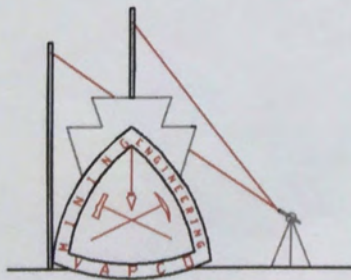


BLACKLICK CREEK WATERSHED ASSOCIATION  
RICHARDS AMD PASSIVE TREATMENT PROJECT  
PHASE II  
CHERRYHILL TWP. INDIANA CO.

DATE: OCT. 2001

SCALE: 1"=50'

prepared by:



E N G I N E E R I N G  
P.O. Box 327 • Rte. 119 & 210 Intersection • Punxsutawney, PA. 16767

APPROX. LOCATION  
OF BURIED MINE  
OPENING

APPROXIMATE  
LOCATION OF  
BURIED MINE  
OPENING

EXISTING  
MINE DRAIN  
OUTFLOW  
EL. 1268.7

A



coupler

inv. el. 1264.5

8" PVC

12" SCH40 PVC

EXIST. 10" TERRA COTTA  
CAP

EXIST. 3"

BORING ±90'  
STEEL CASING  
15" SCH40 PVC

RECEIVING PIT

12" SCH40 PVC

1271.0

1265.8

1270

1270.8

1271.5

gravel  
access road

BORING  
PIT

8" PVC  
OVERFLOW

VALVE

8" CAST  
GATE VALVE

CLEANOUT  
(OUTLET)

outlet el. to cell  
1258 (REMOVED)

50'-6" SCH40 PVC

ELEV. 1263'

2:1

60' R/W

1270

1262.5

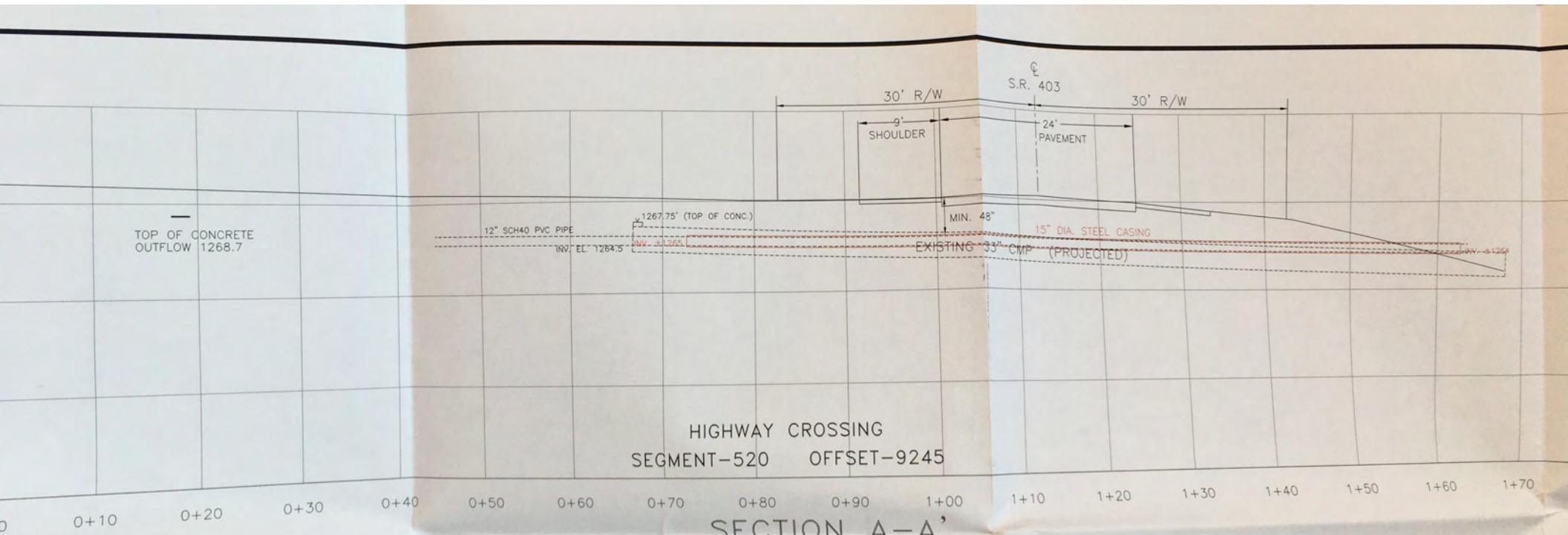
8" SCH40 PVC

1:10

UNDG

EARTH

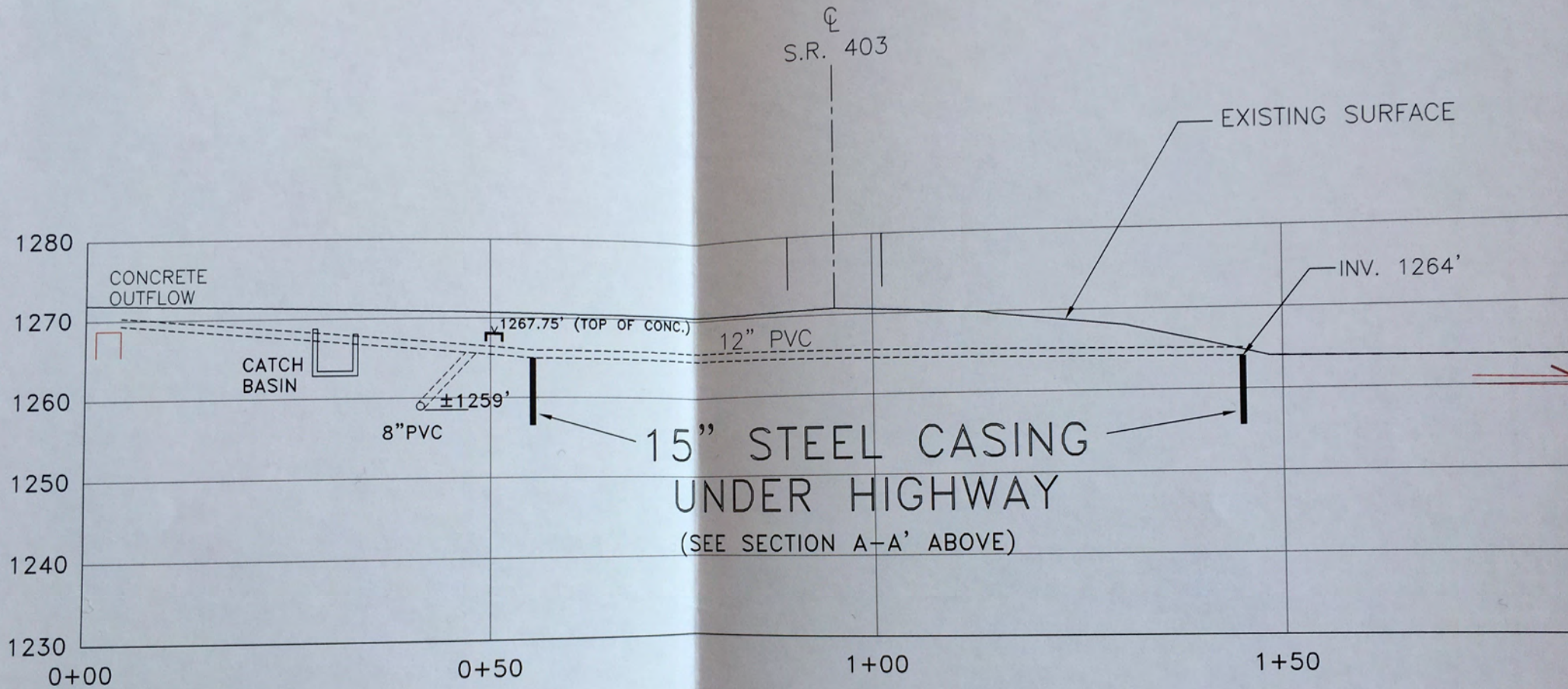
8" CAST  
GATE VALVE

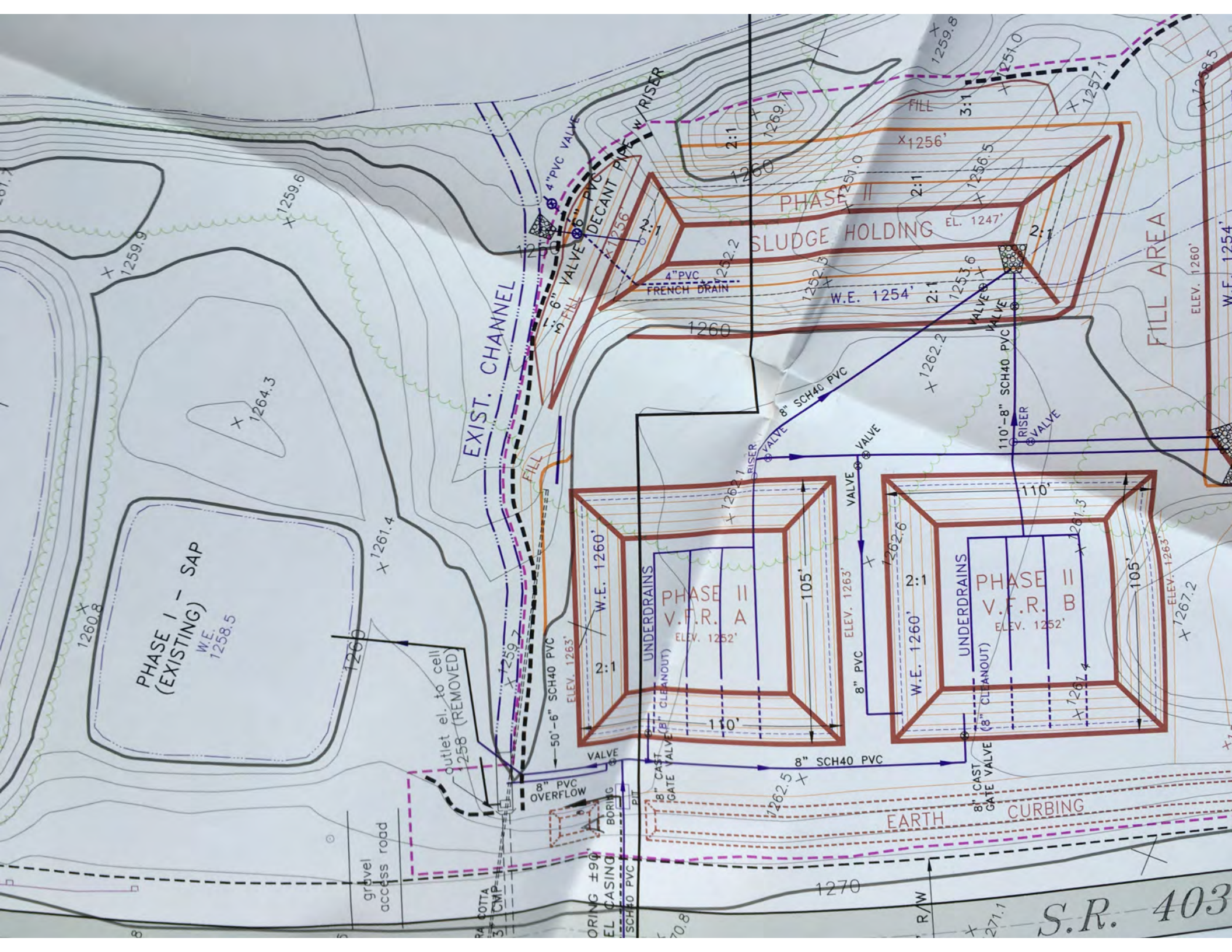


HIGHWAY CROSSING  
 SEGMENT-520 OFFSET-9245

SECTION A-A'

SCALE: 1"=10' Horz.  
 1"=10' Vert.





PHASE I - SAP  
(EXISTING)  
W.E. 1258.5

EXIST. CHANNEL

PHASE II  
SLUDGE HOLDING  
EL. 1247'

FILL AREA

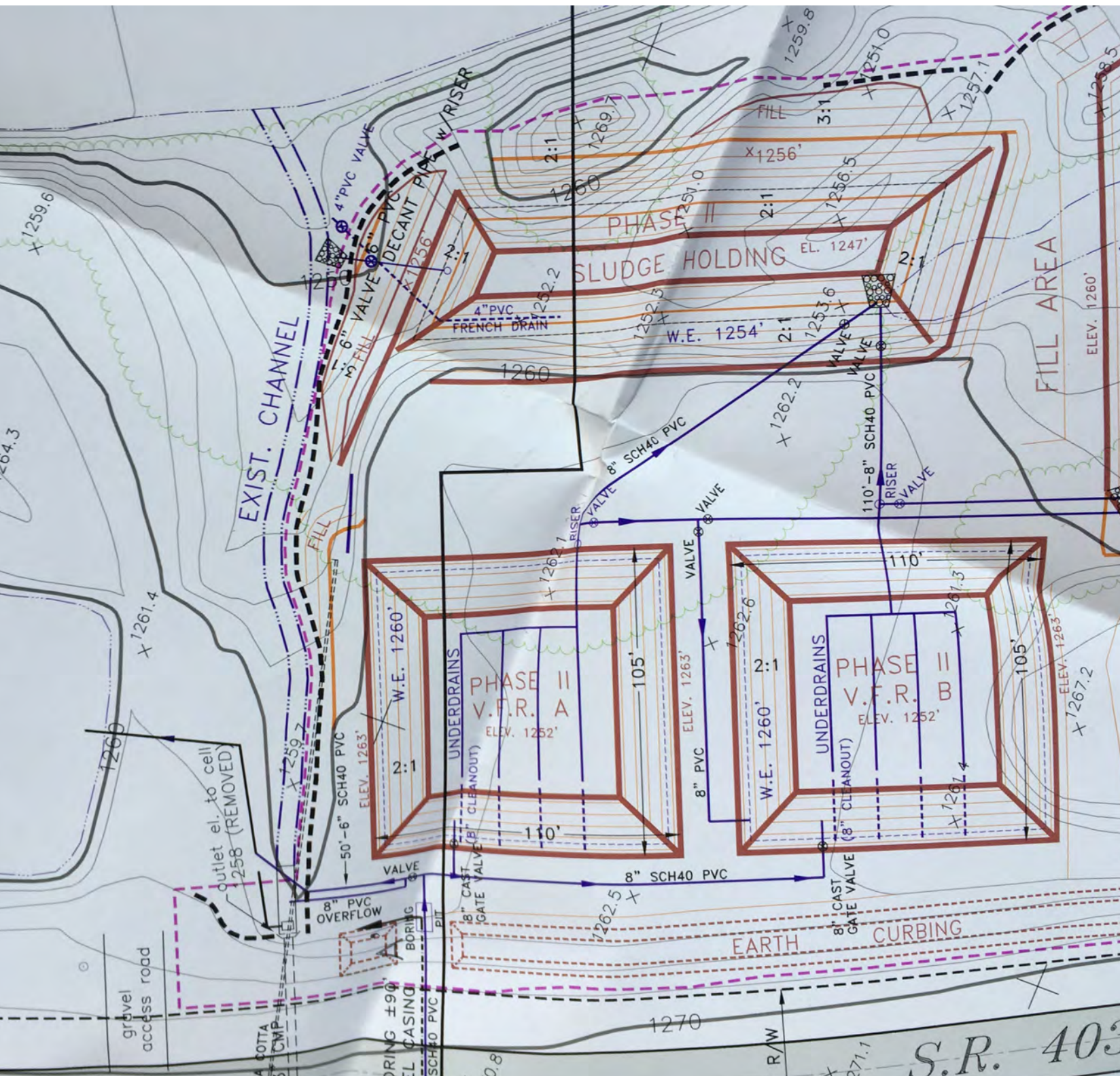
PHASE II  
V.F.R. A  
ELEV. 1252'

PHASE II  
V.F.R. B  
ELEV. 1252'

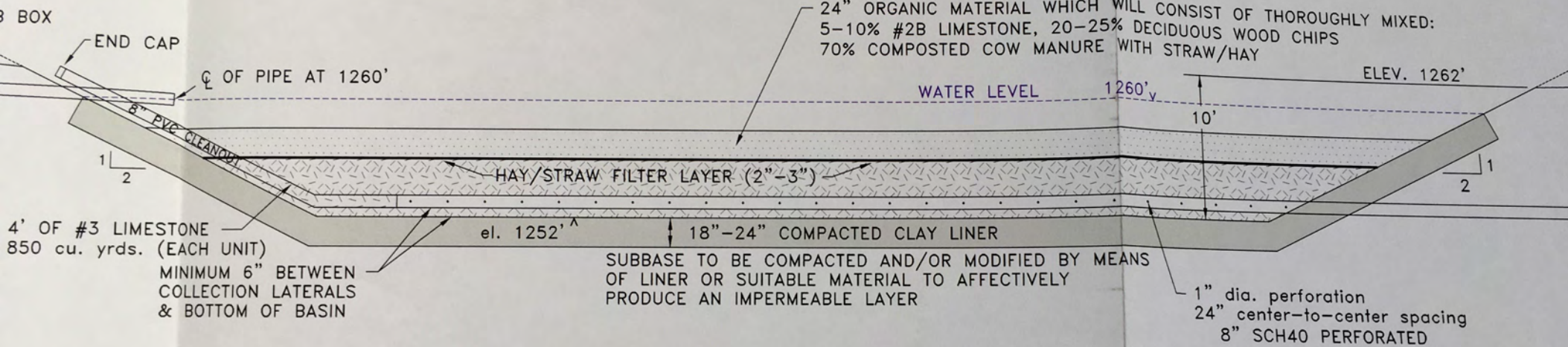
gravel  
access road

EARTH CURBING

S.R. 403



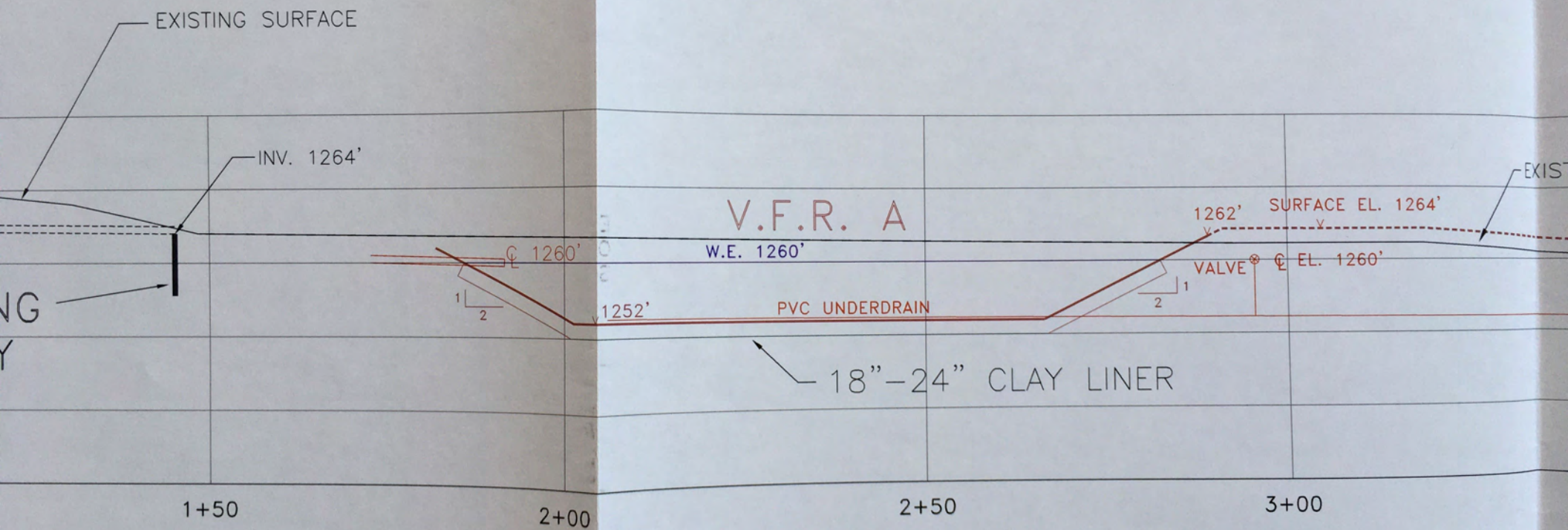
SECTION A-A  
SCALE: 1"=10' Horz.  
1"=10' Vert.



VERTICAL FLOW REACTOR (V.F.R.)  
SYSTEM DETAIL-TYPICAL

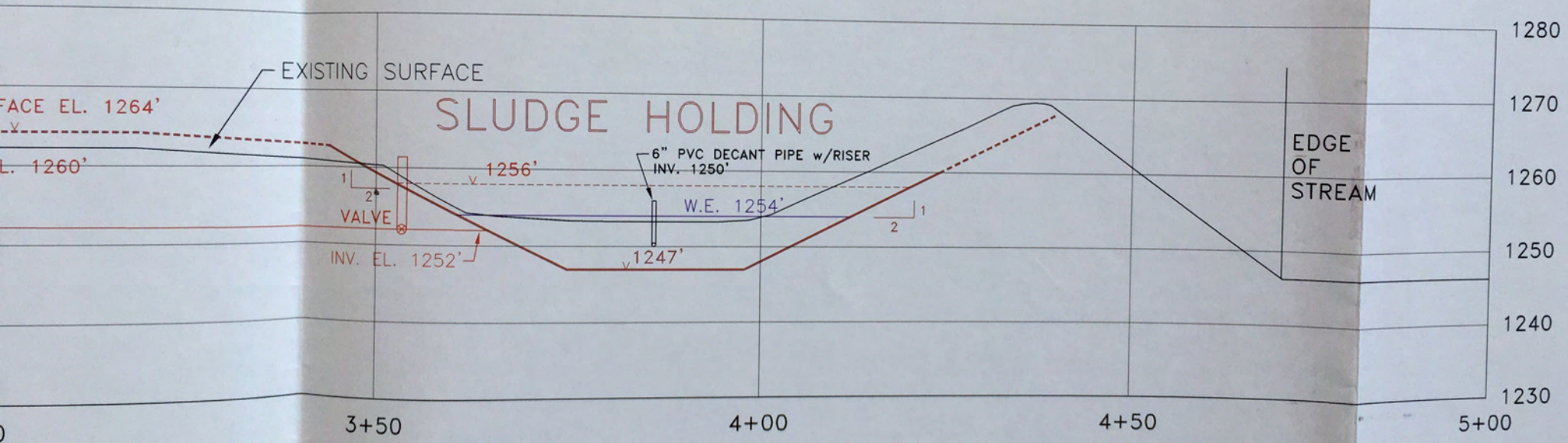
SCALE: 1"=10'





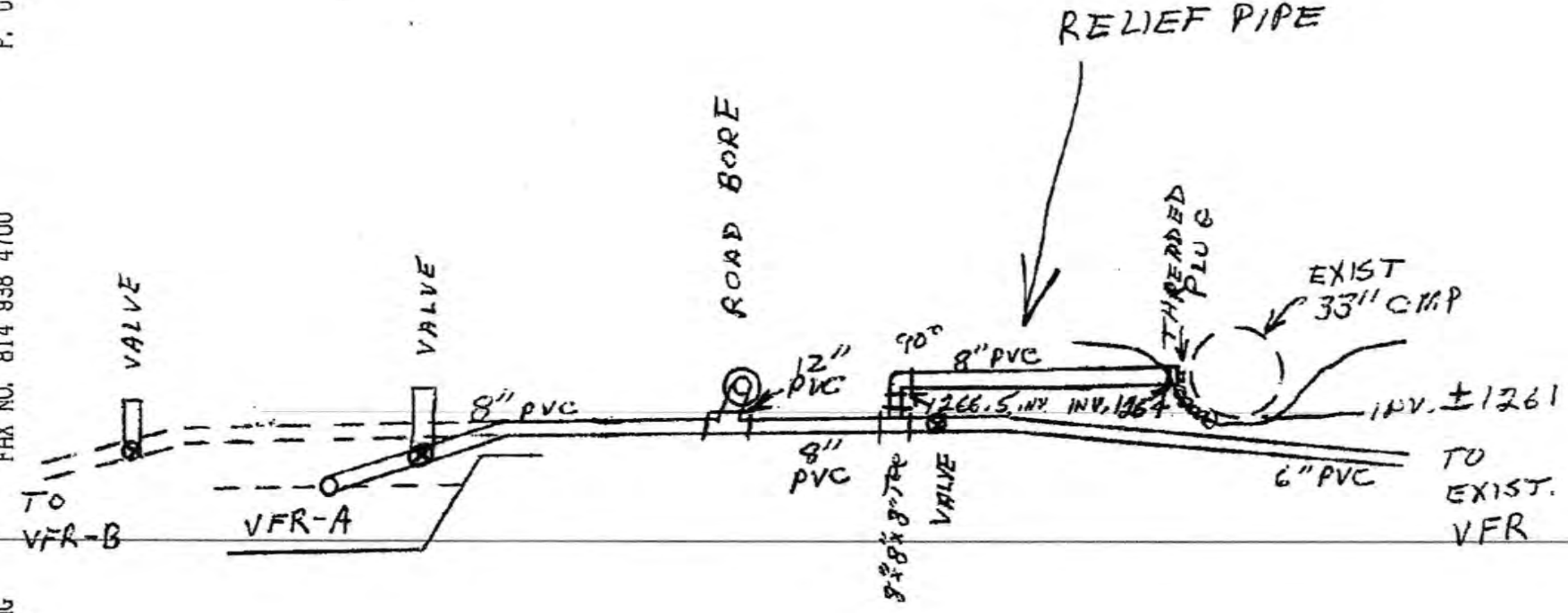
## SECTION 2

SCALE: 1"=20' HORZ.  
1"=20' VERT.







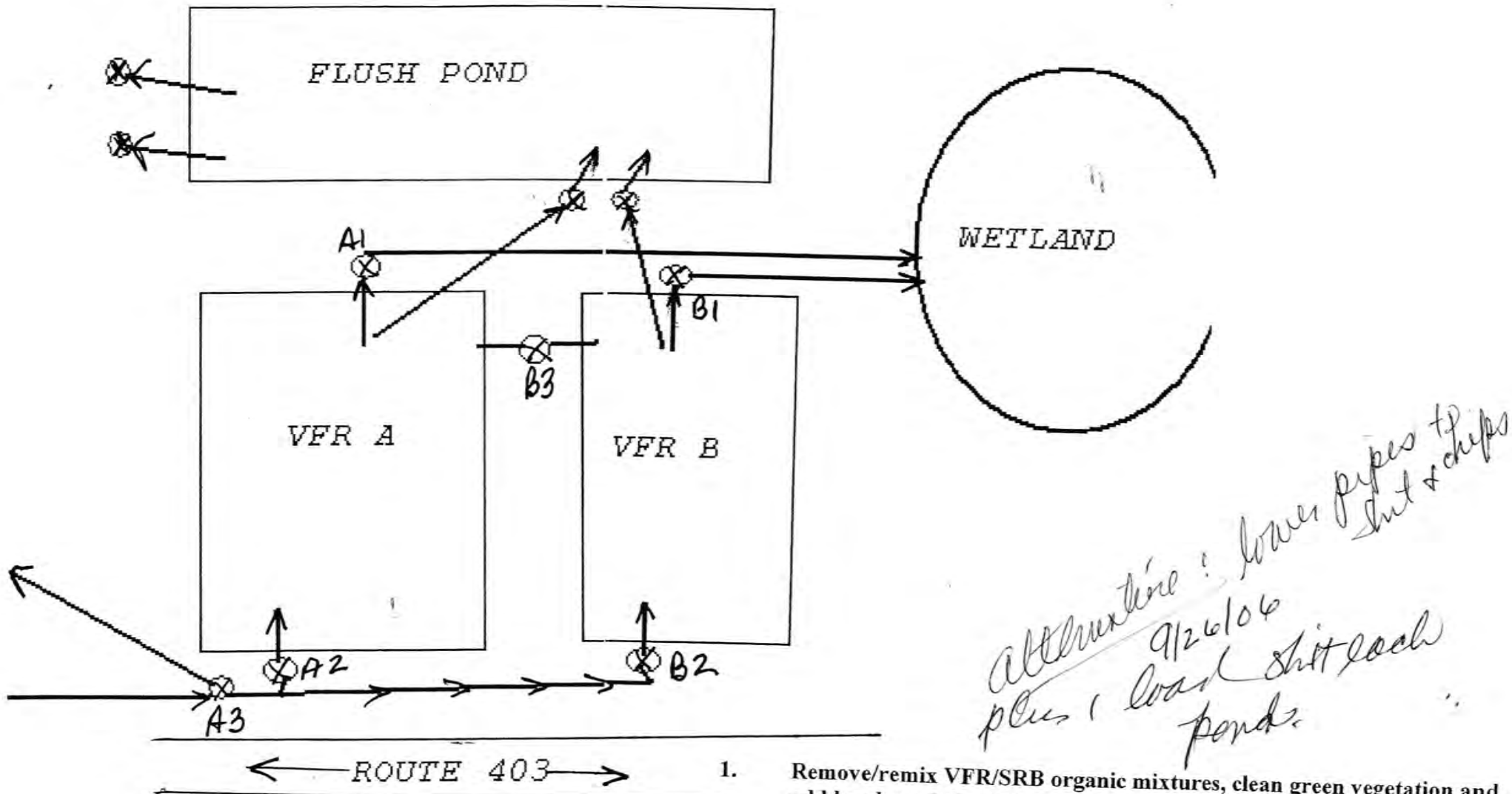


RICHARDS II  
 RELIEF DISCHARGE PIPE  
 (EXTRA WORK)

**BLACKLICK CREEK WATERSHED ASSOC., INC.**

Richards 2A and 2B – Clymer, PA Route 403

**System Modifications**



1. Remove/remix VFR/SRB organic mixtures, clean green vegetation and add hardwood slats/chips (20 tons to each VFR).
2. Replace well mixed VFR/SRB mixtures over base stone in place using "paint out" procedure (NO COMPACTION OF MIX).
3. Add valve box vertical extensions to valves A1, A2, A3, B1, B2, B3.
4. Raise elevations of all VFR pond berms by 2 feet with clay soils, keyed into present berms with minimum 8 foot wide tops for road access.  
(approx 750 cubic yards)

