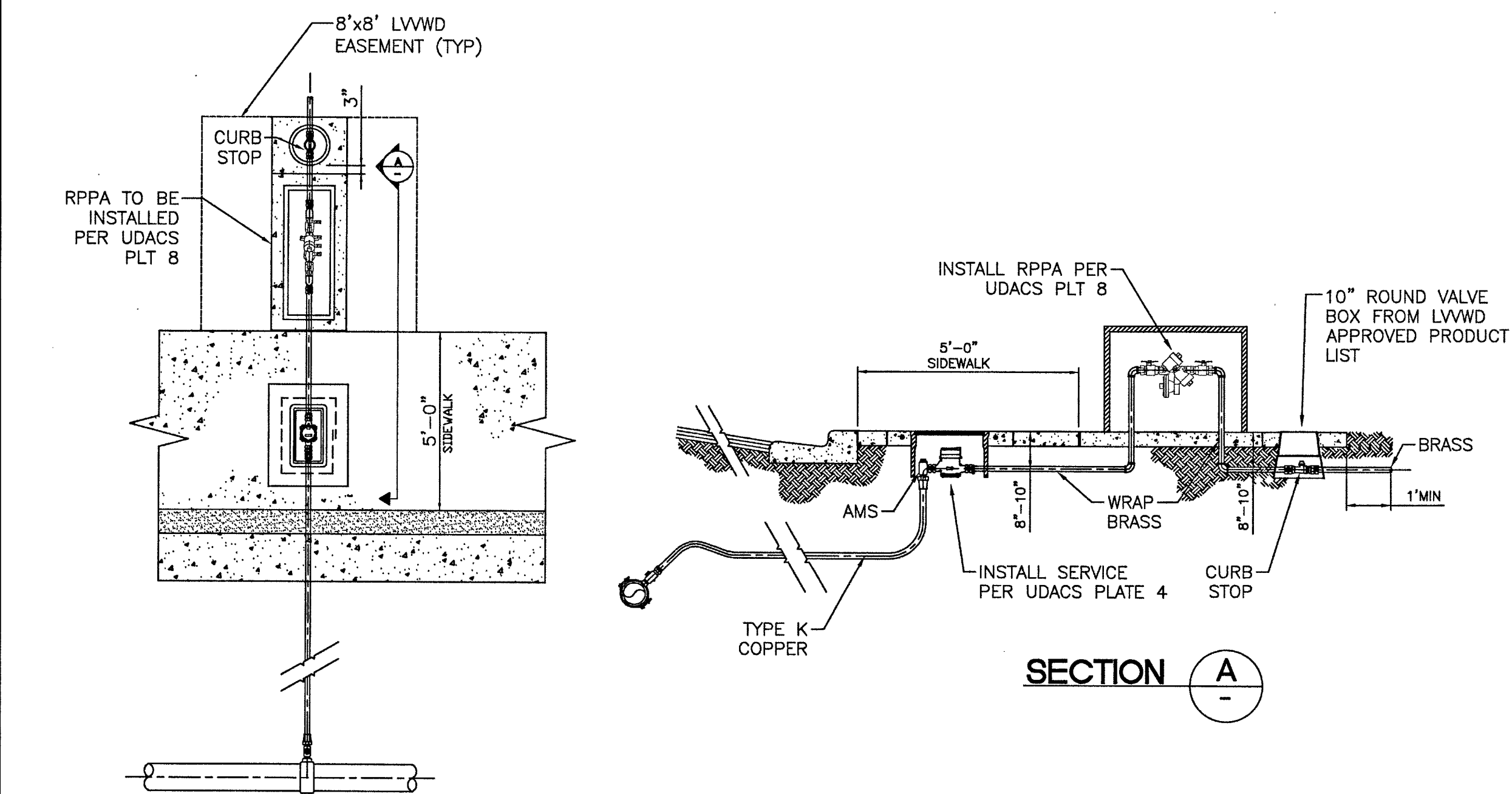
PROJECT NO. 798-003
DESIGN: *[Signature]*
DRAWN: *[Signature]*
CHECK: *[Signature]*
PLOT DATE: 08-13-19
PLOT TIME: 11:28:13
REV. DATE

1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
goveengineering.com

TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
PROJECT DATA

DRAWING
C3
3 OF 33 SHTS

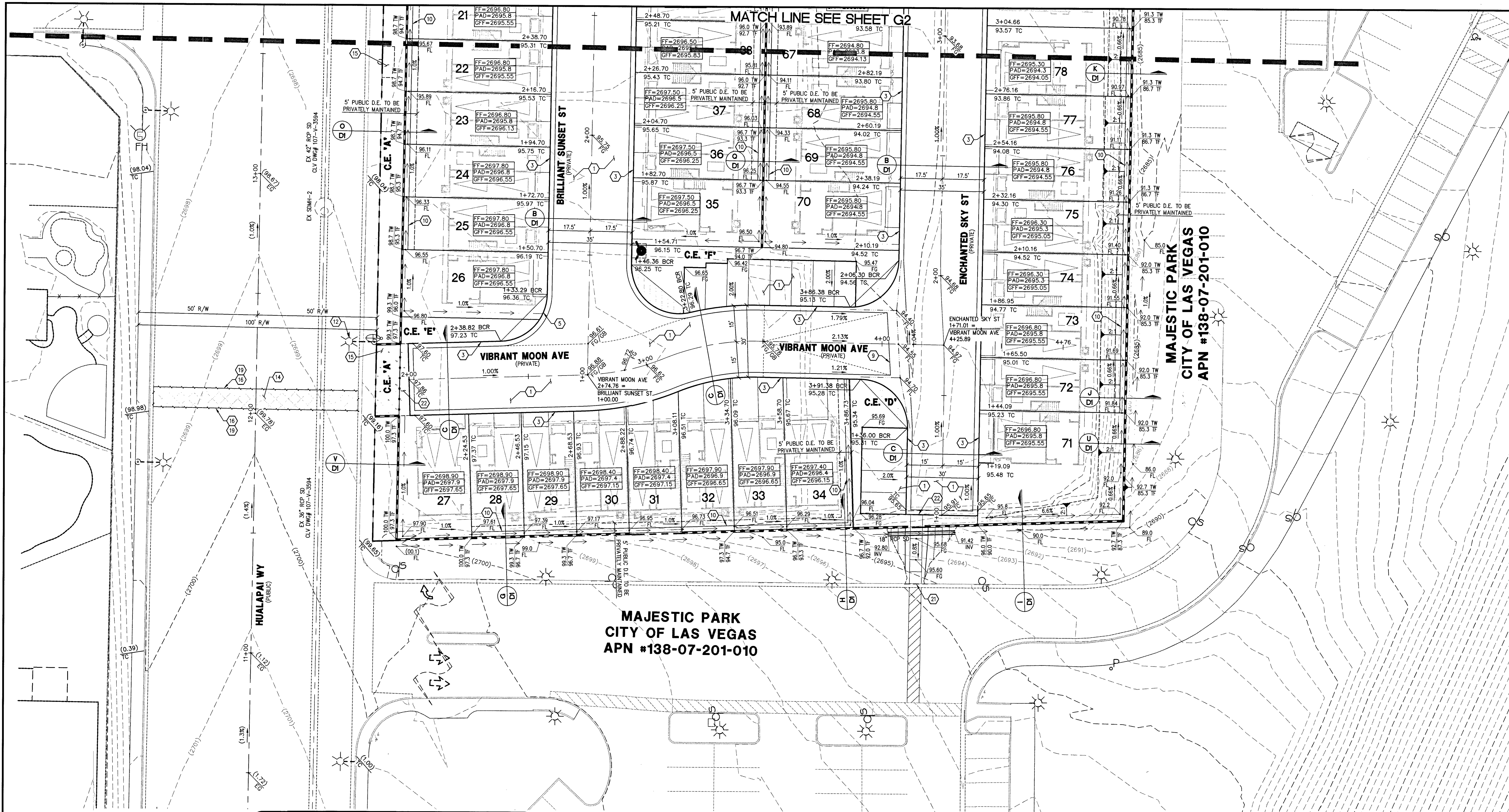
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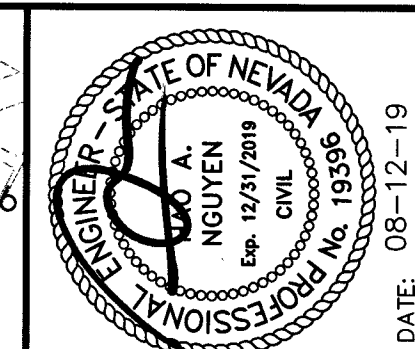
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CALL BEFORE YOU DO OVERHEAD
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MAJESTIC PARK
CITY OF LAS VEGAS
APN #138-07-201-010



PROJECT NO.	798-003
DESIGN:	
DRAWN:	
CHECK:	
PLOT DATE:	08-12-19
DATE:	08-12-19
DESCRIPTION:	
REV:	
DATE:	
AGN:	
APP:	
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DATE:	

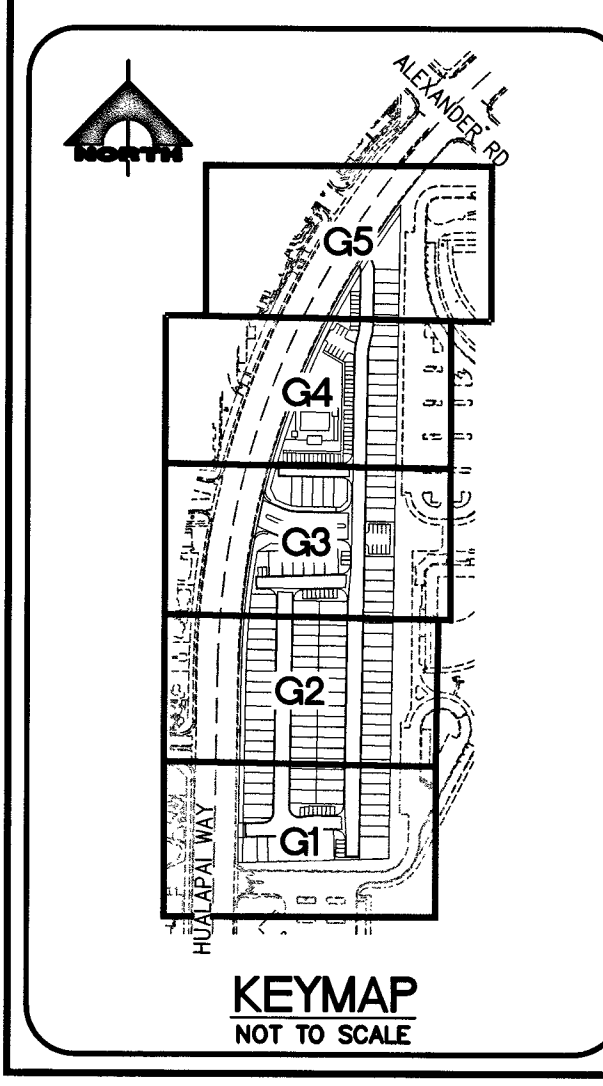
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F: 702.804.2999
gowingengineering.com

GCA
ENGINEERS & SURVEYORS

HAO NGUYEN

TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
GRADING PLAN 1

DRAWING
G1
4 OF 33 SHTS



FAST
Call before you UnderGround
1-702-432-6300
PREMIER AND ARTISANAL SYSTEMS OF TRANSPORTATION

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

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

- CONSTRUCTION NOTES**
- GRADING**
- CONSTRUCT 2" AC OVER 4" TYPE II AB.
 - CONSTRUCT L TYPE CURB AND GUTTER PER USDOCA DWG NO. 216.
 - CONSTRUCT RESIDENTIAL CURB AND GUTTER R-TYPE PER USDOCA DWG NO. 217.3.S1.
 - CONSTRUCT "A" TYPE ISLAND CURB PER USDOCA DWG NO. 219.
 - CONSTRUCT R-TYPE CURB OPENING PER DETAIL 4 ON SHEET D2.
 - CONSTRUCT MEDIAN ISLAND PER USDOCA DWG NO. 218.
 - CONSTRUCT HANDICAP RAMP USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER USDOCA DWG NO. 235, CASE 1, 4-5-5.0" UNLESS OTHERWISE NOTED ON PLAN.
 - CONSTRUCT COMMERCIAL AND INDUSTRIAL DRIVEWAY (OPTION A) PER USDOCA DWG NO. 224.
 - CONSTRUCT 8" WIDE CROSS GUTTER PER USDOCA DWG NO. 218.
 - CONSTRUCT 2" WIDE CONCRETE CROSS GUTTER PER DETAIL 6 ON SHEET D2.
 - REMOVE EXISTING CURB AND SIDEWALK.
 - RELOCATE.
 - CONSTRUCT WALL OPENING PER DETAIL 2 ON SHEET D2.
 - CONSTRUCT 5.5" AC OVER 6" TYPE II AB.
 - CONSTRUCT SIDEWALK PER USDOCA DWG NO. 234.
 - SAWOUT AND MATCH EXISTING.
 - CONSTRUCT FENCE PER CCAUSD #425.S1
 - CONSTRUCT SLIDING GATE PER PLAN BY OTHERS
 - TRENCH AND PAVEMENT REPAIR/RESTORATION PER CCAUSD #500.3, 500.5, & 503
 - SPECIFICATION NO. 623.01.02
 - CONSTRUCT SIDEWALK RAMP PER DETAIL 9 ON SHEET D2
 - CONSTRUCT SIDEWALK RAMP PER DETAIL 10 ON SHEET D2
 - CONSTRUCT 4" PCC OVER 4" TYPE II AB
- NOTE: SEE SHEET C2 & C3 FOR ABBREVIATIONS AND QUANTITIES

- CONSTRUCTION NOTES**
- STORM DRAIN**
- CONSTRUCT 12.5" TYPE "CM2" DROP INLET PER USDOCA DWG NO. 412.1 AND 421.
 - STORM DRAIN PIPE PENETRATION PER DETAILS 1 AND 2 ON SHEET S1.
- NOTE: SEE SHEET C2 & C3 FOR ABBREVIATIONS AND QUANTITIES
- NOTE**
- ALL ONSITE STORM DRAINS AND ASSOCIATED STORM FACILITIES ARE PUBLICLY OWNED AND TO BE PRIVATELY MAINTAINED BY THE HOA.
- ALL PRIVATE STREETS ARE P.U.E., PUBLIC DRAINAGE EASEMENT AND PUBLIC SEWER EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.
- GENERAL NOTES**
- REPLACE ALL TRAFFIC CONTROL DEVICES (SIGNS AND/OR PAVEMENT MARKINGS), UNDER CITY OF LAS VEGAS'S JURISDICTION, THAT ARE DISTURBED, DESTROYED, MOVED OR MODIFIED BY TRENCHING ACTIVITIES TO CITY OF LAS VEGAS'S SATISFACTION. ALL MATERIAL USED SHALL MEET 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
 - 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.
 - THE CONTRACTOR IS TO VERIFY THE ACTUAL FIELD CONDITIONS OF ALL LOTS AND INSTALL SEWER CHECK VALVES WHERE REQUIRED PER THE LATEST EDITION OF THE UNIFORM PLUMBING CODE.

NOTE TO CONTRACTOR

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

NOTE

- GEOTECHNICAL EVALUATION FOR HUALAPAI AND ALEXANDER, A 14.024-ACRE RESIDENTIAL DEVELOPMENT LOCATED ON THE SOUTHWEST CORNER OF HUALAPAI AND ALEXANDER LAS VEGAS, NEVADA AS PREPARED BY GEOTECH PROJECT NUMBER 14499-LVR DATED DECEMBER 27, 2018.
- CONSTRUCTION FOR BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE BUILDING SAFETY AND MAINTENANCE DEPARTMENT.
- WALLS CONSTRUCTED OTHER THAN THOSE AS DETAILED ON THIS SHEET ARE TO BE CONSTRUCTED BY WALL SUB-CONTRACTOR. DETAILS AND STRUCTURAL CALCULATIONS PREPARED BY OTHERS.
- NO OBJECT OVER 24" OTHER THAN TRAFFIC CONTROL DEVICES AND STREET LIGHT POLES CAN BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE.
- ALL PRIVATE STREETS ARE TO BE DEDICATED AS PUBLIC DRAINAGE EASEMENT AND PUBLIC UTILITY EASEMENT TO BE PRIVATELY MAINTAINED.

- NOTE**
- CURB FLOW LINES LESS THAN 0.60% GRADE SHALL BE WATER TESTED. ANY CURB THAT DOES NOT FLOW SHALL BE REMOVED AND REPLACED AT NO COST BY THE CITY.
- STORMWATER MANAGEMENT NOTES - CLV**
- STANDARD NOTE NO. 1: THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF THE CITY OF LAS VEGAS 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.
 - STANDARD NOTE NO. 2: ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN THE TITLE 24.40 AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
 - STANDARD NOTE NO. 3: TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NWR 100000, SECTION III.A.5.
 - STANDARD NOTE NO. 4: AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS AND ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER ANY RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NWR 100000, SECTION III.A.12.
 - STANDARD NOTE NO. 5: ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

BENCHMARK

7LV007NWWS
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AVE
ELEVATION: 2694.63

BASIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983. SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

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FLOOD ZONE NOTE

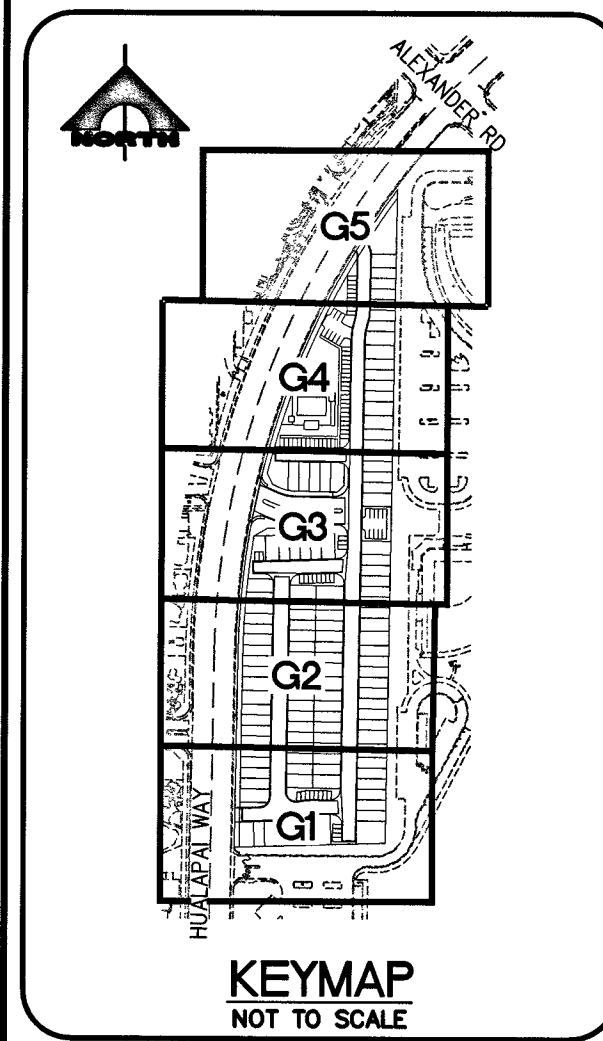
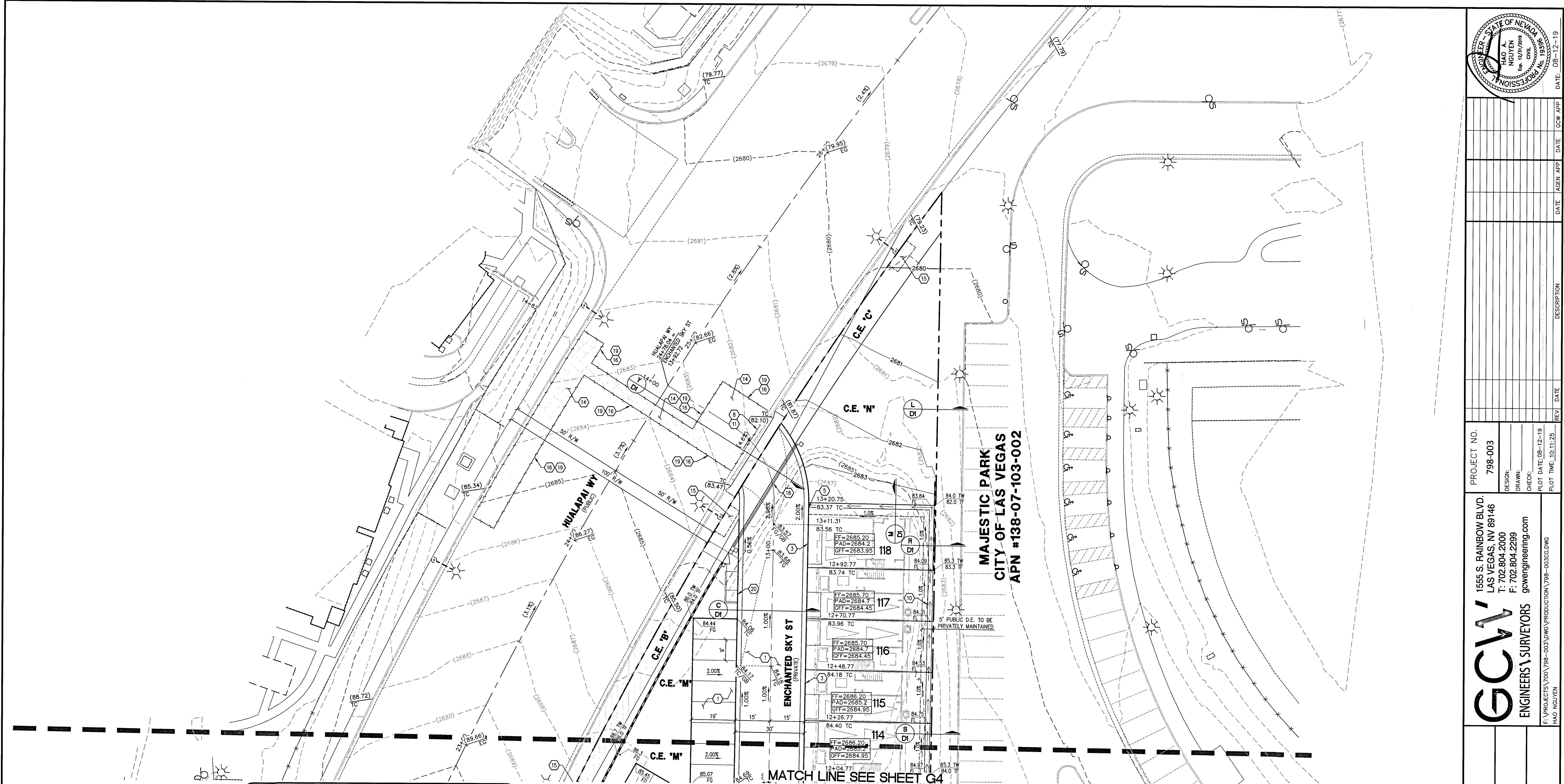
NO PORTION OF THE SITE FALLS WITHIN A FEMA DESIGNATED SPECIAL FLOOD HAZARD AREA. SITE LOCATED ON PANEL 2150 E. DATED SEPTEMBER 27, 2002, TO REFLECT A LOMR. THIS PANEL SHOWS THAT THE PROJECT IS LOCATED WITHIN A ZONE X AND NOT LOCATED WITHIN A FEMA DESIGNATED 100-YEAR ZONE A OR SPECIAL FLOOD HAZARD AREA.

DRAINAGE CERTIFICATION

I CERTIFY THAT THE GRADING PLANS ARE IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY 255102A ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT.

HAO A. NGUYEN P.E. 19396
DATE: 08-12-19

L# L19-01032 CLV DWG# 107Y5108



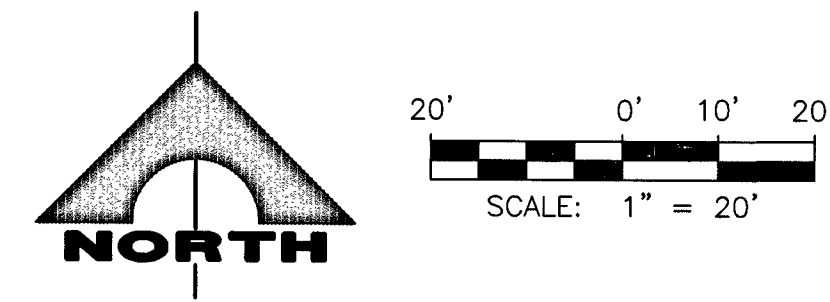
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FIREWAY AND ARTERIAL
SYSTEM OF TRANSPORTATION

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

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

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- GRADING**
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 2. CONSTRUCT L TYPE CURB AND GUTTER PER USDOCA DWG NO. 216.
 3. CONSTRUCT RESIDENTIAL CURB AND GUTTER R-TYPE PER USDOCA DWG NO. 217.3.51.
 4. CONSTRUCT "A" TYPE ISLAND CURB PER USDOCA DWG NO. 219.
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 6. CONSTRUCT MEDIAN ISLAND PER USDOCA DWG NO. 218.
 7. CONSTRUCT HANDICAP RAMP USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER USDOCA DWG NO. 235, CASE 1, 4'-6" WIDE UNLESS OTHERWISE NOTED ON PLAN.
 8. CONSTRUCT COMMERCIAL AND INDUSTRIAL DRIVEWAY (OPTION A) PER USDOCA DWG NO. 224.
 9. CONSTRUCT 8" WIDE CROSS GUTTER PER USDOCA DWG NO. 218.
 10. CONSTRUCT 2" WIDE CONCRETE CROSS GUTTER PER DETAIL 6 ON SHEET D2.
 11. REMOVE EXISTING CURB AND SIDEWALK.
 12. RELOCATE.
 13. CONSTRUCT WALL OPENING PER DETAIL 2 ON SHEET D2.
 14. CONSTRUCT 5.5" AC OVER 6" TYPE II AB.
 15. CONSTRUCT SIDEWALK PER USDOCA DWG NO. 234.
 16. SAWCUT AND MATCH EXISTING.
 17. CONSTRUCT FENCE PER CCAUSD #425.51
 18. CONSTRUCT SLIDING GATE PER PLAN BY OTHERS
 19. TRENCH AND PAVEMENT REPAIR/RESTORATION PER CCAUSD #500.3, 500.5, & 503
 20. CONSTRUCT MODIFIED CASE III SIDEWALK RAMP PER CCAUSD #235.
 21. CONSTRUCT SIDEWALK RAMP PER DETAIL 9 ON SHEET D2
 22. CONSTRUCT SIDEWALK RAMP PER DETAIL 10 ON SHEET D2
 23. CONSTRUCT 4" PCC OVER 4" TYPE II AB
- NOTE: SEE SHEET C2 & C3 FOR ABBREVIATIONS AND QUANTITIES

- CONSTRUCTION NOTES**
- STORM DRAIN**
1. CONSTRUCT 12.5" TYPE "CM2" DROP INLET PER USDOCA DWG NO. 412.1 AND 421.
 2. STORM DRAIN PIPE PENETRATION PER DETAILS 1 AND 2 ON SHEET S1.
- NOTE: SEE SHEET C2 & C3 FOR ABBREVIATIONS AND QUANTITIES
- NOTE**
- ALL ON-SITE STORM DRAINS AND ASSOCIATED STORM FACILITIES ARE PUBLICLY OWNED AND TO BE PRIVATELY MAINTAINED BY THE HOA.
- ALL PRIVATE STREETS ARE P.U.E., PUBLIC DRAINAGE EASEMENT AND PUBLIC SEWER EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.
- GENERAL NOTES**
1. REPLACE ALL TRAFFIC CONTROL DEVICES (SIGNS AND/OR PAVEMENT MARKINGS), UNDER CITY OF LAS VEGAS'S JURISDICTION, THAT ARE DISTURBED, DESTROYED, MOVED OR MODIFIED BY TRENCHING ACTIVITIES TO CITY OF LAS VEGAS'S SATISFACTION. ALL MATERIAL USED SHALL MEET 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 IMSA LEVEL II ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 623.01.02.
 3. 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.
 4. THE CONTRACTOR IS TO VERIFY THE ACTUAL FIELD CONDITIONS OF ALL LOTS AND INSTALL SEWER CHECK VALVES WHERE REQUIRED PER THE LATEST EDITION OF THE UNIFORM PLUMBING CODE.



- NOTE TO CONTRACTOR**
- EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
- NOTE**
1. GEOTECHNICAL EVALUATION FOR HUALAPAI AND ALEXANDER, A 14.024 ACRE RESIDENTIAL DEVELOPMENT LOCATED ON THE SOUTHWEST CORNER OF HUALAPAI AND ALEXANDER LVS VEGAS, NEVADA AS PREPARED BY GEOTEK PROJECT NUMBER 14499-LVR DATED DECEMBER 27, 2018.
 2. CONSTRUCTION FOR BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE BUILDING SAFETY AND MAINTENANCE DEPARTMENT.
 3. WALLS CONSTRUCTED OTHER THAN THOSE AS DETAILED ON THIS SHEET ARE TO BE CONSTRUCTED BY WALL SUB-CONTRACTOR, DETAILS AND STRUCTURAL CALCULATIONS AS PREPARED BY OTHERS.
 4. NO OBJECT OVER 24" OTHER THAN TRAFFIC CONTROL DEVICES AND STREET LIGHT POLES CAN BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE.
 5. ALL PRIVATE STREETS ARE TO BE DEDICATED AS PUBLIC DRAINAGE EASEMENT AND PUBLIC UTILITY EASEMENT TO BE PRIVATELY MAINTAINED.

NOTE

CURB FLOW LINES LESS THAN 0.60% GRADE SHALL BE WATER TESTED. ANY CURB THAT DOES NOT FLOW SHALL BE REMOVED AND REPLACED AT NO COST BY THE CITY.

BENCHMARK

7LV007NWWS
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AVE
ELEVATION: 2694.63

BASIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

DATUM (REFERENCE FRAME): NAD 1983 (2011) EPOCH 2010.0

ZONE: LAS VEGAS ZONE
STANDARD PARALLEL AND GRID ORIGIN: 36°15'00" N
CENTRAL MERIDIAN: 114°58'00" W
FALSE NORTHING: 200,000.000 METERS (656,166.667 US FT)
FALSE EASTING: 100,000.000 METERS (328,083.333 US FT)
STANDARD PARALLEL SCALE: 1.0001 (EXACT)
LINEAR UNIT: US SURVEY FOOT (US FT)

FLOOD ZONE NOTE

NO PORTION OF THE SITE FALLS WITHIN A FEMA DESIGNATED SPECIAL FLOOD HAZARD AREA. SITE LOCATED ON PANEL 2150 E, DATED SEPTEMBER 27, 2002, TO REFLECT A LOWR. THIS PANEL SHOWS THAT THE PROJECT IS LOCATED WITHIN A ZONE X AND NOT LOCATED WITHIN A FEMA DESIGNATED 100-YEAR ZONE A OR SPECIAL FLOOD HAZARD AREA.

DRAINAGE CERTIFICATION

I CERTIFY THAT THE GRADING PLANS ARE IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY DSS102A ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT.

HAO A. NGUYEN P.E. 19396 DATE 08-12-19

L# L19-01032 CLV DWG# 107Y5108

PROFESSIONAL SEAL
HAO A. NGUYEN
P.E. 19396
CIVIL
EXPIRATION DATE: 08-12-19

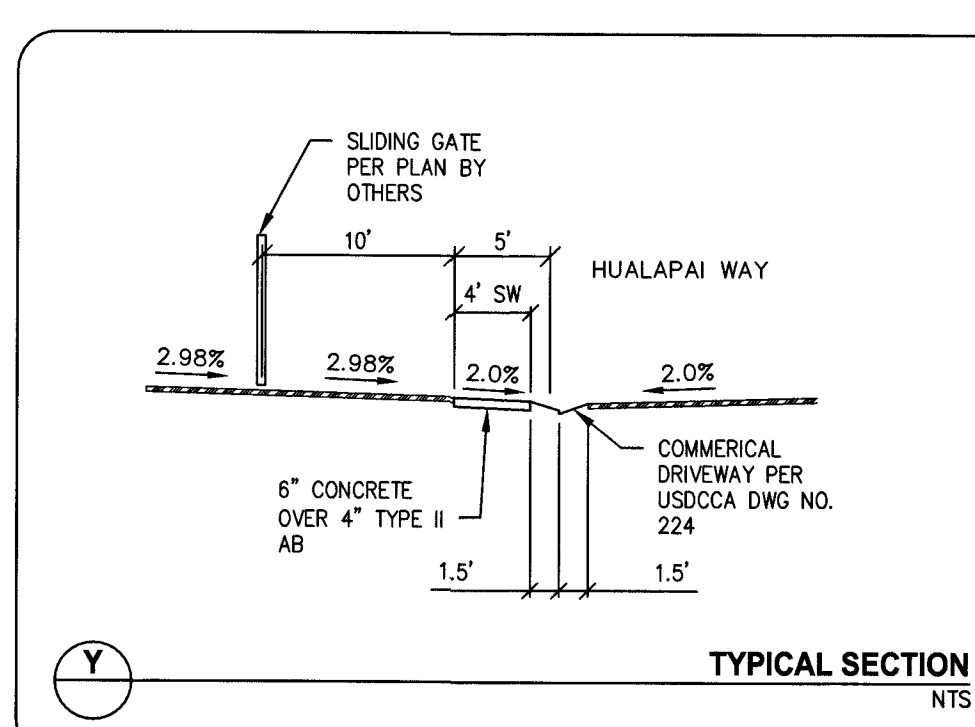
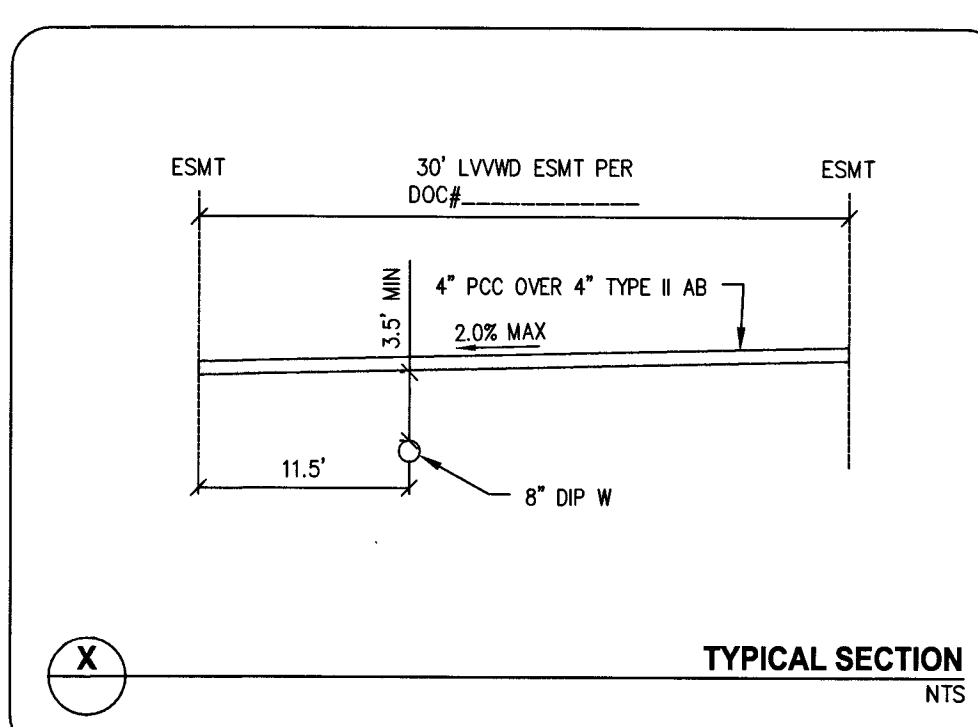
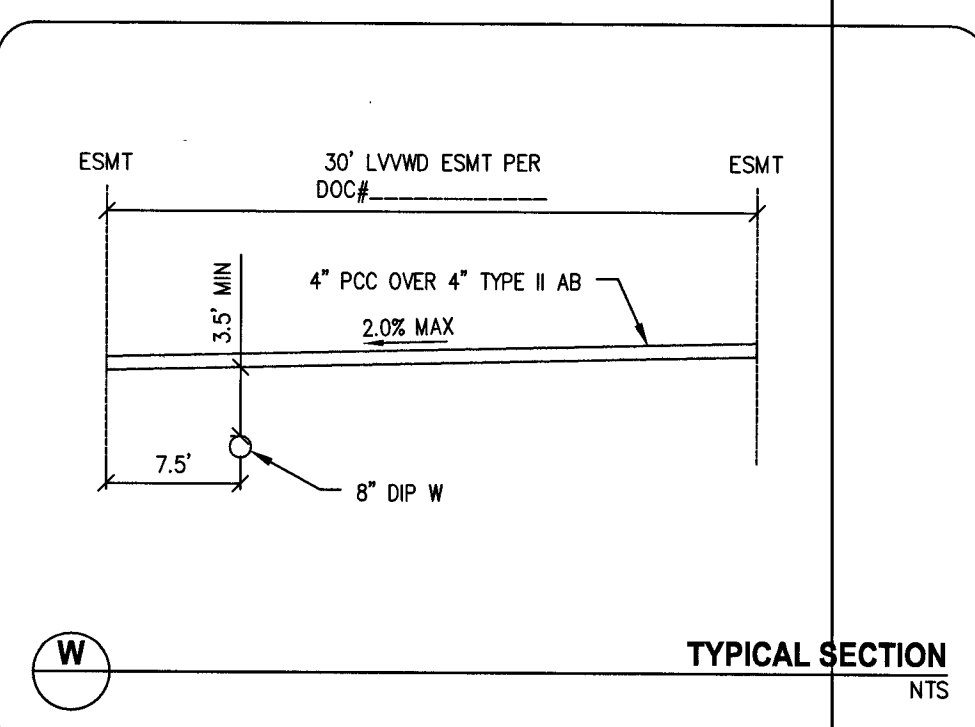
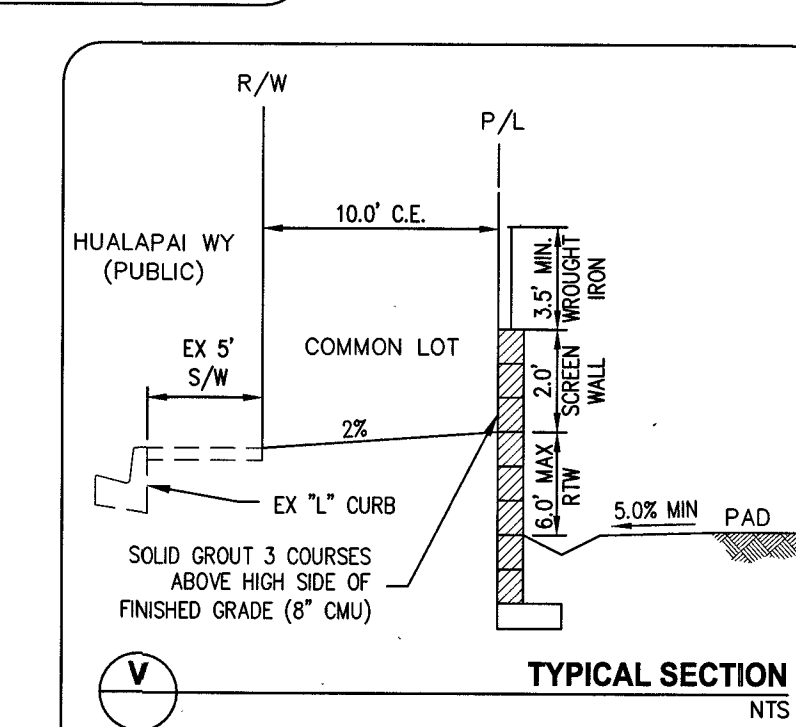
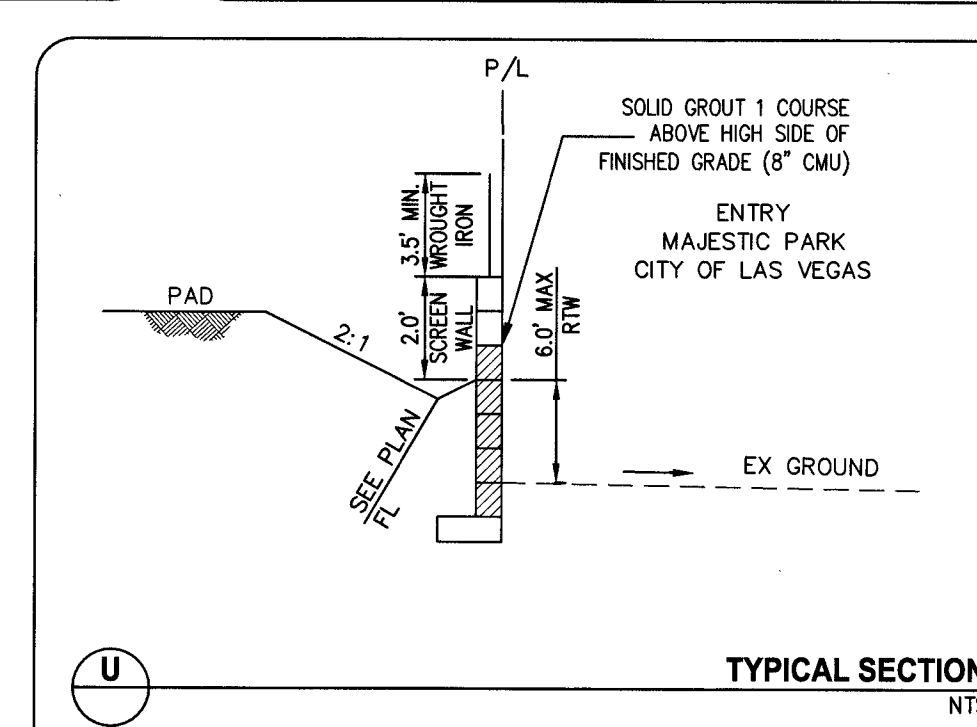
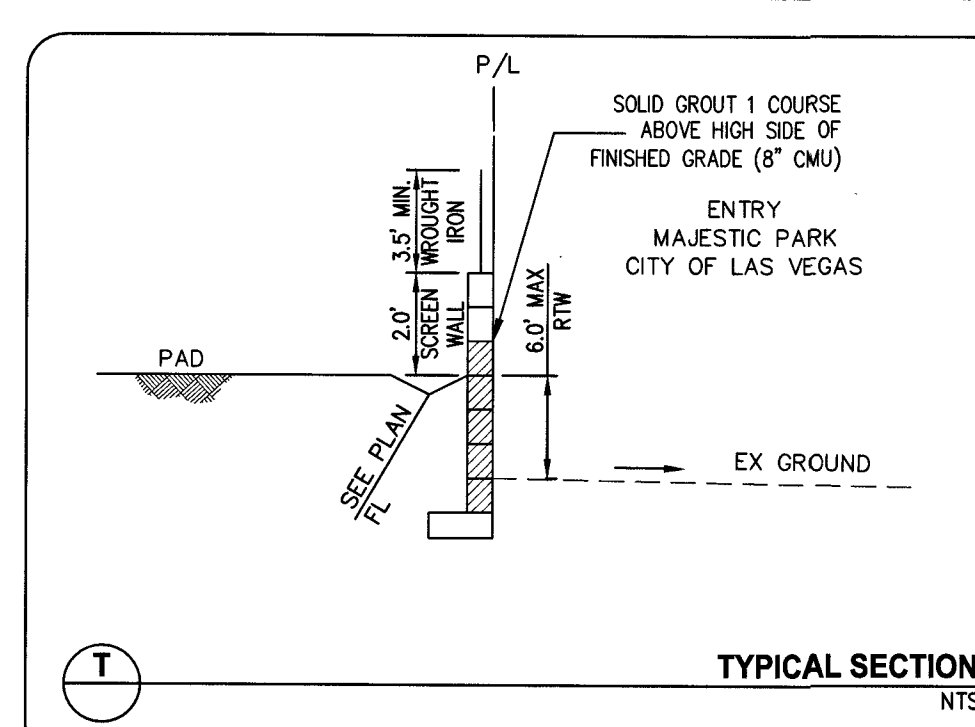
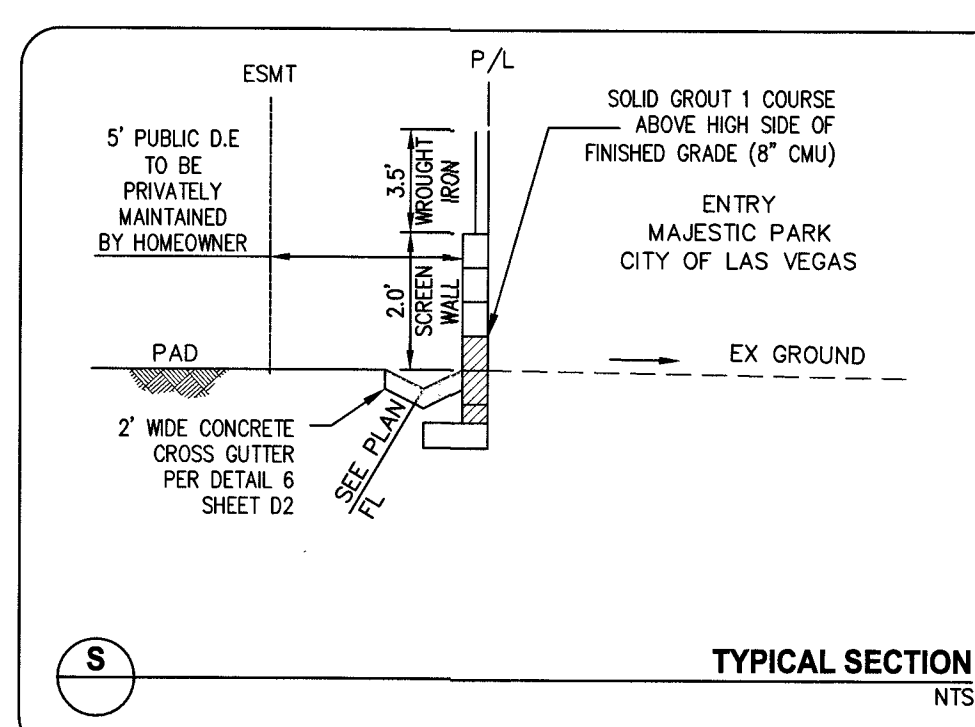
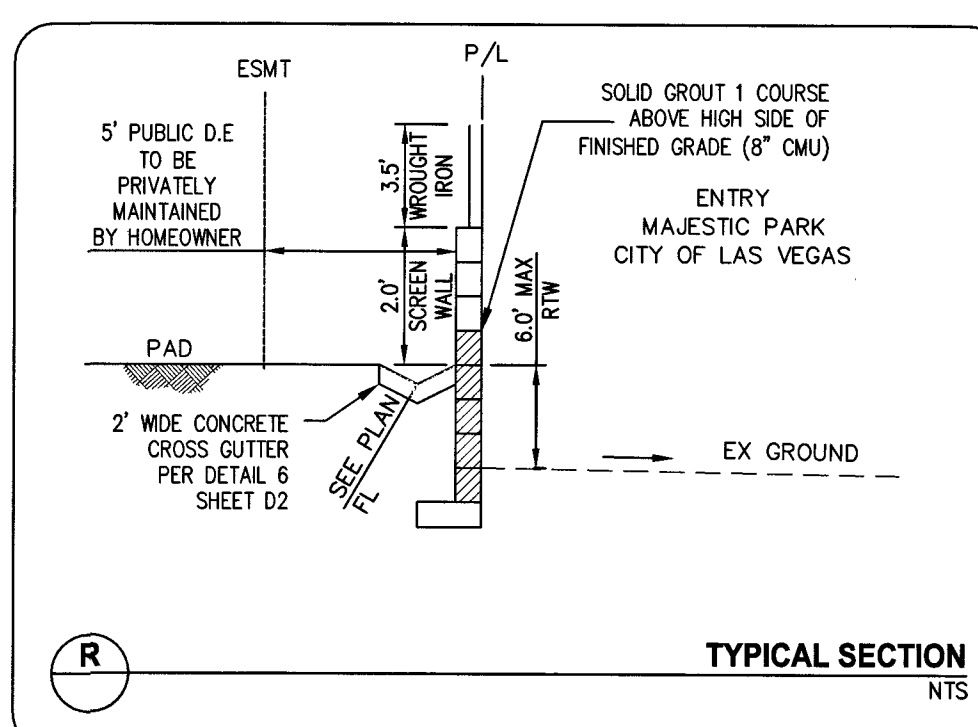
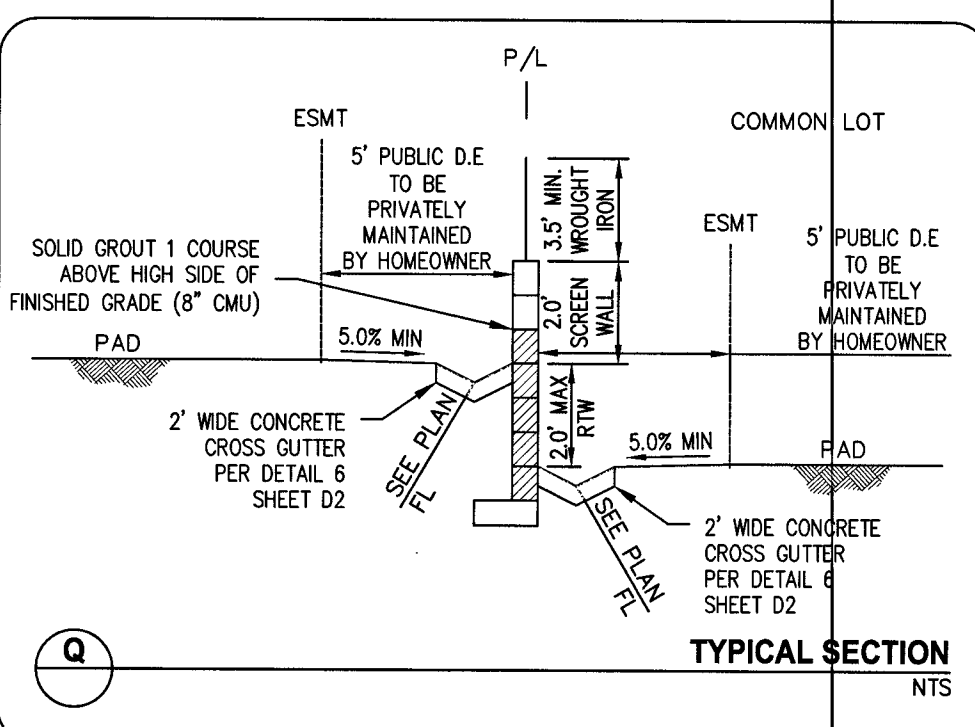
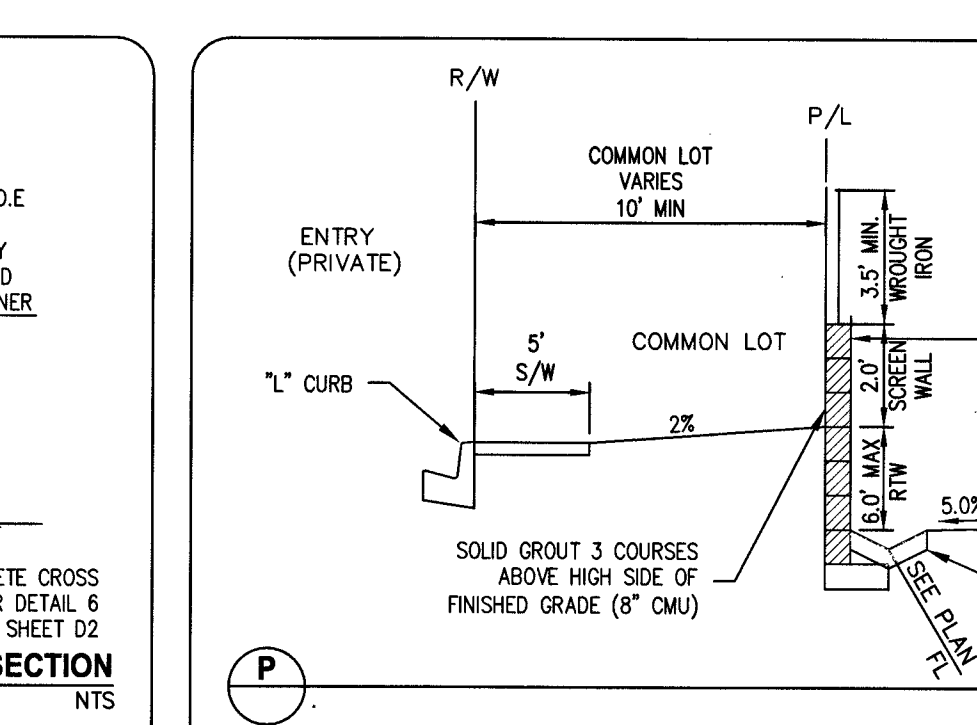
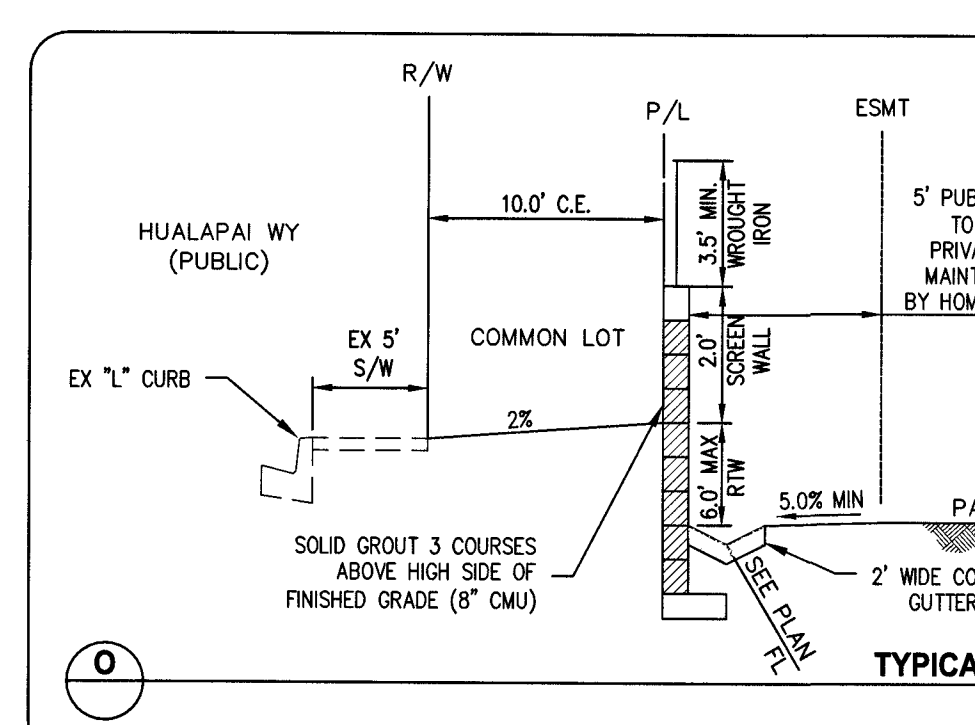
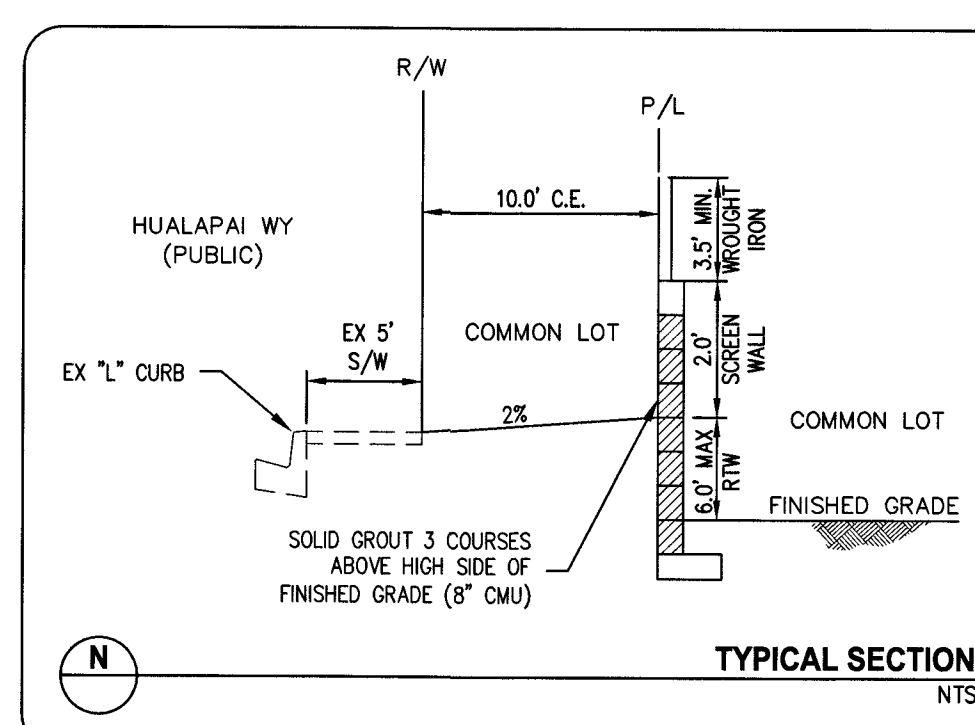
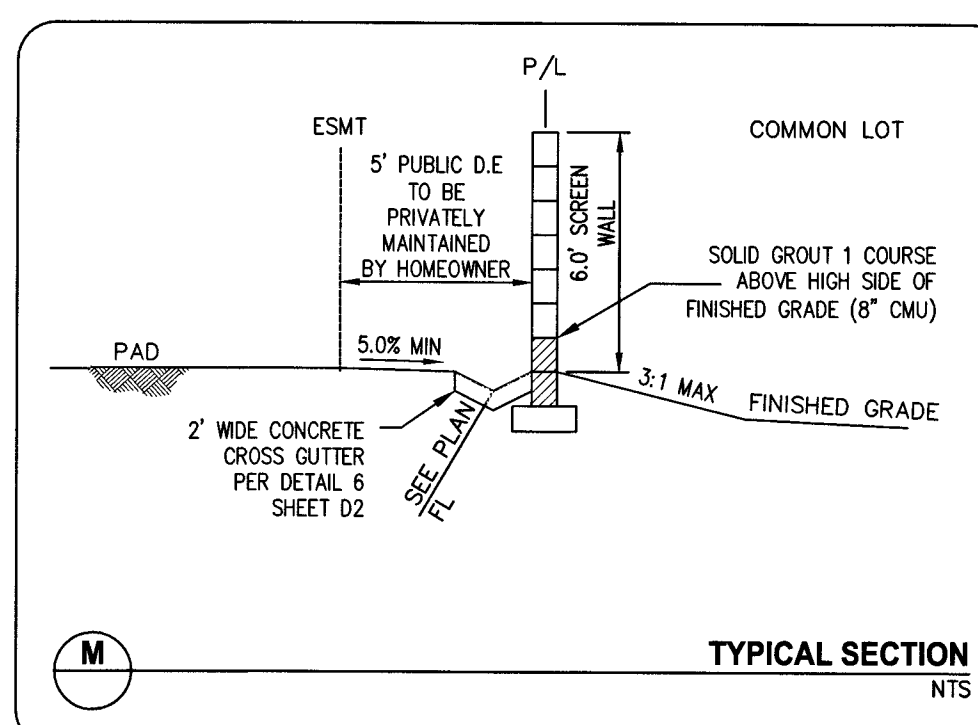
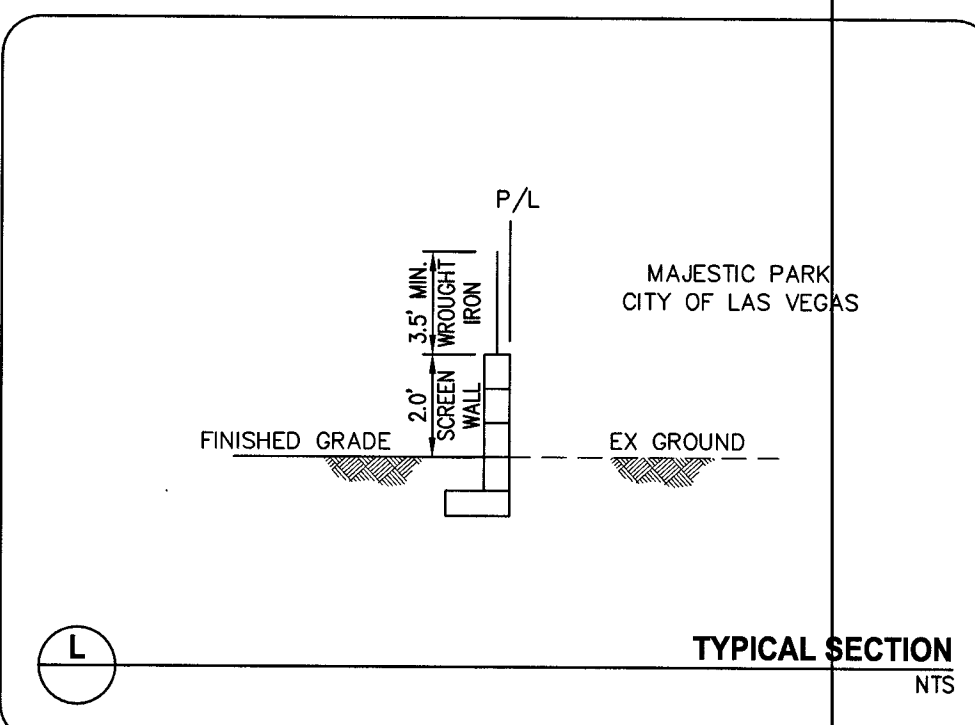
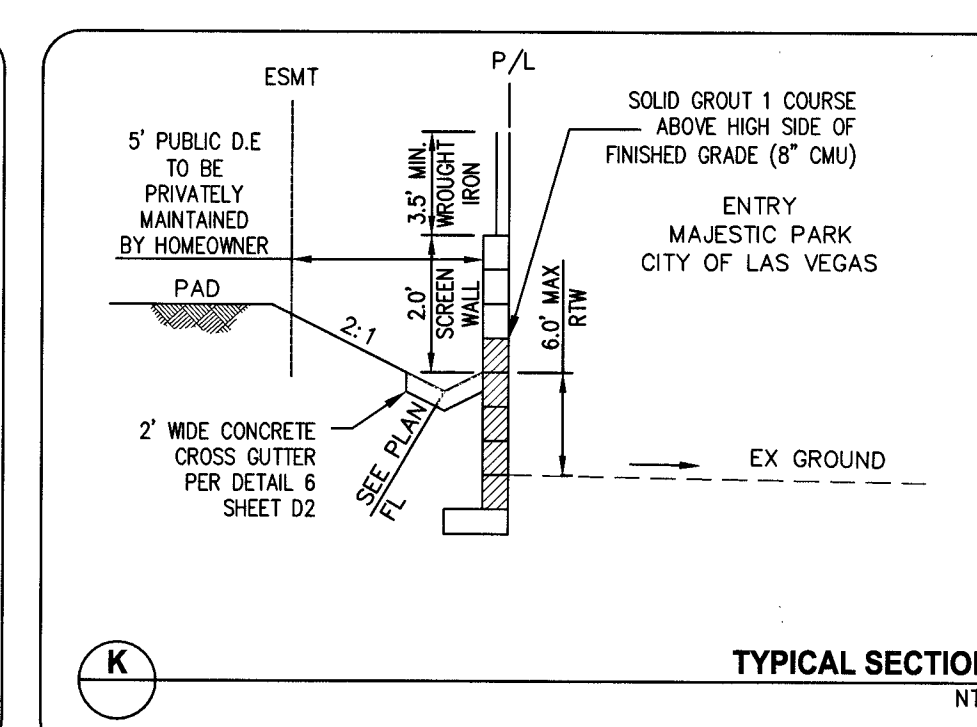
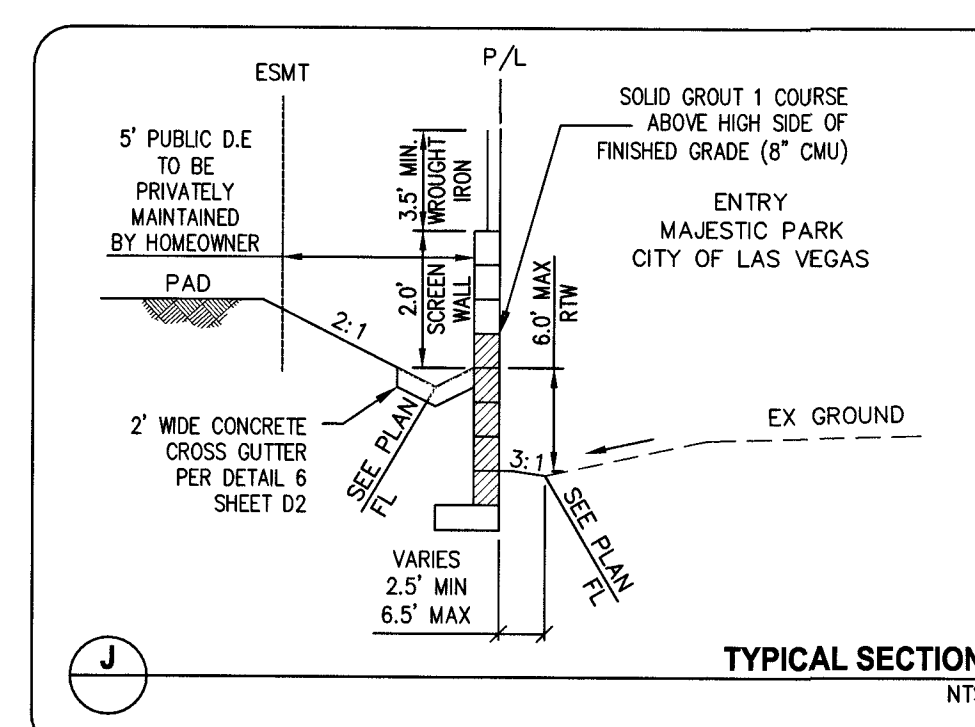
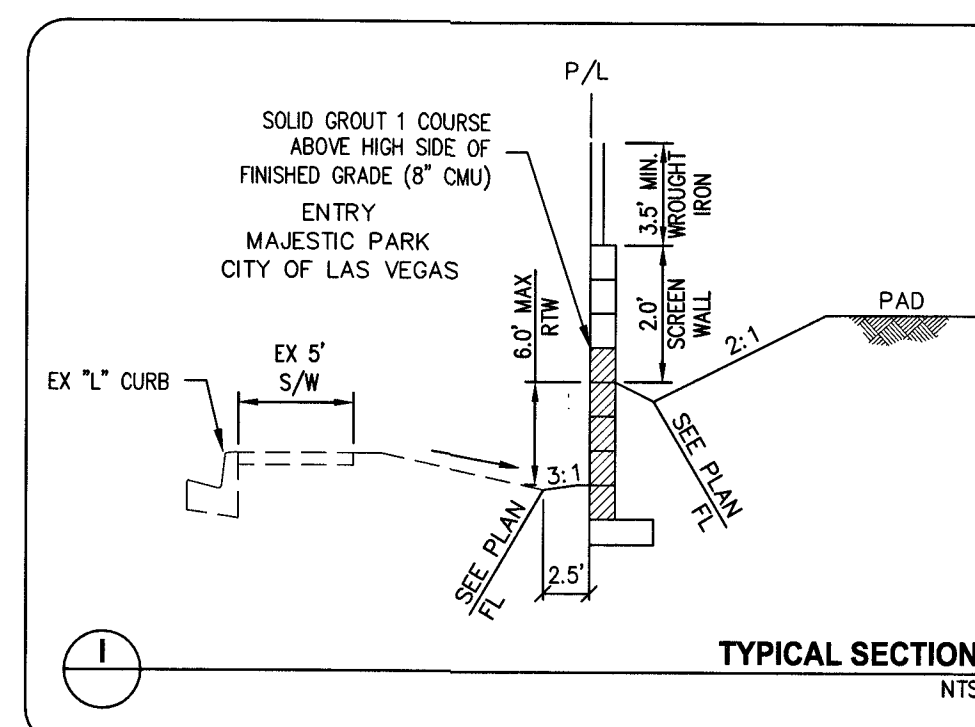
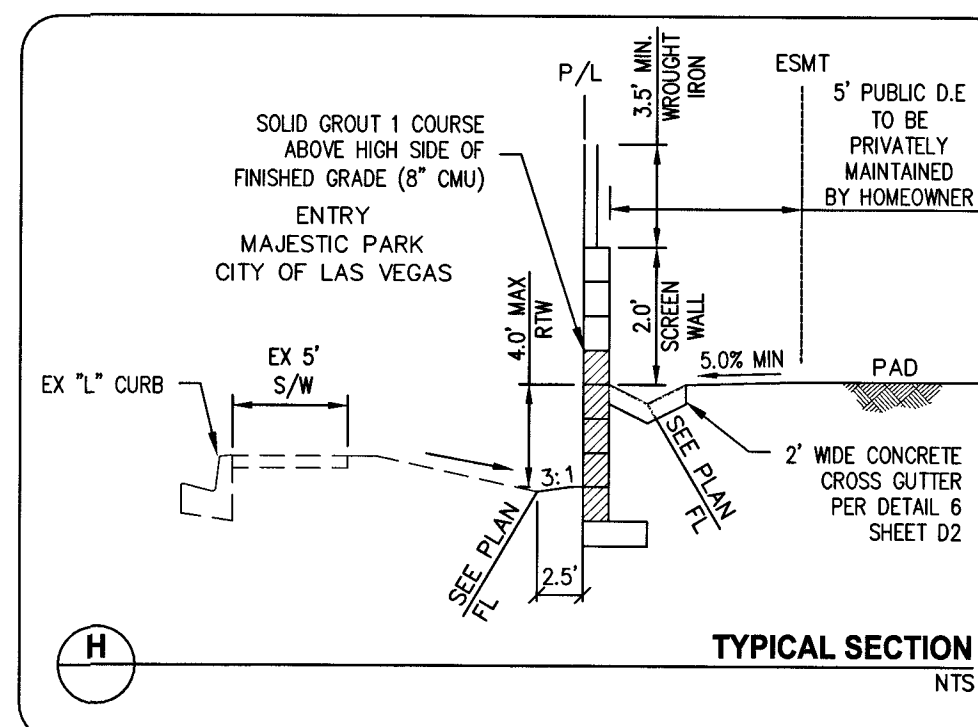
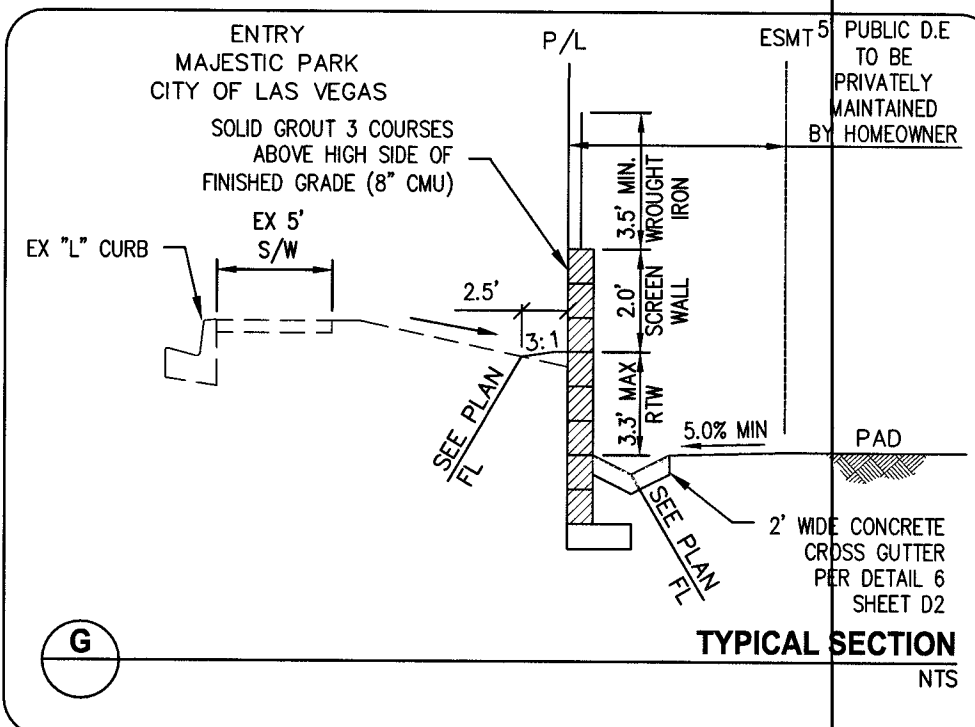
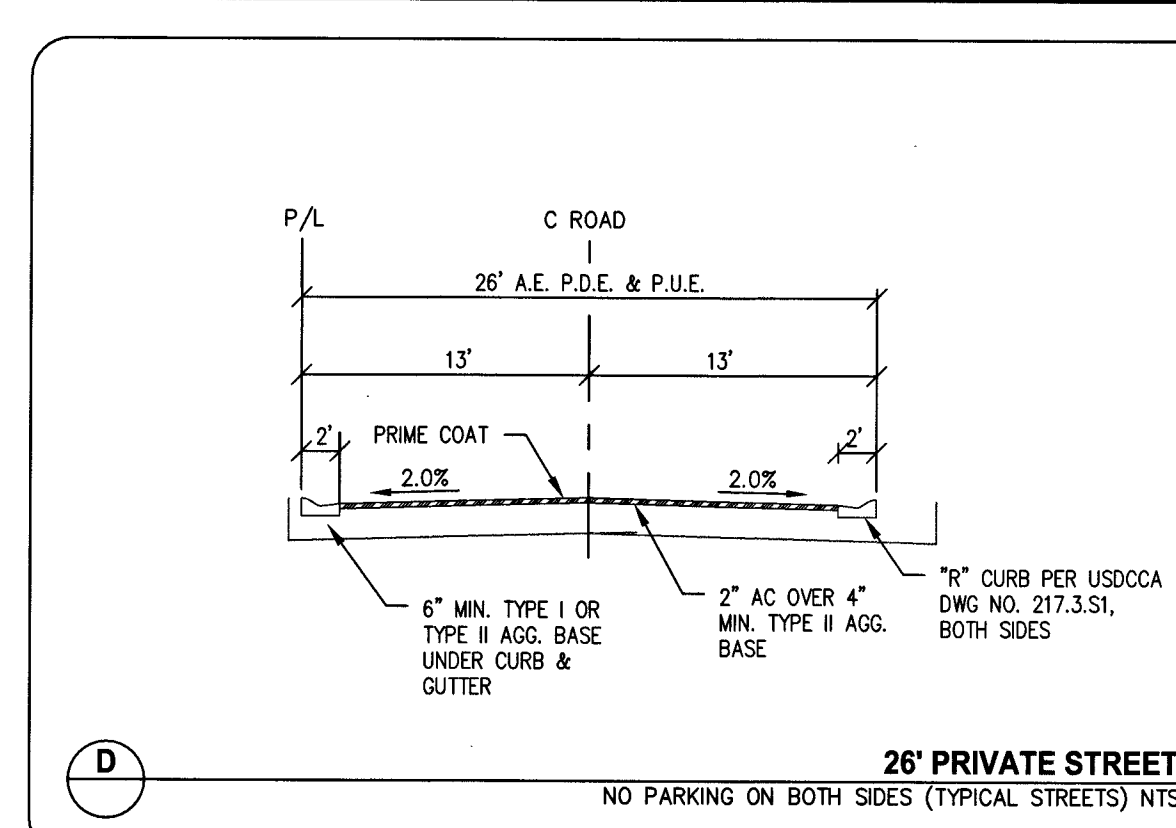
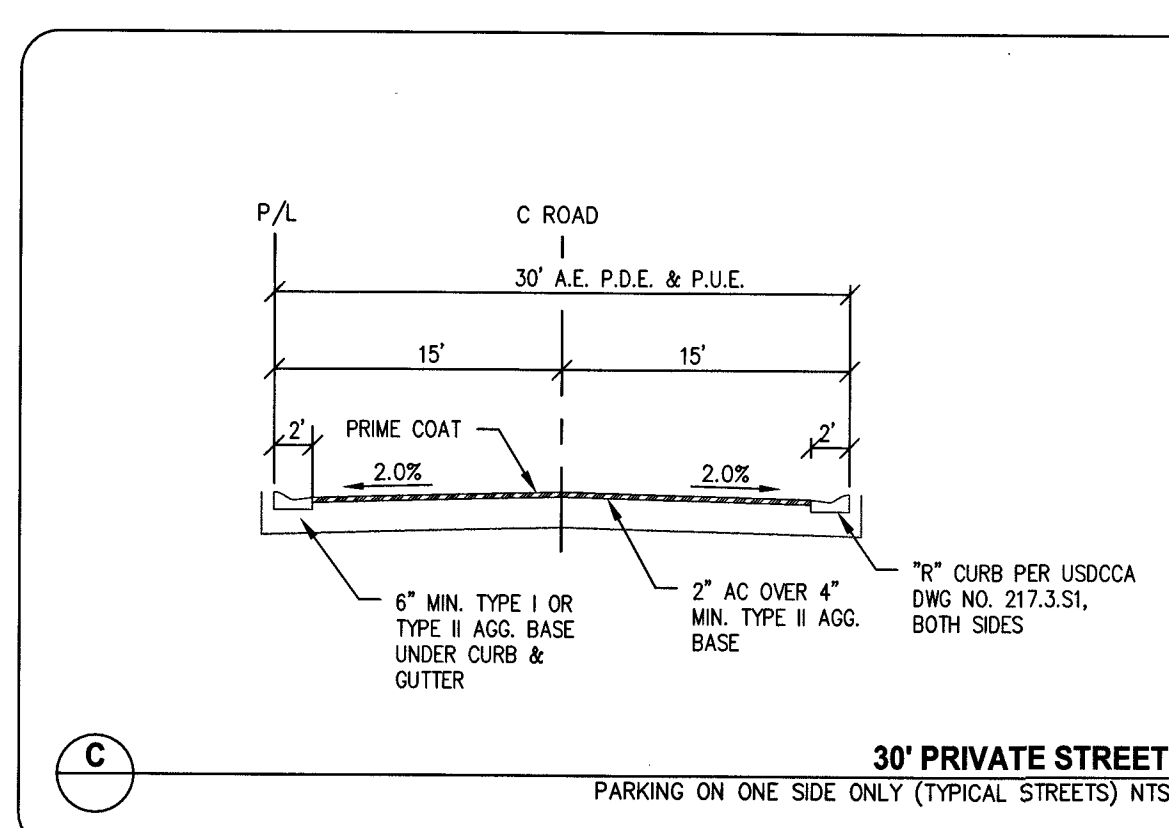
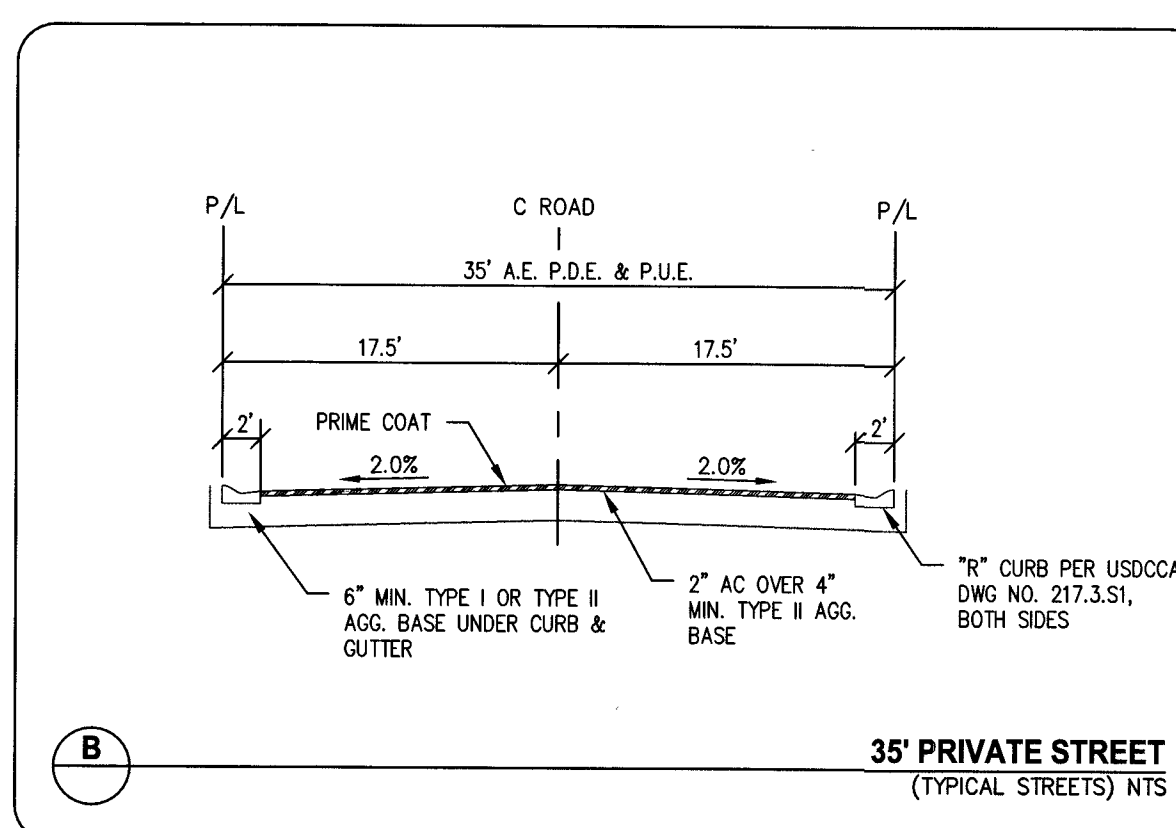
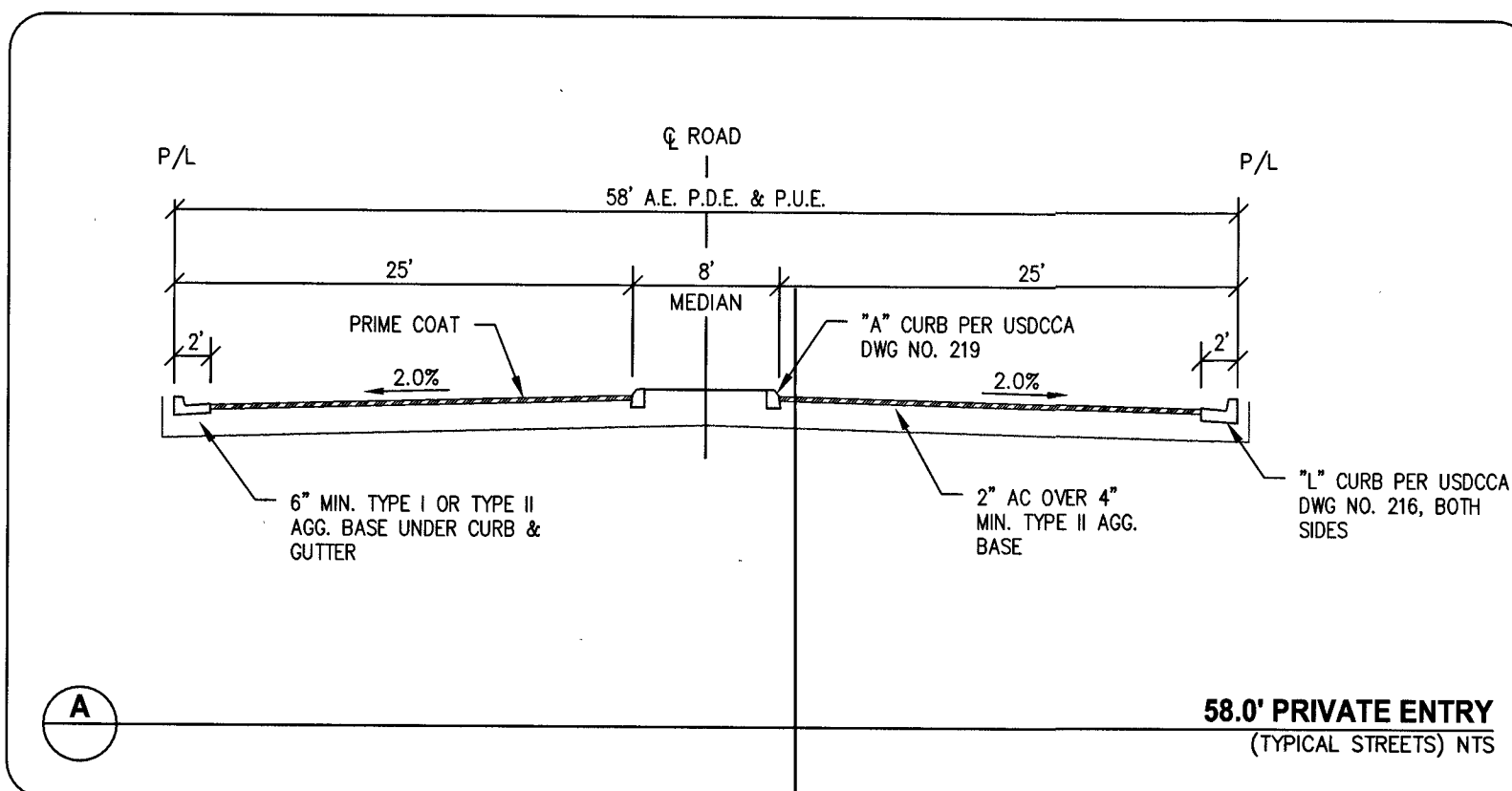
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PLOT TIME: 10:11:25

1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gowingengineering.com

ENGINEERS & SURVEYORS

TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
GRADING PLAN 5

DRAWING
G5
8 OF 33 SHTS

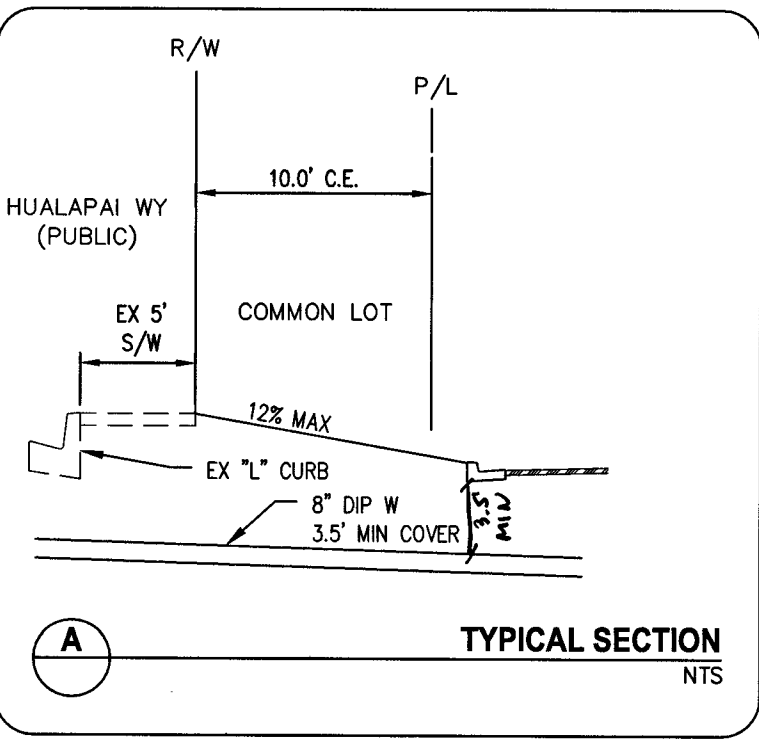
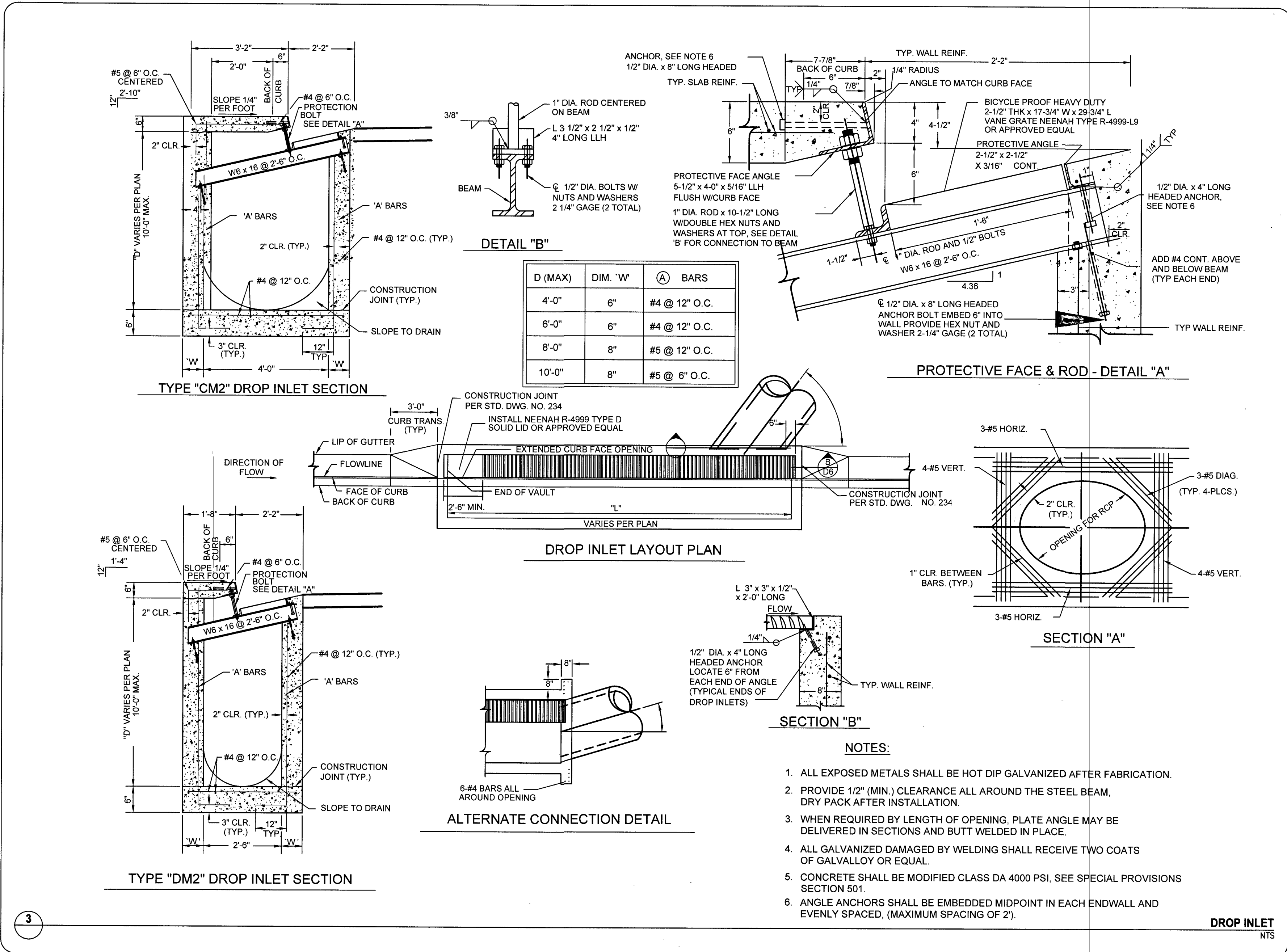
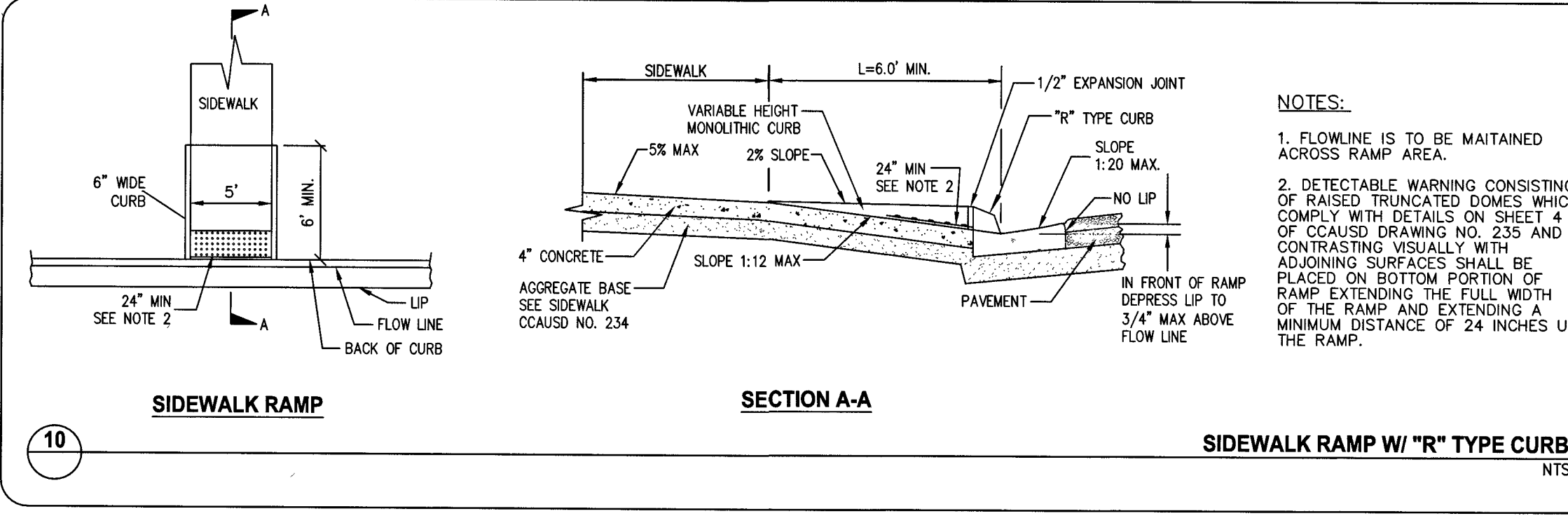
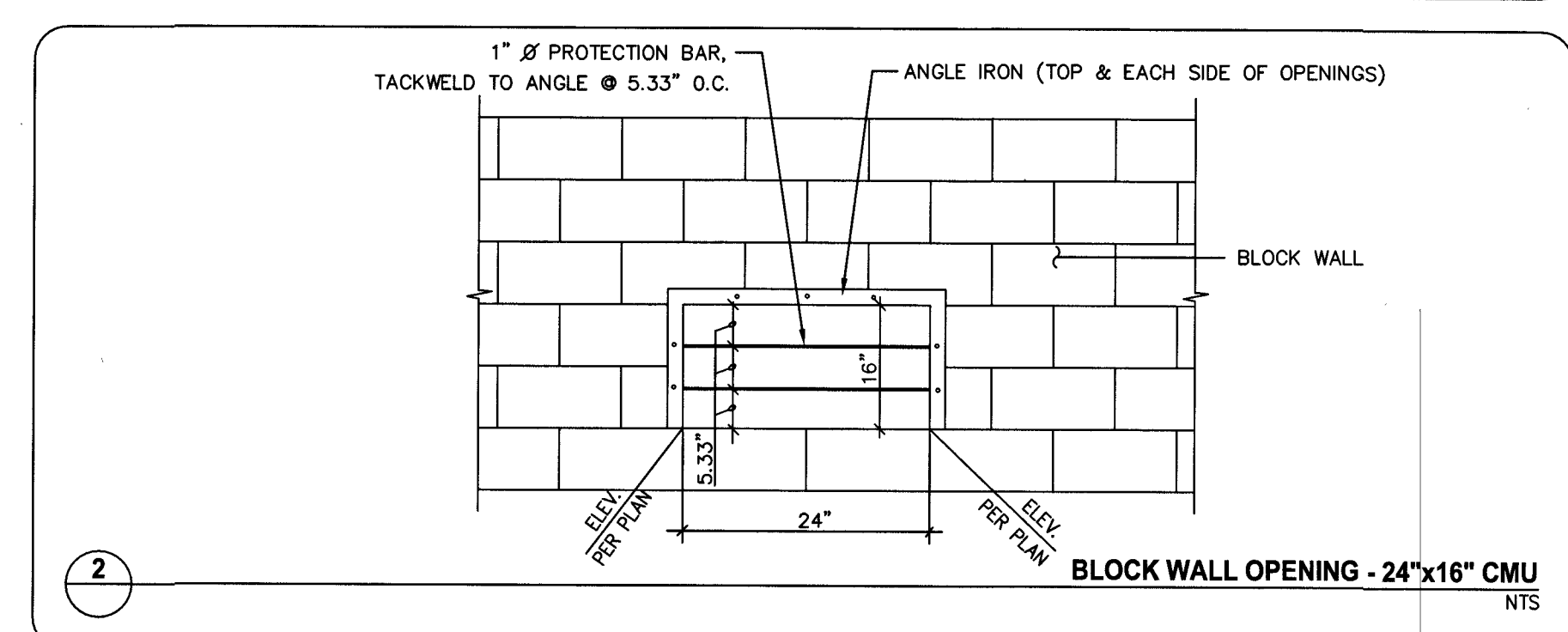
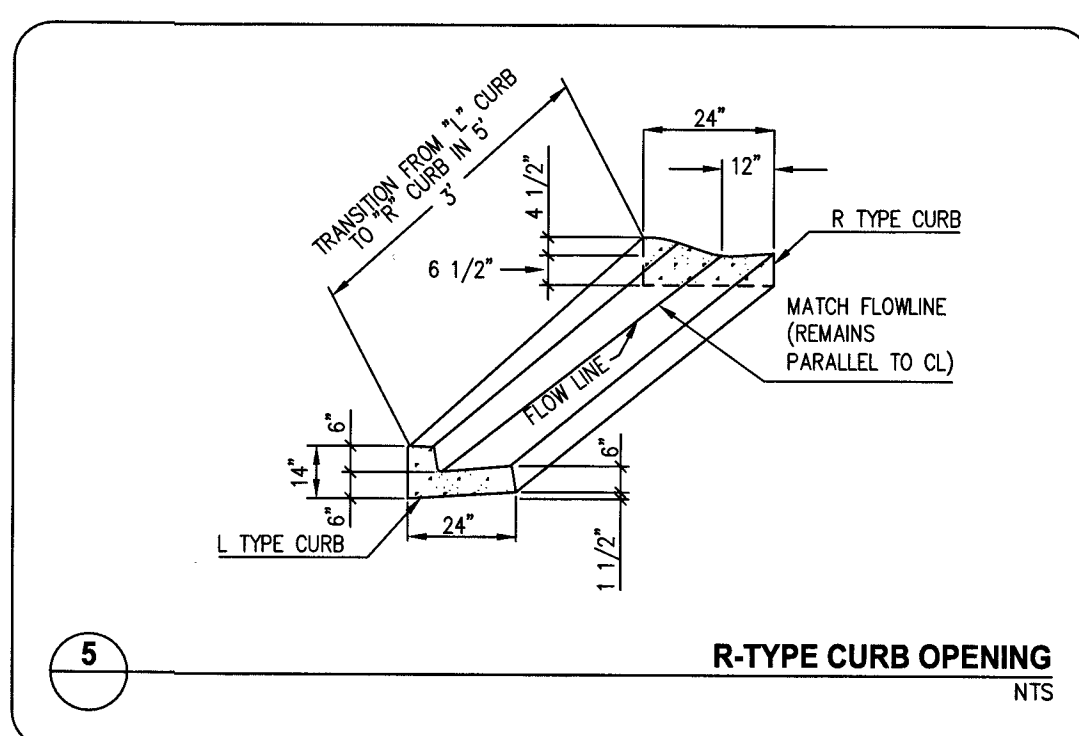
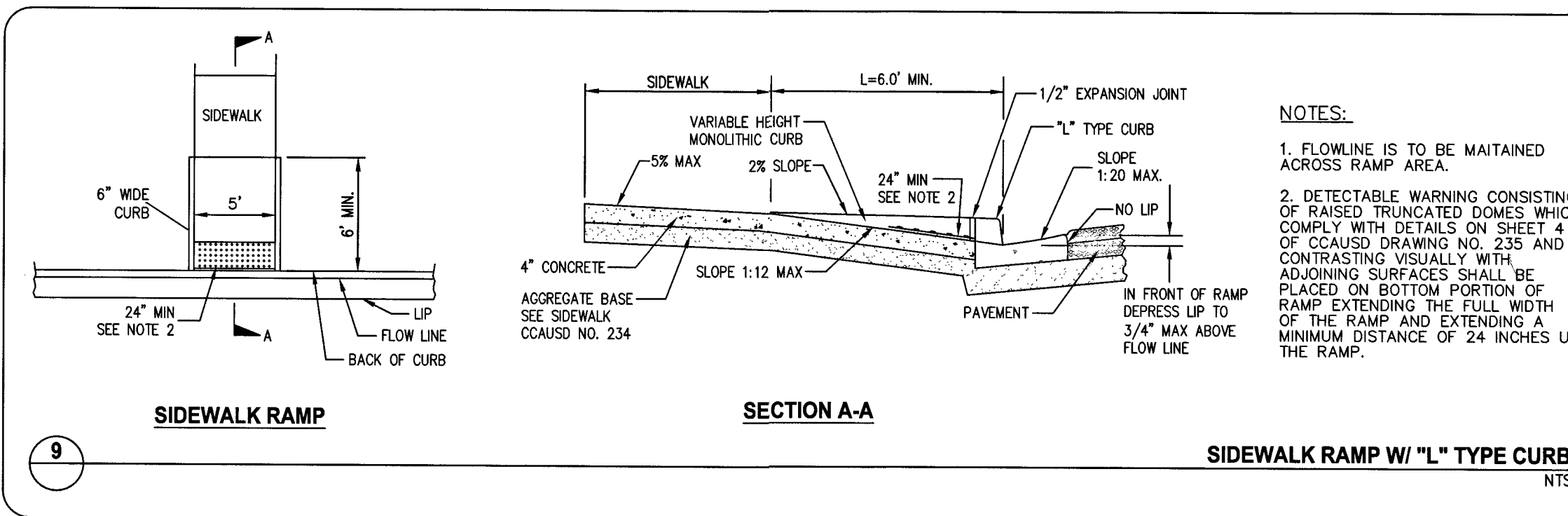
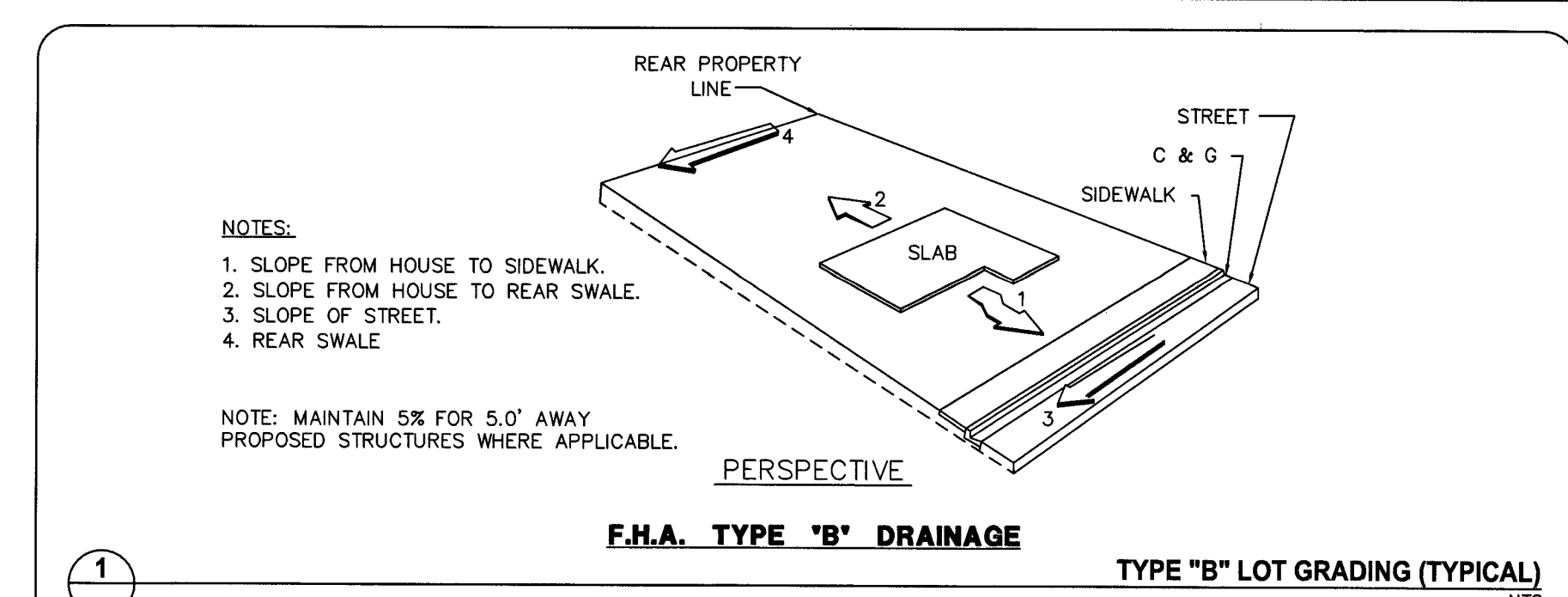
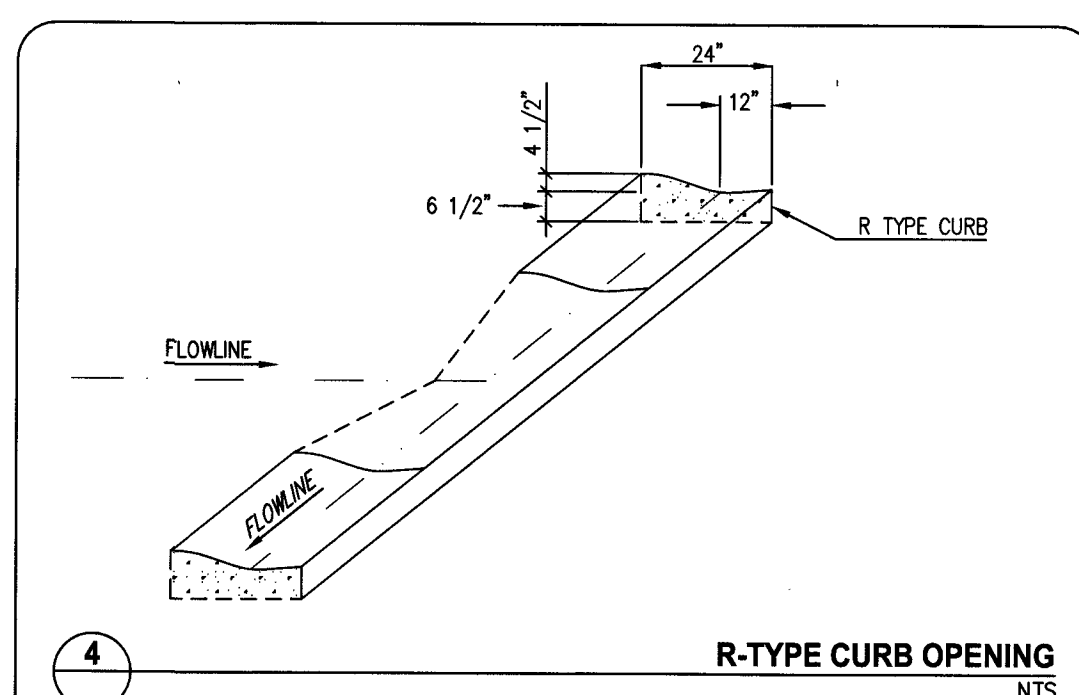
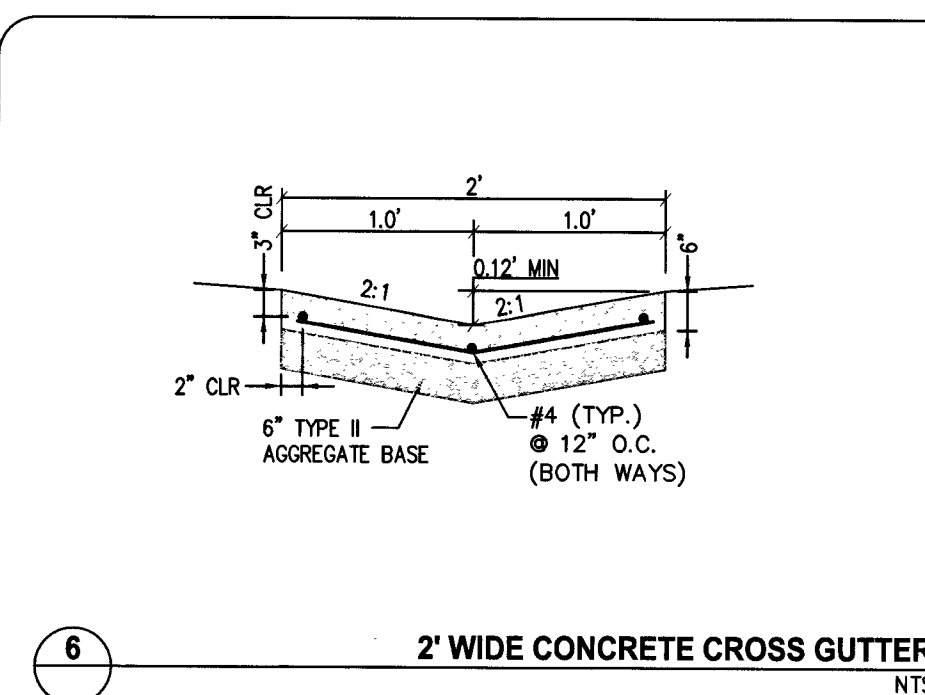
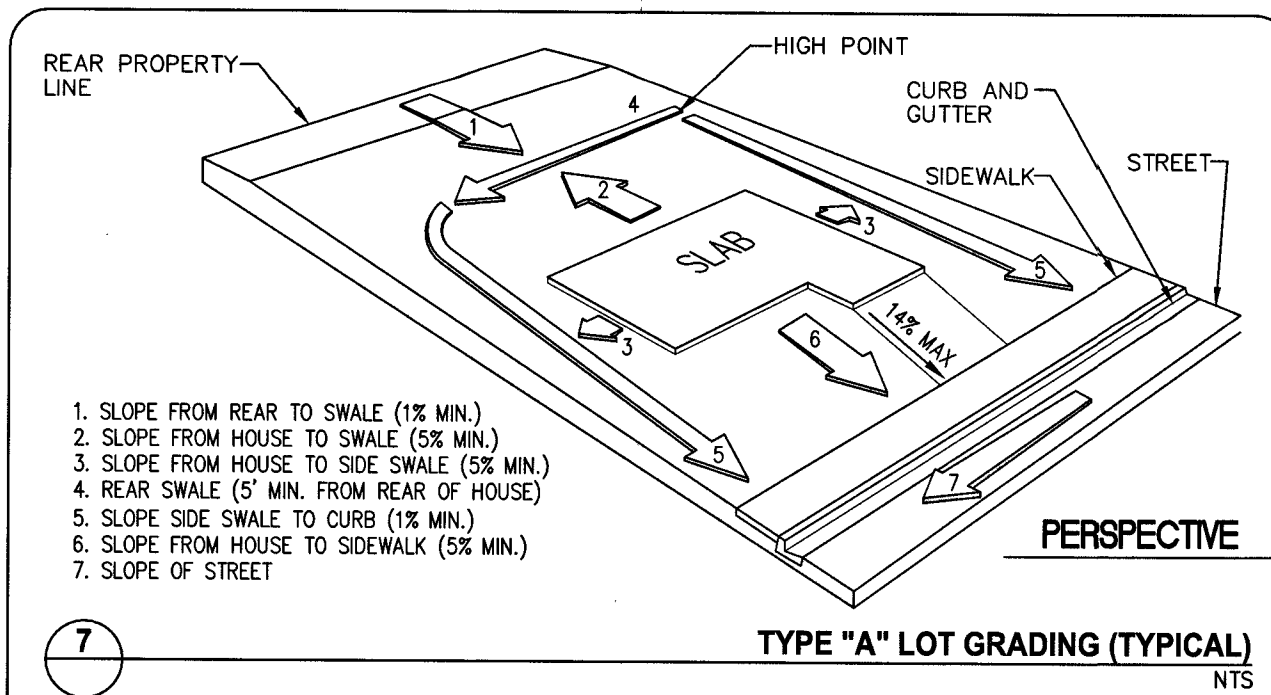


APPROVED FOR CONSTRUCTION

Nan Orallo

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136495
LYNM APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

8-20-19



APPROVED FOR CONSTRUCTION
Nan Galle
LAS VEGAS VALLEY DISTRICT ENGINEERING SERVICES
PROJECT NO. 136495 FIRST APPROVED DATE: 8-20-19
LVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

STATE OF NEVADA
HAO A. NGUYEN
Professional Engineer
No. 19939
Exp. 8/31/2019

PROJECT NO. 798-003
DESIGN: 798-003
DRAWN: 798-003
CHECK: 798-003
PLOT DATE: 08-12-19
PLOT TIME: 10:11:40

TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER

SECTIONS AND DETAILS 2

1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gowngengineering.com

DRAWING
D2
10 OF 33 SHTS

L# L19-01032

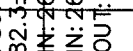
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PROJ# 136495A QS: 18-07-AW

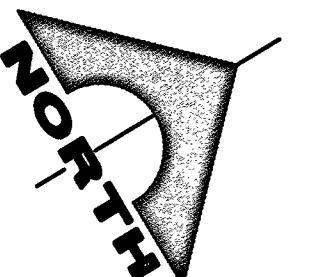
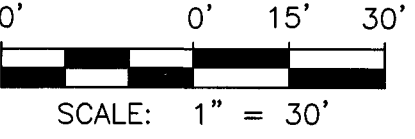
DATE: 08-12-19



(PRIVATE)
PLAN AND PROFILE



Call
811



SEWER	
1	INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH SINGLE 24" LID PER DCSWCS SD-1 & SD-3
2	INSTALL CORROSION PROTECTION PER DCSWCS 3.16.8.B
3	CONCRETE ENCASEMENT PER DCSWCS SD-14
4	CONSTRUCT 4" C-900 SEWER LATERAL PER DCSWCS SD-20 AND SD-21.
5	MINIMUM 6" VERTICAL SEPARATION BETWEEN WATER AND SEWER
6	CONSTRUCT SPECIAL SHALLOW MANHOLES PER DCSWCS SD-13

NOTE TO CONTRACTOR

1. EXISTING UTILITY LOCATIONS SHOWN HEREIN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL UTILITIES, INCLUDING ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT THE LOCATIONS SHOWN ON THESE PLANS ARE THE ACTUAL LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

2. CONTRACTOR CANNOT GUARANTEE A TIGHTWATER SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITIES AND REMOVE REMAINING WATER. COORDINATION WITH INSPECTION DIVISION MUST BE MADE PRIOR TO ANY TRIAL SHUTDOWN.

3. CONTRACTOR TO NOTIFY INSPECTION SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

NOTE:

1. INSTALL PIPELINE MARKER BIALS, PER UDACS PLATE NO. 15.
ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22.

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

PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1:150 FEET. PER UDACS 2.07.01 AND 2.07.03.

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

DEPTH OF COVER DURING CONSTRUCTION
 MAINTAIN A MINIMUM TWENTY-FOUR (24) INCH COVER PER UDACS SECTION
 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.

NOTE TO CONTRACTOR

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

NOTE:

ALL ONSITE STORM DRAINS AND ASSOCIATED STORM FACILITIES ARE PRIVATELY OWNED AND TO BE PRIVATELY MAINTAINED BY THE HOA.

ALL PRIVATE STREETS ARE P.U.E. PUBLIC DRAINAGE EASEMENT AND PUBLIC SEWER EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

CURB FLOW LINES LESS THAN 0.60% GRADE SHALL BE WATER TESTED. ANY CURB THAT DOES NOT FLOW SHALL BE REMOVED AND REPLACED AT NO COST TO THE CITY.

ANALYSIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA REFERENCE DATUM (NORDS) AS LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983, SAYS MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

DATUM (REFERENCE FRAME): NAD 1983 (2011) EPOCH 2010.0

ZONE: LAS VEGAS ZONE

STANDARD PARALLEL AND GRID ORIGIN: 36°15'00" N

CENTRAL MERIDIAN: 114°58'00" W

FALSE NORTING: 200,000.000 METERS (656,166.667 US FT)

FALSE EASTING: 100,000.000 METERS (328,083.333 US FT)

STANDARD PARALLEL: 36°15'00" N (1,000' EXACT)

LINEAR UNIT: US SURVEY FOOT (US FT)

BENCHMARK
7LV007NWW6
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AV.
ELEVATION: 2694.63

SOUTHWEST GAS APPROVAL

Pamela Kennedy 8-15-19

SOUTHWEST GAS CORP. DATE

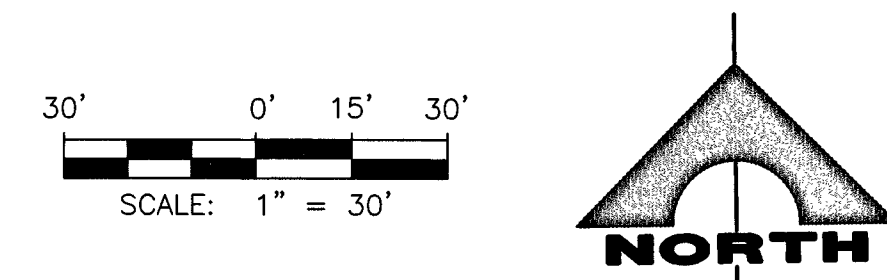
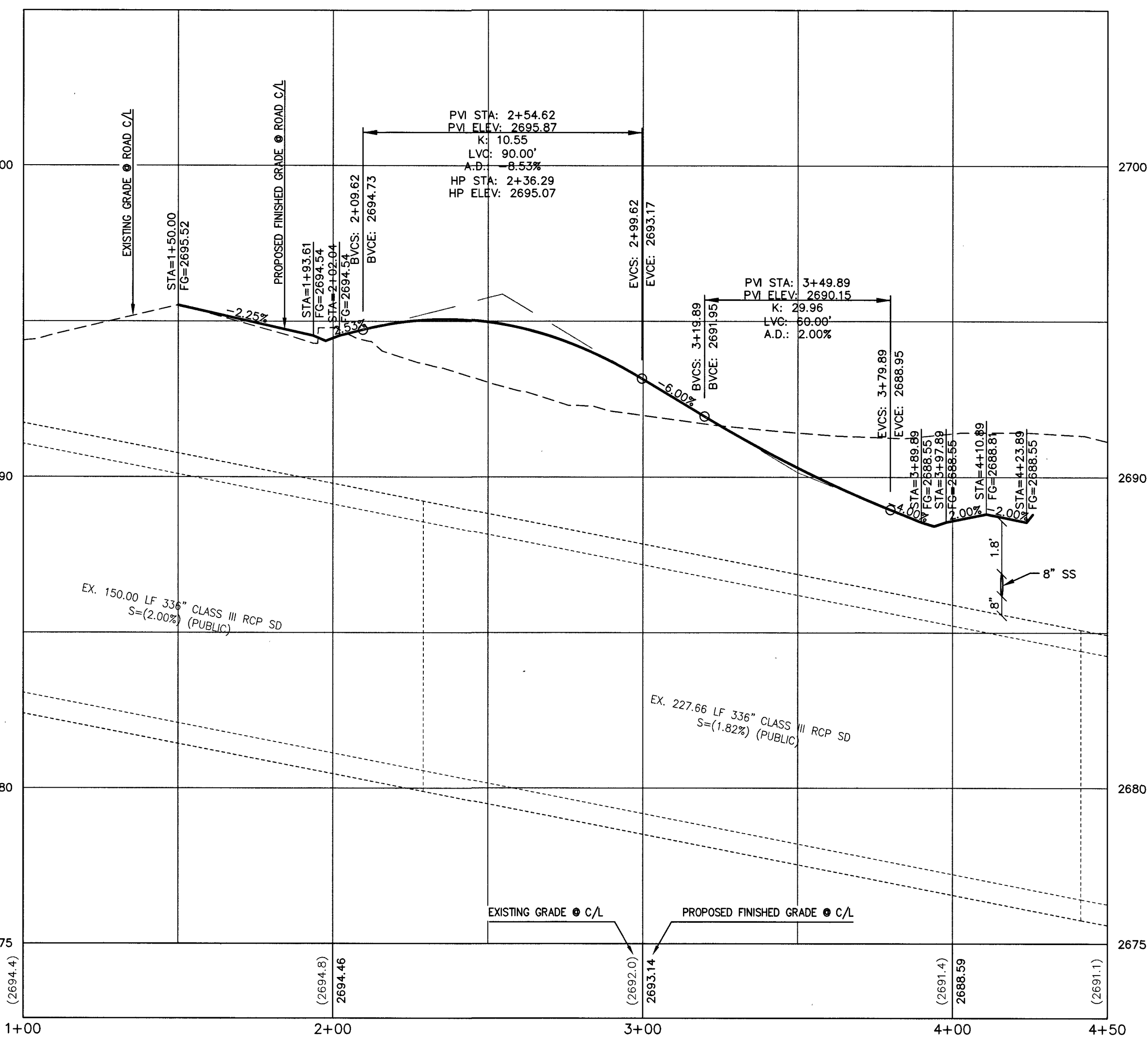
APPROVED FOR CONSTRUCTION

Nan Stallo

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136495 FIRST APPROVED DATE: 8.20.19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE FLOW SPRINKLER FLOW 30 GPM

L# L19-01032	CLV DWG# 107Y5108
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DATE: 08-12-19



APPROVED FOR CONSTRUCTION

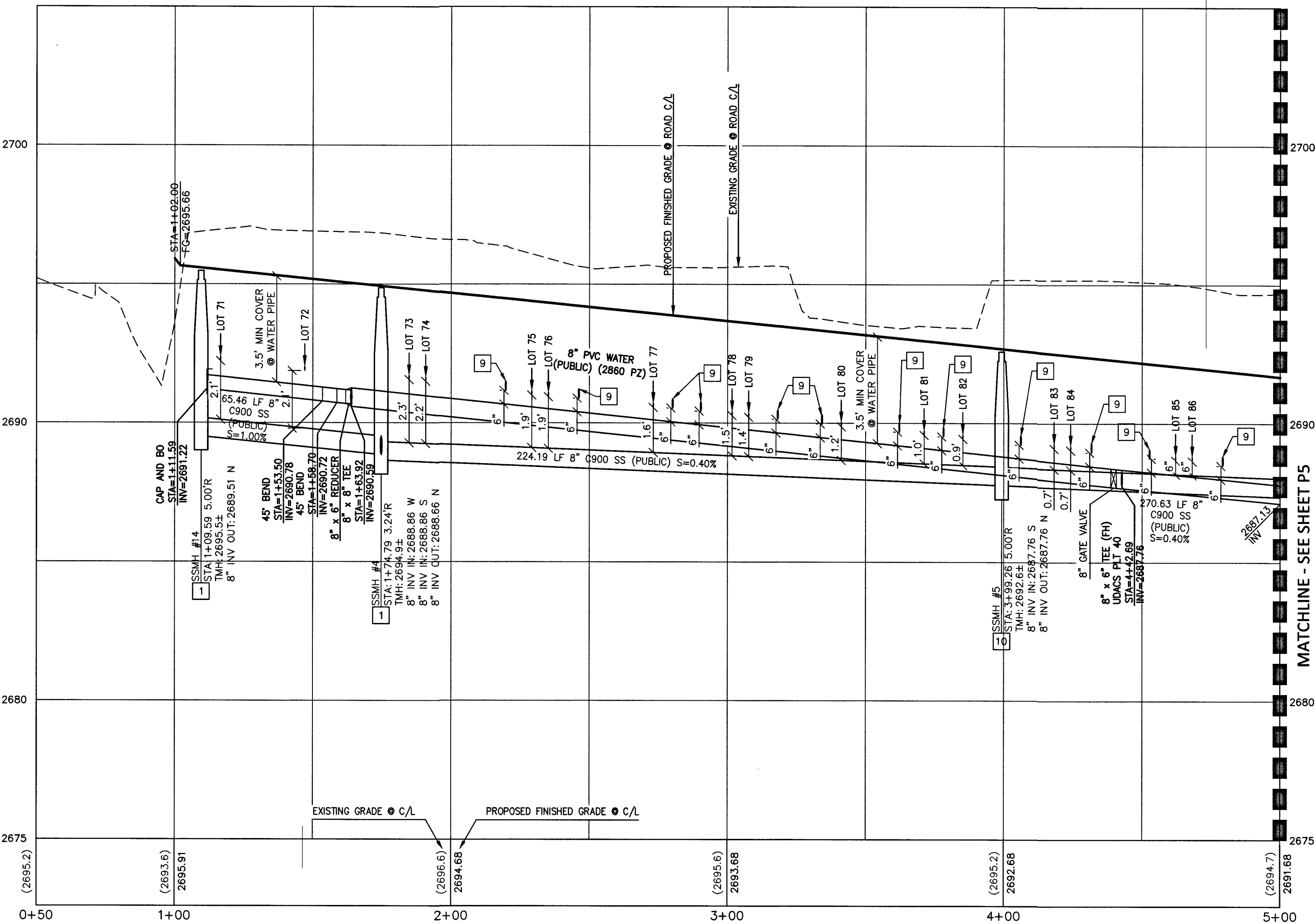
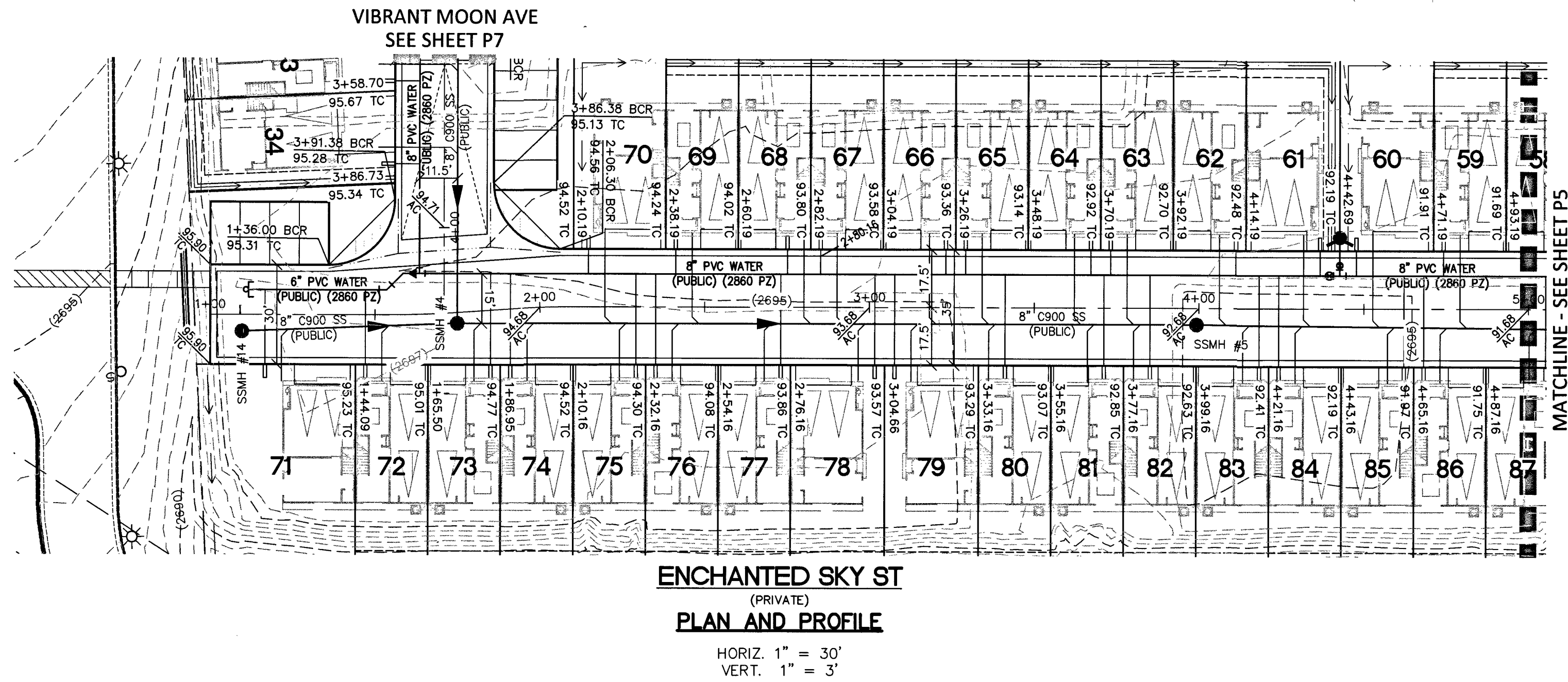
Nan Giallo

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136495 FIRST APPROVED DATE: 8-20-19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE FLOW SPRINKLER FLOW 30 GPM

L# L19-01032	CLV DWG# 107Y5108
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PANC
DRAWING
P3

PROJ. #	136495A	QS	138-07-NW
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Call before you Dig
Avoid cutting underground
utility lines. It's costly.

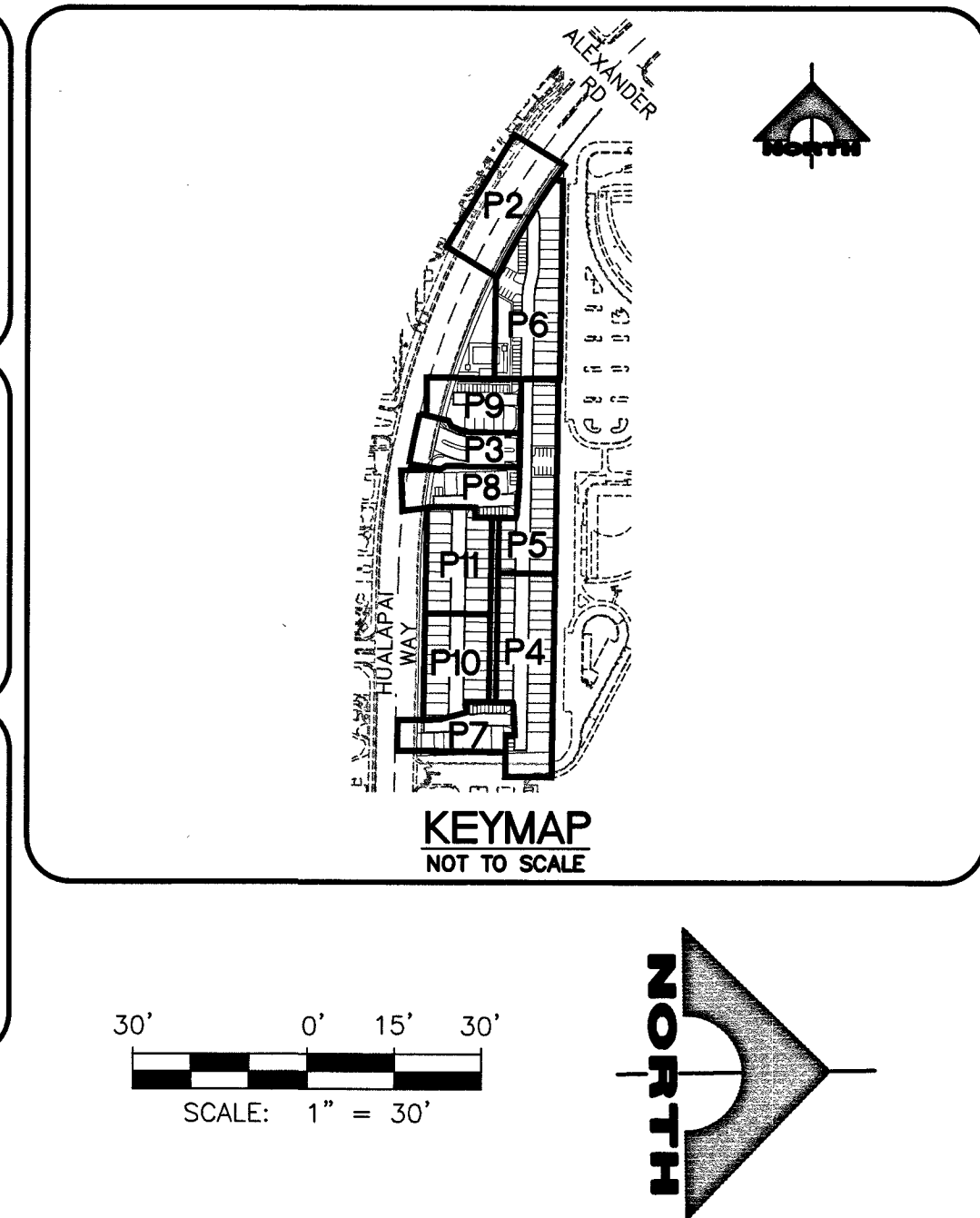
Call
811
OR
1-800-227-2600

FAST

Call
before you
UnderGround
1-702-432-5300
FREEMAN AND WATSON
SYSTEM OF TRANSPORTATION

CALL BEFORE
YOU DO
OVERHEAD

1-702-227-2929



CONSTRUCTION NOTES			
SEWER			
1	INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH SINGLE 24" LID PER DCSWCS SD-1 & SD-3		
5	INSTALL CORROSION PROTECTION PER DCSWCS 3.16.8.8		
8	CONCRETE ENCASEMENT PER DCSWCS SD-14		
9	CONSTRUCT 4" C-900 SEWER LATERAL PER DCSWCS SD-20 AND SD-21. MINIMUM 6" VERTICAL SEPARATION BETWEEN WATER AND SEWER		
10	CONSTRUCT SPECIAL SHALLOW MANHOLES PER DCSWCS SD-13		

NOTE TO CONTRACTOR

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

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

NOTE:

1. INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO. 15.

2. UDACS SECTION 2.22.

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

PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1150 FEET. PER UDACS 2.07.01 AND 2.07.03. FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

DEPTH OF COVER DURING CONSTRUCTION

MAINTAIN A MINIMUM TWENTY-FOUR (24) INCH COVER PER UDACS SECTION 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.

NOTE TO CONTRACTOR

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NOTE

ALL ONSITE STORM DRAINS AND ASSOCIATED STORM FACILITIES ARE PRIVATELY OWNED AND TO BE PRIVATELY MAINTAINED BY THE HOA.

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CURB FLOW LINES LESS THAN 0.60% GRADE SHALL BE WATER TESTED, ANY CURB THAT DOES NOT FLOW SHALL BE REMOVED AND REPLACED AT NO COST TO THE CITY.

BASIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS) LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

DATUM (REFERENCE FRAME): NAD 1983 (2011) EPOCH 2010.0

ZONE: LAS VEGAS ZONE

STANDARD PARALLEL AND GRID ORIGIN: 36°15'00" N

CENTRAL MERIDIAN: 114°58'00" W

FALSE NORTHING: 200,000,000 METERS (656,166,667 US FT)

FALSE EASTING: 100,000,000 METERS (328,083,333 US FT)

STANDARD PARALLEL SCALE: 1.0001 (EXACT)

LINEAR UNIT: US SURVEY FOOT (US FT)

BENCHMARK

7LV007NWMB
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AV.
ELEVATION: 2694.63

SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORP. DATE

APPROVED FOR CONSTRUCTION

Nan D'Alto

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136495 FIRST APPROVED DATE: 8.20.19
LVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

L# L19-01032 CLV DWG# 107Y5108

PROJECT NO. 798-003

DESIGN: 1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gowingengineering.com

CHECK: 1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gowingengineering.com

PLOT DATE: 08-13-19
PLOT TIME: 14:20:09

DATE AGN WPP DATE AGN WPP DATE AGN WPP

DESCRIPTION

REV DATE

TOUCHSTONE LIVING

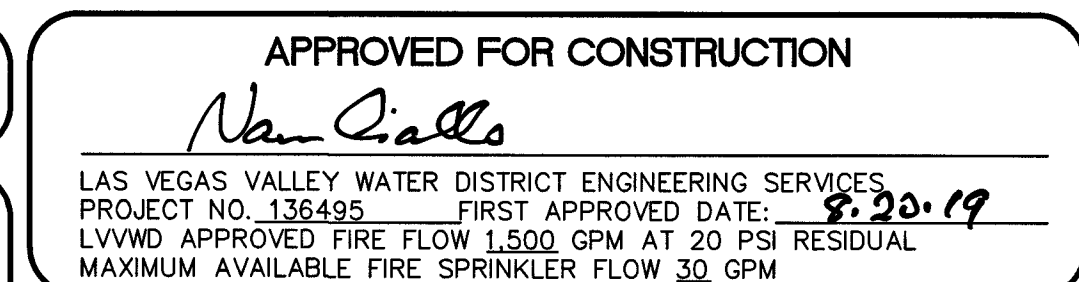
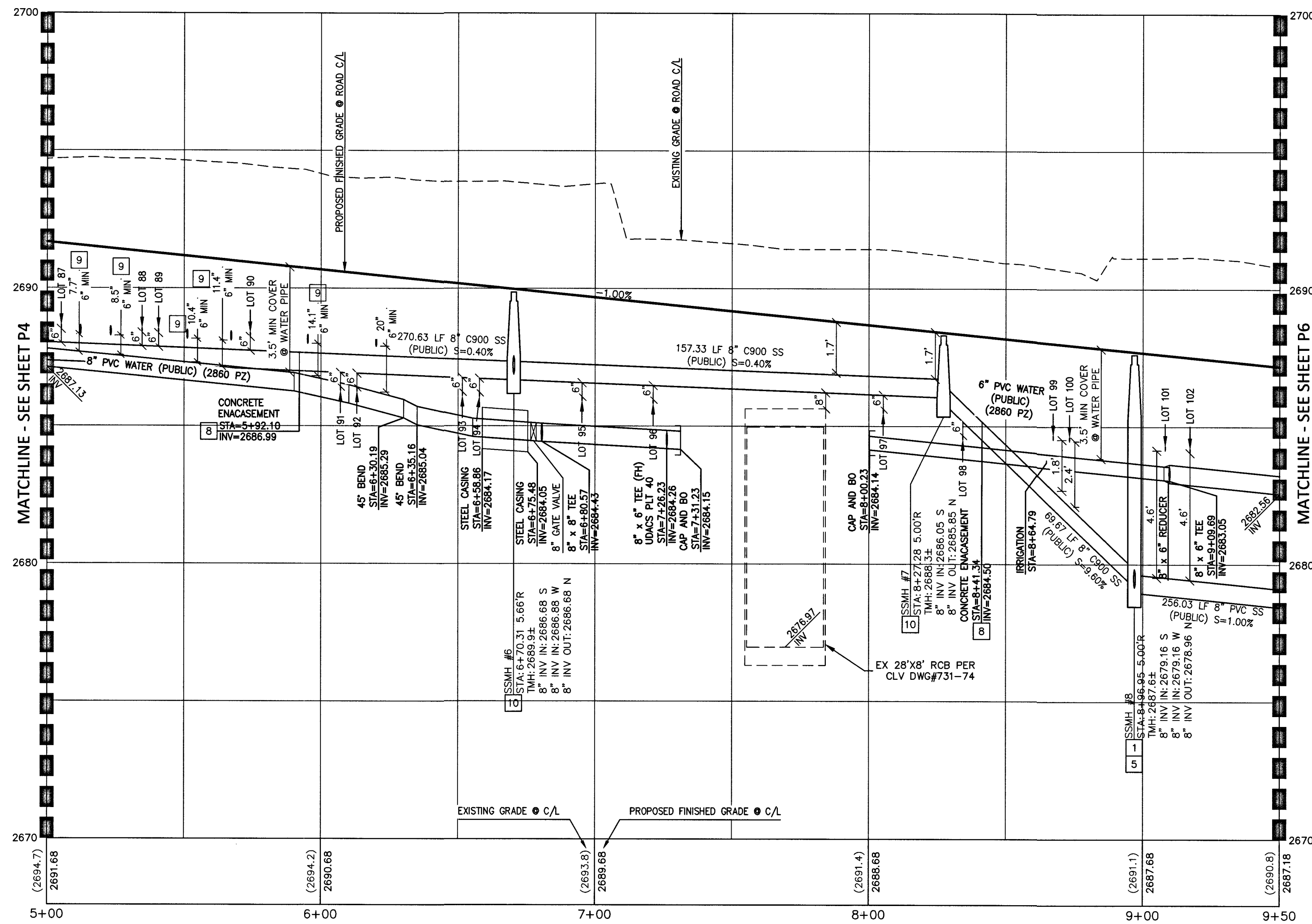
HUALAPAI AND ALEXANDER

ENCHANTED SKY ST PLAN AND PROFILE
STA 0+50 TO 5+00

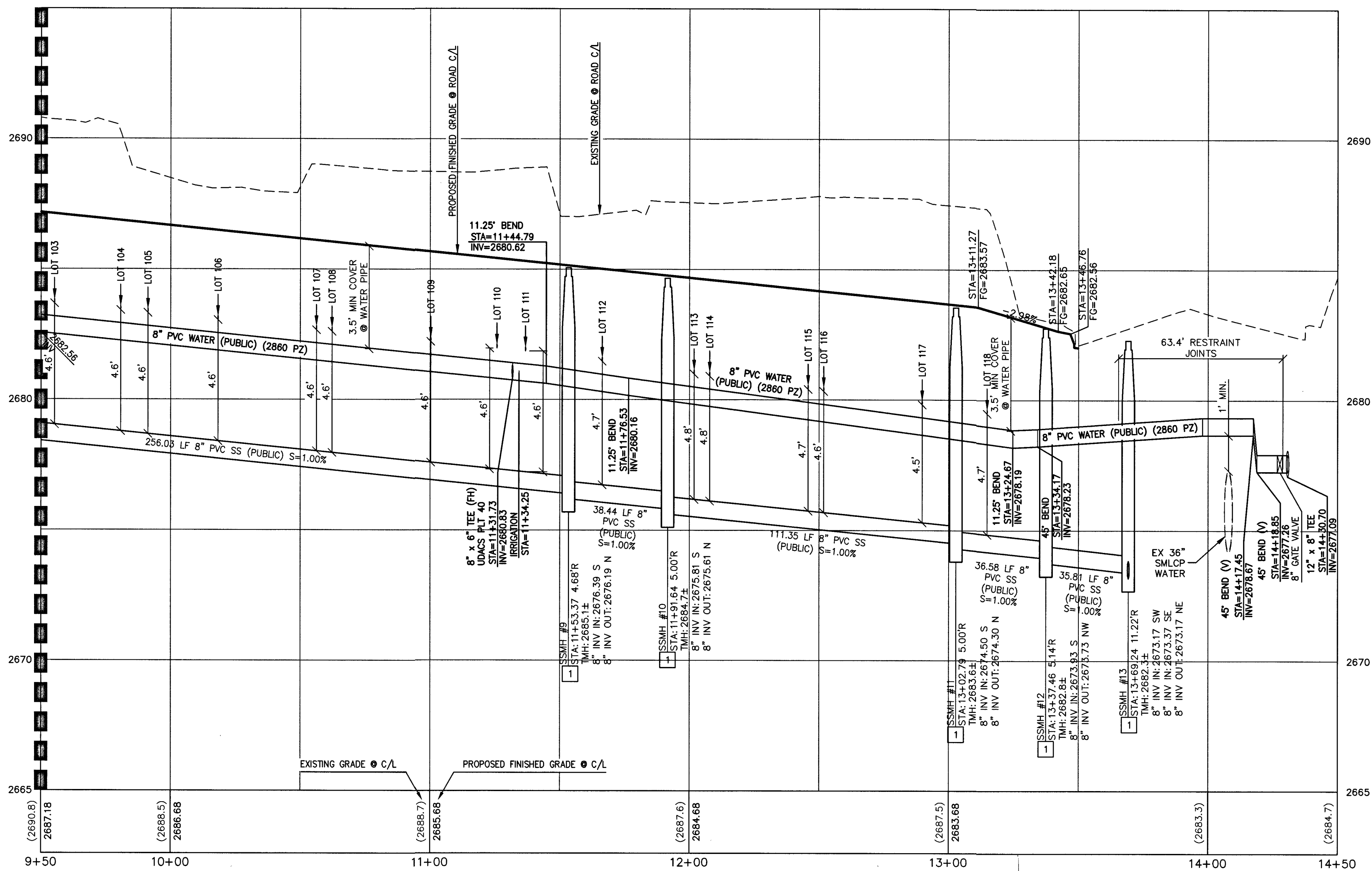
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14 OF 33 SHTS

PROJ.#: 136495A QS: 138-07-NW



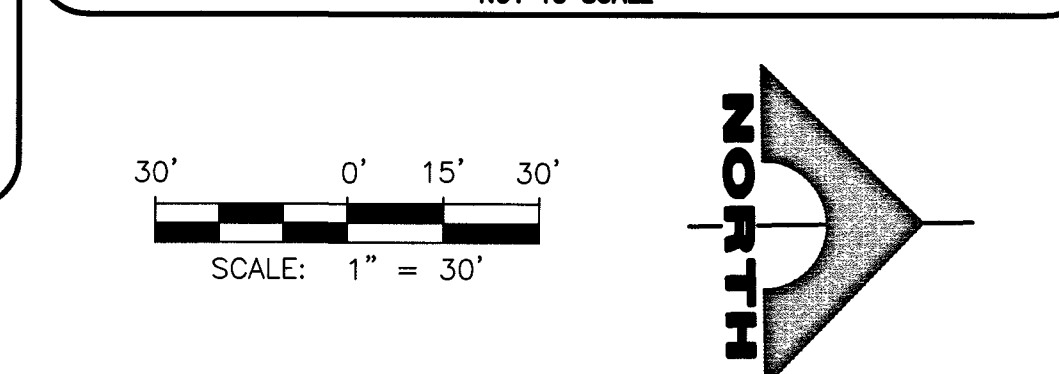
L# L19-01032	CLV DWG# 107Y5108
--------------	-------------------



AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DO OVERHEAD

1-702-227-2929



APPROVED FOR CONSTRUCTION

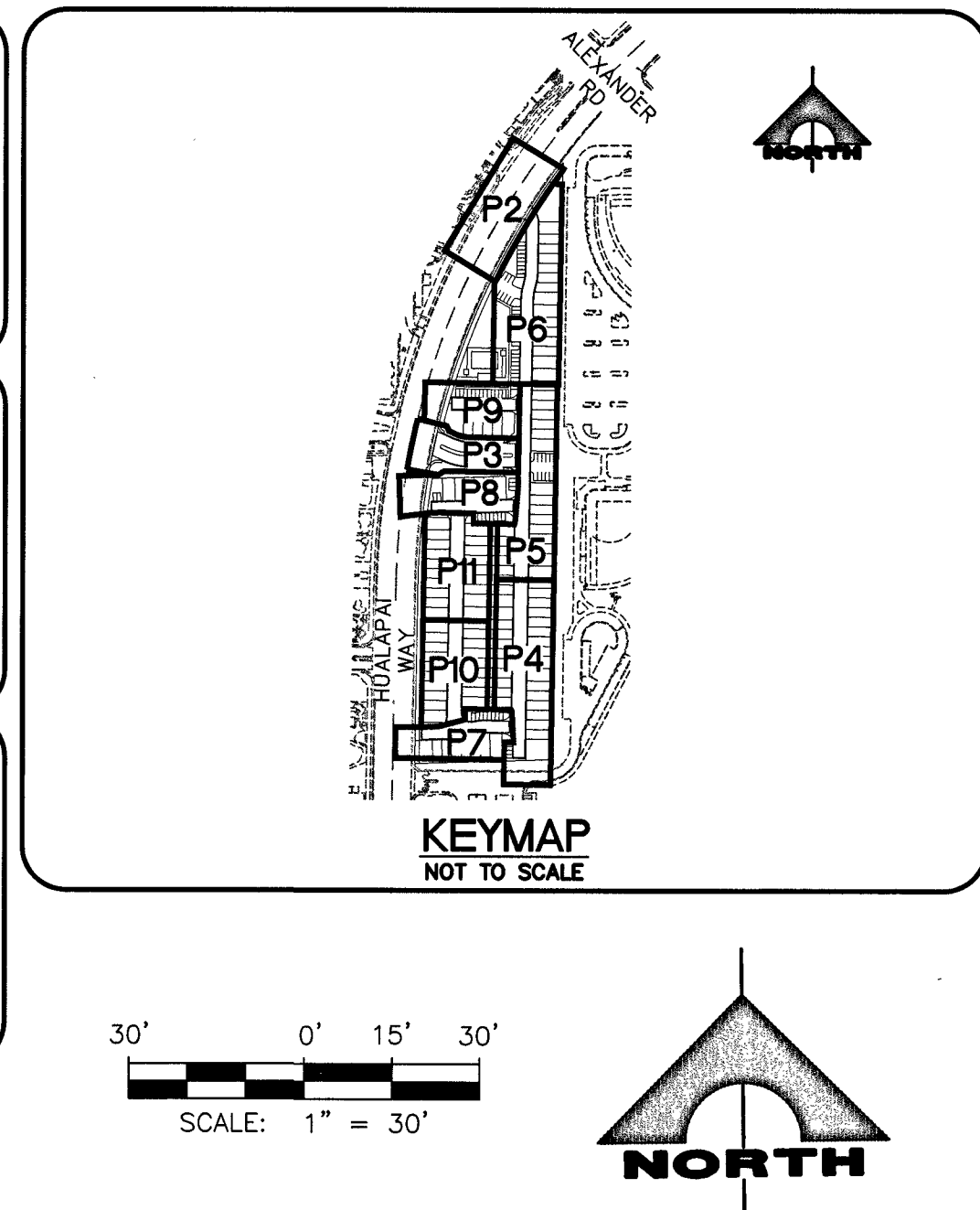
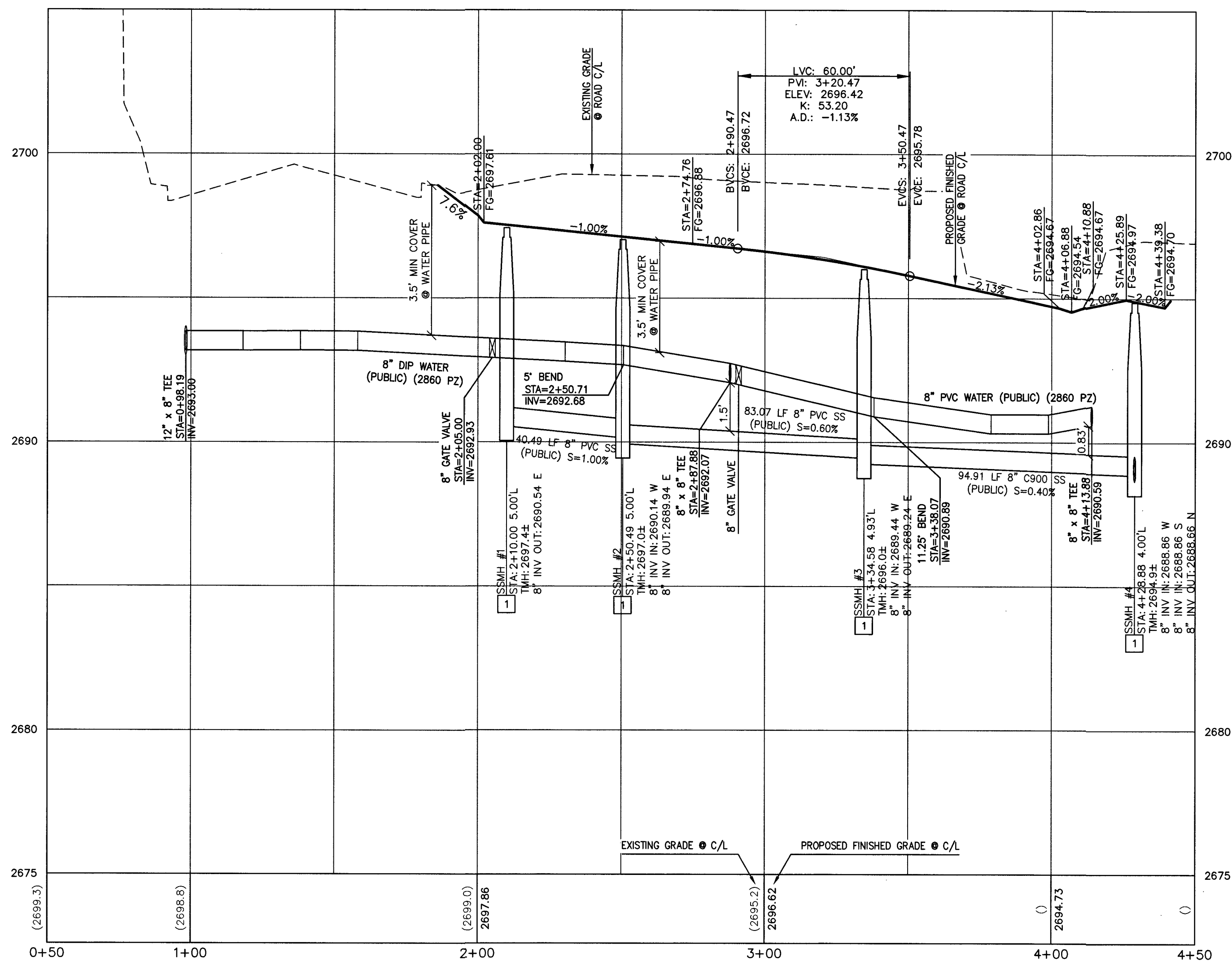
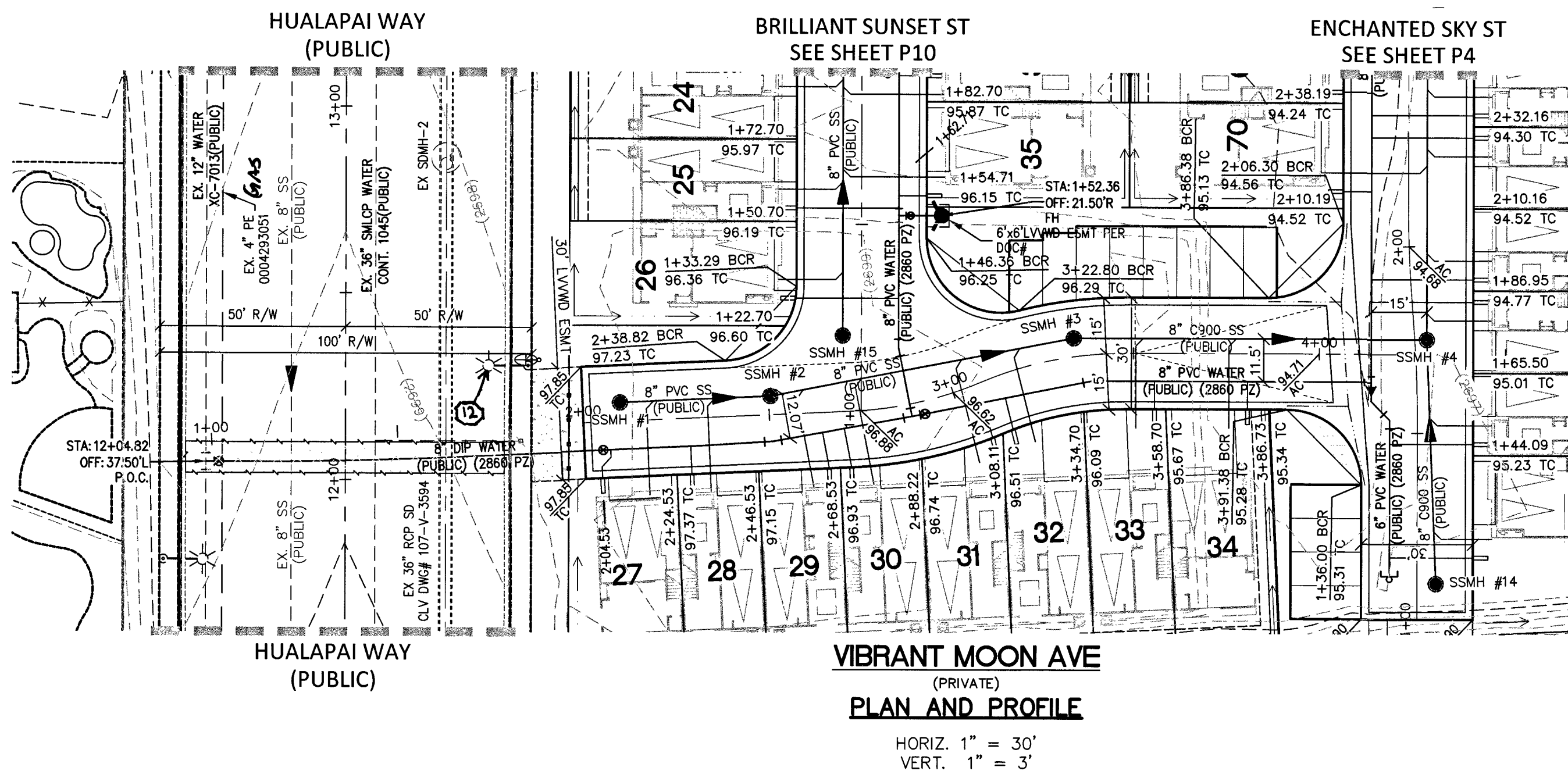
Nan Giallo

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136495 FIRST APPROVED DATE: 8.20.19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

L# 110 01072 CLV DWG# 107X5408

TOUCHSTONE LIVING HUALAPAI AND ALEXANDER ENCHANTED SKY ST PLAN AND PROFILE STA 9+50 TO 14+50	DRAWING P6

PROJ.#:136495A QS:138-07-NW



SEWER	
1	INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH SINGLE 24" LID PER DCSWCS SD-1 & SD-3
5	INSTALL CORROSION PROTECTION PER DCSWCS 3.16.8.B
8	CONCRETE ENCASUREMENT PER DCSWCS SD-14
9	CONSTRUCT 4" C-900 SEWER LATERAL PER DCSWCS SD-20 AND SD-21. MINIMUM 6" VERTICAL SEPARATION BETWEEN WATER AND SEWER
10	CONSTRUCT SPECIAL SHALLOW MANHOLES PER DCSWCS SD-13

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FALSE NORTHING: 200,000.000 METERS (656,166.6667 US FT)

FALSE EASTING: 100,000.000 METERS (328,083.3333 US FT)

STANDARD PARALLEL SCALE: 1.0001 (EXACT)

LINEAR UNIT: US SURVEY FOOT (US FT)

BENCHMARK

7LV007NWMW

RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AV.

ELEVATION: 2694.63

SOUTHWEST GAS APPROVAL

Paula Kennedy 8-15-19
SOUTHWEST GAS CORP. DATE

APPROVED FOR CONSTRUCTION

Nam Sialls 8-20-19
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136495 FIRST APPROVED DATE: 8-20-19
LVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

L# L19-01032 CLV DWG# 107Y5108

STATE OF NEVADA
HAO A. NGUYEN
Exp. 12/31/2019
Professional Engineer

PROJECT NO. 798-003

DESIGN: DRAWN: CHECK: PLOT DATE: 08-12-19 PLOT TIME: 14:42:00

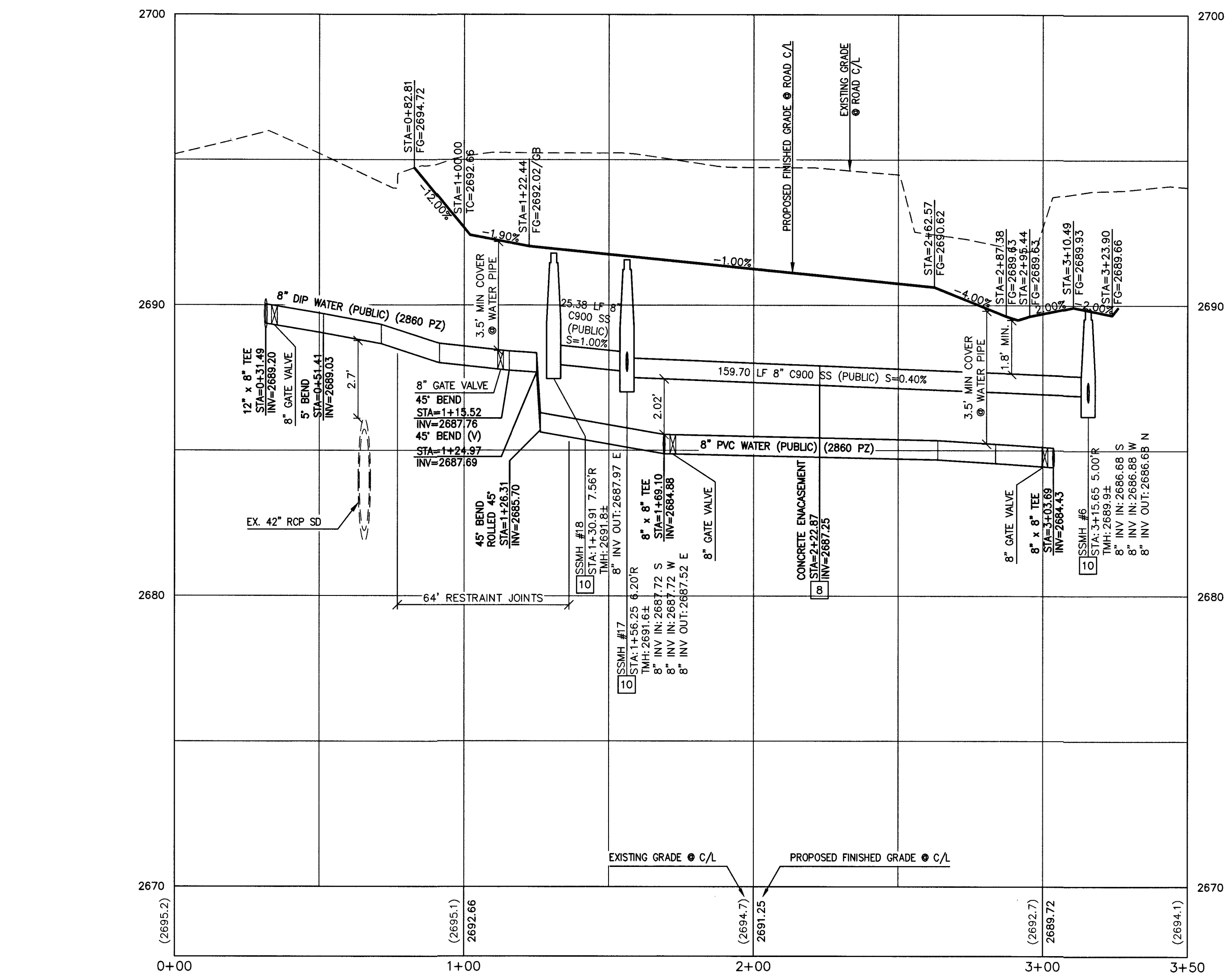
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000 F: 702.804.2299
govingengineering.com

ENGINEERS & SURVEYORS

TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
VIBRANT MOON AVE PLAN AND PROFILE

DRAWING
P7
17 OF 33 SHTS

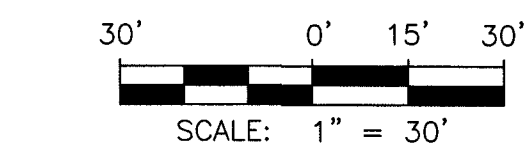
PROJ.#136495A QS:136-07-NW



APPROVED FOR CONSTRUCTION

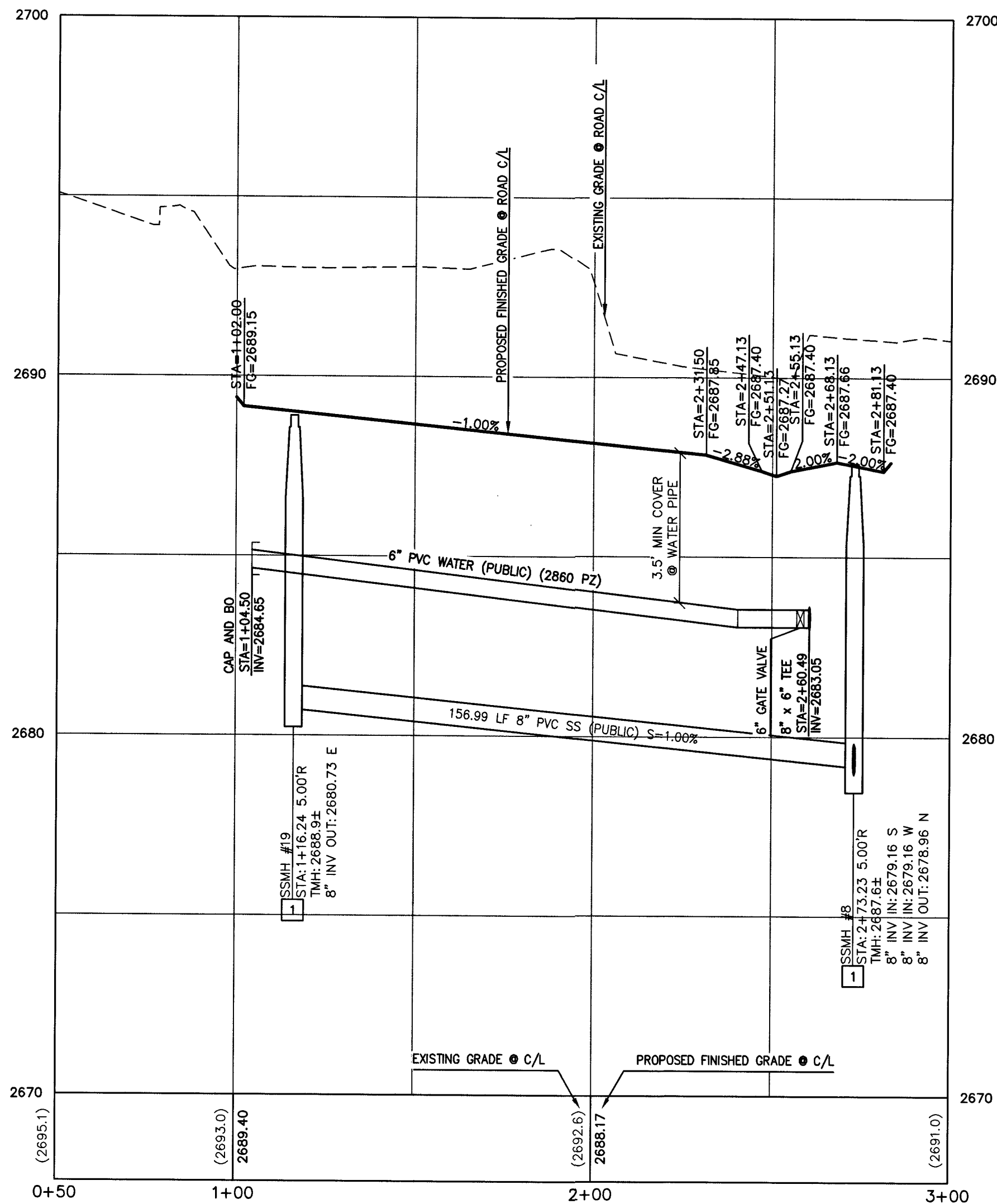
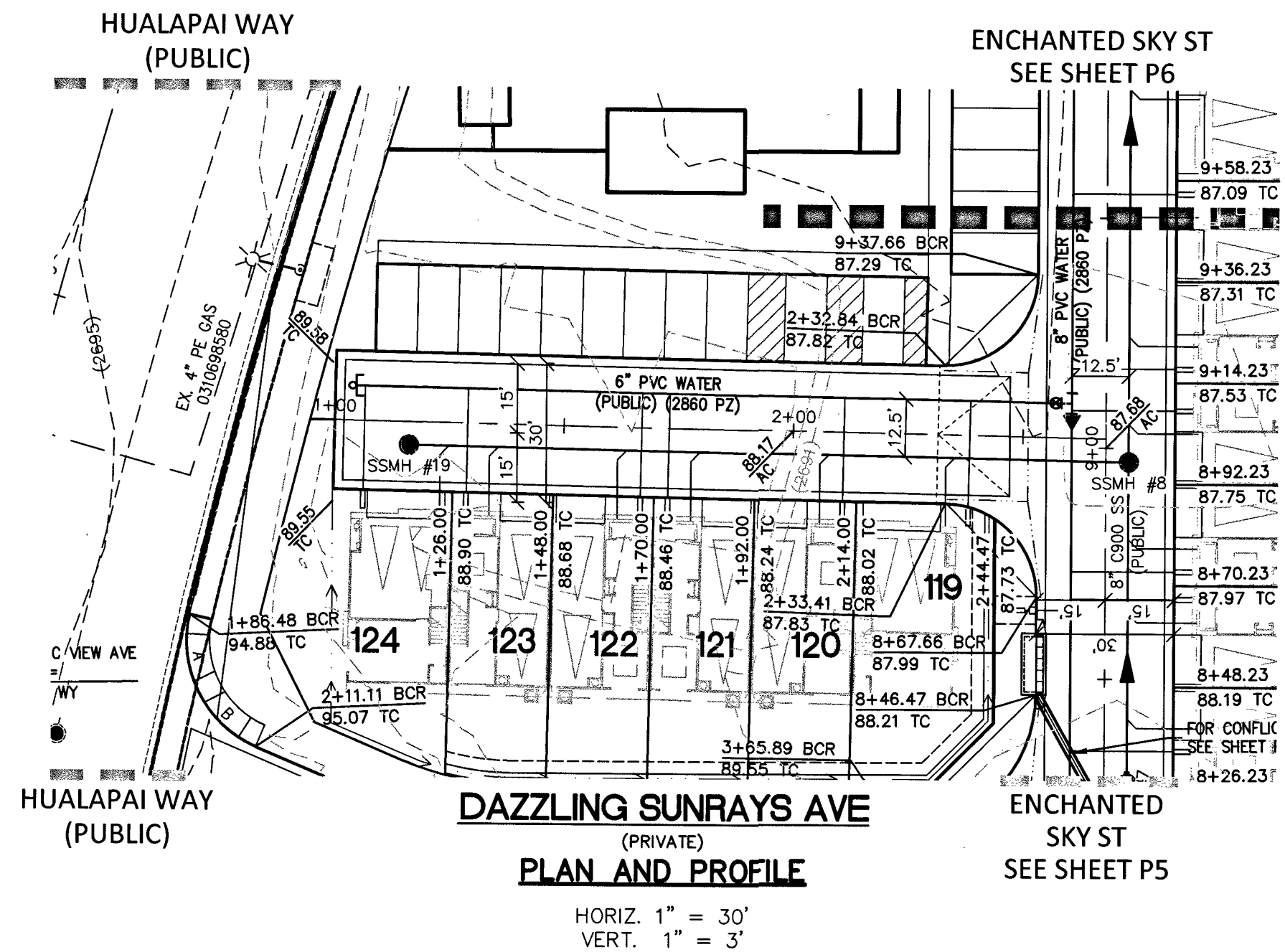
N. Giallo

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136495 FIRST APPROVED DATE: 8-20-19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM



DATE: 08-14-19

BBQ #136195A QS:138-07-NIW



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

Call 811

OR
1-800-227-2600

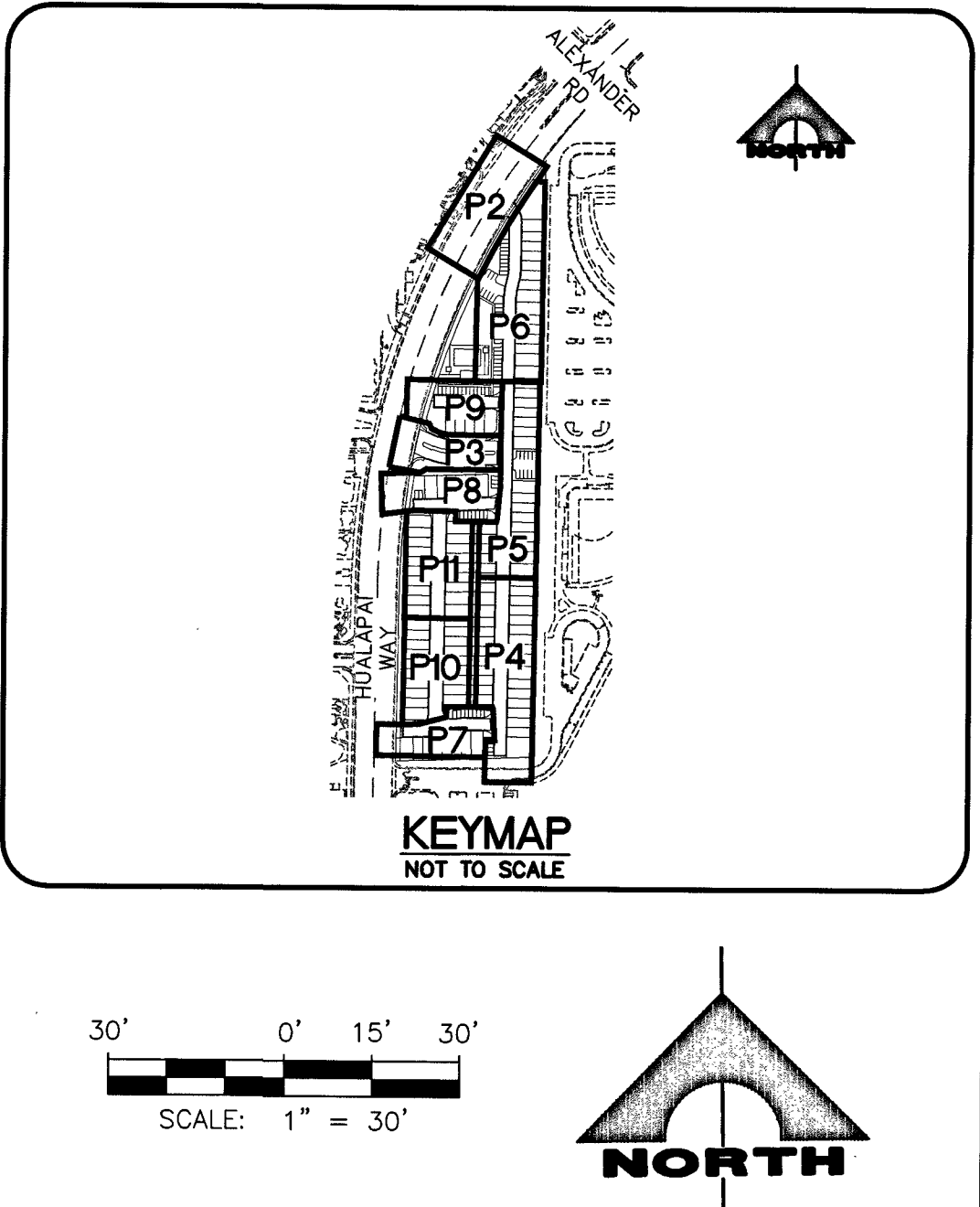
FAST

Call before you Under Ground
1-702-432-5300

FIREWAY AND AIRWAY
SYSTEM OF TRANSPORTATION

CALL BEFORE YOU DO OVERHEAD

1-702-227-2929



- CONSTRUCTION NOTES
- SEWER
1. INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH SINGLE 24" LID PER DCSWCS SD-1 & SD-3
5. INSTALL CORROSION PROTECTION PER DCSWCS 3.16.8.B
8. CONCRETE ENCASUREMENT PER DCSWCS SD-14
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STANDARD PARALLEL SCALE: 1.0001 (EXACT)

LINEAR UNIT: US SURVEY FOOT (US FT)

BENCHMARK

710027WWS

RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AV.

ELEVATION: 2694.63

SOUTHWEST GAS APPROVAL

Paula Kennedy 8-15-19

SOUTHWEST GAS CORP. DATE

APPROVED FOR CONSTRUCTION

Nan Sialla 8-20-19

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136495 FIRST APPROVED DATE: 8-20-19
LVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

- CONSTRUCTION NOTES
- RELOCATE
- DROP INLET NOTE
- WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE: CAST-IN-PLACE MONODRIFT POUR WITH WATERSTOP BETWEEN SLAB AND WALLS. BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOP. CENTER BULB OR FLAT STRIP. (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL)
- CONTROLLED LOW STRENGTH MATERIAL (CLSM)
- PROTECT WATERLINES IN PLACE, WHEREVER A WATERLINE IS ABOVE A STORM DRAIN OR SEWER WHERE COMPACTION REQUIREMENTS UNDER A WATERLINE CANNOT BE MET. BACKFILL TRENCH WITH CLASS II CONTROLLED LOW STRENGTH MATERIAL (CLSM) TO THE SPRINGLINE OF THE WATERLINE. THIS REQUIREMENT IS FOR STRUCTURAL SUPPORT ONLY. ADDITIONAL HEALTH REGULATION MAY APPLY PER UDACS 2.22.
- NOTE
- PROTECT IN PLACE AND ADJUST LVWD EXISTING FACILITIES TO FINISHED GRADE PER UDACS. ALL LVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.
- NO EQUIPMENT ZONE NOTE
- IN AREAS WHERE THE EXCAVATION OR GROUND ELEVATION IS LESS THAN THREE (3) FEET FROM THE TOP OF THE LVWD TRANSMISSION MAIN, NO EXCAVATION EQUIPMENT, OTHER THAN HAND HELD EQUIPMENT WILL BE ALLOWED WITHIN TEN (10) FEET OF THE PIPELINE IN THESE AREAS. THE CONTRACTOR IS TO PLACE A CONCRETE BARRIER, I.E. JERSEY RAIL, TO IDENTIFY AND PROTECT THE "NO EQUIPMENT ZONE".

PROJECT NO. 798-003

DESIGN: DRAWN: CHECK: PLOT DATE: 08-12-19 PLOT TIME: 14:46:51

1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000 F: 702.804.2299
ENGINEERS & SURVEYORS gowengineering.com

TOUCHSTONE LIVING

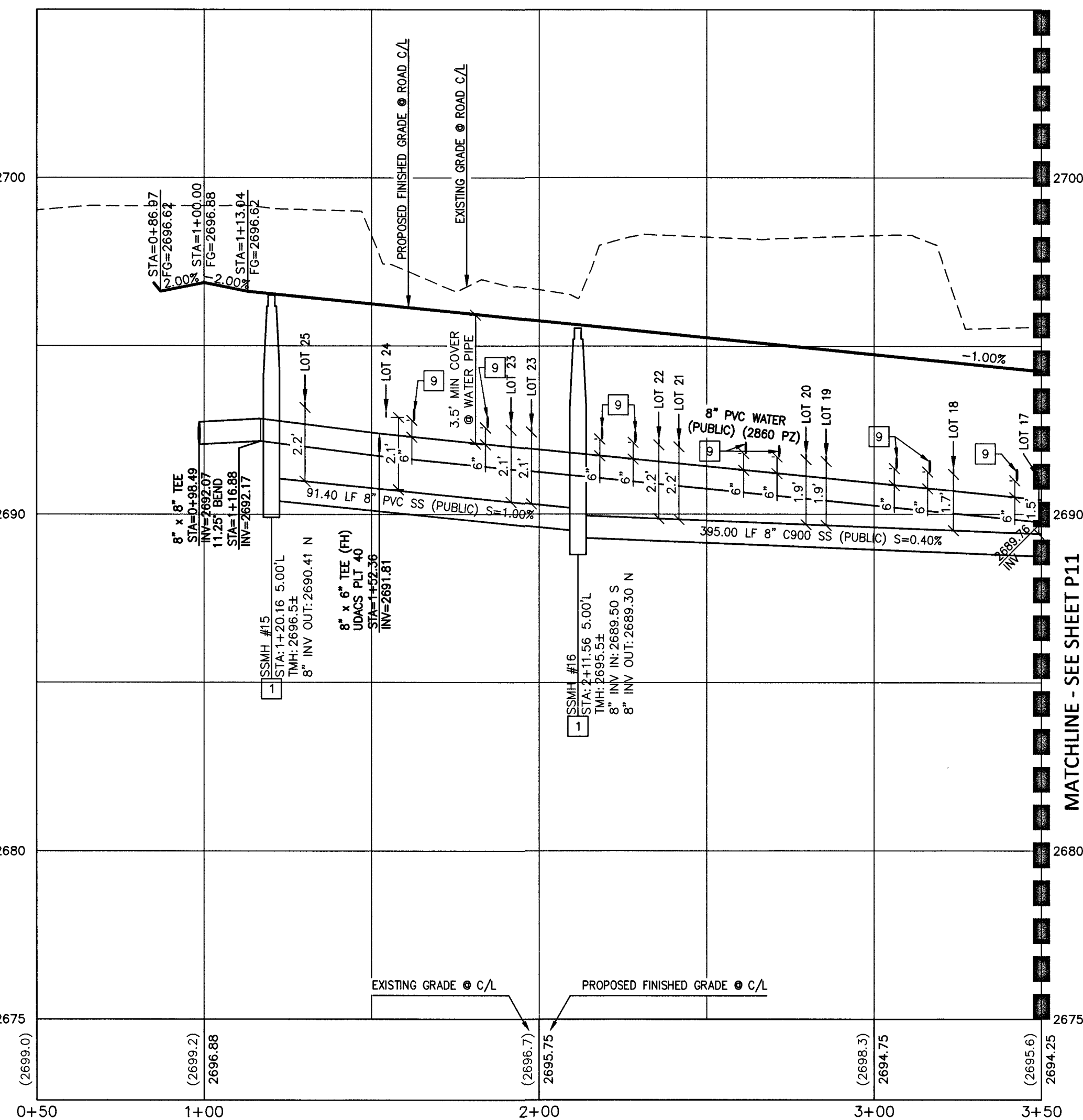
HUALAPAI AND ALEXANDER

DAZZLING SUNRAYS AVE PLAN AND PROFILE

DRAWING P9

19 OF 33 SHTS

PROJ: 136495A QS: 136-07-4W



MATCHLINE - SEE SHEET P11

APPROVED FOR CONSTRUCTION

Nan Giallo

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136495 FIRST APPROVED DATE: 8-20-19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

DATE: 08-13-19

PROJECT NO.
798-003

DESIGN: _____
DRAWN: _____
CHECK: _____
PLOT DATE: 08-13-19_____
PLOT TIME: 14:20:17_____

GCM
ENGINEERS \ SURVEYORS

1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gowingengineering.com

PROJECTS \ 700 \ 798-003.DWG \ PRODUCTION \ 798-003CP.DWG
BRADY GUZMAN

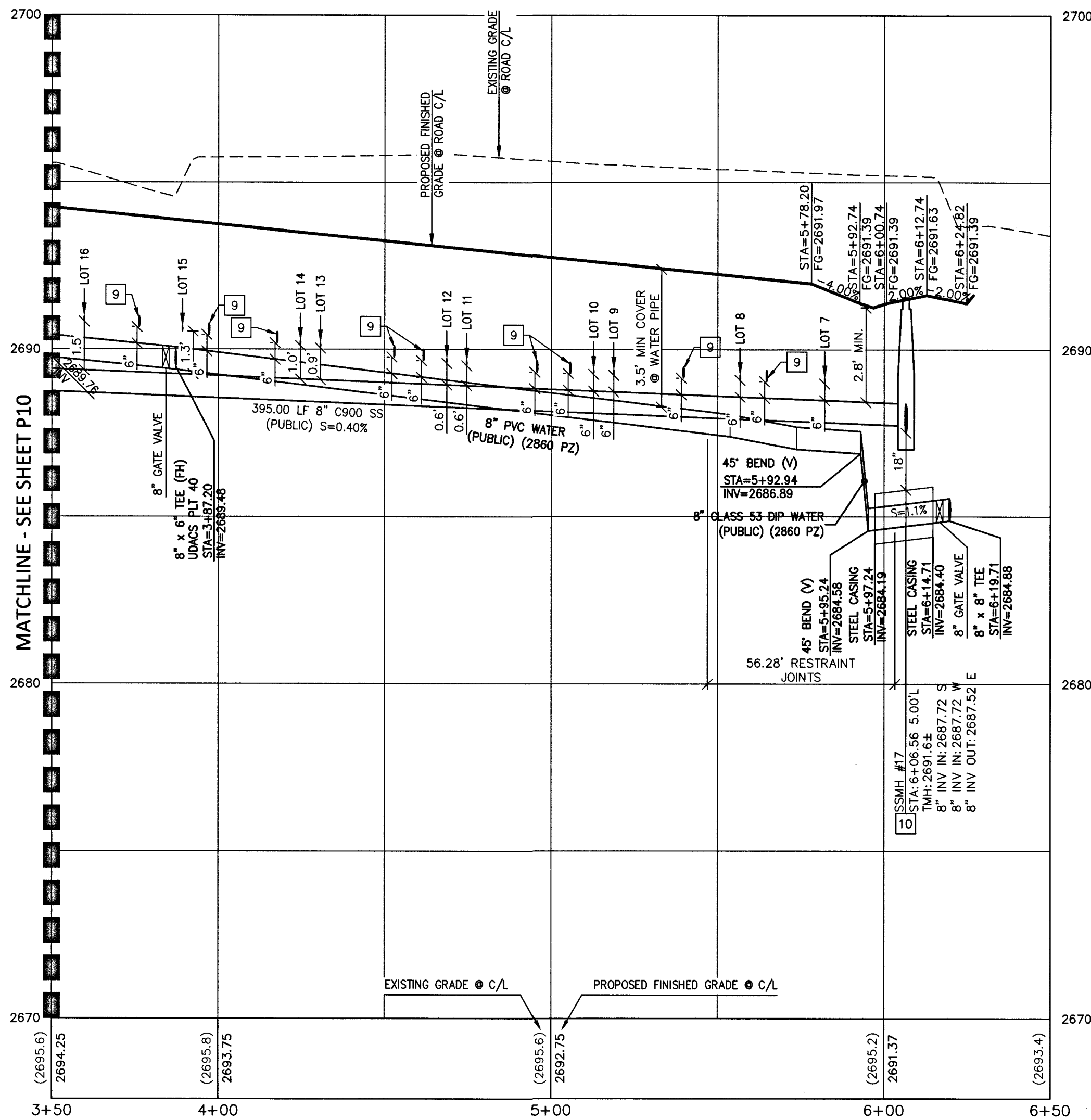
TOUCHSTONE LIVING

HUALAPAI AND ALEXANDER

BRILLIANT SUSNET ST PLAN AND PAVING
STA 0+50 TO 3+50

DRAWING
P10
0 OF 33 SHTS

PROJ#:136495A QS:138-07-NW



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

12 RELOCATE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:
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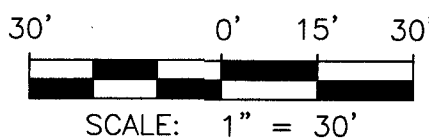
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POWER LINES. IT'S COSTLY.

**CALL BEFORE
YOU DO
OVERHEAD**

1-702-227-2929



SEWER

- | | |
|----|---|
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| 2 | SD-1 & SD-3 |
| 5 | INSTALL CORROSION PROTECTION PER DCSWS 3.16.8.B |
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PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET. PER UDACS 2.07.01 AND 2.07.03. FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

MAINTAIN A MINIMUM TWENTY-FOUR (24) INCH COVER PER UDACS SECTION 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.

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

ALL ONSITE STORM DRAINS AND ASSOCIATED STORM FACILITIES ARE PRIVATELY OWNED AND TO BE PRIVATELY MAINTAINED BY THE HOA.

ALL PRIVATE STREETS ARE P.U.E., PUBLIC DRAINAGE EASEMENT AND PUBLIC SEWER EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

CURB FLOW LINES LESS THAN 0.60% GRADE SHALL BE WATER TESTED. ANY CURB THAT DOES NOT FLOW SHALL BE REMOVED AND REPLACED AT NO COST TO THE CITY.

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

DATUM (REFERENCE FRAME): NAD 1983 (2011) EPOCH 2010.0

ZONE: LAS VEGAS ZONE
STANDARD PARALLEL AND GRID ORIGIN: 36°15'00" N
CENTRAL MERIDIAN: 114°58'00" W

FALSE NORTHING: 200,000.000 METERS (656,166.6667 US FT)
FALSE EASTING: 100,000.000 METERS (328,083.3333 US FT)
STANDARD PARALLEL SCALE: 1.0001 (EXACT)
LINEAR UNIT: US SURVEY FOOT (US FT)

7LV007NWW6
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AV.
ELEVATION: 2694.63

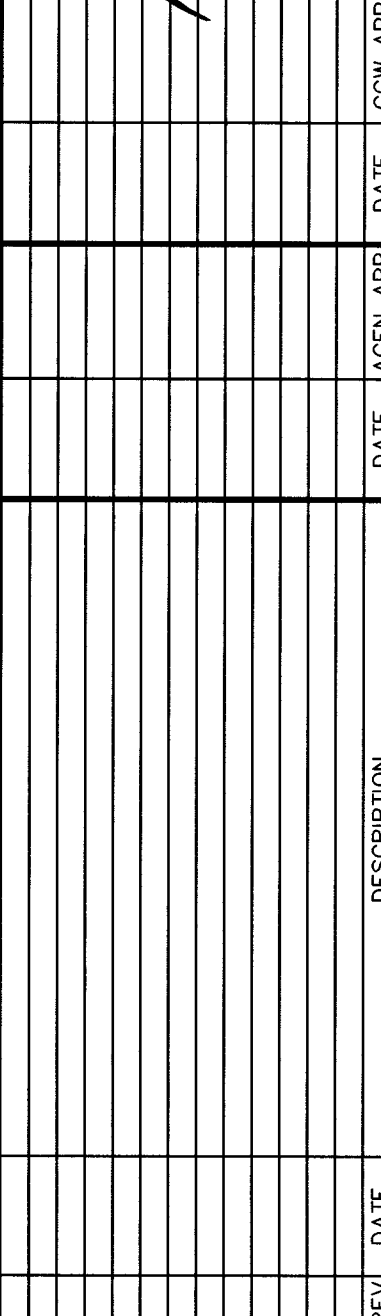
~~_____~~
SOUTHWEST GAS CORP.

Nan Giallo

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136495 FIRST APPROVED DATE: 8.20.19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

L# L19-01032

CLV DWG# 107Y5108



PROJECT NO.
798-003

1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gwcengineering.com

GCL
ENGINEERS & SURVEYORS

TOUCHSTONE LIVING

HUALAPAI AND ALEXANDER

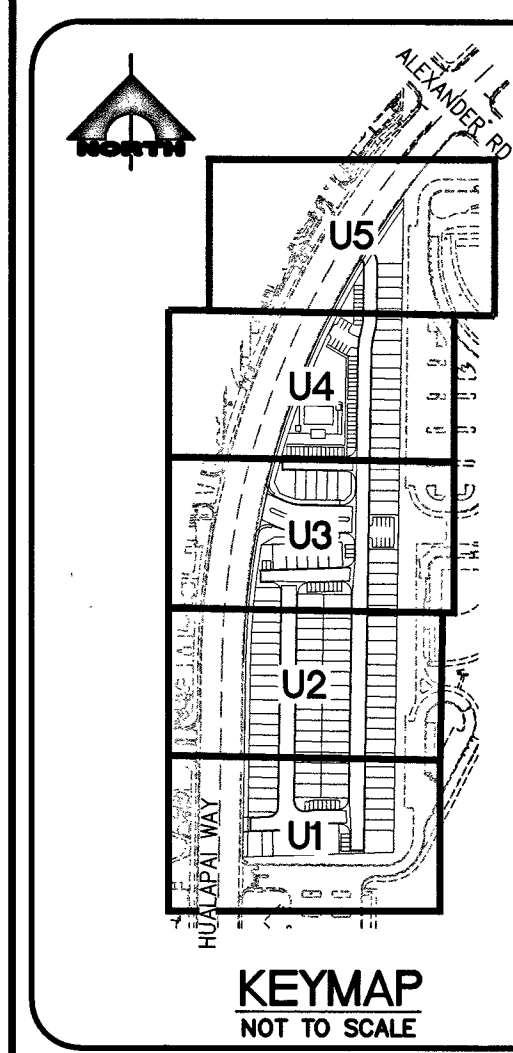
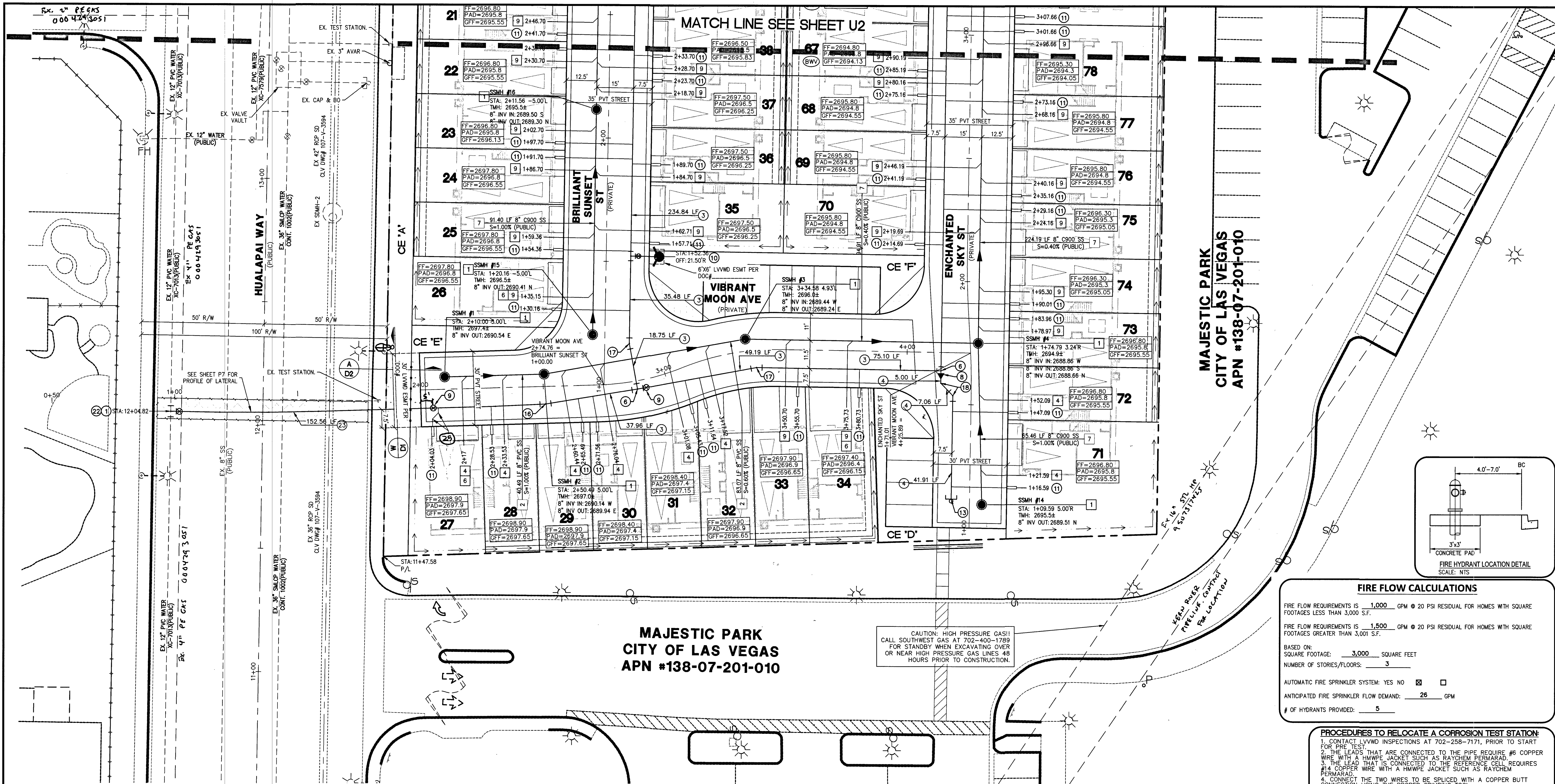
**BRILLIANT SUNSET ST PLAN AND PROFILE
STA 3+50 TO 6+50**

DRAWING

P11

21 OF 33 SHTS

PROJ#:136495A QS:138-07-NW



FAST
Call before you Dig
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FREEMAN AND ARTERIAL
SYSTEM OF TRANSPORTATION

AVOID HITTING OVERHEAD
POWER LINES. IT'S COSTLY

CALL BEFORE
YOU DO
OVERHEAD

1-702-227-2929

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

Call
1-800-227-2600

CONSTRUCTION NOTES

WATER

- CONNECT TO EXISTING WATER LINE. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION
- INSTALL 12" PVC WATER PIPE
- INSTALL 8" PVC WATER PIPE
- INSTALL 6" PVC WATER PIPE
- INSTALL 12" x 8" TEE PER UDACS PLATE NO. 31.
- INSTALL 8" x 8" TEE PER UDACS PLATE NO. 31.
- INSTALL 8" x 8" TEE PER UDACS PLATE NO. 31.
- INSTALL 8" x 8" TEE PER UDACS PLATE NO. 31.
- INSTALL 8" x 8" REDUCER PER UDACS PLATE NO. 30.
- INSTALL GATE VALVE, BOX, AND COVER SAME SIZE AS LINE PER UDACS PLATE NO. 30 & 31.
- INSTALL FIRE HYDRANT, VALVES, TEE, & 6" WATER LINE PER UDACS PLATE NO. 40.
- INSTALL 1" WATER SERVICE (DOMESTIC) WITH 3/4" WATER METER PER UDACS PLATE NO. 1 (TYP).
- INSTALL 1" IRRIGATION METER WITH 1" RPPA PER UDACS PLATE NO. 4, 8 AND DETAIL ON SHEET C3.
- INSTALL 6" CAP & 2" BLOW-OFF PER UDACS PLATE NO. 36.
- INSTALL IRRIGATION SLEEVES
- INSTALL STEEL CASING PER UDACS PLATE NO. 22 & 23.
- INSTALL 5" BEND SAME SIZE AS LINE
- INSTALL 11.25" BEND SAME SIZE AS LINE PER UDACS PLATE NO. 31.
- INSTALL 45° BEND SAME SIZE AS LINE PER UDACS PLATE NO. 31.
- INSTALL 45° VERTICAL BEND WITH RESTRAINT JOINT AND THRUST BLOCK PER UDACS PLATE NO. 30 & 31.
- INSTALL MANHOLED 1" IRRIGATION METER WITH TWO 1" RPPA'S PER UDACS PLATE NO. 4, 9 AND DETAIL ON SHEET C3.
- INSTALL 12" CAP & 2" BLOW-OFF PER UDACS PLATE NO. 36.
- INSTALL 12" x 8" TAPPING SLEEVE WITH 8" TAPPING VALVE PER UDACS SECTION 2.2401.B
- INSTALL 8" DIP WATER PIPE
- INSTALL 8" CAP & 2" BLOW-OFF PER UDACS PLATE NO. 36.

CONSTRUCTION NOTES

SEWER

- INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH SINGLE 24" LID PER DCSWCS SD-1 & SD-3.
- INSTALL 8" PVC SANITARY SEWER PIPE.
- CONNECT TO EXISTING SANITARY SEWER. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION
- INSTALL 4" SEWER LATERAL PER DCSWCS SD-20 (TYP)
- INSTALL CORROSION PROTECTION PER DCSWCS 316.8.B
- INSTALL CLEANOUT WITH TRAFFIC RATED LID PER DCSWCS SD-24 IN DRIVEWAY
- INSTALL 8" C900 SANITARY SEWER PIPE.
- CONCRETE ENCASUREMENT PER DCSWCS SD-14
- CONSTRUCT 4" C-900 SEWER LATERAL PER DCSWCS SD-20 AND SD-21.
- MINIMUM 5" VERTICAL SEPARATION BETWEEN WATER AND SEWER
- CONSTRUCT SPECIAL SHALLOW MANHOLES PER DCSWCS SD-13

CONTRACTOR NOTE
WATER MAIN JOINT DEFLECTION (PVC, 4" - 24")
PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET. PER UDACS 2.07.01 AND 2.07.03.
FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.
EASEMENTS WITH TREES, SHRUBS, DECORATIVE ROCKS, BLOCK WALL, OR FENCE
TREES, SHRUBS, OR DECORATIVE ROCKS, AND ANY BLOCK WALL OR OTHER FENCE MATERIALS SHALL BE DESIGNED AND CONSTRUCTED AROUND EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS TO THE UTILITIES. BACKFILL ASSEMBLIES, AND PIPING FROM THE ADJACENT RIGHT-OF-WAY.

WATER

- MARKER BALLS PER UDACS PLT.15
- DROP INLET, SEE DETAIL 3 ON SHEET D2 FOR 3" CURB TRANSITION

GENERAL NOTES

- ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST CONFORM TO UDACS SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.
- WATER SERVICE LATERALS SHALL BE INSTALLED PER UDACS SECTION 2.17
- INSTALL PIPE DETECTOR RIBBON PER UDACS PLATE NO. 15.
- LOCATOR WIRE SHALL BE USED FOR ALL SERVICE LATERALS NOT PERPENDICULAR TO THE MAIN (TYPICAL).
- EXISTING UTILITY LOCATIONS SHOWN HEREIN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
- MIN. 12" VERTICAL CLEARANCE BETWEEN WATER MAINS AND DRY LATERALS PER UDACS SECTION 2.04.06
- MIN. 12" VERTICAL CLEARANCE REQUIRED BETWEEN WATER LATERALS AND DRY UTILITIES PER UDACS SECTION 2.04.06
- INSTALL PIPE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE NO. 15
- ANNUAL SPACE BETWEEN PIPE AND CASING SHALL BE FILLED WITH CONTROLLED LOW STRENGTH MATERIAL
- ALL NEW MANHOLES TO HAVE PRE-CAST BASES
- INSTALL 12" x 8" TAPPING SLEEVE WITH 8" TAPPING VALVE PER UDACS ELBOW FITTING PER UDACS PLATE NO. 15
- PROTECT EXISTING UTILITIES AND ADJUST EXISTING FACILITIES TO FINISHED GRADE. ALL LVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.
- THE CONTRACTOR IS TO VERIFY THE ACTUAL FIELD CONDITIONS OF ALL LOTS AND INSTALL SEWER CHECK VALVES WHERE REQUIRED
- THE 1" TEST HOLE UNIFORM PLUMBING CODE MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.
- FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALKS.

SOUTHWEST GAS APPROVAL

Renee Kennedy 8-15-19
SOUTHWEST GAS CORP. DATE

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

NOTE:
ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL, KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.

BENCHMARK
7LV007NWB
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AV.
ELEVATION: 2694.63

SCALE: 1" = 20'

KEY: 20' 0' 10' 20'

FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENTS IS 1,000 GPM @ 20 PSI RESIDUAL FOR HOMES WITH SQUARE FOOTAGES LESS THAN 3,000 S.F.

FIRE FLOW REQUIREMENTS IS 1,500 GPM @ 20 PSI RESIDUAL FOR HOMES WITH SQUARE FOOTAGES GREATER THAN 3,001 S.F.

BASED ON:
SQUARE FOOTAGE: 3,000 SQUARE FEET
NUMBER OF STORIES/FLOORS: 3

AUTOMATIC FIRE SPRINKLER SYSTEM: YES ☐ NO ☒

ANTICIPATED FIRE SPRINKLER FLOW DEMAND: 26 GPM

OF HYDRANTS PROVIDED: 5

PROCEDURES TO RELOCATE A CORROSION TEST STATION:

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

BASIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

DATUM (REFERENCE FRAME): NAD 1983 (2011) EPOCH 2010.0

ZONE: LAS VEGAS ZONE

STANDARD PARALLEL AND GRID ORIGIN: 36°15'00" N

CENTRAL MERIDIAN: 114°58'00" W

FALSE NORTING: 200,000.000 METERS (656,166.667 US FT)

FALSE EASTING: 100,000.000 METERS (328,083.333 US FT)

STANDARD PARALLEL SCALE: 1.0001 (EXACT)

LINEAR UNIT: US SURVEY FOOT (US FT)

APPROVED FOR CONSTRUCTION

N. Dials
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136485
LVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

8-20-19

APPROVED FOR CONSTRUCTION

h *h* *h*
LAS VEGAS FIRE AND RESCUE
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AV.
ELEVATION: 2694.63

DATE

L# L19-01032 CLV DWG# 107Y5108

PROJECT NO. 798-003
DESIGN: GCV
DRAWN: GCV
CHECK: GCV
PLOT DATE: 08-09-19
PLOT TIME: 14:46:07

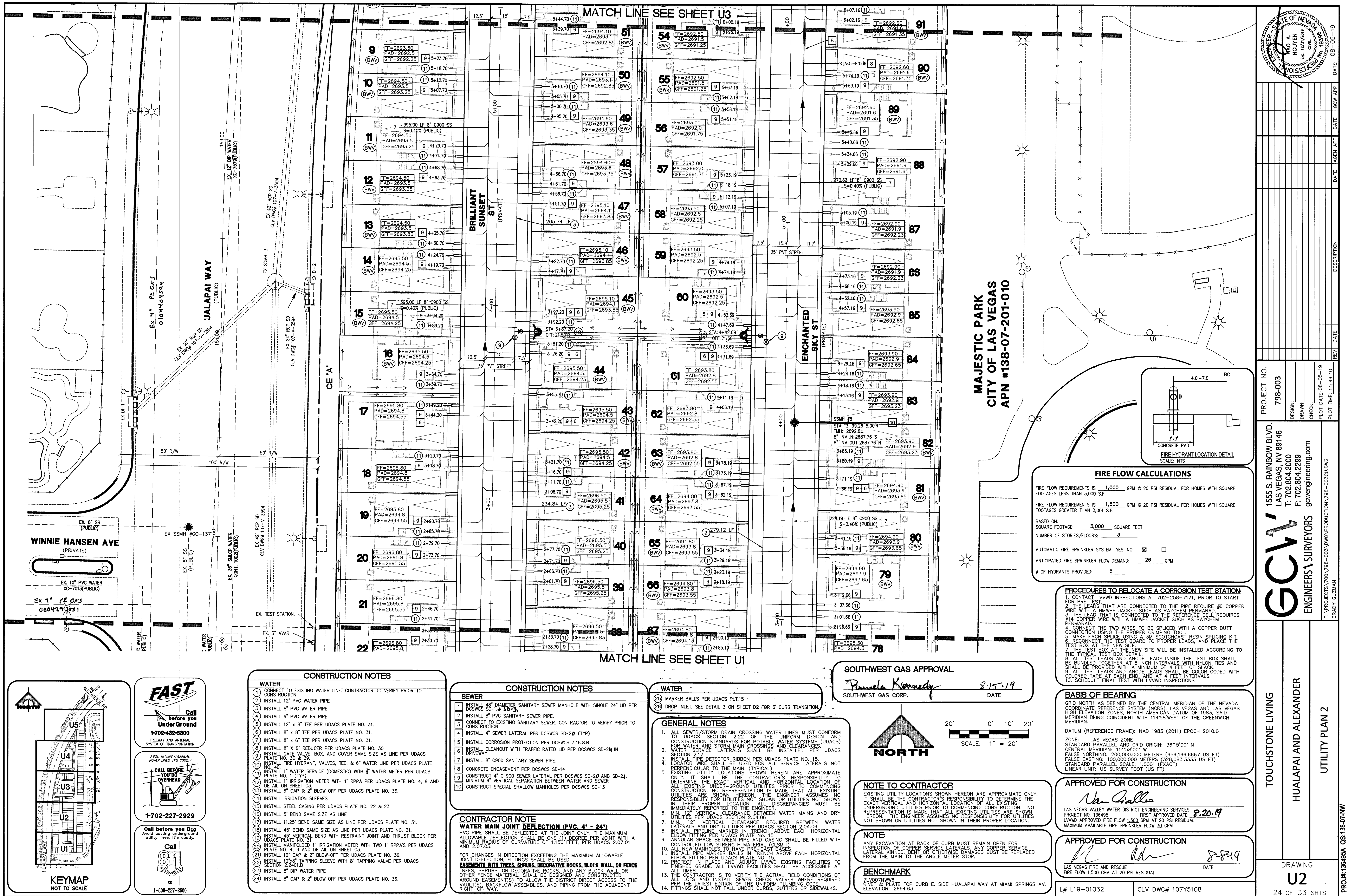
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcvengineering.com

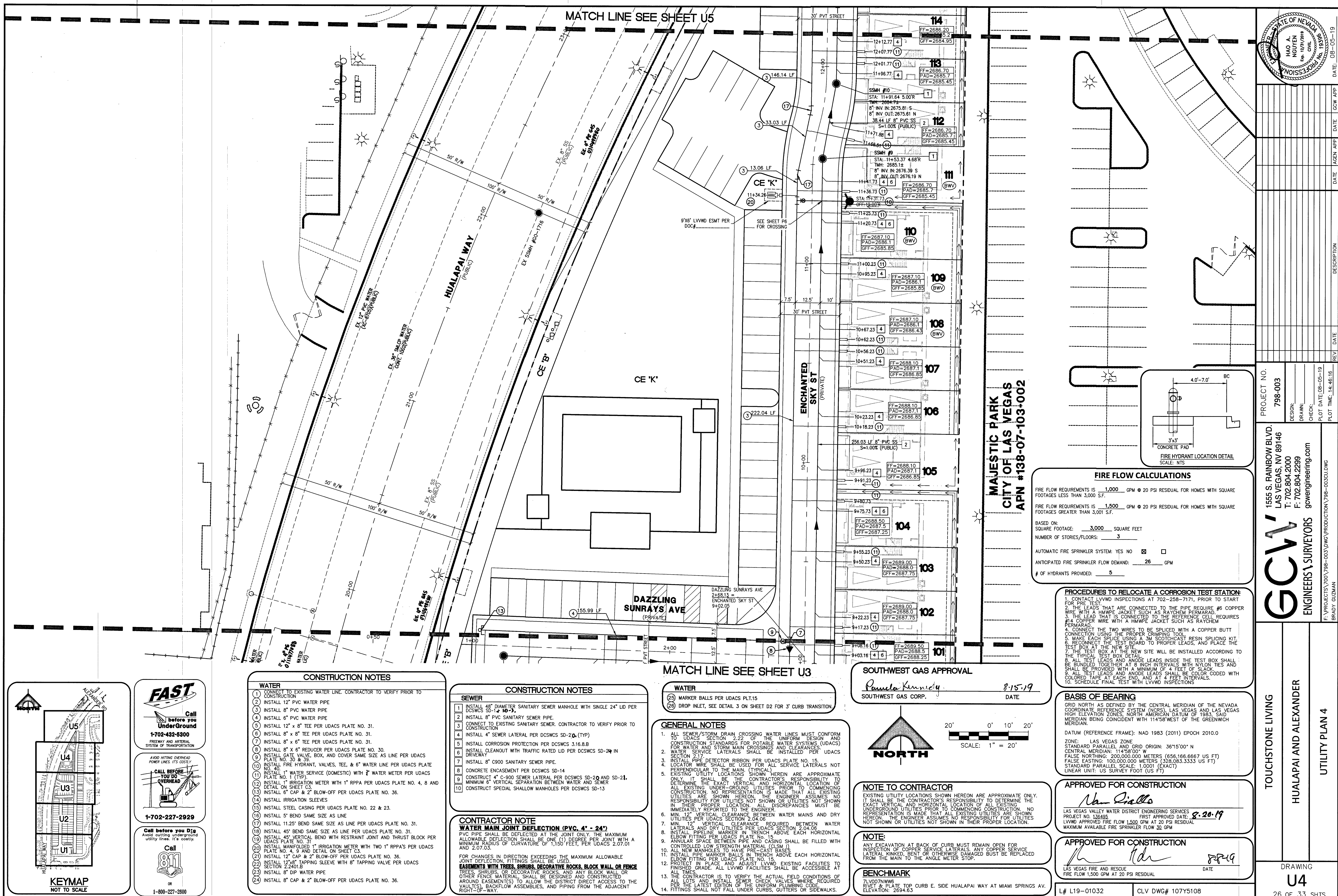
ENGINEERS & SURVEYORS

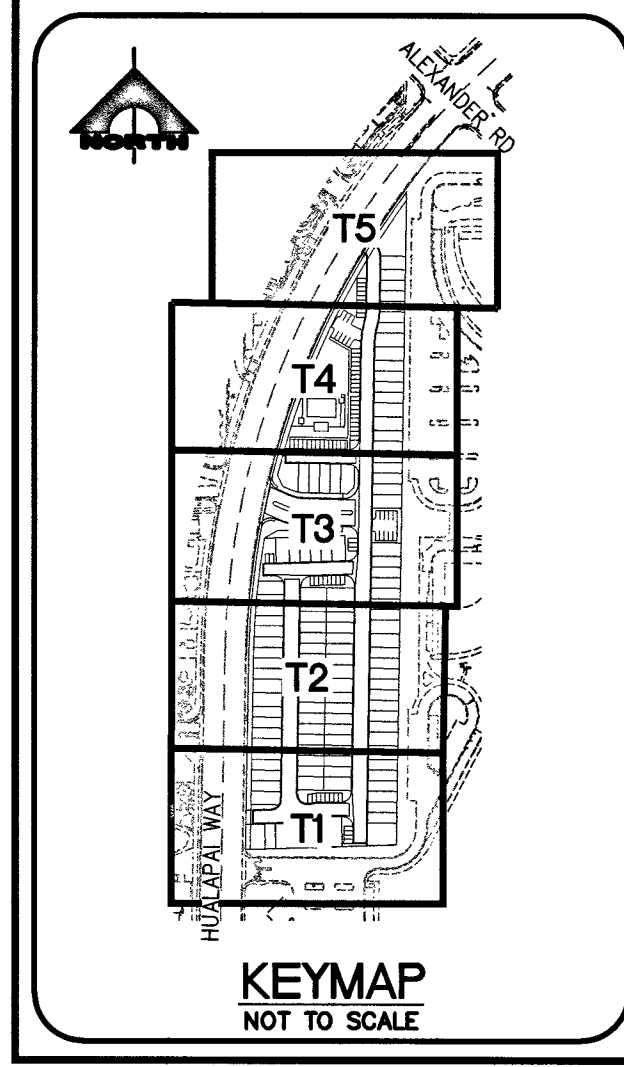
TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
UTILITY PLAN 1

DRAWING
U1
23 OF 33 SHTS

PROJ#136485 **QS138-07-NW**







FAST
Call before you UnderGround
1-702-432-6300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

CALL BEFORE YOU DO OVERHEAD
1-702-227-2929
Avoid cutting underground utility lines. It's costly.

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

LEGEND

- STREET NAME SIGN (D3) WITH 30" STOP SIGN (R1-1)
- 30" X 9" STREET NAME SIGN (D-3)
- NO OUTLET SIGN (W14-2P)
- SIGN - SEE PLAN FOR SPECIFICATION
- 200 AMP PAD MOUNT SERVICE PEDESTAL
- LED (100W EQUIVALENT)
- NO 3 1/2" PULL BOX
- EXISTING STREET LIGHT
- BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS
- RED PAINTED CURB

CONSTRUCTION NOTES

TRAFFIC

- INSTALL (1) STREET NAME SIGN (D3) WITH 30" STOP SIGN (R1-1) TO BE PRIVATELY MAINTAINED.
- PAINT CURB RED 15' ON EACH SIDE OF FIRE HYDRANT.
- INSTALL 6" SOLID WHITE LINE.
- INSTALL TYPE 4 LANE LINE PER CCAUSD NO. 244.1.
- INSTALL MEDIAN NOSE MARKING PER CCAUSD NO. 248.
- INSTALL BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS.
- RELOCATED STLT AND INSTALL PER CCAUSD NO. 314, 320, AND 321. RECONNECT CIRCUIT WITHOUT SPLICING.
- INSTALL 6" X 2" WHITE SKIP LANE LINE.
- INSTALL VAN ACCESSIBLE SIGN, 4" PAINTED PARKING LOT STRIPING AND PARKING BAY HANDICAP SYMBOL.
- RESTORE OR REPLACE EXISTING STRIPING.
- PAINT CURB RED (FIRE LANE)
- 12' X 5' SIDEWALK AROUND OBSTRUCTION
- INSTALL "NO PARKING" SIGN R8-3A, (24"x24")
- INSTALL NO PARKING-FIRE LANE SIGN.
- INSTALL DO NOT ENTER SIGN

Line Table		
Line #	Length	Direction
L10	223.73	N00° 52' 41.31"E
L18	431.56	N00° 52' 41.31"E
L20	432.25	S00° 52' 41.31"W
L42	423.30	S00° 52' 41.31"W
L47	512.74	N00° 52' 41.31"E

GENERAL 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 BRENCHING ACTIVITIES TO CITY OF LAS VEGAS'S SATISFACTION. ALL MATERIAL USED SHALL MEET 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 MSA LEVEL II ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 623.G.01.02.
- 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.
- THE CONTRACTOR IS TO VERIFY THE ACTUAL FIELD CONDITIONS OF ALL LOTS AND INSTALL SEWER CHECK VALVES WHERE REQUIRED PER THE LATEST EDITION OF THE UNIFORM PLUMBING CODE.
- FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALK.

BENCHMARK
7LV007NWWS
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AVE
ELEVATION: 2694.63

BASIS OF BEARING
GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES; NORTH AMERICAN DATUM OF 1983, SAG MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.
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FALSE NORTHING: 200,000.000 METERS (656,166.6667 US FT)
FALSE EASTING: 100,000.000 METERS (328,083.3333 US FT)
STANDARD PARALLEL SCALE: 1.0001 (EXACT)
LINEAR UNIT: US SURVEY FOOT (US FT)

APPROVED FOR CONSTRUCTION
LAS VEGAS FIRE AND RESCUE
DATE: 8/8/19

L# L19-01032 CLV DWG# 107Y5108

PROFESSIONAL SEAL
HAO A. NGUYEN
CIVIL ENGINEER
No. 1231/2019
DATE: 08-05-19

PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-08-19
PLOT TIME: 14:46:36

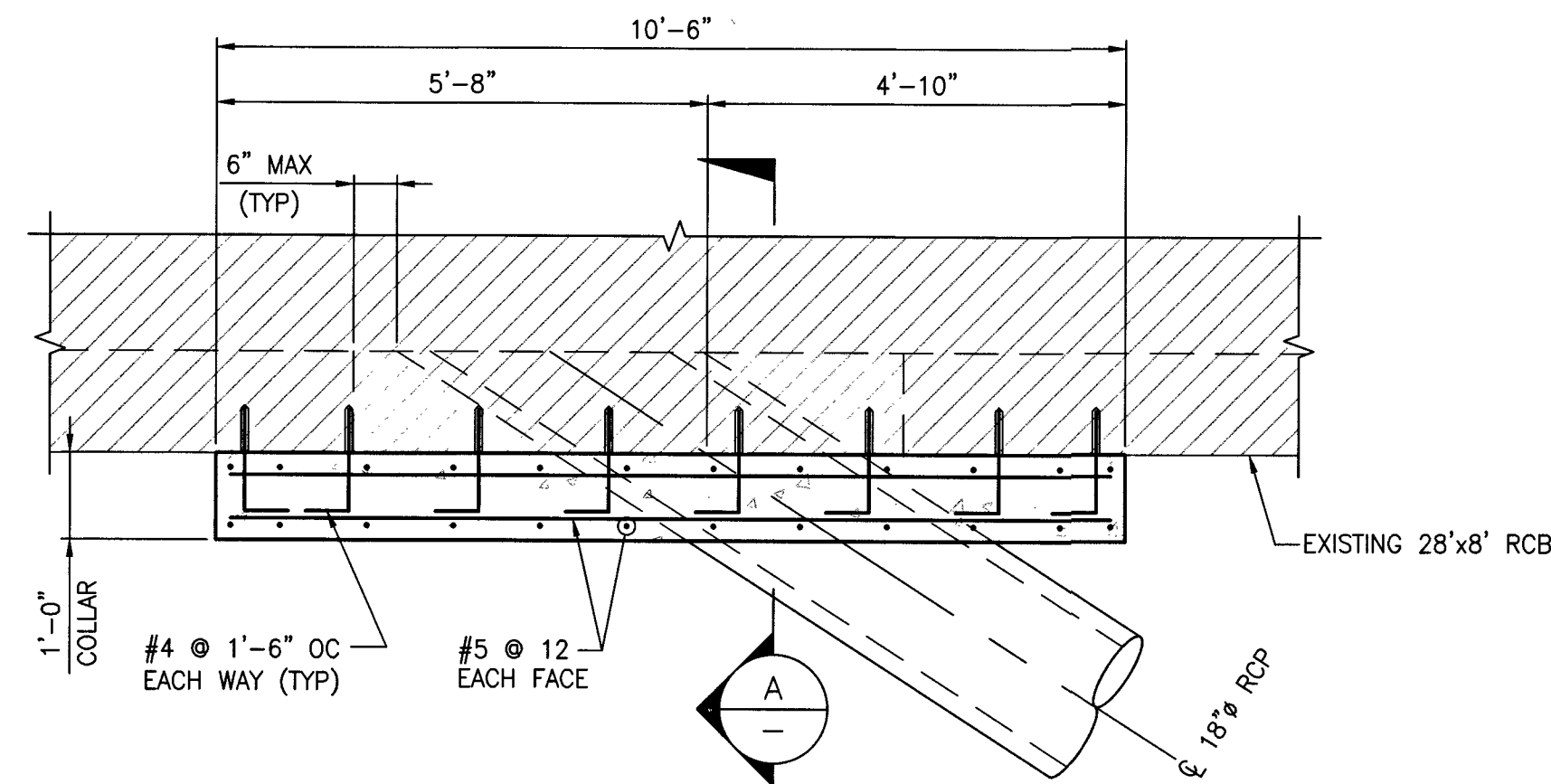
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LAS VEGAS, NV 89146
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F: 702.804.2299
govenengineering.com

ENGINEERS & SURVEYORS

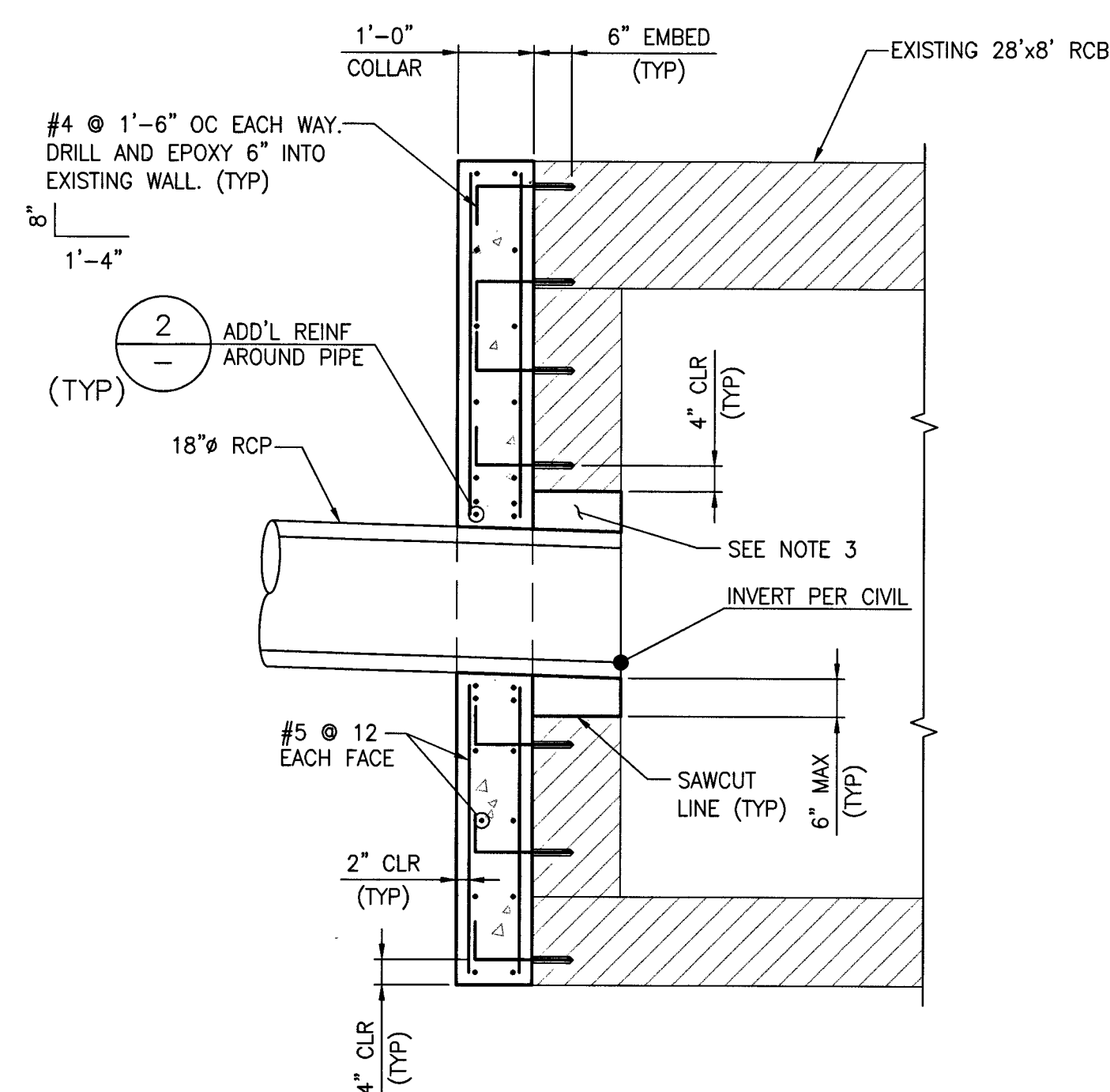
TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
TRAFFIC PLAN 2

DRAWING
T2
29 OF 33 SHTS

TOUCHSTONE LIVING HUALAPAI AND ALEXANDER TRAFFIC PLAN 5	GCV ENGINEERS & SURVEYORS 1555 S. RAINBOW BLVD. LAS VEGAS, NV 89146 T: 702.804.2000 F: 702.804.2299 gcvengineering.com		PROJECT NO. 798-003 DESIGN: _____ DRAWN: _____ CHECK: _____ PLOT DATE: 08-05-19 PLOT TIME: 14:46:46											DATE: 08-05-19
	F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003CT.DWG BRADY GUZMAN													



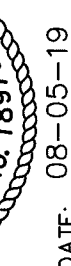
SCALE: $1/2" = 1'-0"$



SCALE: 1/2" = 1'-0"

-
- Diagram illustrating the reinforcement details for a 24" diameter pipe. The reinforcement consists of:
- ADD'L #5 VERTICAL BAR EACH SIDE OF PIPE
 - #5 BAR EACH FACE TOP AND BOTTOM OF PIPE
 - ADD'L #5 HORIZONTAL BAR TOP AND BOTTOM OF PIPE
- The diagram shows a cross-section of the pipe with a 2" CLR (TYP) indicated for the reinforcement bars. The overall width of the reinforcement area is 1'-6" (TYP).

SCALE: 1/2" = 1'-0"

[illegible]

		REV	DATE

PLOT TIME: 14:46:52

GCM
ENGINEERS & SURVEYORS

TOUCHSTONE LIVING

HUALAPAI AND ALEXANDER

PIPE PENETRATION DETAILS

DRAWING

S1

33 OF 33 SHTS

L# L19-01032

CLV DWG# 107Y5108
