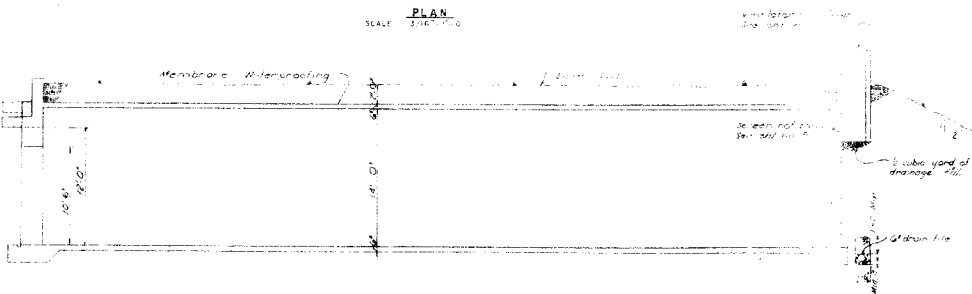


PLAN
SCALE 3/16" = 1'-0"



LONGITUDINAL SECTION
SCALE 3/16" = 1'-0"

INDEX OF DRAWINGS

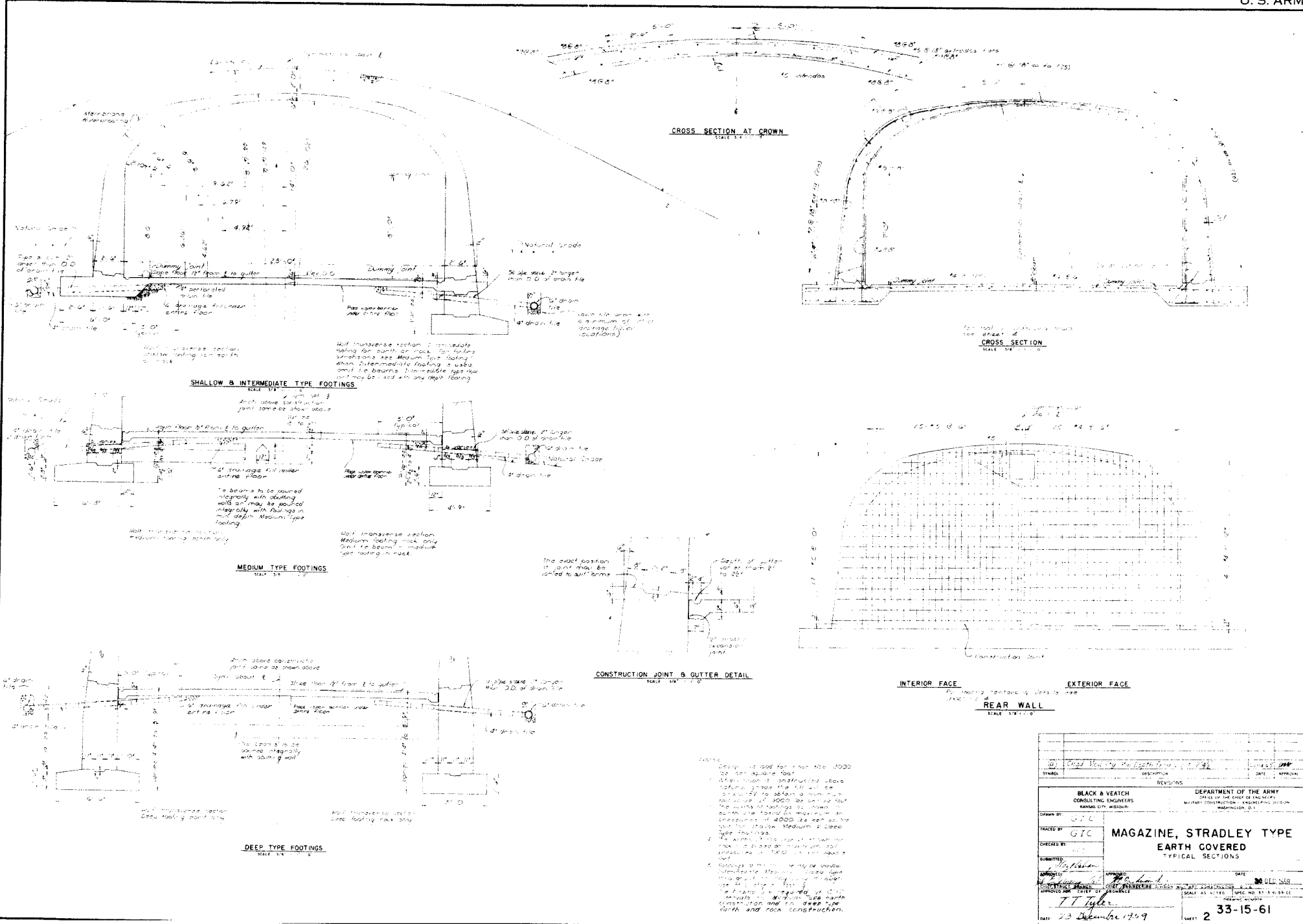
DRAWING NO.	TITLE
33-15-61	PLAN & SECTIONS
33-15-62	SECTION A-A
33-15-63	SECTION B-B
33-15-64	SECTION C-C
33-15-65	SECTION D-D
33-15-66	SECTION E-E
33-15-67	SECTION F-F
33-15-68	SECTION G-G
33-15-69	SECTION H-H
33-15-70	SECTION I-I
33-15-71	SECTION J-J
33-15-72	SECTION K-K
33-15-73	SECTION L-L
33-15-74	SECTION M-M
33-15-75	SECTION N-N
33-15-76	SECTION O-O
33-15-77	SECTION P-P
33-15-78	SECTION Q-Q
33-15-79	SECTION R-R
33-15-80	SECTION S-S
33-15-81	SECTION T-T
33-15-82	SECTION U-U
33-15-83	SECTION V-V
33-15-84	SECTION W-W
33-15-85	SECTION X-X
33-15-86	SECTION Y-Y
33-15-87	SECTION Z-Z

General Notes:
 1. All dimensions are in feet and inches.
 2. All work shall be in accordance with the specifications for concrete structures.
 3. The structure shall be constructed of concrete with a minimum compressive strength of 3000 psi.
 4. The structure shall be finished with a smooth surface.
 5. The structure shall be painted with a suitable exterior paint.
 6. The structure shall be installed in a level and firm foundation.
 7. The structure shall be protected from fire and theft.
 8. The structure shall be maintained in good condition at all times.

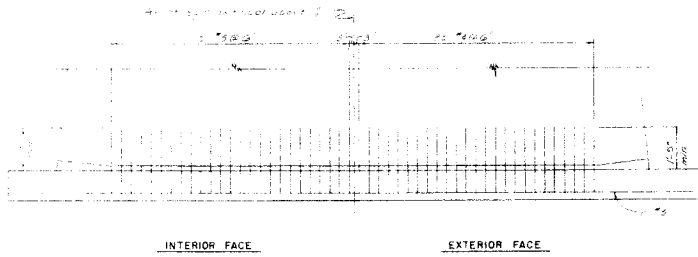
Total Gross Area 80'0" Shores	80'0" x 80'0" = 6400'0"	12'0" x 80'0" = 960'0"	12'0" x 12'0" = 144'0"
	40'0" x 80'0" = 3200'0"	40'0" x 12'0" = 480'0"	40'0" x 40'0" = 1600'0"
			12'0" x 12'0" = 144'0"

NO.	DESCRIPTION	DATE	APPROVAL

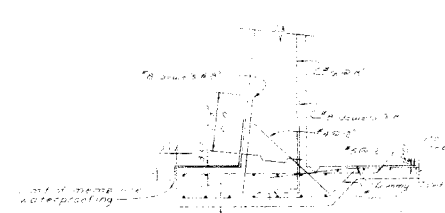
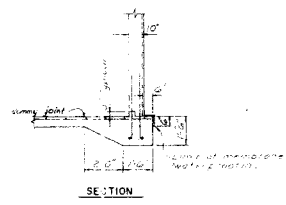
DRAWN BY G.T.C. CHECKED BY J.T.R. SUBMITTED 7/7/61 APPROVED AUTHORIZED FOR CONSTRUCTION BY APPROVED FOR CONSTRUCTION BY DATE 7/7/61 33-15-61	BLACK & VEATCH CONSULTING ENGINEERS KANSAS CITY, MISSOURI	DEPARTMENT OF THE ARMY OFFICE OF THE CHIEF OF ENGINEERS MILITARY CONSTRUCTION ENGINEERING DIVISION WASHINGTON, D.C.
	MAGAZINE, STRADLEY TYPE EARTH COVERED PLAN & SECTIONS	



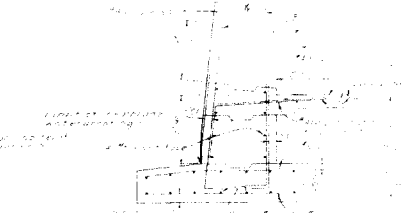
DESIGNED BY	BLACK & VEATCH	DEPARTMENT OF THE ARMY
DRAWN BY	G.T.C.	OFFICE OF THE CHIEF OF ENGINEERS
CHECKED BY		MILITARY CONSTRUCTION - ENGINEERING SECTION
DATE	23 December 1959	WASHINGTON, D.C.
MAGAZINE, STRADLEY TYPE EARTH COVERED TYPICAL SECTIONS		
SCALE AS NOTED	SPEC. NO. 33-15-61	DATE 30 DEC 1958
DATE 23 December 1959		SHEET 2



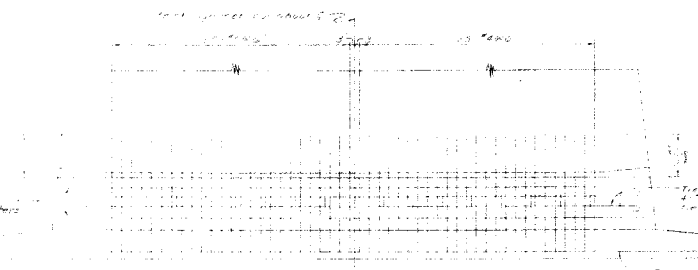
SHALLOW TYPE FOOTING



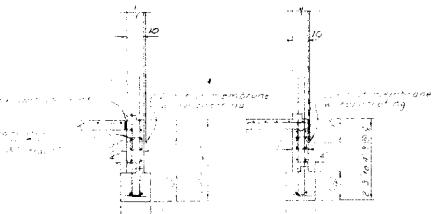
SHALLOW TYPE FOOTING
EARTH OR ROCK



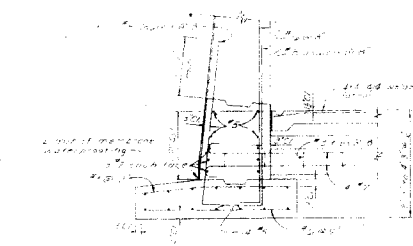
INTERMEDIATE TYPE FOOTING



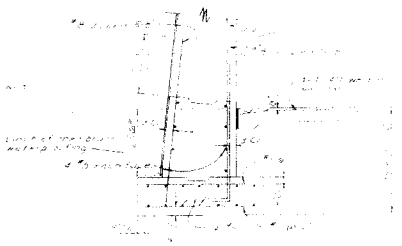
MEDIUM & INTERMEDIATE TYPE FOOTINGS



SECTIONS

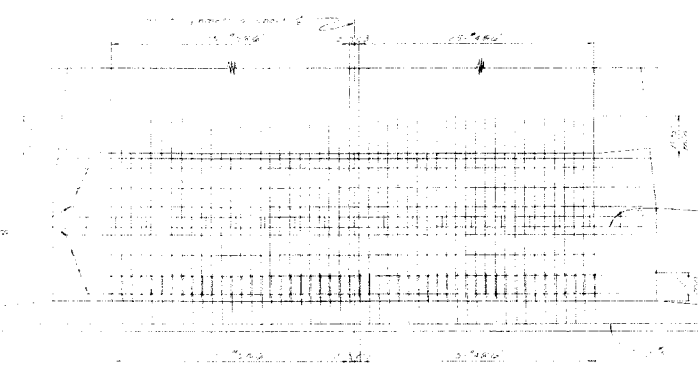


EARTH

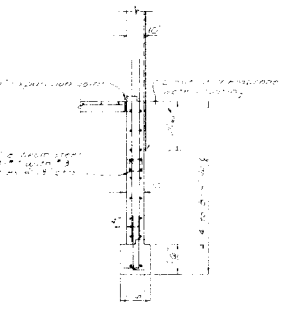


ROCK

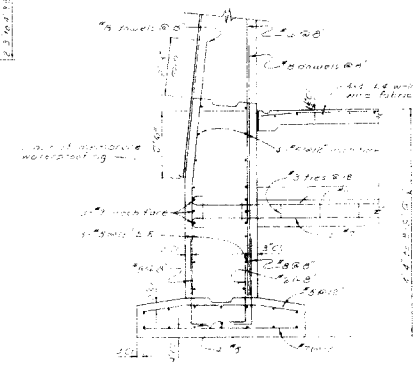
MEDIUM TYPE FOOTING



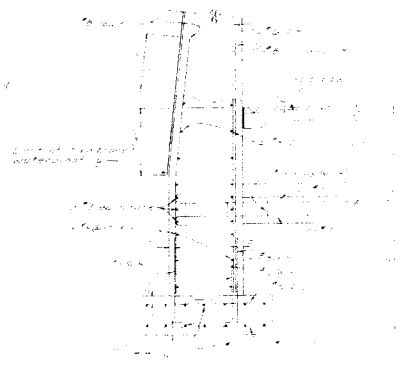
DEEP TYPE FOOTING



SECTION



EARTH



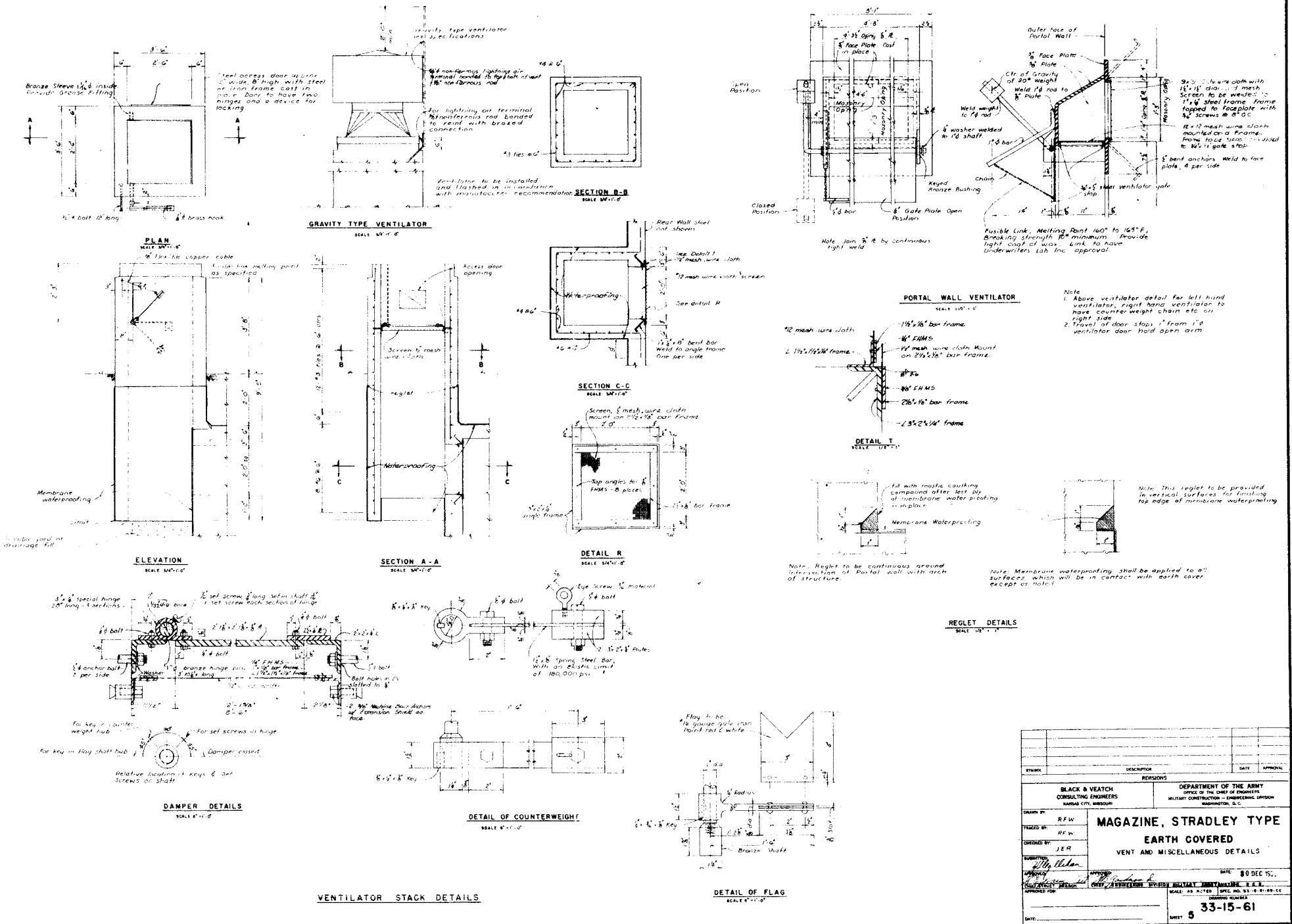
ROCK

DEEP TYPE FOOTING

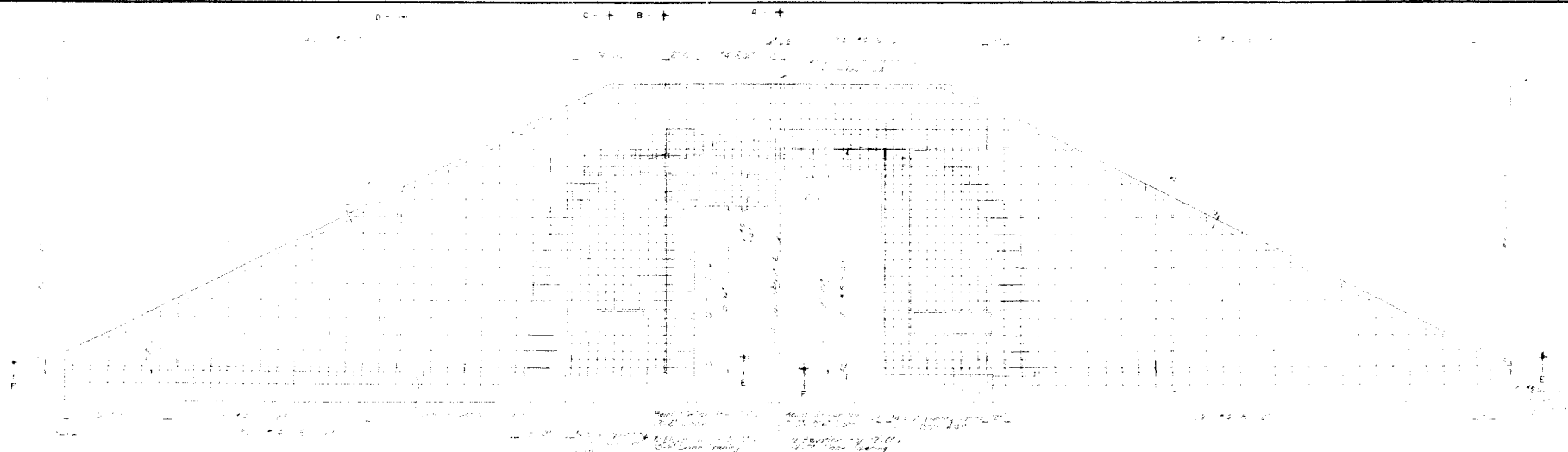
ARCH FOOTINGS

REAR WALL FOOTINGS

DRAWN BY		DESIGNED BY	
CHECKED BY		REVISIONS	
SUBMITTED		DEPARTMENT OF THE ARMY	
APPROVED		OFFICE OF THE CHIEF OF ENGINEERS	
DATE		WASHINGTON, D. C.	
SCALE		BLACK & VEATCH	
		CONSULTING ENGINEERS	
		KANSAS CITY, MISSOURI	
MAGAZINE, STRADLEY TYPE EARTH COVERED REINFORCING DETAILS ARCH & REAR WALL FOOTINGS			
DATE		33-15-61	



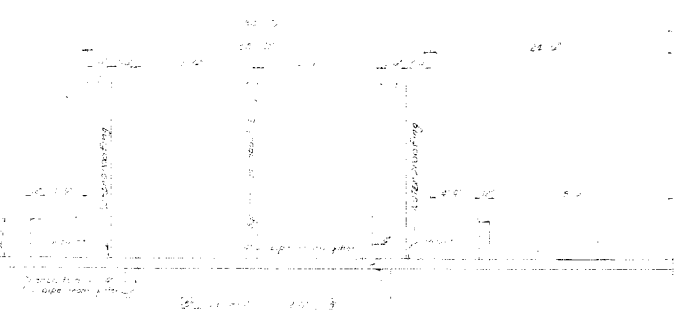
REVISIONS		DEPARTMENT OF THE ARMY	
NO.	DESCRIPTION	DATE	APPROVAL
BLACK & VEATCH CONSULTING ENGINEERS KANSAS CITY, MISSOURI		MILITARY CONSTRUCTION - ENGINEERING DIVISION WASHINGTON, D.C.	
DRAWN BY: RFW		MAGAZINE, STRADLEY TYPE EARTH COVERED VENT AND MISCELLANEOUS DETAILS	
CHECKED BY: RFW			
DESIGNED BY: JER			
APPROVED BY: [Signature]			
DATE: 30 DEC 15.		SHEET 5	



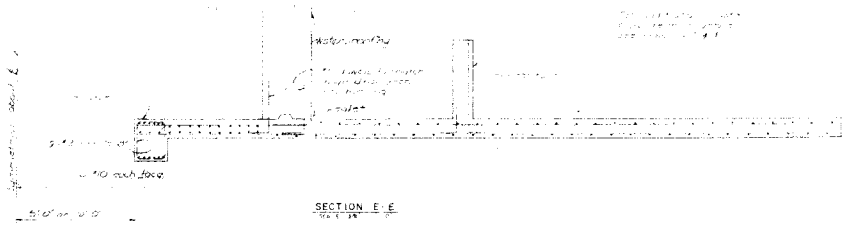
REINFORCING INTERIOR FACE

REINFORCING EXTERIOR FACE

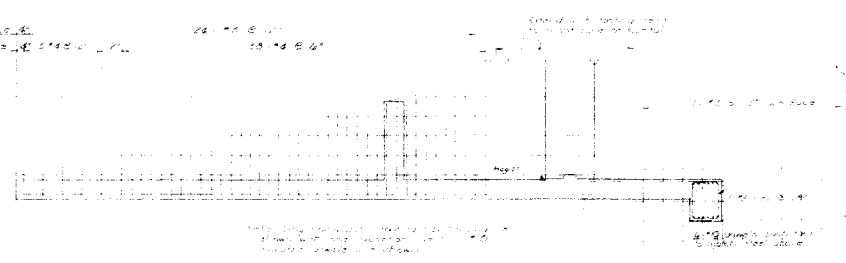
ELEVATION



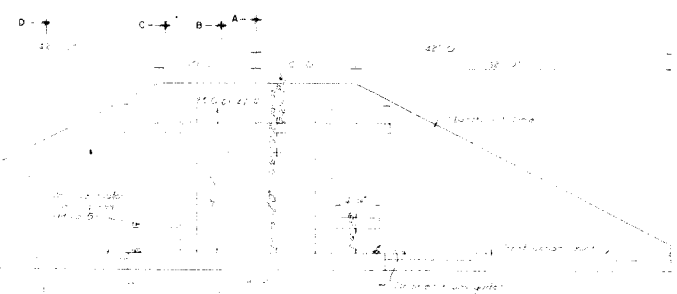
PLAN



SECTION E-E



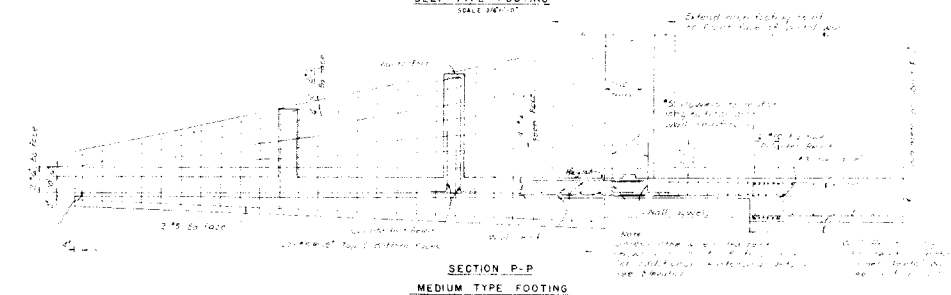
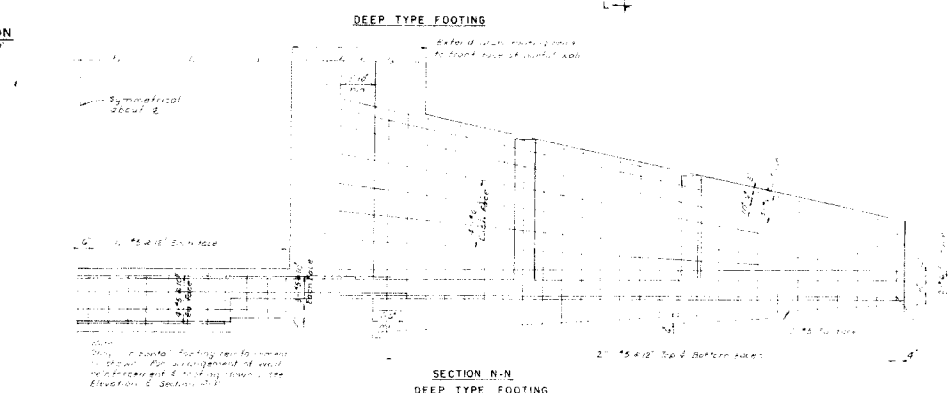
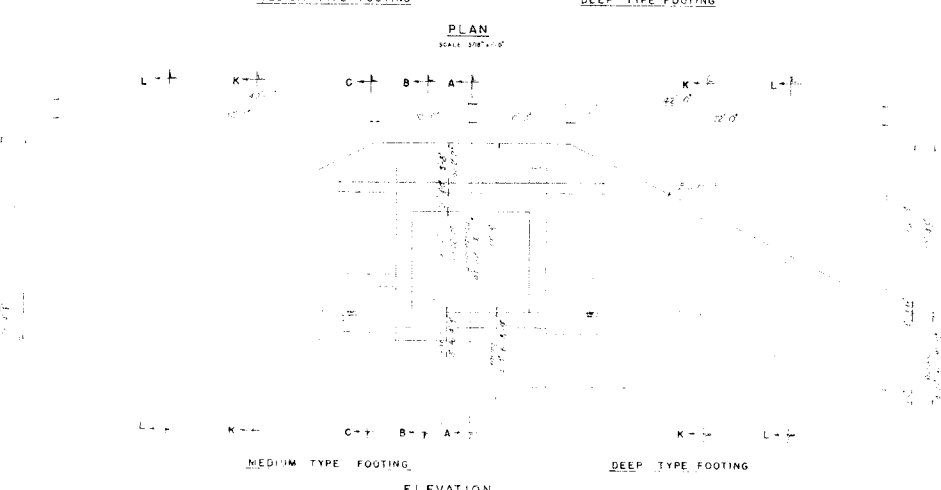
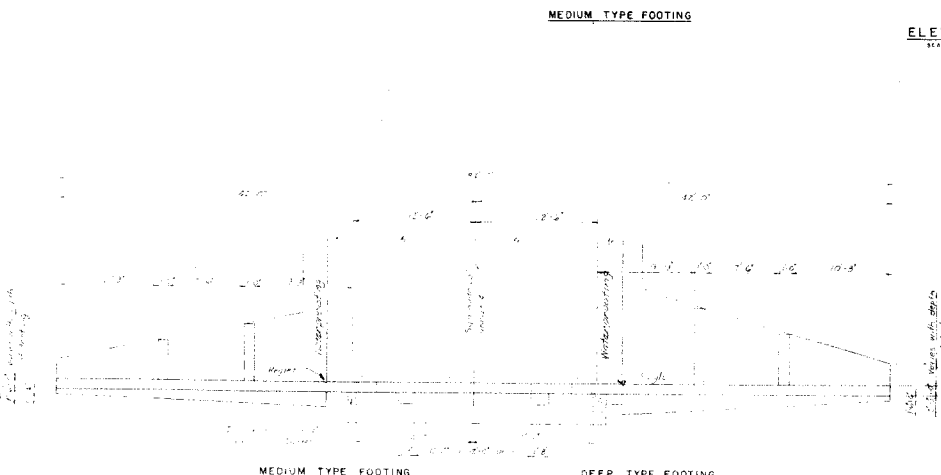
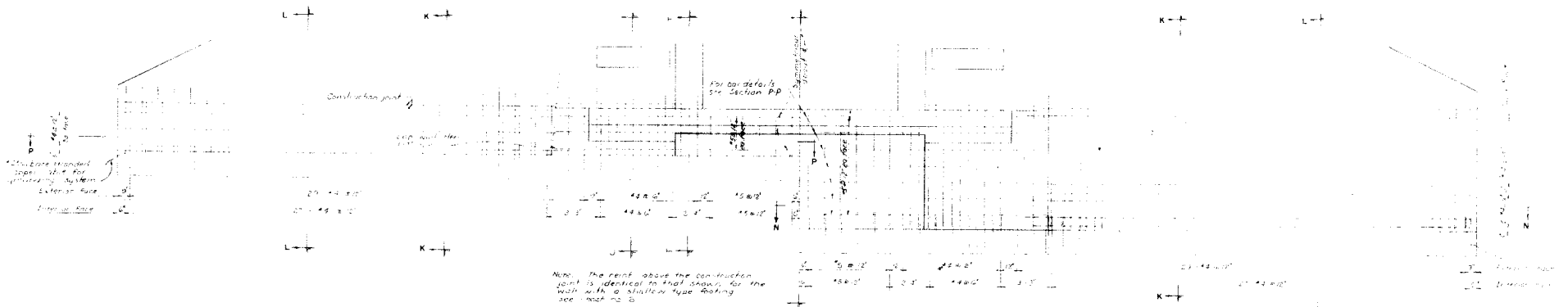
SECTION F-F



ELEVATION

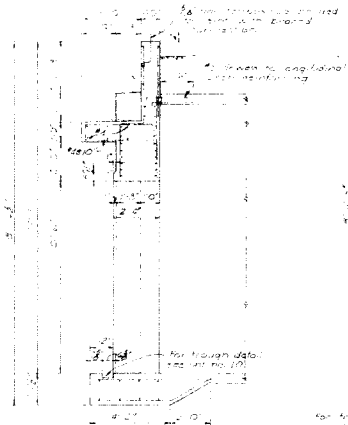
1. The details of reinforcement shall be as shown on this drawing.
2. For placement of concrete, to be in place when appropriate reinforcement is in place.
3. For all forms, no bar shall extend less than 12 inches above top of concrete.
4. Where reinforcement is specified as vertical, it shall be a maximum of 20 degrees from vertical.
5. Where reinforcement is specified as horizontal, it shall be a maximum of 15 degrees from horizontal.
6. All bars shall be lap spliced.

BLACK & VEATCH CONSULTING ENGINEERS KANSAS CITY, MISSOURI		DEPARTMENT OF THE ARMY OFFICE OF THE CHIEF OF ENGINEERS MILITARY CONSTRUCTION AND GENERAL DESIGN WASHINGTON, D. C.	
MAGAZINE, STRADLEY TYPE			
EARTH COVERED			
PORTAL DETAILS			
SHALLOW TYPE FOOTINGS			
DESIGNED BY	DATE	APPROVED	DATE
CHECKED BY			
REVISIONS			
DATE		SCALE	

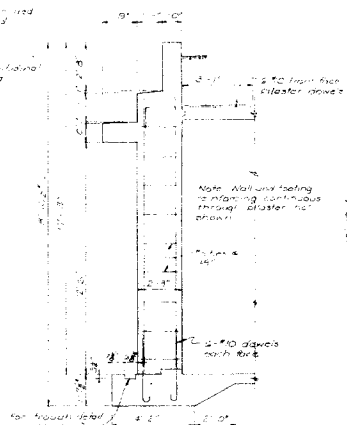


Note:
 1. All dimensions are in feet and inches.
 2. All footings are to be constructed with concrete.
 3. Where indicated are type and making of steel reinforcement bars to be used.
 (See sheets 10 & 11)

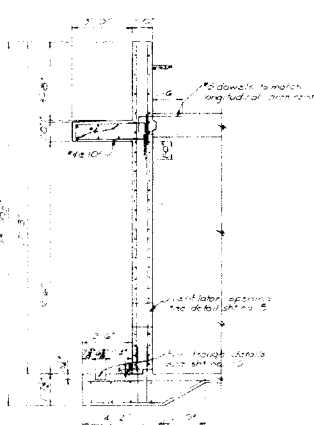
BLACK & VEATCH CONSULTING ENGINEERS WASHINGTON, D. C.		DEPARTMENT OF THE ARMY ENGINEERING CENTER WASHINGTON, D. C.	
MAGAZINE, STRADLEY TYPE			
EARTH COVERED			
PORTAL DETAILS			
MEDIUM & DEEP TYPE FOOTINGS			
DRAWN BY: A. J. S. CHECKED BY: E. H. SUBMITTED: 10/15/49	APPROVED: [Signature] SPECIAL BRANCH: [Signature]	DATE: 10/15/49	SHEET: 7



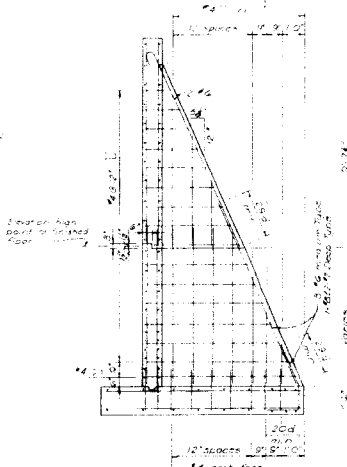
SECTION A-A



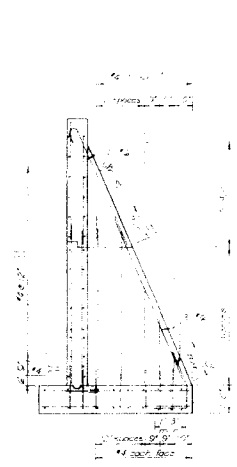
SECTION B-B



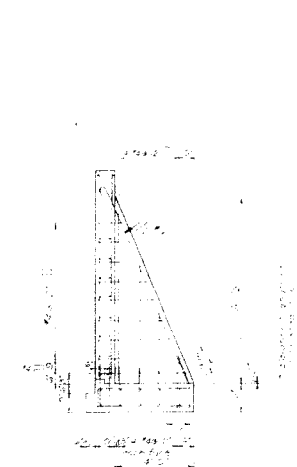
SECTION C-C



SECTION K-K



SECTION L-L

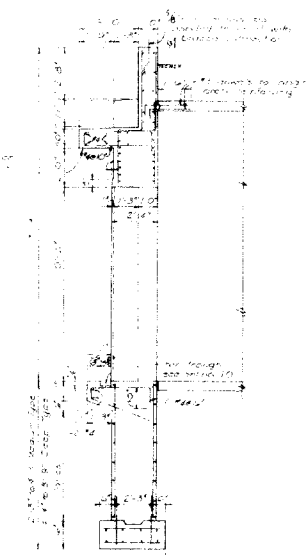


SECTION D-D

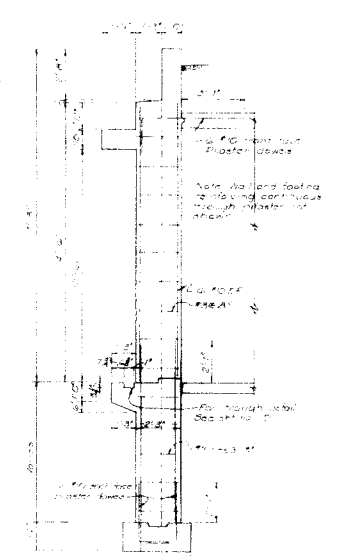
DETAILS - SHALLOW TYPE FOOTING
SCALE 3/8" = 1'-0"

DETAILS - MEDIUM OR DEEP TYPE FOOTING
SCALE 3/8" = 1'-0"

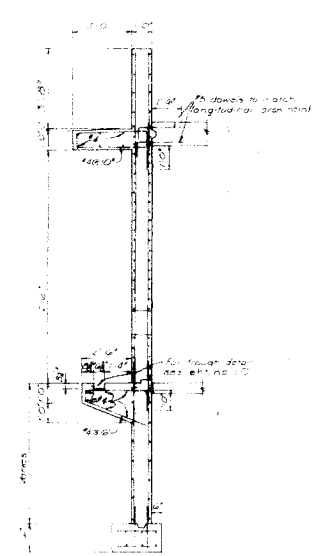
DETAIL - SHALLOW TYPE FOOTING
SCALE 3/8" = 1'-0"



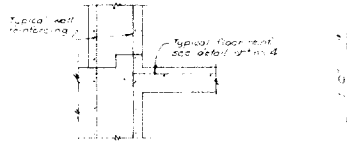
SECTION G-G



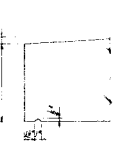
SECTION H-H



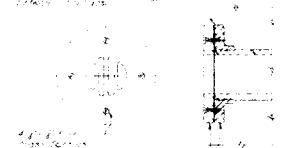
SECTION J-J



SLAB DETAIL
INTERMEDIATE FOOTING
SCALE 1/2" = 1'-0"



DRIP DETAIL
SCALE 1/2" = 1'-0"



STRAINER DETAIL
SCALE 1/2" = 1'-0"

DETAILS - MEDIUM OR DEEP TYPE FOOTING
SCALE 3/8" = 1'-0"

Note: For mid span portal wall details see detail 647
2 For portal wall general notes see detail 647

SYMBOL	DESCRIPTION	REVISIONS

BLACK & VEATCH
 CONSULTING ENGINEERS
 WASHINGTON, D. C.

DEPARTMENT OF THE ARMY
 MILITARY CONSTRUCTION ENGINEERS
 WASHINGTON, D. C.

MAGAZINE, STRADLEY TYPE
EARTH COVERED
 PORTAL DETAILS 15'-6" HIGH DOOR
 SECTIONS & MISCELLANEOUS DETAILS

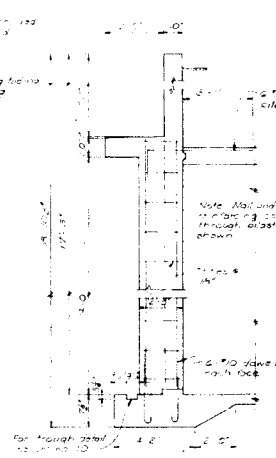
DRAWN BY: [Signature]
 CHECKED BY: [Signature]
 DATE: [Date]

APPROVED BY: [Signature]
 DATE: [Date]

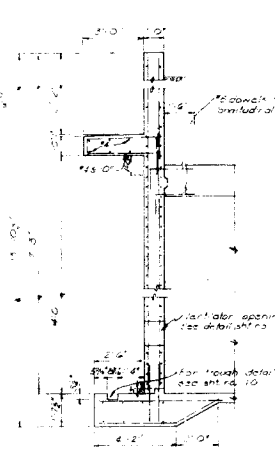
8 33-15-61



SECTION A-A



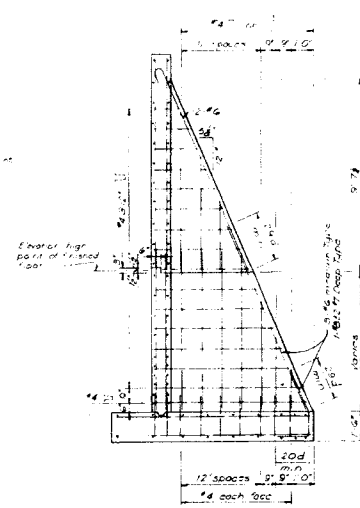
SECTION B-B



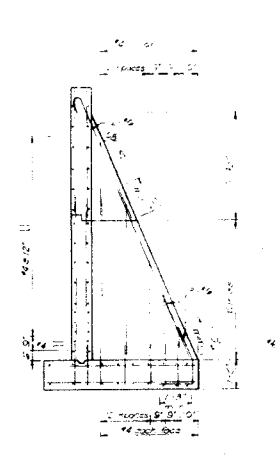
SECTION C-C

DETAILS - SHALLOW TYPE FOOTING

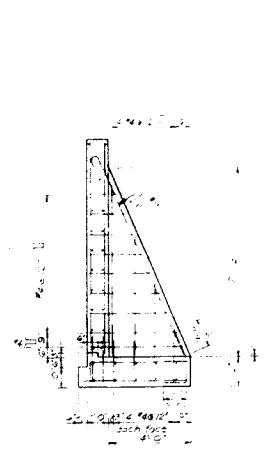
SCALE 3/8" = 1'-0"



SECTION K-K



SECTION L-L



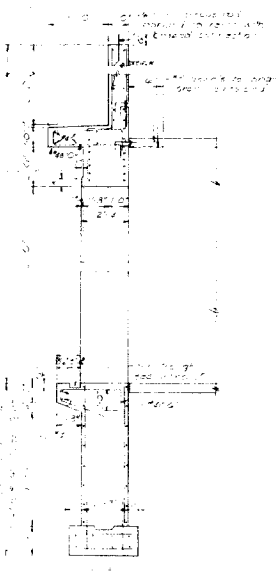
SECTION D-D

DETAILS - MEDIUM OR DEEP TYPE FOOTING

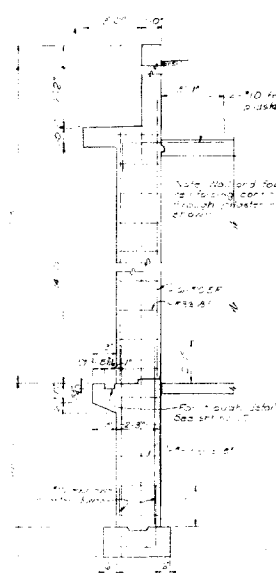
SCALE 3/8" = 1'-0"

DETAIL - SHALLOW TYPE FOOTING

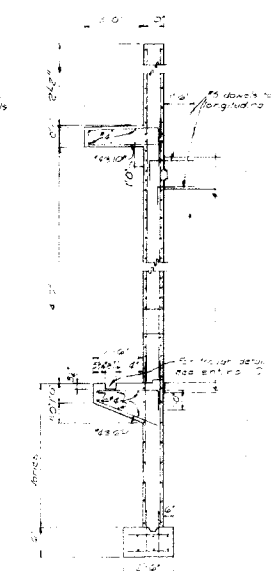
SCALE 1/2" = 1'-0"



SECTION G-G



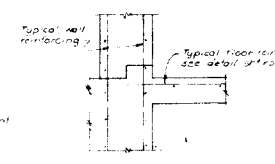
SECTION H-H



SECTION J-J

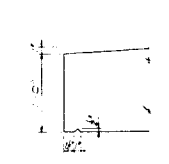
DETAILS - MEDIUM OR DEEP TYPE FOOTING

SCALE 3/8" = 1'-0"



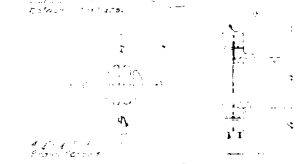
SLAB DETAIL
INTERMEDIATE FOOTING

SCALE 1/2" = 1'-0"



DRIP DETAIL

SCALE 1/2" = 1'-0"

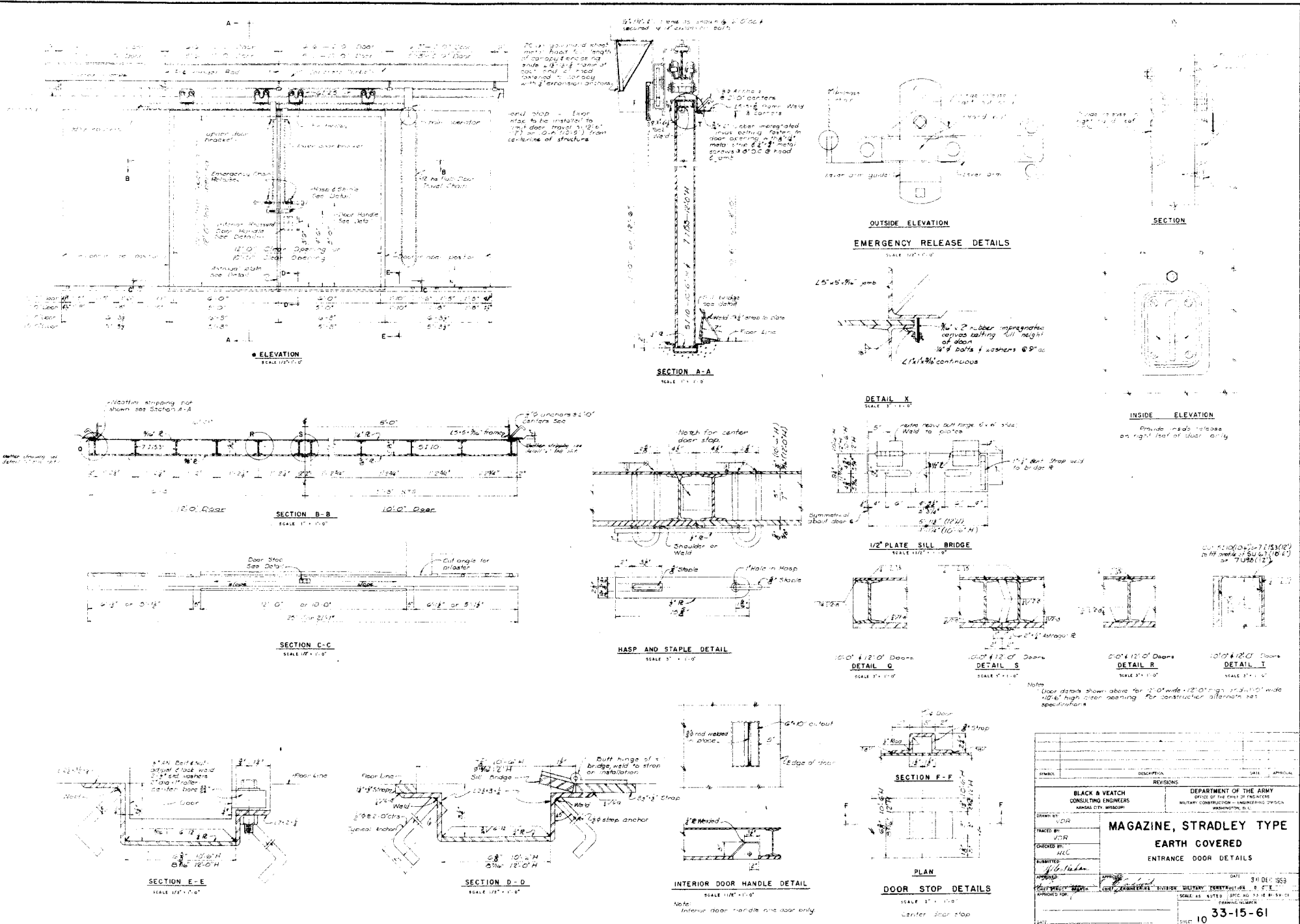


STRAINER DETAIL

NO SCALE

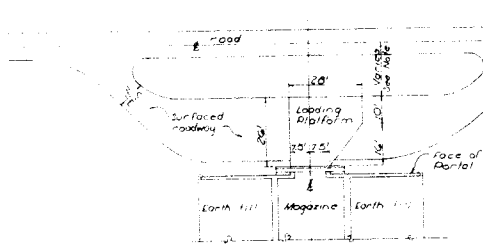
NOTE: See detail J-J for details of wall and footing connection.

SYMBOL	DESCRIPTION	DATE	APPROVAL
REVISIONS			
BLACK & VEATCH CONSULTING ENGINEERS KANSAS CITY, MISSOURI		DEPARTMENT OF THE ARMY OFFICE OF THE CHIEF OF ENGINEERS MILITARY CONSTRUCTION - ENGINEERING DIVISION WASHINGTON, D. C.	
MAGAZINE, STRADLEY TYPE			
EARTH COVERED			
PORTAL DETAILS 12'-0" HIGH DOOR			
SECTION & MISCELLANEOUS DETAIL			
DRAWN BY		DATE	
TRACED BY			
CHECKED BY			
SUBMITTED			
APPROVED			
APPROVED FOR			



NO.	REVISIONS	DATE	APPROVAL

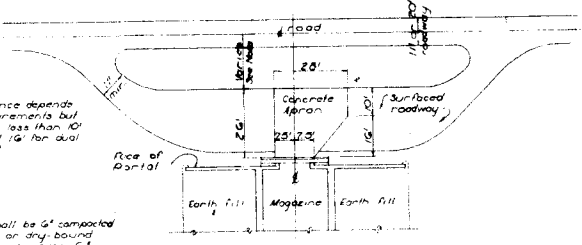
BLACK & VEATCH CONSULTING ENGINEERS MEMPHIS, TENNESSEE	DEPARTMENT OF THE ARMY OFFICE OF THE CHIEF OF ENGINEERS MILITARY CONSTRUCTION - ENGINEERING DESIGN WASHINGTON, D. C.
MAGAZINE, STRADLEY TYPE EARTH COVERED ENTRANCE DOOR DETAILS	
DRAWN BY: VCR CHECKED BY: HEC SUBMITTED BY: J. G. Fisher APPROVED FOR: [Signature] DATE: 3/11/53	SCALE AS NOTED (SPEC. NO. 13-18.11-34.01) DRAWING NUMBER: 33-15-61 SHEET NO. 10



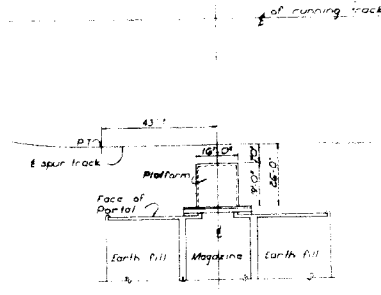
ENTRANCE WITH TRUCK LEVEL PLATFORM
SCALE 1" = 10'

Note
The variable distance depends on drainage requirements but will in no case be less than 10' for single lane and 16' for dual lane service road

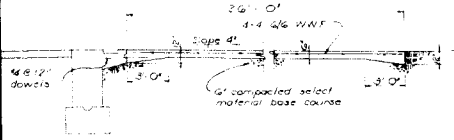
Entrance roadways shall be 6" compacted gravel, crushed stone, or dry bound macadam surface course over 16" compacted select material base course. Provide adequate slope or crown for drainage.



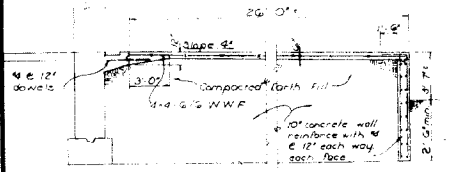
ENTRANCE WITH GROUND LEVEL PLATFORM
SCALE 1" = 10'



RAILROAD SPUR TO MAGAZINE
SCALE 1" = 10'

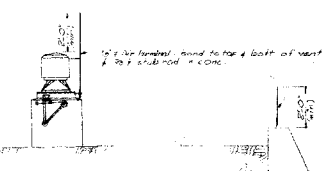
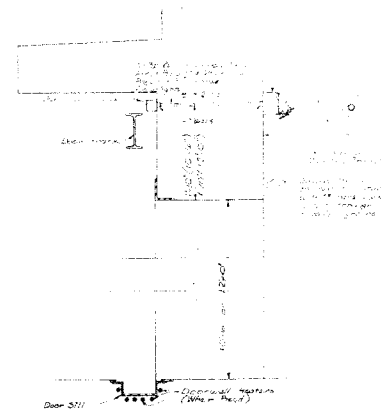
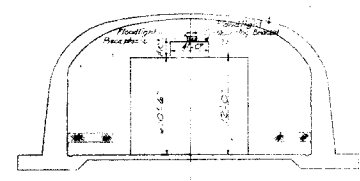
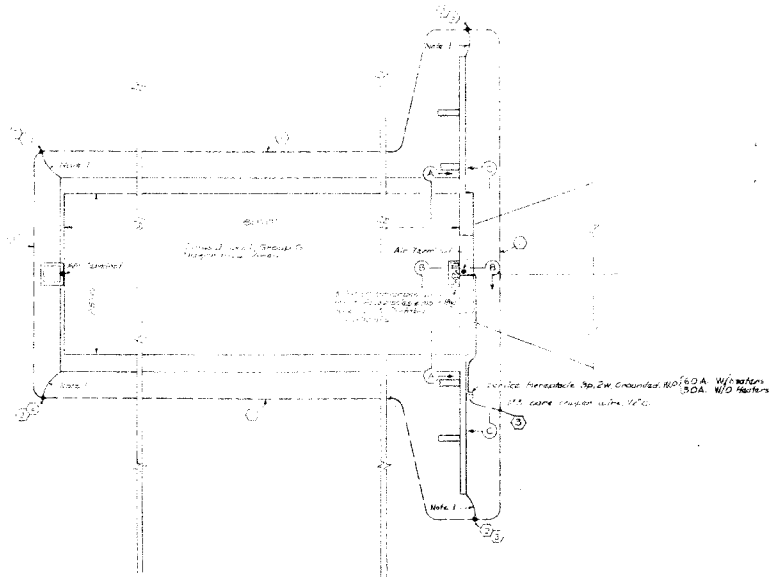


SECTION - GROUND LEVEL PLATFORM
SCALE 1/4" = 1'-0"



SECTION - TRUCK LEVEL PLATFORM
SCALE 1/4" = 1'-0"

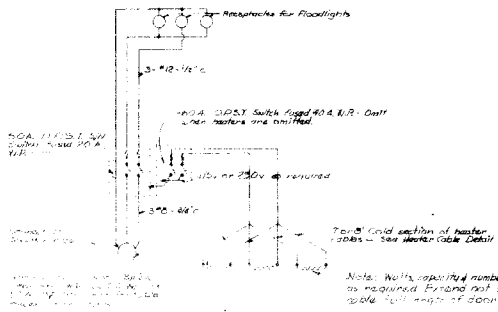
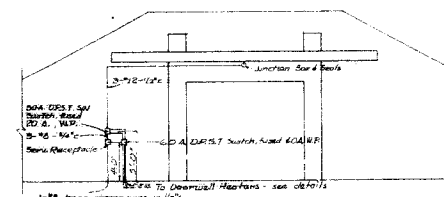
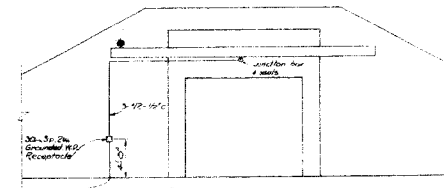
SYMBOL	DESCRIPTION	DATE	APPROVAL
REVISIONS			
BLACK & VEATCH CONSULTING ENGINEERS LANCASTER CITY, MISSOURI		DEPARTMENT OF THE ARMY OFFICE OF THE CHIEF OF ENGINEERS MILITARY CONSTRUCTION - ENGINEERING DIVISION WASHINGTON, D. C.	
MAGAZINE, STRADLEY TYPE EARTH COVERED			
APRON & LOADING PLATFORM DETAILS			
DESIGN BY: D/C	DATE: 11-1-51	DATE: 11-1-51	
TRACED BY: D/C	DATE: 11-1-51	DATE: 11-1-51	
CHECKED BY: W.V.H.	DATE: 11-1-51	DATE: 11-1-51	
APPROVED BY: <i>[Signature]</i>		DATE: 11-1-51	
DRAWING NUMBER: 33-15-61		SHEET 11	



GROUNDING NOTES

- 1/2" bare stranded copper conductor 30' to 50' from foundation, 2" below floor level.
- 3/4" x 1/2" spaced ground rods.
- Connection of thermos or thermo chemical type.

Note: Right shall be connected to counterpoise system for location also see sheet no. 147.



NOTES

- A portable 115/200 volt power unit having a minimum rating of 25 KW will be required for use with the 2000 watt heaters. Power unit to be furnished by user.
- The 2000 watt heaters are to be connected to the power unit by a compatible plug and shall be provided with the appropriate cables and receptacles for the power unit for the site.
- The 2000 watt heaters are to be connected to the power unit by a compatible plug and shall be provided with the appropriate cables and receptacles for the power unit for the site.

REVISIONS		DATE	APPROVAL

BLACK & VEATCH CONSULTING ENGINEERS KANSAS CITY, MISSOURI	DEPARTMENT OF THE ARMY OFFICE OF THE CHIEF ENGINEER MILITARY CONSTRUCTION ENGINEERING DIVISION WASHINGTON, D.C.
MAGAZINE, STRADLEY TYPE EARTH COVERED LIGHTING & WIRING	
DRAWN BY: [Signature] CHECKED BY: [Signature] APPROVED BY: [Signature]	DATE: 12-15-61