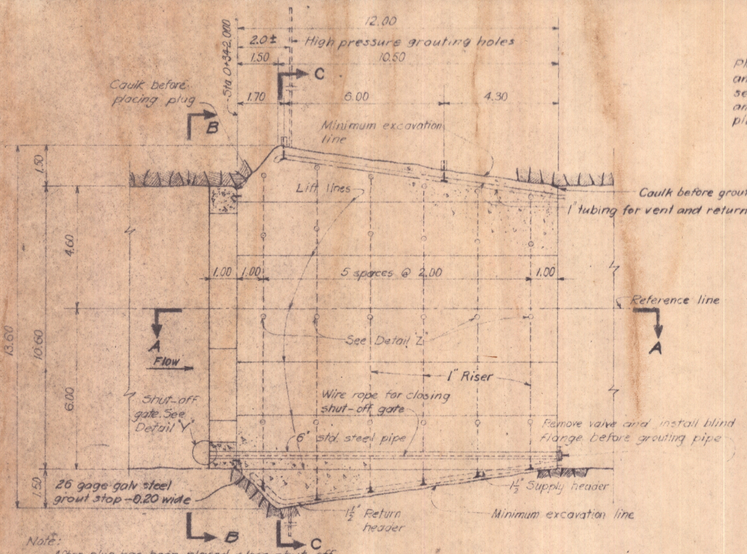
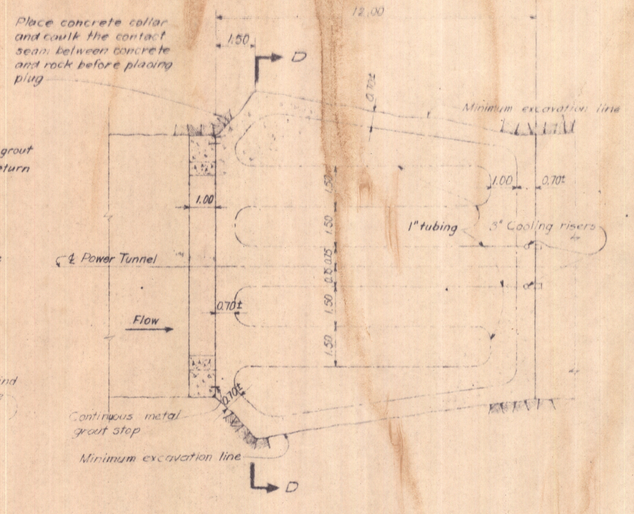
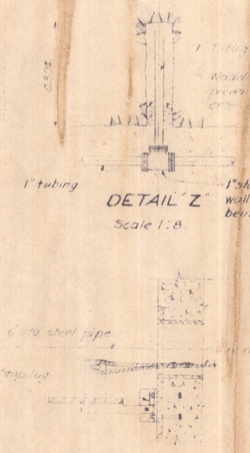



Note:
After plug has been placed, close shut-off gate & backfill 6" pipe with concrete. Cut off wire rope at end of pipe, install blind flange & then grout pipe.

SECTIONAL ELEVATION ALONG ℄
GROUTING DETAILS ONLY

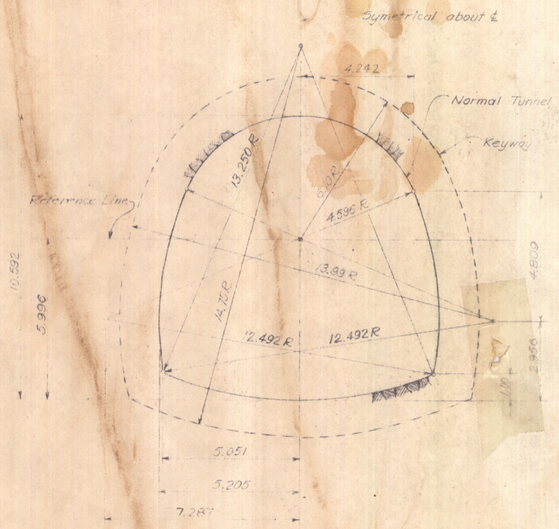



SECTIONAL PLAN A-A
COOLING DETAILS ONLY

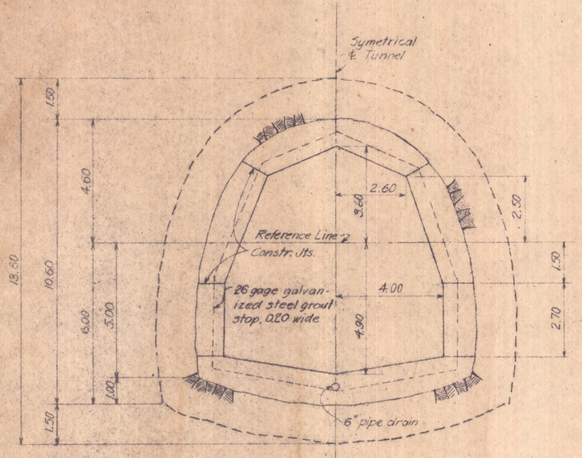



DETAIL "Z"
Scale 1:8

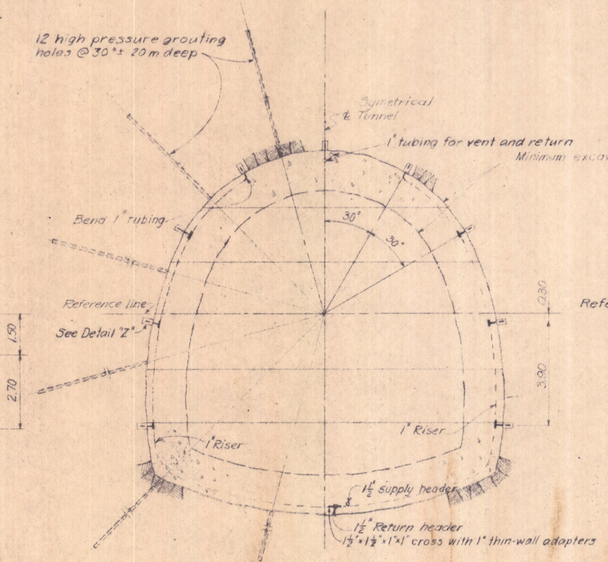
DETAIL "Y"
Scale 1:8



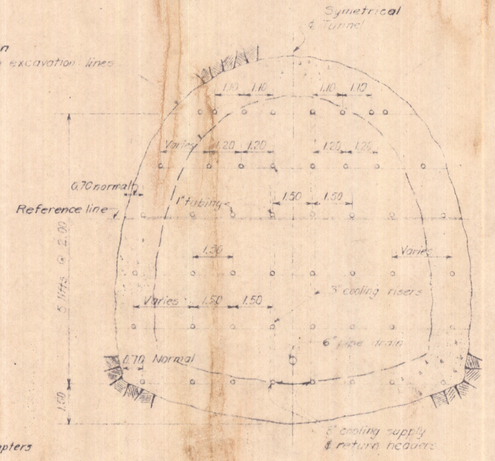

TYPICAL TUNNEL SECTION
MINIMUM EXCAVATION




SECTION B-B




SECTION C-C
SHOWING GROUTING ONLY




SECTION D-D

| BILL OF MATERIALS | |
|---|---|
| Description | Quantity |
| 26 gage galvanized steel grout stop — PO: 11.5061.1 | 65 sq ft |
| 3/16"x8" mild steel water stop — PO: 11.5061.1 | 70 ft |
| 1½" std black wrought steel pipe — PO: 11.5067.7 | 273 ft |
| 3" " " " " " — " " | 168 ft |
| 6" " " " " " — " " | 43 ft |
| 1" electrical metalic tubing (thin-wall) — PO: 11.5068.1 | 9900 ft |
| Std black malleable iron pipe fittings — PO: 11.5067.1 | |
| 90° elbows, straight, 3" | 10 ea |
| Tees, straight, 1" | 165 ea |
| Tees, reducing, 3"x3"x1" | 25 ea |
| Bushings, inside, hexagonal, 3"x1" | 5 ea |
| Plugs, 1" | 10 ea |
| Cast iron fittings for std pipe, Class 125, black — PO: 11.5067.1 | |
| Crosses, reducing, screwed, 1½"x1½"x1"x1" | 25 ea |
| Screwed flange for 6" pipe, faced and drilled | 1 ea |
| Blind " " " " " " " | 1 ea |
| 1½" Dresser couplings, Style 38 — PO: 11.5067.1 | 2 ea |
| 6" gate valve, 100 lb, WOG, iron body, double disk, brass trimmed, non-rising stem, flanged, faced and drilled — Crane Co No 716, or equal — PO: 11.5067.1 | 1 ea |
| Thin-wall condit fittings for 1" EMT — PO: 11.5068.1 | |
| Adapters | 500 ea |
| Couplings | 1050 ea |
| 3½" dia electrical outlet box covers, raised with KO for ½" in center — PO: 11.5068.1 | 100 ea |

NOTE: The above Bill of Materials includes materials for Dwgs 13-F-57 and 58.

NOTES:
Elevations and dimensions are in meters.
All cooling and grout tubings to be anchored securely in place before concrete is placed.
Flow in cooling coils to be reversed as directed.
Grouting pressure as directed.
Keyway for plug to be excavated after diversion.
Field to provide wire rope and misc metal for closure of 6" drain pipe.

REFERENCE DRAWINGS
13-F-1 Diversion Tunnels - Plan & Profiles
13-F-7 General Plan
13-F-8 General Sections

SCALE 1:100 Except as noted

| REV NO. | DATE | MADE | CHECKED | APPROVED |
|---|---|---|---|---|
| 2 | PO Numbers | | | |
| | May 19 '52 | G.J.B. | H.H. | Y.M. |
| 1 | Bill of Materials, Details | | | |
| | Mar 6 '52 | G.J.B. | H.H. | Y.M. |

MORRISON - KNUDSEN AFGHANISTAN, INC.
KAJAKAI DAM
POWER TUNNEL
PLUG
INTERNATIONAL ENGINEERING CO., INC.

DESIGNED H.C.Y. K.R.W. DRAWN H.C.Y. CHKD. H.Y.H. INSP. W.A.W. SUBMITTED RECOMMENDED APPROVED

13-F-57 R2
SAN FRANCISCO, CAL.
DATE JANUARY 31, 1952