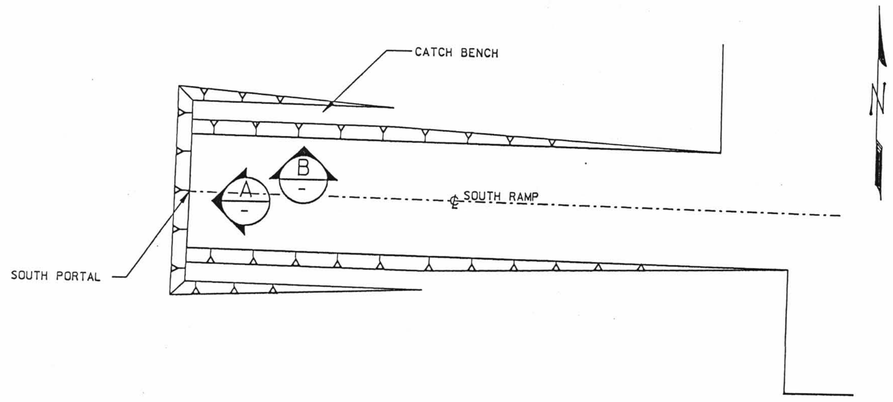
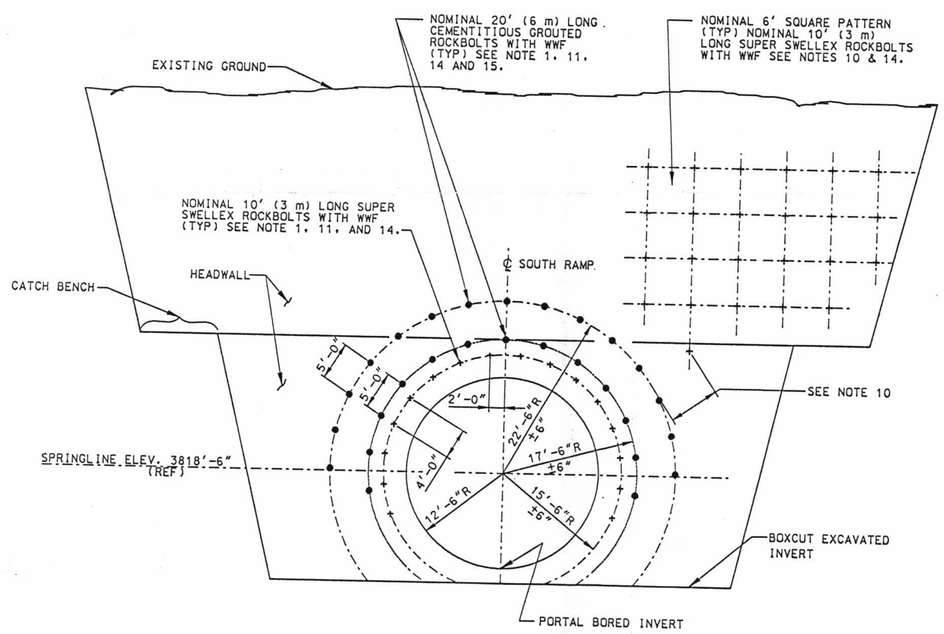
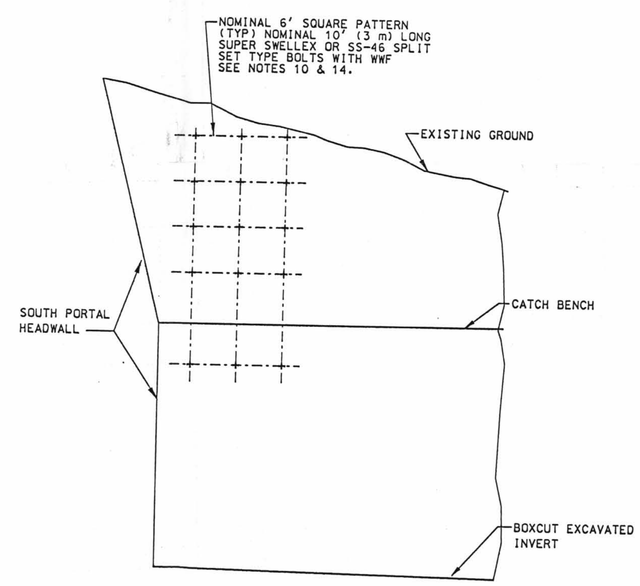


SOUTH PORTAL BOXCUT
PLAN
SCALE: 1"=40'



VIEW (HEADWALL) A
SCALE: 1"=10'



VIEW (SIDEWALL) B
SCALE: 1"=10'

NOTES:

1. RING PATTERN BOLT HOLES WILL BE DRILLED APPROXIMATELY HORIZONTAL AND ORIENTED TO PREVENT INTERCEPTING THE DESIGNED TUNNEL BORE. THE CONSTRUCTOR SHALL DETERMINE THE MEANS USED TO MEASURE ALIGNMENT AND WILL OBTAIN CONCURRENCE FROM THE A/E.
2. ROCKBOLTS, WWF AND ACCESSORIES LOCATED ON THE SOUTH PORTAL HEADWALL OF THE BOXCUT ARE PERMANENT FUNCTION AND SUBJECT TO QA CONTROLS, AS SPECIFIED IN SPECIFICATION SECTION 02165.
3. GROUND SUPPORT SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 02165, UNLESS NOTED OTHERWISE.
4. INSTALL AND ORIENT SUPPLEMENTAL ROCKBOLTS, AS NECESSARY, TO ADDRESS GEOLOGIC FEATURES. SUPPLEMENTAL ROCKBOLTS INSTALLED ON THE HEADWALL SHALL BE SWELLEX TYPE BOLTS.
5. SHOTCRETE MAY BE USED FOR PERSONNEL SAFETY IN AREAS DETERMINED BY THE CONSTRUCTOR.
6. TCO APPROVAL IS REQUIRED PRIOR TO APPLICATION OF SHOTCRETE ON THE HEADWALL.
7. TCO APPROVAL IS REQUIRED PRIOR TO APPLICATION OF SHOTCRETE ON THE SIDEWALLS OF THE BOXCUT.
8. SHOTCRETE 50-75mm IN THICKNESS MAY BE APPLIED TO TEMPORARILY ENHANCE SLOPE STABILITY DURING CONSTRUCTION.
9. SHOTCRETE SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 03362 OR 03363.
10. A 6'-6" SPACING BETWEEN THE SQUARE PATTERN BOLTS AND A 6'-6" DISTANCE BETWEEN RING PATTERN BOLTS AND ADJACENT SQUARE PATTERN BOLTS SHALL NOT BE EXCEEDED.
11. A TOLERANCE OF ±6 INCHES APPLIES TO THE SPACING BETWEEN ROCKBOLTS ALONG EACH RING.
12. SEE DWGS 20210 AND 20211 FOR BOXCUT DESIGN.
13. CATEGORY IV GROUND SUPPORT SHALL BE INSTALLED IN THE FINAL 10 METERS OF THE SOUTH RAMP TO PREVENT INTERFERENCE BETWEEN RING PATTERN BOLTS AND TUNNEL GROUND SUPPORT.
14. 3"x3" WWF SHALL BE USED ON ALL SLOPE FACES WHERE ROCKBOLTS ARE INSTALLED.
15. THE 20' (6 m) LONG GROUTED ROCKBOLTS MAY INCLUDE COUPLERS, AS DETERMINED BY THE CONSTRUCTOR. GROUTED BOLTS DO NOT REQUIRE MECHANICAL ANCHORS AND MAY USE SACRIFICIAL DRILL BITS, AS REQUIRED.
16. GROUTABLE ROCKBOLTS SHALL BE GROUTED AT LEAST 72 HOURS PRIOR TO EXCAVATION OF THE TUNNEL ADJACENT TO THE BOLTS.
17. THE CONSTRUCTOR SHALL PROVIDE SUPPORT FOR BOXCUT TESTING, MAPPING AND CONSTRUCTION MONITORING ACTIVITIES, AS REQUIRED.

TBV-193-ESF SEISMIC DESIGN VALUES NEED TO BE VERIFIED
TBV-224 ROCK MASS PROPERTIES NEED TO BE VERIFIED

9609300119

ANSTEC APERTURE CARD

8/15/96
EFFECTIVE DATE

RECEIVED
AUG 15 1996
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NOTICE OF OPEN CHANGE DOCUMENTS			
THIS DOCUMENT IS IMPACTED BY THE LISTED CHANGE DOCUMENT AND CANNOT BE USED WITHOUT THEM			
CHANGE DOCUMENT NUMBER	POSTED BY	DATE	STATUS

GRAPHIC SCALE
0 10 20 30
1"=10'

REV	DESCRIPTION	DATE	DRN	ORG	CHK	VER	L.D.E.	Q.A.	D.M.
00	ISSUED FOR CONSTRUCTION	8-09-96	JH	JH	JH	WRK	FCA		

APPROVALS	INITIAL/DATE
DRAWN: J HERRERA	JH 8/9/96
ORIGINATOR: S GOODIN	JH 8/9/96
CHECKED: J PETERS	JH for 8/9/96
VERIFICATION: L MORRISON	WRK 8-9-96
LEAD DESIGN ENGINEER: W KENNEDY	WRK 8-09-96
QUALITY ASSURANCE: F ARTH	FCA 8-9-96
DEPARTMENT MANAGER: J NAAF	JN 8-9-96

U.S. DEPARTMENT OF ENERGY
Yucca Mountain Site Characterization Project
M&O Civilian Radioactive Waste Management System
MANAGEMENT & OPERATING CONTRACTOR

EXPLORATORY STUDIES FACILITY
SOUTH PORTAL
BOXCUT GROUND SUPPORT
PLAN AND VIEWS

SIZE	DOCUMENT IDENTIFIER	CI IDENTIFIER	DRAWING NO.	REV
D	BABEE0000-01717-2100-40242			00

SCALE	QA CLASSIFICATION	W.B.S.	CAD FILE
AS NOTED	Q	1.2.6	MINE:40242.DGN

CAGE CODE:

RECORD DESIGNATOR

D-3

9-AUG-1996 10:21

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John

rec'd well filled out 9/5/96

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