

ENGINEERING CHANGE NOTICE

Page 1 of 8

1. ECN ~~472792~~

Proj. ECN B-714-122

2. ECN Category (mark one)

Supplemental ☒
 Direct Revision ☐
 Change ECN ☐
 Temporary ☐
 Supersedure ☐
 Discovery ☐
 Cancel/Void ☐

3. Originator's Name, Organization, MSIN, and Telephone No.

M.A. McLean, KEH, E6-42, 6-5529

4. Date

03-27-92

5. Project Title/No./Work Order No. B-714/ER8007

Grouted Waste Disposal Facilities

6. Bldg./Sys./Fac. No.

218-E-16

7. Impact Level

3 /SC-2

8. Document Number Affected (include rev. and sheet no.)

See Block 12

9. Related ECN No(s).

B-714-93

10. Related PO No.

N/A

11a. Modification Work

☐ Yes (fill out Blk. 11b)
☐ No (NA Blks. 11b, 11c, 11d)
 UNKNOWN

11b. Work Package Doc. No.

UNKNOWN

11c. Complete Installation Work

Cog. Engineer Signature & Date

11d. Complete Restoration (Temp. ECN only)

Cog. Engineer Signature & Date

12. Description of Change

SC-3

Block 8: H-2-77598, Sh 1, Rev 1
 H-2-77599, Sh 1, Rev 1
 H-2-78470, Sh 1, Rev 0

APPROVED FOR
 PUBLIC RELEASE
V. Burkland 4/21/92

SEE SUCCEEDING PAGES FOR DESCRIPTION OF CHANGES

Block 13b (Justification Details) continued:

(FC): Allowed use of ASTM A36 plate for shims, in addition to ASTM A569 sheet, on all piping support details to facilitate setting pipe elevations. It is difficult to install metal pipe supports on top of Grout Vault in conjunction with placement of diffusion material, where distance between topping slab and bottom of encasement pipe is 4" or less. Allowed use of concrete block support on top of Grout Vault where distance between topping slab and bottom of encasement pipe is from 1-7/8" to 4". Allowed use of shims to be used as pipe support where distance between topping slab and bottom of encasement pipe is less than 1-7/8" (Item 2A, B, E, 3A, B & E). Added new detail for metal pipe support on top of Grout Vault to facilitate placement of diffusion material in conjunction with installation of support for setting pipe elevations (Item 2C & 3C).

13a. Justification (mark one)

Criteria Change ☐
 Design Improvement ☐
 Environmental ☐
 As-Found ☐
 Facilitate Const. ☒
 Const. Error/Omission ☐
 Design Error/Omission ☒

13b. Justification Details

(DE): North coordinate callouts for lines 2" EW-102A-M25 w/4" ENC-M26a & 2" EW-103A-M25 w/4" ENC-M26a incorrect (Item 1A & B). Added new detail for metal pipe support on top of Grout Vault where base of support overlaps abrupt elevation changes in topping slab. This is to accommodate topping slab changes resulting from ECN B-714-94 (Item 2D & 3D). JUSTIFICATION DETAILS CONTINUED IN BLOCK 12 ABOVE.

14. Distribution (include name, MSIN, and no. of copies)

KEH DISTRIBUTION

Const Doc Cntl E2-50

WHC DISTRIBUTION

Project Files R1-28

J. K. Epperley R1-29

T. K. Cordray S1-54

STA 10 A3-87

STA 6 T2-03

J. S. Hill [2] H4-57

K. S. McCullough H5-34

M. A. Scott [4] R4-05

T. W. Staehr (PE) R3-27

J. E. Vanbeek R3-27

G. H. Weissberg R3-10

DOE

A. G. Lassila A5-10

RELEASE STAMP

OFFICIAL RELEASE
 BY WHC

DATE APR 1 1992

STA 4

93127582098

ENGINEERING CHANGE NOTICE

Page 2 of 8

1. ECN (use no. from pg. 1)

B-714-122

15. Design Verification Required

☐ Yes

☒ No

16. Cost Impact

ENGINEERING

Additional ☒ \$ 5325

Savings ☐ \$ _____

CONSTRUCTION

Additional ☐ \$ TBD

Savings ☐ \$ _____

17. Schedule Impact (days)

Improvement ☐ N/A

Delay ☐ _____

18. Change Impact Review: Indicate the related documents (other than the engineering documents identified on Side 1) that will be affected by the change described in Block 12. Enter the affected document number in Block 19.

SDD/DD	☐	Seismic/Stress Analysis	☐	Tank Calibration Manual	☐
Functional Design Criteria	☐	Stress/Design Report	☐	Health Physics Procedure	☐
Operating Specification	☐	Interface Control Drawing	☐	Spares Multiple Unit Listing	☐
Criticality Specification	☐	Calibration Procedure	☐	Test Procedures/Specification	☐
Conceptual Design Report	☐	Installation Procedure	☐	Component Index	☐
Equipment Spec.	☐	Maintenance Procedure	☐	ASME Coded Item	☐
Const. Spec.	☐	Engineering Procedure	☐	Human Factor Consideration	☐
Procurement Spec.	☐	Operating Instruction	☐	Computer Software	☐
Vendor Information	☐	Operating Procedure	☐	Electric Circuit Schedule	☐
OM Manual	☐	Operational Safety Requirement	☐	ICRS Procedure	☐
FSAR/SAR	☐	IEFD Drawing	☐	Process Control Manual/Plan	☐
Safety Equipment List	☐	Cell Arrangement Drawing	☐	Process Flow Chart	☐
Radiation Work Permit	☐	Essential Material Specification	☐	Purchase Requisition	☐
Environmental Impact Statement	☐	Fac. Proc. Samp. Schedule	☐		☐
Environmental Report	☐	Inspection Plan	☐		☐
Environmental Permit	☐	Inventory Adjustment Request	☐		☐

19. Other Affected Documents: (NOTE: Documents listed below will not be revised by this ECN.) Signatures below indicate that the signing organization has been notified of other affected documents listed below.

Document Number/Revision

Document Number/Revision

Document Number/Revision

20. Approvals

Signature	Date	Signature	Date
OPERATIONS AND ENGINEERING		ARCHITECT-ENGINEER	
Cog./Project Engineer <u>TH Stachur</u>	<u>4-1-92</u>	PE <u>C.H.</u>	<u>4/1/92</u>
Cog./Project Engr. Mgr. <u>W. Stachur</u>	<u>4-1-92</u>	QA <u>B.R. Sullivan</u>	<u>3-31-92</u>
QA <u>S.K. Sullivan</u>	<u>4-1-92</u>	Safety <u>S.K. Sullivan</u>	<u>3-31-92</u>
Safety _____		Design <u>PIPING: M.A. McLean</u>	<u>3/27/92</u>
Security _____		Other <u>ENVIR: D. Sullivan</u>	<u>3/27/92</u>
Proj. Prog./Dept. Mgr. _____		PLE: <u>John Loei</u>	<u>3-31-92</u>
Def. React. Div. _____		CQA: <u>FA Sullivan</u>	<u>4-1-92</u>
Chem. Proc. Div. _____			
Def. Wst. Mgmt. Div. _____			
Adv. React. Dev. Div. _____			
Proj. Dept. _____			
Environ. Div. _____			
IRM Dept. _____			
Facility Rep (Ops) _____			
Other _____			

DEPARTMENT OF ENERGY

ADDITIONAL



1) H-2-77598, Sh 1, Rev 1

- A) Plan (Z F3): For line 2" EW-102A-M25 w/4" ENC-M26a, change North coordinate from (N40515.17) to (N40517.50)
- B) Plan (Z D3): For line 2" EW-103A-M25 w/4" ENC-M26a, change North coordinate from (N40428.67) to (N40431.00)

2) H-2-77599, Sh 1, Rev 1

- A) Detail 5: Replace old detail with new detail as shown on page 5 of this ECN. (Affects ECN B-714-93, page 1, item 3B).
- B) Detail 6: Add "SEE NOTE 8", shim callouts & overlap dimension as shown on page 6 of this ECN. (Affects ECN B-714-93, page 4).
- C) Detail 7: Add new detail as shown on page 7 of this ECN.
- D) Detail 8: Add new detail as shown on page 8 of this ECN.
- E) Notes:
- Change Note 7 to read: CONCRETE BASE SUPPORTS ON SOIL SHALL BE ...
 - Add new Notes 8, 9, & 10 as follows:
8. WHEN HEIGHT BETWEEN TOPPING SLAB AND BOTTOM OF PIPE IS OVER 4", USE DETAIL 6 OR 7 AT CONTRACTOR'S OPTION.
WHEN HEIGHT BETWEEN TOPPING SLAB AND BOTTOM OF PIPE IS 1-7/8" TO 4", USE CONCRETE/SOLID MASONRY BLOCKS (COMMERCIALY AVAILABLE), MINIMUM SIZE 1-7/8" THICK x 4" WIDE x 6" LONG.
WHEN HEIGHT BETWEEN TOPPING SLAB AND BOTTOM OF PIPE IS LESS THAN 1-7/8", USE ASTM A 36 AND A 569 SHIMS AS REQUIRED. WELD SHIMS TOGETHER AS SHOWN IN DETAIL 5.
9. USE DETAIL 8 WHERE THE BASE OF A METAL PIPE SUPPORT OVERLAPS ABRUPT ELEVATION CHANGES IN THE TOPPING SLAB.
10. PROVIDE ~~TEMPORARY~~ ^{TEMPORARY} SUPPORT AS REQUIRED TO POSITION PIPE SUPPORT PRIOR TO AND DURING PLACING DIFFUSION MATERIAL.

3) H-2-78470, Sh 1, Rev 0

- A) Detail 5: Replace old detail with new detail as shown on page 5 of this ECN. (Affects ECN B-714-93, page 3, item 7B).
- B) Detail 6: Add "SEE NOTE 8", shim callouts & overlap dimension as shown on page 6 of this ECN. (Affects ECN B-714-93, page 4).
- C) Detail 7: Add new detail as shown on page 7 of this ECN.
- D) Detail 8: Add new detail as shown on page 8 of this ECN.
- E) Notes:
- Change Note 7 to read: CONCRETE BASE SUPPORTS ON SOIL SHALL BE ...
 - Add new Notes 8, 9, & 10 as follows:

93127582100

8. WHEN HEIGHT BETWEEN TOPPING SLAB AND BOTTOM OF PIPE IS OVER 4", USE
DETAIL 6 OR 7 AT CONTRACTOR'S OPTION.
WHEN HEIGHT BETWEEN TOPPING SLAB AND BOTTOM OF PIPE IS 1-7/8" TO 4", USE
CONCRETE/SOLID MASONRY BLOCKS (COMMERCIALY AVAILABLE), MINIMUM SIZE
1-7/8" THICK x 4" WIDE x 6" LONG.
WHEN HEIGHT BETWEEN TOPPING SLAB AND BOTTOM OF PIPE IS LESS THAN 1-7/8",
USE ASTM A 36 AND A 569 SHIMS AS REQUIRED. WELD SHIMS TOGETHER AS SHOWN
IN DETAIL 5.
9. USE DETAIL 8 WHERE THE BASE OF A METAL PIPE SUPPORT OVERLAPS ABRUPT
ELEVATION CHANGES IN THE TOPPING SLAB.
10. PROVIDE TEMPORARY SUPPORT AS REQUIRED TO POSITION PIPE SUPPORT PRIOR TO
AND DURING PLACING DIFFUSION MATERIAL.

REGISTERED ENGINEER REVIEW - PIPING (All Items)



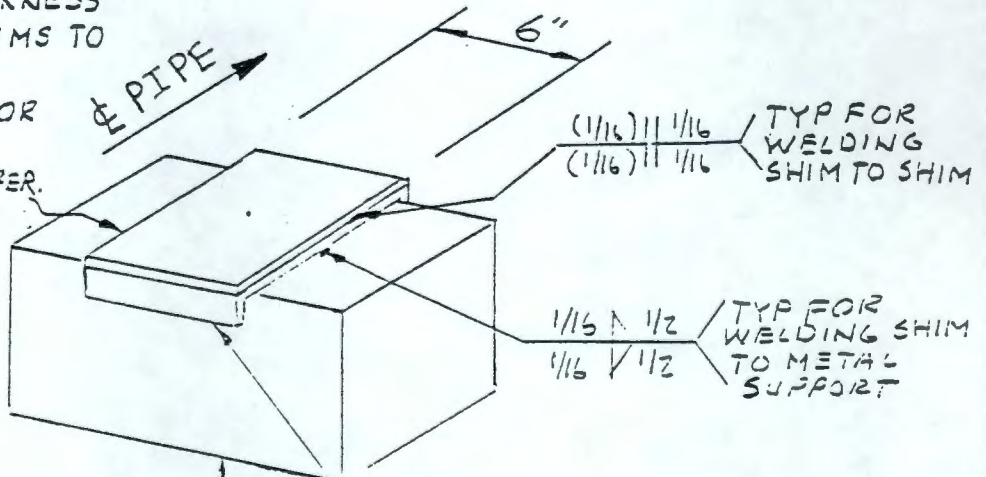
EXPIRES: 9/15/92

9312758210

Ref. Dwg. H-2-77599	Sh. 1	Rev. 1	Prepared By D. McDORMAN	Checked By M.A. McLean	ECN No. B-714-122	Page 5/6
H-2-78470	1	0				

NUMBER AND THICKNESS
OF ADDITIONAL SHIMS TO
BE AS REQUIRED.

ASTM A36 PLATE OR
A569 SHEET.
WELD SHIMS TOGETHER.



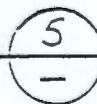
CONCRETE SUPPORT
ON SOIL (SEE NOTE 7)
OR CONCRETE BLOCK
ON TOPPING SLAB (SEE NOTE 8)
OR METAL SUPPORT
ON TOPPING SLAB (SEE DET 6 OR 7)

FIRST SHIM TO BE
ASTM A569 SHEET
10 GA (.1345)

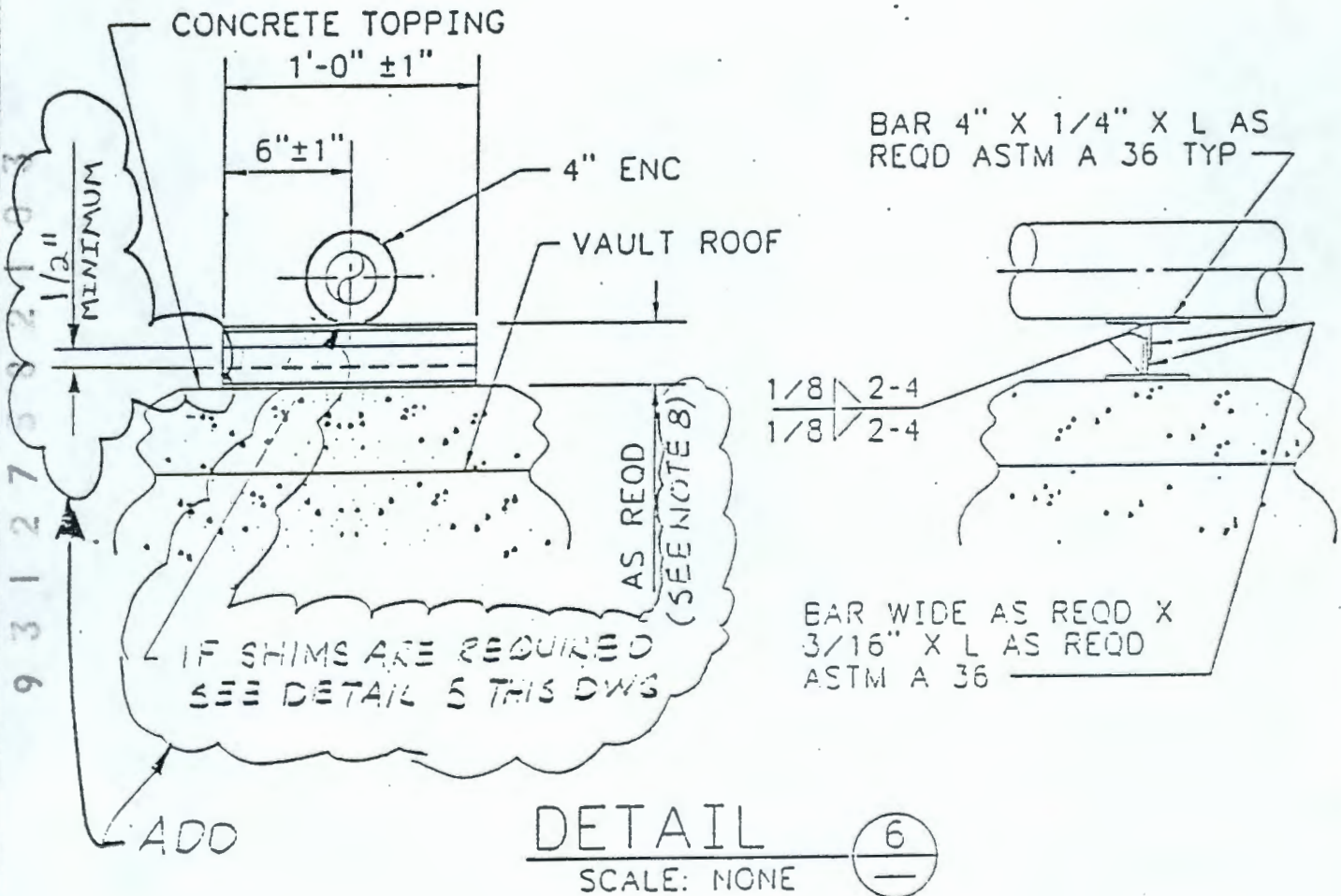
BEND ENDS OF FIRST
SHIM OVER ON CONCRETE
SUPPORTS OR CONCRETE
BLOCKS ONLY

DETAIL

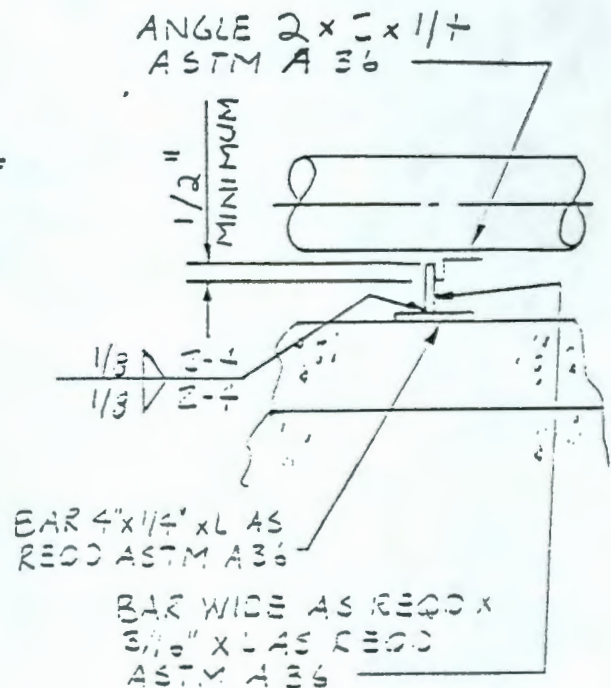
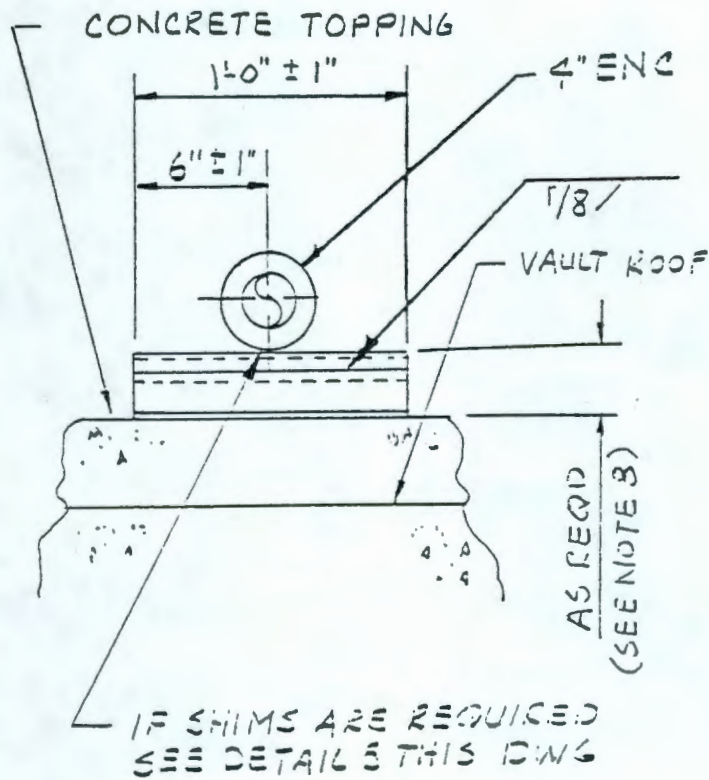
SCALE: NONE



Ref. Dwg.	Sh.	Rev.	Prepared By	Checked By	ECN No.	Page
H-2-77599	1	1	D. McDORMAN	M.A. McLean	B-714-122	6/8
H-2-78470	1	0				



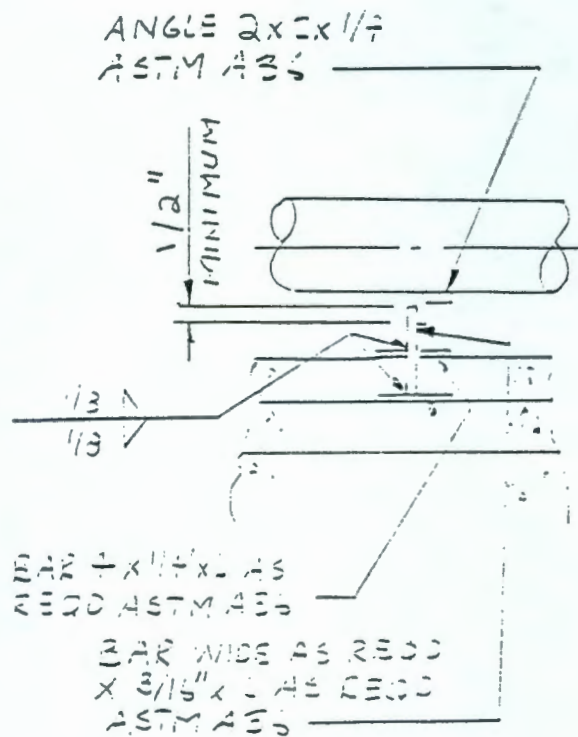
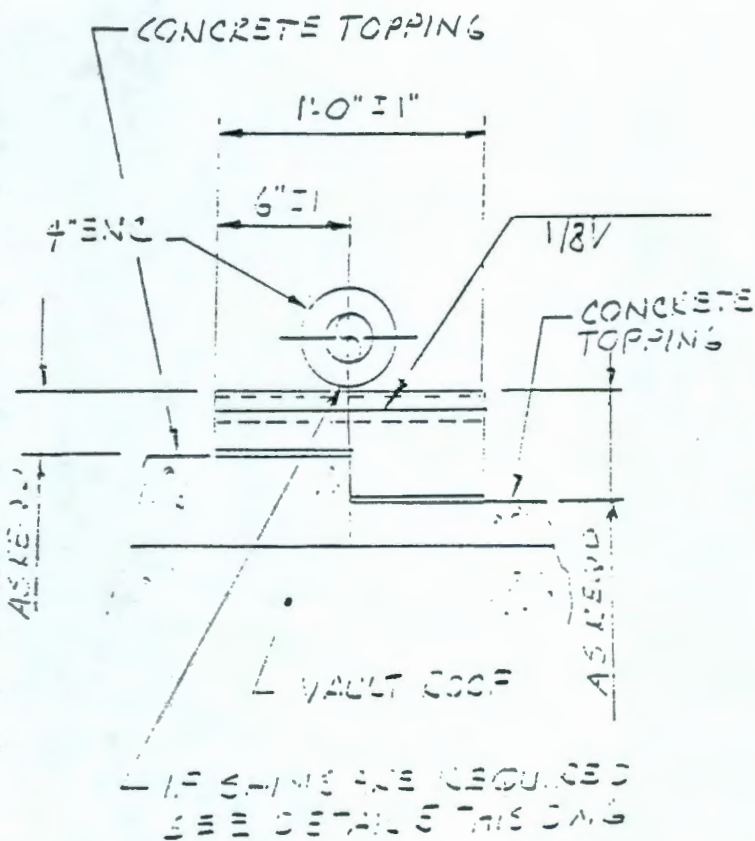
Ref. Dwg.	Sh.	Rev.	Prepared By	Checked By	ECN No.	Page
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H-2-78470	1	0				



DETAIL
SCALE: NONE



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H-2-78470	1	0				



DETAIL -

SCALE: NONE

SEE NOTE 9

8
1