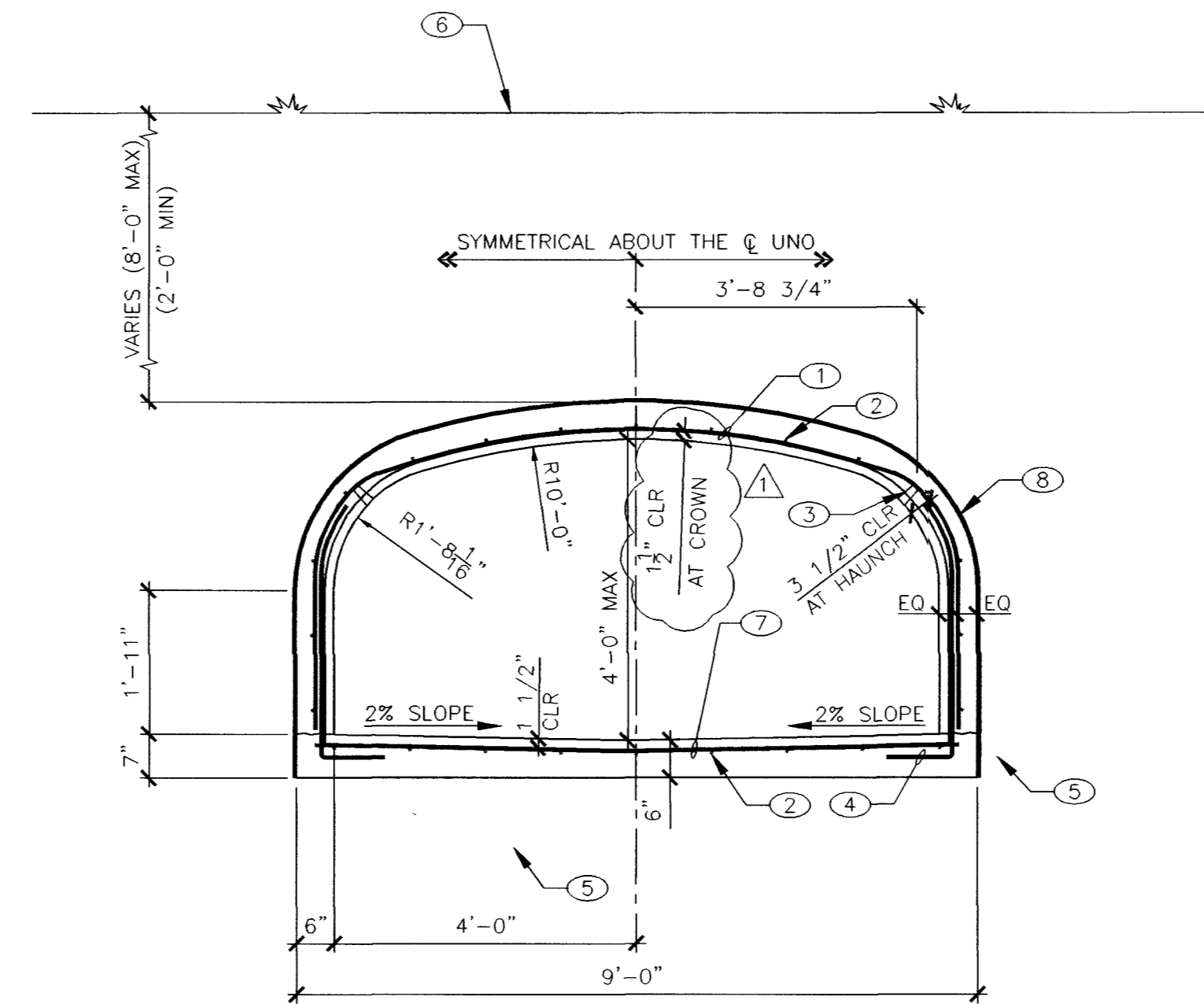


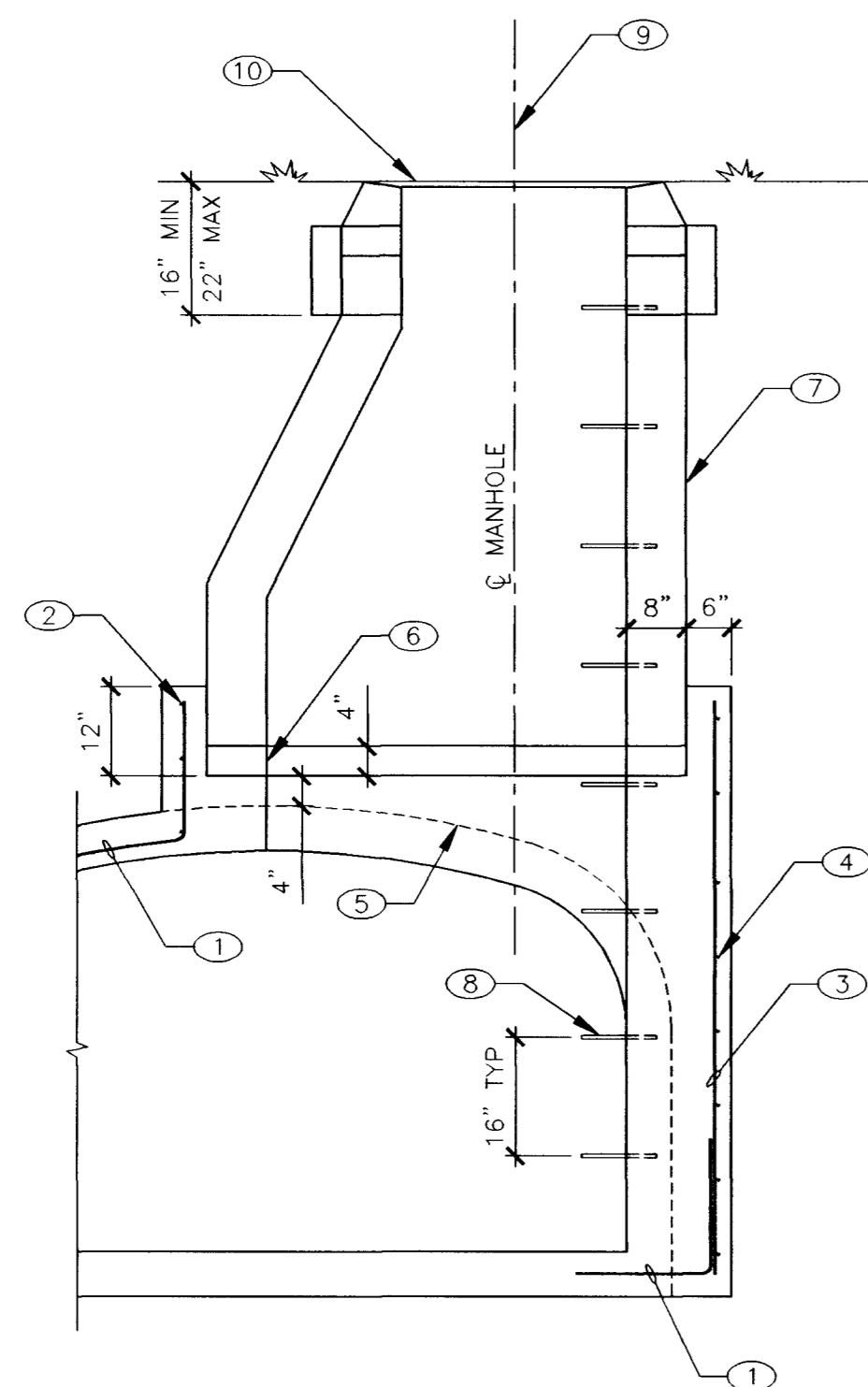
- KEYNOTES:**
1. TRANSITION SECTION GEOMETRY AND REINFORCING PER DETAIL 2/S3.1
 2. TYPICAL ARCH GEOMETRY AND REINFORCING PER SECTION 1/S3.1
 3. #4 x 2'-0" DOWEL AT 12" O.C. DRILL AND EPOXY ANCHOR INTO EXISTING RCB AS SHOWN
 4. #4 DOWELS AT 12" O.C. BEND AS REQUIRED AT TRANSITION TO ARCH
 5. FINAL GRADE PER CIVIL DRWGS
- NOTES:**
- A. DOWELS PER KEYNOTE 4 MAY BE OMITTED AND REPLACED WITH CONTINUOUS LONGITUDINAL STEEL AT CONTRACTORS OPTION



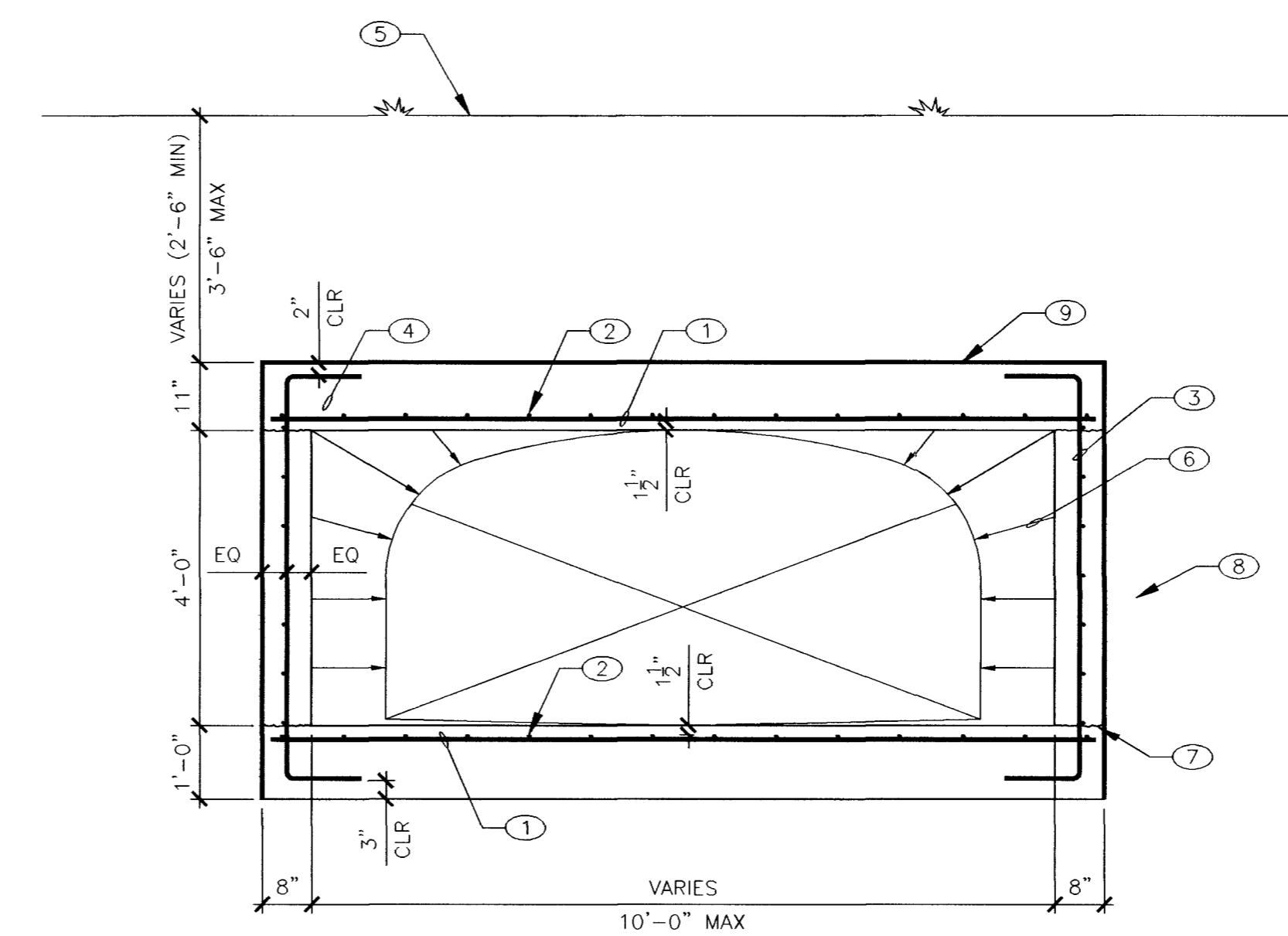
- KEYNOTES:**
1. #4 AT 8" O.C. TRANSVERSE
 2. #4 AT 12" O.C. LONGITUDINAL LAP LONGITUDINAL BAR 18"
 3. REBAR CHAIR POINT (TYP)
 4. #4 DOWEL AT 8" O.C.
 5. SEE GSN FOR COMPACTED FILL REQUIREMENTS
 6. FINAL GRADE
 7. #4 AT 12" O.C. TRANSVERSE
 8. WATER PROOF MEMBRANE. COVER ARCH ONLY

3 HEADWALL DETAIL AT INLET
NO SCALE

1 TYPICAL CULVERT SECTION AT 8'-0" x 4'-0" CULVERT
NO SCALE



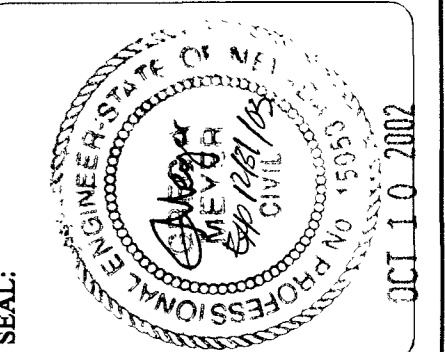
- KEYNOTES:**
1. #4 DOWEL AT 6" O.C. TO LAP REINF IN CULVERT AROUND MANHOLE CURB
 2. MIN (3) #5 CONT HORIZ RING REINF
 3. #4 VERT AT 6" O.C. AROUND MANHOLE CURB
 4. HORIZ REINF #4 AT 12" TO LAP LONGITUDINAL ARCH REINF. EXTEND CONT TO ARCH. WHERE REINF MEETS ARCH PROVIDE DOWEL TO LAP LONGITUDINAL ARCH REINF
 5. ARCH BEYOND
 6. STYROFOAM FILL BETWEEN CULVERT AND MANHOLE ASSEMBLY
 7. TYPE I MANHOLE ASSEMBLY PER CLARK COUNTY UNIFORM STANDARD DRAWING NO. 403
 8. MANHOLE STEPS PER CLARK COUNTY UNIFORM STANDARD DRAWING NO. 410
 9. REFERENCE CIVIL DRAWINGS FOR MANHOLE STATIONING
 10. ROUGH GRADE
- NOTES:**
1. TYPICAL ARCH REINF NOT SHOWN FOR CLARITY
 2. PROVIDE ADDITIONAL TRANSVERSE AND LONGITUDINAL REINF AROUND OPENING PER TYPICAL OPENING DETAIL



- KEYNOTES:**
1. #5 TRANSVERSE AT 8" O.C.
 2. #4 LONGITUDINAL AT 10" O.C. LAP 18"
 3. #5 TRANSVERSE AT 8" O.C.
 4. STANDARD HOOK T & B
 5. FINAL GRADE PER CIVIL DRWGS
 6. TRANSITION BOX WALLS TO ARCH CULVERT
 7. ROUGHEN CONSTRUCTION JOINT. AT CONTRACTORS OPTION (TYP)
 8. SEE GSN FOR COMPACTED FILL REQUIREMENTS
 9. WATER PROOF MEMBRANE. COVER ARCH ONLY

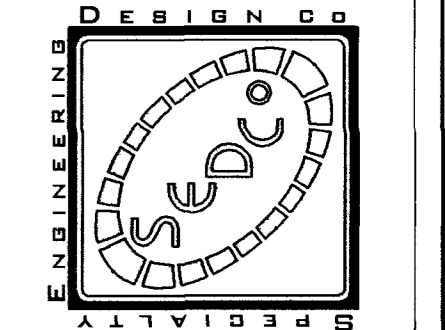
4 TYPICAL SECTION AT MANHOLE
NO SCALE

2 SECTION AT TRANSITION BETWEEN RCB AND ARCH CULVERT
NO SCALE



DESIGNED: GM
DRAWN: AM
CHECKED: GM
APPROVED: WM

6380 S. VALLEY VIEW, STE. 406
LAS VEGAS, NEVADA 89118
Phone: (702) 616-3859
Fax: (702) 616-3725



PROJECT: 8' x 4' ARCH CULVERT
SPRING MOUNTAIN RANCH UNIT 91
LAS VEGAS, NV
FOR
HYDRO-ARCH

SHEET TITLE: SECTIONS

REV.	DESCRIPTION	DATE
1	PLAN CHECK COMMENTS	10/8/02
2	SUBMITTED FOR APPROVAL	9/19/02

DATE: SEPTEMBER 19, 2002
PROJECT NUMBER: LV02124
SHEET NUMBER: S3.1

OCT 15 2002
CITY OF LAS VEGAS
ENGINEERS

10-24-4716-91