

DD Rec'd 4/10/97

40-7604



BP CHEMICALS

BP Chemicals Inc.
Ft. Amanda Road
P.O. Box 628
Lima, Ohio 45802-0628
(419) 226-1200

VIA OVERNIGHT MAIL

Mr. Sam Nalluswami
Low-Level Waste and Decommissioning Projects Branch
Division of Waste Management
Office of Nuclear Materials and Safeguards
United States Nuclear Regulatory Commission
Two White Flint North
11545 Rockville Road
North Bethesda, MD 20852

December 10, 1996

Re: License No. SUB-908
Docket No. 040-07604

Subject: Mixed Waste Pond Closure Project
Field Change No. 017

Dear Sir:

In accordance with the mixed waste pond closure project field change approval procedure (BPCI Administrative Procedure AP-02), BP Chemicals, Inc. (BPCI) herewith submits for NRC review proposed Field Change No. 016. This field change will provide a detailed specification for a french drain to be installed in the east anchor trench of Cell #1. The french drain will intercept infiltrating water originating from unknown sources to the east of the cell to prevent the water from leaking under the liner. The proposed design will maintain adequate stability of the anchor trench and liner system.

Included for your review is a copy of Dames & Moore letters dated November 15, 1996 and November 26, 1996 with attachments.

Your concurrence for this proposed field change is requested. This proposed field change has also been submitted to Ohio EPA. If there are any questions, please give me a call at (419) 226-1299.

Sincerely,

William M. Rupert, PE
Project Manager

cc: Ed Kulzer, USNRC Region 3
Jim Ottarson, Ohio EPA
Ruth Vandegrift, ODH

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PDR ADDCK 04007604
C PDR

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BP CHEMICALS, INC.
MIXED WASTE POND CLOSURE PROJECT

FIELD CHANGE REQUEST FORM

Field Change Number: 017 Date: 11/26/96

Subject: French Drain for East Side of Cell No. 1

Description: Provide a French Drain to intercept water infiltration from
unknown sources east of Cell No. 1

Justification: Uncontrolled infiltration could leak under liner. Proposed
Anchor Trench Design allows installation of French Drain in Anchor Trench
while maintaining adequate stability of the trench and liner systems.

Attachments: 11/26/96 and 11/15/96 D&M letters with attachments

Requested by: W. M. Rupert BPCI 11/15/96
Signature Company Date

BPCI Project Approvals

Dames & Moore Robert R. Blickwedehl not Yes No 12/6/96
Certifying Engineer Signature Approval Date

BPCI Radiation NOT APPLICABLE Yes No —
Safety Officer Signature Approval Date

BPCI HSE NOT APPLICABLE Yes No —
Manager Signature Approval Date

BPCI Project W. M. Rupert Yes No 12/9/96
Manager Signature Approval Date

Regulatory Agency Concurrence

Ohio EPA Yes No
Concurrence Signature Concur Date

NRC Yes No
Concurrence Signature Concur Date

 **DAMES & MOORE**

3065 SOUTHWESTERN BOULEVARD, SUITE 202, ORCHARD PARK, NEW YORK 14127
(716) 675-7130 FAX: (716) 675-7136 (716) 675-7137

November 26, 1996

BP Chemicals, Inc.
Ft. Amanda Road
Lima, OH 45803-0628

Attn: Mr. William M. Rupert, P.E.
Technical Specialist, Environmental

Re: Revised Layout -- French Drain for East Side of V-1 Cell
Mixed Waste Pond Closure Project
BP Chemicals, Inc.
Lima, Ohio

Dear Bill:

Enclosed please find a revised layout for the French drain proposed for the east side of the cell. As you requested, the drain now flows to the north. During construction, the discharge from the drain will be pumped by the contractor from the manhole at the north end of the drain to a location in the plant NPDES discharge system designated by BP Chemicals. Please replace the layout submitted with the original Field Change Request package (transmitted under our letter of November 15, 1996) with the enclosure.

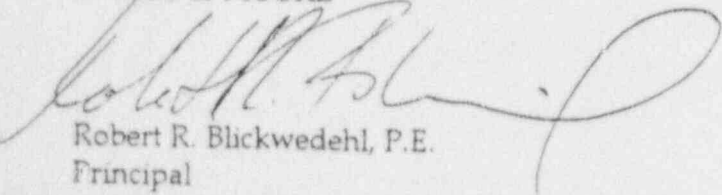
For post construction conditions we understand that BP Chemicals intends that the discharge be pumped to the drainage swale which will ring the perimeter of the cell cap and flow to a storm sewer which will ultimately drain to the NPDES system. The outfall to the swale will require steam tracing for winter operation. We understand that a steam source can be provided from the steam trace system for the HCN line. We also understand that the discharge of steam condensate from the HCN line will be minimized to reduce infiltration to the French drain.

We will prepare detailed designs for the post construction discharge system in conjunction with the redesign of the cap drainage system (swale and storm sewer) to consider the elimination of the Celite Cell. To complete this we need the details for connection sites for steam and electrical power.

Please contact me if you have any questions regarding this submittal.

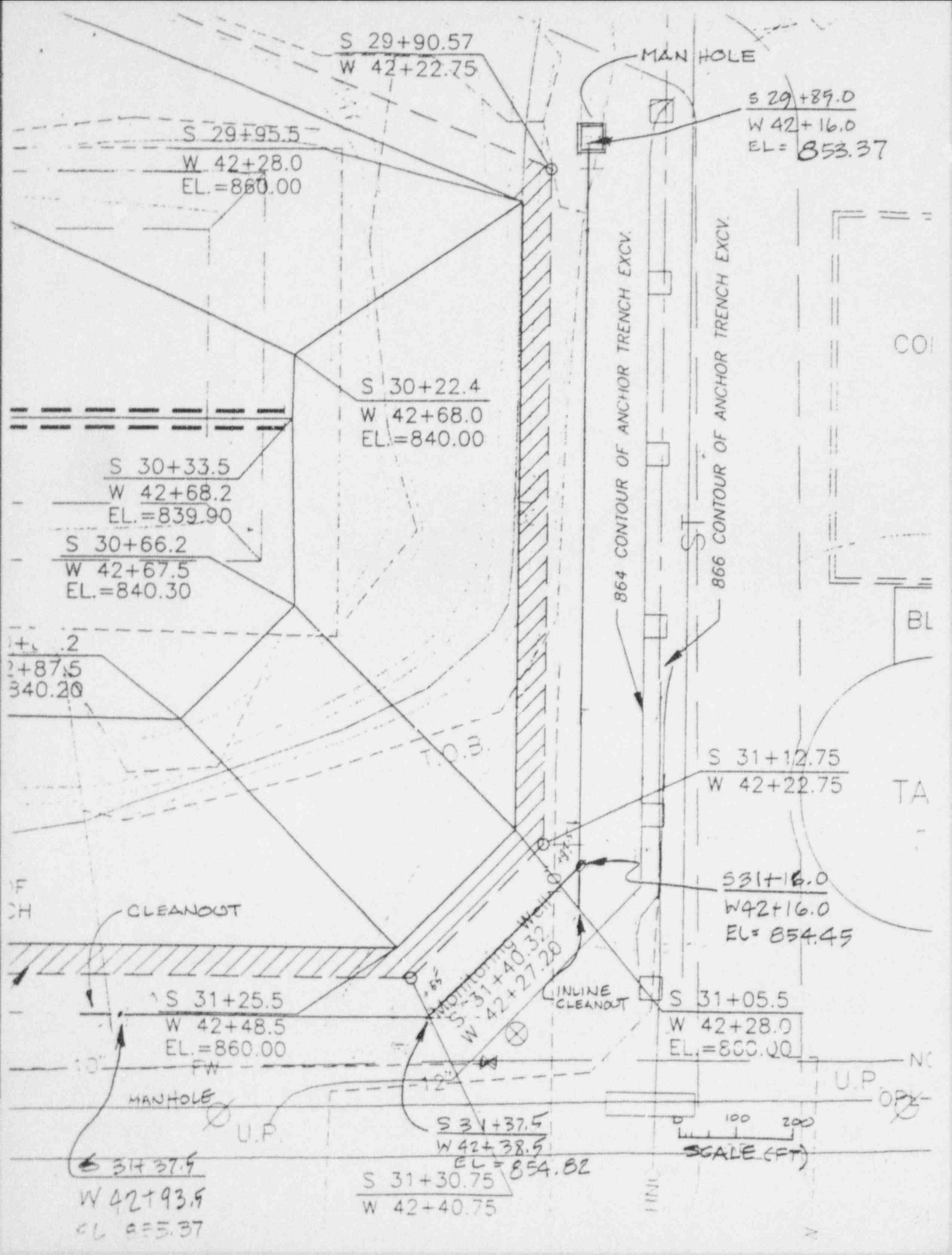
Sincerely,

DAMES & MOORE



Robert R. Blickwedehl, P.E.
Principal

cc: Mr. Z. Zaharewicz -- Dames & Moore (w/prints)
Mr. F. Erdmann -- Dames & Moore (w/prints)
enclosure





3065 SOUTHWESTERN BOULEVARD, SUITE 202, ORCHARD PARK, NEW YORK 14127
(716) 675-7130 FAX: (716) 675-7136 (716) 675-7137

November 15, 1996
BP Chemicals, Inc.
Ft. Amanda Road
Lima, OH 45803-0628

Attn: Mr. William M. Rupert, P.E.
Technical Specialist, Environmental

Re: French Drain for Anchor Trench on East Side of V-1 Cell
Mixed Waste Pond Closure Project
BP Chemicals, Inc.
Lima, Ohio

Dear Bill:

Enclosed please find a field change request and three sketches (plan, cross section and cleanout detail) which describe our recommendations for a french drain to be installed along the east side and at the southeast corner of the V-1 cell anchor trench. Based on information furnished to us, we understand that there is considerable seepage from granular fill material in this area.

The proposed design is based on the design in calculation BUF-96-112 for the west side anchor trench. This was sent to you with a field change request under our letter of October 31, 1996. We have not yet received the official copy of the, so we are not aware of its number. Would you please fill this in on the 3rd line of the Description and the 5th line of the Justification sections of the attached FCR. The only modifications to the west side design are as follow:

1. The distance between the edge of the anchor trench and the drain is reduced to 6.75 ft to accommodate the narrower anchor trench width.
2. The woven geotextile is extended up the back wall of the anchor trench excavation. This conforms to the narrow width anchor trench design covered under calculation BUF-96-110.
3. The manhole should be installed so that the north inside wall is no more than 9 inches north of the french drain pipe. This will prevent excavation encroachment on the geomembrane. Other than this, the manhole design is the same as the one sent to you previously.
4. The layout includes two 45 degree bends. Inline cleanouts should be installed at these locations. A sketch of these cleanouts is provided. The surface finish of the cleanouts is the same as for the french drain on the west side of the cell.

BP Chemicals, Inc.
November 15, 1996
Page 2

5. A layer of gravel, covered with a non-woven geotextile extends from the backwall of the excavation to the french drain trench. This has been added because of the greater distance between the french drain and the backwall and the increased depth of the drain relative to the design for the west side of the cell.

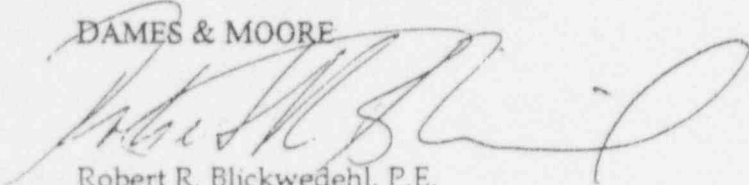
To minimize difficulties with compaction in the tight areas, we recommend using flowable fill for the backfill around the manhole. Also, the manhole excavation should not be initiated until just before the contractor is ready to install it and place backfill. This will minimize the potential for sloughing of the excavation walls.

The discharge from the drain should be pumped to existing stormwater during the construction period. We will work out routing for a permanent gravity pipe system in conjunction with the redesign of the storm drainage system in consideration of the elimination of the Celite Cell.

Please contact me if you have any questions regarding this submittal.

Sincerely,

DAMES & MOORE



Robert R. Blickwedehl, P.E.
Principal

cc: Mr. Z. Zaharewicz -- Dames & Moore (w/encl.)
Mr. F. Erdmann -- Dames & Moore (w/encl.)

enclosures

BP CHEMICALS, INC.
MIXED WASTE POND CLOSURE PROJECT
FIELD CHANGE REQUEST FORM

Field Change No. 017 Date: 11/15/96

Subject: FRENCH DRAIN FOR ANCHOR TRENCH ON
EAST SIDE OF V-1 CELL

Description: INSTALL A FRENCH DRAIN PER ATTACHED
LAYOUT AND SKETCHES AND DESIGN IN FIELD
CHANGE REQUEST N°

Justification: SEEPAGE HAS BEEN OBSERVED ON THE
BACKWALL OF THE ANCHOR TRENCH. FRENCH
DRAIN WILL PREVENT SEEPAGE FROM
GETTING BELOW LINER. MODIFICATIONS OF DESIGN
FROM FIELD CHANGE REQUEST N° ARE NEEDED TO
ACCOMMODATE DIFFERENT SITE CONDITIONS AND DO
NOT AFFECT STRENGTH OF HYDRAULIC CONSIDERATIONS.

Attachments: • LAYOUT SKETCH
• TYPICAL CROSS SECTION
• INLINE CLEANOUT DETAIL

Initiator:

Signature

DAMES & MOORE

Company

11/15/96

Date

Field Change Request Form

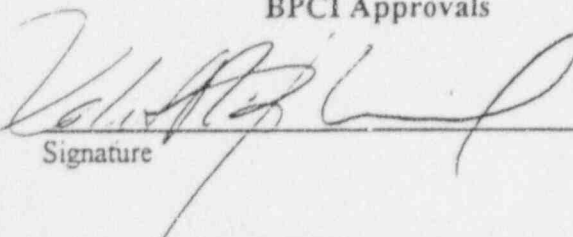
Field Change No. _____

Date: 11/15/96

Subject: FRENCH DRAIN FOR ANCHOR TRENCH ON
EAST SIDE OF V-1 CELL

BPCI Approvals

Dames & Moore
Certifying Engineer

Signature 

☒ Yes ☐ No
Approval

11/15/96
Date

BPCI Radiation
Safety Office

Signature _____

☐ Yes ☐ No
Approval

Date

BPCI HSE
Manager

Signature _____

☐ Yes ☐ No
Approval

Date

BPCI Project
Manager

Signature _____

☐ Yes ☐ No
Approval

Date

Regulatory Reviews

Ohio EPA
Concurrence

Signature _____

☐ Yes ☐ No
Concurrence

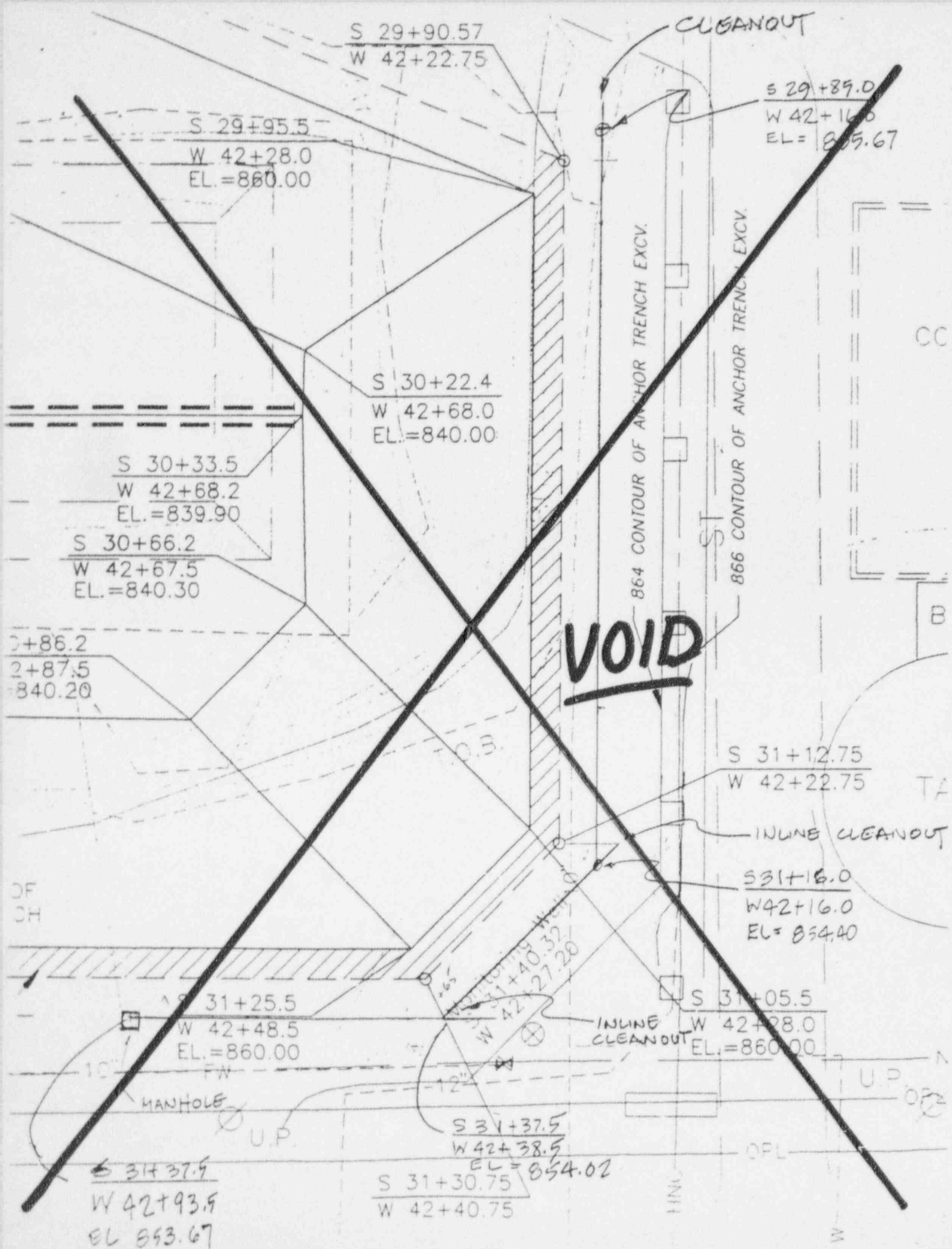
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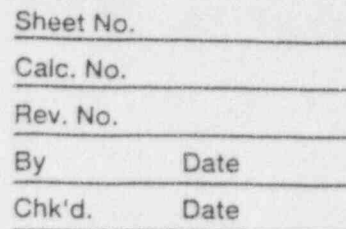
NRC
Concurrence

Signature _____

☐ Yes ☐ No
Concurrence

Date





Job

Subject

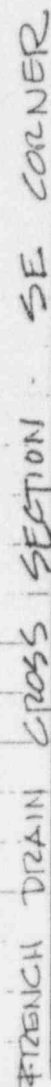
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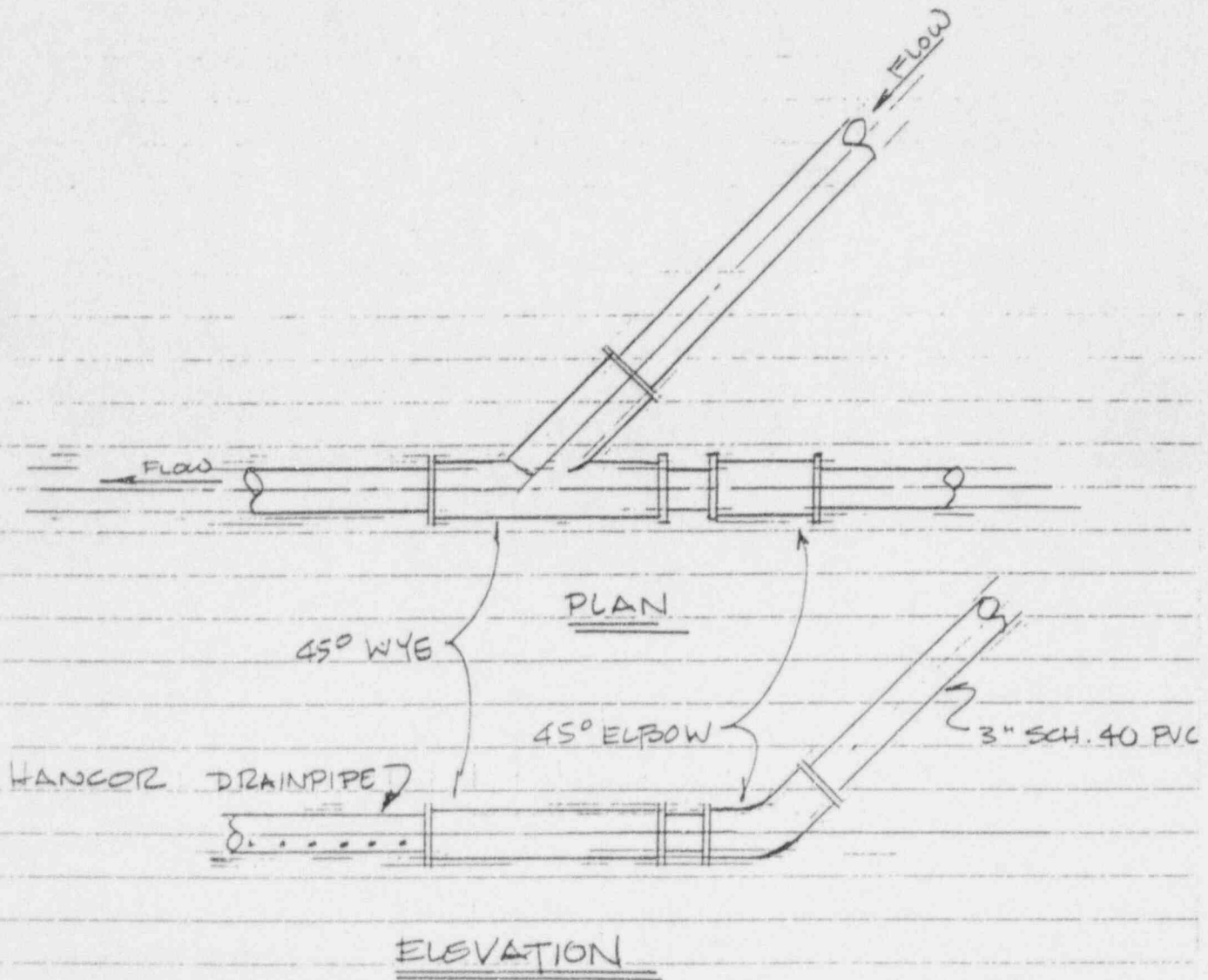
Rev. No. _____

By _____ Date _____

Chk'd. _____ Date _____



Job No.	Job
Client	Subject





Sheet No.

Calc. No.

Rev. No.

Job No.

Job

By

Date

Client

Subject

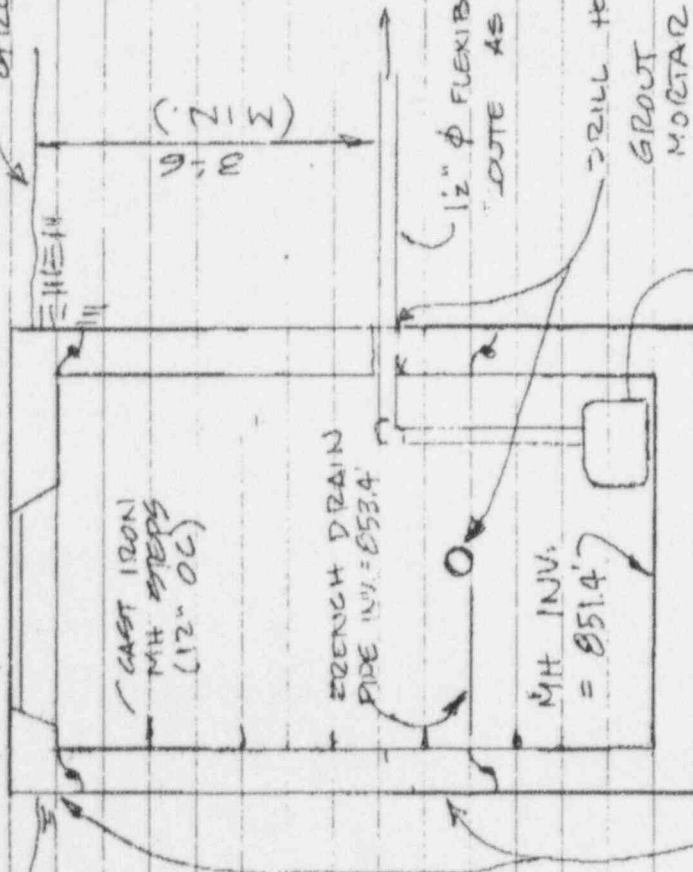
Chk'd.

Date

TOP OF MANHOLE ELEV. = 866.0'

24" ϕ CAST IRON MH COVER

GROUND SURFACE

12" ϕ FLEXIBLE COLD WATER PRESS PIPE
NOTE AS DIRECTED BY OWNERDRILL HOLES FOR PIPE IN FIELD
GROUT PIPE IN PLACE W/ SAKRETE
MORTAR OR EQUIV.

1/2 HP TOP DISCHG SUMP PUMP

ON ELEV. = 852.9'

OFF ELEV. = 851.9'

PRECAST MH SECTIONS

JOINTS EO W/ O-RINGS

4'-0" ϕ MANHOLE INST - EAST SIDE FRENCH DRAIN